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Attachment A

Commercial and Military Airport Safety Zones

There are no commercial airports within 1,500 feet of the project site, and no military airports within 2,500 feet of the project site. The nearest commercial airport is Oakland International Airport, approximately 4.5 miles to the south. The nearest military airport is Moffett Federal Airfield in Santa Clara County, approximately 30 miles to the south.

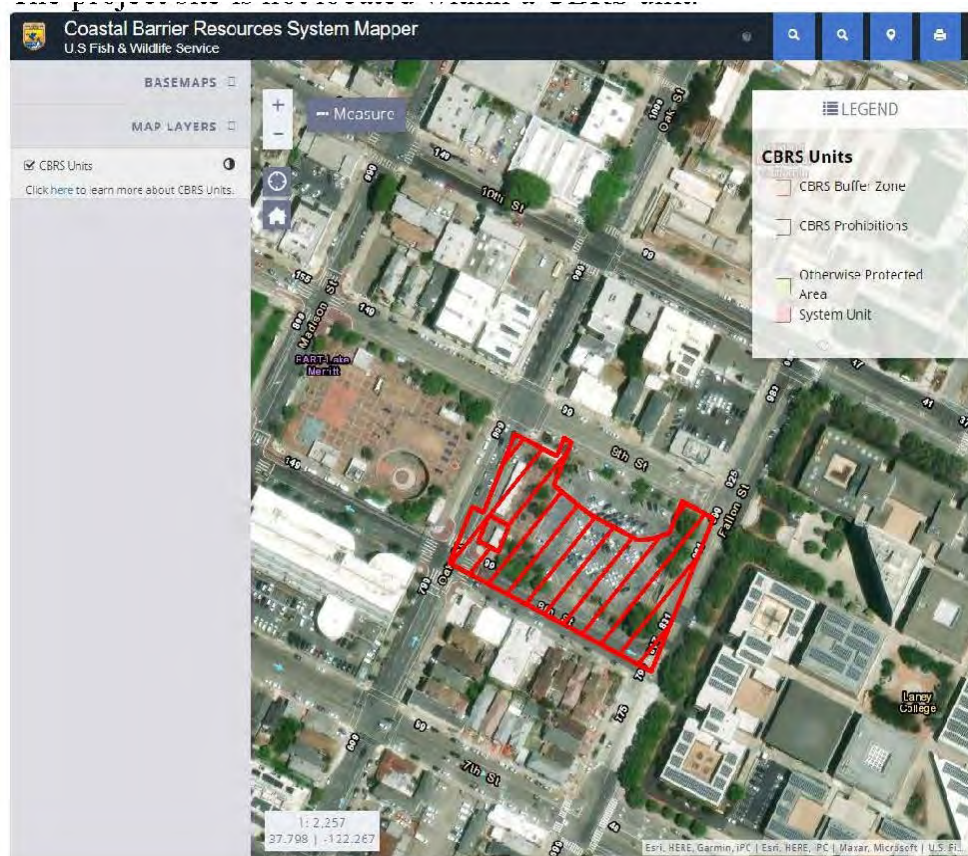


Source link: <https://nepassisttool.epa.gov/nepassist/nepamap.aspx?wherestr=oakland+ca>

Attachment B

Coastal Barrier Resources System Units/ Coastal Zone Management Areas

There are no coastal barrier resources system units in the project vicinity.



Source link: <https://fwprimary.wim.usgs.gov/CBRSMapper-v2/#layersPanel>

Attachment B

Coastal Barrier Resources System Units/ Coastal Zone Management Areas

The project site is not within a Coastal Zone Management Act area or within SF Bay Conservation and Development Commission jurisdiction.

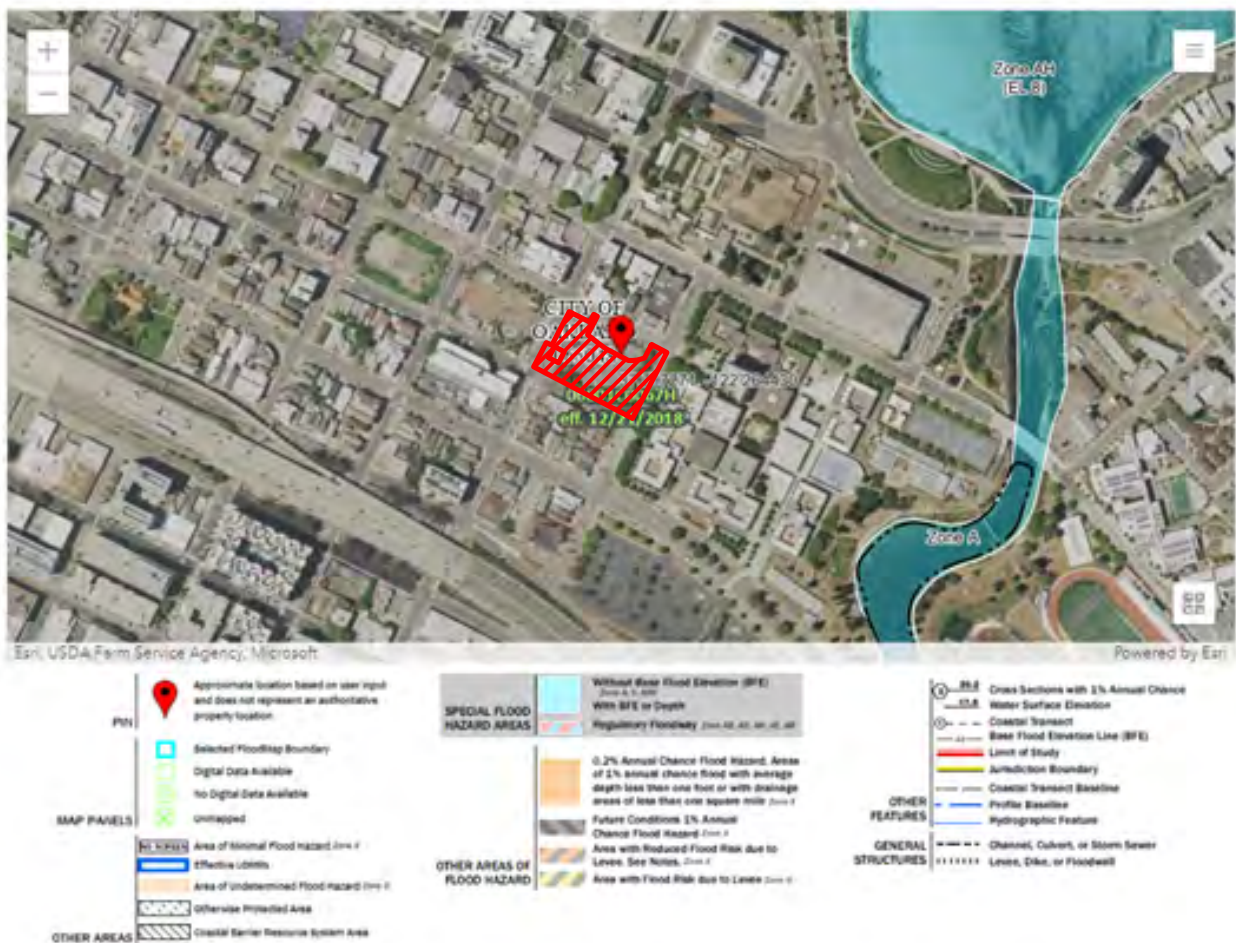


Source link: <https://fwsprimary.wim.usgs.gov/CBRSMapper-v2/#layersPanel>

Attachment C

FEMA Special Flood Hazard Areas

There are no special flood hazard areas on or in the immediate vicinity of the project site.



Source link: <https://msc.fema.gov/portal/search?AddressQuery=300%20lakeside%20drive%20oakland%20ca>

Attachment D1

Phase I Environmental Site Assessment

**DRAFT PHASE I ENVIRONMENTAL SITE
ASSESSMENT
Lake Merritt BART Development
Oakland, California**

Prepared For:

**Strada Investment Group
101 Mission Street, Suite 420
San Francisco, California 94105**

Prepared By:

**Langan Engineering and Environmental Services, Inc.
135 Main Street, Suite 1500
San Francisco, California 94105**

**Wendy Kwong
Staff Scientist**

**Dorinda Shipman, PG, PHG
Principal/Vice President**

**17 May 2019
750650002**

LANGAN

17 May 2019

Mr. William Goodman
Strada Investment Group
101 Mission Street, Suite 420
San Francisco, California 94105

**Subject: Phase I Environmental Site Assessment
Lake Merritt BART Development
Oakland, California
Langan Project: 750650002**

Dear Mr. Goodman:

Langan Engineering and Environmental Services, Inc. (Langan) is pleased to submit this Phase I Environmental Site Assessment (ESA), for the Lake Merritt Bay Area Rapid Transit (BART) Development located at 800 Madison Street, 101 8th Street and 2-98 9th Street in Oakland, California.

In performing this Phase I ESA, we have endeavored to observe the degree of care and skill generally exercised by other consultants undertaking similar studies at the same time, under similar circumstances and conditions, and in the same geographical area.

The undersigned declares that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in #312.10 of 40 CFR 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Site. We have developed and performed the all appropriate inquiries in general conformance with the standards and practices set forth in 40 CFR Part 312.

We appreciate the opportunity to assist you with this project. If you have any questions or need any information clarified, please call Ms. Wendy Kwong at (415) 955-5200.

Sincerely yours,
Langan Engineering and Environmental Services, Inc.

Wendy Kwong
Staff Scientist

Dorinda Shipman, PG, CHG
Principal/Vice President

750650001_DRAFT Phase I ESA_LM BART Development

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DRAFT

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FIGURES

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APPENDICES

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PHASE I ENVIRONMENTAL SITE ASSESSMENT
Lake Merritt BART Development
San Francisco, California

E1.0 EXECUTIVE SUMMARY

Langan Engineering and Environmental Services, Inc. (Langan) has performed a Phase I Environmental Site Assessment (ESA) for Lake Merritt Bay Area Rapid Transit (BART) Development located at 800 Madison Street, 101 8th Street, and 2-98 9th Street in Oakland, California (Figure 1). The ESA was performed on behalf of Strada Investment Group (Client and User) and East Bay Asian Local Development Corporation (User) to assist them with their environmental due diligence regarding their ground lease and entitlements of the Property.

This Phase I ESA was conducted in substantial conformance with the American Society for Testing and Materials (ASTM) Practice E1527-13 (Standard Practice for ESA: Phase I ESA Process), and the United States Environmental Protection Agency's (USEPA) 2006 All Appropriate Inquiry (AAI) Rule (40 CFR Part 312) now in effect. Completion of a Phase I ESA in accordance with the ASTM Practice and AAI Rule is needed to qualify for the bona fide prospective purchaser liability protections available under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). The objective of this Phase I ESA was to identify the presence or likely presence, use, or release on the Property of hazardous substances or petroleum products as defined in ASTM E1527-13 as a recognized environmental condition (REC).

E1.1 Site Description

The Property is comprised of two sites, hereafter referred to as Site 1 and Site 2. Site 1, (Assessor's Parcel Number [APN]: 001-0169-001), is approximately 200 by 300 feet in plan dimension. Site 1 is bound by Fallon Street on the southeast, 8th Street on the southwest, Oak Street on the northwest, and 9th Street on the northeast. A BART tunnel crosses below Site 1, and the eastern limit of the underground Lake Merritt BART station is beneath the western portion of Site 1. At street level, the site is currently a plaza with BART entrances above the underground station, and an asphalt-paved BART parking lot over the remainder of the block.

Site 2 (APN: 001-0171-002) is approximately 240 by 330 feet in plan dimension. Site 2 is bound by Oak Street on the southeast, 7th Street on the southwest, Madison Street on the northwest,

and 8th Street on the northeast. Site 2 is south to southwest of the Lake Merritt BART station. The northern portion of Site 2 is occupied by a multi-story office building with a below-grade parking level. The southern portion of Site 2 is an asphalt-paved parking lot that is several feet below adjacent 7th Street and bordered by a retaining wall.

The Site 1 and 2 APNs, current addresses and historical addresses are summarized in the following table.

APN	Site	Current Addresses	Historical Addresses
001-0169-001	1	800 Madison Street 2-98 9th Street	50, 58, 60, 68, 70, 72, 74, 76, 80, 82, 84, 86, 88, 90, 92, and 98 8th Street 802, 804, 806, 808, 816, 818, 820, 824, 826, 830, 902, 904, 906, 908, 910, 916, 944, 946 and 948 Oak Street 51, 83, 85, 89 and 99 9th Street 815, 825, 847, 849 Fallon Street
001-0171-002	2	101 8th Street	101, 103, 105, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 131, 135, 141, 143, 145, 147, and 149 8th Street 100, 102, 104, 106, 108, 110, 114, 116, 118, 120, 124, 126, 130, 134, 146, and 148 7th Street 702, 704, 706, 710, 712, 714, 716, 722, 732, 850, 852, 854, 856, 858, and 898 Madison Street 709, 719, 721, 723, 725, 727, 855, 861, 863, 809, and 899 Oak Street

E1.2 Environmental Database and File Review

As part of the Phase I ESA, we have reviewed the environmental database report prepared by Environmental Data Resources, Inc. (EDR). The EDR report contains information from the environmental databases maintained by the United States Environmental Protection Agency (USEPA), state, and local agencies within the 1/4 to 1 mile search distance.

The 800 Madison Street address was listed in the Enforcement & Compliance History Information (ECHO), Facility Index System (FINDS), Hazardous Waste & Substance Site List, California Environmental Protection Agency (CalEPA) Regulated Site Portal Data (CERS), and California Hazardous Waste Information System (CA HAZNET) databases. These database listings were associated with the Bay Area Rapid Transit (BART) Lake Merritt station, which occupied the Property as early as 1980s. The EDR listings are related to chemical storage at Site 1. No violations have been identified on the ECHO database.

The 101 8th Street address, located on Site 2, was listed in the CERS, California Environmental Reporting System (CERS) Tanks, Aboveground Storage Tanks (AST), and Hazardous Substance Storage Container Database (HIST UST). CERS, CERS Tanks, and AST listing was associated with the current 4,000 gallon aboveground diesel ConVault tank. The AST is used as backup power for BART at the Metro Center. On 12 May 2016, the INCON monitoring system for the AST and associated underground piping were recently tested by TEC Accutite. The HIST UST listing is associated with the 4,000 gallon diesel UST installed in 1982. A visual leak was observed by BART and recorded on 27 May 1989 with the State Water Resources Control Board.

Inquiries were made and records searched at the California Department of Toxic Substances Control (DTSC), RWQCB, and Alameda County Environmental Health (ACEH) regarding additional files related to fuel and hazardous materials leaks reported at the Property. A file review was not requested from the City of Oakland Fire Department (OFD) because all relevant environmental files have been transferred to and managed by ACEH Certified Unified Program Agency (CUPA). Files were found with the ACEH CUPA and summarized below and in Section 4.0.

Our review of historical files from the ACEH CUPA identified an Underground Storage Tanks Compliance Monitoring Plan (The Plan) for BART, dated 31 July 1986, by Aqua Science Engineers, Inc. (ASE). The Plan was submitted to ACEH for the upgrade of five waste oil USTs and monitoring of two fuel oil USTs. One of the two fuel oil USTs and its associated fill piping, fuel oil pumps, vent piping and vent were located at Site 2. Figure 2 shows the location of the historical fuel oil UST, piping, vent and pumps. The UST at Site 2 was used as an emergency fuel supply source for the Metro Center office complex and owned by BART. The UST had a tank capacity of 4,000 gallons and was constructed of single-walled fiberglass. ASE recommended the installation of two groundwater monitoring wells for the UST at Site 2. No additional documents were found during the file review indicating removal or in-place closure of the UST.

Additionally, chemicals are stored on-site as part of BART'S Hazardous Materials Business Plan (HMBP) dated 2002. The HMBP outlines chemical storage and handling procedures, personnel training and duties, spill and emergency response protocols, and chemical inventory. Inventoried in 2002, chemical storage included 1,375 gallons of solvents including refined hydrotreated distillate, severely hydrotreated light naphthenic distillate, and butylated hydroxy toluene. In 2016, during a routine inspection for the HMBP and the AST on-site, the only hazardous materials referenced to in the inspection report is the diesel stored in the ConVault AST and lead acid batteries. There is no violation history for the chemicals stored on-site, based on the file review.

E1.3 Conclusions

Based on the databases searched by EDR, requests made for public documentation related to past or present environmental conditions at the Property and surrounding area and our Property site reconnaissance, Langan has identified two RECs and one Historical REC (HREC) associated with the Property during this Phase I ESA.

The following RECs were identified:

REC 1 – Unknown Status of Underground Storage Tank at Site 2

Based on the ACEH CUPA file review and the EDR Radius Report, the historical fuel oil UST and associated piping was installed in 1982. A leak was detected by the BART District and recorded on 27 May 1989 with the State Water Resources Control Board. ASE submitted an Underground Storage Tanks Compliance Monitoring Plan (The Plan) for BART, dated 31 July 1986. The Plan detailed a monitoring plan for the UST involving the installation of two groundwater monitoring wells. No additional documents were found regarding the abandonment, closure, or monitoring of the UST.

REC 2 – Vapor Encroachment Concern (VEC)

Several historical cleaner properties were identified in close proximity to the Property. The facility located at 148 9th Street is listed on the EDR Historical Cleaners list. The facility is west and upgradient of the Property approximately within 100 feet from Site 1. At Site 2, an EDR Historical Cleaner was listed at 709 Oak Street. It is common for dry cleaners during this period to have discharged hazardous substances to the subsurface environment. It is possible that these facilities could have improperly disposed of chlorinated solvents into the subsurface and can be considered a Vapor Encroachment Concern (VEC) for the Property.

HREC 1 – Historical Gas Station at Site 1

Our review of historical files from EDR indicated a gas station on the south corner of Site 1. The gas station was observed in the 1952, 1953, and 1957 Sanborn Maps and 1958 aerial photograph. The city directory compiled by EDR shows a gas station with an address of 43 8th Street, one of the historical addresses at Site 1. No further information was found regarding the closure of the gas station or removal of the associated fuel dispenser, piping and fill ports. Additionally, no other documents dated after 1958 showed evidence of the gas station.

De Minimis Conditions

De minimis conditions are defined by ASTM as environmental conditions that "generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies." Possible environmental issues that in Langan's opinion are not likely historic, controlled or recognized environmental conditions but are *de minimis* conditions include the following at the site.

- Langan observed minor staining from Site 1 and Site 2's use as parking lots during the Property site reconnaissance.

1.0 INTRODUCTION

Langan Engineering and Environmental Services, Inc. (Langan) has completed this Phase I Environmental Site Assessment (ESA) for the Lake Merritt Bay Area Rapid Transit (BART) Development located at 800 Madison Street and 2-98 9th Street for Site 1 and 101 8th Street for Site 2 in Oakland, California (Site) (Figure 1). The ESA was performed on behalf of Strada Investment Group (Strada) (Client and User) and East Bay Asian Local Development Corporation (EBALDC) (User), in support of the Users' environmental due diligence regarding their ground lease and entitlements of the Property.

1.1 Purpose

The purpose of this Phase I ESA is to:

- (1) Identify Recognized Environmental Conditions (RECs) in connection with the Property, as defined in the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, Designation E1527-13, which states: The presence or likely presence of any hazardous substances or petroleum products in, on, or at a Site: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

- (2) Satisfy the criteria of United States Environmental Protection Agency (USEPA) 40 Code of Federal Regulations (CFR) Part 312 Subpart C Standards and Practices §312.20 AAI Rule.

1.2 Scope of Phase I ESA

This Phase I ESA was conducted utilizing a standard of good commercial and customary practice that is consistent with ASTM E1527-13. Any significant scope-of-work additions, deletions, or deviations to ASTM E1527-13 are noted in Section 9.0 of this report. In general, the scope of this assessment consisted of obtaining information from the Users; reviewing reasonably ascertainable information and environmental data relating to the Property; reviewing maps and records maintained by federal, state, and local regulatory agencies; interviewing persons knowledgeable about the Property; and conducting a site reconnaissance. The specific scope of this assessment included the following:

1. A site reconnaissance to observe conditions and assess the Property's location with respect to adjoining and surrounding property uses and natural surface features. The reconnaissance included the surrounding roads and observations of surrounding properties from public rights-of-way to identify obvious potential environmental conditions on neighboring properties. The site reconnaissance was conducted in a systematic manner focusing on the spatial extent of the Property and then progressing to adjacent and surrounding properties. Photographs taken as part of the site reconnaissance are provided in Appendix A.
2. As per ASTM E1527-13, a questionnaire was provided to the Client who is the current user, and to the owner to obtain information related to the Property. Copies of the completed questionnaires are provided in Appendix B.
3. A review of environmental databases maintained by the United States Environmental Protection Agency (USEPA), state, and local agencies within the approximate minimum search distance. Environmental Data Resources, Inc. (EDR) prepared the environmental database report, which is included in Appendix C.
4. Physical characteristics of the Property were determined through referenced sources for topographic, geologic, soils, and hydrologic data.
5. A review and interpretation of aerial photographs, Sanborn Fire Insurance Maps (Sanborn Maps), historical topographic maps, and city directories to identify

previous activities on and in the vicinity of the Property. Copies are included in Appendices D, E, F, and G, respectively.

1.3 Assumptions, Limitations and Exceptions

This Phase I ESA report was prepared for Strada and EBALDC for the Site located in Oakland, California. The report is intended to be used in its entirety. Excerpts taken from this report are not necessarily representative of the assessment findings. Langan cannot assume responsibility for use of this report for any property other than the Property addressed herein, or by any other third party without a written authorization from Langan.

Langan's scope of services, which is described in Section 1.2, was limited to that agreed to with the Users and no other services beyond those explicitly stated are implied. Reasonable effort has been made to check that the information obtained is factual and from reliable sources, but no responsibility is assumed for its accuracy. If no hazardous substances or conditions are reported to be on the Property, it should not be interpreted as a guarantee that they do not exist. Langan assumes no responsibility or liability for errors in the information used or statements from sources other than those of Langan. All conclusions and recommendations in this report concerning the Property are those professional opinions of the Langan personnel involved with the project, and this report should not be considered a legal interpretation of existing environmental regulations. Opinions presented herein apply to Property conditions existing at the time of our assessment, and cannot necessarily be taken to apply to Property changes or conditions of which Langan are not aware and have not had the opportunity to evaluate.

The services performed and agreed upon for this effort comports to those prescribed in the ASTM Standard E1527-13. Intrusive sampling (e.g., soil borings and groundwater sampling) was not performed as part of this Phase I ESA.

This Phase I ESA was not intended to be a definitive investigation of possible environmental impacts at the Property. The purpose of this investigation was limited to evaluating if there is reason to suspect the possibility of RECs at the Property. It should be understood that even the most comprehensive Phase I ESA may fail to detect environmental liabilities at a particular site. Therefore, Langan cannot "insure" or "certify" that the Property is free of environmental impacts. No expressed or implied representation or warranty is included or intended in this report, except that our services were performed, within the limits prescribed by our Client, with the customary standard of care exercised by professionals performing similar services under similar circumstances within the same jurisdiction.

The conclusions, opinions, and recommendations provided in this report are based solely on the specific activities as required for the performance of ASTM E1527-13 and are intended exclusively for the purpose stated herein, at the specified Property as it existed at the time of our reconnaissance.

1.4 Special Terms and Conditions and User Reliance

The Client requested that EBALDC be added as a User of this report. There are no other special terms or conditions regarding this Phase I ESA requested by the Client. Langan has prepared this report specifically for the use of Strada, the Client, and EBALDC. The findings contained within the report shall not, in whole or in part, be disseminated or conveyed to any other party, nor be used by any other party, in whole or in part without written prior consent of the Client and Langan. Other parties cannot rely on this Phase I ESA and the conclusions therein, unless Langan receives a written request from the Client, at which time a "Reliance Letter" will be prepared for the interested party. The relying party will be subject to the same terms and conditions and limitations as agreed to by the Client.

2.0 SITE DESCRIPTION

2.1 Location and Legal Description

The Property is comprised of two sites, Site 1 and Site 2. Site 1, (Assessor's Parcel Number [APN]: 001-0169-001), is approximately 200 by 300 feet in plan dimension and bound by Fallon Street on the southeast, 8th Street on the southwest, Oak Street on the northwest, and 9th Street on the northeast. Site 1 is currently occupied by a plaza with BART entrances above the underground station, and an asphalt-paved BART parking lot over the remainder of the block.

Site 2 (APN: 001-0171-002) is approximately 240 by 330 feet in plan dimension and bound by Oak Street on the southeast, 7th Street on the southwest, Madison Street on the northwest, and 8th Street on the northeast. Site 2 is south to southwest of the Lake Merritt BART station. Site 2 is currently occupied by an office building and an asphalt-paved parking lot.

2.2 Site and Vicinity General Characteristics

The Property is located in a mixed use area of Oakland. According to the United States Geological Survey (USGS) Topographic Maps, reviewed by Langan in EDR's Historical Topographic Map Report (Appendix F), the Property is at approximately 20 to 33 feet above mean sea level (msl).

The Property topography is generally flat, and gently slopes down toward the southeast. Photographs showing the current Property use are provided in Appendix A.

2.3 Current Use of the Property and Adjoining Properties

A BART tunnel crosses below Site 1, and the eastern limit of the underground Lake Merritt BART station is beneath the western portion of Site 1. At street level, Site 1 is currently a plaza with BART entrances above the underground station, and an asphalt-paved BART parking lot covers the remainder of the block. The northern portion of Site 2 is occupied by a three-story office building with a below-grade parking level. The southern portion of Site 2 is an asphalt-paved parking lot that is several feet below adjacent street grade and bordered by a retaining wall. The following table summarizes the current ownership and uses of the parcel comprised within the Property.

Assessor Parcel Number (APN)	Site	Site Owner	Acres	Parcel Use
001-0169-001	1	San Francisco Bay Area Rapid Transit (SF BART) District	1.38	Commercial
001-0171-002	2	SF BART District	1.65	Commercial

The current uses of the adjoining properties include:

- North of Site 1: commercial and residential buildings;
- East of Site 1: commercial and residential buildings;
- West of Site 1: BART substation entrances and Site 2; and
- South of Site 1: Laney College, and residential and commercial buildings.
- North of Site 2: Madison Park;
- East of Site 2: Laney College;
- West of Site 2: BART substation entrances and Site 1; and
- South of Site 2: commercial and residential buildings.

2.4 Descriptions of Structures, Roads, and Other Site Improvements

Site 1 is currently occupied by a plaza with BART entrances above the underground station, and an asphalt-paved BART parking lot over the remainder of the block. Site 2 is currently occupied by an office building and an asphalt-paved parking lot. A detailed description of current uses of the Property observed during the Property site reconnaissance is discussed in Section 5.0. Photographs showing the current Site use are provided in Appendix A.

3.0 USER PROVIDED INFORMATION

3.1 User/Owner Questionnaire

Per ASTM E1527-13, user and owner questionnaires were provided to the User to inquire about specialized information related to the Property.

Mr. Bryan Fat of Strada completed the User questionnaire and Mr. Edward Moore, a representative of the Owner, completed the Owner questionnaire. Mr. Fat was not aware of activity and use limitations associated with the Property. Mr. Moore was not aware of any pending, threatened, or past litigation, administrative proceedings, or any notices from any government entities regarding violation of environmental laws relating to hazardous substances or petroleum products at the Property. The completed User and Owner questionnaires are included in Appendix B.

3.2 Title Records

The Property's title is held by Old Republic Title Company and is provided in Appendix B.

3.3 Environmental Liens or Activity and Use Limitations

The User is not aware of any environmental liens or activity and use limitations in connection to the Property.

3.4 Specialized Knowledge

The User does not have any specialized knowledge of the Property.

3.5 Commonly Known and Reasonable Ascertainable Information

The User is not aware of any commonly known and reasonable ascertainable information regarding the Property.

3.6 Valuation Reduction for Environmental Issues

The User is not aware of any valuation reduction for environmental issues in connection with the Property.

3.7 Owner, Site Manager, and Occupant Information

The Property is currently residential and commercial property. No title report was received from the Owner.

3.8 Reason for Performing Phase I ESA

It is our understanding that the Client has requested this study as part of their environmental due diligence regarding their ground lease and entitlements of the Property.

4.0 RECORDS REVIEW

4.1 Standard Environmental Record Sources

Langan reviewed an environmental database search report, prepared by EDR, for the Property (Target Property [TP]) and surrounding area. The EDR report is a listing of properties identified on select federal and state standard source environmental databases within the approximate search radius specified by ASTM Standard Practice for E1527-13. This information is reported to Langan by EDR, and to EDR by government sources; therefore, neither Langan nor EDR can verify the completeness and accuracy of the database information. Langan reviewed each environmental database on a record-by-record basis to evaluate if certain sites identified in the report are suspected to represent a potential impact to the Property. A copy of regulatory database information was provided by EDR and is included in Appendix C.

The following summary table lists the number of properties by database within the prescribed search radius appearing in the EDR Radius Map Report:

Database (Date of government version)	Minimum Search Area	Site Listed	Properties Within Search Area
Federal			
Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) SEMS Archive (SEMS-ARCHIVE) (02/06/2019)	½ mile radius	No	0
RCRA Large Quantity Generators (RCRA-LOG) (03/01/2018)	¼ mile radius	No	2

Database (Date of government version)	Minimum Search Area	Site Listed	Properties Within Search Area
RCRA Small Quantity Generators (RCRA-SQG) (03/01/2018)	¼ mile radius	No	6
RCRA Conditionally Exempt Small Quantity Generators (RCRA-CESQG) (03/01/2018)	¼ mile radius	No	0
State and Tribal			
DTSC State Response Sites (RESPONSE) (01/28/2019)	1 mile radius	No	4
SWF/LF (SWS) (02/11/2019)	½ mile radius	No	0
ENVIROSTOR – State and tribal equivalent CERCLIS (DTSC’s Site Mitigation and Brownfields Reuse Program (SMBRP) (01/28/2019)	1 mile radius	No	24
Leaking Underground Storage Tank (LUST) Sites List (12/10/2018)	½ mile radius	No	77
CA CPS-SLIC (Statewide SLIC Cases (12/10/2018)	½ mile radius	No	0
Underground Storage Tank (UST) Sites List (12/10/2018)	¼ mile radius	No	4
Aboveground Storage Tank (AST) Sites List (12/10/2018)	¼ mile radius	Yes	2
Voluntary Cleanup Program (VCP) Sites (01/28/2019)	½ mile radius	No	1
Additional Record Sources			
US BROWNFIELDS (12/17/2018)	½ mile radius	No	2
HIST Cal-Sites (Replaced by ENVIROSTOR) (08/08/2005)	1 mile radius	No	1
SCH School Property Evaluation Program (01/28/2019)	¼ mile radius	No	0
CERS HAZ WASTE (10/22/2018)	¼ mile radius	Yes	10
CA SWEEPS UST (06/01/1994)	¼ mile radius	No	15
CA HIST UST (10/15/1990)	¼ mile radius	Yes	20
CA FID UST (Active and Inactive Underground Storage Tank Locations) (10/31/1994)	¼ mile radius	No	10
CERS TANKS California Environmental Reporting System (CERS) Tanks (10/22/2018)	¼ mile radius	Yes	5
RCRA NonGen/ NLR (Resource Conservation and Recovery Act Non Generators/ No Longer Regulated) (03/01/2018)	¼ mile radius	No	1
FUDS (01/31/2015)	1 mile radius	No	2
FINDS (02/15/2019)	1/10 mile radius	Yes	2
Enforcement & Compliance History Information (ECHO) (03/03/2019)	1/10 mile radius	Yes	1
CUPA Listings (09/11/2018)	¼ mile radius	No	0
CA DRYCLEANERS (12/13/2018)	¼ mile radius	No	0
HAZNET (12/31/2017)	1/10 mile radius	Yes	2
HIST CORTESE (04/01/2001)	½ mile radius	Yes	56

Database (Date of government version)	Minimum Search Area	Site Listed	Properties Within Search Area
CA Notify 65 (Proposition 65 incidents reported to counties by the State Water Resources Control Board and Regional Water Quality Control Board) (09/19/2018)	1 mile radius	No	12
CERS (CalEPA Regulated Site Portal Data) (10/22/2018)	1/10 mile radius	Yes	1
EDR Manufactured Gas Plant (EDR MGP) Site	1 mile radius	No	1
EDR Historical Automobile Station (EDR HIST Auto) Site	1/8 mile radius	No	21
EDR Historical Dry Cleaner (EDR Hist Cleaner) Site	1/8 mile radius	No	5

A description of the reviewed databases is provided in the EDR Radius Map Report (Appendix C). A summary of Property database listings and other properties identified within the prescribed search area that may have an impact on the Property is presented below.

Sites 1 and 2, Lake Merritt BART Development

At Site 1, the 800 Madison Street address was listed in the Enforcement & Compliance History Information (ECHO), Facility Index System (FINDS), Hazardous Waste & Substance Site List, California Environmental Protection Agency (CalEPA) Regulated Site Portal Data (CERS), and California Hazardous Waste Information System (CA HAZNET) databases. These database listings were associated with the Bay Area Rapid Transit (BART) Lake Merritt station, which occupied the Property as early as 1980s. The EDR listings are related to chemical storage at Site 1. No violations have been identified on the ECHO database.

During the EDR Historical Auto search, one listing in Site 1 was found. The address listed was 60 8th Street. The listing shows that the 60 8th Street was the address of a former oil and gas service station operating sometime between 1955 through 1958.

At Site 2, the 101 8th Street address, was listed in the CERS, California Environmental Reporting System (CERS) Tanks, Aboveground Storage Tanks (AST), and Hazardous Substance Storage Container Database (HIST UST). CERS, CERS Tanks, and AST listing was associated with the current 4000 gallon aboveground diesel ConVault tank. The AST is used as backup power for BART at the Metro Center. On 12 May 2016, the INCON monitoring system for the AST and associated underground piping were recently tested by TEC Accutite. The HIST UST listing is associated with the 4000 gallon diesel UST installed in 1982. A visual leak was observed and recorded on 27 May 1989 with the State Water Resources Control Board.

Our review of historical files from the ACEH CUPA identified an Underground Storage Tanks Compliance Monitoring Plan for BART, dated 31 July 1986, by Aqua Science Engineers, Inc. (ASE). The Plan was submitted to ACEH for the upgrade of five waste oil USTs and monitoring of two fuel oil USTs. One of the two fuel oil UST and its associated fill piping, fuel oil pumps, vent piping and vent were located at Site 2. Figure 2 shows the location of the historical fuel oil UST, piping, vent and pumps. The UST at Site 2 was used as an emergency fuel supply source for the Metro Center office complex. The UST has a tank capacity of 4,000 gallons and made up of single-walled fiberglass. ASE recommended a retrofit monitoring system with an electronic continuous monitoring of groundwater and/or vapor. No additional documents were found during the file review indicating removal or in-place closure of the UST.

Additionally, chemicals are stored on-site as part of BART'S Hazardous Materials Business Plan (HMBP) dated 2002. The HMBP outlines chemical storage and handling procedures, personnel training and duties, spill and emergency response protocols, and chemical inventory. Inventoried in 2002, chemical storage included 1,375 gallons of solvents including refined hydrotreated distillate, severely hydrotreated light naphthenic distillate, and butylated hydroxy toluene. In 2016, during a routine inspection for the HMBP and the AST on-site, the hazardous materials referenced to in the inspection report is the diesel stored in the ConVault AST and lead acid batteries. There is no violation history for the chemicals stored on-site, based on the file review. The monitoring plan completed by ASE, inspection reports by ACEH, and the 2002 HMBP by BART are included in Appendix C.

Neighboring Properties

Based on our review of the neighboring properties, most of the nearby listings were closed by the regulatory agency, were hydrologically cross gradient or down gradient, or were determined to be a significant distance (greater than a 1/4 mile) from the Property. Below is a summary of neighboring property of concern in regards to possible contamination at the Property.

1110 Jackson Street

This facility is located approximately 845 feet to the north and cross gradient of the Property (Langan 2018). The 1110 Jackson Street property was listed on the Alameda County CS, HAZNET, LUST, CERS, and CERS Tanks. These database listings were associated with the three USTs used for the storage of gasoline. The USTs had capacities of 265 gallons, 265 gallons and 110 gallons and the tanks were observed to be in poor condition. They were removed on 15 April 2016. An additional fourth UST was discovered with a capacity of 750 gallons and was used to store diesel. The tank was also observed to be in poor condition and have holes.

In November 2016, an environmental site investigation was performed for the collection of soil, soil gas and grab groundwater samples. No vapor intrusion risks were identified but petroleum hydrocarbon contamination was found in soil and groundwater adjacent to the USTs. In January 2018, an additional investigation was conducted for the collection of soil and grab groundwater samples. Concentrations of samples analyzed did not exceed their respective RWQCB's Tier 1 environmental screening levels (ESLs). As of March 2019, this facility is working towards case closure. Since there were no exceedances in the latest samples, this facility will not impact the Property.

Orphan Listings

According to EDR, an orphan listing is a property that cannot be mapped due to poor or inadequate address information. Upon further research, Langan concluded that none of the orphan listings appear to be within applicable search distances to the Property and are not considered properties of concern.

4.2 Physical Setting Sources

Topography

According to the United States Geological Survey (USGS) Topographic Maps, reviewed by Langan in EDR's Historical Topographic Map Report (Appendix F), the Property is at approximately 20 to 33 feet above msl. The Property topography is generally flat, and slopes down toward the east-northeast. Photographs showing the current Property use are provided in Appendix A.

Geology and Hydrogeology

Subsurface conditions are based on other environmental investigations completed crossgradient of the site at a former Chevron Service Station located at 609 Oak Street. The results of the investigations indicate that the Property is underlain by up to 13 feet of sand to sand with clay and up to 30 feet of sand.

Groundwater was encountered at a depth of approximately about 5.0 to 8.0 bgs at the former Chevron station. Fluctuations in groundwater levels are expected and occur due to many factors including seasonal variations, tides, underground drainage patterns, regional fluctuations, and other factors. Site 1 and Site 2 are north of the former Chevron station and hydrologically upgradient. The nearest surface water is the Lake Merritt, approximately 0.21 miles northeast of Site 1 and 0.30 miles northeast of Site 2 and in consensus with the direction of groundwater flow.

4.3 Surface Water and Flood Plain Conditions

Surface Water

Lake Merritt is the closest surface water body, which is approximately 0.21 to 0.30 miles northeast of the Property.

Flood Plain

According to the FEMA Map Service Center, the Property is located in an area of minimal flood hazard.

4.4 Nearby Well Locations

Langan's Property site reconnaissance and our review of the RWQCB online GeoTracker website did not identify any wells on Property. There are no wells installed in the immediate Property vicinity. The closest wells were installed for the remediation and groundwater monitoring conducted at the 706, 726, and 800 Harrison Street facility.

4.5 Historical Use Information on the Site, Adjoining Properties, and Surrounding Properties

Sanborn Maps Review

Langan reviewed Sanborn Fire Insurance Maps from EDR for the Property and adjoining properties. Sanborn Maps provide information on structures related to building construction and materials that could impact fires, i.e. gasoline tanks, chemical storage, etc. within these structures. We reviewed the following Sanborn Fire Insurance Maps from EDR: 1889, 1903, 1911, 1950, 1952, 1953, 1957, 1959, 1960, 1964, 1965, 1967 and 1969. Appendix E contains copies of the Sanborn Fire Insurance Maps from EDR.

In the 1889 Sanborn Map, Site 1 is mostly undeveloped except for a two-story dwelling in the east portion of the site. What appears to be a tank with unknown contents is located on the east (down gradient) corner of Site 1. A wood shed and two stables are located adjacent to the dwelling and tank on future 9th Street. Site 2 is undeveloped. Residential properties and undeveloped land is in the immediate vicinity. Madison Park is located northwest of Site 1. In the 1903 and 1911 Sanborn Maps, Site 1 is occupied by additional residential properties and the unknown tank is not observed. A water tank and windmill are observed next to the two-story dwelling in the east portion of Site 1. Site 2 is further developed with commercial and residential properties. The adjacent land to the southwest of Site 1 and Site 2 is developed further with residential properties.

In the 1950 Sanborn map, the two-story dwelling in the east portion of Site 1 is replaced by Ming Quong Home, Home for Chinese Girls. Site 2 is fully occupied. To the south of Site 1, "gas & oil" and "grease" representing an automobile repair shop, and Geo. R. Borrman Steel Companies replaces some of the residential and commercial properties. To the north of Site 1, the adjacent land is full developed. In the 1952, 1953, and 1957 Sanborn Maps, "gas & oil" is located near the south corner of Site 1, representing a gas station. The remaining portions of Site 1 and Site 2 remain unchanged. In the 1959 Sanborn Map, Ming Quong Home is replaced by the Inter-Tribal Friendship House. In the 1960 and 1964 Sanborn Map, Site 1 and Site 2 remains relatively unchanged.

In the 1965 Sanborn Map, the residential properties in Site 1 are replaced by vacant land and the Inter-Tribal Friendship House is still located in the east portion of Site 1. By the 1967 and 1969 Sanborn Maps, most of Site 1 and Site 2 are vacant, except for two residential properties on Site 2.

Aerial Photograph Review

Langan reviewed aerial photographs to evaluate past uses and relevant characteristics of the Property and surrounding properties. We reviewed the following aerial photographs from EDR: 1939, 1946, 1958, 1963, 1968, 1974, 1982, 1993, 1998, 2005, 2009, 2012, and 2016. Appendix D contains copies of the aerial photographs from EDR.

In the 1939, 1946, and 1958 aerial photographs, the Property appears to be fully developed. In the 1963 aerial photographs, Site 1 remains developed except for a vacant lot in the south corner and Site 2 remains full developed. In the 1968 aerial photograph, Site 1 and Site 2 appears to be vacant.

In the 1974 and 1982 aerial photographs, Site 1 and Site 2 are fully developed by what appears to be parking lots. In the 1993, 1998, 2005, 2009, 2012, and 2016 aerial photographs, Site 1 remains unchanged and Site 2 appears to be occupied by the current building. The Property remains relatively unchanged over the years.

The Property is in a fully developed area of Oakland occupied predominately by residential and small commercial buildings. The surrounding areas relative to the Property remained relatively unchanged from the 1939, 1946, 1958, 1963, 1968, 1974, 1982, 1993, 1998, 2005, 2009, 2012, and 2016 aerial photographs.

Historical Topography Maps Review

Langan reviewed the following Historical Topographic Maps from EDR: 1895, 1896, 1899, 1915, 1939, 1947, 1950, 1956, 1968, 1973, 1980, 1995, 1996, and 2012. Appendix F contains copies of the Historical Topographic Maps. The average elevation at the Property remains relatively unchanged from 1895 to 2012, and the approximate elevation is 20 to 33 feet above msl.

City Directory Review

Langan reviewed the following city directory abstracts obtained from EDR. City Directories were reviewed for the years 1910 to 2014. Site 1 was listed in the EDR City Directory as previously occupied by various residences, Ming Quong Home, Home for Chinese Girls, Inter Tribal Friendship House and gas & oil service station. Site 2 was listed in the EDR City Directory as previously occupied by various residences, and commercial properties. The adjacent properties are occupied by various private residences, a church, steel factory, auto service repair shop, and a gas station during the years 1910 through 2014. Appendix G contains a copy of the City Directory Report.

5.0 SITE RECONNAISSANCE

5.1 Methodology and Limiting Conditions

The Property site reconnaissance was conducted in a systematic manner focusing on the spatial extent of the Site and then progressing to the adjacent and surrounding properties.

The assessment of the adjacent and surrounding properties was limited to identifying, if possible, any indications of past or current use that may involve the use, storage, disposal, or generation of hazardous substances or petroleum products; noting the general type of current use; the general topography of the surrounding area; and providing a general description of adjoining or adjacent structures.

Ms. Wendy Kwong of Langan performed a Property and vicinity reconnaissance on behalf of Langan on 9 May 2019. Appendix A contains photographs from the site reconnaissance.

5.2 General Site Setting and Reconnaissance Observations

Site 1 is currently the Lake Merritt BART parking lot, Lake Merritt BART substation entrance and bike lockers. Site 2 is currently a three-story office building housing the BART police station and parking lot. The photographs showing the current Property use are provided in Appendix A.

Past Use of Property

No evidence of past Property use was visible during the site reconnaissance.

Description of Structures

Site 1 is currently a plaza with two BART entrances above the underground station, bike lockers, and an at-grade asphalt-paved BART parking lot over the remainder of the block. Below grade, the BART tunnel crosses below Site 1, and the eastern limit of the underground Lake Merritt BART station is beneath the western portion of Site 1.

Site 2 is occupied by a three-story office building with a below-grade parking level in the northern portion. An asphalt-paved parking lot that is several feet below adjacent street grade and bordered by a retaining wall in the southern portion.

Roads

Site 1 bound by Fallon Street on the southeast, 8th Street on the southwest, Oak Street on the northwest, and 9th Street on the northeast.

Site 2 bound by Oak Street on the southeast, 7th Street on the southwest, Madison Street on the northwest, and 8th Street on the northeast.

Storm Drains

A catch basin was observed in the parking lot at Site 2 during our reconnaissance.

5.3 Site Observations

Hazardous Substances and Petroleum Products in Connection with Identified Uses

Langan observed a Vert-I-Pack vertical compactor associated with an identified use at Site 2 during the reconnaissance. The compactor uses hydraulic equipment and was observed to be on a concrete pad.

Hazardous Substances and Petroleum Products in Connection with Unidentified Uses

Langan did not observe hazardous substances or petroleum products in connection with unidentified uses at Site 1 and Site 2 during the reconnaissance.

Storage Tanks

Langan observed a ConVault diesel aboveground storage tank (AST) associated with an identified use at Site 2 during the reconnaissance.

Odors

Langan did not observe any odors at the Property during the reconnaissance.

Pools of Liquids

Langan did not observe any pools or ponded liquids at the Property during the reconnaissance.

Drums

Langan did not observe any drums at the Property during the reconnaissance.

PCBs

Langan did not observe PCBs or PCB-containing equipment at the Property during the reconnaissance.

Pits, Ponds, or Lagoons

Langan did not observe any pits, ponds, or lagoons at the Property during the reconnaissance.

Stained Soil or Pavement

Langan observed de minimis stained asphalt associated cars parked at Site 1 and Site 2 during the reconnaissance.

Stressed Vegetation

Langan did not observe stressed vegetation at the Property during the reconnaissance.

Solid Waste

Langan did not observe solid waste at the Property during the reconnaissance.

Wastewater

Langan did not observe wastewater discharges at the Property during the reconnaissance.

Wells

Langan did not observe any wells at the Property during the reconnaissance.

Septic Systems

Langan did not observe septic systems at the Property during the reconnaissance.

Utilities

Utility vaults believed to be related to water lines, electrical lines, gas lines, and storm water lines are present along the Property boundaries.

6.0 INTERVIEWS

6.1 Subject Site User

For the Phase I ESA, Langan was introduced to and interviewed the Property User of this report, as defined in ASTM 1527-13. The purpose of the interview was to obtain information indicating possible recognized environmental conditions (RECs) in connection with the Property and to provide further details regarding historical use of the Property.

Mr. Bryan Fat of Strada stated that he has no specialized knowledge or experience related to the property or nearby properties. Mr. Fat stated that he was not aware of any current government notifications, violations of environmental laws, or litigation at the Property.

6.2 Owners/Tenants of Current and Adjacent Properties

Mr. Edward Moore, a representative of the Property Owner, was interviewed as part of this Phase I ESA. Mr. Moore of BART District was asked for clarification regarding the AST observed on-site during the site reconnaissance, the historical fuel oil UST, and hazardous material stored at Site 2. He explained that the current diesel AST was a backup tank for the generator. He has no knowledge of whether the historical UST has been removed. Mr. Moore clarified that the only hazardous materials stored on-site are for maintenance activities and are in small quantities; this includes lubrication oil, hydraulic fluid for elevator and greases.

Owners/tenants of adjacent properties were not available for interview as part of this Phase I ESA.

7.0 VAPOR ENCROACHMENT ASSESSMENT

An evaluation of potential vapor encroachment concern (VEC) was included as consideration for this assessment due to the presence of VOC contamination in groundwater beneath the Property. Migration, as defined by ASTM E1527-13 Section 3.2.56, is the movement of hazardous substances or petroleum products in any form, including, for example, solid and liquid at the surface or subsurface, and vapor in the subsurface. Vapor intrusion is defined as the migration of volatile chemicals from the subsurface into overlying buildings. Our assessment for

potential vapor encroachment concern or vapor migration at the Property was performed in general accordance with ASTM E1527-13, but did not include an assessment related to vapor intrusion.

Properties within 1/10th of a mile from the Property with current or historical known releases of petroleum hydrocarbons were evaluated as part of the vapor encroachment assessment. Within 1/3rd of a mile of the Property, properties with known or historical releases of other volatile chemicals were evaluated. Langan reviewed EDR's Radius Map Report with GeoCheck and the VEC Application (Appendix C) to evaluate potential vapor encroachment concerns from the surrounding properties meeting the above criteria.

Based on the analysis using the VEC application, Langan identified the following facilities as potential sources of vapor encroachment to the Property: the facility located at 148 9th Street is listed on the EDR Historical Cleaners list. The facility is west and upgradient of the Property approximately within 100 feet from Site 1. On Site 2, an EDR Historical Cleaner was listed at 709 Oak Street. Based on the age of the historical cleaning operations, these facilities may have improperly disposed of hazardous substances to the subsurface upgradient to cross gradient of the Property. Therefore, a VEC for this Property cannot be ruled out.

8.0 PHASE I ESA FINDINGS AND CONCLUSION

Langan's findings with respect to known and suspect RECs and de minimis conditions, and our opinion of these findings are as follows:

8.1 Known or Suspect RECs

Based on the databases searched by EDR, requests made for public documentation related to past or present environmental conditions at the Property and surrounding area, and our site reconnaissance, Langan has identified two RECs and one Historical REC (HREC) associated with the Property during this Phase I ESA.

The following RECs were identified:

REC 1 – Unknown Status of Underground Storage Tank at Site 2

Based on the ACEH CUPA file review and the EDR Radius Report, the historical UST and associated piping was installed in 1982. A leak was detected by the BART District and recorded on 27 May 1989 with the State Water Resources Control Board. ASE submitted an Underground Storage Tanks Compliance Monitoring Plan (The Plan) for BART, dated 31 July 1986. The Plan

detailed a monitoring plan for the UST involving the installation of groundwater monitoring wells. No additional documents were found regarding the abandonment, closure, or monitoring of the UST.

REC 2 – Vapor Encroachment Concern (VEC)

The presence of several historical cleaner properties were identified in close proximity to the Property. The facility located at 148 9th Street is listed on the EDR Historical Cleaners list. The facility is west and upgradient of the Property approximately within 100 feet from Site 1. At Site 2, an EDR Historical Cleaner was listed at 709 Oak Street. It is common for dry cleaners during this period to have discharged hazardous substances to the subsurface environment. It is possible that these facilities could have improperly disposed of chlorinated solvents into the subsurface and can be considered a Vapor Encroachment Concern (VEC) for the Property.

HREC 1 – Historical Gas Station at Site 1

Our review of historical files from EDR indicated a gas station on the south corner of Site 1. The gas station was observed in the 1952, 1953, and 1957 Sanborn Maps and the 1958 aerial photograph. The city directory compiled by EDR shows a gas station with an address of 60 8th Street, one of the historical addresses at Site 1. No further information was found regarding the closure of the gas station and the associated fuel dispenser, piping and fill ports. Additionally, no other documents dated after 1958 showed evidence of the gas station.

8.2 De Minimis Conditions

De minimis conditions are defined by ASTM as environmental conditions that "generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies." Possible environmental issues that in Langan's opinion are not likely historic, controlled or recognized environmental conditions but are *de minimis* conditions include the following at the site.

- Langan observed minor staining from Site 1 and Site 2's use as parking lots during the Property site reconnaissance.

8.3 Data Gaps

The Property history could not be researched in five-year intervals back to 1940 because of a lack of readily available information. It is Langan's opinion that this variation from the ASTM standard does not significantly affect the results of this Phase I ESA or the ability to assess the presence

of a REC at the Property, because land use did not change frequently enough to warrant a five year interval history evaluation.

8.4 Conclusion

Langan conducted this Phase I ESA with a standard of commercial and customary practice using the local standard of care that is consistent with ASTM E1527-13. Any significant scope-of-work deviations, deletions, or additions to ASTM E1527-13 are noted in Sections 9.0 and 10.0 of this report.

The Property is located in a mixed use area (including residential and commercial) within Oakland and is comprised of two sites, Site 1 and Site 2. Site 1 bound by Fallon Street on the southeast, 8th Street on the southwest, Oak Street on the northwest, and 9th Street on the northeast. Site 1 is currently a plaza with two BART entrances above the underground station, bike lockers, and an at-grade asphalt-paved BART parking lot over the remainder of the block. Below grade, the BART tunnel crosses below Site 1, and the eastern limit of the underground Lake Merritt BART station is beneath the western portion of Site 1.

Site 2 bound by Oak Street on the southeast, 7th Street on the southwest, Madison Street on the northwest, and 8th Street on the northeast. Site 2 is occupied by a three-story office building with a below-grade parking level in the northern portion. The southern portion of Site 2 is an asphalt-paved parking lot that is several feet below adjacent 7th Street and bordered by a retaining wall.

Based on review of the Sanborn Fire Insurance Maps, aerial photographs, topographical maps, and city directories, the Property was partially developed with one- to two-story residential dwellings as early as 1889. Site 1 has been developed by previous occupants; including, but not limited to various residences, Ming Quong Home, Home for Chinese Girls, Inter Tribal Friendship House and gas & oil service stations. Site 2 has been developed by previous occupants; including, but not limited to various residences, and commercial properties.

Langan has identified two RECs and one HREC associated with the Property during this Phase I ESA; including, unknown status of the fuel oil UST at Site 2; a VEC from the presence of several historical cleaner properties identified in close proximity to the Property; and the historical gas station at Site 1. We recommend using a subcontractor that employs ground penetrating radar to look for the UST at Site 2 and potential USTs, pipelines and dispenser islands at the former

gas station at Site 1. If an anomaly is detected, we recommend soil, groundwater and soil gas sampling in the vicinity of the UST and/or gas station.

9.0 DEVIATIONS

This Phase I ESA has been performed without deviation to, and in conformance with, ASTM Practice E1527-13 (Standard Practice for ESA: Phase I ESA Process) except as noted. No expressed or implied representation or warranty is included or intended in the report, except that the services were performed within the limits prescribed by the Client, and with the customary thoroughness and competence of our profession.

10.0 ADDITIONAL SERVICES

The scope of services performed for this study did not include the following non-ASTM required Phase I ESA items: radon, asbestos containing materials (ACM), lead-based paint (LBP), lead in drinking water, polychlorinated biphenyl (PCB)-containing material, wetlands, cultural and historical resources, industrial hygiene, health and safety, ecological resources, endangered species, mold, indoor air quality, and biological agents.

11.0 REFERENCES

The sources below were used during the performance of this Phase I ESA.

- ASTM E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process;
- 40 CFR Part 312, Standards and Practices for All Appropriate Inquiry, Federal Register, Volume 70, Number 210, 1 November 2005.
- State of California Department of Toxic Substances Control, *EnviroStor online database*, <http://www.envirostor.dtsc.ca.gov/public/>;
- State of California State Water Resources Control Board, *Geotracker online database*, <http://geotracker.waterboards.ca.gov/>;
- Environmental Data Resources, Inc. – Environmental Database Search Report: 800 Madison Street, Oakland, California 94607;
 - The EDR – Radius Map™ Report with GeoCheck® dated 16 April 2019;
 - The EDR – Vapor Encroachment Screen dated 17 May 2019;

- The EDR – Aerial Photo Decade Package dated 17 April 2019;
 - The EDR – Historical Topographical Map Report dated 16 April 2019;
 - The EDR – Certified Sanborn® Map Report dated 17 April 2019; and
 - The EDR – City Directory Abstract dated 18 April 2019.
- Alameda County Environmental Health (ACEH), Inspection Report, BART Metro Center, 101 8th Street, Oakland, CA, dated 24 May 2016.
 - ACEH, Inspection Report, BART Lake Merritt Substation (LMA), 800 Madison Street, Oakland, CA, dated 1 May 2017.
 - ARCADIS, *Feasibility Study (FS), 706/726/800 Harrison Street, Oakland, California*, dated 23 October 2012.
 - ARCADIS, *Remedial Action Plan (RAP), 706/726/800 Harrison Street, Oakland, California*, dated 18 April 2014.
 - ARCADIS, *Air Sparge/ Soil-Vapor Extraction System Construction and Start-up Report, Union Oil Company of California Station No. 0752, 706/726/800 Harrison Street, Oakland, California*, dated 15 November 2018.
 - ARCADIS, *Union Oil of California, Semi-annual Groundwater Monitoring Report, First Quarter 2019*, dated 10 April 2019.
 - Langan Engineering and Environmental Services, Inc., *Supplemental Environmental Investigation and Request for No Further Action, 1110 Jackson Street, Oakland, California*, dated 07 March 2018.
 - San Francisco Bay Area Rapid Transit District (BART), Hazardous Materials Business Plan, BART Lake Merritt Substation (LMA), dated 03 April 2002.
 -

12.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONAL

The signatures of the environmental professional(s) responsible for this Phase I ESA are provided on the submittal letter and/or cover page of this report.

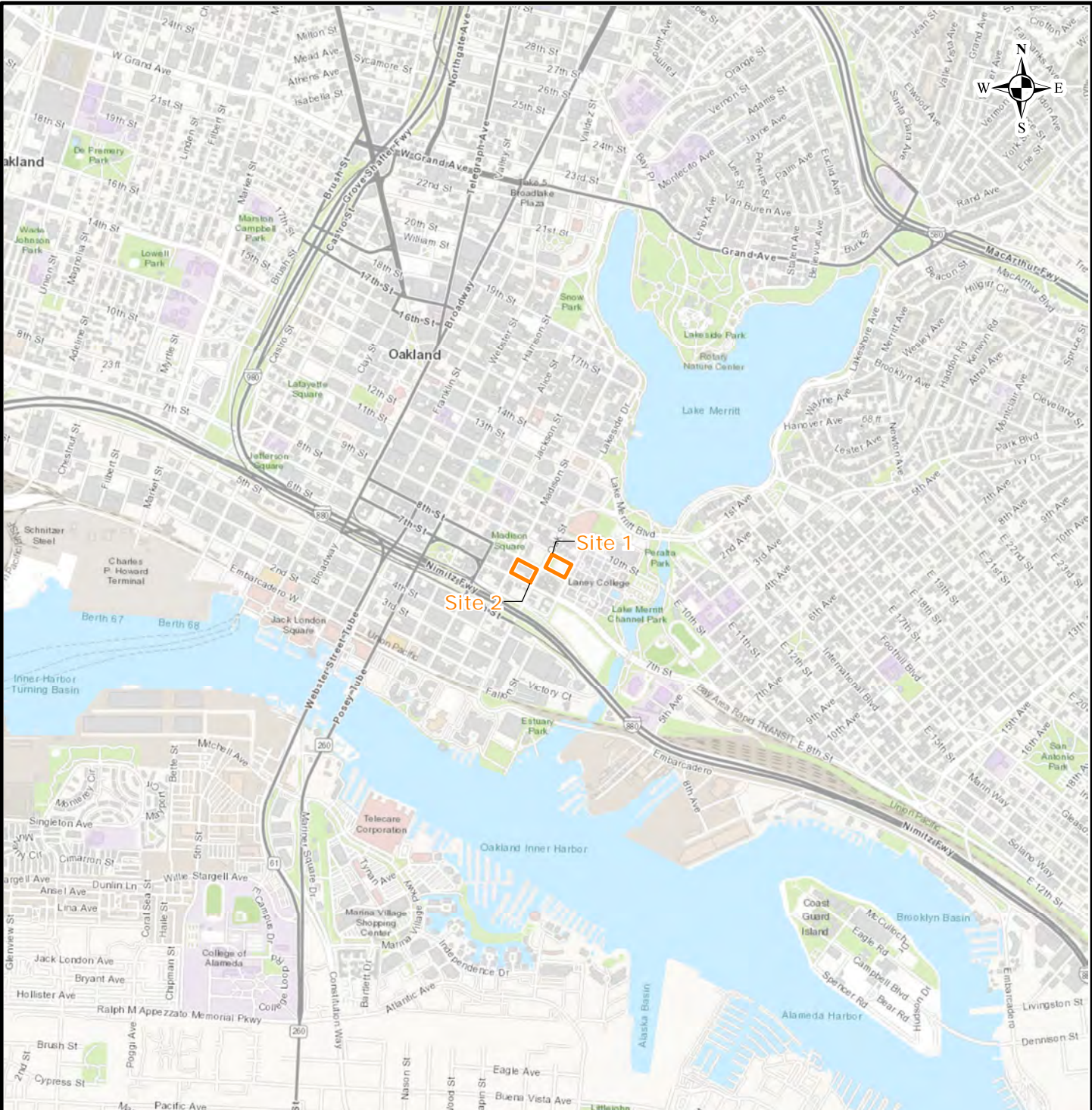
13.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

The qualifications of the environmental professionals that conducted this ESA are presented in the resumes provided in Appendix H. Langan declares that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in #312.10 of 40 CFR 312. Langan has the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Site. Langan has developed and performed the all appropriate inquiries in general conformance with the standards and practices set forth in 40 CFR Part 312.

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FIGURES

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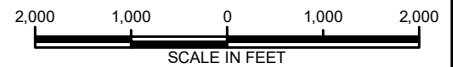



Legend

 Site Boundary

Notes:

1. Topographic basemap is provided through Langan's Esri ArcGIS software licensing and ArcGIS online © 2018 National Geographic Society, i-cubed.
2. All features shown are approximate.



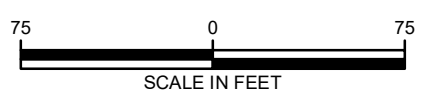
 501 14TH Street, 3rd Floor Oakland, CA 94612-1420 T: 510.874.7000 F: 510.874.7001 www.langan.com	Project	Drawing Title	Project No. 750650002	Figure
	LAKE MERRITT BART OAKLAND	SITE LOCATION MAP	Date 5/13/2019 Scale 1" = 2,000' Drawn By OG	1
ALAMEDA COUNTY CALIFORNIA				



Legend

	Fuel Oil Dispenser and Vents
	Fuel Oil and Vent Pipes
	Underground Storage Tank
	ConVault 4000 Gallon Aboveground Storage Tank (AST) Observed During May 2019 Site Reconnaissance
	Historical Gas Station
	Site Boundary

Notes:
 1. Aerial imagery provided by Near Map, aerial flown on 3/16/2019.
 2. Former features and tanks digitized from Sanborn maps, dated 1952 and 1989.
 3. All features shown are approximate.



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Langan Engineering & Environmental Services, Inc.
 Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
 Langan International LLC
 Collectively known as Langan

Project
LAKE MERRITT BART
 OAKLAND
 ALAMEDA COUNTY CALIFORNIA

Drawing Title
SITE PLAN

Project No.	750650002	Figure 2
Date	5/15/2019	
Scale	1" = 75'	
Drawn By	OG	

**APPENDIX A
SITE PHOTOGRAPHS**

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Photograph 1 – View of Site 1 from the south corner of 8th Street and Oak Street, facing east.



Photograph 2 – Sidewalk of Oak Street along Site 1 with scooter storage and bike lockers, facing northeast.



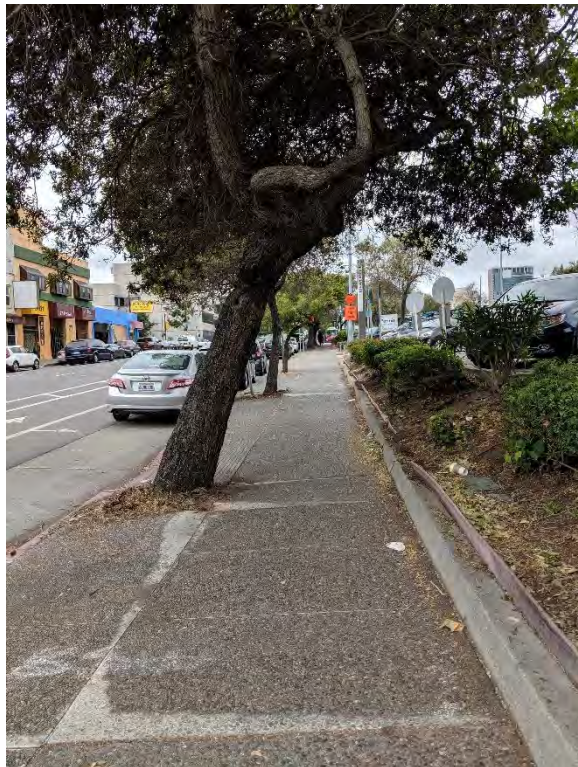
Photograph 3 – Lake Merritt Bay Area Rapid Transit (BART) Station entrance at Site 1, facing south.



Photograph 4 – Site 1 along 9th Street, facing southeast.



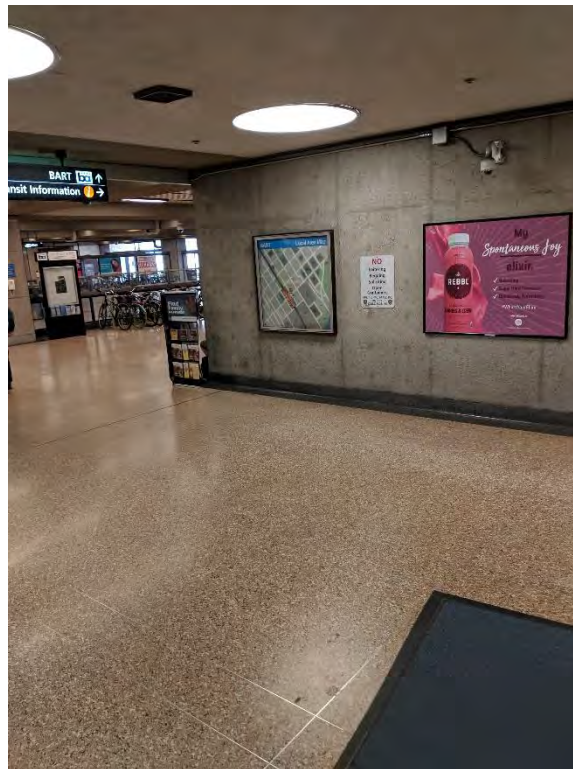
Photograph 5 – Fallon Street along Site 1, facing southwest.



Photograph 6 – 8th Street along Site 1, facing east.



Photograph 7 – View of the Lake Merritt BART parking lot at Site 1, facing north.



Photograph 8 – View Lake Merritt BART substation, facing northwest.



Photograph 9 – View of church and various residential and commercial properties on 9th Street adjacent to Site 1, facing east.



Photograph 10 – Laney College on Fallon Street adjacent to Site 1, facing northeast.



Photograph 11 – Various residential and commercial properties along 8th Street adjacent to Site 1, facing west.



Photograph 12 – View of three-story office building at Site 2 along 8th Street, facing west.



Photograph 13 – Oak Street along Site 2, facing southwest.



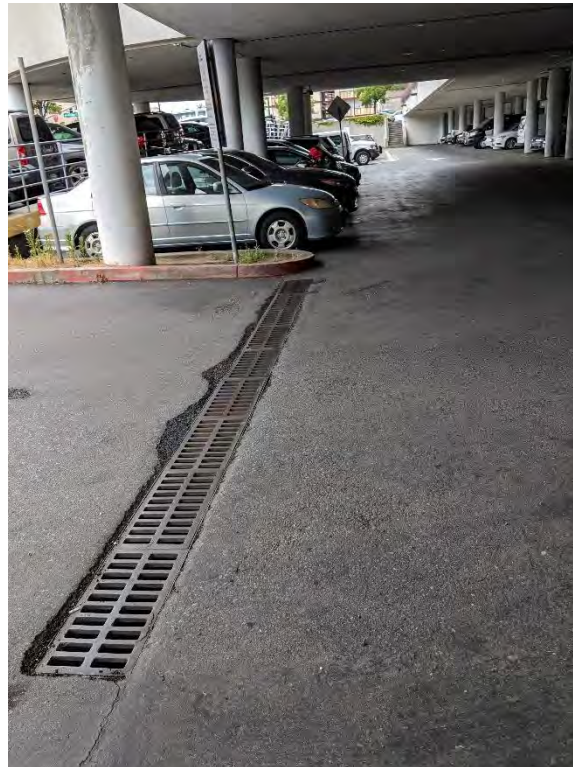
Photograph 14 – ConVault AST located in parking lot at Site 2, covered with metal grating and surrounded by fencing.



Photograph 15 – Below street grade parking lot behind the three-story office building on Site 2, facing southeast.



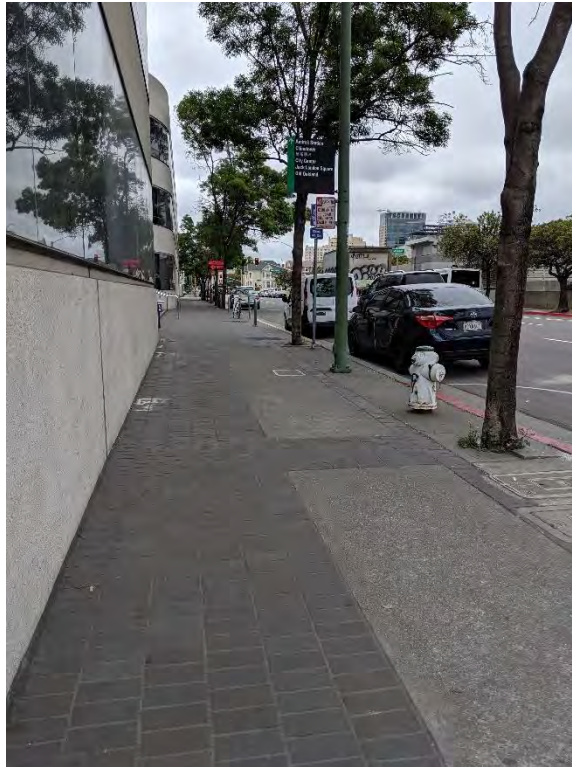
Photograph 16 – Additional parking lot behind the three-story office building on Site 2, facing southeast.



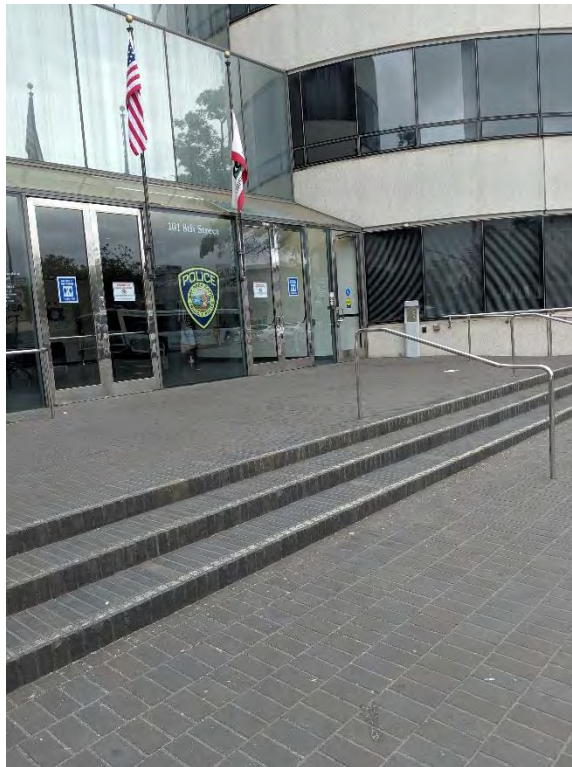
Photograph 17 – Catch basin in Site 2 parking lot, facing northwest.



Photograph 18 – Vert-I-Pack Compactor at Site 2, facing east.



Photograph 19 – View of 8th Street along Site 2, facing northwest.



Photograph 20 – Front entrance of BART Police Station at Site 2, facing west.



Photograph 21 – View of adjacent residential property along Oak Street at Site 2, facing southeast.



Photograph 22 – View of Lake Merritt BART plaza across 8th Street from Site 2, facing north.

**APPENDIX B
USER QUESTIONNAIRE**

DRAFT

**ASTM PRACTICE E 1527-13:
OWNER/OPERATOR/SITE-MANAGER QUESTIONNAIRE**

Please complete the below form and return to
Langan Engineering and Environmental Services, Inc.

Project Location/Address: **Lake Merritt BART Station Development
Oakland, California**

ASTM E-1527-13, Section 10.9

- Do you know of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property? Yes No
- Do you know of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property? Yes No
- Do you know of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products? Yes No

ASTM E-1527-13, Section 10.8

Are you aware if any of the documents listed below exists and if so, whether copies can and will be provided to the Consultant performing the ESA?

	Unaware	Document Exists	Copy will be provided
Environmental site assessment reports	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental compliance audit reports	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental permits (such as solid waste disposal permits, hazardous waste disposal permits, NPDES permits, wastewater permits, underground injection permits)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Registrations for underground and aboveground storage tanks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Material safety data sheets	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Community-right-to-know plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety plans; preparedness and prevention plans; spill prevention, countermeasure and control plans, facility response plans, etc.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reports regarding hydrogeologic conditions on the property or surrounding area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Notices or other correspondence from any government agency relating to past or current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hazardous waste generator notices or reports	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Geotechnical studies	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Risk Assessments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Unaware	Document Exists	Copy will be provided
Recorded Activity and Use Limitations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental Cleanup Reports	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Do you have contact information for the prior owner of the property? Yes No

If yes, please provide information below:

Prior Owner's Name _____

Contact Person _____

Address _____

Telephone _____

Do you have contact information for the prior occupant of the property? Yes No

If yes, please provide information below:

Prior Occupant's Name _____

Contact person _____

Address _____

Telephone _____

Do you have information on the prior facility manager of the property? Yes No

If yes, please provide information below:

Prior Facility Manager's Name _____

Contact person _____

Address _____

Telephone _____

This form was completed by:

Property Owner Operator Key Site Manager User EP

Name: EDWARD MOORE

Address: 300 LAKE SIDE DRIVE, P.O. Box 12688
OAKLAND, CA 94664-2688

Signature: Edward Moore Date: 5-1-19

23 April 2019

Mr. Bryan Fat
Strada Investment Group
101 Mission Street, Suite 420
San Francisco, California 94105

**Subject: Request for Information
Phase I Environmental Site Assessment
Lake Merritt BART Station Development
Oakland, California
Langan Project No.: 750650002**

Dear Mr. Fat:

Langan is pleased at the opportunity to conduct a Phase I Environmental Site Assessment (ESA) for the Lake Merritt BART Station Development (Site) property located in Oakland, California. To provide a more comprehensive assessment, we respectfully request that the current Site owners, operators, and/or managers provide the information listed attached. Please forward this request to the current Site owners, operators, and/or managers and return to us by email or fax. Please also send us any such documentation that you may have regarding this information.

We appreciate your assistance in initiating this assessment. If you have any questions, contact me at (415) 955-5224.

Sincerely yours,
Langan Engineering and Environmental Services, Inc.



Wendy Kwong
Staff Scientist

750650002_Owner-Operator-Site Manager Questionnaire_LM BART

ASTM PRACTICE E 1527-13: USER/CLIENT QUESTIONNAIRE

Please complete the below form and return to
Langan Engineering and Environmental Services, Inc.

Providing the following information (if available) to the environmental professional (Langan) is one of the requirements to qualify for one of the *Landowner Liability Protections* offered under CERCLA. Missing or incomplete information could result in a determination that "all appropriate inquiry" is not complete.

General Information

User/Client Name (s): Strada

Property Name: Lake Merritt BART Station Development

Addresses: 800 Madison Street and 2-98 8th Street

Oakland, California

Property Type: Redevelopment sites

Type of Property Transaction:

- | | |
|-----------------------|-------------------------------------|
| Purchase of property | <input type="checkbox"/> |
| Financing of property | <input type="checkbox"/> |
| Sale of property | <input type="checkbox"/> |
| Ground Lease | <input checked="" type="checkbox"/> |
| Build to Suit Lease | <input type="checkbox"/> |
| Other _____ | <input type="checkbox"/> |

Reason Why Phase I ESA is required: Entitlements.

Site Contact (s): GARY ANDERSON, Senior REAL ESTATE OFFICER, BART
510-414-6674; GANDERS@BART.GOV

Required Information

The citation at the end of each item (e.g. 40 CFR 312.XX) is the section of EPA's November 1, 2005 AAI Final Rule which discusses that item.

(1.) Environmental cleanup liens that are filed or recorded against the property (40 CFR 312.25).

Yes No

Did a search of recorded land title records (or judicial records where appropriate, see Note 1 below) identify any environmental liens filed or recorded against the property under federal, tribal, state or local law? [Please note, unless specifically delegated in the Scope of Work for the Phase I ESA, it is the User's responsibility to undertake a review of recorded land title records and judicial records to identify any environmental liens and to report these liens to the environmental professional conducting a Phase I ESA.]

Note 1 – In certain jurisdictions, federal, tribal, state or local statutes, or regulations specify that environmental liens and AULs be filed in judicial records rather than in land title records. In such cases judicial records must be searched for environmental liens and AULs.

ASTM PRACTICE E 1527-13: USER/CLIENT QUESTIONNAIRE

(2.) Activity and use limitations that are in place on the site or that have been filed or recorded against the property (40 CFR 312.26(a)(1)(v) and vi)). Yes No

Did a search of recorded land title records (or judicial records where appropriate, see Note 1 above) identify any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been filed or recorded against the property under federal, tribal, state or local law? [Please note, unless specifically delegated in the Scope of Work for the ESA, it is the User's responsibility to undertake a review of recorded land title records and judicial records to identify any activity and use limitations and to report these limitations to the environmental professional conducting a Phase I Environmental Site Assessment.]

CC&RS

(3.) Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28). Yes No

Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the, current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

(4.) Relationship of the purchase price to the fair market value of the property if it were not contaminated (40 CFR 312.29). Yes No

- (a.) Does the purchase price being paid for this property reasonably reflect the fair market value of the property? [If no, proceed to Parts 4a and 4b.]
- (b.) If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?
- (c.) Identify an explanation for the lower price and provide a written record of such explanation as an attachment.

 ground lease not applicable

(5.) Commonly known or reasonably known or reasonably ascertainable information about the property (40 CFR 312.30). Yes No

Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example,

- (a.) Do you know the past uses of the property?
- (b.) Do you know of specific chemicals that are present or once were present at the property?
- (c.) Do you know of spills or other chemical releases that have taken place at the property?
- (d.) Do you know of any environmental cleanups that have taken place at the property?

(6.) The degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate Investigation (40 CFR 312.31). Yes No

Based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of releases at the property?

ASTM E-1527-13, Section 10.9

Do you know of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property?

Yes No

Do you know of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property?

Yes No

ASTM PRACTICE E 1527-13: USER/CLIENT QUESTIONNAIRE

Do you know of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?

Yes No

ASTM E-1527-13, Section 10.8

Are you aware if any of the documents listed below exists and if so, whether copies can and will be provided to the Consultant performing the ESA?

	Unaware	Document Exists	Copy will be provided
Environmental site assessment reports	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental compliance audit reports	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental permits (such as solid waste disposal permits, hazardous waste disposal permits, NPDES permits, wastewater permits, underground injection permits)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Registrations for underground and aboveground storage tanks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Material safety data sheets	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Community-right-to-know plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety plans; preparedness and prevention plans; spill prevention, countermeasure and control plans, facility response plans, etc.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reports regarding hydrogeologic conditions on the property or surrounding area <i>to be provided to engineer</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Notices or other correspondence from any government agency relating to past or current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hazardous waste generator notices or reports	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Geotechnical studies	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Risk Assessments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recorded Activity and Use Limitations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental Cleanup Reports	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Do you have contact information for the prior owner of the property? Yes No
 If yes, please provide information below:

Prior Owner's Name _____

Contact person _____

Address _____

Telephone _____

ASTM PRACTICE E 1527-13: USER/CLIENT QUESTIONNAIRE

Do you have contact information for the prior occupant of the property? Yes No
If yes, please provide information below:

Prior Occupant's Name _____

Contact person _____

Address _____

Telephone _____

Do you have information on the prior facility manager of the property? Yes No
If yes, please provide information below:

Prior Facility Manager's Name _____

Contact person _____

Address _____

Telephone _____

SIGNATURE:

It is understood that the information presented in this form is an integral part of the Phase I ESA process and that Langan will evaluate and rely on this information in the development of the final Phase I ESA report.

This form was completed by:

Property Owner Operator Key Site Manager User EP

Print/Type Name: BRYAN FIAT

Title: ASSOCIATE

Company: STRADA INVESTMENT GROUP

Date: 4/24/19

EXHIBIT A

The land referred to is situated in the County of Alameda, City of Oakland, State of California, and is described as follows:

PARCEL ONE:

Being a portion of Block 135, Kellersberger's Map of Oakland, Alameda County Records.

Beginning at the intersection of the Eastern line of Oak Street with the Southern line of 9th Street; running thence Southerly along said line of Oak Street 32 feet, 6 inches; thence at right angles Easterly 120 feet; thence at right angles Northerly 32 feet, 6 inches to said line of 9th Street; thence Westerly along said last named line 120 feet to the point of beginning.

PARCEL TWO:

Being a portion of Block 135, Kellersberger's Map of Oakland, Alameda County Records.

Beginning at a point on the Eastern line of Oak Street, distant thereon Southerly, 32 feet 6 inches from the point of intersection thereof with the Southern line of 9th Street; and running thence Southerly along said line of Oak Street, 30 feet; thence at a right angle Easterly, 120 feet; thence at a right angle Northerly, 30 feet; thence at a right angle Westerly, 120 feet to the point of beginning.

PARCEL THREE:

Being a portion of Block 135, Kellerberger's Map of Oakland, Alameda County Records.

Beginning at a point on the Eastern line of Oak Street, distant thereon Southerly 62.50 feet from the Southern line of 9th Street; running thence Southwesterly along said line of Oak Street 40 feet; thence at right angles Southeasterly 120 feet; thence at right angles Northeasterly 40 feet; thence at right angles Northwesterly 120 feet to the point of beginning.

PARCEL FOUR:

Being a portion of Block 135, Kellersberger's Map of Oakland, Alameda County Records.

Beginning at a point on the Eastern line of Oak Street distant thereon 57 feet, 6 inches Northerly from the point of intersection thereof with the Northern line of 8th Street; and running thence Northerly along the said line of Oak Street 40 feet; thence at right angles Easterly 120 feet; thence at right angles Southerly 40 feet; thence at right angles Westerly 120 feet to the point of beginning.

PARCEL FIVE:

Being a portion of Block 135, Kellersberger's Map of Oakland, Alameda County Records.

Beginning at the point formed by the intersection of the Northern line of 8th Street, with the Eastern line of Oak Street, as said streets are shown on the Map herein referred to; running thence Easterly along said line of 8th Street, 47 feet, 6 inches; thence at right angles Northerly, 57 feet, 6 inches; thence at right angles Westerly, 47 feet, 6 inches, to said line of Oak Street; and thence Southerly along said line of Oak Street, 57 feet, 6 inches, to the point of beginning.

PARCEL SIX:

Being a portion of Block 135, Kellersberger's Map of Oakland, Alameda County Records.

Beginning at a point on the Northern line of the 8th Street, distant thereon Easterly 47 feet, 6 inches from the intersection thereof with the Eastern line of Oak Street, as said streets are shown on the Map herein referred to; running thence Easterly along said line of 8th Street, 72 feet, 6 inches; thence at right angles Northerly 57 feet, 6 inches; thence at right angles Westerly 72 feet, 6 inches; thence at right angles Southerly 57 feet, 6 inches, to the point of beginning.

PARCEL SEVEN:

Being a portion of Block 135, Kellersberger's Map of Oakland, Alameda County Records.

Beginning at a point on the Northern line of 8th Street, distant thereon 120 feet Easterly from the intersection thereof with the Eastern line of Oak Street; running thence Easterly along said Northern line of 8th Street, 40 feet; thence at right angles Northerly, 100 feet; thence at right angles Westerly 40 feet; thence at right angles Southerly, 100 feet to the point of beginning.

PARCEL EIGHT:

Being Lot 24 and the Eastern 15 feet of Lot 25 in Block 135, Kellersberger's Map of Oakland, Alameda County Records.

Beginning at a point on the Northern line of 8th Street, distant thereon Westerly 100 feet from the intersection thereof with the Western line of Fallon Street; running thence Westerly along said line of 8th Street 40 feet; thence at right angles Northerly 100 feet; thence at right angles Easterly 40 feet; thence at right angles Southerly 100 feet to the point of beginning.

PARCEL NINE:

Being Lots 19, 20, 21, 22 and 23, in Block 135, Kellersberger's Map of Oakland, Alameda County Records.

Beginning at the point of intersection of the Northern line of 8th Street, with the Western line of Fallon Street, as said streets are shown on the Map herein referred to; and running thence Westerly along said line of 8th Street, 100 feet; thence at right angles Northerly, 100 feet; thence at right angles Easterly, 100 feet to said Western line of Fallon Street; and thence Southerly along said last named line, 100 feet to the point of beginning.

PARCEL TEN:

Being the Eastern 15 feet of Lot 12 and all of Lots 13, 14, 15, 16, 17 and 18 in Block 135, Kellersberger's Map of Oakland, Alameda County Records.

Beginning at the point of intersection of the Western line of Fallon Street with the Southern line of 9th Street, as said streets are shown on the Map hereinafter referred to; running thence Westerly, along said line of 9th Street, 140 feet; thence at right angles Southerly 100 feet; thence at right angles Easterly 140 feet to said Western line of Fallon Street; thence at right angles Northerly, along the last named line, 100 feet to the point of beginning.

PARCEL ELEVEN:

Being the Eastern 5 feet of Lot 10, all of Lot 11 and the Western 10 feet of Lot 12, in Block 135, "Kellersberger's Map of Oakland, Alameda County Records.

Beginning at a point on the Southern line of 9th Street, distant thereon 140 feet Westerly from the point of intersection thereof with the Western line of Fallon Street, as said streets are shown on the Map herein referred to; running thence Westerly along said line of 9th Street 40 feet; thence at right angles Southerly 100 feet to the Southern boundary line of Lot 10, in Block 135, as shown on said Map; thence Easterly along the Southern boundary line of Lots 10, 11 and 12, in said block 135, 40 feet; thence at right angles Northerly 100 feet to the point of beginning.

APN: 001-0169-001



OLD REPUBLIC
TITLE COMPANY

555 12th Street, Suite 2000
Oakland, CA 94607
(510) 272-1121 Fax: (510) 208-5045

PRELIMINARY REPORT

Our Order Number 1117019609-JM

EBALDC
1825 San Pablo Ave #200
Oakland, CA 94612

Attention: J VARGAS

When Replying Please Contact:

Julie Massey
JMassey@ortc.com
(510) 272-1121

Property Address:

51 9th Street, Oakland, CA 94607

In response to the above referenced application for a policy of title insurance, OLD REPUBLIC TITLE COMPANY, as issuing Agent of Old Republic National Title Insurance Company, hereby reports that it is prepared to issue, or cause to be issued, as of the date hereof, a Policy or Policies of Title Insurance describing the land and the estate or interest therein hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an Exception below or not excluded from coverage pursuant to the printed Schedules, Conditions and Stipulations of said policy forms.

The printed Exceptions and Exclusions from the coverage and Limitations on Covered Risks of said Policy or Policies are set forth in Exhibit I attached. The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than that set forth in the arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. Limitations on Covered Risks applicable to the Homeowner's Policy of Title Insurance which establish a Deductible Amount and a Maximum Dollar Limit of Liability for certain coverages are also set forth in Exhibit I. Copies of the Policy forms should be read. They are available from the office which issued this report.

Please read the exceptions shown or referred to below and the exceptions and exclusions set forth in Exhibit I of this report carefully. The exceptions and exclusions are meant to provide you with notice of matters which are not covered under the terms of the title insurance policy and should be carefully considered.

It is important to note that this preliminary report is not a written representation as to the condition of title and may not list all liens, defects, and encumbrances affecting title to the land.

This report (and any supplements or amendments hereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby. If it is desired that liability be assumed prior to the issuance of a policy of title insurance, a Binder or Commitment should be requested.

Dated as of August 23, 2018, at 7:30 AM

OLD REPUBLIC TITLE COMPANY
For Exceptions Shown or Referred to, See Attached

OLD REPUBLIC TITLE COMPANY
ORDER NO. 1117019609-JM

The form of policy of title insurance contemplated by this report is:

ALTA Loan Policy - 2006. A specific request should be made if another form or additional coverage is desired.

The estate or interest in the land hereinafter described or referred or covered by this Report is:

Fee

Title to said estate or interest at the date hereof is vested in:

San Francisco Bay Area Rapid Transit District

The land referred to in this Report is situated in the County of Alameda, City of Oakland, State of California, and is described as follows:

PARCEL ONE:

Being a portion of Block 135, Kellersberger's Map of Oakland, Alameda County Records.

Beginning at the intersection of the Eastern line of Oak Street with the Southern line of 9th Street; running thence Southerly along said line of Oak Street 32 feet, 6 inches; thence at right angles Easterly 120 feet; thence at right angles Northerly 32 feet, 6 inches to said line of 9th Street; thence Westerly along said last named line 120 feet to the point of beginning.

PARCEL TWO:

Being a portion of Block 135, Kellersberger's Map of Oakland, Alameda County Records.

Beginning at a point on the Eastern line of Oak Street, distant thereon Southerly, 32 feet 6 inches from the point of intersection thereof with the Southern line of 9th Street; and running thence Southerly along said line of Oak Street, 30 feet; thence at a right angle Easterly, 120 feet; thence at a right angle Northerly, 30 feet; thence at a right angle Westerly, 120 feet to the point of beginning.

PARCEL THREE:

Being a portion of Block 135, Kellersberger's Map of Oakland, Alameda County Records.

Beginning at a point on the Eastern line of Oak Street, distant thereon Southerly 62.50 feet from the Southern line of 9th Street; running thence Southwesterly along said line of Oak Street 40 feet; thence at right angles Southeasterly 120 feet; thence at right angles Northeasterly 40 feet; thence at right angles Northwesterly 120 feet to the point of beginning.

PARCEL FOUR:

Being a portion of Block 135, Kellersberger's Map of Oakland, Alameda County Records.

Beginning at a point on the Eastern line of Oak Street distant thereon 57 feet, 6 inches Northerly from the point of intersection thereof with the Northern line of 8th Street; and running thence Northerly along the said

OLD REPUBLIC TITLE COMPANY
ORDER NO. 1117019609-JM

line of Oak Street 40 feet; thence at right angles Easterly 120 feet; thence at right angles Southerly 40 feet; thence at right angles Westerly 120 feet to the point of beginning.

PARCEL FIVE:

Being a portion of Block 135, Kellersberger's Map of Oakland, Alameda County Records.

Beginning at the point formed by the intersection of the Northern line of 8th Street, with the Eastern line of Oak Street, as said streets are shown on the Map herein referred to; running thence Easterly along said line of 8th Street, 47 feet, 6 inches; thence at right angles Northerly, 57 feet, 6 inches; thence at right angles Westerly, 47 feet, 6 inches, to said line of Oak Street; and thence Southerly along said line of Oak Street, 57 feet, 6 inches, to the point of beginning.

PARCEL SIX:

Being a portion of Block 135, Kellersberger's Map of Oakland, Alameda County Records.

Beginning at a point on the Northern line of the 8th Street, distant thereon Easterly 47 feet, 6 inches from the intersection thereof with the Eastern line of Oak Street, as said streets are shown on the Map herein referred to; running thence Easterly along said line of 8th Street, 72 feet, 6 inches; thence at right angles Northerly 57 feet, 6 inches; thence at right angles Westerly 72 feet, 6 inches; thence at right angles Southerly 57 feet, 6 inches, to the point of beginning.

PARCEL SEVEN:

Being a portion of Block 135, Kellersberger's Map of Oakland, Alameda County Records.

Beginning at a point on the Northern line of 8th Street, distant thereon 120 feet Easterly from the intersection thereof with the Eastern line of Oak Street; running thence Easterly along said Northern line of 8th Street, 40 feet; thence at right angles Northerly, 100 feet; thence at right angles Westerly 40 feet; thence at right angles Southerly, 100 feet to the point of beginning.

PARCEL EIGHT:

Being Lot 24 and the Eastern 15 feet of Lot 25 in Block 135, Kellersberger's Map of Oakland, Alameda County Records.

Beginning at a point on the Northern line of 8th Street, distant thereon Westerly 100 feet from the intersection thereof with the Western line of Fallon Street; running thence Westerly along said line of 8th Street 40 feet; thence at right angles Northerly 100 feet; thence at right angles Easterly 40 feet; thence at right angles Southerly 100 feet to the point of beginning.

PARCEL NINE:

Being Lots 19, 20, 21, 22 and 23, in Block 135, Kellersberger's Map of Oakland, Alameda County Records.

Beginning at the point of intersection of the Northern line of 8th Street, with the Western line of Fallon Street, as said streets are shown on the Map herein referred to; and running thence Westerly along said line of 8th Street, 100 feet; thence at right angles Northerly, 100 feet; thence at right angles Easterly, 100 feet to said

OLD REPUBLIC TITLE COMPANY
ORDER NO. 1117019609-JM

Western line of Fallon Street; and thence Southerly along said last named line, 100 feet to the point of beginning.

PARCEL TEN:

Being the Eastern 15 feet of Lot 12 and all of Lots 13, 14, 15, 16, 17 and 18 in Block 135, Kellersberger's Map of Oakland, Alameda County Records.

Beginning at the point of intersection of the Western line of Fallon Street with the Southern line of 9th Street, as said streets are shown on the Map hereinafter referred to; running thence Westerly, along said line of 9th Street, 140 feet; thence at right angles Southerly 100 feet; thence at right angles Easterly 140 feet to said Western line of Fallon Street; thence at right angles Northerly, along the last named line, 100 feet to the point of beginning.

PARCEL ELEVEN:

Being the Eastern 5 feet of Lot 10, all of Lot 11 and the Western 10 feet of Lot 12, in Block 135, "Kellersberger's Map of Oakland, Alameda County Records.

Beginning at a point on the Southern line of 9th Street, distant thereon 140 feet Westerly from the point of intersection thereof with the Western line of Fallon Street, as said streets are shown on the Map herein referred to; running thence Westerly along said line of 9th Street 40 feet; thence at right angles Southerly 100 feet to the Southern boundary line of Lot 10, in Block 135, as shown on said Map; thence Easterly along the Southern boundary line of Lots 10, 11 and 12, in said block 135, 40 feet; thence at right angles Northerly 100 feet to the point of beginning.

APN: 001-0169-001

At the date hereof exceptions to coverage in addition to the Exceptions and Exclusions in said policy form would be as follows:

1. Taxes and assessments, general and special, for the fiscal year 2018 - 2019, a lien, but not yet due or payable.
2. Taxes and assessments, general and special, are currently not assessed because of a statutory exemption. Should the statutory exemption change, taxes may be levied against the land.
3. The lien of supplemental taxes, if any, assessed pursuant to the provisions of Section 75, et seq., of the Revenue and Taxation Code of the State of California.

4. The herein described property lying within the proposed boundaries of a Community Facilities District, as follows:

District No : 2014-1
For : Clean Energy
Disclosed By : Assessment Map
Recorded : [August 24, 2015 in Official Records under Recorder's Serial Number 2015235594](#)

Further information may be obtained by contacting:

5. Redevelopment Plan, as follows:

Entitled : Revised Statement of Institution of Redevelopment for the Central District Redevelopment Project
Executed By : Community and Economic Development Agency
Recorded : [December 3, 2007 in Official Records under Recorder's Serial Number 2007409569](#)

And any amendments thereto.

6. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.

7. Any unrecorded and subsisting leases.

8. The requirement that the Company be provided with a copy of the "rent roll" and "tenant estoppel certificates" for its review.

The Company may have different and/or additional requirements after its review.

9. The requirement that this Company be provided with a suitable Owner's Declaration (form ORT 174). The Company reserves the right to make additional exceptions and/or requirements upon review of the Owner's Declaration.

10. The requirement that satisfactory evidence be furnished to this Company of compliance with applicable statutes, ordinances and charters governing the ownership and disposition of the herein described land.

----- Informational Notes -----

- A. The applicable rate(s) for the policy(s) being offered by this report or commitment appears to be section(s) 2.2.
- B. The above numbered report (including any supplements or amendments thereto) is hereby modified and/or supplemented to reflect the following additional items relating to the issuance of an American Land Title Association loan form policy:

NONE

NOTE: Our investigation has been completed and there is located on said land a commercial building known as 51 9th Street, Oakland, CA 94607.

The ALTA loan policy, when issued, will contain the CLTA 100 Endorsement and 116 series Endorsement.

Unless shown elsewhere in the body of this report, there appear of record no transfers or agreements to transfer the land described herein within the last three years prior to the date hereof, except as follows:

NONE

- C. NOTE: The last recorded transfer or agreement to transfer the land described herein is as follows:

Instrument

Entitled : Grant Deed
By/From : Lawrence E. Mulcahy and Mildred L. Mulcahy, his wife
To : San Francisco Bay Area Rapid Transit District
Recorded : [September 1, 1964 in Reel 1308 of Official Records, Image 536](#)

Grant Deed executed by Kum Inn Sin, a widow to San Francisco Bay Area Rapid Transit District recorded [November 6, 1964 in Reel 1358 of Official Records, Image 776](#).

OLD REPUBLIC TITLE COMPANY
ORDER NO. 1117019609-JM

Grant Deed executed by Wong B. Foon and Lim Shee, his wife and Shuck K. Yee, also known as Yee Kim Shuck and Caroline L. Yee, his wife to San Francisco Bay Area Rapid Transit District recorded [June 9, 1965 in Reel 1523 of Official Records, Image 682](#).

Grant Deed executed by Yee On and Lew Shee Yee, his wife, and Yee Kim Shuck, also known as Shuck K. Yee, and Caroline L. Yee, his wife to San Francisco Bay Area Rapid Transit District recorded [June 9, 1965 in Reel 1523 of Official Records, Image 684](#).

Grant Deed executed by American Friends Service Committee, Incorporated, a Delaware corporation to San Francisco Bay Area Rapid Transit District recorded [June 21, 1965 in Reel 1532 of Official Records, Image 462](#).

Final Order of Condemnation executed by Hom Fang, et al to San Francisco Bay Area Rapid Transit District, a public body, corporate and politic recorded [April 21, 1965 in Reel 1486 of Official Records, Image 735](#).

Final Order of Condemnation executed by Edward Fong and Kam Sheung Fong, his wife, as joint tenants to San Francisco Bay Area Rapid Transit District, a public body, corporate and politic recorded [May 13, 1965 in Reel 1503 of Official Records, Image 632](#).

Final Order of Condemnation executed by Henry Marr, also known as Mar Gay Sing to San Francisco Bay Area Rapid Transit District, a public body, corporate and politic recorded [May 13, 1965 in Reel 1503 of Official Records, Image 635](#).

Final Order of Condemnation executed by Chin Quong Gooley to San Francisco Bay Area Rapid Transit District, a public body, corporate and politic recorded [May 13, 1965 in Reel 1503 of Official Records, Image 638](#).

Final Order of Condemnation executed by Yee Chai Chew and Woon San Chew, his wife to San Francisco Bay Area Rapid Transit District, a public body, corporate and politic recorded [May 13, 1965 in Reel 1503 of Official Records, Image 641](#).

Final Order of Condemnation executed by Mary S. McElrath, et al to San Francisco Bay Area Rapid Transit District, a public body, corporate and politic recorded [May 17, 1965 in Reel 1506 of Official Records, Image 373](#).

**AMERICAN LAND TITLE ASSOCIATION
LOAN POLICY OF TITLE INSURANCE - 2006
EXCLUSIONS FROM COVERAGE**

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection; or the effect of any violation of these laws, ordinances, or governmental regulations.This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
- (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
 - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
 - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
 - (c) resulting in no loss or damage to the Insured Claimant;
 - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13, or 14); or
 - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.
6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
 - (a) a fraudulent conveyance or fraudulent transfer, or
 - (b) a preferential transfer for any reason not stated in Covered Risk 13(b) of this policy.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

EXCEPTIONS FROM COVERAGE – SCHEDULE B, PART 1, SECTION ONE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) that arise by reason of:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.



**WHAT DOES OLD REPUBLIC TITLE
DO WITH YOUR PERSONAL INFORMATION?**

Why?	Financial companies choose how they share your personal information. Federal law gives consumers the right to limit some but not all sharing. Federal law also requires us to tell you how we collect, share, and protect your personal information. Please read this notice carefully to understand what we do.
What?	The types of personal information we collect and share depend on the product or service you have with us. This information can include: <ul style="list-style-type: none"> • Social Security number and employment information • Mortgage rates and payments and account balances • Checking account information and wire transfer instructions When you are no longer our customer, we continue to share your information as described in this notice.
How?	All financial companies need to share customers' personal information to run their everyday business. In the section below, we list the reasons financial companies can share their customers' personal information; the reasons Old Republic Title chooses to share; and whether you can limit this sharing.

Reasons we can share your personal information	Does Old Republic Title share?	Can you limit this sharing?
For our everyday business purposes — such as to process your transactions, maintain your account(s), or respond to court orders and legal investigations, or report to credit bureaus	Yes	No
For our marketing purposes — to offer our products and services to you	No	We don't share
For joint marketing with other financial companies	No	We don't share
For our affiliates' everyday business purposes — information about your transactions and experiences	Yes	No
For our affiliates' everyday business purposes — information about your creditworthiness	No	We don't share
For our affiliates to market to you	No	We don't share
For non-affiliates to market to you	No	We don't share

Go to www.oldrepublictitle.com (Contact Us)

Who we are	
Who is providing this notice?	Companies with an Old Republic Title name and other affiliates. Please see below for a list of affiliates.

What we do	
How does Old Republic Title protect my personal information?	To protect your personal information from unauthorized access and use, we use security measures that comply with federal law. These measures include computer safeguards and secured files and buildings. For more information, visit http://www.OldRepublicTitle.com/newnational/Contact/privacy .
How does Old Republic Title collect my personal information?	<p>We collect your personal information, for example, when you:</p> <ul style="list-style-type: none"> • Give us your contact information or show your driver's license • Show your government-issued ID or provide your mortgage information • Make a wire transfer <p>We also collect your personal information from others, such as credit bureaus, affiliates, or other companies.</p>
Why can't I limit all sharing?	<p>Federal law gives you the right to limit only:</p> <ul style="list-style-type: none"> • Sharing for affiliates' everyday business purposes - information about your creditworthiness • Affiliates from using your information to market to you • Sharing for non-affiliates to market to you <p>State laws and individual companies may give you additional rights to limit sharing. See the "Other important information" section below for your rights under state law.</p>

Definitions	
Affiliates	<p>Companies related by common ownership or control. They can be financial and nonfinancial companies.</p> <ul style="list-style-type: none"> • Our affiliates include companies with an Old Republic Title name, and financial companies such as Attorneys' Title Fund Services, LLC, Lex Terrae National Title Services, Inc., Mississippi Valley Title Services Company, and The Title Company of North Carolina.
Non-affiliates	<p>Companies not related by common ownership or control. They can be financial and non-financial companies.</p> <ul style="list-style-type: none"> • Old Republic Title does not share with non-affiliates so they can market to you
Joint marketing	<p>A formal agreement between non-affiliated financial companies that together market financial products or services to you.</p> <ul style="list-style-type: none"> • Old Republic Title doesn't jointly market.

Other Important Information

Oregon residents only: We are providing you this notice under state law. We may share your personal information (described on page one) obtained from you or others with non-affiliate service providers with whom we contract, such as notaries and delivery services, in order to process your transactions. You may see what personal information we have collected about you in connection with your transaction (other than personal information related to a claim or legal proceeding). To see your information, please click on "Contact Us" at www.oldrepublictitle.com and submit your written request to the Legal Department. You may see and copy the information at our office or ask us to mail you a copy for a reasonable fee. If you think any information is wrong, you may submit a written request online to correct or delete it. We will let you know what actions we take. If you do not agree with our actions, you may send us a statement.

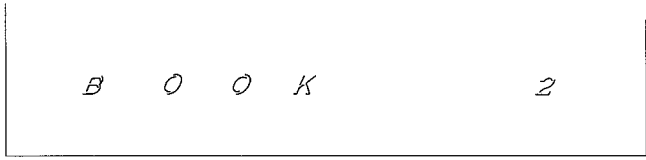
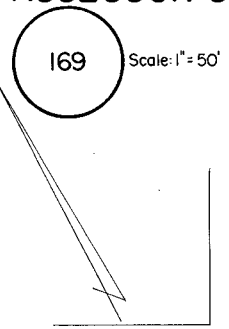
Affiliates Who May be Delivering This Notice

American First Abstract, LLC	American First Title & Trust Company	American Guaranty Title Insurance Company	Attorneys' Title Fund Services, LLC	Compass Abstract, Inc.
eRecording Partners Network, LLC	Genesis Abstract, LLC	Kansas City Management Group, LLC	L.T. Service Corp.	Lenders Inspection Company
Lex Terrae National Title Services, Inc.	Lex Terrae, Ltd.	Mara Escrow Company	Mississippi Valley Title Services Company	National Title Agent's Services Company
Old Republic Branch Information Services, Inc.	Old Republic Diversified Services, Inc.	Old Republic Exchange Company	Old Republic National Title Insurance Company	Old Republic Title and Escrow of Hawaii, Ltd.
Old Republic Title Co.	Old Republic Title Company of Conroe	Old Republic Title Company of Indiana	Old Republic Title Company of Nevada	Old Republic Title Company of Oklahoma
Old Republic Title Company of Oregon	Old Republic Title Company of St. Louis	Old Republic Title Company of Tennessee	Old Republic Title Information Concepts	Old Republic Title Insurance Agency, Inc.
Old Republic Title, Ltd.	Republic Abstract & Settlement, LLC	Sentry Abstract Company	The Title Company of North Carolina	Title Services, LLC
Trident Land Transfer Company, LLC				

ASSESSOR'S MAP I

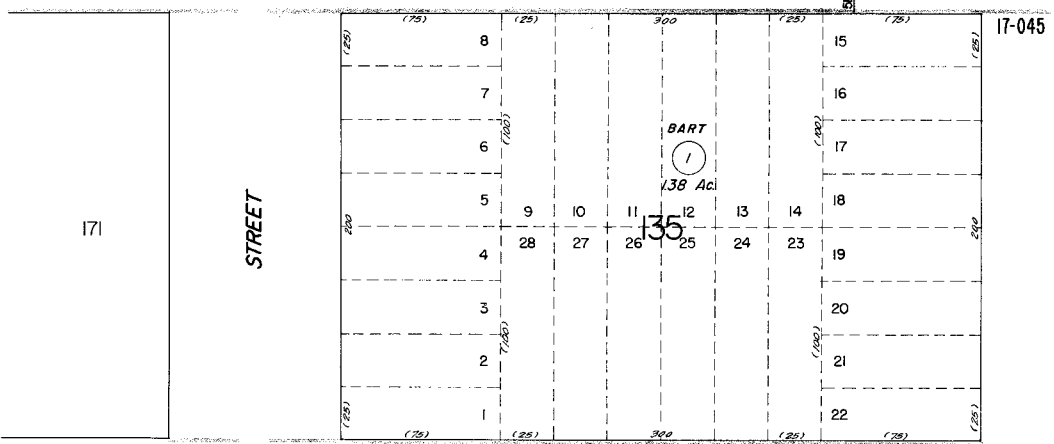
Code Area Nos. 17-022 17-045

OAKLAND (KELLERSBERGER'S) (Bk. 7 Pg. 3)

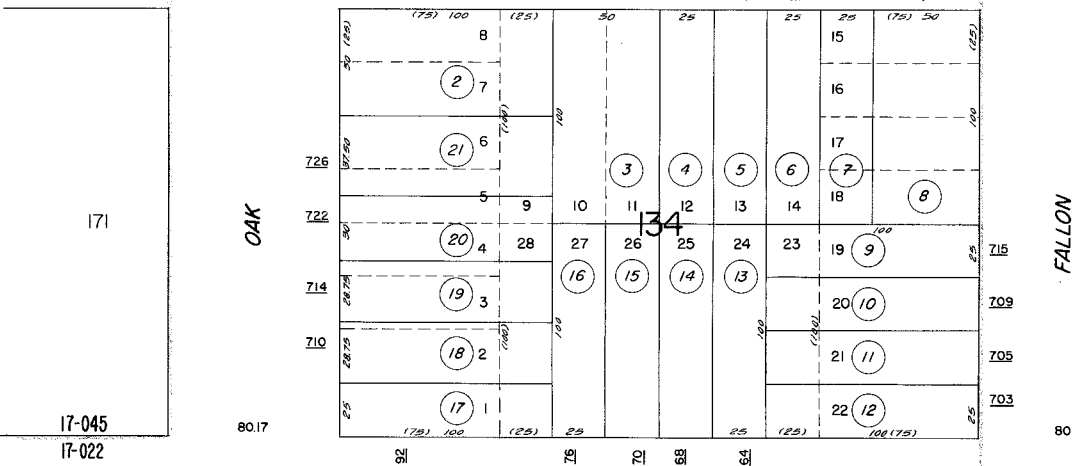


9TH STREET 77

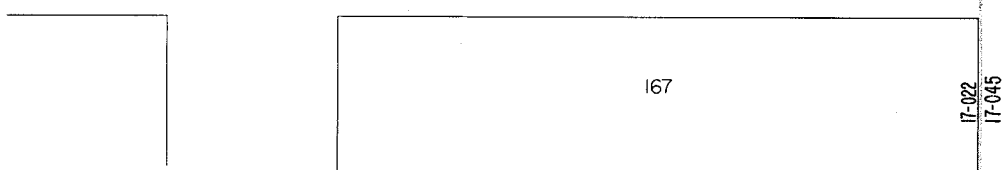
Drawn: 9-67R.H.S. Revised: 3-5-76 T.S. 11-09-10 LL



8TH STREET 80, 85



7TH STREET 80, 75



A.C.M.

Reference:

H.P.N. 21

EXHIBIT A

The land referred to is situated in the County of Alameda, City of Oakland, State of California, and is described as follows:

Block 126, map of Kellersberger's Map of the City of Oakland, on file in the office of the County Recorder of Alameda County.

APN: 001-0171-002



OLD REPUBLIC
TITLE COMPANY

555 12th Street, Suite 2000
Oakland, CA 94607
(510) 272-1121 Fax: (510) 208-5045

PRELIMINARY REPORT

Our Order Number 1117019239-JM

SAN FRANCISCO BAY AREA RAPID TRANSIT
DISTRICT
300 Lakeside Drive #22
Oakland, CA 94612

When Replying Please Contact:

Julie Massey
JMassey@ortc.com
(510) 272-1121

Property Address:

107 8th Street, Oakland, CA 94607

In response to the above referenced application for a policy of title insurance, OLD REPUBLIC TITLE COMPANY, as issuing Agent of Old Republic National Title Insurance Company, hereby reports that it is prepared to issue, or cause to be issued, as of the date hereof, a Policy or Policies of Title Insurance describing the land and the estate or interest therein hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an Exception below or not excluded from coverage pursuant to the printed Schedules, Conditions and Stipulations of said policy forms.

The printed Exceptions and Exclusions from the coverage and Limitations on Covered Risks of said Policy or Policies are set forth in Exhibit I attached. The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than that set forth in the arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. Limitations on Covered Risks applicable to the Homeowner's Policy of Title Insurance which establish a Deductible Amount and a Maximum Dollar Limit of Liability for certain coverages are also set forth in Exhibit I. Copies of the Policy forms should be read. They are available from the office which issued this report.

Please read the exceptions shown or referred to below and the exceptions and exclusions set forth in Exhibit I of this report carefully. The exceptions and exclusions are meant to provide you with notice of matters which are not covered under the terms of the title insurance policy and should be carefully considered.

It is important to note that this preliminary report is not a written representation as to the condition of title and may not list all liens, defects, and encumbrances affecting title to the land.

This report (and any supplements or amendments hereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby. If it is desired that liability be assumed prior to the issuance of a policy of title insurance, a Binder or Commitment should be requested.

Dated as of June 1, 2018, at 7:30 AM

OLD REPUBLIC TITLE COMPANY
For Exceptions Shown or Referred to, See Attached

OLD REPUBLIC TITLE COMPANY
ORDER NO. 1117019239-JM

The form of policy of title insurance contemplated by this report is:

CLTA Standard Coverage Policy -1990; AND ALTA Loan Policy - 2006. A specific request should be made if another form or additional coverage is desired.

The estate or interest in the land hereinafter described or referred or covered by this Report is:

Fee

Title to said estate or interest at the date hereof is vested in:

San Francisco Bay Area Rapid Transit District, a rapid transit district created by the San Francisco Bay Area Rapid Transit District Act pursuant to Public Utilities Code Section 28500 et seq.

The land referred to in this Report is situated in the County of Alameda, City of Oakland, State of California, and is described as follows:

Block 126, map of Kellersberger's Map of the City of Oakland, on file in the office of the County Recorder of Alameda County.

APN: 001-0171-002

At the date hereof exceptions to coverage in addition to the Exceptions and Exclusions in said policy form would be as follows:

1. Taxes and assessments, general and special, for the fiscal year 2018 - 2019, a lien, but not yet due or payable.

2. Taxes and assessments, general and special, for the fiscal year 2017 - 2018, as follows:

Assessor's Parcel No	:	001 -0171-002	
Bill No.	:	010781	
Code No.	:	17-045	
1st Installment	:	\$0.00 No Tax Due	NOT Marked Paid
2nd Installment	:	\$0.00 No Tax Due	NOT Marked Paid

3. Taxes and assessments, general and special, are currently not assessed because of a statutory exemption. Should the statutory exemption change, taxes may be levied against the land.

Public Utility - contact State Board of Equalization

OLD REPUBLIC TITLE COMPANY
ORDER NO. 1117019239-JM

4. The lien of supplemental taxes, if any, assessed pursuant to the provisions of Section 75, et seq., of the Revenue and Taxation Code of the State of California.

5. Covenant and agreement,

Executed By : The City of Oakland
In Favor Of : Bay Area Rapid Transit District
Recorded : [November 30, 1982 in Official Records under Recorder's Serial Number 1982-182279](#)

Which Among Other Things Provides : Street encroachment permits

Note: Reference is made to said instrument for full particulars.

6. Covenant and agreement,

Executed By : Special Major Conditional Street Encroachment Disclaimer and Agreement
In Favor Of : San Francisco Bay Area Rapid Transit District
Recorded : [August 22, 1983 in Official Records under Recorder's Serial Number 1983-153821](#)

Which Among Other Things Provides : Street encroachments

Note: Reference is made to said instrument for full particulars.

7. Covenants, Conditions, Restrictions, Limitations, Easements, Assessments, Reservations, Exceptions, Terms, Liens or Charges, but omitting any covenants or restrictions if any, based upon race, color, religion, sex, handicap, familial status, or national origin unless and only to the extent that said covenant (a) is exempt under Title 42, Section 3607 of the United States Code or (b) relates to handicap but does not discriminate against handicapped persons, as provided in an instrument.

Entitled : Declaration of Covenants, Conditions and Restrictions of the Regional Administrative Facility
Executed By : San Francisco Bay Area Rapid Transit District
Recorded : [August 22, 1983 in Official Records under Recorder's Serial Number 1983-153821](#)

OLD REPUBLIC TITLE COMPANY
ORDER NO. 1117019239-JM

Said Covenants, Conditions and Restrictions provide that a violation thereof shall not defeat or render invalid the lien of any Mortgage or Deed of Trust made in good faith and for value.

NOTE: "If this document contains any restriction based on race, color, religion, sex, sexual orientation, familial status, marital status, disability, national origin, source of income as defined in subdivision (p) of section 12955, or ancestry, that restriction violates state and federal fair housing laws and is void, and may be removed pursuant to Section 12956.2 of the Government Code. Lawful restrictions under state and federal law on the age of occupants in senior housing or housing for older persons shall not be construed as restrictions based on familial status."

8. Covenants, Conditions, Restrictions, Limitations, Easements, Assessments, Reservations, Exceptions, Terms, Liens or Charges, but omitting any covenants or restrictions if any, based upon race, color, religion, sex, handicap, familial status, or national origin unless and only to the extent that said covenant (a) is exempt under Title 42, Section 3607 of the United States Code or (b) relates to handicap but does not discriminate against handicapped persons, as provided in an instrument.

Recorded : [December 27, 1984 in Official Records under Recorder's Serial Number 1984-254126](#)

9. Liens and charges for upkeep and maintenance as provided in the above mentioned Covenants, Conditions and Restrictions, if any, where no notice thereof appears on record.

Notwithstanding the Mortgagee protection clause contained in the above mentioned covenants, conditions and restrictions, they provide that the liens and charges for upkeep and maintenance are subordinate only to a first mortgage.

10. The requirement that satisfactory evidence be furnished to this Company of compliance with applicable statutes, ordinances and charters governing the ownership and disposition of the herein described land.
11. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
12. Any unrecorded and subsisting leases.

13. The requirement that this Company be provided with a suitable Owner's Declaration (form ORT 174). The Company reserves the right to make additional exceptions and/or requirements upon review of the Owner's Declaration.

----- Informational Notes -----

- A. The applicable rate(s) for the policy(s) being offered by this report or commitment appears to be section(s) 1.1 and 2.1.

- B. NOTE: The last recorded transfer or agreement to transfer the land described herein is as follows:

Instrument
Entitled : Grant Deed
By/From : San Francisco Bay Area Rapid Transit District, a Rapid Transit District established pursuant to public utilities code 28500, et seq.
To : Metropolitan Transportation Commission, a statutorily created regional transportation planning agency pursuant to government code section 66500, et seq.
Recorded : [February 22, 2005 in Official Records under Recorder's Serial Number 2005-070031](#)

**CALIFORNIA LAND TITLE ASSOCIATION
STANDARD COVERAGE POLICY - 1990
EXCLUSIONS FROM COVERAGE**

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building or zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien, or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.-

(b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.
3. Defects, liens, encumbrances, adverse claims or other matters:
 - (a) whether or not recorded in the public records at Date of Policy, but created, suffered, assumed or agreed to by the insured claimant;
 - (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;.
 - (c) resulting in no loss or damage to the insured claimant;
 - (d) attaching or created subsequent to Date of Policy; or
 - (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the insured mortgage or for the estate or interest insured by this policy.
4. Unenforceability of the lien of the insured mortgage because of the inability or failure of the insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with the applicable doing business laws of the state in which the land is situated.
5. Invalidity or unenforceability of the lien of the insured mortgage, or claim thereof, which arises out of the transaction evidenced by the insured mortgage and is based upon usury or any consumer credit protection or truth in lending law.
6. Any claim, which arises out of the transaction vesting in the insured the estate of interest insured by this policy or the transaction creating the interest of the insured lender, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights laws.

EXCEPTIONS FROM COVERAGE - SCHEDULE B, PART I

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments Which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records.

Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.
2. Any facts, rights, interests, or claims Which are not shown by the public records but which could be ascertained by an inspection of the land which may be asserted by persons in possession thereof,
3. Easements, liens or encumbrances, or claims thereof, which are not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown by the public records.
6. Any lien or right to a lien for services, labor or material not shown by the public records.

**AMERICAN LAND TITLE ASSOCIATION
LOAN POLICY OF TITLE INSURANCE - 2006
EXCLUSIONS FROM COVERAGE**

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection; or the effect of any violation of these laws, ordinances, or governmental regulations.This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
- (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
 - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
 - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
 - (c) resulting in no loss or damage to the Insured Claimant;
 - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13, or 14); or
 - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.
6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
 - (a) a fraudulent conveyance or fraudulent transfer, or
 - (b) a preferential transfer for any reason not stated in Covered Risk 13(b) of this policy.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

EXCEPTIONS FROM COVERAGE – SCHEDULE B, PART 1, SECTION ONE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) that arise by reason of:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.



**WHAT DOES OLD REPUBLIC TITLE
DO WITH YOUR PERSONAL INFORMATION?**

Why?	Financial companies choose how they share your personal information. Federal law gives consumers the right to limit some but not all sharing. Federal law also requires us to tell you how we collect, share, and protect your personal information. Please read this notice carefully to understand what we do.
What?	The types of personal information we collect and share depend on the product or service you have with us. This information can include: <ul style="list-style-type: none"> • Social Security number and employment information • Mortgage rates and payments and account balances • Checking account information and wire transfer instructions When you are no longer our customer, we continue to share your information as described in this notice.
How?	All financial companies need to share customers' personal information to run their everyday business. In the section below, we list the reasons financial companies can share their customers' personal information; the reasons Old Republic Title chooses to share; and whether you can limit this sharing.

Reasons we can share your personal information	Does Old Republic Title share?	Can you limit this sharing?
For our everyday business purposes — such as to process your transactions, maintain your account(s), or respond to court orders and legal investigations, or report to credit bureaus	Yes	No
For our marketing purposes — to offer our products and services to you	No	We don't share
For joint marketing with other financial companies	No	We don't share
For our affiliates' everyday business purposes — information about your transactions and experiences	Yes	No
For our affiliates' everyday business purposes — information about your creditworthiness	No	We don't share
For our affiliates to market to you	No	We don't share
For non-affiliates to market to you	No	We don't share

Go to www.oldrepublictitle.com (Contact Us)

Who we are	
Who is providing this notice?	Companies with an Old Republic Title name and other affiliates. Please see below for a list of affiliates.

What we do	
How does Old Republic Title protect my personal information?	To protect your personal information from unauthorized access and use, we use security measures that comply with federal law. These measures include computer safeguards and secured files and buildings. For more information, visit http://www.OldRepublicTitle.com/newnational/Contact/privacy .
How does Old Republic Title collect my personal information?	<p>We collect your personal information, for example, when you:</p> <ul style="list-style-type: none"> • Give us your contact information or show your driver's license • Show your government-issued ID or provide your mortgage information • Make a wire transfer <p>We also collect your personal information from others, such as credit bureaus, affiliates, or other companies.</p>
Why can't I limit all sharing?	<p>Federal law gives you the right to limit only:</p> <ul style="list-style-type: none"> • Sharing for affiliates' everyday business purposes - information about your creditworthiness • Affiliates from using your information to market to you • Sharing for non-affiliates to market to you <p>State laws and individual companies may give you additional rights to limit sharing. See the "Other important information" section below for your rights under state law.</p>

Definitions	
Affiliates	<p>Companies related by common ownership or control. They can be financial and nonfinancial companies.</p> <ul style="list-style-type: none"> • Our affiliates include companies with an Old Republic Title name, and financial companies such as Attorneys' Title Fund Services, LLC, Lex Terrae National Title Services, Inc., Mississippi Valley Title Services Company, and The Title Company of North Carolina.
Non-affiliates	<p>Companies not related by common ownership or control. They can be financial and non-financial companies.</p> <ul style="list-style-type: none"> • Old Republic Title does not share with non-affiliates so they can market to you
Joint marketing	<p>A formal agreement between non-affiliated financial companies that together market financial products or services to you.</p> <ul style="list-style-type: none"> • Old Republic Title doesn't jointly market.

Other Important Information

Oregon residents only: We are providing you this notice under state law. We may share your personal information (described on page one) obtained from you or others with non-affiliate service providers with whom we contract, such as notaries and delivery services, in order to process your transactions. You may see what personal information we have collected about you in connection with your transaction (other than personal information related to a claim or legal proceeding). To see your information, please click on "Contact Us" at www.oldrepublictitle.com and submit your written request to the Legal Department. You may see and copy the information at our office or ask us to mail you a copy for a reasonable fee. If you think any information is wrong, you may submit a written request online to correct or delete it. We will let you know what actions we take. If you do not agree with our actions, you may send us a statement.

Affiliates Who May be Delivering This Notice

American First Abstract, LLC	American First Title & Trust Company	American Guaranty Title Insurance Company	Attorneys' Title Fund Services, LLC	Compass Abstract, Inc.
eRecording Partners Network, LLC	Genesis Abstract, LLC	Kansas City Management Group, LLC	L.T. Service Corp.	Lenders Inspection Company
Lex Terrae National Title Services, Inc.	Lex Terrae, Ltd.	Mara Escrow Company	Mississippi Valley Title Services Company	National Title Agent's Services Company
Old Republic Branch Information Services, Inc.	Old Republic Diversified Services, Inc.	Old Republic Exchange Company	Old Republic National Title Insurance Company	Old Republic Title and Escrow of Hawaii, Ltd.
Old Republic Title Co.	Old Republic Title Company of Conroe	Old Republic Title Company of Indiana	Old Republic Title Company of Nevada	Old Republic Title Company of Oklahoma
Old Republic Title Company of Oregon	Old Republic Title Company of St. Louis	Old Republic Title Company of Tennessee	Old Republic Title Information Concepts	Old Republic Title Insurance Agency, Inc.
Old Republic Title, Ltd.	Republic Abstract & Settlement, LLC	Sentry Abstract Company	The Title Company of North Carolina	Title Services, LLC
Trident Land Transfer Company, LLC				

ASSESSOR'S MAP I

Code Area Nos. 17-045

171

Scale: 1" = 50'

OAKLAND (KELLERSBERGER'S) (Bk. 7 Pg. 3)

B O O K 2

9TH STREET 71

17-022
17-045

17-022
17-045

177

MADISON STREET

BART
1

1.38 Ac.

CAROLINE SQUARE

169

OAK STREET

17-045
17-022

17-045
17-022

8TH STREET

177

MADISON

2

1.38 Ac.

126

169

OAK

7TH STREET 8075

173

Drawn: 10-67 S.Y. Revised: 8-75 RM
2-17-83 RW
2-14-04 EC
9-15-05 LL

Formerly: Bk. 2 Blks. 126, pgs. 125

APPENDIX C
EDR DATABASE REPORT, VAPOR ENCROACHMENT SCREEN, AND
HISTORICAL REPORTS

DRAFT

Lake Merritt BART Development

800 Madison Street

Oakland, CA 94607

Inquiry Number: 5623421.2s

April 16, 2019

The EDR Radius Map™ Report with GeoCheck®



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

800 MADISON STREET
OAKLAND, CA 94607

COORDINATES

Latitude (North): 37.7975130 - 37° 47' 51.04"
Longitude (West): 122.2658280 - 122° 15' 56.98"
Universal Transverse Mercator: Zone 10
UTM X (Meters): 564637.2
UTM Y (Meters): 4183397.8
Elevation: 33 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 5641112 OAKLAND WEST, CA
Version Date: 2012

East Map: 5641110 OAKLAND EAST, CA
Version Date: 2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20140608
Source: USDA

MAPPED SITES SUMMARY

Target Property Address:
800 MADISON STREET
OAKLAND, CA 94607

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	BART LAKE MERRITT SU	800 MADISON ST	CERS		TP
A2	BART/LAKE MERRITT ST	800 MADISON STREET	HAZNET		TP
A3	BART/LAKE MERRITT ST	800 MADISON ST	FINDS, ECHO		TP
A4	BART LAKE MERRITT SU	800 MADISON ST	FINDS		TP
A5	BAY AREA RAPID TRANS	800 MADISON ST	FTTS, HIST FTTS		TP
A6	BART BAYFAIR STATION	800 MADISON STREET	HAZNET		TP
Reg	ALAMEDA NAVAL AIR ST		DOD	Same	5117, 0.969, WSW
B7	HOPKINS SERVICE STAT	13 9TH AVE	EDR Hist Auto	Lower	1 ft.
B8	ZELLERS R K	35 9TH AVE	EDR Hist Auto	Lower	1 ft.
B9	STANDARD OIL CO OF C	17 9TH ST	EDR Hist Auto	Lower	1 ft.
B10		SNAIL STREET AND BAY	CHMIRS	Lower	1 ft.
B11	JERMARK G H	27 9TH AVE	EDR Hist Auto	Lower	1 ft.
B12	PACIFIC SERVICE STAT	55 9TH AVE	EDR Hist Auto	Lower	1 ft.
B13	RICHFIELD OIL CO	39 9TH ST	EDR Hist Auto	Lower	1 ft.
B14	HYDE B G	47 9TH ST	EDR Hist Auto	Lower	1 ft.
B15	HINES R F	59 9TH ST	EDR Hist Auto	Lower	1 ft.
B16	LUDLOW A B	66 9TH ST	EDR Hist Auto	Lower	81, 0.015, East
B17	BAIRD BROS	58 9TH ST	EDR Hist Auto	Lower	81, 0.015, East
B18	CAUGHLIN N C	24 9TH AVE	EDR Hist Auto	Lower	81, 0.015, East
B19	LOW DON	36 9TH AVE	EDR Hist Auto	Lower	81, 0.015, East
B20	SHAW & GARLAND	38 9TH ST	EDR Hist Auto	Lower	81, 0.015, East
B21	DOWNTOWN SERVICE STA	12 9TH ST	EDR Hist Auto	Lower	82, 0.016, East
B22	ABBOTT H G	43 8TH ST	EDR Hist Auto	Lower	83, 0.016, SE
C23	PORT OF OAKLAND / CA	79 8TH AVE	LUST, Alameda County CS, HIST CORTESE, CERS	Lower	86, 0.016, SE
A24	BART METRO CENTER	101 8TH ST	CERS TANKS, CERS	Lower	88, 0.017, South
A25	BART METRO CENTER	101 8TH ST	AST	Lower	88, 0.017, South
A26	METRO CENTER	101 8TH STREET	HIST UST	Lower	88, 0.017, South
A27	ARNEY ERNEST	100 9TH AVE	EDR Hist Auto	Higher	98, 0.019, NE
A28	NO D LAY DRY CLEANER	148 9TH ST	EDR Hist Cleaner	Higher	99, 0.019, North
B29	LANEY COLLEGE	900 FALLON ST	LUST, Alameda County CS, HIST UST, HIST CORTESE,...	Lower	147, 0.028, East
B30	LANEY COLLEGE	900 FALLON ST	CERS HAZ WASTE, SWEEPS UST, HIST UST, CA FID UST,...	Lower	147, 0.028, East
C31	TANI MOTO	709 OAK ST	EDR Hist Cleaner	Lower	166, 0.031, South
D32	CANTON GARAGE	715 MADISON ST	EDR Hist Auto	Lower	213, 0.040, WSW
E33	WEBB S LAUNDR-0-MAT	151 10TH ST	EDR Hist Cleaner	Higher	273, 0.052, NNW
E34	STAR CLEANERS	163 10TH ST	EDR Hist Cleaner	Higher	308, 0.058, NNW
F35	STICKLER O F	10 TH AND FALLON	EDR Hist Auto	Lower	312, 0.059, East
F36	OVERMIRE J S	58 10TH ST	EDR Hist Auto	Lower	329, 0.062, ENE
G37	GEO V ARTH AND SON	110 TENTH STREET	RCRA-SQG, HAZNET	Higher	361, 0.068, NNE
G38	ARTH GEO V & SON	110 10TH ST	EDR Hist Auto	Higher	361, 0.068, NNE

MAPPED SITES SUMMARY

Target Property Address:
800 MADISON STREET
OAKLAND, CA 94607

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
G39	GEORGE V ARTH & SON	110 10TH ST	CERS HAZ WASTE, CERS	Higher	361, 0.068, NNE
G40	JOHNSON F E	1007 OAK ST	EDR Hist Cleaner	Higher	389, 0.074, NE
D41	ACE AUTO REPAIR	186 7TH ST	EDR Hist Auto	Lower	408, 0.077, WSW
42	METROCENTER	101 008TH ST	SWEEPS UST, CA FID UST	Lower	420, 0.080, West
H43	LANEY COLLEGE	600 FALLON STREET	Notify 65	Lower	452, 0.086, SSE
I44	T&T AUTO	610 OAK ST	LUST, Alameda County CS, CERS	Lower	494, 0.094, South
I45	BAY AUTO CENTER	610 OAK ST	CERS HAZ WASTE, CERS	Lower	494, 0.094, South
I46	CHEVRON	6090 OAK	HIST CORTESE	Lower	496, 0.094, SSW
I47	94587	609 OAK ST	HIST UST	Lower	507, 0.096, SSW
I48	CHEVRON	609 OAK ST	LUST, Alameda County CS, SWEEPS UST, CA FID UST,...	Lower	507, 0.096, SSW
G49	COOKS COLLISION DBA	149 11TH ST	CERS HAZ WASTE, CERS	Higher	510, 0.097, NNE
G50	OAKLAND AUTO BODY & CORPORATION YARD	149 11TH STREET	RCRA-SQG, FINDS, ECHO, EMI, HAZNET	Higher	510, 0.097, NNE
H51	CORPORATION YARD	2 FALLON ST	US BROWNFIELDS, FINDS	Lower	592, 0.112, SSE
H52	RETAIL/ENTERTAINMENT	2 FALLON ST	US BROWNFIELDS, FINDS	Lower	592, 0.112, SSE
J53	DICK AND VICS ARCO	245 8TH ST	HIST UST, HAZNET	Higher	697, 0.132, WNW
J54	DICK & VICS ARCO	245-8TH ST.	HIST UST	Higher	697, 0.132, WNW
J55	VIC'S AUTOMOTIVE	245 8TH ST	UST	Higher	697, 0.132, WNW
J56	VIC'S AUTOMOTIVE SER	245 8TH	LUST, Alameda County CS, HIST CORTESE	Higher	697, 0.132, WNW
J57	CITY OF OAKLAND FIRE	822 ALICE ST	LUST, Alameda County CS, HIST CORTESE, CERS	Higher	724, 0.137, WNW
J58	AQUA SCIENCE ENGINEE	250 8TH STREET	LUST, Alameda County CS, SWEEPS UST, EMI, HIST...	Higher	802, 0.152, WNW
J59	MANDARIN AUTO SERVIC	250 8TH ST	HIST UST	Higher	802, 0.152, WNW
K60	PACIFIC BELL	125 TWELVE ST	RCRA NonGen / NLR	Lower	808, 0.153, NNE
K61	WESTERN UNION	125 12TH	LUST, Alameda County CS, SWEEPS UST, HIST CORTESE,...	Lower	808, 0.153, NNE
L62	D R HORTON INC	1110 JACKSON ST	Alameda County CS, HAZNET	Higher	845, 0.160, North
L63	1110 JACKSON ST	1110 JACKSON STREET	LUST, HAZNET, CERS	Higher	845, 0.160, North
J64	OAKLAND AUTOMATIC SA	719 ALICE ST	CPS-SLIC, Alameda County CS, CERS	Higher	866, 0.164, West
L65	OFFICE OF FLEET ADMI	1111 JACKSON ST	SWEEPS UST, HIST UST, CA FID UST	Higher	875, 0.166, North
L66	OFFICE OF FLEET ADMI	1111 JACKSON ST	HIST UST, EMI	Higher	875, 0.166, North
L67	OAKLAND STATE BUILDI	1111 JACKSON STREET	RCRA-SQG, FINDS, ECHO, HAZNET	Higher	875, 0.166, North
L68	STATE OFFICE BUILDIN	1111 JACKSON ST	HIST UST	Higher	875, 0.166, North
M69	105 OAK STREET LLC	105 5TH ST	CERS TANKS, CERS	Lower	942, 0.178, SSW
M70	105 OAK STREET LLC	105 5TH ST	UST	Lower	942, 0.178, SSW
M71	SHELL	105 5TH ST	LUST	Lower	942, 0.178, SSW
M72	SHELL #13-5700	105 5TH	LUST, Alameda County CS, HIST UST, HIST CORTESE,...	Lower	942, 0.178, SSW
M73	SP OPER	105 5TH ST	HIST UST	Lower	942, 0.178, SSW
N74	ALAMEDA COURTHOUSE C	1225 FALLON ST	RCRA-SQG, SWEEPS UST, HIST UST, CA FID UST, FINDS,...	Lower	942, 0.178, NE
N75	COUNTY OF ALAMEDA GS	1225 FALLON ST	CERS HAZ WASTE, CERS	Lower	942, 0.178, NE
M76	ESSEX MADISON, LLC R	412 MADISON STREET	CPS-SLIC, CERS	Lower	967, 0.183, SSW
M77	PORT OF OAKLAND / LA	412 MADISON	ENVIROSTOR, LUST, Alameda County CS, SWRCY, HIST...	Lower	967, 0.183, SSW

MAPPED SITES SUMMARY

Target Property Address:
800 MADISON STREET
OAKLAND, CA 94607

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
M78	LAKESIDE NON-FERROUS	412 MADISON ST	CERS HAZ WASTE, CERS	Lower	967, 0.183, SSW
O79	CONTROLCO, INC.	70 4TH ST	SWEEPS UST	Lower	976, 0.185, South
P80	PORT OF OAKLAND / BL	271 8TH AVENUE	LUST, Alameda County CS, HIST CORTESE, CERS	Higher	979, 0.185, WNW
K81	COUNTY OF ALAMEDA GS	1221 OAK ST	AST	Lower	1013, 0.192, NNE
K82	COUNTY OF ALAMEDA GS	1221 OAK ST	CERS HAZ WASTE, CERS TANKS, CERS	Lower	1013, 0.192, NNE
Q83	OAK STREET SHELL	105 005TH ST	SWEEPS UST, CA FID UST	Lower	1021, 0.193, SW
O84	BALCO PROPERTIES	55 4TH ST	LUST, Alameda County CS, HIST CORTESE, CERS	Lower	1107, 0.210, South
R85	ALCOPARK GARAGE	165 13TH ST	LUST, UST, SWEEPS UST, HIST UST	Higher	1110, 0.210, North
R86	ALCOPARK GARAGE	165 13TH ST	LUST, Alameda County CS, HIST UST, CA FID UST,...	Higher	1110, 0.210, North
R87	COUNTY OF ALAMEDA GS	165 13TH ST	CERS HAZ WASTE, CERS TANKS, CERS	Higher	1110, 0.210, North
88	ALAMEDA COUNTY WAREH	39 4TH ST	RCRA-SQG, FINDS, ECHO	Lower	1116, 0.211, South
P89	UNOCAL #0752	800 HARRISON	LUST, SWEEPS UST, HIST UST, HIST CORTESE, CERS	Higher	1125, 0.213, WNW
P90	UNION OIL SS0752	800 HARRISON ST	Alameda County CS, HIST UST, HAZNET	Higher	1125, 0.213, WNW
P91	TOSCO CORPORATION #3	800 HARRISON ST	UST	Higher	1125, 0.213, WNW
P92	UNION 76	800 HARRISON ST	CERS HAZ WASTE, CERS TANKS, CERS	Higher	1125, 0.213, WNW
R93	CIVIC CENTER ANNEX	201 13TH ST	SWEEPS UST, CA FID UST	Higher	1152, 0.218, North
R94	CIVIC CENTER ANNEX	201 13TH STREET	HIST UST	Higher	1152, 0.218, North
Q95	94607	401 JACKSON ST	Alameda County CS	Lower	1170, 0.222, SW
Q96	401 JACKSON ST	401 JACKSON ST	LUST, Alameda County CS, CERS, NON-CASE INFO	Lower	1170, 0.222, SW
97	JLS/4TH AND MADISON	155 4TH ST	RCRA-LQG	Lower	1178, 0.223, SSW
P98	KIN SHELL	726 HARRISON ST	LUST, Alameda County CS, SWEEPS UST, CA FID UST,...	Higher	1179, 0.223, WNW
P99	KINS SHELL SERVICE	726 HARRISON ST	HIST UST	Higher	1179, 0.223, WNW
P100	GIN'S ARCO SERVICE	706 HARRISON ST	LUST, Alameda County CS, SWEEPS UST, CA FID UST,...	Lower	1192, 0.226, West
P101	GIN'S ARCO SERVICE	706 HARRISON ST	HIST UST	Lower	1192, 0.226, West
S102	PORT OF OAKLAND, FOR	280 6TH AVE	RCRA-LQG, CPS-SLIC, CERS	Lower	1197, 0.227, West
103	CITY OF OAKLAND	1310 OAK ST	LUST, Alameda County CS, SWEEPS UST, HAZNET, HIST...	Lower	1234, 0.234, NE
T104	CASH & CARRY # 567	400 OAK ST	CERS HAZ WASTE, CERS	Lower	1238, 0.234, SSW
T105	POST TOOL	400 OAK	LUST, Alameda County CS, CERS	Lower	1238, 0.234, SSW
U106	BAYPORTE VILLAGE (AC	0 8TH ST & MARKET	CPS-SLIC, Alameda County CS, CERS	Higher	1257, 0.238, WNW
T107	PENN PARTNERS	333 OAK ST	LUST, CERS	Lower	1278, 0.242, SSW
V108	OAKLAND NATIONAL ENG	307 10TH ST	RCRA-SQG, FINDS, ECHO	Higher	1284, 0.243, NW
W109	BENDER PROPERTY	250 12TH STREET	LUST, Alameda County CS, HAZNET, CERS	Higher	1296, 0.245, NNW
S110	JAL-VUE WINDOW CORPO	295 6TH AVE	LUST, SWEEPS UST, HIST UST, CA FID UST, HIST...	Lower	1370, 0.259, West
V111	OAKLAND UNIFIED SCHO	314 10TH STREET	LUST, CERS	Higher	1374, 0.260, NW
X112	OAKLAND AREA HOSP		RESPONSE, ENVIROSTOR	Higher	1449, 0.274, North
X113	OAKLAND AREA HOSPITA		FUDS	Higher	1450, 0.275, North
W114	FRANK G MAR COMMUNIT	283 13TH ST	CPS-SLIC, Alameda County CS, CERS	Higher	1491, 0.282, NNW
Y115	MACY'S MOVERS	200 VICTORY	LUST, CPS-SLIC, Alameda County CS, HIST CORTESE	Lower	1500, 0.284, South
U116	ASIAN HEALTH SERVICE	814 WEBSTER STREET	ENVIROSTOR	Higher	1504, 0.285, WNW

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Target Property Address:
800 MADISON STREET
OAKLAND, CA 94607

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
Z117	MOBIL #10-MHG	160 14TH ST	LUST, Alameda County CS, HIST UST, HIST CORTESE,...	Higher	1505, 0.285, NNE
Z118	ONE HOUR CLEANERS	190 14TH ST	Alameda County CS, HAZNET	Higher	1525, 0.289, North
Z119	KRISTICH MONTEREY PI	190 14TH	DRYCLEANERS, HIST CORTESE	Higher	1525, 0.289, North
AA120	EAST BAY TIRE COMPAN	225 3RD	LUST, Alameda County CS, CERS	Lower	1548, 0.293, SW
121	301 12TH STREET FUTU	301 12TH STREET	ENVIROSTOR, VCP	Higher	1582, 0.300, NNW
Y122	PEERLESS COFFEE	225 FALLON ST	LUST, Alameda County CS, HIST CORTESE, CERS	Lower	1607, 0.304, South
AA123	EAST BAY PACKING COM	208 JACKSON ST	LUST, Alameda County CS, SWEEPS UST, HIST UST, CA...	Lower	1614, 0.306, SW
Y124	VUKASIN/SOUTHERN PAC	250 FALLON STREET	CPS-SLIC, CERS	Lower	1616, 0.306, South
X125	TIME OIL COMPANY	255 14TH	HIST CORTESE	Higher	1639, 0.310, North
126	SALVATION ARMY	601 WEBSTER ST	LUST, Alameda County CS	Lower	1661, 0.315, West
X127	SHELL / QUALITY TUNE	246 14TH ST	LUST, Alameda County CS, HIST UST, HIST CORTESE,...	Higher	1676, 0.317, North
AA128	MILLER PACKING	206 2ND ST	LUST, Alameda County CS, HIST CORTESE, CERS	Lower	1756, 0.333, SW
AB129	CHINATOWN REDEVELOPM	BOUNDED BY 11TH, 10T	ENVIROSTOR	Higher	1763, 0.334, NW
130	DEWEY DOWNTOWN SCHOO	1102 2ND AVENUE	ENVIROSTOR, SCH	Lower	1764, 0.334, East
131	VUKASIM PROPERTY	54 EMBARCADERO	Alameda County CS, HIST CORTESE	Lower	1767, 0.335, SSW
132	A. BERCOVICH 2ND STR	127 2ND STREET	RESPONSE, ENVIROSTOR, DEED	Lower	1767, 0.335, SSW
AC133	P. E. O'HAIR & CO.	309 FOURTH STREET	Notify 65	Lower	1805, 0.342, WSW
AC134	P E O'HARE	309 4TH ST	LUST, Alameda County CS, HIST CORTESE	Lower	1805, 0.342, WSW
AB135	CITY OF OAKLAND REDE	383 11TH STREET	LUST, Alameda County CS, CERS	Higher	1818, 0.344, NW
AD136	CHEVRON #9-4816	301 14TH ST	LUST, Alameda County CS, HIST CORTESE, CERS	Higher	1846, 0.350, NNW
AD137	CHEVRON	301 14TH ST	LUST	Higher	1846, 0.350, NNW
AD138	CHEVRON	301 14TH	HIST CORTESE	Higher	1846, 0.350, NNW
AE139	MILLER PACKING COMPA	201 2ND ST	LUST, Alameda County CS, HIST UST, HIST CORTESE,...	Lower	1859, 0.352, SW
AE140	MILLER PACKING	201 2ND ST	LUST	Lower	1859, 0.352, SW
AF141	LA ESCUELITA EDUCATI	314 EAST 10TH STREET	ENVIROSTOR, SCH, DEED	Lower	1866, 0.353, ESE
AF142	OAKLAND UNIFIED SCHO	314 E 10TH ST	Alameda County CS	Lower	1866, 0.353, ESE
143	BILL LOUIE'S TEXACO	800 FRANKLIN ST	LUST, Alameda County CS, SWEEPS UST, CA FID UST,...	Higher	1871, 0.354, WNW
AB144	CITY OF OAKLAND / PA	1000 FRANKLIN ST	LUST, Alameda County CS, HIST CORTESE, CERS	Higher	1903, 0.360, NW
AE145	PORT OF OAKLAND / AM	245 2ND	LUST, CPS-SLIC, Alameda County CS, SWEEPS UST,...	Lower	1915, 0.363, SW
AD146	SPARKS PROPERTY	1424 HARRISON	LUST, Alameda County CS, CERS	Higher	1935, 0.366, NNW
AG147	ALLRIGHT PARKING LOT	1225 WEBSTER	LUST, Alameda County CS, HIST CORTESE, CERS	Higher	1939, 0.367, NNW
AC148	CITY AUTO REPAIR	330 WEBSTER	HIST CORTESE	Lower	1941, 0.368, WSW
AG149	F.G. MAR COMMUNITY H	HARRISON & 13TH STRE	Notify 65	Higher	1971, 0.373, NNW
AD150	HARRISON STREET GARA	1432 HARRISON ST	LUST, Alameda County CS, SWEEPS UST, HIST UST, CA...	Higher	1975, 0.374, North
AD151	A BACHARACH TRUST &	1432 HARRISON STREET	LUST, CERS	Higher	1975, 0.374, North
AE152	UNITED BEVERAGE DIST	105 JACKSON ST	LUST, Alameda County CS, SWEEPS UST, CA FID UST,...	Lower	1979, 0.375, SW
AH153	LEE FAMILY ASSOCIATI	387 12TH	LUST, Alameda County CS, HIST CORTESE, CERS	Higher	2048, 0.388, NW
154	VUKASIN/SOUTHERN PAC	54 EMBARCADERO AT FA	Notify 65	Lower	2073, 0.393, SSW
AI155	SUNSET WHOLESALE COM	105 EMBARCADERO	LUST, Alameda County CS, HIST CORTESE, CERS	Lower	2103, 0.398, SW

MAPPED SITES SUMMARY

Target Property Address:
800 MADISON STREET
OAKLAND, CA 94607

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
AG156	FRANK MAR COMMUNITY	383 13TH ST	CPS-SLIC, CERS	Higher	2112, 0.400, NNW
AH157	OFFICE OF THE PRESID	1111 FRANKLIN ST	LUST, Alameda County CS	Higher	2129, 0.403, NW
AH158	UNIVERSITY OF CALIFO	1111 FRANKLIN	LUST, HIST CORTESE, CERS	Higher	2129, 0.403, NW
159	PE O'HAIR & COMPANY	339 3RD ST	LUST, HIST CORTESE	Lower	2138, 0.405, WSW
160	STERN PROPERTY	1033 4TH	HIST CORTESE	Lower	2143, 0.406, ESE
AH161	SHORE ACRES GAS	403 12TH	LUST, CERS	Higher	2183, 0.413, NW
AI162	KTVU PARTNERSHIP	2 JACK LONDON SQ	LUST, Alameda County CS, UST, CERS	Lower	2204, 0.417, SSW
AI163	KTVU-TV	2 JACK LONDON SQUARE	RCRA-SQG, SWEEPS UST, HIST UST, CA FID UST, FINDS,...	Lower	2204, 0.417, SSW
164	THE COLONY / THE OLS	311 2ND	LUST, CPS-SLIC, Alameda County CS, HIST CORTESE,...	Lower	2212, 0.419, WSW
165	HOWARD JOHNSON EXPRE	423 7TH ST	CPS-SLIC, Alameda County CS, CERS	Lower	2212, 0.419, WNW
AJ166	1244 2ND AVENUE LLC	1244 2ND AVENUE	LUST, Alameda County CS, HAZNET, CERS	Lower	2224, 0.421, East
167	APARTMENT BUILDING	1455 1ST	CPS-SLIC, Alameda County CS, CERS	Lower	2234, 0.423, ENE
AK168	FORMER MERCHANT'S GA	1314 FRANKLIN ST	CPS-SLIC, Alameda County CS, NPDES, CIWQS	Higher	2271, 0.430, NNW
AL169	PERALTA COLLEGE DIST	501 5TH AVE	Alameda County CS	Lower	2281, 0.432, SE
AL170	PERALTA COLLEGE DIST	501 5TH AVENUE	LUST, CERS	Lower	2281, 0.432, SE
AL171	PERALTA COLLEGE DIST	501 5TH AVENUE	CPS-SLIC, CERS	Lower	2281, 0.432, SE
AL172	PERALTA DISTRICT ADM	501 5TH AVE	RCRA-SQG, LUST, SWEEPS UST, FINDS, ECHO, HIST...	Lower	2281, 0.432, SE
173	CITY OF OAKLAND PARK	910 BROADWAY	CPS-SLIC, Alameda County CS, CERS	Higher	2290, 0.434, WNW
174	SOUTHERN PACIFIC TRA	0 5TH AVE & 7TH	LUST, Alameda County CS, CERS	Lower	2292, 0.434, SE
175	PACIFIC DRYDOCK & RE	321 EMBARCADERO	RCRA-SQG, LUST, Alameda County CS, HIST UST,...	Lower	2305, 0.437, SSE
AM176	EAST BASIN MARINA	EMBARCADERO @ ALICE	CPS-SLIC, NON-CASE INFO	Lower	2312, 0.438, SW
AJ177	AMERICAN MEDIA RADIO	229 INTERNATIONAL BL	CPS-SLIC, Alameda County CS, CERS	Lower	2329, 0.441, East
178	TRIBUNE TOWER COMPLE	409 13TH ST	RCRA-SQG, CPS-SLIC, FINDS, ECHO, HAZNET, CERS	Higher	2342, 0.444, NW
AM179	JACK LONDON SQUARE P	40 JACK LONDON SQUAR	CPS-SLIC, NPDES, CIWQS, CERS	Lower	2387, 0.452, SW
AK180	FINANCIAL CENTER BUI	405 14TH ST	LUST	Higher	2429, 0.460, NNW
AK181	FINANCIAL CENTER BUI	405 14TH ST	LUST, Alameda County CS, HIST CORTESE, CERS	Higher	2429, 0.460, NNW
AK182	PARKING GARAGE	420 13TH ST	LUST, Alameda County CS, SWEEPS UST, CA FID UST,...	Higher	2454, 0.465, NNW
AN183	ALLIFT & EQUIPMENT C	251 5TH AVE	LUST	Lower	2459, 0.466, SE
AN184	AM/PM SERVICE CO	251 5TH AVE	LUST, Alameda County CS, SWEEPS UST, HIST UST, CA...	Lower	2459, 0.466, SE
185	SHELL	461 8TH ST	LUST, Alameda County CS, HIST CORTESE, CERS	Higher	2468, 0.467, WNW
186	NIR REPAIR OAKLAND (		ENVIROSTOR	Lower	2468, 0.467, SSE
187	LAKEHURST HOTEL	1569 JACKSON ST	LUST, Alameda County CS, HIST CORTESE, CERS	Lower	2484, 0.470, NNE
188	CENTURY PETROLEUM	403 E 12TH ST	Alameda County CS, SWEEPS UST, CA FID UST	Lower	2485, 0.471, ESE
189	YWCA OF OAKLAND	1515 WEBSTER ST	LUST, Alameda County CS, HIST CORTESE, CERS	Higher	2511, 0.476, NNW
190	FRANKLIN HOME HEATIN	1428-1432 FRANKLIN S	CPS-SLIC, Alameda County CS, CERS	Higher	2527, 0.479, NNW
191	TUDOR HALL APARTMENT	150 17TH STREET	LUST, CERS	Lower	2589, 0.490, NNE
AO192	PACIFIC DRY DOCK & R	321 EMBARCADERO	LUST, SWEEPS UST, CA FID UST, CHMIRS, EMI, HIST...	Lower	2603, 0.493, WSW
193	SHORENSTEIN REALTY S	1111 BROADWAY	LUST, Alameda County CS, EMI, HIST CORTESE, CERS	Higher	2605, 0.493, NW
AP194	CHEVRON	1633 HARRISON ST	LUST	Higher	2611, 0.495, North

MAPPED SITES SUMMARY

Target Property Address:
800 MADISON STREET
OAKLAND, CA 94607

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
AP195	CHEVRON #9-0020	1633 HARRISON STREET	LUST, Alameda County CS, HIST CORTESE, CERS	Higher	2611, 0.495, North
AQ196	MERRITT ROOF COMPANY	1044 5TH AVE	LUST, HIST UST, CERS	Lower	2612, 0.495, ESE
AQ197	MERRITT ENV CORP	1044 5TH AVE	LUST, Alameda County CS, HIST CORTESE	Lower	2612, 0.495, ESE
198	NAVAL INDUSTRIAL REP		FUDS	Lower	2615, 0.495, SSE
AO199	GOLDEN STATE DIESEL	351 EMBARCADERO	ENVIROSTOR, SWEEPS UST, CA FID UST	Lower	2626, 0.497, WSW
200	WILTEL COMMUNICATION	1330 BROADWAY	LUST, EMI, HIST CORTESE	Higher	2632, 0.498, NNW
AR201	THE MIRADOR	201 BROADWAY AVE	ENVIROSTOR, VCP	Lower	2914, 0.552, West
202	AMERICAN INK PRODUCT	630 EAST 10TH STREET	Notify 65	Lower	2998, 0.568, ESE
203	OAKLAND CITY HALL	#1 CITY HALL PLAZA	RCRA-SQG, LUST, Alameda County CS, HIST CORTESE,...	Higher	3114, 0.590, NW
AR204	PORT OF OAKLAND/CINE	CLAY & EMBARCADERO	ENVIROSTOR, VCP, DEED, HIST CORTESE	Lower	3168, 0.600, West
205	PG AND E GAS PLANT O	FIRST AND WASHINGTON	EDR MGP	Lower	3358, 0.636, West
206	CLINTON COMMONS	720 EAST 11TH STREET	ENVIROSTOR, VCP, DEED	Lower	3456, 0.655, ESE
207	BROOKLYN BASIN	OAK STREET TO 9TH AV	ENVIROSTOR, VCP	Lower	3568, 0.676, SSE
AS208	PORT OF OAKLAND / CA	845 EMBARCADERO	ENVIROSTOR, LUST, Alameda County CS, HIST UST,...	Lower	3679, 0.697, SE
209	OAKLAND DOCK & WAREH		ENVIROSTOR	Lower	3789, 0.718, NNW
AS210	LIQUID CARBONIC	901 EMBARCADERO	ENVIROSTOR, SWEEPS UST, HIST UST, CA FID UST,...	Lower	3865, 0.732, SE
211	YUEN'S EXXON SERVICE	1901 PARK BOULEVARD	Notify 65	Lower	4188, 0.793, ENE
212	MERRITT TWO SITE	655 3RD STREET	ENVIROSTOR, VCP, DEED, HAZNET	Lower	4320, 0.818, West
213	DYNEGY OAKLAND LLC	50 MARTIN LUTHER KIN	ENVIROSTOR, LUST, Alameda County CS, AST, VCP,...	Lower	4468, 0.846, West
214	E-D COAT INC	715 4TH STREET	RESPONSE, ENVIROSTOR, CERS	Lower	4559, 0.863, West
215	HOWARD MARINE TERMIN	EMBARCADERO WEST AND	RESPONSE, ENVIROSTOR, HIST Cal-Sites, DEED,...	Lower	4626, 0.876, West
216	FRANCIS PLATING OF O	785 7TH ST	SEMS, CORRACTS, RCRA-TSDF, RCRA-SQG, ENVIROSTOR,	Lower	4744, 0.898, WNW
217	CROWLEY MARITIME COR	PAC. DRY DOCK YARDS	Notify 65	Lower	4941, 0.936, North
AT218	SAFETY-KLEEN CORP. 7	404 MARKET ST	SWEEPS UST, HIST UST, CA FID UST, Financial...	Lower	4982, 0.944, WNW
AT219	SAFETYKLEEN SER CTR	400 MARKET ST	ENVIROSTOR, DEED, CHMIRS, WDS, CERS	Lower	4982, 0.944, WNW
AT220	SAFETY-KLEEN SYSTEMS	400 MARKET STREET	SEMS, CORRACTS, RCRA-TSDF, RCRA-LQG, US INST...	Lower	4982, 0.944, WNW
221	TARGET PARCEL	2700 5TH STREET	ENVIROSTOR, VCP, EMI	Lower	5044, 0.955, SW
222	SERVICE STATION	2225 TELEGRAPH AVENU	Notify 65	Lower	5068, 0.960, NNW
223	CROWLEY MARITIME COR	PAC. DRY DOCKS, YARD	Notify 65	Lower	5175, 0.980, SE
224	LAWLER APARTMENTS	431 LEE STREET	Notify 65	Higher	5219, 0.988, NNE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
BART LAKE MERRITT SU 800 MADISON ST OAKLAND, CA 94607	CERS	N/A
BART/LAKE MERRITT ST 800 MADISON STREET OAKLAND, CA 94604	HAZNET GEPaid: CAL000015956	N/A
BART/LAKE MERRITT ST 800 MADISON ST OAKLAND, CA 94607	FINDS Registry ID:: 110070443480 ECHO Registry ID: 110070443480	N/A
BART LAKE MERRITT SU 800 MADISON ST OAKLAND, CA 94607	FINDS Registry ID:: 110058256417 Registry ID:: 110011660274	N/A
BAY AREA RAPID TRANS 800 MADISON ST OAKLAND, CA 94607	FTTS Database: FTTS INSP, Date of Government Version: 04/09/2009 HIST FTTS Database: HIST FTTS INSP, Date of Government Version: 10/19/2006	N/A
BART BAYFAIR STATION 800 MADISON STREET OAKLAND, CA 94607	HAZNET GEPaid: CAL000015923	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List

EXECUTIVE SUMMARY

Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing
SEMS..... Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE..... Superfund Enterprise Management System Archive

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System
US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing
INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS..... Considered Brownfields Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT..... Waste Management Unit Database

EXECUTIVE SUMMARY

HAULERS.....	Registered Waste Tire Haulers Listing
INDIAN ODI.....	Report on the Status of Open Dumps on Indian Lands
ODI.....	Open Dump Inventory
DEBRIS REGION 9.....	Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS.....	Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL.....	Delisted National Clandestine Laboratory Register
SCH.....	School Property Evaluation Program
CDL.....	Clandestine Drug Labs
Toxic Pits.....	Toxic Pits Cleanup Act Sites
US CDL.....	National Clandestine Laboratory Register
PFAS.....	PFAS Contamination Site Location Listing

Local Land Records

LIENS.....	Environmental Liens Listing
LIENS 2.....	CERCLA Lien Information

Records of Emergency Release Reports

HMIRS.....	Hazardous Materials Information Reporting System
LDS.....	Land Disposal Sites Listing
MCS.....	Military Cleanup Sites Listing
SPILLS 90.....	SPILLS 90 data from FirstSearch

Other Ascertainable Records

SCRD DRYCLEANERS.....	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR.....	Financial Assurance Information
EPA WATCH LIST.....	EPA WATCH LIST
2020 COR ACTION.....	2020 Corrective Action Program List
TSCA.....	Toxic Substances Control Act
TRIS.....	Toxic Chemical Release Inventory System
SSTS.....	Section 7 Tracking Systems
ROD.....	Records Of Decision
RMP.....	Risk Management Plans
RAATS.....	RCRA Administrative Action Tracking System
PRP.....	Potentially Responsible Parties
PADS.....	PCB Activity Database System
ICIS.....	Integrated Compliance Information System
MLTS.....	Material Licensing Tracking System
COAL ASH DOE.....	Steam-Electric Plant Operation Data
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER.....	PCB Transformer Registration Database
RADINFO.....	Radiation Information Database
DOT OPS.....	Incident and Accident Data
CONSENT.....	Superfund (CERCLA) Consent Decrees
INDIAN RESERV.....	Indian Reservations
FUSRAP.....	Formerly Utilized Sites Remedial Action Program
UMTRA.....	Uranium Mill Tailings Sites
LEAD SMELTERS.....	Lead Smelter Sites
US AIRS.....	Aerometric Information Retrieval System Facility Subsystem
US MINES.....	Mines Master Index File

EXECUTIVE SUMMARY

ABANDONED MINES.....	Abandoned Mines
DOCKET HWC.....	Hazardous Waste Compliance Docket Listing
UXO.....	Unexploded Ordnance Sites
FUELS PROGRAM.....	EPA Fuels Program Registered Listing
CA BOND EXP. PLAN.....	Bond Expenditure Plan
Cortese.....	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings.....	CUPA Resources List
DRYCLEANERS.....	Cleaner Facilities
EMI.....	Emissions Inventory Data
ENF.....	Enforcement Action Listing
Financial Assurance.....	Financial Assurance Information Listing
ICE.....	ICE
HWT.....	Registered Hazardous Waste Transporter Database
MINES.....	Mines Site Location Listing
MWMP.....	Medical Waste Management Program Listing
NPDES.....	NPDES Permits Listing
PEST LIC.....	Pesticide Regulation Licenses Listing
UIC.....	UIC Listing
UIC GEO.....	UIC GEO (GEOTRACKER)
WASTEWATER PITS.....	Oil Wastewater Pits Listing
WDS.....	Waste Discharge System
MILITARY PRIV SITES.....	MILITARY PRIV SITES (GEOTRACKER)
PROJECT.....	PROJECT (GEOTRACKER)
WDR.....	Waste Discharge Requirements Listing
CIWQS.....	California Integrated Water Quality System
WIP.....	Well Investigation Program Case List
NON-CASE INFO.....	NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS.....	OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS.....	PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT.....	SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ.....	Well Stimulation Project (GEOTRACKER)

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF.....	Recovered Government Archive Solid Waste Facilities List
RGA LUST.....	Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA CORRACTS facilities list

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 03/01/2018 has revealed that there are 2 CORRACTS sites within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
FRANCIS PLATING OF O EPA ID:: CAD009206160	785 7TH ST	WNW 1/2 - 1 (0.898 mi.)	216	741
SAFETY-KLEEN SYSTEMS EPA ID:: CAD053044053	400 MARKET STREET	WNW 1/2 - 1 (0.944 mi.)	AT220	787

Federal RCRA generators list

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 03/01/2018 has revealed that there are 2 RCRA-LQG sites within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
JLS/4TH AND MADISON EPA ID:: CAP000272047	155 4TH ST	SSW 1/8 - 1/4 (0.223 mi.)	97	334
PORT OF OAKLAND, FOR EPA ID:: CAD982401127	280 6TH AVE	W 1/8 - 1/4 (0.227 mi.)	S102	359

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 03/01/2018 has revealed that there are 6 RCRA-SQG sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GEO V ARTH AND SON EPA ID:: CAD028774792	110 TENTH STREET	NNE 0 - 1/8 (0.068 mi.)	G37	62
OAKLAND AUTO BODY &	149 11TH STREET	NNE 0 - 1/8 (0.097 mi.)	G50	100

EXECUTIVE SUMMARY

EPA ID:: CAD028813178				
OAKLAND STATE BUILDI	1111 JACKSON STREET	N 1/8 - 1/4 (0.166 mi.)	L67	159
EPA ID:: CAD982474744				
OAKLAND NATIONAL ENG	307 10TH ST	NW 1/8 - 1/4 (0.243 mi.)	V108	374
EPA ID:: CAD009185307				
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ALAMEDA COURTHOUSE C	1225 FALLON ST	NE 1/8 - 1/4 (0.178 mi.)	N74	185
EPA ID:: CAD982469389				
ALAMEDA COUNTY WAREH	39 4TH ST	S 1/8 - 1/4 (0.211 mi.)	88	291
EPA ID:: CAD982523938				

State- and tribal - equivalent NPL

RESPONSE: Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

A review of the RESPONSE list, as provided by EDR, has revealed that there are 4 RESPONSE sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
OAKLAND AREA HOSP		N 1/4 - 1/2 (0.274 mi.)	X112	384
Database: RESPONSE, Date of Government Version: 01/28/2019				
Status: No Further Action				
Facility Id: 80000561				
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
A. BERCOVICH 2ND STR	127 2ND STREET	SSW 1/4 - 1/2 (0.335 mi.)	132	432
Database: RESPONSE, Date of Government Version: 01/28/2019				
Status: Certified O&M - Land Use Restrictions Only				
Facility Id: 1590002				
E-D COAT INC	715 4TH STREET	W 1/2 - 1 (0.863 mi.)	214	727
Database: RESPONSE, Date of Government Version: 01/28/2019				
Status: Active				
Facility Id: 60002501				
HOWARD MARINE TERMIN	EMBARCADERO WEST AND	W 1/2 - 1 (0.876 mi.)	215	734
Database: RESPONSE, Date of Government Version: 01/28/2019				
Status: Certified / Operation & Maintenance				
Facility Id: 1440006				

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which

EXECUTIVE SUMMARY

there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 01/28/2019 has revealed that there are 24 ENVIROSTOR sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
OAKLAND AREA HOSP Facility Id: 80000561 Status: No Further Action		N 1/4 - 1/2 (0.274 mi.)	X112	384
ASIAN HEALTH SERVICE Facility Id: 1800002 Status: No Action Required	814 WEBSTER STREET	WNW 1/4 - 1/2 (0.285 mi.)	U116	391
301 12TH STREET FUTU Facility Id: 60002362 Status: Active	301 12TH STREET	NNW 1/4 - 1/2 (0.300 mi.)	121	401
CHINATOWN REDEVELOPM Facility Id: 1490015 Status: Refer: Other Agency	BOUNDED BY 11TH, 10T	NW 1/4 - 1/2 (0.334 mi.)	AB129	429
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
PORT OF OAKLAND / LA Facility Id: 1350115 Status: Inactive - Needs Evaluation	412 MADISON	SSW 1/8 - 1/4 (0.183 mi.)	M77	195
DEWEY DOWNTOWN SCHOO Facility Id: 1820002 Status: No Action Required	1102 2ND AVENUE	E 1/4 - 1/2 (0.334 mi.)	130	430
A. BERCOVICH 2ND STR Facility Id: 1590002 Status: Certified O&M - Land Use Restrictions Only	127 2ND STREET	SSW 1/4 - 1/2 (0.335 mi.)	132	432
LA ESCUELITA EDUCATI Facility Id: 60001108 Status: Certified / Operation & Maintenance	314 EAST 10TH STREET	ESE 1/4 - 1/2 (0.353 mi.)	AF141	445
NIR REPAIR OAKLAND (Facility Id: 80000712 Status: No Further Action		SSE 1/4 - 1/2 (0.467 mi.)	186	593
GOLDEN STATE DIESEL Facility Id: 1500086 Status: Refer: RCRA	351 EMBARCADERO	WSW 1/4 - 1/2 (0.497 mi.)	AO199	642
THE MIRADOR Facility Id: 60002700 Status: Active	201 BROADWAY AVE	W 1/2 - 1 (0.552 mi.)	AR201	654
PORT OF OAKLAND/CINE Facility Id: 1730099	CLAY & EMBARCADERO	W 1/2 - 1 (0.600 mi.)	AR204	659

EXECUTIVE SUMMARY

Status: Certified / Operation & Maintenance

CLINTON COMMONS	720 EAST 11TH STREET	ESE 1/2 - 1 (0.655 mi.)	206	661
Facility Id: 60001404				
Status: Certified O&M - Land Use Restrictions Only				
BROOKLYN BASIN	OAK STREET TO 9TH AV	SSE 1/2 - 1 (0.676 mi.)	207	669
Facility Id: 70000109				
Status: Active				
PORT OF OAKLAND / CA	845 EMBARCADERO	SE 1/2 - 1 (0.697 mi.)	AS208	698
Facility Id: 80001299				
Status: Refer: SMBRP				
OAKLAND DOCK & WAREH		NNW 1/2 - 1 (0.718 mi.)	209	703
Facility Id: 80000535				
Status: No Further Action				
LIQUID CARBONIC	901 EMBARCADERO	SE 1/2 - 1 (0.732 mi.)	AS210	704
Facility Id: 1280015				
Status: Refer: Other Agency				
MERRITT TWO SITE	655 3RD STREET	W 1/2 - 1 (0.818 mi.)	212	708
Facility Id: 60002149				
Status: Certified O&M - Land Use Restrictions Only				
DYNEGY OAKLAND LLC	50 MARTIN LUTHER KIN	W 1/2 - 1 (0.846 mi.)	213	718
Facility Id: 1490020				
Status: Certified / Operation & Maintenance				
E-D COAT INC	715 4TH STREET	W 1/2 - 1 (0.863 mi.)	214	727
Facility Id: 60002501				
Status: Active				
HOWARD MARINE TERMIN	EMBARCADERO WEST AND	W 1/2 - 1 (0.876 mi.)	215	734
Facility Id: 1440006				
Status: Certified / Operation & Maintenance				
FRANCIS PLATING OF O	785 7TH ST	WNW 1/2 - 1 (0.898 mi.)	216	741
Facility Id: 1330049				
Facility Id: 80001620				
Status: No Further Action				
Status: Refer: Local Agency				
SAFETYKLEEN SER CTR	400 MARKET ST	WNW 1/2 - 1 (0.944 mi.)	AT219	762
Facility Id: 80001412				
Status: Active				
TARGET PARCEL	2700 5TH STREET	SW 1/2 - 1 (0.955 mi.)	221	883
Facility Id: 60002299				
Status: Active				

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there are 77 LUST sites within

EXECUTIVE SUMMARY

approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
VIC'S AUTOMOTIVE SER Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Facility Id: 01-1244 Facility Status: Preliminary site assessment underway Global Id: T0600101143	245 8TH	WNW 1/8 - 1/4 (0.132 mi.)	J56	119
CITY OF OAKLAND FIRE Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Facility Id: 01-0626 Facility Status: Case Closed Global Id: T0600100576 date9: 6/9/1995	822 ALICE ST	WNW 1/8 - 1/4 (0.137 mi.)	J57	128
AQUA SCIENCE ENGINEE Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Open - Verification Monitoring Facility Id: 01-0582 Facility Status: Remedial action (cleanup) Underway Global Id: T0600100535	250 8TH STREET	WNW 1/8 - 1/4 (0.152 mi.)	J58	130
1110 JACKSON ST Database: LUST, Date of Government Version: 12/10/2018 Status: Open - Active Global Id: T10000009472	1110 JACKSON STREET	N 1/8 - 1/4 (0.160 mi.)	L63	149
PORT OF OAKLAND / BL Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Facility Id: 01-2401 Facility Status: Preliminary site assessment workplan submitted Global Id: T0600102211	271 8TH AVENUE	WNW 1/8 - 1/4 (0.185 mi.)	P80	214
ALCOPARK GARAGE Database: LUST REG 2, Date of Government Version: 09/30/2004 Facility Id: 01-0055 Facility Status: Preliminary site assessment underway	165 13TH ST	N 1/8 - 1/4 (0.210 mi.)	R85	241
ALCOPARK GARAGE Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Global Id: T0600100049	165 13TH ST	N 1/8 - 1/4 (0.210 mi.)	R86	245
UNOCAL #0752 Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Open - Remediation Facility Id: 01-1611 Facility Status: Pollution Characterization Global Id: T0600101486	800 HARRISON	WNW 1/8 - 1/4 (0.213 mi.)	P89	293
KIN SHELL Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018	726 HARRISON ST	WNW 1/8 - 1/4 (0.223 mi.)	P98	336

EXECUTIVE SUMMARY

Status: Open - Remediation
 Facility Id: 01-2307
 Facility Status: Pollution Characterization
 Global Id: T0600102122

BENDER PROPERTY	250 12TH STREET	NNW 1/8 - 1/4 (0.245 mi.)	W109	376
Database: LUST, Date of Government Version: 12/10/2018				
Status: Open - Active				
Global Id: T10000011336				
OAKLAND UNIFIED SCHO	314 10TH STREET	NW 1/4 - 1/2 (0.260 mi.)	V111	382
Database: LUST, Date of Government Version: 12/10/2018				
Status: Open - Site Assessment				
Global Id: T06019710391				
MOBIL #10-MHG	160 14TH ST	NNE 1/4 - 1/2 (0.285 mi.)	Z117	392
Database: LUST, Date of Government Version: 12/10/2018				
Status: Open - Eligible for Closure				
Global Id: T06019782296				
SHELL / QUALITY TUNE	246 14TH ST	N 1/4 - 1/2 (0.317 mi.)	X127	424
Database: LUST REG 2, Date of Government Version: 09/30/2004				
Database: LUST, Date of Government Version: 12/10/2018				
Status: Completed - Case Closed				
Facility Id: 01-2039				
Facility Status: Case Closed				
Global Id: T0600101884				
date9: 4/5/1995				
CITY OF OAKLAND REDE	383 11TH STREET	NW 1/4 - 1/2 (0.344 mi.)	AB135	437
Database: LUST, Date of Government Version: 12/10/2018				
Status: Completed - Case Closed				
Global Id: T0600191509				
CHEVRON #9-4816	301 14TH ST	NNW 1/4 - 1/2 (0.350 mi.)	AD136	440
Database: LUST, Date of Government Version: 12/10/2018				
Status: Completed - Case Closed				
Global Id: T0600100327				
CHEVRON	301 14TH ST	NNW 1/4 - 1/2 (0.350 mi.)	AD137	442
Database: LUST REG 2, Date of Government Version: 09/30/2004				
Facility Id: 01-0355				
Facility Status: Pollution Characterization				
BILL LOUIE'S TEXACO	800 FRANKLIN ST	WNW 1/4 - 1/2 (0.354 mi.)	143	467
Database: LUST REG 2, Date of Government Version: 09/30/2004				
Database: LUST, Date of Government Version: 12/10/2018				
Status: Completed - Case Closed				
Facility Id: 01-0056				
Facility Status: Preliminary site assessment underway				
Global Id: T0600100050				
CITY OF OAKLAND / PA	1000 FRANKLIN ST	NW 1/4 - 1/2 (0.360 mi.)	AB144	476
Database: LUST REG 2, Date of Government Version: 09/30/2004				
Database: LUST, Date of Government Version: 12/10/2018				
Status: Completed - Case Closed				
Facility Id: 01-1126				
Facility Status: Remedial action (cleanup) Underway				
Global Id: T0600101036				
SPARKS PROPERTY	1424 HARRISON	NNW 1/4 - 1/2 (0.366 mi.)	AD146	483
Database: LUST, Date of Government Version: 12/10/2018				

EXECUTIVE SUMMARY

Status: Open - Site Assessment
Global Id: T1000000619

<p>ALLRIGHT PARKING LOT Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Facility Id: 01-2007 Facility Status: Case Closed Global Id: T0600101854 date9: 6/27/1996</p>	<p>1225 WEBSTER</p>	<p>NNW 1/4 - 1/2 (0.367 mi.)</p>	<p>AG147</p>	<p>486</p>
<p>HARRISON STREET GARA Database: LUST REG 2, Date of Government Version: 09/30/2004 Facility Id: 01-0739 Facility Status: Pollution Characterization</p>	<p>1432 HARRISON ST</p>	<p>N 1/4 - 1/2 (0.374 mi.)</p>	<p>AD150</p>	<p>489</p>
<p>A BACHARACH TRUST & Database: LUST, Date of Government Version: 12/10/2018 Status: Open - Eligible for Closure Global Id: T0600100682</p>	<p>1432 HARRISON STREET</p>	<p>N 1/4 - 1/2 (0.374 mi.)</p>	<p>AD151</p>	<p>491</p>
<p>LEE FAMILY ASSOCIATI Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Facility Id: 01-1739 Facility Status: Case Closed Global Id: T0600101610 date9: 6/14/1995</p>	<p>387 12TH</p>	<p>NW 1/4 - 1/2 (0.388 mi.)</p>	<p>AH153</p>	<p>501</p>
<p>OFFICE OF THE PRESID Database: LUST REG 2, Date of Government Version: 09/30/2004 Facility Id: 01-2250 Facility Status: Case Closed date9: 1/8/1998</p>	<p>1111 FRANKLIN ST</p>	<p>NW 1/4 - 1/2 (0.403 mi.)</p>	<p>AH157</p>	<p>507</p>
<p>UNIVERSITY OF CALIFO Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Global Id: T0600102066</p>	<p>1111 FRANKLIN</p>	<p>NW 1/4 - 1/2 (0.403 mi.)</p>	<p>AH158</p>	<p>507</p>
<p>SHORE ACRES GAS Database: LUST, Date of Government Version: 12/10/2018 Status: Open - Assessment & Interim Remedial Action Global Id: T0600174667</p>	<p>403 12TH</p>	<p>NW 1/4 - 1/2 (0.413 mi.)</p>	<p>AH161</p>	<p>509</p>
<p>FINANCIAL CENTER BUI Database: LUST REG 2, Date of Government Version: 09/30/2004 Facility Id: 01-2280 Facility Status: Case Closed date9: 4/3/1998</p>	<p>405 14TH ST</p>	<p>NNW 1/4 - 1/2 (0.460 mi.)</p>	<p>AK180</p>	<p>576</p>
<p>FINANCIAL CENTER BUI Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Global Id: T0600102096</p>	<p>405 14TH ST</p>	<p>NNW 1/4 - 1/2 (0.460 mi.)</p>	<p>AK181</p>	<p>576</p>
<p>PARKING GARAGE Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018</p>	<p>420 13TH ST</p>	<p>NNW 1/4 - 1/2 (0.465 mi.)</p>	<p>AK182</p>	<p>578</p>

EXECUTIVE SUMMARY

Status: Completed - Case Closed
 Facility Id: 01-1773
 Facility Status: Case Closed
 Global Id: T0600101641
 date9: 5/14/1994

SHELL **461 8TH ST** **WNW 1/4 - 1/2 (0.467 mi.)** **185** **584**

Database: LUST REG 2, Date of Government Version: 09/30/2004
 Database: LUST, Date of Government Version: 12/10/2018
 Status: Open - Verification Monitoring
 Facility Id: 01-1368
 Facility Status: Pollution Characterization
 Global Id: T0600101263

YWCA OF OAKLAND **1515 WEBSTER ST** **NNW 1/4 - 1/2 (0.476 mi.)** **189** **598**

Database: LUST REG 2, Date of Government Version: 09/30/2004
 Database: LUST, Date of Government Version: 12/10/2018
 Status: Completed - Case Closed
 Facility Id: 01-2211
 Facility Status: Preliminary site assessment underway
 Global Id: T0600102030

SHORENSTEIN REALTY S **1111 BROADWAY** **NW 1/4 - 1/2 (0.493 mi.)** **193** **622**

Database: LUST REG 2, Date of Government Version: 09/30/2004
 Database: LUST, Date of Government Version: 12/10/2018
 Status: Completed - Case Closed
 Facility Id: 01-0235
 Facility Status: Case Closed
 Global Id: T0600100221
 date9: 2/3/1997

CHEVRON **1633 HARRISON ST** **N 1/4 - 1/2 (0.495 mi.)** **AP194** **628**

Database: LUST REG 2, Date of Government Version: 09/30/2004
 Facility Id: 01-0331
 Facility Status: Remedial action (cleanup) Underway

CHEVRON #9-0020 **1633 HARRISON STREET** **N 1/4 - 1/2 (0.495 mi.)** **AP195** **628**

Database: LUST, Date of Government Version: 12/10/2018
 Status: Completed - Case Closed
 Global Id: T0600100304

WILTEL COMMUNICATION **1330 BROADWAY** **NNW 1/4 - 1/2 (0.498 mi.)** **200** **644**

Database: LUST REG 2, Date of Government Version: 09/30/2004
 Facility Id: 01-1694
 Facility Status: Case Closed
 date9: 5/4/1994

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
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PORT OF OAKLAND / CA **79 8TH AVE** **SE 0 - 1/8 (0.016 mi.)** **C23** **19**

Database: LUST REG 2, Date of Government Version: 09/30/2004
 Database: LUST, Date of Government Version: 12/10/2018
 Status: Completed - Case Closed
 Facility Id: 01-2400
 Facility Status: Preliminary site assessment workplan submitted
 Global Id: T0600102210

LANEY COLLEGE **900 FALLON ST** **E 0 - 1/8 (0.028 mi.)** **B29** **28**

Database: LUST REG 2, Date of Government Version: 09/30/2004
 Database: LUST, Date of Government Version: 12/10/2018

EXECUTIVE SUMMARY

Status: Completed - Case Closed
 Facility Id: 01-0880
 Facility Status: Case Closed
 Global Id: T0600100813
 date9: 10/25/1995

<p>T&T AUTO</p> <p>Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Facility Id: 01-0303 Facility Status: Case Closed Global Id: T0600100281 date9: 3/1/1995</p>	<p>610 OAK ST</p>	<p>S 0 - 1/8 (0.094 mi.)</p>	<p>I44</p>	<p>73</p>
<p>CHEVRON</p> <p>Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Facility Id: 01-0382 Facility Status: Remedial action (cleanup) Underway Global Id: T0600100351</p>	<p>609 OAK ST</p>	<p>SSW 0 - 1/8 (0.096 mi.)</p>	<p>I48</p>	<p>86</p>
<p>WESTERN UNION</p> <p>Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Facility Id: 01-1668 Facility Status: Case Closed Global Id: T0600101541 date9: 8/1/1995</p>	<p>125 12TH</p>	<p>NNE 1/8 - 1/4 (0.153 mi.)</p>	<p>K61</p>	<p>146</p>
<p>SHELL</p> <p>Database: LUST REG 2, Date of Government Version: 09/30/2004 Facility Id: 01-2300 Facility Status: Preliminary site assessment workplan submitted</p>	<p>105 5TH ST</p>	<p>SSW 1/8 - 1/4 (0.178 mi.)</p>	<p>M71</p>	<p>178</p>
<p>SHELL #13-5700</p> <p>Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Global Id: T0600102116</p>	<p>105 5TH</p>	<p>SSW 1/8 - 1/4 (0.178 mi.)</p>	<p>M72</p>	<p>178</p>
<p>PORT OF OAKLAND / LA</p> <p>Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Facility Id: 01-2436 Facility Status: Preliminary site assessment underway Global Id: T0600102245</p>	<p>412 MADISON</p>	<p>SSW 1/8 - 1/4 (0.183 mi.)</p>	<p>M77</p>	<p>195</p>
<p>BALCO PROPERTIES</p> <p>Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Facility Id: 01-0146 Facility Status: Case Closed Global Id: T0600100135 date9: 2/14/1996</p>	<p>55 4TH ST</p>	<p>S 1/8 - 1/4 (0.210 mi.)</p>	<p>O84</p>	<p>239</p>
<p>401 JACKSON ST</p> <p>Database: LUST, Date of Government Version: 12/10/2018</p>	<p>401 JACKSON ST</p>	<p>SW 1/8 - 1/4 (0.222 mi.)</p>	<p>Q96</p>	<p>330</p>

EXECUTIVE SUMMARY

Status: Completed - Case Closed
Global Id: T10000011031

<p>GIN'S ARCO SERVICE Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Open - Remediation Facility Id: 01-1068 Facility Status: Preliminary site assessment underway Global Id: T0600100985</p>	<p>706 HARRISON ST</p>	<p>W 1/8 - 1/4 (0.226 mi.)</p>	<p>P100</p>	<p>346</p>
<p>CITY OF OAKLAND Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Facility Id: 01-1837 Facility Status: Case Closed Global Id: T0600101703 date9: 5/14/1994</p>	<p>1310 OAK ST</p>	<p>NE 1/8 - 1/4 (0.234 mi.)</p>	<p>103</p>	<p>362</p>
<p>POST TOOL Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Facility Id: 01-1781 Facility Status: Case Closed Global Id: T0600101649 date9: 1/5/1994</p>	<p>400 OAK</p>	<p>SSW 1/8 - 1/4 (0.234 mi.)</p>	<p>T105</p>	<p>369</p>
<p>PENN PARTNERS Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Facility Id: 01-1151 Facility Status: Case Closed Global Id: T0600101060 date9: 6/24/1993</p>	<p>333 OAK ST</p>	<p>SSW 1/8 - 1/4 (0.242 mi.)</p>	<p>T107</p>	<p>372</p>
<p>JAL-VUE WINDOW CORPO Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Facility Id: 01-0637 Facility Status: Case Closed Global Id: T0600100587 date9: 1/22/1993</p>	<p>295 6TH AVE</p>	<p>W 1/4 - 1/2 (0.259 mi.)</p>	<p>S110</p>	<p>380</p>
<p>MACY'S MOVERS Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Facility Id: 01-1731 Facility Status: Case Closed Global Id: T0600101602 date9: 12/21/1993</p>	<p>200 VICTORY</p>	<p>S 1/4 - 1/2 (0.284 mi.)</p>	<p>Y115</p>	<p>388</p>
<p>EAST BAY TIRE COMPAN Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed</p>	<p>225 3RD</p>	<p>SW 1/4 - 1/2 (0.293 mi.)</p>	<p>AA120</p>	<p>399</p>

EXECUTIVE SUMMARY

Facility Id: 01-2227
 Facility Status: Case Closed
 Global Id: T0600102045
 date9: 5/30/1997

PEERLESS COFFEE	225 FALLON ST	S 1/4 - 1/2 (0.304 mi.)	Y122	409
Database: LUST REG 2, Date of Government Version: 09/30/2004				
Database: LUST, Date of Government Version: 12/10/2018				
Status: Completed - Case Closed				
Facility Id: 01-1146				
Facility Status: Case Closed				
Global Id: T0600101056				
date9: 12/8/1999				
EAST BAY PACKING COM	208 JACKSON ST	SW 1/4 - 1/2 (0.306 mi.)	AA123	412
Database: LUST REG 2, Date of Government Version: 09/30/2004				
Database: LUST, Date of Government Version: 12/10/2018				
Status: Completed - Case Closed				
Facility Id: 01-0533				
Facility Status: Preliminary site assessment underway				
Global Id: T0600100487				
SALVATION ARMY	601 WEBSTER ST	W 1/4 - 1/2 (0.315 mi.)	126	417
Database: LUST, Date of Government Version: 12/10/2018				
Status: Open - Site Assessment				
Global Id: T10000003428				
MILLER PACKING	206 2ND ST	SW 1/4 - 1/2 (0.333 mi.)	AA128	427
Database: LUST REG 2, Date of Government Version: 09/30/2004				
Database: LUST, Date of Government Version: 12/10/2018				
Status: Completed - Case Closed				
Facility Id: 01-0974				
Facility Status: Preliminary site assessment underway				
Global Id: T0600100897				
P E O'HARE	309 4TH ST	WSW 1/4 - 1/2 (0.342 mi.)	AC134	435
Database: LUST REG 2, Date of Government Version: 09/30/2004				
Database: LUST, Date of Government Version: 12/10/2018				
Status: Completed - Case Closed				
Facility Id: 01-1144				
Facility Status: Case Closed				
Global Id: T0600101054				
date9: 9/12/1996				
MILLER PACKING COMPA	201 2ND ST	SW 1/4 - 1/2 (0.352 mi.)	AE139	443
Database: LUST, Date of Government Version: 12/10/2018				
Status: Completed - Case Closed				
Global Id: T0600102305				
MILLER PACKING	201 2ND ST	SW 1/4 - 1/2 (0.352 mi.)	AE140	445
Database: LUST REG 2, Date of Government Version: 09/30/2004				
Facility Id: 21-2395				
Facility Status: Preliminary site assessment underway				
PORT OF OAKLAND / AM	245 2ND	SW 1/4 - 1/2 (0.363 mi.)	AE145	479
Database: LUST REG 2, Date of Government Version: 09/30/2004				
Database: LUST, Date of Government Version: 12/10/2018				
Status: Completed - Case Closed				
Facility Id: 01-2251				
Facility Status: Case Closed				

EXECUTIVE SUMMARY

Global Id: T0600102067
date9: 4/3/1998

<p>UNITED BEVERAGE DIST</p> <p>Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Facility Id: 01-1707 Facility Status: Preliminary site assessment underway Global Id: T0600101578 date9: 10/17/2001</p>	<p>105 JACKSON ST</p>	<p>SW 1/4 - 1/2 (0.375 mi.)</p>	<p>AE152</p>	<p>499</p>
<p>SUNSET WHOLESALE COM</p> <p>Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Facility Id: 01-1742 Facility Status: Case Closed Global Id: T0600101613 date9: 10/17/1996</p>	<p>105 EMBARCADERO</p>	<p>SW 1/4 - 1/2 (0.398 mi.)</p>	<p>AI155</p>	<p>504</p>
<p>PE O'HAIR & COMPANY</p> <p>Database: LUST REG 2, Date of Government Version: 09/30/2004 Facility Id: 01-0838 Facility Status: Leak being confirmed</p>	<p>339 3RD ST</p>	<p>WSW 1/4 - 1/2 (0.405 mi.)</p>	<p>159</p>	<p>508</p>
<p>KTVU PARTNERSHIP</p> <p>Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Global Id: T0600101661</p>	<p>2 JACK LONDON SQ</p>	<p>SSW 1/4 - 1/2 (0.417 mi.)</p>	<p>AI162</p>	<p>517</p>
<p>THE COLONY / THE OLS</p> <p>Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Facility Id: 01-2151 Facility Status: Case Closed Global Id: T0600101977 date9: 6/18/1996</p>	<p>311 2ND</p>	<p>WSW 1/4 - 1/2 (0.419 mi.)</p>	<p>164</p>	<p>524</p>
<p>1244 2ND AVENUE LLC</p> <p>Database: LUST, Date of Government Version: 12/10/2018 Status: Completed - Case Closed Global Id: T10000008860</p>	<p>1244 2ND AVENUE</p>	<p>E 1/4 - 1/2 (0.421 mi.)</p>	<p>AJ166</p>	<p>527</p>
<p>PERALTA COLLEGE DIST</p> <p>Database: LUST, Date of Government Version: 12/10/2018 Status: Open - Site Assessment Global Id: T0600100983</p>	<p>501 5TH AVENUE</p>	<p>SE 1/4 - 1/2 (0.432 mi.)</p>	<p>AL170</p>	<p>539</p>
<p>PERALTA DISTRICT ADM</p> <p>Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST REG 3, Date of Government Version: 05/19/2003 Facility Id: 01-1066 Facility Status: Preliminary site assessment underway Status: Case Closed Global ID: T0608391920</p>	<p>501 5TH AVE</p>	<p>SE 1/4 - 1/2 (0.432 mi.)</p>	<p>AL172</p>	<p>545</p>
<p>SOUTHERN PACIFIC TRA</p> <p>Database: LUST REG 2, Date of Government Version: 09/30/2004 Database: LUST, Date of Government Version: 12/10/2018</p>	<p>0 5TH AVE & 7TH</p>	<p>SE 1/4 - 1/2 (0.434 mi.)</p>	<p>174</p>	<p>553</p>

EXECUTIVE SUMMARY

Status: Completed - Case Closed

Facility Id: 01-1757

Facility Status: Preliminary site assessment underway

Global Id: T0600101625

PACIFIC DRYDOCK & RE	321 EMBARCADERO	SSE 1/4 - 1/2 (0.437 mi.)	175	555
Database: LUST, Date of Government Version: 12/10/2018				
Status: Open - Assessment & Interim Remedial Action				
Global Id: T0600102267				
ALLIFT & EQUIPMENT C	251 5TH AVE	SE 1/4 - 1/2 (0.466 mi.)	AN183	581
Database: LUST REG 2, Date of Government Version: 09/30/2004				
Facility Id: 01-1194				
Facility Status: Case Closed				
date9: 1/3/1994				
AM/PM SERVICE CO	251 5TH AVE	SE 1/4 - 1/2 (0.466 mi.)	AN184	582
Database: LUST, Date of Government Version: 12/10/2018				
Status: Completed - Case Closed				
Global Id: T0600101097				
LAKEHURST HOTEL	1569 JACKSON ST	NNE 1/4 - 1/2 (0.470 mi.)	187	594
Database: LUST REG 2, Date of Government Version: 09/30/2004				
Database: LUST, Date of Government Version: 12/10/2018				
Status: Completed - Case Closed				
Facility Id: 01-2231				
Facility Status: Case Closed				
Global Id: T0600102048				
date9: 6/11/1997				
TUDOR HALL APARTMENT	150 17TH STREET	NNE 1/4 - 1/2 (0.490 mi.)	191	601
Database: LUST, Date of Government Version: 12/10/2018				
Status: Open - Assessment & Interim Remedial Action				
Global Id: T10000007042				
PACIFIC DRY DOCK & R	321 EMBARCADERO	WSW 1/4 - 1/2 (0.493 mi.)	AO192	604
Database: LUST REG 2, Date of Government Version: 09/30/2004				
Facility Id: 01-2459				
Facility Status: Leak being confirmed				
MERRITT ROOF COMPANY	1044 5TH AVE	ESE 1/4 - 1/2 (0.495 mi.)	AQ196	634
Database: LUST, Date of Government Version: 12/10/2018				
Status: Open - Eligible for Closure				
Global Id: T0600102304				
MERRITT ENV CORP	1044 5TH AVE	ESE 1/4 - 1/2 (0.495 mi.)	AQ197	640
Database: LUST REG 2, Date of Government Version: 09/30/2004				
Facility Id: 21-2323				
Facility Status: Preliminary site assessment underway				

CPS-SLIC: Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the CPS-SLIC list, as provided by EDR, has revealed that there are 20 CPS-SLIC sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
OAKLAND AUTOMATIC SA	719 ALICE ST	W 1/8 - 1/4 (0.164 mi.)	J64	154
Database: CPS-SLIC, Date of Government Version: 12/10/2018				

EXECUTIVE SUMMARY

Facility Status: Open - Inactive
Global Id: T10000007955

PORT OF OAKLAND / AM	245 2ND	SW 1/4 - 1/2 (0.363 mi.)	AE145	479
Database: CPS-SLIC, Date of Government Version: 12/10/2018				
Facility Status: Open - Active				
Global Id: T10000010636				
THE COLONY / THE OLS	311 2ND	WSW 1/4 - 1/2 (0.419 mi.)	164	524
Database: CPS-SLIC, Date of Government Version: 12/10/2018				
Facility Status: Open - Site Assessment				
Global Id: SL0600180448				
HOWARD JOHNSON EXPRE	423 7TH ST	WNW 1/4 - 1/2 (0.419 mi.)	165	526
Database: CPS-SLIC, Date of Government Version: 12/10/2018				
Facility Status: Completed - Case Closed				
Global Id: SL0600167382				
APARTMENT BUILDING	1455 1ST	ENE 1/4 - 1/2 (0.423 mi.)	167	533
Database: CPS-SLIC, Date of Government Version: 12/10/2018				
Facility Status: Open - Site Assessment				
Global Id: T06019752536				
PERALTA COLLEGE DIST	501 5TH AVENUE	SE 1/4 - 1/2 (0.432 mi.)	AL171	545
Database: CPS-SLIC, Date of Government Version: 12/10/2018				
Facility Status: Open - Site Assessment				
Global Id: T10000011168				
EAST BASIN MARINA	EMBARCADERO @ ALICE	SW 1/4 - 1/2 (0.438 mi.)	AM176	564
Database: SLIC REG 2, Date of Government Version: 09/30/2004				
Facility Id: SL18374794				
AMERICAN MEDIA RADIO	229 INTERNATIONAL BL	E 1/4 - 1/2 (0.441 mi.)	AJ177	565
Database: CPS-SLIC, Date of Government Version: 12/10/2018				
Facility Status: Open - Site Assessment				
Global Id: T10000011156				
JACK LONDON SQUARE P	40 JACK LONDON SQUAR	SW 1/4 - 1/2 (0.452 mi.)	AM179	571
Database: CPS-SLIC, Date of Government Version: 12/10/2018				
Facility Status: Open - Verification Monitoring				
Global Id: T10000006743				

Alameda County CS: A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

A review of the Alameda County CS list, as provided by EDR, and dated 01/09/2019 has revealed that there are 72 Alameda County CS sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
VIC'S AUTOMOTIVE SER	245 8TH	WNW 1/8 - 1/4 (0.132 mi.)	J56	119
Record Id: RO0000202				
Status: Leak Confirmation				
Status: Preliminary Site Assessment Underway				
Status: Pollution Characterization				
Status: Remedial Action Underway				
Status: Case Closed				
CITY OF OAKLAND FIRE	822 ALICE ST	WNW 1/8 - 1/4 (0.137 mi.)	J57	128

EXECUTIVE SUMMARY

Record Id: RO0001139				
Status: Case Closed				
AQUA SCIENCE ENGINEE	250 8TH STREET	WNW 1/8 - 1/4 (0.152 mi.)	J58	130
Record Id: RO0000479				
Status: Leak Confirmation				
Status: Preliminary Site Assessment Workplan Submitted				
Status: Preliminary Site Assessment Underway				
Status: Pollution Characterization				
Status: Remediation Plan				
D R HORTON INC	1110 JACKSON ST	N 1/8 - 1/4 (0.160 mi.)	L62	148
Record Id: RO0003232				
Status: Leak Confirmation				
OAKLAND AUTOMATIC SA	719 ALICE ST	W 1/8 - 1/4 (0.164 mi.)	J64	154
Record Id: RO0002838				
Status: Case Closed				
PORT OF OAKLAND / BL	271 8TH AVENUE	WNW 1/8 - 1/4 (0.185 mi.)	P80	214
Record Id: RO0000108				
ALCOPARK GARAGE	165 13TH ST	N 1/8 - 1/4 (0.210 mi.)	R86	245
Record Id: RO0000401				
Status: Leak Confirmation				
Status: Preliminary Site Assessment Workplan Submitted				
Status: Preliminary Site Assessment Underway				
Status: Pollution Characterization				
UNION OIL SS0752	800 HARRISON ST	WNW 1/8 - 1/4 (0.213 mi.)	P90	301
Record Id: RO0000231				
Status: Leak Confirmation				
Status: Preliminary Site Assessment Workplan Submitted				
Status: Preliminary Site Assessment Underway				
Status: Pollution Characterization				
KIN SHELL	726 HARRISON ST	WNW 1/8 - 1/4 (0.223 mi.)	P98	336
Record Id: RO0000321				
Status: Leak Confirmation				
Status: Preliminary Site Assessment Workplan Submitted				
Status: Preliminary Site Assessment Underway				
Status: Remediation Plan				
BAYPORTE VILLAGE (AC	0 8TH ST & MARKET	WNW 1/8 - 1/4 (0.238 mi.)	U106	371
Record Id: RO0002710				
Status: Case Closed				
BENDER PROPERTY	250 12TH STREET	NNW 1/8 - 1/4 (0.245 mi.)	W109	376
Record Id: RO0003295				
Status: Leak Confirmation				
FRANK G MAR COMMUNIT	283 13TH ST	NNW 1/4 - 1/2 (0.282 mi.)	W114	387
Record Id: RO0002829				
Status: Pollution Characterization				
Status: Case Closed				
MOBIL #10-MHG	160 14TH ST	NNE 1/4 - 1/2 (0.285 mi.)	Z117	392
Record Id: RO0002922				
Status: Preliminary Site Assessment Underway				
Status: Pollution Characterization				
ONE HOUR CLEANERS	190 14TH ST	N 1/4 - 1/2 (0.289 mi.)	Z118	397
Record Id: RO0003308				
SHELL / QUALITY TUNE	246 14TH ST	N 1/4 - 1/2 (0.317 mi.)	X127	424

EXECUTIVE SUMMARY

Status: Pollution Characterization				
Status: Case Closed				
FINANCIAL CENTER BUI	405 14TH ST	NNW 1/4 - 1/2 (0.460 mi.)	AK181	576
Record Id: RO0000757				
Status: Case Closed				
PARKING GARAGE	420 13TH ST	NNW 1/4 - 1/2 (0.465 mi.)	AK182	578
Record Id: RO0000576				
Status: Case Closed				
SHELL	461 8TH ST	WNW 1/4 - 1/2 (0.467 mi.)	185	584
Record Id: RO0000343				
Status: Leak Confirmation				
Status: Preliminary Site Assessment Workplan Submitted				
Status: Preliminary Site Assessment Underway				
Status: Pollution Characterization				
Status: Remedial Action Underway				
YWCA OF OAKLAND	1515 WEBSTER ST	NNW 1/4 - 1/2 (0.476 mi.)	189	598
Record Id: RO0000718				
Status: Case Closed				
FRANKLIN HOME HEATIN	1428-1432 FRANKLIN S	NNW 1/4 - 1/2 (0.479 mi.)	190	600
Record Id: RO0003132				
Status: Leak Confirmation				
SHORENSTEIN REALTY S	1111 BROADWAY	NW 1/4 - 1/2 (0.493 mi.)	193	622
Record Id: RO0001116				
Status: Case Closed				
CHEVRON #9-0020	1633 HARRISON STREET	N 1/4 - 1/2 (0.495 mi.)	AP195	628
Record Id: RO0000143				
Status: Leak Confirmation				
Status: Preliminary Site Assessment Underway				
Status: Pollution Characterization				
Status: Case Closed				
Lower Elevation	Address	Direction / Distance	Map ID	Page
PORT OF OAKLAND / CA	79 8TH AVE	SE 0 - 1/8 (0.016 mi.)	C23	19
Record Id: RO0000485				
LANEY COLLEGE	900 FALLON ST	E 0 - 1/8 (0.028 mi.)	B29	28
Record Id: RO0000719				
Status: Case Closed				
T&T AUTO	610 OAK ST	S 0 - 1/8 (0.094 mi.)	I44	73
Record Id: RO0000855				
Status: Case Closed				
CHEVRON	609 OAK ST	SSW 0 - 1/8 (0.096 mi.)	I48	86
Record Id: RO0000038				
Status: Leak Confirmation				
Status: Preliminary Site Assessment Underway				
Status: Remedial Action Underway				
Status: Case Closed				
WESTERN UNION	125 12TH	NNE 1/8 - 1/4 (0.153 mi.)	K61	146
Record Id: RO0001155				
Status: Case Closed				
SHELL #13-5700	105 5TH	SSW 1/8 - 1/4 (0.178 mi.)	M72	178

EXECUTIVE SUMMARY

Record Id: RO0000487 Status: Leak Confirmation Status: Preliminary Site Assessment Workplan Submitted Status: Preliminary Site Assessment Underway Status: Pollution Characterization Status: Case Closed					
PORT OF OAKLAND / LA	412 MADISON	SSW 1/8 - 1/4 (0.183 mi.)	M77	195	
Record Id: RO0000244 Status: Leak Confirmation Status: Pollution Characterization					
BALCO PROPERTIES	55 4TH ST	S 1/8 - 1/4 (0.210 mi.)	O84	239	
Record Id: RO0000751 Status: Case Closed					
94607	401 JACKSON ST	SW 1/8 - 1/4 (0.222 mi.)	Q95	329	
Record Id: RO0003262 Status: Leak Confirmation					
401 JACKSON ST	401 JACKSON ST	SW 1/8 - 1/4 (0.222 mi.)	Q96	330	
Record Id: RO0003301					
GIN'S ARCO SERVICE	706 HARRISON ST	W 1/8 - 1/4 (0.226 mi.)	P100	346	
Record Id: RO0000484 Status: Leak Confirmation Status: Preliminary Site Assessment Underway Status: Pollution Characterization Status: Remedial Action Underway					
CITY OF OAKLAND	1310 OAK ST	NE 1/8 - 1/4 (0.234 mi.)	103	362	
Record Id: RO0000779 Status: Case Closed					
POST TOOL	400 OAK	SSW 1/8 - 1/4 (0.234 mi.)	T105	369	
Record Id: RO0001144 Status: Case Closed					
MACY'S MOVERS	200 VICTORY	S 1/4 - 1/2 (0.284 mi.)	Y115	388	
Record Id: RO0000882 Record Id: RO0002666 Status: Leak Confirmation Status: Case Closed					
EAST BAY TIRE COMPAN	225 3RD	SW 1/4 - 1/2 (0.293 mi.)	AA120	399	
Record Id: RO0000743 Status: Case Closed					
PEERLESS COFFEE	225 FALLON ST	S 1/4 - 1/2 (0.304 mi.)	Y122	409	
Record Id: RO0001201 Status: Case Closed					
EAST BAY PACKING COM	208 JACKSON ST	SW 1/4 - 1/2 (0.306 mi.)	AA123	412	
Record Id: RO0000012 Status: Case Closed					
SALVATION ARMY	601 WEBSTER ST	W 1/4 - 1/2 (0.315 mi.)	126	417	
Record Id: RO0003084 Status: Leak Confirmation Status: Pollution Characterization					
MILLER PACKING	206 2ND ST	SW 1/4 - 1/2 (0.333 mi.)	AA128	427	
Record Id: RO0000080					

EXECUTIVE SUMMARY

Status: Case Closed				
VUKASIM PROPERTY	54 EMBARCADERO	SSW 1/4 - 1/2 (0.335 mi.)	131	431
Record Id: RO0003037				
Status: Leak Confirmation				
Status: Pollution Characterization				
P E O'HARE	309 4TH ST	WSW 1/4 - 1/2 (0.342 mi.)	AC134	435
Record Id: RO0001134				
Status: Case Closed				
MILLER PACKING COMPA	201 2ND ST	SW 1/4 - 1/2 (0.352 mi.)	AE139	443
Record Id: RO0000003				
Status: Case Closed				
OAKLAND UNIFIED SCHO	314 E 10TH ST	ESE 1/4 - 1/2 (0.353 mi.)	AF142	467
Record Id: RO0002856				
Status: Leak Confirmation				
Status: Preliminary Site Assessment Workplan Submitted				
PORT OF OAKLAND / AM	245 2ND	SW 1/4 - 1/2 (0.363 mi.)	AE145	479
Record Id: RO0000987				
Record Id: RO0003242				
Status: Leak Confirmation				
Status: Case Closed				
UNITED BEVERAGE DIST	105 JACKSON ST	SW 1/4 - 1/2 (0.375 mi.)	AE152	499
Record Id: RO0000034				
Status: Case Closed				
SUNSET WHOLESALE COM	105 EMBARCADERO	SW 1/4 - 1/2 (0.398 mi.)	AI155	504
Record Id: RO0000735				
Status: Case Closed				
KTVU PARTNERSHIP	2 JACK LONDON SQ	SSW 1/4 - 1/2 (0.417 mi.)	AI162	517
Record Id: RO0001013				
Status: Case Closed				
THE COLONY / THE OLS	311 2ND	WSW 1/4 - 1/2 (0.419 mi.)	164	524
Record Id: RO0000541				
Record Id: RO0002906				
Status: Preliminary Site Assessment Underway				
Status: Case Closed				
HOWARD JOHNSON EXPRE	423 7TH ST	WNW 1/4 - 1/2 (0.419 mi.)	165	526
Record Id: RO0002872				
Status: Leak Confirmation				
Status: Case Closed				
1244 2ND AVENUE LLC	1244 2ND AVENUE	E 1/4 - 1/2 (0.421 mi.)	AJ166	527
Record Id: RO0003216				
Status: Leak Confirmation				
Status: Case Closed				
APARTMENT BUILDING	1455 1ST	ENE 1/4 - 1/2 (0.423 mi.)	167	533
Record Id: RO0002765				
Status: Leak Confirmation				
PERALTA COLLEGE DIST	501 5TH AVE	SE 1/4 - 1/2 (0.432 mi.)	AL169	539
Record Id: RO0000384				
Status: Remediation Plan				
SOUTHERN PACIFIC TRA	0 5TH AVE & 7TH	SE 1/4 - 1/2 (0.434 mi.)	174	553
Record Id: RO0000381				

EXECUTIVE SUMMARY

Status: Case Closed

<p>PACIFIC DRYDOCK & RE Record Id: RO0000423 Status: Leak Confirmation Status: Pollution Characterization</p>	<p>321 EMBARCADERO</p>	<p>SSE 1/4 - 1/2 (0.437 mi.)</p>	<p>175</p>	<p>555</p>
<p>AMERICAN MEDIA RADIO Record Id: RO0003265 Status: Leak Confirmation</p>	<p>229 INTERNATIONAL BL</p>	<p>E 1/4 - 1/2 (0.441 mi.)</p>	<p>AJ177</p>	<p>565</p>
<p>AM/PM SERVICE CO Record Id: RO0001194 Status: Case Closed</p>	<p>251 5TH AVE</p>	<p>SE 1/4 - 1/2 (0.466 mi.)</p>	<p>AN184</p>	<p>582</p>
<p>LAKEHURST HOTEL Record Id: RO0000744 Status: Case Closed</p>	<p>1569 JACKSON ST</p>	<p>NNE 1/4 - 1/2 (0.470 mi.)</p>	<p>187</p>	<p>594</p>
<p>CENTURY PETROLEUM Record Id: RO0002931 Status: Leak Confirmation Status: Preliminary Site Assessment Underway</p>	<p>403 E 12TH ST</p>	<p>ESE 1/4 - 1/2 (0.471 mi.)</p>	<p>188</p>	<p>596</p>
<p>MERRITT ENV CORP Record Id: RO0000419 Status: Leak Confirmation Status: Pollution Characterization</p>	<p>1044 5TH AVE</p>	<p>ESE 1/4 - 1/2 (0.495 mi.)</p>	<p>AQ197</p>	<p>640</p>

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, has revealed that there are 4 UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<p>VIC'S AUTOMOTIVE Database: UST, Date of Government Version: 12/10/2018 Facility Id: 170</p>	<p>245 8TH ST</p>	<p>WNW 1/8 - 1/4 (0.132 mi.)</p>	<p>J55</p>	<p>119</p>
<p>ALCOPARK GARAGE Database: ALAMEDA CO. UST, Date of Government Version: 01/07/2019 Database: UST, Date of Government Version: 12/10/2018 Facility Id: FA0321139 Facility Id: 179 Facility Status: 01</p>	<p>165 13TH ST</p>	<p>N 1/8 - 1/4 (0.210 mi.)</p>	<p>R85</p>	<p>241</p>
<p>TOSCO CORPORATION #3 Database: ALAMEDA CO. UST, Date of Government Version: 01/07/2019 Database: UST, Date of Government Version: 12/10/2018 Facility Id: FA0321483 Facility Id: 209 Facility Status: 01</p>	<p>800 HARRISON ST</p>	<p>WNW 1/8 - 1/4 (0.213 mi.)</p>	<p>P91</p>	<p>303</p>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<p>105 OAK STREET LLC Database: ALAMEDA CO. UST, Date of Government Version: 01/07/2019 Database: UST, Date of Government Version: 12/10/2018</p>	<p>105 5TH ST</p>	<p>SSW 1/8 - 1/4 (0.178 mi.)</p>	<p>M70</p>	<p>177</p>

EXECUTIVE SUMMARY

Facility Id: FA0326954
Facility Id: FA0321264
Closed: YES
Facility Status: 01
Facility Status: 02

AST: A listing of aboveground storage tank petroleum storage tank locations.

A review of the AST list, as provided by EDR, has revealed that there are 2 AST sites within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BART METRO CENTER Database: AST, Date of Government Version: 07/06/2016	101 8TH ST	S 0 - 1/8 (0.017 mi.)	A25	26
COUNTY OF ALAMEDA GS Database: AST, Date of Government Version: 07/06/2016	1221 OAK ST	NNE 1/8 - 1/4 (0.192 mi.)	K81	216

State and tribal voluntary cleanup sites

VCP: Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

A review of the VCP list, as provided by EDR, and dated 01/28/2019 has revealed that there is 1 VCP site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
301 12TH STREET FUTU Status: Active Facility Id: 60002362	301 12TH STREET	NNW 1/4 - 1/2 (0.300 mi.)	121	401

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: The EPA's listing of Brownfields properties from the Cleanups in My Community program, which provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

A review of the US BROWNFIELDS list, as provided by EDR, and dated 12/17/2018 has revealed that there are 2 US BROWNFIELDS sites within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CORPORATION YARD ACRES property ID: 14254	2 FALLON ST	SSE 0 - 1/8 (0.112 mi.)	H51	111
RETAIL/ENTERTAINMENT	2 FALLON ST	SSE 0 - 1/8 (0.112 mi.)	H52	113

EXECUTIVE SUMMARY

ACRES property ID: 14253

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: A listing of recycling facilities in California.

A review of the SWRCY list, as provided by EDR, and dated 12/10/2018 has revealed that there is 1 SWRCY site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
PORT OF OAKLAND / LA Cert Id: RC0698	412 MADISON	SSW 1/8 - 1/4 (0.183 mi.)	M77	195

Local Lists of Hazardous waste / Contaminated Sites

HIST Cal-Sites: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

A review of the HIST Cal-Sites list, as provided by EDR, and dated 08/08/2005 has revealed that there is 1 HIST Cal-Sites site within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
HOWARD MARINE TERMIN	EMBARCADERO WEST AND	W 1/2 - 1 (0.876 mi.)	215	734

CERS HAZ WASTE: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

A review of the CERS HAZ WASTE list, as provided by EDR, and dated 10/22/2018 has revealed that there are 10 CERS HAZ WASTE sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GEORGE V ARTH & SON	110 10TH ST	NNE 0 - 1/8 (0.068 mi.)	G39	65
COOKS COLLISION DBA	149 11TH ST	NNE 0 - 1/8 (0.097 mi.)	G49	89
COUNTY OF ALAMEDA GS	165 13TH ST	N 1/8 - 1/4 (0.210 mi.)	R87	249
UNION 76	800 HARRISON ST	WNW 1/8 - 1/4 (0.213 mi.)	P92	303
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
LANEY COLLEGE	900 FALLON ST	E 0 - 1/8 (0.028 mi.)	B30	31
BAY AUTO CENTER	610 OAK ST	S 0 - 1/8 (0.094 mi.)	I45	74
COUNTY OF ALAMEDA GS	1225 FALLON ST	NE 1/8 - 1/4 (0.178 mi.)	N75	189
LAKESIDE NON-FERROUS	412 MADISON ST	SSW 1/8 - 1/4 (0.183 mi.)	M78	207
COUNTY OF ALAMEDA GS	1221 OAK ST	NNE 1/8 - 1/4 (0.192 mi.)	K82	217
CASH & CARRY # 567	400 OAK ST	SSW 1/8 - 1/4 (0.234 mi.)	T104	366

EXECUTIVE SUMMARY

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 15 SWEEPS UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
AQUA SCIENCE ENGINEER Comp Number: 51110	250 8TH STREET	WNW 1/8 - 1/4 (0.152 mi.)	J58	130
OFFICE OF FLEET ADMINISTRATION Status: A Tank Status: A Comp Number: 42513	1111 JACKSON ST	N 1/8 - 1/4 (0.166 mi.)	L65	155
ALCOPARK GARAGE Status: A Tank Status: A Comp Number: 27246	165 13TH ST	N 1/8 - 1/4 (0.210 mi.)	R85	241
UNOCAL #0752 Status: A Tank Status: A Comp Number: 31763	800 HARRISON	WNW 1/8 - 1/4 (0.213 mi.)	P89	293
CIVIC CENTER ANNEX Comp Number: 66334	201 13TH ST	N 1/8 - 1/4 (0.218 mi.)	R93	328
KIN SHELL Status: A Tank Status: A Comp Number: 59146	726 HARRISON ST	WNW 1/8 - 1/4 (0.223 mi.)	P98	336
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
LANEY COLLEGE Status: A Tank Status: A Comp Number: 24318	900 FALLON ST	E 0 - 1/8 (0.028 mi.)	B30	31
METROCENTER Status: A Tank Status: A Comp Number: 1258	101 008TH ST	W 0 - 1/8 (0.080 mi.)	42	72
CHEVRON Status: A Tank Status: A Comp Number: 62644	609 OAK ST	SSW 0 - 1/8 (0.096 mi.)	I48	86
WESTERN UNION Comp Number: 1416	125 12TH	NNE 1/8 - 1/4 (0.153 mi.)	K61	146
ALAMEDA COURTHOUSE C Status: A Tank Status: A	1225 FALLON ST	NE 1/8 - 1/4 (0.178 mi.)	N74	185

EXECUTIVE SUMMARY

Comp Number: 56236 CONTROLCO, INC. Comp Number: 8001	70 4TH ST	S 1/8 - 1/4 (0.185 mi.)	O79	214
OAK STREET SHELL Status: A Tank Status: A Comp Number: 56698	105 005TH ST	SW 1/8 - 1/4 (0.193 mi.)	Q83	237
GIN'S ARCO SERVICE Comp Number: 61568	706 HARRISON ST	W 1/8 - 1/4 (0.226 mi.)	P100	346
CITY OF OAKLAND Comp Number: 4599	1310 OAK ST	NE 1/8 - 1/4 (0.234 mi.)	103	362

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 20 HIST UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
DICK AND VICS ARCO	245 8TH ST	WNW 1/8 - 1/4 (0.132 mi.)	J53	116
DICK & VICS ARCO Facility Id: 00000006918	245-8TH ST.	WNW 1/8 - 1/4 (0.132 mi.)	J54	117
MANDARIN AUTO SERVIC Facility Id: 00000051110	250 8TH ST	WNW 1/8 - 1/4 (0.152 mi.)	J59	143
OFFICE OF FLEET ADMI	1111 JACKSON ST	N 1/8 - 1/4 (0.166 mi.)	L65	155
OFFICE OF FLEET ADMI Facility Id: 00000042513	1111 JACKSON ST	N 1/8 - 1/4 (0.166 mi.)	L66	157
STATE OFFICE BUILDIN Facility Id: 00000008624	1111 JACKSON ST	N 1/8 - 1/4 (0.166 mi.)	L68	163
ALCOPARK GARAGE Facility Id: 00000027246	165 13TH ST	N 1/8 - 1/4 (0.210 mi.)	R85	241
ALCOPARK GARAGE	165 13TH ST	N 1/8 - 1/4 (0.210 mi.)	R86	245
UNOCAL #0752 Facility Id: 00000031763	800 HARRISON	WNW 1/8 - 1/4 (0.213 mi.)	P89	293
UNION OIL SS0752 Facility Id: 00000058996	800 HARRISON ST	WNW 1/8 - 1/4 (0.213 mi.)	P90	301
CIVIC CENTER ANNEX Facility Id: 00000066334	201 13TH STREET	N 1/8 - 1/4 (0.218 mi.)	R94	329
KINS SHELL SERVICE Facility Id: 00000059146	726 HARRISON ST	WNW 1/8 - 1/4 (0.223 mi.)	P99	345
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
METRO CENTER Facility Id: 00000001258	101 8TH STREET	S 0 - 1/8 (0.017 mi.)	A26	27
LANEY COLLEGE Facility Id: 00000024318	900 FALLON ST	E 0 - 1/8 (0.028 mi.)	B29	28
LANEY COLLEGE 94587	900 FALLON ST 609 OAK ST	E 0 - 1/8 (0.028 mi.) SSW 0 - 1/8 (0.096 mi.)	B30 I47	31 85

EXECUTIVE SUMMARY

Facility Id: 00000062644				
SHELL #13-5700	105 5TH	SSW 1/8 - 1/4 (0.178 mi.)	M72	178
Facility Id: 00000056698				
SP OPER	105 5TH ST	SSW 1/8 - 1/4 (0.178 mi.)	M73	184
Facility Id: 00000067189				
ALAMEDA COURTHOUSE C	1225 FALLON ST	NE 1/8 - 1/4 (0.178 mi.)	N74	185
Facility Id: 00000056236				
GINs ARCO SERVICE	706 HARRISON ST	W 1/8 - 1/4 (0.226 mi.)	P101	358
Facility Id: 00000061568				

CERS TANKS: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

A review of the CERS TANKS list, as provided by EDR, and dated 10/22/2018 has revealed that there are 5 CERS TANKS sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
COUNTY OF ALAMEDA GS	165 13TH ST	N 1/8 - 1/4 (0.210 mi.)	R87	249
UNION 76	800 HARRISON ST	WNW 1/8 - 1/4 (0.213 mi.)	P92	303
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BART METRO CENTER	101 8TH ST	S 0 - 1/8 (0.017 mi.)	A24	21
105 OAK STREET LLC	105 5TH ST	SSW 1/8 - 1/4 (0.178 mi.)	M69	163
COUNTY OF ALAMEDA GS	1221 OAK ST	NNE 1/8 - 1/4 (0.192 mi.)	K82	217

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 10 CA FID UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
OFFICE OF FLEET ADMI	1111 JACKSON ST	N 1/8 - 1/4 (0.166 mi.)	L65	155
Facility Id: 01002695				
Status: A				
ALCOPARK GARAGE	165 13TH ST	N 1/8 - 1/4 (0.210 mi.)	R86	245
Facility Id: 01000174				
Status: A				
CIVIC CENTER ANNEX	201 13TH ST	N 1/8 - 1/4 (0.218 mi.)	R93	328
Facility Id: 01002262				
Status: I				
KIN SHELL	726 HARRISON ST	WNW 1/8 - 1/4 (0.223 mi.)	P98	336
Facility Id: 01002773				
Status: A				
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
LANEY COLLEGE	900 FALLON ST	E 0 - 1/8 (0.028 mi.)	B30	31

EXECUTIVE SUMMARY

Facility Id: 01002640 Status: A				
METROCENTER Facility Id: 01002520 Status: A	101 008TH ST	W 0 - 1/8 (0.080 mi.)	42	72
CHEVRON Facility Id: 01000510 Status: A	609 OAK ST	SSW 0 - 1/8 (0.096 mi.)	I48	86
ALAMEDA COURTHOUSE C Facility Id: 01002748 Status: A	1225 FALLON ST	NE 1/8 - 1/4 (0.178 mi.)	N74	185
OAK STREET SHELL Facility Id: 01002750 Status: A	105 005TH ST	SW 1/8 - 1/4 (0.193 mi.)	Q83	237
GIN'S ARCO SERVICE Facility Id: 01001180 Status: I	706 HARRISON ST	W 1/8 - 1/4 (0.226 mi.)	P100	346

Local Land Records

DEED: The use of recorded land use restrictions is one of the methods the DTSC uses to protect the public from unsafe exposures to hazardous substances and wastes .

A review of the DEED list, as provided by EDR, and dated 03/04/2019 has revealed that there are 2 DEED sites within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
A. BERCOVICH 2ND STR Status: CERTIFIED O&M - LAND USE RESTRICTIONS ONLY Envirostor ID: 1590002	127 2ND STREET	SSW 1/4 - 1/2 (0.335 mi.)	132	432
LA ESCUELITA EDUCATI Status: CERTIFIED / OPERATION & MAINTENANCE Envirostor ID: 60001108	314 EAST 10TH STREET	ESE 1/4 - 1/2 (0.353 mi.)	AF141	445

Records of Emergency Release Reports

CHMIRS: The California Hazardous Material Incident Report System contains information on reported hazardous material incidents, i.e., accidental releases or spills. The source is the California Office of Emergency Services.

A review of the CHMIRS list, as provided by EDR, and dated 10/24/2018 has revealed that there is 1 CHMIRS site within approximately 0.001 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported OES Incident Number: 0-0620	SNAIL STREET AND BAY	0 - 1/8 (0.000 mi.)	B10	15

EXECUTIVE SUMMARY

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 03/01/2018 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
PACIFIC BELL EPA ID:: CAD980881809	125 TWELVE ST	NNE 1/8 - 1/4 (0.153 mi.)	K60	145

FUDS: The Listing includes locations of Formerly Used Defense Sites Properties where the US Army Corps Of Engineers is actively working or will take necessary cleanup actions.

A review of the FUDS list, as provided by EDR, and dated 01/31/2015 has revealed that there are 2 FUDS sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
OAKLAND AREA HOSPITA Federal Facility ID:: CA9799F5811 INST ID:: 61285		N 1/4 - 1/2 (0.275 mi.)	X113	387

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
NAVAL INDUSTRIAL REP Federal Facility ID:: CA9799F5980 INST ID:: 61354		SSE 1/4 - 1/2 (0.495 mi.)	198	641

DOD: Consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

A review of the DOD list, as provided by EDR, and dated 12/31/2005 has revealed that there is 1 DOD site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ALAMEDA NAVAL AIR ST		WSW 1/2 - 1 (0.969 mi.)	0	14

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSTES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 56 HIST CORTESE sites within approximately 0.5 miles of the target property.

EXECUTIVE SUMMARY

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
VIC'S AUTOMOTIVE SER Reg Id: 01-1244	245 8TH	WNW 1/8 - 1/4 (0.132 mi.)	J56	119
CITY OF OAKLAND FIRE Reg Id: 01-0626	822 ALICE ST	WNW 1/8 - 1/4 (0.137 mi.)	J57	128
AQUA SCIENCE ENGINEE Reg Id: 01-0582	250 8TH STREET	WNW 1/8 - 1/4 (0.152 mi.)	J58	130
PORT OF OAKLAND / BL Reg Id: 01-2401	271 8TH AVENUE	WNW 1/8 - 1/4 (0.185 mi.)	P80	214
ALCOPARK GARAGE Reg Id: 01-0055	165 13TH ST	N 1/8 - 1/4 (0.210 mi.)	R86	245
UNOCAL #0752 Reg Id: 01-1611	800 HARRISON	WNW 1/8 - 1/4 (0.213 mi.)	P89	293
KIN SHELL Reg Id: 01-2307	726 HARRISON ST	WNW 1/8 - 1/4 (0.223 mi.)	P98	336
MOBIL #10-MHG Reg Id: 01-0992	160 14TH ST	NNE 1/4 - 1/2 (0.285 mi.)	Z117	392
KRISTICH MONTEREY PI Reg Id: 3069	190 14TH	N 1/4 - 1/2 (0.289 mi.)	Z119	398
TIME OIL COMPANY Reg Id: 01-1486	255 14TH	N 1/4 - 1/2 (0.310 mi.)	X125	417
SHELL / QUALITY TUNE Reg Id: 01-2039	246 14TH ST	N 1/4 - 1/2 (0.317 mi.)	X127	424
CHEVRON #9-4816 Reg Id: 01-0694	301 14TH ST	NNW 1/4 - 1/2 (0.350 mi.)	AD136	440
CHEVRON Reg Id: 01-0355	301 14TH	NNW 1/4 - 1/2 (0.350 mi.)	AD138	442
BILL LOUIE'S TEXACO Reg Id: 01-0056	800 FRANKLIN ST	WNW 1/4 - 1/2 (0.354 mi.)	143	467
CITY OF OAKLAND / PA Reg Id: 01-1126	1000 FRANKLIN ST	NW 1/4 - 1/2 (0.360 mi.)	AB144	476
ALLRIGHT PARKING LOT Reg Id: 01-2007	1225 WEBSTER	NNW 1/4 - 1/2 (0.367 mi.)	AG147	486
HARRISON STREET GARA Reg Id: 01-0739	1432 HARRISON ST	N 1/4 - 1/2 (0.374 mi.)	AD150	489
LEE FAMILY ASSOCIATI Reg Id: 01-1739	387 12TH	NW 1/4 - 1/2 (0.388 mi.)	AH153	501
UNIVERSITY OF CALIFO Reg Id: 01-2250	1111 FRANKLIN	NW 1/4 - 1/2 (0.403 mi.)	AH158	507
FINANCIAL CENTER BUI Reg Id: 01-2280	405 14TH ST	NNW 1/4 - 1/2 (0.460 mi.)	AK181	576
PARKING GARAGE Reg Id: 01-1773	420 13TH ST	NNW 1/4 - 1/2 (0.465 mi.)	AK182	578
SHELL Reg Id: 01-1368	461 8TH ST	WNW 1/4 - 1/2 (0.467 mi.)	185	584
YWCA OF OAKLAND	1515 WEBSTER ST	NNW 1/4 - 1/2 (0.476 mi.)	189	598

EXECUTIVE SUMMARY

Reg Id: 01-2211				
SHORENSTEIN REALTY S	1111 BROADWAY	NW 1/4 - 1/2 (0.493 mi.)	193	622
Reg Id: 01-0235				
CHEVRON #9-0020	1633 HARRISON STREET	N 1/4 - 1/2 (0.495 mi.)	AP195	628
Reg Id: 01-0331				
WILTEL COMMUNICATION	1330 BROADWAY	NNW 1/4 - 1/2 (0.498 mi.)	200	644
Reg Id: 01-1694				
Lower Elevation	Address	Direction / Distance	Map ID	Page
PORT OF OAKLAND / CA	79 8TH AVE	SE 0 - 1/8 (0.016 mi.)	C23	19
Reg Id: 01-2400				
LANEY COLLEGE	900 FALLON ST	E 0 - 1/8 (0.028 mi.)	B29	28
Reg Id: 01-0880				
CHEVRON	6090 OAK	SSW 0 - 1/8 (0.094 mi.)	I46	85
Reg Id: 01-0382				
WESTERN UNION	125 12TH	NNE 1/8 - 1/4 (0.153 mi.)	K61	146
Reg Id: 01-1668				
SHELL #13-5700	105 5TH	SSW 1/8 - 1/4 (0.178 mi.)	M72	178
Reg Id: 01-2300				
PORT OF OAKLAND / LA	412 MADISON	SSW 1/8 - 1/4 (0.183 mi.)	M77	195
Reg Id: 013501				
Reg Id: 01-2436				
BALCO PROPERTIES	55 4TH ST	S 1/8 - 1/4 (0.210 mi.)	O84	239
Reg Id: 01-0146				
GIN'S ARCO SERVICE	706 HARRISON ST	W 1/8 - 1/4 (0.226 mi.)	P100	346
Reg Id: 01-1068				
CITY OF OAKLAND	1310 OAK ST	NE 1/8 - 1/4 (0.234 mi.)	103	362
Reg Id: 01-1837				
JAL-VUE WINDOW CORPO	295 6TH AVE	W 1/4 - 1/2 (0.259 mi.)	S110	380
Reg Id: 01-0637				
MACY'S MOVERS	200 VICTORY	S 1/4 - 1/2 (0.284 mi.)	Y115	388
Reg Id: 01-1731				
PEERLESS COFFEE	225 FALLON ST	S 1/4 - 1/2 (0.304 mi.)	Y122	409
Reg Id: 01-1146				
EAST BAY PACKING COM	208 JACKSON ST	SW 1/4 - 1/2 (0.306 mi.)	AA123	412
Reg Id: 01-0533				
MILLER PACKING	206 2ND ST	SW 1/4 - 1/2 (0.333 mi.)	AA128	427
Reg Id: 01-0974				
VUKASIM PROPERTY	54 EMBARCADERO	SSW 1/4 - 1/2 (0.335 mi.)	131	431
Reg Id: 01-1564				
P E O'HARE	309 4TH ST	WSW 1/4 - 1/2 (0.342 mi.)	AC134	435
Reg Id: 01-1144				
MILLER PACKING COMPA	201 2ND ST	SW 1/4 - 1/2 (0.352 mi.)	AE139	443
Reg Id: 21-2395				
PORT OF OAKLAND / AM	245 2ND	SW 1/4 - 1/2 (0.363 mi.)	AE145	479
Reg Id: 01-2251				
CITY AUTO REPAIR	330 WEBSTER	WSW 1/4 - 1/2 (0.368 mi.)	AC148	488

EXECUTIVE SUMMARY

Reg Id: 01-0421				
UNITED BEVERAGE DIST	105 JACKSON ST	SW 1/4 - 1/2 (0.375 mi.)	AE152	499
Reg Id: 01-1707				
SUNSET WHOLESALE COM	105 EMBARCADERO	SW 1/4 - 1/2 (0.398 mi.)	AI155	504
Reg Id: 01-1742				
PE O'HAIR & COMPANY	339 3RD ST	WSW 1/4 - 1/2 (0.405 mi.)	159	508
Reg Id: 01-0838				
STERN PROPERTY	1033 4TH	ESE 1/4 - 1/2 (0.406 mi.)	160	509
Reg Id: 01-1554				
KTVU-TV	2 JACK LONDON SQUARE	SSW 1/4 - 1/2 (0.417 mi.)	AI163	518
Reg Id: 01-1793				
THE COLONY / THE OLS	311 2ND	WSW 1/4 - 1/2 (0.419 mi.)	164	524
Reg Id: 01-2151				
PERALTA DISTRICT ADM	501 5TH AVE	SE 1/4 - 1/2 (0.432 mi.)	AL172	545
Reg Id: 01-1066				
AM/PM SERVICE CO	251 5TH AVE	SE 1/4 - 1/2 (0.466 mi.)	AN184	582
Reg Id: 01-1194				
LAKEHURST HOTEL	1569 JACKSON ST	NNE 1/4 - 1/2 (0.470 mi.)	187	594
Reg Id: 01-2231				
PACIFIC DRY DOCK & R	321 EMBARCADERO	WSW 1/4 - 1/2 (0.493 mi.)	AO192	604
Reg Id: 01-2459				
Reg Id: 2 019174N01				
MERRITT ENV CORP	1044 5TH AVE	ESE 1/4 - 1/2 (0.495 mi.)	AQ197	640
Reg Id: 21-2323				

HWP: Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

A review of the HWP list, as provided by EDR, and dated 02/19/2019 has revealed that there are 3 HWP sites within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
PORT OF OAKLAND / CA EPA Id: CAD000098806 Cleanup Status: PROTECTIVE FILER	845 EMBARCADERO	SE 1/2 - 1 (0.697 mi.)	AS208	698
FRANCIS PLATING OF O EPA Id: CAD009206160 Cleanup Status: PROTECTIVE FILER	785 7TH ST	WNW 1/2 - 1 (0.898 mi.)	216	741
SAFETY-KLEEN CORP. 7 EPA Id: CAD053044053 Cleanup Status: CLOSED	404 MARKET ST	WNW 1/2 - 1 (0.944 mi.)	AT218	754

EXECUTIVE SUMMARY

PROC: A listing of certified processors.

A review of the PROC list, as provided by EDR, and dated 12/10/2018 has revealed that there is 1 PROC site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
PORT OF OAKLAND / LA Cert Id: PR0023 Reg Id: 27482	412 MADISON	SSW 1/8 - 1/4 (0.183 mi.)	M77	195

Notify 65: Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

A review of the Notify 65 list, as provided by EDR, and dated 09/19/2018 has revealed that there are 12 Notify 65 sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
F.G. MAR COMMUNITY H	HARRISON & 13TH STRE	NNW 1/4 - 1/2 (0.373 mi.)	AG149	488
OAKLAND CITY HALL	#1 CITY HALL PLAZA	NW 1/2 - 1 (0.590 mi.)	203	656
LAWLER APARTMENTS	431 LEE STREET	NNE 1/2 - 1 (0.988 mi.)	224	889

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
LANEY COLLEGE	600 FALLON STREET	SSE 0 - 1/8 (0.086 mi.)	H43	72
P. E. O'HAIR & CO.	309 FOURTH STREET	WSW 1/4 - 1/2 (0.342 mi.)	AC133	435
VUKASIN/SOUTHERN PAC	54 EMBARCADERO AT FA	SSW 1/4 - 1/2 (0.393 mi.)	154	503
AMERICAN INK PRODUCT	630 EAST 10TH STREET	ESE 1/2 - 1 (0.568 mi.)	202	656
LIQUID CARBONIC	901 EMBARCADERO	SE 1/2 - 1 (0.732 mi.)	AS210	704
YUEN'S EXXON SERVICE	1901 PARK BOULEVARD	ENE 1/2 - 1 (0.793 mi.)	211	708
CROWLEY MARITIME COR	PAC. DRY DOCK YARDS	N 1/2 - 1 (0.936 mi.)	217	754
SERVICE STATION	2225 TELEGRAPH AVENU	NNW 1/2 - 1 (0.960 mi.)	222	888
CROWLEY MARITIME COR	PAC. DRY DOCKS, YARD	SE 1/2 - 1 (0.980 mi.)	223	889

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

A review of the EDR MGP list, as provided by EDR, has revealed that there is 1 EDR MGP site within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
PG AND E GAS PLANT O	FIRST AND WASHINGTON	W 1/2 - 1 (0.636 mi.)	205	661

EXECUTIVE SUMMARY

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 21 EDR Hist Auto sites within approximately 0.125 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ARNEY ERNEST	100 9TH AVE	NE 0 - 1/8 (0.019 mi.)	A27	27
ARTH GEO V & SON	110 10TH ST	NNE 0 - 1/8 (0.068 mi.)	G38	65
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
HOPKINS SERVICE STAT	13 9TH AVE	0 - 1/8 (0.000 mi.)	B7	15
ZELLERS R K	35 9TH AVE	0 - 1/8 (0.000 mi.)	B8	15
STANDARD OIL CO OF C	17 9TH ST	0 - 1/8 (0.000 mi.)	B9	15
JERMARK G H	27 9TH AVE	0 - 1/8 (0.000 mi.)	B11	17
PACIFIC SERVICE STAT	55 9TH AVE	0 - 1/8 (0.000 mi.)	B12	17
RICHFIELD OIL CO	39 9TH ST	0 - 1/8 (0.000 mi.)	B13	17
HYDE B G	47 9TH ST	0 - 1/8 (0.000 mi.)	B14	17
HINES R F	59 9TH ST	0 - 1/8 (0.000 mi.)	B15	18
LUDLOW A B	66 9TH ST	E 0 - 1/8 (0.015 mi.)	B16	18
BAIRD BROS	58 9TH ST	E 0 - 1/8 (0.015 mi.)	B17	18
CAUGHLIN N C	24 9TH AVE	E 0 - 1/8 (0.015 mi.)	B18	18
LOW DON	36 9TH AVE	E 0 - 1/8 (0.015 mi.)	B19	18
SHAW & GARLAND	38 9TH ST	E 0 - 1/8 (0.015 mi.)	B20	19
DOWNTOWN SERVICE STA	12 9TH ST	E 0 - 1/8 (0.016 mi.)	B21	19
ABBOTT H G	43 8TH ST	SE 0 - 1/8 (0.016 mi.)	B22	19
CANTON GARAGE	715 MADISON ST	WSW 0 - 1/8 (0.040 mi.)	D32	61
STICKLER O F	10 TH AND FALLON	E 0 - 1/8 (0.059 mi.)	F35	61
OVERMIRE J S	58 10TH ST	ENE 0 - 1/8 (0.062 mi.)	F36	62
ACE AUTO REPAIR	186 7TH ST	WSW 0 - 1/8 (0.077 mi.)	D41	71

EDR Hist Cleaner: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there are 5 EDR Hist Cleaner sites within approximately 0.125 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
NO D LAY DRY CLEANER	148 9TH ST	N 0 - 1/8 (0.019 mi.)	A28	27
WEBB S LAUNDR-0-MAT	151 10TH ST	NNW 0 - 1/8 (0.052 mi.)	E33	61
STAR CLEANERS	163 10TH ST	NNW 0 - 1/8 (0.058 mi.)	E34	61
JOHNSON F E	1007 OAK ST	NE 0 - 1/8 (0.074 mi.)	G40	70

EXECUTIVE SUMMARY

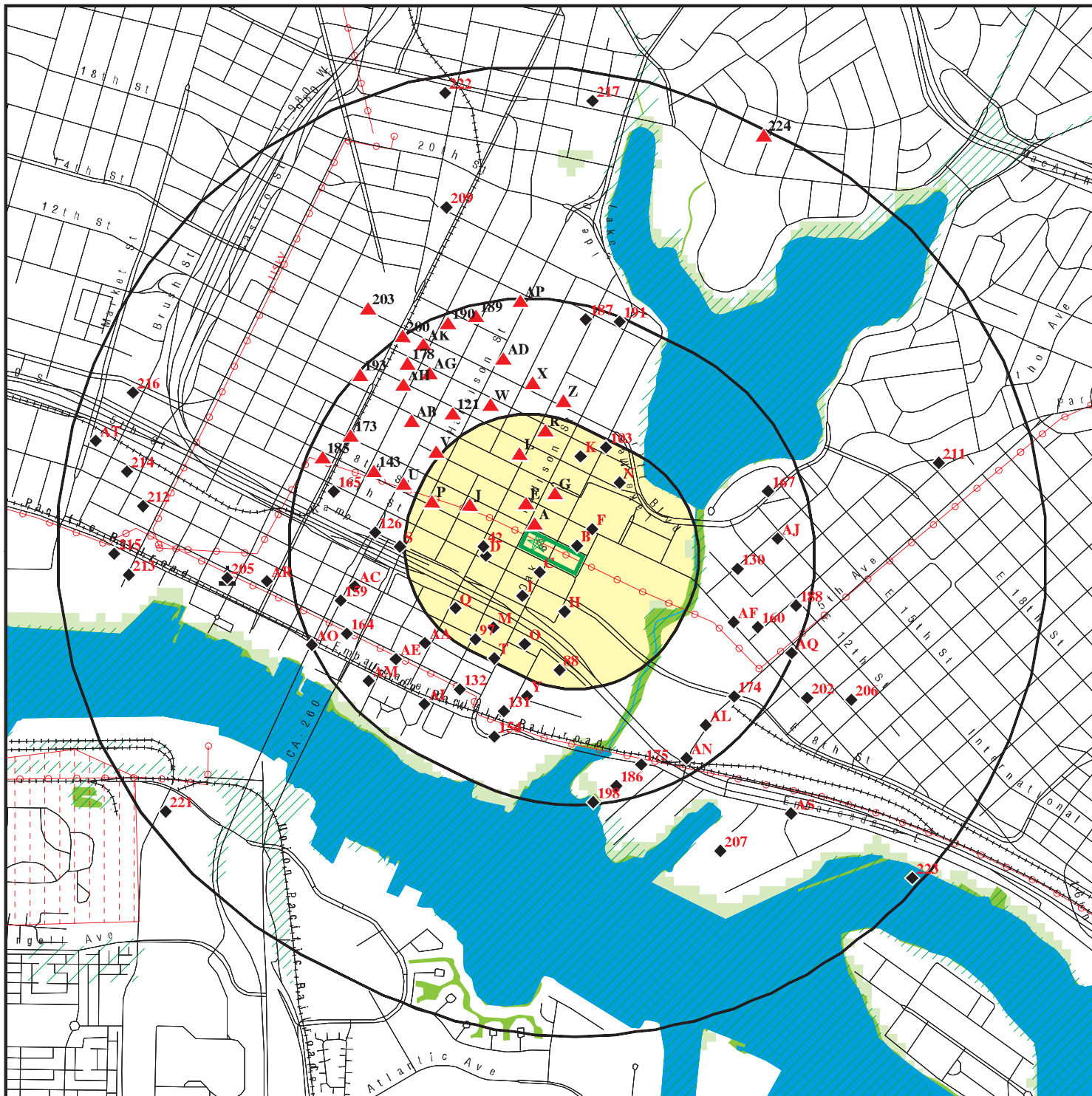
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
TANI MOTO	709 OAK ST	S 0 - 1/8 (0.031 mi.)	C31	61














EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 9 records.

<u>Site Name</u>	<u>Database(s)</u>
SOUTHERN PACIFIC TRANS CO	LUST, HIST CORTESE
5TH ST AND MAGNOLIA ST REDEVELOPME	Alameda County CS
ALAMEDA CITY BUREAU OF ELEC PCB SU	SEMS-ARCHIVE, RCRA-SQG, PADS
54 EMBARCADERO	SEMS-ARCHIVE
SYMMETRY AT ALAMEDA LANDING	ENVIROSTOR, VCP
CADENCE AND LINEAR AT ALAMEDA LAND	ENVIROSTOR, VCP
LAKE MERRITT FLOOD CONTROL PUMP ST	FINDS
UPTOWN THEATER DISTRICT	CPS-SLIC
OAKLAND REDEVELOPMENT AGENCY	CPS-SLIC

OVERVIEW MAP - 5623421.2S

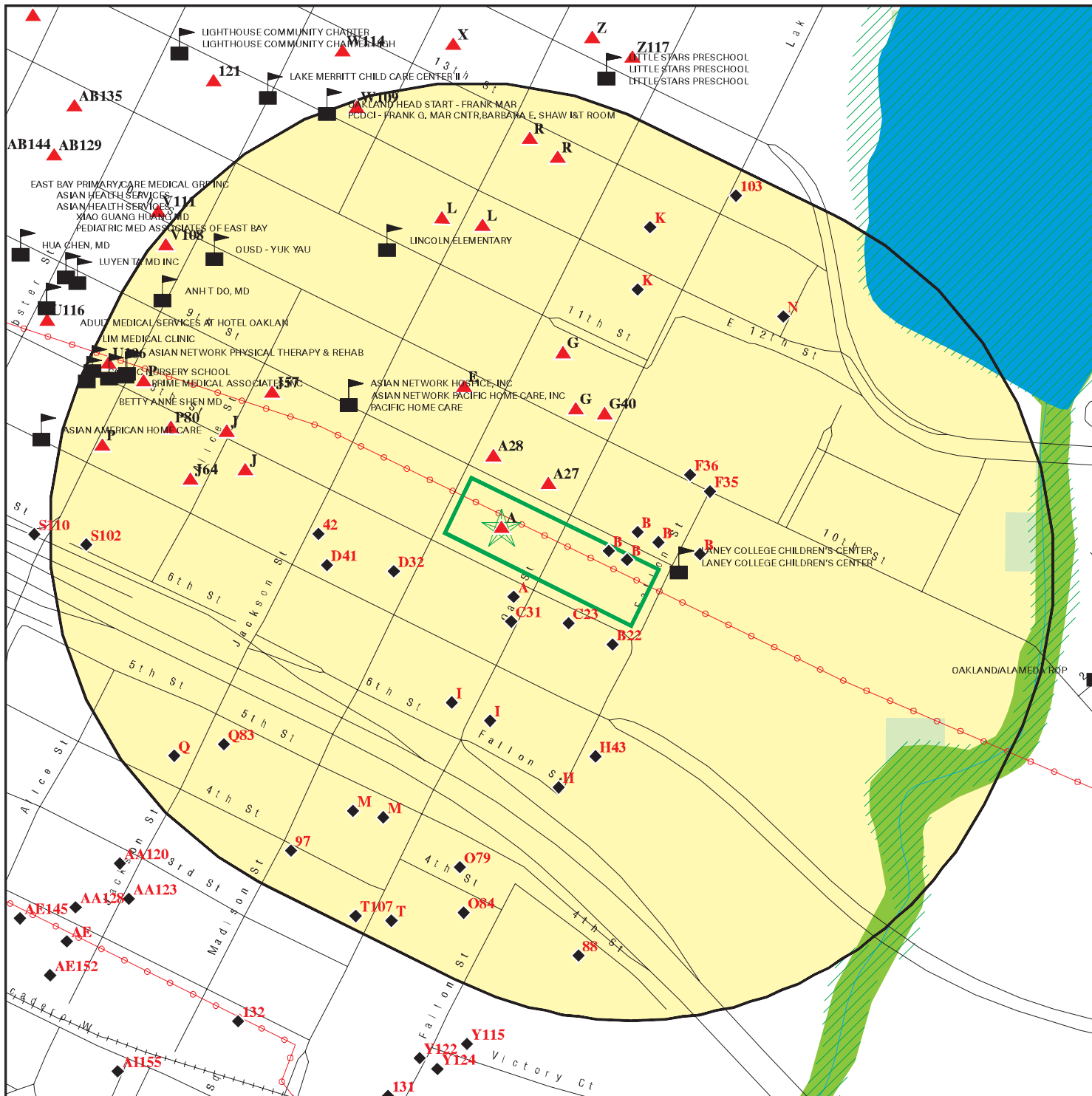
















-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  National Priority List Sites
-  Dept. Defense Sites
-  Indian Reservations BIA
-  Power transmission lines
-  100-year flood zone
-  500-year flood zone
-  National Wetland Inventory
-  State Wetlands
-  Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

<p>SITE NAME: Lake Merritt BART Development ADDRESS: 800 Madison Street Oakland CA 94607 LAT/LONG: 37.797513 / 122.265828</p>	<p>CLIENT: Langan CONTACT: Wendy Kwong INQUIRY #: 5623421.2s DATE: April 16, 2019 7:41 pm</p>
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DETAIL MAP - 5623421.2S



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  Sensitive Receptors
-  National Priority List Sites
-  Dept. Defense Sites
-  Indian Reservations BIA
-  Power transmission lines
-  100-year flood zone
-  500-year flood zone
-  National Wetland Inventory
-  State Wetlands
-  Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

<p>SITE NAME: Lake Merritt BART Development ADDRESS: 800 Madison Street Oakland CA 94607 LAT/LONG: 37.797513 / 122.265828</p>	<p>CLIENT: Langan CONTACT: Wendy Kwong INQUIRY #: 5623421.2s DATE: April 16, 2019 7:43 pm</p>
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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	0.001		0	NR	NR	NR	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site list</i>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	2	NR	2
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	2	NR	NR	NR	2
RCRA-SQG	0.250		2	4	NR	NR	NR	6
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	0.001		0	NR	NR	NR	NR	0
<i>State- and tribal - equivalent NPL</i>								
RESPONSE	1.000		0	0	2	2	NR	4
<i>State- and tribal - equivalent CERCLIS</i>								
ENVIROSTOR	1.000		0	1	9	14	NR	24
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF	0.500		0	0	0	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
LUST	0.500		4	20	53	NR	NR	77

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	4	16	NR	NR	20
Alameda County CS	0.500		4	20	48	NR	NR	72
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	4	NR	NR	NR	4
AST	0.250		1	1	NR	NR	NR	2
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	1	NR	NR	1
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		2	0	0	NR	NR	2
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	1	0	NR	NR	1
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	1	NR	1
SCH	0.250		0	0	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
CERS HAZ WASTE	0.250		4	6	NR	NR	NR	10
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
PFAS	0.001		0	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		3	12	NR	NR	NR	15
HIST UST	0.250		4	16	NR	NR	NR	20
CERS TANKS	0.250		1	4	NR	NR	NR	5
CA FID UST	0.250		3	7	NR	NR	NR	10
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	2	NR	NR	2
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		1	NR	NR	NR	NR	1
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	1	NR	NR	NR	1
FUDS	1.000		0	0	2	0	NR	2
DOD	1.000		0	0	0	1	NR	1
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001	1	0	NR	NR	NR	NR	1
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001	1	0	NR	NR	NR	NR	1
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	0.001		0	NR	NR	NR	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.001		0	NR	NR	NR	NR	0
FINDS	0.001	2	0	NR	NR	NR	NR	2
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001	1	0	NR	NR	NR	NR	1
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

A1
Target
Property

BART LAKE MERRITT SUBSTATION (LMA)
800 MADISON ST
OAKLAND, CA 94607

CERS **S121795044**
N/A

Site 1 of 11 in cluster A

Actual:
33 ft.

CERS TANKS:
Site ID: 97447
CERS ID: 10343530
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 97447
Site Name: BART Lake Merritt Substation (LMA)
Violation Date: 05-01-2017
Citation: HSC 6.95 25507 - California Health and Safety Code, Chapter 6.95, Section(s) 25507
Violation Description: Failure to adequately establish and implement a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Returned to compliance on 08/11/2017. OBSERVATION: Fire extinguisher with expired date of February 2017 observed in transformer room. Emergency equipment (such as fire extinguishers, spill prevention and alarm equipment) shall be tested and maintained as necessary (e.g. fire extinguishers assessed annually). CORRECTIVE ACTION: Maintain emergency equipment such as fire extinguishers as necessary; ensure fire extinguisher is serviced and is current. Provide written and/or photo documentation of corrective action within 30 days.
Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-01-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Routine hazardous materials business plan (HMBP) inspection of BART Lake Merritt Substation (LMA) located at 800 Madison St, Oakland CA 94607. ACDEH Inspectors Kevin Hom and Antoinette Stetzenmeyer conducted the inspection. Facility walk through conducted with Aaron Meeks, Safety Specialist, and Jonathan Rossen, Manager of Employee/Patron Safety. Email inspection reports to: ameeks@bart.gov; jrossen@bart.gov. Facility inventory confirmed on site. CERTIFICATION OF RETURN TO COMPLIANCE: I certify that the violation(s) noted in this HMBP inspection report have been corrected at BART Lake Merritt Substation (LMA) located at 800 Madison St, Oakland, CA 94607. I have personally examined any documentation attached to the certification to establish that the violations have been corrected.
PRINT: _____
SIGN: _____
TITLE: _____ [Truncated]
Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Coordinates:
Site ID: 97447
Facility Name: BART Lake Merritt Substation (LMA)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BART LAKE MERRITT SUBSTATION (LMA) (Continued)

S121795044

Env Int Type Code: HMBP
Program ID: 10343530
Coord Name: Not reported
Ref Point Type Desc: Unknown
Latitude: 37.797512
Longitude: -122.265831

Affiliation:

Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Environmental Contact
Entity Name: Aaron Meeks
Entity Title: Not reported
Affiliation Address: P.O. Box 12688 M/S LKS-18
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94604-2688
Affiliation Phone: (510) 464-7126

Affiliation Type Desc: Legal Owner
Entity Name: S. F. Bay Area Rapid Transit District
Entity Title: Not reported
Affiliation Address: P.O. Box 12688 M/S LKS-18
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94604-2688
Affiliation Phone: (510) 464-7659

Affiliation Type Desc: Identification Signer
Entity Name: Aaron Meeks
Entity Title: Safety Specialist
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Property Owner
Entity Name: S. F. Bay Area Rapid Transit District
Entity Title: Not reported
Affiliation Address: P.O. Box 12688 M/S LKS-18
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94604-2688
Affiliation Phone: (510) 464-7659

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BART LAKE MERRITT SUBSTATION (LMA) (Continued)

S121795044

Affiliation Type Desc: Document Preparer
Entity Name: Aaron Meeks
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: P.O. Box 12688 M/S LKS-18
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94604-2688
Affiliation Phone: Not reported

Affiliation Type Desc: Operator
Entity Name: BART Power and Mechanical Maintenance
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (510) 464-6640

Affiliation Type Desc: Parent Corporation
Entity Name: BART
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

**A2
Target
Property**

**BART/LAKE MERRITT STATION
800 MADISON STREET
OAKLAND, CA 94604**

**HAZNET S113027183
N/A**

Site 2 of 11 in cluster A

**Actual:
33 ft.**

HAZNET:
Facility Name: BART/LAKE MERRITT STATION
envid: S113027183
Year: 2016
GEPaid: CAL000015956
Contact: GARY JENSEN
Telephone: 5104647659
Mailing Name: Not reported
Mailing Address: PO BOX 12688
Mailing City,St,Zip: OAKLAND, CA 946042688
Gen County: Alameda

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BART/LAKE MERRITT STATION (Continued)

S113027183

TSD EPA ID: TXD982560294
TSD County: 99
Waste Category: Liquids with pH <= 2
Disposal Method: Incineration--Thermal Destruction Other Than Use As A Fuel
Tons: 0.31275
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

envid: S113027183
Year: 2016
GEPaid: CAL000015956
Contact: GARY JENSEN
Telephone: 5104647659
Mailing Name: Not reported
Mailing Address: PO BOX 12688
Mailing City,St,Zip: OAKLAND, CA 946042688

Gen County: Alameda
TSD EPA ID: TXD982560294
TSD County: 99
Waste Category: Off-specification, aged or surplus organics
Disposal Method: Incineration--Thermal Destruction Other Than Use As A Fuel
Tons: 0.072
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

envid: S113027183
Year: 2016
GEPaid: CAL000015956
Contact: GARY JENSEN
Telephone: 5104647659
Mailing Name: Not reported
Mailing Address: PO BOX 12688
Mailing City,St,Zip: OAKLAND, CA 946042688

Gen County: Alameda
TSD EPA ID: TXD982560294
TSD County: 99
Waste Category: Off-specification, aged or surplus organics
Disposal Method: Incineration--Thermal Destruction Other Than Use As A Fuel
Tons: 0.072
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

envid: S113027183
Year: 2016
GEPaid: CAL000015956
Contact: GARY JENSEN
Telephone: 5104647659
Mailing Name: Not reported
Mailing Address: PO BOX 12688
Mailing City,St,Zip: OAKLAND, CA 946042688

Gen County: Alameda
TSD EPA ID: TXD982560294
TSD County: 99
Waste Category: Alkaline solution without metals pH >= 12.5

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BART/LAKE MERRITT STATION (Continued)

S113027183

Disposal Method: Incineration--Thermal Destruction Other Than Use As A Fuel
Tons: 0.10425
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

envid: S113027183
Year: 2016
GEPaid: CAL000015956
Contact: GARY JENSEN
Telephone: 5104647659
Mailing Name: Not reported
Mailing Address: PO BOX 12688
Mailing City,St,Zip: OAKLAND, CA 946042688
Gen County: Alameda
TSD EPA ID: TXD982560294
TSD County: 99
Waste Category: Alkaline solution without metals pH >= 12.5
Disposal Method: Incineration--Thermal Destruction Other Than Use As A Fuel
Tons: 0.10425
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

[Click this hyperlink](#) while viewing on your computer to access 253 additional CA_HAZNET: record(s) in the EDR Site Report.

**A3
Target
Property**

**BART/LAKE MERRITT STATION
800 MADISON ST
OAKLAND, CA 94607**

**FINDS 1024655092
ECHO N/A**

Site 3 of 11 in cluster A

**Actual:
33 ft.**

FINDS:

Registry ID: 110070443480

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1024655092
Registry ID: 110070443480
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110070443480>

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A4
Target
Property

BART LAKE MERRITT SUBSTATION (LMA)
800 MADISON ST
OAKLAND, CA 94607

FINDS **1016293757**
N/A

Site 4 of 11 in cluster A

Actual:
33 ft.

FINDS:

Registry ID: 110058256417

Environmental Interest/Information System
STATE MASTER

Registry ID: 110011660274

Environmental Interest/Information System

NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A5
Target
Property

BAY AREA RAPID TRANSIT
800 MADISON ST
OAKLAND, CA 94607

FTTS **1004442316**
HIST FTTS **N/A**

Site 5 of 11 in cluster A

Actual:
33 ft.

FTTS INSP:

Inspection Number: 1988021804947 1
Region: 09
Inspection Date: 02/18/88
Inspector: CZAJKOWSKI
Violation occurred: Yes
Investigation Type: Section 6 PCB Federal Conducted
Investigation Reason: Neutral Scheme, Region
Legislation Code: TSCA
Facility Function: User

HIST FTTS INSP:

Inspection Number: 1988021804947 1
Region: 09
Inspection Date: Not reported
Inspector: CZAJKOWSKI
Violation occurred: Yes
Investigation Type: Section 6 PCB Federal Conducted
Investigation Reason: Neutral Scheme, Region
Legislation Code: TSCA
Facility Function: User

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A6
Target
Property

BART BAYFAIR STATION
800 MADISON STREET
OAKLAND, CA 94607

HAZNET **S113027161**
N/A

Site 6 of 11 in cluster A

Actual:
33 ft.

HAZNET:
Facility Name: BART BAYFAIR STATION
envid: S113027161
Year: 1999
GEPaid: CAL000015923
Contact: SAN FRANCISCO BAY AREA RTD
Telephone: 5104646000
Mailing Name: Not reported
Mailing Address: 1330 BROADWAY STE 1702
Mailing City,St,Zip: OAKLAND, CA 946122516
Gen County: Not reported
TSD EPA ID: CAD000088252
TSD County: Not reported
Waste Category: Off-specification, aged or surplus organics
Disposal Method: Transfer Station
Tons: .0208
Cat Decode: Not reported
Method Decode: Not reported
Facility County: 1

envid: S113027161
Year: 1999
GEPaid: CAL000015923
Contact: SAN FRANCISCO BAY AREA RTD
Telephone: 5104646000
Mailing Name: Not reported
Mailing Address: 1330 BROADWAY STE 1702
Mailing City,St,Zip: OAKLAND, CA 946122516
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Transfer Station
Tons: .0045
Cat Decode: Not reported
Method Decode: Not reported
Facility County: 1

DOD
Region
WSW
1/2-1
5117 ft.

ALAMEDA NAVAL AIR STATION (CLOSED)
ALAMEDA NAVAL AIR STATION (County), CA

DOD **CUSA136129**
N/A

DOD:
Feature 1: Navy DOD
Feature 2: Not reported
Feature 3: Not reported
URL: Not reported
Name 1: Alameda Naval Air Station (Closed)
Name 2: Not reported
Name 3: Not reported
State: CA
DOD Site: Yes

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ALAMEDA NAVAL AIR STATION (CLOSED) (Continued)

CUSA136129

Tile name: CAALAMEDA

B7 HOPKINS SERVICE STATION EDR Hist Auto 1009012074
13 9TH AVE N/A
< 1/8 OAKLAND, CA
1 ft.

Site 1 of 18 in cluster B

Relative: Lower EDR Hist Auto

Actual: 27 ft. Year: Name: Type:
1925 HOPKINS SERVICE STATION AUTOMOBILE SERVICE STATIONS
1928 MERRITT CO GASOLINE AND OIL SERVICE STATIONS

B8 ZELLERS R K EDR Hist Auto 1009012119
35 9TH AVE N/A
< 1/8 OAKLAND, CA
1 ft.

Site 2 of 18 in cluster B

Relative: Lower EDR Hist Auto

Actual: 29 ft. Year: Name: Type:
1925 ZELLERS R K AUTOMOBILE SERVICE STATIONS
1925 KEY SERVICE STATION AUTOMOBILE SERVICE STATIONS
1928 BROOKDALE SERVICE STATION AUTOMOBILE REPAIRING AND SERVICE STATIONS

B9 STANDARD OIL CO OF CALIFORNIA SERVICE STATIONS EDR Hist Auto 1009014469
17 9TH ST N/A
< 1/8 OAKLAND, CA
1 ft.

Site 3 of 18 in cluster B

Relative: Lower EDR Hist Auto

Actual: 27 ft. Year: Name: Type:
1928 STANDARD OIL CO OF CALIFORNIA S GASOLINE AND OIL SERVICE STATIONS

B10 SNAIL STREET AND BAY STREET MP 11.9 CHMIRS S105669071
OAKLAND, CA N/A
< 1/8
1 ft.

Site 4 of 18 in cluster B

Relative: Lower CHMIRS:
OES Incident Number: 0-0620
Actual: 27 ft. OES notification: 02/10/2000
OES Date: Not reported
OES Time: Not reported
Date Completed: Not reported
Property Use: Not reported
Agency Id Number: Not reported
Agency Incident Number: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S105669071

Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agency Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	none
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2000
Agency:	Union Pacific RR
Incident Date:	2/10/200012:00:00 AM
Admin Agency:	City of Oakland Fire Department
Amount:	Not reported
Contained:	Unknown
Site Type:	Rail Road
E Date:	Not reported
Substance:	none
Gallons:	0.000000
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S105669071

Description:

AMTRAC #8301 passenger car derailed, collided with empty railcar #DTTC-73352 in rail yard.

B11
< 1/8
1 ft.

JERMARK G H
27 9TH AVE
OAKLAND, CA

EDR Hist Auto

1009014617
N/A

Site 5 of 18 in cluster B

Relative:
Lower

EDR Hist Auto

Actual:
28 ft.

Year: Name:
1933 JERMARK G H

Type:
GASOLINE AND OIL SERVICE STATIONS

B12
< 1/8
1 ft.

PACIFIC SERVICE STATIONS INC
55 9TH AVE
OAKLAND, CA

EDR Hist Auto

1009012642
N/A

Site 6 of 18 in cluster B

Relative:
Lower

EDR Hist Auto

Actual:
30 ft.

Year: Name:
1933 PACIFIC SERVICE STATIONS INC

Type:
GASOLINE AND OIL SERVICE STATIONS

B13
< 1/8
1 ft.

RICHFIELD OIL CO
39 9TH ST
OAKLAND, CA

EDR Hist Auto

1009014358
N/A

Site 7 of 18 in cluster B

Relative:
Lower

EDR Hist Auto

Actual:
29 ft.

Year: Name:
1933 RICHFIELD OIL CO

Type:
GASOLINE AND OIL SERVICE STATIONS

B14
< 1/8
1 ft.

HYDE B G
47 9TH ST
OAKLAND, CA

EDR Hist Auto

1009015778
N/A

Site 8 of 18 in cluster B

Relative:
Lower

EDR Hist Auto

Actual:
29 ft.

Year: Name:
1928 HYDE B G

Type:
GASOLINE AND OIL SERVICE STATIONS

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

B15 **HINES R F** **EDR Hist Auto** **1009014607**
59 9TH ST **N/A**
< 1/8 **OAKLAND, CA**
1 ft. **Site 9 of 18 in cluster B**

Relative: EDR Hist Auto
Lower

Actual: Year: Name: Type:
31 ft. 1933 HINES R F GASOLINE AND OIL SERVICE STATIONS

B16 **LUDLOW A B** **EDR Hist Auto** **1009015784**
East **66 9TH ST** **N/A**
< 1/8 **OAKLAND, CA**
0.015 mi. **Site 10 of 18 in cluster B**
81 ft.

Relative: EDR Hist Auto
Lower

Actual: Year: Name: Type:
29 ft. 1928 LUDLOW A B GASOLINE AND OIL SERVICE STATIONS

B17 **BAIRD BROS** **EDR Hist Auto** **1009014285**
East **58 9TH ST** **N/A**
< 1/8 **OAKLAND, CA**
0.015 mi. **Site 11 of 18 in cluster B**
81 ft.

Relative: EDR Hist Auto
Lower

Actual: Year: Name: Type:
28 ft. 1925 BAIRD BROS AUTOMOBILE SERVICE STATIONS

B18 **CAUGHLIN N C** **EDR Hist Auto** **1009011203**
East **24 9TH AVE** **N/A**
< 1/8 **OAKLAND, CA**
0.015 mi. **Site 12 of 18 in cluster B**
81 ft.

Relative: EDR Hist Auto
Lower

Actual: Year: Name: Type:
27 ft. 1928 CAUGHLIN N C GASOLINE AND OIL SERVICE STATIONS

B19 **LOW DON** **EDR Hist Auto** **1009015783**
East **36 9TH AVE** **N/A**
< 1/8 **OAKLAND, CA**
0.015 mi. **Site 13 of 18 in cluster B**
81 ft.

Relative: EDR Hist Auto
Lower

Actual: Year: Name: Type:
27 ft. 1928 LOW DON GASOLINE AND OIL SERVICE STATIONS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORT OF OAKLAND / CARD LOCK BLDG H- (Continued)

S103890669

(OAK STREET TO 9TH AVENUE (70000109)) residential redevelopment project for which DTSC is the lead agency. RO106 PORT OF OAKLAND / KEEP ON TRUCKING RO108 PORT OF OAKLAND / BLDG H-209 RO109 PORT OF OAKLAND / CANNERY BLDG H-211 RO110 PORT OF OAKLAND / MARINE TERMINALS CORPORATION RO423 PORT OF OAKLAND / PACIFIC DRY DOCK YARD 2 RO485 PORT OF OAKLAND / CARD LOCK BLDG H-204 RO2461 SEABREEZE YACHT CENTER RO2462 PRAXAIR INC RO2492 PORT OF OAKLAND / NINTH AVE TERMINAL RB
Case #: SLT2O160264

LUST:

Global Id: T0600102210
Action Type: Other
Date: 02/05/1997
Action: Leak Reported

Global Id: T0600102210
Action Type: REMEDIATION
Date: 09/09/9999
Action: Not reported

Global Id: T0600102210
Action Type: Other
Date: 02/05/1997
Action: Leak Discovery

LUST:

Global Id: T0600102210
Status: Completed - Case Closed
Status Date: 10/13/2005

Global Id: T0600102210
Status: Open - Case Begin Date
Status Date: 02/05/1997

LUST REG 2:

Region: 2
Facility Id: 01-2400
Facility Status: Preliminary site assessment workplan submitted
Case Number: 6894
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: 10/30/1997
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: 1/2/1965
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: 11
Record Id: RO0000485
PE: 5602

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

PORT OF OAKLAND / CARD LOCK BLDG H- (Continued)

S103890669

Facility Status: Not reported
 Latitude: Not reported
 Longitude: Not reported

HIST CORTESE:

Region: CORTESE
 Facility County Code: 1
 Reg By: LTNKA
 Reg Id: 01-2400

CERS TANKS:

Site ID: 188320
 CERS ID: T0600102210
 CERS Description: Leaking Underground Storage Tank Cleanup Site

A24
South
< 1/8
0.017 mi.
88 ft.

BART METRO CENTER
101 8TH ST
OAKLAND, CA 94607
Site 7 of 11 in cluster A

CERS TANKS **S121738927**
CERS **N/A**

Relative:
Lower
Actual:
30 ft.

CERS TANKS:
 Site ID: 11054
 CERS ID: 10415170
 CERS Description: Aboveground Petroleum Storage

Evaluation:

Eval General Type: Compliance Evaluation Inspection
 Eval Date: 05-24-2016
 Violations Found: No
 Eval Type: Routine done by local agency
 Eval Notes: Onsite to conduct the Aboveground Petroleum Storage Act Inspection at BART Metro Center - 101 8th Street, Oakland, CA 94607. Met with Principal Engineer, Gary Jensen. Reviewed SPCC Plan onsite.
 Eval Division: Alameda County Environmental Health
 Eval Program: APSA
 Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
 Eval Date: 05-24-2016
 Violations Found: No
 Eval Type: Routine done by local agency
 Eval Notes: Onsite to conduct the Hazardous Materials Business Plan Inspection at BART Metro Center - 101 8th Street, Oakland, CA 94607. Met with Principal Engineer, Gary Jensen. Facility's most recent HMBP submittal was on 2/19/2016. Facility has a room of Lead Acid Batteries that we were unable to access. Will verify when inspecting Lake Meritt BART station in the future. Facility has a 4,000 gallon aboveground diesel convault tank that is backup power for BART's operating system at the Metro Center. The tank and underground piping are monitoring with an INCON monitoring system that was recently tested by TEC Accutite on 5/12/2016.
 Eval Division: Alameda County Environmental Health
 Eval Program: HMRRP
 Eval Source: CERS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BART METRO CENTER (Continued)

S121738927

Coordinates:

Site ID: 11054
Facility Name: BART Metro Center
Env Int Type Code: APSA
Program ID: 10415170
Coord Name: Not reported
Ref Point Type Desc: Unknown
Latitude: 37.796961
Longitude: -122.265651

Affiliation:

Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Environmental Contact
Entity Name: Aaron Meeks
Entity Title: Not reported
Affiliation Address: P.O. Box 12688 M/S LKS-18
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94604-2688
Affiliation Phone: (510) 464-7126

Affiliation Type Desc: Identification Signer
Entity Name: Aaron Meeks
Entity Title: Safety Specialist
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Parent Corporation
Entity Name: BART
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: P.O. Box 12688 M/S LKS-18
Affiliation City: Oakland

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BART METRO CENTER (Continued)

S121738927

Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94604-2688
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: S.F. Bay Area Rapid Transit District
Entity Title: Not reported
Affiliation Address: P.O. Box 12688 M/S LKS-18
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94604-2688
Affiliation Phone: (510) 464-7659

Affiliation Type Desc: Document Preparer
Entity Name: Aaron Meeks
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Operator
Entity Name: BART Non-Revenue Vehicle Maintenance
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (510) 464-6654

Affiliation Type Desc: Property Owner
Entity Name: S.F. Bay Area Rapid Transit District
Entity Title: Not reported
Affiliation Address: P.O. Box 12688 M/S LKS-18
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94604-2688
Affiliation Phone: (510) 464-7659

CERS TANKS:
Site ID: 11054
CERS ID: 10415170
CERS Description: Chemical Storage Facilities

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-24-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Onsite to conduct the Aboveground Petroleum Storage Act Inspection at

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BART METRO CENTER (Continued)

S121738927

BART Metro Center - 101 8th Street, Oakland, CA 94607. Met with Principal Engineer, Gary Jensen. Reviewed SPCC Plan onsite.
Alameda County Environmental Health

Eval Division: AP
Eval Program: AP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-24-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Onsite to conduct the Hazardous Materials Business Plan Inspection at BART Metro Center - 101 8th Street, Oakland, CA 94607. Met with Principal Engineer, Gary Jensen. Facility's most recent HMBP submittal was on 2/19/2016. Facility has a room of Lead Acid Batteries that we were unable to access. Will verify when inspecting Lake Meritt BART station in the future. Facility has a 4,000 gallon aboveground diesel convault tank that is backup power for BART's operating system at the Metro Center. The tank and underground piping are monitoring with an INCON monitoring system that was recently tested by TEC Accutite on 5/12/2016.

Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Coordinates:
Site ID: 11054
Facility Name: BART Metro Center
Env Int Type Code: AP
Program ID: 10415170
Coord Name: Not reported
Ref Point Type Desc: Unknown
Latitude: 37.796961
Longitude: -122.265651

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Environmental Contact
Entity Name: Aaron Meeks
Entity Title: Not reported
Affiliation Address: P.O. Box 12688 M/S LKS-18
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94604-2688
Affiliation Phone: (510) 464-7126

Affiliation Type Desc: Identification Signer

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BART METRO CENTER (Continued)

S121738927

Entity Name: Aaron Meeks
Entity Title: Safety Specialist
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Parent Corporation
Entity Name: BART
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: P.O. Box 12688 M/S LKS-18
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94604-2688
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: S.F. Bay Area Rapid Transit District
Entity Title: Not reported
Affiliation Address: P.O. Box 12688 M/S LKS-18
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94604-2688
Affiliation Phone: (510) 464-7659

Affiliation Type Desc: Document Preparer
Entity Name: Aaron Meeks
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Operator
Entity Name: BART Non-Revenue Vehicle Maintenance
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BART METRO CENTER (Continued)

S121738927

Affiliation Phone: (510) 464-6654
Affiliation Type Desc: Property Owner
Entity Name: S.F. Bay Area Rapid Transit District
Entity Title: Not reported
Affiliation Address: P.O. Box 12688 M/S LKS-18
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94604-2688
Affiliation Phone: (510) 464-7659

A25
South
< 1/8
0.017 mi.
88 ft.

BART METRO CENTER
101 8TH ST
OAKLAND, CA 94607
Site 8 of 11 in cluster A

AST A100417559
N/A

Relative:
Lower
Actual:
30 ft.

AST:
Certified Unified Program Agencies: Not reported
Owner: S.F. Bay Area Rapid Transit District
Total Gallons: Not reported
CERSID: 10415170
Facility ID: Not reported
Business Name: BART
Phone: (510) 464-6000
Fax: Not reported
Mailing Address: P.O. Box 12688 M/S LKS-18
Mailing Address City: Oakland
Mailing Address State: CA
Mailing Address Zip Code: Not reported
Operator Name: BART Non-revenue Vehicle Maintenance
Operator Phone: (510) 464-6654
Owner Phone: 510-464-7659
Owner Mail Address: P.O. Box 12688 M/S LKS-18
Owner State: CA
Owner Zip Code: Not reported
Owner Country: United States
Property Owner Name: S.F. Bay Area Rapid Transit District
Property Owner Phone: 510-464-7659
Property Owner Mailing Address: P.O. Box 12688 M/S LKS-18
Property Owner City: Oakland
Property Owner Stat : CA
Property Owner Zip Code: Not reported
Property Owner Country: United States
EPAID: Not reported

MAP FINDINGS

Map ID			EDR ID Number
Direction			EPA ID Number
Distance			
Elevation	Site	Database(s)	

A26 South < 1/8 0.017 mi. 88 ft.	METRO CENTER 101 8TH STREET OAKLAND, CA 94607 Site 9 of 11 in cluster A	HIST UST	U001599194 N/A
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Relative: Lower Actual: 30 ft.	HIST UST: File Number: 00035D65 URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00035D65.pdf Region: STATE Facility ID: 00000001258 Facility Type: Other Other Type: MAINTENANCE FACILITY Contact Name: ROBERT F. DARON Telephone: 4154653662 Owner Name: BAY AREA RAPID TRANSIT DISTRIC Owner Address: 800 MADISON STREET Owner City,St,Zip: OAKLAND, CA 94607 Total Tanks: 0001 Tank Num: 001 Container Num: 04-1-MEP Year Installed: 1982 Tank Capacity: 00004000 Tank Used for: PRODUCT Type of Fuel: DIESEL Container Construction Thickness: 1/4 Leak Detection: Visual	
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[Click here for Geo Tracker PDF:](#)

A27 NE < 1/8 0.019 mi. 98 ft.	ARNEY ERNEST 100 9TH AVE OAKLAND, CA Site 10 of 11 in cluster A	EDR Hist Auto	1009012602 N/A
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Relative: Higher Actual: 34 ft.	EDR Hist Auto Year: Name: Type: 1933 ARNEY ERNEST GASOLINE AND OIL SERVICE STATIONS	
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A28 North < 1/8 0.019 mi. 99 ft.	NO D LAY DRY CLEANERS 148 9TH ST OAKLAND, CA 94607 Site 11 of 11 in cluster A	EDR Hist Cleaner	1009141559 N/A
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Relative: Higher Actual: 35 ft.	EDR Hist Cleaner Year: Name: Type: 1967 NO O-LAY CLEANERS CLEANERS AND DYERS 1992 NO D LAY DRY CLEANERS Drycleaning Plants, Except Rugs 1993 NO D LAY DRY CLEANERS Drycleaning Plants, Except Rugs	
--	--	--

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

B29
East
< 1/8
0.028 mi.
147 ft.
Relative:
Lower
Actual:
23 ft.

LANEY COLLEGE
900 FALLON ST
OAKLAND, CA 94606
Site 17 of 18 in cluster B

LUST **U001599128**
Alameda County CS **N/A**
HIST UST
HIST CORTESE
CIWQS
CERS

LUST:

Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100813
Global Id: T0600100813
Latitude: 37.79716
Longitude: -122.263817
Status: Completed - Case Closed
Status Date: 10/25/1995
Case Worker: Not reported
RB Case Number: 01-0880
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000719
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Diesel
Site History: Not reported

LUST:

Global Id: T0600100813
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600100813
Action Type: Other
Date: 02/08/1989
Action: Leak Reported

Global Id: T0600100813
Action Type: REMEDIATION
Date: 09/09/9999
Action: Not reported

LUST:

Global Id: T0600100813
Status: Completed - Case Closed
Status Date: 10/25/1995

Global Id: T0600100813
Status: Open - Case Begin Date
Status Date: 02/08/1989

LUST REG 2:

Region: 2

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LANEY COLLEGE (Continued)

U001599128

Facility Id: 01-0880
Facility Status: Case Closed
Case Number: 2375
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assessment Wokplan Submitted: 8/11/1989
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Case Closed
Record Id: RO0000719
PE: 5602
Facility Status: Case Closed
Latitude: 37.797115972
Longitude: -122.2636827

HIST UST:

File Number: Not reported
URL: Not reported
Region: STATE
Facility ID: 00000024318
Facility Type: Other
Other Type: COMMUNITY COLLEGE
Contact Name: Not reported
Telephone: 4154667336
Owner Name: PERALTA COMMUNITY COLLEGE DIST
Owner Address: 333 EAST 8TH STREET
Owner City,St,Zip: OAKLAND, CA 94606
Total Tanks: 0003

Tank Num: 001
Container Num: L-1
Year Installed: 1973
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: L-2
Year Installed: 1973
Tank Capacity: 00000563
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 003

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LANEY COLLEGE (Continued)

U001599128

Container Num: L-3
Year Installed: Not reported
Tank Capacity: 00004000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-0880

CIWQS:

Agency: Peralta Community College District
Agency Address: 333 E 8th St, Oakland, CA 94606
Place/Project Type: Construction - Other: Parking Baseball Field & Field House, Utility:
Sewer, Water, Storm Drain
SIC/NAICS: Not reported
Region: 2
Program: CONSTW
Regulatory Measure Status: Terminated
Regulatory Measure Type: Storm water construction
Order Number: 2009-0009-DWQ
WDID: 2 01C357192
NPDES Number: CAS000002
Adoption Date: Not reported
Effective Date: 01/21/2010
Termination Date: 12/17/2012
Expiration/Review Date: Not reported
Design Flow: Not reported
Major/Minor: Not reported
Complexity: Not reported
TTWQ: Not reported
Enforcement Actions within 5 years: 1
Violations within 5 years: 0
Latitude: Not reported
Longitude: Not reported

CERS TANKS:

Site ID: 239688
CERS ID: T0600100813
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

MAP FINDINGS

Map ID			EDR ID Number
Direction			EPA ID Number
Distance			
Elevation	Site	Database(s)	

B30 East < 1/8 0.028 mi. 147 ft.	LANEY COLLEGE 900 FALLON ST OAKLAND, CA 94606 Site 18 of 18 in cluster B	CERS HAZ WASTE SWEEPS UST HIST UST CA FID UST CERS	S101624343 N/A
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Relative:	CERS HAZ WASTE:	
Lower	Site ID:	43406
Actual:	CERS ID:	10004047
23 ft.	CERS Description:	Hazardous Waste Generator

Violations: Site ID: Site Name: Violation Date: Citation: Violation Description: Violation Notes: Violation Division: Violation Program: Violation Source: Site ID: Site Name: Violation Date: Citation: Violation Description: Violation Notes: Violation Division: Violation Program: Violation Source: Site ID: Site Name: Violation Date:	43406 Laney College 11-15-2017 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f) Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date. OBSERVATION: Hazardous waste labels missing, incorrect, or missing accumulation start dates, physical state, and chemical properties, facility name and address for the following containers: 1. Hazardous waste containers in the chemistry laboratory- provide accumulation start dates and the contents of the waste stream in percentages 2. 55 gallon drum of waste coolant in machine shop- provide hazardous waste label with all required information 3. 5 gallon bucket of solvent waste in machine shop-provide hazardous waste label with all required information 4. 30 gallon container of waste mineral spirits in art building-provide accumulation start date and name and address of Laney College All hazardous waste containers shall be marked with the following information: 1) the words Hazardous Waste ; 2) name and address of generator; 3) hazardous properties; 4) physical state; 5) composition (contents); 6) accumulation start date. CORRECTIVE ACTION: Immediately label [Truncated] Alameda County Environmental Health HW CERS 43406 Laney College 11-15-2017 HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1) Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities. OBSERVATIONS: Laney College failed to adequately complete an electronic submission of the HMBP. See Violations #4, #5, #6, #7 and #11. CORRECTIVE ACTIONS: See the Corrective Actions listed in Violations #4, #5, #6, #7 and #11. Alameda County Environmental Health HMRRP CERS 43406 Laney College 11-15-2017	
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Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LANEY COLLEGE (Continued)

S101624343

Citation: 22 CCR 18 66268.7(a) - California Code of Regulations, Title 22, Chapter 18, Section(s) 66268.7(a)

Violation Description: Failure to determine if the waste has to be treated before it can be land disposed and retain the documentation at least three years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal.

Violation Notes: OBSERVATION: Copies of the land disposal restriction (LDR) were not available for review. Facility failed to determine if the waste is restricted from land disposal. CORRECTIVE ACTION: The generator shall make a determination of all hazardous wastes if the waste is restricted from land disposal. Submit a copy of LDR Notification or documentation showing that the hazardous waste is not subject to land disposal restriction to the inspector within 30 days.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 04-14-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.

Violation Notes: Not reported

Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: 22 CCR 23 66273.35 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.35

Violation Description: Failure to accumulate universal waste for one year or less and to demonstrate the length of time that the universal waste has been accumulated from the date it became a waste or was received.

Violation Notes: OBSERVATION: Universal Waste Handler failed to properly accumulate waste within one year and/or demonstrated accumulation time. Observed no shipping documents or invoices that demonstrate that universal waste are properly disposed of. Royl Roberts states that all universal waste is picked up by North State Environmental. Invoices and shipping documents of universal waste pick up were not available. CORRECTIVE ACTION: Universal Waste Handler shall properly process accumulated waste within one year and/or demonstrated accumulation time. Submit copies of shipping documents or invoices for the disposal of universal waste for the last three years to ACDEH inspector within 30 days.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: 40 CFR 1 265.171 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.171

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LANEY COLLEGE (Continued)

S101624343

Violation Description: Failure to accumulate hazardous waste in a container that is in good condition.

Violation Notes: OBSERVATION: Observed hazardous waste containers in photography lab with incorrect lids that are not tight fitting. Generator must accumulate hazardous waste in containers that are in good condition with tight fitting lids that minimizes release. CORRECTIVE ACTION: Provide the correct tight fitting lid for the hazardous waste container. Submit proof of correction to inspector within 30 days.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.

Violation Notes: OBSERVATIONS: The chemical inventory in CERS needs to be updated. Only chemicals meeting the reporting threshold of 55 gallons for liquids, 500 pounds for solids and 200 cubic feet for compressed gases need to be reported in CERS. Also include any extremely hazardous substances if they are equal to or greater than the federal threshold planning quantity (TPQ) listed in Appendix A, Part 355, Title 40 of the Code of Federal Regulations. CORRECTIVE ACTIONS: The following items need to be addressed in the chemical inventory in CERS: Laney Tower: diesel update the Largest Container size to 500 gallons, Maximum Daily Amount should also be 500 gallons. Pool: Add two 60 gallon tanks of sodium hypochlorite. Add hypochlorite solution (observed 128 one gallon containers). Add carbon dioxide (observed 25 cylinders). Update sodium chloride Largest Container size to 50 pounds and Maximum Daily Amount to at least 500 pounds. Chemistry Lab A237 Add carbon dioxide [Truncated]

Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit a site map with all required content.

Violation Notes: OBSERVATION: The annotated site maps that were submitted to CERS are not adequate for the size of this campus. CORRECTIVE ACTION: Submit to CERS an overall site map showing the locations of all of the buildings on campus. Submit to CERS a separate site map for each location that stores or handles hazardous materials or hazardous waste to CERS. At a minimum they should include all of the following on each map: north orientation, loading areas, internal roads, adjacent streets, storm and sewer drains, access and exit points, emergency shutoffs, evacuation staging areas, hazardous materials/waste handling and storage areas and emergency response procedures. Site maps are required for Laney Tower, the chemistry laboratories, pool storage

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LANEY COLLEGE (Continued)

S101624343

area, boiler rooms, machine shop, welding shop and cage, art building and the community garden.

Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.

Violation Notes: OBSERVATION: The facility has uploaded "Laney College Emergency Operations Plan" dated 9/20/12 and "Emergency Procedures" booklet that is located in each building on campus. Neither document fully addresses the requirements of Health and Safety Code 25505(a)(3). CORRECTIVE ACTION: Complete the "Consolidated Emergency Response/Contingency Plan" template that is available in CERS in order to supplement the other two documents already submitted to CERS.

Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)

Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.

Violation Notes: OBSERVATION: No training on hazardous materials handling or emergency response procedures has taken place. No training documentation was found for any past trainings that may have occurred. CORRECTIVE ACTION: Train all employees on hazardous materials handling, emergency response procedures and the Consolidated Emergency Response/Contingency Plan. Document this training and provide a syllabus and sign in sheet. Training must occur annually.

Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: HSC 6.5 25189.5(a),25201(a) - California Health and Safety Code, Chapter 6.5, Section(s) 25189.5(a),25201(a)

Violation Description: Failure to dispose of hazardous waste at a facility which has a permit from DTSC or disposing of hazardous waste at any point which is not authorized according to HSC 6.5.

Violation Notes: OBSERVATION: Copies of hazardous waste disposal records for the disposal of silver waste from photo processing solutions and spent rinse water were not found on site. Hazardous waste generators shall retain copies of all manifests signed off by the disposal facility on

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LANEY COLLEGE (Continued)

S101624343

site for three years and have them readily available for review.
CORRECTIVE ACTION: The Facility shall maintain copies of the manifests for any transport of a hazardous waste for off-site transfer, treatment, storage or disposal going forward for three years. Locate and submit copies of manifests for photography waste for the last three years.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: 22 CCR 12 66262.11 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.11

Violation Description: Failure to determine if wastes generated are hazardous waste by using generator knowledge or applying testing method.

Violation Notes: OBSERVATION: No waste analysis was available for the following: 1. Saw dust waste used to clean up spills in machine shop is currently discarded in trash. 2. Fine metal shavings located in welding area and machine shop. Shavings are currently being recycled. 3. Waste clay, clay dust, and wash water from ceramics class in art building. 4. Containers that previously held hazardous materials or waste in the chemistry laboratory. Observed crusty glassware discarded in trash. These wastes are being disposed of as non-hazardous waste. A generator shall make a hazardous waste determination and keep a record of any test results, waste analyses, or other determinations made in accordance with hazardous waste regulations for at least three years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal. CORRECTIVE ACTION: 1. Manage and dispose of saw dust clean up waste as a hazardous waste. 2. Conduct a waste analysis for the [Truncated]

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: HSC 6.95 25507 - California Health and Safety Code, Chapter 6.95, Section(s) 25507

Violation Description: Failure to adequately establish and implement a business plan when storing/handling a hazardous material at or above reportable quantities.

Violation Notes: Laney College failed to establish and adequately implement a Hazardous Materials Business Plan by the following observations: OBSERVATIONS FOR LANEY TOWER: The 500 gallon diesel tank for the generator does not have the contents listed on the tank. CORRECTIVE ACTIONS: Label this tank as diesel . Submit a photo of the correction. OBSERVATIONS FOR CHEMISTRY LABS A235-A277: Many containers of hazardous waste stored in the chemical hoods were found open. According to the lab manager, they are left open to vent. Most hazardous waste containers were not properly labeled with the required information and were stored piled on one another. Acetylene cylinder in A277 was not properly secured. CORRECTIVE ACTIONS: Keep all hazardous waste containers closed except when in use. Hazardous waste cannot be left open to vent . Properly store all containers of hazardous waste so that each container can be

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LANEY COLLEGE (Continued)

S101624343

inspected weekly for spillage or leaks. Properly secure all compressed
[Truncated]

Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: 40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173

Violation Description: Failure to meet the following container management requirements: (a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

Violation Notes: OBSERVATION: Observed the following open hazardous waste containers: 1) Numerous open containers in chemistry laboratory hazardous waste storage area 2) Open container of used oil in boiler room 3) Open 5 gallon container of solvent waste in machine shop All hazardous waste containers shall be closed at all times except when adding or removing wastes. CORRECTIVE ACTION: Immediately close these containers and ensure all hazardous waste containers are closed when not adding or removing wastes. Submit photo documentation of corrective action to inspector within 30 days.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: 22 CCR 12 66262.23(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.23(a)

Violation Description: Failure to properly complete the Uniform Hazardous Waste Manifest.

Violation Notes: OBSERVATION: Copies of hazardous waste disposal records for the disposal of silver waste from photo processing solutions and spent rinse water were not found on site. Hazardous waste generators shall retain copies of all manifests signed off by the disposal facility on site for three years and have them readily available for review. CORRECTIVE ACTION: The Facility shall maintain copies of the manifests for any transport of a hazardous waste for off-site transfer, treatment, storage or disposal going forward for three years. Locate and submit copies of manifests for photography waste for the last three years.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: 40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174

Violation Description: Failure to inspect hazardous waste storage areas at least weekly and look for leaking and deteriorating containers.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LANEY COLLEGE (Continued)

S101624343

Violation Notes: OBSERVATION: The Owner/Operator failed to conduct weekly inspections of all hazardous waste containers as demonstrated by observing: missing or incorrect hazardous waste labels (missing accumulation start dates, generator name and address, chemical and physical properties, and contents), open hazardous waste containers, spills not immediately cleaned up, and storing containers in a manner that prevents weekly inspection of each containers in all hazardous storage areas. CORRECTIVE ACTION: Conduct weekly inspections and ensure hazardous waste labels are provided and are legible and filled out properly, providing all required information including accumulation start dates, and cleaning up spills immediately. Submit proof of corrective actions to inspector within 30 days.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: HSC 6.95 25508.1(a)-(f) - California Health and Safety Code, Chapter 6.95, Section(s) 25508.1(a)-(f)

Violation Description: Failure to electronically update business plan within 30 days of any one of the following events: A 100 percent or more increase in the quantity of a previously disclosed material. Any handling of a previously undisclosed hazardous materials at or above reportable quantities. A change of business address, business ownership, or business name. A substantial change in the handler's operations that requires modification to any portion of the business plan.

Violation Notes: OBSERVATIONS: The HMBP inventory is not accurate and was not updated within 30 days of change of inventory. See Violation #4 for details on this violation. CORRECTIVE ACTIONS: Correct Violation #4. Update CERS anytime the chemical inventory increases by 100% per item.

Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 09-26-2016
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.

Violation Notes: Not reported
Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)

Violation Description: Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LANEY COLLEGE (Continued)

S101624343

Violation Notes: OBSERVATION: The Owner/Operator failed to properly train personnel who handle hazardous waste as demonstrated by: 1) open hazardous waste containers in all hazardous waste storage areas that includes the chemistry laboratory, photography lab, boiler room, machine shop, welding area, and art building. 2) missing, incomplete, or incorrect hazardous waste labeling on numerous hazardous waste containers located in the chemistry laboratory, photography lab, boiler room, machine shop, welding area, and art building. 3) accumulation of spills from chemicals in secondary containment bins in chemistry laboratory hoods 4) incorrect lids being used for hazardous waste containers in photography lab 5) saw dust being used to clean up spills in machine shop improperly disposed of by being discarded in trash 6) improper storage of universal waste (fluorescent lamps, ballasts, and batteries stored in unlabeled open containers that did not minimize breakage or release to the [Truncated]

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: 40 CFR 1 265.31 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.31

Violation Description: Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

Violation Notes: OBSERVATION: 1.Observed spills in secondary containments located in chemistry laboratory hazardous waste storage area. 2.Observed spills under equipment in machine shop. 3.Observed fire extinguishers throughout facility that were last assessed and certified on 6/21/2016. Facilities shall be maintained and operated to minimize the possibility of a fire, explosion, or release of hazardous waste to air, soil, or surface water which could threaten human health or the environment. CORRECTIVE ACTION: 1. Immediately clean up spills listed in above observations and manage according to Title 22 hazardous waste regulations. 2. Re-certify fire extinguisher and ensure it is assessed and certified annually. Submit photo/written documentation of corrective actions to inspector within 30 days.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: 22 CCR 23 66273.31(a) - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.31(a)

Violation Description: Failure of the universal waste handler to transfer universal waste to the appropriate destination facility.

Violation Notes: OBSERVATION: Observed no shipping documents or invoices that demonstrate that universal waste are properly disposed of. Royl Roberts states that all universal waste is picked up by North State Environmental. Invoices and shipping documents of universal waste pick up were not available. CORRECTIVE ACTION: Documentation records of

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LANEY COLLEGE (Continued)

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disposal of any universal wastes must be maintained in accordance with Title 22. Submit copies of shipping documents or invoices for the disposal of universal waste for the last three years to ACDEH inspector within 30 days.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2

Violation Description: Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.

Violation Notes: OBSERVATIONS: The HMBP is not adequate or complete. See Violations #4, #5, #6, #7 and #8. CORRECTIVE ACTIONS: Complete Corrective Actions for the above listed violations. Ensure that the HMBP is reviewed annually for accuracy.

Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit the Business Activities Page and/or Business Owner Operator Identification Page.

Violation Notes: OBSERVATIONS: On the Business Activities Form in CERS, it currently states that Laney College does not generate Hazardous Waste. CORRECTIVE ACTIONS: Update the Business Activities Form in CERS to show "YES" for "Is your facility a Hazardous Waste Generator".

Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: 40 CFR 1 262.34(d)(5)(ii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(ii)

Violation Description: Failure to post the following information next to the telephone: (A) The name and telephone number of the emergency coordinator; (B) Location of fire extinguishers and spill control material, and, if present, fire alarm; and (C) The telephone number of the fire department, unless the facility has a direct alarm.

Violation Notes: OBSERVATION: Generator failed to post, next to the telephone, emergency information containing the location of emergency equipment, contact names and numbers located in hazardous waste storage areas. CORRECTIVE ACTION: Owner/Operator shall immediately post, next to the telephone, emergency information that contains the name and telephone number of the emergency coordinator, location of fire extinguishers and spill control material, and telephone number of the fire department in each hazardous waste storage area. Submit photo

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documentation of corrective action to inspector within 30 days.
Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 12-07-2016
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Not reported
Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: 22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)
Violation Description: Failure to keep a copy of each properly signed manifest for at least three years from the date the waste was accepted by the initial transporter. The manifest signed at the time the waste was accepted for transport shall be kept until receiving a signed copy from the designated facility which received the waste.
Violation Notes: OBSERVATION: Copies of the signed copy of manifests from the designated facility were not available on site. Hazardous waste generators shall retain copies of all manifests signed off by the disposal facility on site for three years and have them readily available for review. CORRECTIVE ACTION: Immediately locate a copy of all manifests that have been signed from the designated facility for the last three years, maintain them on site, and submit copies to inspector within 30 days.
Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to establish and electronically submit an adequate training program in safety procedures in the event of a release or threatened release of a hazardous material.
Violation Notes: OBSERVATIONS: No employee training program on hazardous materials handling or emergency response procedures has been submitted to CERS. A fire drill report from 4/7/16 was submitted to CERS as the employee training program. CORRECTIVE ACTIONS: Complete section "I Employee Training" in the "Consolidated Emergency Response/Contingency Plan" and submit it to CERS.
Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

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Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: HSC 6.5 25163(a) - California Health and Safety Code, Chapter 6.5, Section(s) 25163(a)
Violation Description: Failure to use a DTSC registered hazardous waste transporter to transport hazardous waste or transporting hazardous waste without being a DTSC registered hazardous waste transporter.
Violation Notes: OBSERVATION: Copies of hazardous waste disposal records for the disposal of silver waste from photo processing solutions and spent rinse water were not found on site. Hazardous waste generators shall retain copies of all manifests signed off by the disposal facility on site for three years and have them readily available for review. CORRECTIVE ACTION: The Facility shall maintain copies of the manifests for any transport of a hazardous waste for off-site transfer, treatment, storage or disposal going forward for three years. Locate and submit copies of manifests for photography waste for the last three years.
Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: 40 CFR 1 265.33 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.33
Violation Description: Failure to test and maintain as necessary all facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment to assure its proper operation in time of emergency.
Violation Notes: OBSERVATION: Observed fire extinguishers throughout facility that were last assessed and certified on 6/21/2016. Facilities shall be test and maintain all required safety equipment at facility in accordance with Title 22. CORRECTIVE ACTION: 1. Re-certify fire extinguisher and ensure it is assessed and certified annually. Submit a receipt of service as proof of corrective action to ACDEH inspector within 30 days.
Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: 49 CFR 1 172.201(e) - U.S. Code of Federal Regulations, Title 49, Chapter 1, Section(s) 172.201(e)
Violation Description: Failure of the universal waste handler to transfer universal waste to another universal waste handler, or appropriate destination facility. Failure to package, label, mark and placard shipments and prepare shipping papers for any universal waste that meets the hazardous materials definition in accordance with DOT 49 CFR parts 171-180.
Violation Notes: OBSERVATION: Copies of universal waste shipping records for the disposal of fluorescent lamps and ballasts, lamps, and batteries were not available for review. Hazardous waste generators shall retain shipping papers for all universal waste being shipped to another universal waste handler, destination facility, or foreign facility and

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Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

have them readily available for review. CORRECTIVE ACTION: Immediately locate a copy of all shipping papers for universal waste for the last three years, maintain them on site, and submit copies to inspector within 30 days.

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-15-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Routine hazardous waste generator (HWG) inspection of Laney College at 900 Fallon Street Oakland CA 94607. Met with Royle Roberts, Risk and Safety Program Manager, who granted consent to perform inspection. Alameda County Department of Environmental Health (ACDEH) to provide inspection report by email to: rroberts@peralta.edu. Laney College is a community college that offers classes in art, welding, machinery, chemistry, biology, and other disciplines. Facility wastes streams include: 1) oily coolant from machine shop and boiler room 2) metal fines from machine shop and welding 3) photographic waste from photography lab 4) laboratory waste 5) universal waste and 6) waste from art building. Facility has five to six employees handling hazardous waste. All violations noted in this Hazardous Waste Generator Inspection Report are to be corrected within 30 days and proof of those corrections submitted to ACDEH in the same time frame.

Eval Division: Alameda County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-15-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: On site with Royle L. Roberts, Risk & Safety Programs Manager to conduct a Hazardous Materials Business Plan and Hazardous Waste Generator inspections. Ensure that the 500 gallon diesel tank in the Laney Tower has emergency vents that can move freely in case of venting. All violations noted in this Hazardous Materials Business Plan (HMBP) inspection report are to be corrected within 30 days and proof of those corrections submitted to ACDEH in the same time frame.

Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-07-2016
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: HMBP FINAL NOV LETTER/TRACKING VIOLATION
Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-14-2017

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LANEY COLLEGE (Continued)

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Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: HMBP NOV LETTER/ADD VIOLATION
Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-26-2016
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: HMBP NOV LETTER
Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Enforcement Action:
Site ID: 43406
Site Name: Laney College
Site Address: 900 FALLON ST
Site City: OAKLAND
Site Zip: 94607
Enf Action Date: 09-27-2016
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Alameda County Environmental Health
Enf Action Program: HMRRP
Enf Action Source: CERS

Coordinates:
Site ID: 43406
Facility Name: Laney College
Env Int Type Code: HMBP
Program ID: 10004047
Coord Name: Not reported
Ref Point Type Desc: Unknown
Latitude: 37.796146
Longitude: -122.261337

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Document Preparer
Entity Name: Royl L. Roberts
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported

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LANEY COLLEGE (Continued)

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Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 900 Fallon St
Affiliation City: Oakalnd
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94607
Affiliation Phone: Not reported

Affiliation Type Desc: Parent Corporation
Entity Name: Laney College
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: Royl L. Roberts
Entity Title: Not reported
Affiliation Address: 333 E. Eighth Street
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94606
Affiliation Phone: (510) 466-7264

Affiliation Type Desc: Legal Owner
Entity Name: Peralta Community College District
Entity Title: Not reported
Affiliation Address: 333 E. 8th Street
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94606
Affiliation Phone: (510) 466-7200

Affiliation Type Desc: Identification Signer
Entity Name: Royl L. Roberts
Entity Title: Risk & Safety Programs Manager
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Operator
Entity Name: Laney College

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Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (510) 834-5740

SWEEPS UST:

Status: Active
Comp Number: 24318
Number: 4
Board Of Equalization: 44-000289
Referral Date: 07-01-85
Action Date: Not reported
Created Date: 02-29-88
Owner Tank Id: L-1
SWRCB Tank Id: 01-000-024318-000001
Tank Status: A
Capacity: 10000
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: 3

Status: Active
Comp Number: 24318
Number: 4
Board Of Equalization: 44-000289
Referral Date: 07-01-85
Action Date: Not reported
Created Date: 02-29-88
Owner Tank Id: L-2
SWRCB Tank Id: 01-000-024318-000002
Tank Status: A
Capacity: 563
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: Not reported

Status: Active
Comp Number: 24318
Number: 4
Board Of Equalization: 44-000289
Referral Date: 07-01-85
Action Date: Not reported
Created Date: 02-29-88
Owner Tank Id: L-3
SWRCB Tank Id: 01-000-024318-000003
Tank Status: A
Capacity: 4000
Active Date: 07-01-85
Tank Use: M.V. FUEL

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LANEY COLLEGE (Continued)

S101624343

STG: P
Content: DIESEL
Number Of Tanks: Not reported

HIST UST:

File Number: 00036234
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00036234.pdf>
Region: Not reported
Facility ID: Not reported
Facility Type: Not reported
Other Type: Not reported
Contact Name: Not reported
Telephone: Not reported
Owner Name: Not reported
Owner Address: Not reported
Owner City,St,Zip: Not reported
Total Tanks: Not reported

Tank Num: Not reported
Container Num: Not reported
Year Installed: Not reported
Tank Capacity: Not reported
Tank Used for: Not reported
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: Not reported

[Click here for Geo Tracker PDF:](#)

CA FID UST:

Facility ID: 01002640
Regulated By: UTKA
Regulated ID: 00024318
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4154667336
Mail To: Not reported
Mailing Address: 900 FALLON ST
Mailing Address 2: Not reported
Mailing City,St,Zip: OAKLAND 94606
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

CERS TANKS:

Site ID: 43406
CERS ID: 10004047
CERS Description: Chemical Storage Facilities

Violations:

Site ID: 43406
Site Name: Laney College

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Violation Date: 11-15-2017
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: OBSERVATION: Hazardous waste labels missing, incorrect, or missing accumulation start dates, physical state, and chemical properties, facility name and address for the following containers: 1. Hazardous waste containers in the chemistry laboratory- provide accumulation start dates and the contents of the waste stream in percentages 2. 55 gallon drum of waste coolant in machine shop- provide hazardous waste label with all required information 3. 5 gallon bucket of solvent waste in machine shop-provide hazardous waste label with all required information 4. 30 gallon container of waste mineral spirits in art building-provide accumulation start date and name and address of Laney College All hazardous waste containers shall be marked with the following information: 1) the words Hazardous Waste ; 2) name and address of generator; 3) hazardous properties; 4) physical state; 5) composition (contents); 6) accumulation start date. CORRECTIVE ACTION: Immediately label [Truncated]
Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: OBSERVATIONS: Laney College failed to adequately complete an electronic submission of the HMBP. See Violations #4, #5, #6, #7 and #11. CORRECTIVE ACTIONS: See the Corrective Actions listed in Violations #4, #5, #6, #7 and #11.
Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: 22 CCR 18 66268.7(a) - California Code of Regulations, Title 22, Chapter 18, Section(s) 66268.7(a)
Violation Description: Failure to determine if the waste has to be treated before it can be land disposed and retain the documentation at least three years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal.
Violation Notes: OBSERVATION: Copies of the land disposal restriction (LDR) were not available for review. Facility failed to determine if the waste is restricted from land disposal. CORRECTIVE ACTION: The generator shall make a determination of all hazardous wastes if the waste is restricted from land disposal. Submit a copy of LDR Notification or

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LANEY COLLEGE (Continued)

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documentation showing that the hazardous waste is not subject to land disposal restriction to the inspector within 30 days.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 04-14-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.

Violation Notes: Not reported

Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: 22 CCR 23 66273.35 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.35

Violation Description: Failure to accumulate universal waste for one year or less and to demonstrate the length of time that the universal waste has been accumulated from the date it became a waste or was received.

Violation Notes: OBSERVATION: Universal Waste Handler failed to properly accumulate waste within one year and/or demonstrated accumulation time. Observed no shipping documents or invoices that demonstrate that universal waste are properly disposed of. Royle Roberts states that all universal waste is picked up by North State Environmental. Invoices and shipping documents of universal waste pick up were not available. CORRECTIVE ACTION: Universal Waste Handler shall properly process accumulated waste within one year and/or demonstrated accumulation time. Submit copies of shipping documents or invoices for the disposal of universal waste for the last three years to ACDEH inspector within 30 days.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: 40 CFR 1 265.171 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.171

Violation Description: Failure to accumulate hazardous waste in a container that is in good condition.

Violation Notes: OBSERVATION: Observed hazardous waste containers in photography lab with incorrect lids that are not tight fitting. Generator must accumulate hazardous waste in containers that are in good condition with tight fitting lids that minimizes release. CORRECTIVE ACTION: Provide the correct tight fitting lid for the hazardous waste container. Submit proof of correction to inspector within 30 days.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

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LANEY COLLEGE (Continued)

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Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes: OBSERVATIONS: The chemical inventory in CERS needs to be updated. Only chemicals meeting the reporting threshold of 55 gallons for liquids, 500 pounds for solids and 200 cubic feet for compressed gases need to be reported in CERS. Also include any extremely hazardous substances if they are equal to or greater than the federal threshold planning quantity (TPQ) listed in Appendix A, Part 355, Title 40 of the Code of Federal Regulations. CORRECTIVE ACTIONS: The following items need to be addressed in the chemical inventory in CERS: Laney Tower: diesel update the Largest Container size to 500 gallons, Maximum Daily Amount should also be 500 gallons. Pool: Add two 60 gallon tanks of sodium hypochlorite. Add hypochlorite solution (observed 128 one gallon containers). Add carbon dioxide (observed 25 cylinders). Update sodium chloride Largest Container size to 50 pounds and Maximum Daily Amount to at least 500 pounds. Chemistry Lab A237 Add carbon dioxide [Truncated]
Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a site map with all required content.
Violation Notes: OBSERVATION: The annotated site maps that were submitted to CERS are not adequate for the size of this campus. CORRECTIVE ACTION: Submit to CERS an overall site map showing the locations of all of the buildings on campus. Submit to CERS a separate site map for each location that stores or handles hazardous materials or hazardous waste to CERS. At a minimum they should include all of the following on each map: north orientation, loading areas, internal roads, adjacent streets, storm and sewer drains, access and exit points, emergency shutoffs, evacuation staging areas, hazardous materials/waste handling and storage areas and emergency response procedures. Site maps are required for Laney Tower, the chemistry laboratories, pool storage area, boiler rooms, machine shop, welding shop and cage, art building and the community garden.
Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to establish and electronically submit an adequate emergency

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Violation Notes: response plan and procedures for a release or threatened release of a hazardous material.
OBSERVATION: The facility has uploaded "Laney College Emergency Operations Plan" dated 9/20/12 and "Emergency Procedures" booklet that is located in each building on campus. Neither document fully addresses the requirements of Health and Safety Code 25505(a)(3).
CORRECTIVE ACTION: Complete the "Consolidated Emergency Response/Contingency Plan" template that is available in CERS in order to supplement the other two documents already submitted to CERS.

Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)

Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.

Violation Notes: OBSERVATION: No training on hazardous materials handling or emergency response procedures has taken place. No training documentation was found for any past trainings that may have occurred. CORRECTIVE ACTION: Train all employees on hazardous materials handling, emergency response procedures and the Consolidated Emergency Response/Contingency Plan. Document this training and provide a syllabus and sign in sheet. Training must occur annually.

Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: HSC 6.5 25189.5(a),25201(a) - California Health and Safety Code, Chapter 6.5, Section(s) 25189.5(a),25201(a)

Violation Description: Failure to dispose of hazardous waste at a facility which has a permit from DTSC or disposing of hazardous waste at any point which is not authorized according to HSC 6.5.

Violation Notes: OBSERVATION: Copies of hazardous waste disposal records for the disposal of silver waste from photo processing solutions and spent rinse water were not found on site. Hazardous waste generators shall retain copies of all manifests signed off by the disposal facility on site for three years and have them readily available for review.
CORRECTIVE ACTION: The Facility shall maintain copies of the manifests for any transport of a hazardous waste for off-site transfer, treatment, storage or disposal going forward for three years. Locate and submit copies of manifests for photography waste for the last three years.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College

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Elevation

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LANEY COLLEGE (Continued)

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Violation Date: 11-15-2017
Citation: 22 CCR 12 66262.11 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.11
Violation Description: Failure to determine if wastes generated are hazardous waste by using generator knowledge or applying testing method.
Violation Notes: OBSERVATION: No waste analysis was available for the following: 1. Saw dust waste used to clean up spills in machine shop is currently discarded in trash. 2. Fine metal shavings located in welding area and machine shop. Shavings are currently being recycled. 3. Waste clay, clay dust, and wash water from ceramics class in art building. 4. Containers that previously held hazardous materials or waste in the chemistry laboratory. Observed crusty glassware discarded in trash. These wastes are being disposed of as non-hazardous waste. A generator shall make a hazardous waste determination and keep a record of any test results, waste analyses, or other determinations made in accordance with hazardous waste regulations for at least three years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal. CORRECTIVE ACTION: 1. Manage and dispose of saw dust clean up waste as a hazardous waste. 2. Conduct a waste analysis for the [Truncated]

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: HSC 6.95 25507 - California Health and Safety Code, Chapter 6.95, Section(s) 25507
Violation Description: Failure to adequately establish and implement a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Laney College failed to establish and adequately implement a Hazardous Materials Business Plan by the following observations: OBSERVATIONS FOR LANEY TOWER: The 500 gallon diesel tank for the generator does not have the contents listed on the tank. CORRECTIVE ACTIONS: Label this tank as diesel . Submit a photo of the correction. OBSERVATIONS FOR CHEMISTRY LABS A235-A277: Many containers of hazardous waste stored in the chemical hoods were found open. According to the lab manager, they are left open to vent. Most hazardous waste containers were not properly labeled with the required information and were stored piled on one another. Acetylene cylinder in A277 was not properly secured. CORRECTIVE ACTIONS: Keep all hazardous waste containers closed except when in use. Hazardous waste cannot be left open to vent . Properly store all containers of hazardous waste so that each container can be inspected weekly for spillage or leaks. Properly secure all compressed [Truncated]

Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: 40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
Violation Description: Failure to meet the following container management requirements: (a) A

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LANEY COLLEGE (Continued)

S101624343

container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

Violation Notes: OBSERVATION: Observed the following open hazardous waste containers: 1) Numerous open containers in chemistry laboratory hazardous waste storage area 2) Open container of used oil in boiler room 3) Open 5 gallon container of solvent waste in machine shop All hazardous waste containers shall be closed at all times except when adding or removing wastes. CORRECTIVE ACTION: Immediately close these containers and ensure all hazardous waste containers are closed when not adding or removing wastes. Submit photo documentation of corrective action to inspector within 30 days.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: 22 CCR 12 66262.23(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.23(a)

Violation Description: Failure to properly complete the Uniform Hazardous Waste Manifest.
Violation Notes: OBSERVATION: Copies of hazardous waste disposal records for the disposal of silver waste from photo processing solutions and spent rinse water were not found on site. Hazardous waste generators shall retain copies of all manifests signed off by the disposal facility on site for three years and have them readily available for review. CORRECTIVE ACTION: The Facility shall maintain copies of the manifests for any transport of a hazardous waste for off-site transfer, treatment, storage or disposal going forward for three years. Locate and submit copies of manifests for photography waste for the last three years.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: 40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174

Violation Description: Failure to inspect hazardous waste storage areas at least weekly and look for leaking and deteriorating containers.
Violation Notes: OBSERVATION: The Owner/Operator failed to conduct weekly inspections of all hazardous waste containers as demonstrated by observing: missing or incorrect hazardous waste labels (missing accumulation start dates, generator name and address, chemical and physical properties, and contents), open hazardous waste containers, spills not immediately cleaned up, and storing containers in a manner that prevents weekly inspection of each containers in all hazardous storage areas. CORRECTIVE ACTION: Conduct weekly inspections and ensure hazardous waste labels are provided and are legible and filled out properly, providing all required information including accumulation start dates, and cleaning up spills immediately. Submit proof of corrective actions to inspector within 30 days.

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LANEY COLLEGE (Continued)

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Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: HSC 6.95 25508.1(a)-(f) - California Health and Safety Code, Chapter 6.95, Section(s) 25508.1(a)-(f)
Violation Description: Failure to electronically update business plan within 30 days of any one of the following events: A 100 percent or more increase in the quantity of a previously disclosed material. Any handling of a previously undisclosed hazardous materials at or above reportable quantities. A change of business address, business ownership, or business name. A substantial change in the handler's operations that requires modification to any portion of the business plan.
Violation Notes: OBSERVATIONS: The HMBP inventory is not accurate and was not updated within 30 days of change of inventory. See Violation #4 for details on this violation. CORRECTIVE ACTIONS: Correct Violation #4. Update CERS anytime the chemical inventory increases by 100% per item.

Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 09-26-2016
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Not reported
Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description: Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.
Violation Notes: OBSERVATION: The Owner/Operator failed to properly train personnel who handle hazardous waste as demonstrated by: 1) open hazardous waste containers in all hazardous waste storage areas that includes the chemistry laboratory, photography lab, boiler room, machine shop, welding area, and art building. 2) missing, incomplete, or incorrect hazardous waste labeling on numerous hazardous waste containers located in the chemistry laboratory, photography lab, boiler room, machine shop, welding area, and art building. 3) accumulation of spills from chemicals in secondary containment bins in chemistry laboratory hoods 4) incorrect lids being used for hazardous waste containers in photography lab 5) saw dust being used to clean up spills in machine shop improperly disposed of by being discarded in

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LANEY COLLEGE (Continued)

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trash 6) improper storage of universal waste (fluorescent lamps, ballasts, and batteries stored in unlabeled open containers that did not minimize breakage or release to the [Truncated]

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: 40 CFR 1 265.31 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.31

Violation Description: Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

Violation Notes: OBSERVATION: 1.Observed spills in secondary containments located in chemistry laboratory hazardous waste storage area. 2.Observed spills under equipment in machine shop. 3.Observed fire extinguishers throughout facility that were last assessed and certified on 6/21/2016. Facilities shall be maintained and operated to minimize the possibility of a fire, explosion, or release of hazardous waste to air, soil, or surface water which could threaten human health or the environment. CORRECTIVE ACTION: 1. Immediately clean up spills listed in above observations and manage according to Title 22 hazardous waste regulations. 2. Re-certify fire extinguisher and ensure it is assessed and certified annually. Submit photo/written documentation of corrective actions to inspector within 30 days.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: 22 CCR 23 66273.31(a) - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.31(a)

Violation Description: Failure of the universal waste handler to transfer universal waste to the appropriate destination facility.

Violation Notes: OBSERVATION: Observed no shipping documents or invoices that demonstrate that universal waste are properly disposed of. Royl Roberts states that all universal waste is picked up by North State Environmental. Invoices and shipping documents of universal waste pick up were not available. CORRECTIVE ACTION: Documentation records of disposal of any universal wastes must be maintained in accordance with Title 22. Submit copies of shipping documents or invoices for the disposal of universal waste for the last three years to ACDEH inspector within 30 days.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95,

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LANEY COLLEGE (Continued)

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Violation Description: Section(s) 25508.2
Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.

Violation Notes: OBSERVATIONS: The HMBP is not adequate or complete. See Violations #4, #5, #6, #7 and #8. CORRECTIVE ACTIONS: Complete Corrective Actions for the above listed violations. Ensure that the HMBP is reviewed annually for accuracy.

Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit the Business Activities Page and/or Business Owner Operator Identification Page.

Violation Notes: OBSERVATIONS: On the Business Activities Form in CERS, it currently states that Laney College does not generate Hazardous Waste. CORRECTIVE ACTIONS: Update the Business Activities Form in CERS to show "YES" for "Is your facility a Hazardous Waste Generator".

Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: 40 CFR 1 262.34(d)(5)(ii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(ii)

Violation Description: Failure to post the following information next to the telephone: (A) The name and telephone number of the emergency coordinator; (B) Location of fire extinguishers and spill control material, and, if present, fire alarm; and (C) The telephone number of the fire department, unless the facility has a direct alarm.

Violation Notes: OBSERVATION: Generator failed to post, next to the telephone, emergency information containing the location of emergency equipment, contact names and numbers located in hazardous waste storage areas. CORRECTIVE ACTION: Owner/Operator shall immediately post, next to the telephone, emergency information that contains the name and telephone number of the emergency coordinator, location of fire extinguishers and spill control material, and telephone number of the fire department in each hazardous waste storage area. Submit photo documentation of corrective action to inspector within 30 days.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 12-07-2016
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable

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LANEY COLLEGE (Continued)

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quantities.
Violation Notes: Not reported
Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: 22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)
Violation Description: Failure to keep a copy of each properly signed manifest for at least three years from the date the waste was accepted by the initial transporter. The manifest signed at the time the waste was accepted for transport shall be kept until receiving a signed copy from the designated facility which received the waste.
Violation Notes: OBSERVATION: Copies of the signed copy of manifests from the designated facility were not available on site. Hazardous waste generators shall retain copies of all manifests signed off by the disposal facility on site for three years and have them readily available for review. CORRECTIVE ACTION: Immediately locate a copy of all manifests that have been signed from the designated facility for the last three years, maintain them on site, and submit copies to inspector within 30 days.
Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to establish and electronically submit an adequate training program in safety procedures in the event of a release or threatened release of a hazardous material.
Violation Notes: OBSERVATIONS: No employee training program on hazardous materials handling or emergency response procedures has been submitted to CERS. A fire drill report from 4/7/16 was submitted to CERS as the employee training program. CORRECTIVE ACTIONS: Complete section "I Employee Training" in the "Consolidated Emergency Response/Contingency Plan" and submit it to CERS.
Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: HSC 6.5 25163(a) - California Health and Safety Code, Chapter 6.5, Section(s) 25163(a)
Violation Description: Failure to use a DTSC registered hazardous waste transporter to transport hazardous waste or transporting hazardous waste without being a DTSC registered hazardous waste transporter.
Violation Notes: OBSERVATION: Copies of hazardous waste disposal records for the disposal of silver waste from photo processing solutions and spent rinse water were not found on site. Hazardous waste generators shall

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LANEY COLLEGE (Continued)

S101624343

retain copies of all manifests signed off by the disposal facility on site for three years and have them readily available for review.
CORRECTIVE ACTION: The Facility shall maintain copies of the manifests for any transport of a hazardous waste for off-site transfer, treatment, storage or disposal going forward for three years. Locate and submit copies of manifests for photography waste for the last three years.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: 40 CFR 1 265.33 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.33

Violation Description: Failure to test and maintain as necessary all facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment to assure its proper operation in time of emergency.

Violation Notes: OBSERVATION: Observed fire extinguishers throughout facility that were last assessed and certified on 6/21/2016. Facilities shall be test and maintain all required safety equipment at facility in accordance with Title 22. CORRECTIVE ACTION: 1. Re-certify fire extinguisher and ensure it is assessed and certified annually. Submit a receipt of service as proof of corrective action to ACDEH inspector within 30 days.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: 49 CFR 1 172.201(e) - U.S. Code of Federal Regulations, Title 49, Chapter 1, Section(s) 172.201(e)

Violation Description: Failure of the universal waste handler to transfer universal waste to another universal waste handler, or appropriate destination facility. Failure to package, label, mark and placard shipments and prepare shipping papers for any universal waste that meets the hazardous materials definition in accordance with DOT 49 CFR parts 171-180.

Violation Notes: OBSERVATION: Copies of universal waste shipping records for the disposal of fluorescent lamps and ballasts, lamps, and batteries were not available for review. Hazardous waste generators shall retain shipping papers for all universal waste being shipped to another universal waste handler, destination facility, or foreign facility and have them readily available for review. CORRECTIVE ACTION: Immediately locate a copy of all shipping papers for universal waste for the last three years, maintain them on site, and submit copies to inspector within 30 days.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-15-2017

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LANEY COLLEGE (Continued)

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Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Routine hazardous waste generator (HWG) inspection of Laney College at 900 Fallon Street Oakland CA 94607. Met with Roysl Roberts, Risk and Safety Program Manager, who granted consent to perform inspection. Alameda County Department of Environmental Health (ACDEH) to provide inspection report by email to: rroberts@peralta.edu. Laney College is a community college that offers classes in art, welding, machinery, chemistry, biology, and other disciplines. Facility wastes streams include: 1) oily coolant from machine shop and boiler room 2) metal fines from machine shop and welding 3) photographic waste from photography lab 4) laboratory waste 5) universal waste and 6) waste from art building. Facility has five to six employees handling hazardous waste. All violations noted in this Hazardous Waste Generator Inspection Report are to be corrected within 30 days and proof of those corrections submitted to ACDEH in the same time frame.

Eval Division: Alameda County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-15-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: On site with Roysl L. Roberts, Risk & Safety Programs Manager to conduct a Hazardous Materials Business Plan and Hazardous Waste Generator inspections. Ensure that the 500 gallon diesel tank in the Laney Tower has emergency vents that can move freely in case of venting. All violations noted in this Hazardous Materials Business Plan (HMBP) inspection report are to be corrected within 30 days and proof of those corrections submitted to ACDEH in the same time frame.

Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-07-2016
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: HMBP FINAL NOV LETTER/TRACKING VIOLATION
Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-14-2017
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: HMBP NOV LETTER/ADD VIOLATION
Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-26-2016
Violations Found: Yes
Eval Type: Other, not routine, done by local agency

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LANEY COLLEGE (Continued)

S101624343

Eval Notes: HMBP NOV LETTER
Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Enforcement Action:
Site ID: 43406
Site Name: Laney College
Site Address: 900 FALLON ST
Site City: OAKLAND
Site Zip: 94607
Enf Action Date: 09-27-2016
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Alameda County Environmental Health
Enf Action Program: HMRRP
Enf Action Source: CERS

Coordinates:
Site ID: 43406
Facility Name: Laney College
Env Int Type Code: HMBP
Program ID: 10004047
Coord Name: Not reported
Ref Point Type Desc: Unknown
Latitude: 37.796146
Longitude: -122.261337

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Document Preparer
Entity Name: Royl L. Roberts
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 900 Fallon St
Affiliation City: Oakland
Affiliation State: CA

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LANEY COLLEGE (Continued)

S101624343

Affiliation Country:	Not reported
Affiliation Zip:	94607
Affiliation Phone:	Not reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	Laney College
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	Royl L. Roberts
Entity Title:	Not reported
Affiliation Address:	333 E. Eighth Street
Affiliation City:	Oakland
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	94606
Affiliation Phone:	(510) 466-7264
Affiliation Type Desc:	Legal Owner
Entity Name:	Peralta Community College District
Entity Title:	Not reported
Affiliation Address:	333 E. 8th Street
Affiliation City:	Oakland
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94606
Affiliation Phone:	(510) 466-7200
Affiliation Type Desc:	Identification Signer
Entity Name:	Royl L. Roberts
Entity Title:	Risk & Safety Programs Manager
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	Operator
Entity Name:	Laney College
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(510) 834-5740

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Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
C31 South < 1/8 0.031 mi. 166 ft.	TANI MOTO 709 OAK ST OAKLAND, CA Site 2 of 2 in cluster C	EDR Hist Cleaner	1009141889 N/A
Relative: Lower	EDR Hist Cleaner		
Actual: 28 ft.	Year: 1933 Name: TANI MOTO	Type: CLOTHES PRESSERS AND CLEANERS	
<hr/>			
D32 WSW < 1/8 0.040 mi. 213 ft.	CANTON GARAGE 715 MADISON ST OAKLAND, CA Site 1 of 2 in cluster D	EDR Hist Auto	1009013040 N/A
Relative: Lower	EDR Hist Auto		
Actual: 30 ft.	Year: 1967 Name: CANTON GARAGE	Type: AUTOMOBILE REPAIRING	
<hr/>			
E33 NNW < 1/8 0.052 mi. 273 ft.	WEBB S LAUNDR-0-MAT 151 10TH ST OAKLAND, CA Site 1 of 2 in cluster E	EDR Hist Cleaner	1009143049 N/A
Relative: Higher	EDR Hist Cleaner		
Actual: 36 ft.	Year: 1967 Name: WEBB S LAUNDR-0-MAT	Type: LAUNDRIES	
<hr/>			
E34 NNW < 1/8 0.058 mi. 308 ft.	STAR CLEANERS 163 10TH ST OAKLAND, CA Site 2 of 2 in cluster E	EDR Hist Cleaner	1009139828 N/A
Relative: Higher	EDR Hist Cleaner		
Actual: 37 ft.	Year: 1925 Name: STAR CLEANERS 1933 IKEBUCHI USAJI	Type: CLEANERS DYERS AND PRESSERS CLOTHES PRESSERS AND CLEANERS	
<hr/>			
F35 East < 1/8 0.059 mi. 312 ft.	STICKLER O F 10 TH AND FALLON OAKLAND, CA Site 1 of 2 in cluster F	EDR Hist Auto	1009014474 N/A
Relative: Lower	EDR Hist Auto		
Actual: 22 ft.	Year: 1928 Name: STICKLER O F	Type: GASOLINE AND OIL SERVICE STATIONS	

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F36
ENE
< 1/8
0.062 mi.
329 ft.

OVERMIRE J S
58 10TH ST
OAKLAND, CA
Site 2 of 2 in cluster F

EDR Hist Auto **1009012638**
N/A

Relative:
Lower

EDR Hist Auto

Actual:
25 ft.

Year: Name:
1933 OVERMIRE J S

Type:
GASOLINE AND OIL SERVICE STATIONS

G37
NNE
< 1/8
0.068 mi.
361 ft.

GEO V ARTH AND SON
110 TENTH STREET
OAKLAND, CA 94607
Site 1 of 6 in cluster G

RCRA-SQG **1000135284**
HAZNET **CAD028774792**

Relative:
Higher

RCRA-SQG:

Date form received by agency: 06/03/1986
Facility name: GEO V ARTH AND SON
Facility address: 110 TENTH STREET
 OAKLAND, CA 94607

EPA ID: CAD028774792
Contact: ENVIRONMENTAL MANAGER
Contact address: 110 TENTH STREET
 OAKLAND, CA 94607

Contact country: US
Contact telephone: 415-836-2535
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: GEORGE ARTH
Owner/operator address: NOT REQUIRED
 NOT REQUIRED, ME 99999

Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
 NOT REQUIRED, ME 99999

Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GEO V ARTH AND SON (Continued)

1000135284

Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

HAZNET:

Facility Name: GEO V ARTH AND SON
envid: 1000135284
Year: 2017
GEPaid: CAD028774792
Contact: RON ARTH
Telephone: 5108362535
Mailing Name: Not reported
Mailing Address: 110 10TH ST
Mailing City,St,Zip: OAKLAND, CA 946074804
Gen County: Alameda
TSD EPA ID: CAD008252405
TSD County: Los Angeles
Waste Category: Other organic solids
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.05
Cat Decode: Other organic solids
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Alameda

envid: 1000135284
Year: 2017
GEPaid: CAD028774792
Contact: RON ARTH
Telephone: 5108362535
Mailing Name: Not reported
Mailing Address: 110 10TH ST
Mailing City,St,Zip: OAKLAND, CA 946074804
Gen County: Alameda
TSD EPA ID: CAD008252405
TSD County: Los Angeles

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GEO V ARTH AND SON (Continued)

1000135284

Waste Category: Aqueous solution with total organic residues 10 percent or more
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
Tons: 0.1251
Cat Decode: Aqueous solution with total organic residues 10 percent or more
Method Decode: Fuel Blending Prior To Energy Recovery At Another Site
Facility County: Alameda

envid: 1000135284
Year: 2016
GEPID: CAD028774792
Contact: RON ARTH
Telephone: 5108362535
Mailing Name: Not reported
Mailing Address: 110 10TH ST
Mailing City,St,Zip: OAKLAND, CA 946074804
Gen County: Alameda
TSD EPA ID: CAD008252405
TSD County: Los Angeles

Waste Category: Aqueous solution with total organic residues 10 percent or more
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
Tons: 0.1251
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

envid: 1000135284
Year: 2016
GEPID: CAD028774792
Contact: RON ARTH
Telephone: 5108362535
Mailing Name: Not reported
Mailing Address: 110 10TH ST
Mailing City,St,Zip: OAKLAND, CA 946074804
Gen County: Alameda
TSD EPA ID: CAD008252405
TSD County: Los Angeles

Waste Category: Unspecified solvent mixture
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
Tons: 0.108
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

envid: 1000135284
Year: 2015
GEPID: CAD028774792
Contact: RON ARTH
Telephone: 5108362535
Mailing Name: Not reported
Mailing Address: 110 10TH ST
Mailing City,St,Zip: OAKLAND, CA 946074804
Gen County: Alameda
TSD EPA ID: CAD008252405
TSD County: Los Angeles

Waste Category: Aqueous solution with total organic residues 10 percent or more
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
Tons: 0.2502

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

GEO V ARTH AND SON (Continued)

1000135284

Cat Decode: Not reported
 Method Decode: Not reported
 Facility County: Alameda

[Click this hyperlink](#) while viewing on your computer to access
 39 additional CA_HAZNET: record(s) in the EDR Site Report.

G38
NNE
 < 1/8
 0.068 mi.
 361 ft.

ARTH GEO V & SON
110 10TH ST
OAKLAND, CA

EDR Hist Auto 1009013370
N/A

Site 2 of 6 in cluster G

Relative:
Higher

EDR Hist Auto

Actual:
34 ft.

Year:	Name:	Type:
1967	ARTH GEO V & SON	AUTOMOBILE REPAIRING
1987	ARTH GEORGE V & SONS*	Not reported
1988	ARTH GEORGE V & SONS	Not reported
1990	ARTH GEORGE V & SONS	Exterior Repair Services
1991	ARTH GEORGE V & SONS	Exterior Repair Services
1992	ARTH GEORGE V & SONS	Exterior Repair Services
1993	ARTH GEORGE V & SONS	Exterior Repair Services
1994	ARTH GEORGE V & SONS	Exterior Repair Services
1995	ARTH GEORGE V & SONS	Exterior Repair Services
1996	ARTH GEORGE V & SONS INC	Exterior Repair Services
1997	ARTH GEORGE V & SONS INC	Exterior Repair Services
1998	ARTH GEORGE V & SONS INC	Exterior Repair Services
1999	ARTH GEORGE V & SONS INC	Exterior Repair Services
2000	ARTH GEORGE V & SONS INC	Exterior Repair Services
2001	ARTH GEORGE V & SONS INC	Exterior Repair Services
2002	ARTH GEORGE V & SONS INC	Exterior Repair Services
2003	ARTH GEORGE V & SONS INC	Exterior Repair Services
2004	ARTH GEORGE V & SONS INC	Exterior Repair Services
2005	ARTH GEORGE V & SONS INC	Exterior Repair Services
2006	ARTH GEORGE V & SONS INC	Exterior Repair Services
2007	ARTH GEORGE V & SONS INC	Exterior Repair Services
2008	ARTH GEORGE V & SONS INC	Exterior Repair Services
2009	ARTH GEORGE V & SONS INC	Exterior Repair Services
2010	ARTH GEORGE V & SONS INC	Exterior Repair Services
2011	ARTH GEORGE V & SONS INC	Exterior Repair Services
2012	ARTH GEORGE V & SONS INC	Exterior Repair Services
2013	ARTH GEORGE V & SONS INC	Exterior Repair Services
2014	ARTH GEORGE V & SONS INC	Exterior Repair Services

G39
NNE
 < 1/8
 0.068 mi.
 361 ft.

GEORGE V ARTH & SON
110 10TH ST
OAKLAND, CA 94607

CERS HAZ WASTE S121766718
CERS N/A

Site 3 of 6 in cluster G

Relative:
Higher

CERS HAZ WASTE:

Actual:
34 ft.

Site ID: 361464
 CERS ID: 10652437
 CERS Description: Hazardous Waste Generator

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GEORGE V ARTH & SON (Continued)

S121766718

Violations:

Site ID: 361464
Site Name: George V Arth & Son
Violation Date: 07-28-2017
Citation: 40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174
Violation Description: Failure to inspect hazardous waste storage areas at least weekly and look for leaking and deteriorating containers.
Violation Notes: Returned to compliance on 07/28/2017. OBSERVATION: Formal weekly inspections of the hazardous waste containers are not being conducted. Waste containers and labels are well maintained. CORRECTIVE ACTION: A weekly inspection checklist was provided to the generator. Points of inspections were explained to the generator. CORRECTED AT THE TIME OF INSPECTION.
Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Evaluation:

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-28-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: HAZARDOUS MATERIAL BUSINESS PLAN INSPECTION GEORGE V ARTH & SON 110 10TH STREET OAKLAND PR0522994 Hazardous Material Business Plan (HMBP) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on July 28, 2017. Consent to inspect was given by and the completed inspection report was reviewed with Ron Arth, Manager. The business is an autobody shop. CERS chemical inventory: 1255 cubic feet Argon/CO2, oxygen 562 cubic feet, Argon 632 cubic feet. The last complete CERS submittal was dated February 25, 2017. A complete CERS submittal is due each year. Each year you must submit a complete CERS submittal (Facility Information, Site Map and Inventory, Emergency Response/Contingency Plan). Your next CERS reporting date is February 2018. NO VIOLATIONS OBSERVED
Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-28-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: HAZARDOUS WASTE GENERATOR INSPECTION GEORGE V ARTH & SON 110 10TH STREET OAKLAND EPA ID NUMBER: CAD028774792 PR0522995 Hazardous Waste Generator (HWG) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on July 28, 2017. Consent to inspect was given by and the completed inspection report was reviewed with Ron Arth, manager. The generator is an autobody shop. The generator is a small quantity generator. According to the Department of Toxic Substances Control the EPA ID Number is CAD028774792. Typical hazardous waste generated: waste water-based paint related material, waste solvent-based paint related material, waste anti-freeze, used oil. The shop does not perform mechanical repairs. Used oil is taken to a used oil collection center. OBSERVATION: Formal weekly inspections of the hazardous waste containers are not being conducted.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GEORGE V ARTH & SON (Continued)

S121766718

Waste containers and labels are well maintained. CORRECTIVE ACTION: A weekly inspection [Truncated]

Eval Division: Alameda County Environmental Health
Eval Program: HW
Eval Source: CERS

Coordinates:

Site ID: 361464
Facility Name: George V Arth & Son
Env Int Type Code: HWG
Program ID: 10652437
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.798480
Longitude: -122.264890

Affiliation:

Affiliation Type Desc: Environmental Contact
Entity Name: George Arth III
Entity Title: Not reported
Affiliation Address: 110 10th St
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94607
Affiliation Phone: (510) 836-2535

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 110 10th St
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94607
Affiliation Phone: Not reported

Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Legal Owner
Entity Name: Geo V Arth
Entity Title: Not reported
Affiliation Address: 110 10th St
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94607
Affiliation Phone: (510) 836-2535

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GEORGE V ARTH & SON (Continued)

S121766718

Affiliation Type Desc: Operator
Entity Name: Ron Arth
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (510) 836-2535

Affiliation Type Desc: Parent Corporation
Entity Name: George V Arth & Son
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

CERS TANKS:

Site ID: 361464
CERS ID: 10652437
CERS Description: Chemical Storage Facilities

Violations:

Site ID: 361464
Site Name: George V Arth & Son
Violation Date: 07-28-2017
Citation: 40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174

Violation Description: Failure to inspect hazardous waste storage areas at least weekly and look for leaking and deteriorating containers.

Violation Notes: Returned to compliance on 07/28/2017. OBSERVATION: Formal weekly inspections of the hazardous waste containers are not being conducted. Waste containers and labels are well maintained. CORRECTIVE ACTION: A weekly inspection checklist was provided to the generator. Points of inspections were explained to the generator. CORRECTED AT THE TIME OF INSPECTION.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Evaluation:

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-28-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: HAZARDOUS MATERIAL BUSINESS PLAN INSPECTION GEORGE V ARTH & SON 110 10TH STREET OAKLAND PR0522994 Hazardous Material Business Plan (HMBP) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on July 28, 2017. Consent to inspect was given by and the completed inspection report was reviewed with Ron Arth, Manager. The business is an autobody shop. CERS chemical inventory: 1255 cubic feet Argon/CO2, oxygen 562 cubic feet, Argon 632 cubic feet. The last complete CERS submittal was dated February 25, 2017. A complete CERS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GEORGE V ARTH & SON (Continued)

S121766718

submittal is due each year. Each year you must submit a complete CERS submittal (Facility Information, Site Map and Inventory, Emergency Response/Contingency Plan). Your next CERS reporting date is February 2018. NO VIOLATIONS OBSERVED

Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-28-2017
Violations Found: Yes

Eval Type: Routine done by local agency
Eval Notes: HAZARDOUS WASTE GENERATOR INSPECTION GEORGE V ARTH & SON 110 10TH STREET OAKLAND EPA ID NUMBER: CAD028774792 PR0522995 Hazardous Waste Generator (HWG) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on July 28, 2017. Consent to inspect was given by and the completed inspection report was reviewed with Ron Arth, manager. The generator is an autobody shop. The generator is a small quantity generator. According to the Department of Toxic Substances Control the EPA ID Number is CAD028774792. Typical hazardous waste generated: waste water-based paint related material, waste solvent-based paint related material, waste anti-freeze, used oil. The shop does not perform mechanical repairs. Used oil is taken to a used oil collection center. OBSERVATION: Formal weekly inspections of the hazardous waste containers are not being conducted. Waste containers and labels are well maintained. CORRECTIVE ACTION: A weekly inspection [Truncated]

Eval Division: Alameda County Environmental Health
Eval Program: HW
Eval Source: CERS

Coordinates:
Site ID: 361464
Facility Name: George V Arth & Son
Env Int Type Code: HWG
Program ID: 10652437
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.798480
Longitude: -122.264890

Affiliation:
Affiliation Type Desc: Environmental Contact
Entity Name: George Arth III
Entity Title: Not reported
Affiliation Address: 110 10th St
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94607
Affiliation Phone: (510) 836-2535

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 110 10th St

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GEORGE V ARTH & SON (Continued)

S121766718

Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94607
Affiliation Phone: Not reported

Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Legal Owner
Entity Name: Geo V Arth
Entity Title: Not reported
Affiliation Address: 110 10th St
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94607
Affiliation Phone: (510) 836-2535

Affiliation Type Desc: Operator
Entity Name: Ron Arth
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (510) 836-2535

Affiliation Type Desc: Parent Corporation
Entity Name: George V Arth & Son
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

G40
NE
< 1/8
0.074 mi.
389 ft.

JOHNSON F E
1007 OAK ST
OAKLAND, CA
Site 4 of 6 in cluster G

EDR Hist Cleaner **1009142897**
N/A

Relative:
Higher

EDR Hist Cleaner

Actual:
34 ft.

Year: Name:
1925 JOHNSON F E

Type:
CLEANERS DYERS AND PRESSERS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

D41
WSW
< 1/8
0.077 mi.
408 ft.

ACE AUTO REPAIR
186 7TH ST
OAKLAND, CA
Site 2 of 2 in cluster D

EDR Hist Auto 1009013173
N/A

Relative:
Lower EDR Hist Auto

Actual:
30 ft.

Year:	Name:	Type:
1933	BILL S GARAGE	AUTOMOBILE REPAIRING
1967	ACE AUTO REPAIR	AUTOMOBILE REPAIRING
1979	ACE AUTO REPAIR	General Automotive Repair Shops
1980	ACE AUTO REPAIR	General Automotive Repair Shops
1982	ACE AUTO REPAIR	General Automotive Repair Shops
1983	ACE AUTO REPAIR	General Automotive Repair Shops
1985	BUZZ FGN CARBUERATOR REBUILDNG	Automotive Repair Shops, NEC
1986	BUZZ FGN CARBUERATOR REBUILDNG	Automotive Repair Shops, NEC
1987	BUZZ FGN CARBUERATOR REBUILDNG	Automotive Repair Shops, NEC
1988	BUZZ FGN CARBUERATOR REBUILDNG	Automotive Repair Shops, NEC
1989	IU MIEN AUTO BODY REPAIR	General Automotive Repair Shops
1989	BUZZ FGN CRBUERATOR REBUILDING	Powertrain Components Repair Services
1990	BUZZ FGN CRBUERATOR REBUILDING	Powertrain Components Repair Services
1991	IU MIEN AUTO BODY REPAIR	General Automotive Repair Shops
1992	IU MIEN AUTO BODY REPAIR	General Automotive Repair Shops
1992	TRUST AUTOWORK	General Automotive Repair Shops
1993	TRUST AUTOWORK	General Automotive Repair Shops
1993	IU MIEN AUTO BODY REPAIR	General Automotive Repair Shops
1994	TRUST AUTOWORK	General Automotive Repair Shops
1994	IU MIEN AUTO BODY REPAIR	General Automotive Repair Shops
1995	TRUST AUTOWORK	General Automotive Repair Shops
1996	TRUST AUTOWORK	General Automotive Repair Shops
1997	TRUST AUTOWORK	General Automotive Repair Shops
1998	TRUST AUTOWORK	General Automotive Repair Shops
1999	TRUST AUTOWORK	General Automotive Repair Shops
2000	TRUST AUTOWORK	General Automotive Repair Shops
2001	TRUST AUTOWORK	General Automotive Repair Shops
2002	TRUST AUTOWORK	General Automotive Repair Shops
2003	TRUST AUTOWORK	General Automotive Repair Shops
2004	TRUST AUTOWORK	General Automotive Repair Shops
2005	TRUST AUTOWORK	General Automotive Repair Shops
2006	TRUST AUTOWORK	General Automotive Repair Shops
2007	TRUST AUTOWORK	General Automotive Repair Shops
2008	TRUST AUTOWORK	General Automotive Repair Shops
2009	TRUST AUTOWORK	General Automotive Repair Shops
2010	TRUST AUTOWORK	General Automotive Repair Shops
2011	TRUST AUTOWORK	General Automotive Repair Shops
2012	TRUST AUTOWORK	General Automotive Repair Shops
2013	TRUST AUTOWORK	General Automotive Repair Shops
2014	TRUST AUTOWORK	General Automotive Repair Shops

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

42
West
< 1/8
0.080 mi.
420 ft.

METROCENTER
101 008TH ST
OAKLAND, CA 94607

SWEEPS UST **S101580339**
CA FID UST **N/A**

Relative:
Lower
Actual:
31 ft.

SWEEPS UST:
 Status: Active
 Comp Number: 1258
 Number: 4
 Board Of Equalization: 44-000019
 Referral Date: 05-16-91
 Action Date: 12-17-93
 Created Date: 02-29-88
 Owner Tank Id: 4-1-MEP
 SWRCB Tank Id: 01-000-001258-000001
 Tank Status: A
 Capacity: 4000
 Active Date: 04-22-93
 Tank Use: M.V. FUEL
 STG: P
 Content: DIESEL
 Number Of Tanks: 1

CA FID UST:
 Facility ID: 01002520
 Regulated By: UTNKA
 Regulated ID: 00001258
 Cortese Code: Not reported
 SIC Code: Not reported
 Facility Phone: 4154653662
 Mail To: Not reported
 Mailing Address: 800 MADISON ST
 Mailing Address 2: Not reported
 Mailing City,St,Zip: OAKLAND 94607
 Contact: Not reported
 Contact Phone: Not reported
 DUNS Number: Not reported
 NPDES Number: Not reported
 EPA ID: Not reported
 Comments: Not reported
 Status: Active

H43
SSE
< 1/8
0.086 mi.
452 ft.

LANEY COLLEGE
600 FALLON STREET
OAKLAND, CA 92626

Notify 65 **U000057248**
N/A

Site 1 of 3 in cluster H

Relative:
Lower
Actual:
18 ft.

NOTIFY 65:
 Date Reported: Not reported
 Staff Initials: Not reported
 Board File Number: Not reported
 Facility Type: Not reported
 Discharge Date: Not reported
 Issue Date: Not reported
 Incident Description: Not reported

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

I44
South
< 1/8
0.094 mi.
494 ft.

T&T AUTO
610 OAK ST
OAKLAND, CA 94607

Site 1 of 5 in cluster I

LUST **S103576611**
Alameda County CS **N/A**
CERS

Relative:
Lower
Actual:
22 ft.

LUST:
 Lead Agency: ALAMEDA COUNTY LOP
 Case Type: LUST Cleanup Site
 Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100281
 Global Id: T0600100281
 Latitude: 37.795699
 Longitude: -122.265878
 Status: Completed - Case Closed
 Status Date: 02/17/1995
 Case Worker: Not reported
 RB Case Number: 01-0303
 Local Agency: Not reported
 File Location: All Files are on GeoTracker or in the Local Agency Database
 Local Case Number: RO0000855
 Potential Media Affect: Other Groundwater (uses other than drinking water)
 Potential Contaminants of Concern: Waste Oil / Motor / Hydraulic / Lubricating
 Site History: Not reported

LUST:
 Global Id: T0600100281
 Contact Type: Regional Board Caseworker
 Contact Name: Regional Water Board
 Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
 Address: 1515 CLAY ST SUITE 1400
 City: OAKLAND
 Email: Not reported
 Phone Number: Not reported

LUST:
 Global Id: T0600100281
 Action Type: Other
 Date: 09/17/1990
 Action: Leak Reported

Global Id: T0600100281
 Action Type: REMEDIATION
 Date: 09/09/9999
 Action: Excavation

LUST:
 Global Id: T0600100281
 Status: Completed - Case Closed
 Status Date: 02/17/1995

Global Id: T0600100281
 Status: Open - Case Begin Date
 Status Date: 09/17/1990

LUST REG 2:
 Region: 2
 Facility Id: 01-0303

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

T&T AUTO (Continued)

S103576611

Facility Status: Case Closed
Case Number: 689
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: 3/15/1993
Preliminary Site Assessment Began: 5/28/1993
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Case Closed
Record Id: RO0000855
PE: 5602
Facility Status: Case Closed
Latitude: 37.795621381
Longitude: -122.26608702

CERS TANKS:

Site ID: 188524
CERS ID: T0600100281
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

I45
South
< 1/8
0.094 mi.
494 ft.

BAY AUTO CENTER
610 OAK ST
OAKLAND, CA 94607

CERS HAZ WASTE **S121795086**
CERS **N/A**

Site 2 of 5 in cluster I

Relative:
Lower
Actual:
22 ft.

CERS HAZ WASTE:
Site ID: 97633
CERS ID: 10484404
CERS Description: Hazardous Waste Generator

Violations:

Site ID: 97633
Site Name: Bay Auto Center
Violation Date: 09-11-2017
Citation: HSC 6.5 25250.22 - California Health and Safety Code, Chapter 6.5, Section(s) 25250.22
Violation Description: Failure to properly manage used oil and/or fuel filters in accordance with the requirements.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BAY AUTO CENTER (Continued)

S121795086

Violation Notes: Returned to compliance on 12/06/2017.
Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 97633
Site Name: Bay Auto Center
Violation Date: 09-11-2017
Citation: 40 CFR 1 262.34(d)(5)(ii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(ii)
Violation Description: Failure to post the following information next to the telephone: (A) The name and telephone number of the emergency coordinator; (B) Location of fire extinguishers and spill control material, and, if present, fire alarm; and (C) The telephone number of the fire department, unless the facility has a direct alarm.
Violation Notes: Returned to compliance on 09/11/2017. OBSERVATION: Emergency procedures information not posted. CORRECTIVE ACTION: Emergency procedure poster provided to generator. Generator completed and posted in office. CORRECTED AT THE TIME OF INSPECTION
Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 97633
Site Name: Bay Auto Center
Violation Date: 09-11-2017
Citation: 40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174
Violation Description: Failure to inspect hazardous waste storage areas at least weekly and look for leaking and deteriorating containers.
Violation Notes: Returned to compliance on 12/06/2017. OBSERVATION: No formal weekly inspections of the hazardous waste containers are being conducted. CORRECTIVE ACTION: A weekly inspection checklist was provided to the generator. The points of inspection were explained to the generator. Immediately begin conducting weekly inspections. Submit a copy of three weeks of inspections to ACDEH.
Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 97633
Site Name: Bay Auto Center
Violation Date: 09-11-2017
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: Returned to compliance on 09/11/2017. OBSERVATION: Three oil drain carts and one 5 gallon plastic container of used oil under filter press missing hazardous waste labels. CORRECTIVE ACTION: Completed hazardous waste labels provided to generator. CORRECTED AT THE TIME OF INSPECTION OBSERVATION: On 55 gallon metal open-top container of drained used oil filters missing accumulation start date. CORRECTIVE ACTION: Accumulation start date entered on label. CORRECTED AT THE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BAY AUTO CENTER (Continued)

S121795086

TIME OF INSPECTION.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 97633
Site Name: Bay Auto Center
Violation Date: 09-11-2017
Citation: 40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
Violation Description: Failure to meet the following container management requirements: (a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.
Violation Notes: Returned to compliance on 12/06/2017. OBSERVATION: 5 gallon plastic container of used oil under filter press without lid. CORRECTIVE ACTION: All hazardous waste containers must be kept closed and the lids secured unless adding to or removing waste. Cover and secure lid. Provide photograph of correction to ACDEH.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 97633
Site Name: Bay Auto Center
Violation Date: 09-11-2017
Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description: Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.
Violation Notes: Returned to compliance on 12/06/2017. OBSERVATION: No formal hazardous waste training of hazardous waste handlers (mechanics). CORRECTIVE ACTION: Training topics provided to the generator. At minimum the hazardous waste handler must be trained effectively respond to emergencies involving hazardous waste. Provide a copy of the training roster with topic to ACDEH.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 97633
Site Name: Bay Auto Center
Violation Date: 09-26-2016
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Returned to compliance on 11/02/2016.
Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BAY AUTO CENTER (Continued)

S121795086

Evaluation:

Eval General Type: Other/Unknown
Eval Date: 09-26-2016
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: HMBP NOV LETTER
Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-11-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: HAZARDOUS MATERIAL BUSINESS PLAN INSPECTION Bay Auto Center 610 Oak St Oakland, CA Hazardous Material Business Plan (HMBP) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on September 11, 2017. Consent to inspect was given by and the completed inspection report was reviewed with Rick Le, owner. The business is a vehicle service repair facility. CERS chemical inventory: 400 gallon motor oil, 275 used oil, 55-gallon antifreeze, 55-gallon wastes antifreeze. Reduce inventory to two grades of motor oil. I observed two grades of motor oil at 110 gallons each. Only inventory the oil in the bulk containers. The last complete CERS submittal was dated November 2, 2016. A complete CERS submittal is due each year. Each year you must submit a complete CERS submittal (Facility Information, Site Map and Inventory, Emergency Response/Contingency Plan). Your next CERS reporting date is November 2017. NO VIOLATIONS OBSERVED AT THE [Truncated]
Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-11-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: HAZARDOUS WASTE GENERATOR INSPECTION Bay Auto Center 610 Oak St Oakland, CA EPA ID NUMBER: CAL000201049 Hazardous Waste Generator (HWG) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on September 11, 2017. Consent to inspect was given by and the completed inspection report was reviewed with Rick Le, owner. The generator is a vehicle service repair. The generator is a small quantity generator. According to the Department of Toxic Substances Control the EPA ID Number is CA000201049 and active. Typical hazardous waste generated: used oil, waste coolant, drained used oil filters. VIOLATIONS OBSERVATION: No formal hazardous waste training of hazardous waste handlers (mechanics). CORRECTIVE ACTION: Training topics provided to the generator. At minimum the hazardous waste handler must be trained effectively respond to emergencies involving hazardous waste. Provide a copy of the training roster with topic to [Truncated]
Eval Division: Alameda County Environmental Health
Eval Program: HW
Eval Source: CERS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BAY AUTO CENTER (Continued)

S121795086

Enforcement Action:

Site ID: 97633
Site Name: Bay Auto Center
Site Address: 610 OAK ST
Site City: OAKLAND
Site Zip: 94607
Enf Action Date: 09-27-2016
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Alameda County Environmental Health
Enf Action Program: HMRRP
Enf Action Source: CERS

Coordinates:

Site ID: 97633
Facility Name: Bay Auto Center
Env Int Type Code: HWG
Program ID: 10484404
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.795700
Longitude: -122.265880

Affiliation:

Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Environmental Contact
Entity Name: Andy Chan
Entity Title: Not reported
Affiliation Address: 610 Oak St
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94607
Affiliation Phone: (510) 839-3833

Affiliation Type Desc: Document Preparer
Entity Name: Andy Chan
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BAY AUTO CENTER (Continued)

S121795086

Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 610 Oak St
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94607
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: Andy Chan
Entity Title: Not reported
Affiliation Address: 610 Oak St
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94607
Affiliation Phone: (510) 531-0150

Affiliation Type Desc: Operator
Entity Name: Bay Auto Center
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (510) 867-1289

Affiliation Type Desc: Parent Corporation
Entity Name: Bay Auto Center
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: Andy Chan
Entity Title: Owner
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

CERS TANKS:
Site ID: 97633
CERS ID: 10484404
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 97633

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BAY AUTO CENTER (Continued)

S121795086

Site Name: Bay Auto Center
Violation Date: 09-11-2017
Citation: HSC 6.5 25250.22 - California Health and Safety Code, Chapter 6.5, Section(s) 25250.22
Violation Description: Failure to properly manage used oil and/or fuel filters in accordance with the requirements.
Violation Notes: Returned to compliance on 12/06/2017.
Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 97633
Site Name: Bay Auto Center
Violation Date: 09-11-2017
Citation: 40 CFR 1 262.34(d)(5)(ii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(ii)
Violation Description: Failure to post the following information next to the telephone: (A) The name and telephone number of the emergency coordinator; (B) Location of fire extinguishers and spill control material, and, if present, fire alarm; and (C) The telephone number of the fire department, unless the facility has a direct alarm.
Violation Notes: Returned to compliance on 09/11/2017. OBSERVATION: Emergency procedures information not posted. CORRECTIVE ACTION: Emergency procedure poster provided to generator. Generator completed and posted in office. CORRECTED AT THE TIME OF INSPECTION
Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 97633
Site Name: Bay Auto Center
Violation Date: 09-11-2017
Citation: 40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174
Violation Description: Failure to inspect hazardous waste storage areas at least weekly and look for leaking and deteriorating containers.
Violation Notes: Returned to compliance on 12/06/2017. OBSERVATION: No formal weekly inspections of the hazardous waste containers are being conducted. CORRECTIVE ACTION: A weekly inspection checklist was provided to the generator. The points of inspection were explained to the generator. Immediately begin conducting weekly inspections. Submit a copy of three weeks of inspections to ACDEH.
Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 97633
Site Name: Bay Auto Center
Violation Date: 09-11-2017
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: Returned to compliance on 09/11/2017. OBSERVATION: Three oil drain

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BAY AUTO CENTER (Continued)

S121795086

carts and one 5 gallon plastic container of used oil under filter press missing hazardous waste labels. CORRECTIVE ACTION: Completed hazardous waste labels provided to generator. CORRECTED AT THE TIME OF INSPECTION OBSERVATION: On 55 gallon metal open-top container of drained used oil filters missing accumulation start date. CORRECTIVE ACTION: Accumulation start date entered on label. CORRECTED AT THE TIME OF INSPECTION.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 97633
Site Name: Bay Auto Center
Violation Date: 09-11-2017
Citation: 40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173

Violation Description: Failure to meet the following container management requirements: (a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

Violation Notes: Returned to compliance on 12/06/2017. OBSERVATION: 5 gallon plastic container of used oil under filter press without lid. CORRECTIVE ACTION: All hazardous waste containers must be kept closed and the lids secured unless adding to or removing waste. Cover and secure lid. Provide photograph of correction to ACDEH.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 97633
Site Name: Bay Auto Center
Violation Date: 09-11-2017
Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)

Violation Description: Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.

Violation Notes: Returned to compliance on 12/06/2017. OBSERVATION: No formal hazardous waste training of hazardous waste handlers (mechanics). CORRECTIVE ACTION: Training topics provided to the generator. At minimum the hazardous waste handler must be trained effectively respond to emergencies involving hazardous waste. Provide a copy of the training roster with topic to ACDEH.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 97633
Site Name: Bay Auto Center
Violation Date: 09-26-2016
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BAY AUTO CENTER (Continued)

S121795086

Violation Notes: Returned to compliance on 11/02/2016.
Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 09-26-2016
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: HMBP NOV LETTER
Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-11-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: HAZARDOUS MATERIAL BUSINESS PLAN INSPECTION Bay Auto Center 610 Oak St Oakland, CA Hazardous Material Business Plan (HMBP) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on September 11, 2017. Consent to inspect was given by and the completed inspection report was reviewed with Rick Le, owner. The business is a vehicle service repair facility. CERS chemical inventory: 400 gallon motor oil, 275 used oil, 55-gallon antifreeze, 55-gallon wastes antifreeze. Reduce inventory to two grades of motor oil. I observed two grades of motor oil at 110 gallons each. Only inventory the oil in the bulk containers. The last complete CERS submittal was dated November 2, 2016. A complete CERS submittal is due each year. Each year you must submit a complete CERS submittal (Facility Information, Site Map and Inventory, Emergency Response/Contingency Plan). Your next CERS reporting date is November 2017. NO VIOLATIONS OBSERVED AT THE [Truncated]
Alameda County Environmental Health
Eval Division:
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-11-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: HAZARDOUS WASTE GENERATOR INSPECTION Bay Auto Center 610 Oak St Oakland, CA EPA ID NUMBER: CAL000201049 Hazardous Waste Generator (HWG) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on September 11, 2017. Consent to inspect was given by and the completed inspection report was reviewed with Rick Le, owner. The generator is a vehicle service repair. The generator is a small quantity generator. According to the Department of Toxic Substances Control the EPA ID Number is CA000201049 and active. Typical hazardous waste generated: used oil, waste coolant, drained used oil filters. VIOLATIONS OBSERVATION: No formal hazardous waste training of hazardous waste handlers (mechanics). CORRECTIVE ACTION: Training topics provided to the generator. At minimum the hazardous waste handler must be trained effectively respond to emergencies involving hazardous waste. Provide a copy of the training roster with topic to [Truncated]

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BAY AUTO CENTER (Continued)

S121795086

Eval Division: Alameda County Environmental Health
Eval Program: HW
Eval Source: CERS

Enforcement Action:
Site ID: 97633
Site Name: Bay Auto Center
Site Address: 610 OAK ST
Site City: OAKLAND
Site Zip: 94607
Enf Action Date: 09-27-2016
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Alameda County Environmental Health
Enf Action Program: HMRRP
Enf Action Source: CERS

Coordinates:
Site ID: 97633
Facility Name: Bay Auto Center
Env Int Type Code: HWG
Program ID: 10484404
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.795700
Longitude: -122.265880

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Environmental Contact
Entity Name: Andy Chan
Entity Title: Not reported
Affiliation Address: 610 Oak St
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94607
Affiliation Phone: (510) 839-3833

Affiliation Type Desc: Document Preparer
Entity Name: Andy Chan
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BAY AUTO CENTER (Continued)

S121795086

Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 610 Oak St
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94607
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: Andy Chan
Entity Title: Not reported
Affiliation Address: 610 Oak St
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94607
Affiliation Phone: (510) 531-0150

Affiliation Type Desc: Operator
Entity Name: Bay Auto Center
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (510) 867-1289

Affiliation Type Desc: Parent Corporation
Entity Name: Bay Auto Center
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: Andy Chan
Entity Title: Owner
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

I46
SSW
< 1/8
0.094 mi.
496 ft.

CHEVRON
6090 OAK
OAKLAND, CA 94607

HIST CORTESE

S105025309
N/A

Site 3 of 5 in cluster I

Relative:
Lower

HIST CORTESE:
Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-0382

Actual:
23 ft.

I47
SSW
< 1/8
0.096 mi.
507 ft.

94587
609 OAK ST
OAKLAND, CA 94607

HIST UST

U001599142
N/A

Site 4 of 5 in cluster I

Relative:
Lower

HIST UST:
File Number: 00035E40
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00035E40.pdf>
Region: STATE
Facility ID: 00000062644
Facility Type: Gas Station
Other Type: Not reported
Contact Name: BETTS, KENNETH INC
Telephone: 4158323921
Owner Name: CHEVRON U.S.A. INC.
Owner Address: 575 MARKET
Owner City,St,Zip: SAN FRANCISCO, CA 94105
Total Tanks: 0003

Actual:
22 ft.

Tank Num: 001
Container Num: 1
Year Installed: 1973
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Container Construction Thickness: 0000250
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: 2
Year Installed: 1973
Tank Capacity: 00006000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Container Construction Thickness: 0000250
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: 3
Year Installed: 1973
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Container Construction Thickness: 0000250
Leak Detection: Stock Inventor

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

94587 (Continued)

U001599142

[Click here for Geo Tracker PDF:](#)

I48
SSW
< 1/8
0.096 mi.
507 ft.

CHEVRON
609 OAK ST
OAKLAND, CA 94607
Site 5 of 5 in cluster I

LUST
Alameda County CS
SWEEPS UST
CA FID UST
CERS

S101580009
N/A

Relative:
Lower
Actual:
22 ft.

LUST:
Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100351
Global Id: T0600100351
Latitude: 37.795910687
Longitude: -122.2665185
Status: Completed - Case Closed
Status Date: 04/16/2004
Case Worker: Not reported
RB Case Number: 01-0382
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000038
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0600100351
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:
Global Id: T0600100351
Action Type: Other
Date: 03/19/1987
Action: Leak Reported

Global Id: T0600100351
Action Type: REMEDIATION
Date: 10/17/1994
Action: Excavation

LUST:
Global Id: T0600100351
Status: Completed - Case Closed
Status Date: 04/16/2004

Global Id: T0600100351
Status: Open - Case Begin Date
Status Date: 03/19/1987

Global Id: T0600100351

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHEVRON (Continued)

S101580009

Status: Open - Remediation
Status Date: 12/15/1993

Global Id: T0600100351
Status: Open - Site Assessment
Status Date: 09/11/1990

Global Id: T0600100351
Status: Open - Site Assessment
Status Date: 07/20/1992

LUST REG 2:

Region: 2
Facility Id: 01-0382
Facility Status: Remedial action (cleanup) Underway
Case Number: 4037
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: 7/20/1992
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: 7/1/1983
Pollution Characterization Began: 12/6/1989
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: 1/2/1965
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Leak Confirmation
Record Id: RO0000038
PE: 5602
Facility Status: Leak Confirmation
Latitude: 37.795731522
Longitude: -122.26640454

Status: Preliminary Site Assessment Underway
Record Id: RO0000038
PE: 5602
Facility Status: Preliminary Site Assessment Underway
Latitude: 37.795731522
Longitude: -122.26640454

Status: Remedial Action Underway
Record Id: RO0000038
PE: 5602
Facility Status: Remedial Action Underway
Latitude: 37.795731522
Longitude: -122.26640454

Status: Case Closed
Record Id: RO0000038
PE: 5602
Facility Status: Case Closed
Latitude: 37.795731522

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHEVRON (Continued)

S101580009

Longitude: -122.26640454

SWEEPS UST:

Status: Active
Comp Number: 62644
Number: 2
Board Of Equalization: 44-000666
Referral Date: 01-30-92
Action Date: 01-30-92
Created Date: 02-29-88
Owner Tank Id: 1
SWRCB Tank Id: 01-000-062644-000001
Tank Status: A
Capacity: 10000
Active Date: 09-17-93
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 3

Status: Active
Comp Number: 62644
Number: 2
Board Of Equalization: 44-000666
Referral Date: 01-30-92
Action Date: 01-30-92
Created Date: 02-29-88
Owner Tank Id: 3
SWRCB Tank Id: 01-000-062644-000002
Tank Status: A
Capacity: 6000
Active Date: 09-17-93
Tank Use: M.V. FUEL
STG: P
Content: PLUS GASOLIN
Number Of Tanks: Not reported

Status: Active
Comp Number: 62644
Number: 2
Board Of Equalization: 44-000666
Referral Date: 01-30-92
Action Date: 01-30-92
Created Date: 02-29-88
Owner Tank Id: 2
SWRCB Tank Id: 01-000-062644-000003
Tank Status: A
Capacity: 10000
Active Date: 09-17-93
Tank Use: M.V. FUEL
STG: P
Content: PRM UNLEADED
Number Of Tanks: Not reported

CA FID UST:

Facility ID: 01000510

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CHEVRON (Continued)

S101580009

Regulated By: UTNKA
 Regulated ID: 00062644
 Cortese Code: Not reported
 SIC Code: Not reported
 Facility Phone: 4158323921
 Mail To: Not reported
 Mailing Address: P O BOX
 Mailing Address 2: Not reported
 Mailing City,St,Zip: OAKLAND 94607
 Contact: Not reported
 Contact Phone: Not reported
 DUNS Number: Not reported
 NPDES Number: Not reported
 EPA ID: Not reported
 Comments: Not reported
 Status: Active

CERS TANKS:

Site ID: 196308
 CERS ID: T0600100351
 CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
 Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
 Entity Title: Not reported
 Affiliation Address: 1515 CLAY ST SUITE 1400
 Affiliation City: OAKLAND
 Affiliation State: CA
 Affiliation Country: Not reported
 Affiliation Zip: Not reported
 Affiliation Phone: Not reported

G49
NNE
< 1/8
0.097 mi.
510 ft.

COOKS COLLISION DBA OAKLAND AUTO BODY #1
149 11TH ST
OAKLAND, CA 94607
Site 5 of 6 in cluster G

CERS HAZ WASTE **S121744297**
CERS **N/A**

Relative:
Higher
Actual:
35 ft.

CERS HAZ WASTE:
 Site ID: 139486
 CERS ID: 10418038
 CERS Description: Hazardous Waste Generator

Violations:

Site ID: 139486
 Site Name: Cooks Collision DBA Oakland Auto Body #1
 Violation Date: 06-10-2013
 Citation: 40 CFR 1 265.201(c)(5) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.201(c)(5)
 Violation Description: Failure to conduct weekly inspections of the construction materials, fixtures, and surrounding areas of the hazardous waste tanks.
 Violation Notes: Returned to compliance on 11/11/2013. the site failed to perform weekly inspections of the hazardous waste storage area.
 Violation Division: Oakland City Fire Department
 Violation Program: HW
 Violation Source: CERS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COOKS COLLISION DBA OAKLAND AUTO BODY #1 (Continued)

S121744297

Site ID: 139486
Site Name: Cooks Collision DBA Oakland Auto Body #1
Violation Date: 06-10-2013
Citation: 40 CFR 1 265.201(c)(5) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.201(c)(5)
Violation Description: Failure to conduct weekly inspections of the construction materials, fixtures, and surrounding areas of the hazardous waste tanks.
Violation Notes: Returned to compliance on 11/11/2013. At the time of my inspection, the site had failed to inspect hazardous waste containers weekly.
Violation Division: Oakland City Fire Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 139486
Site Name: Cooks Collision DBA Oakland Auto Body #1
Violation Date: 06-10-2013
Citation: 22 CCR 12 66262.23(a)(4) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.23(a)(4)
Violation Description: Failure to send hazardous waste manifest copies to DTSC.
Violation Notes: Returned to compliance on 11/11/2013. During my inspection, the site representative was unable to provide proof that copies of manifest were sent to DTSC.
Violation Division: Oakland City Fire Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 139486
Site Name: Cooks Collision DBA Oakland Auto Body #1
Violation Date: 12-22-2016
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes: Returned to compliance on 01/19/2017. OBSERVATION: The facility has not submitted the Hazardous Materials Inventory Chemical Description page for oxygen and argon to CERS. All gases that exceed 200 cubic feet in on-site storage capacity are required to be listed on the inventory statement. Observed to be added: Oxygen 2 x 125 cubic foot cylinders. Argon 3 x 125 cf cylinders. CORRECTIVE ACTION: Complete and submit the Hazardous Materials Inventory Chemical Description page for all materials listed above electronically in the California Environmental Reporting System (CERS) within 30 days.
Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 139486
Site Name: Cooks Collision DBA Oakland Auto Body #1
Violation Date: 06-10-2013
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: Returned to compliance on 11/11/2013.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COOKS COLLISION DBA OAKLAND AUTO BODY #1 (Continued)

S121744297

Violation Division: Oakland City Fire Department
Violation Program: HW
Violation Source: CERS

Site ID: 139486
Site Name: Cooks Collision DBA Oakland Auto Body #1
Violation Date: 06-10-2013
Citation: 22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)
Violation Description: Failure to maintain uniform hazardous waste manifest, consolidated manifest, or bills of lading copies for three years.
Violation Notes: Returned to compliance on 11/11/2013. At the time of my inspection, the site was unable to produce 3 years of manifest for examination.
Violation Division: Oakland City Fire Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 139486
Site Name: Cooks Collision DBA Oakland Auto Body #1
Violation Date: 06-10-2013
Citation: 40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
Violation Description: Failure to properly close hazardous waste containers when not in active use.
Violation Notes: Returned to compliance on 11/11/2013. At the time of the inspection, the site failed to mark empty containers with the date on which they were emptied.
Violation Division: Oakland City Fire Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 139486
Site Name: Cooks Collision DBA Oakland Auto Body #1
Violation Date: 06-10-2013
Citation: 22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)
Violation Description: Failure to maintain uniform hazardous waste manifest, consolidated manifest, or bills of lading copies for three years.
Violation Notes: Returned to compliance on 11/11/2013.
Violation Division: Oakland City Fire Department
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-10-2013
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: At the time of my inspection , the HMBP was current.
Eval Division: Oakland City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-22-2016
Violations Found: Yes
Eval Type: Routine done by local agency

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COOKS COLLISION DBA OAKLAND AUTO BODY #1 (Continued)

S121744297

Eval Notes: Routine unannounced hazardous materials business plan (HMBP) inspection of Cooks Collision dba Oakland Auto Body #1 at 149 11th St, Oakland, CA. Facility walk through conducted with Alex Vincenzi, Manager. Facility provides auto body services: auto body repair, and painting. Overall, facility is neat, clean and well run. No leaks, drips or spills were observed. Hazardous materials containers and drums are in good condition, properly labeled, and stored inside and closed. Maintain these best management practices. Email inspection reports to: Matt Wood (mwood@cookscollision.com), Alex Vincenzi (avincenzi@cookscollision.com). All violations noted in this Hazardous Materials Business Plan (HMBP) inspection report are to be corrected within thirty (30) days and proof of those corrections submitted to this office in the same time frame. CERTIFICATION OF RETURN TO COMPLIANCE I certify that the violation(s) noted in this Hazardous Materials Business Plan [Truncated]

Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-07-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: NO OBSERVED VIOLATIONS
Eval Division: Oakland City Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-15-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: No violations were observed during the inspection.
Eval Division: Oakland City Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-22-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Routine unannounced hazardous waste generator (HWG) inspection of Cooks Collision dba Oakland Auto Body #1 at 149 11th St, Oakland, CA. Facility walk through conducted with Alex Vincenzi, Manager. Facility provides auto body services: auto body repair, and painting. Overall, facility is neat, clean and well run. No leaks, drips or spills were observed. Hazardous materials containers and drums are in good condition, properly labeled, and stored inside and closed. Maintain these best management practices. Email inspection reports to: Matt Wood (mwood@cookscollision.com), Alex Vincenzi (avincenzi@cookscollision.com). NO VIOLATIONS NOTED IN THIS HAZARDOUS WASTE GENERATOR INSPECTION.

Eval Division: Alameda County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COOKS COLLISION DBA OAKLAND AUTO BODY #1 (Continued)

S121744297

Eval Date: 06-10-2013
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: At the time of my inspection the site personnel could not access their consolidated manifest receipts; empty hazardous waste containers in the rear of the shop were not marked with the date emptied; based on my observations the facility personnel did not perform weekly hazardous waste inspections.
Eval Division: Oakland City Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-07-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: NO OBSERVED VIOLATIONS
Eval Division: Oakland City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-15-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: No violations were observed during the inspection.
Eval Division: Oakland City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Coordinates:
Site ID: 139486
Facility Name: Cooks Collision DBA Oakland Auto Body #1
Env Int Type Code: HWG
Program ID: 10418038
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.799100
Longitude: -122.265130

Affiliation:
Affiliation Type Desc: Parent Corporation
Entity Name: Cooks Collision
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Document Preparer
Entity Name: KPA, LLC
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COOKS COLLISION DBA OAKLAND AUTO BODY #1 (Continued)

S121744297

Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 149 11th St
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94607
Affiliation Phone: Not reported

Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Environmental Contact
Entity Name: Christine Abad
Entity Title: Not reported
Affiliation Address: 2990 Lava Ridge Ct Ste 200
Affiliation City: Roseville
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 95661
Affiliation Phone: (916) 786-2943

Affiliation Type Desc: Legal Owner
Entity Name: COOKS COLLISION INC
Entity Title: Not reported
Affiliation Address: 2990 Lava Ridge Court Suite 200
Affiliation City: Roseville
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 95661
Affiliation Phone: (916) 786-2943

Affiliation Type Desc: Operator
Entity Name: Christine Abad
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (916) 305-8386

Affiliation Type Desc: Identification Signer
Entity Name: Christine Abad

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COOKS COLLISION DBA OAKLAND AUTO BODY #1 (Continued)

S121744297

Entity Title: Compliance Director
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

CERS TANKS:

Site ID: 139486
CERS ID: 10418038
CERS Description: Chemical Storage Facilities

Violations:

Site ID: 139486
Site Name: Cooks Collision DBA Oakland Auto Body #1
Violation Date: 06-10-2013
Citation: 40 CFR 1 265.201(c)(5) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.201(c)(5)
Violation Description: Failure to conduct weekly inspections of the construction materials, fixtures, and surrounding areas of the hazardous waste tanks.
Violation Notes: Returned to compliance on 11/11/2013. the site failed to perform weekly inspections of the hazardous waste storage area.
Violation Division: Oakland City Fire Department
Violation Program: HW
Violation Source: CERS

Site ID: 139486
Site Name: Cooks Collision DBA Oakland Auto Body #1
Violation Date: 06-10-2013
Citation: 40 CFR 1 265.201(c)(5) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.201(c)(5)
Violation Description: Failure to conduct weekly inspections of the construction materials, fixtures, and surrounding areas of the hazardous waste tanks.
Violation Notes: Returned to compliance on 11/11/2013. At the time of my inspection, the site had failed to inspect hazardous waste containers weekly.
Violation Division: Oakland City Fire Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 139486
Site Name: Cooks Collision DBA Oakland Auto Body #1
Violation Date: 06-10-2013
Citation: 22 CCR 12 66262.23(a)(4) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.23(a)(4)
Violation Description: Failure to send hazardous waste manifest copies to DTSC.
Violation Notes: Returned to compliance on 11/11/2013. During my inspection, the site representative was unable to provide proof that copies of manifest were sent to DTSC.
Violation Division: Oakland City Fire Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 139486
Site Name: Cooks Collision DBA Oakland Auto Body #1
Violation Date: 12-22-2016

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COOKS COLLISION DBA OAKLAND AUTO BODY #1 (Continued)

S121744297

Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.

Violation Notes: Returned to compliance on 01/19/2017. OBSERVATION: The facility has not submitted the Hazardous Materials Inventory Chemical Description page for oxygen and argon to CERS. All gases that exceed 200 cubic feet in on-site storage capacity are required to be listed on the inventory statement. Observed to be added: Oxygen 2 x 125 cubic foot cylinders. Argon 3 x 125 cf cylinders. CORRECTIVE ACTION: Complete and submit the Hazardous Materials Inventory Chemical Description page for all materials listed above electronically in the California Environmental Reporting System (CERS) within 30 days.

Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 139486
Site Name: Cooks Collision DBA Oakland Auto Body #1
Violation Date: 06-10-2013
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)

Violation Description: Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.

Violation Notes: Returned to compliance on 11/11/2013.

Violation Division: Oakland City Fire Department
Violation Program: HW
Violation Source: CERS

Site ID: 139486
Site Name: Cooks Collision DBA Oakland Auto Body #1
Violation Date: 06-10-2013
Citation: 22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)

Violation Description: Failure to maintain uniform hazardous waste manifest, consolidated manifest, or bills of lading copies for three years.

Violation Notes: Returned to compliance on 11/11/2013. At the time of my inspection, the site was unable to produce 3 years of manifest for examination.

Violation Division: Oakland City Fire Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 139486
Site Name: Cooks Collision DBA Oakland Auto Body #1
Violation Date: 06-10-2013
Citation: 40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173

Violation Description: Failure to properly close hazardous waste containers when not in active use.

Violation Notes: Returned to compliance on 11/11/2013. At the time of the inspection, the site failed to mark empty containers with the date on which they were emptied.

Violation Division: Oakland City Fire Department
Violation Program: HMRRP

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COOKS COLLISION DBA OAKLAND AUTO BODY #1 (Continued)

S121744297

Violation Source: CERS

Site ID: 139486
Site Name: Cooks Collision DBA Oakland Auto Body #1
Violation Date: 06-10-2013
Citation: 22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)

Violation Description: Failure to maintain uniform hazardous waste manifest, consolidated manifest, or bills of lading copies for three years.

Violation Notes: Returned to compliance on 11/11/2013.

Violation Division: Oakland City Fire Department
Violation Program: HW
Violation Source: CERS

Evaluation:

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-10-2013
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: At the time of my inspection , the HMBP was current.
Eval Division: Oakland City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-22-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Routine unannounced hazardous materials business plan (HMBP) inspection of Cooks Collision dba Oakland Auto Body #1 at 149 11th St, Oakland, CA. Facility walk through conducted with Alex Vincenzi, Manager. Facility provides auto body services: auto body repair, and painting. Overall, facility is neat, clean and well run. No leaks, drips or spills were observed. Hazardous materials containers and drums are in good condition, properly labeled, and stored inside and closed. Maintain these best management practices. Email inspection reports to: Matt Wood (mwood@cookscollision.com), Alex Vincenzi (avincenzi@cookscollision.com). All violations noted in this Hazardous Materials Business Plan (HMBP) inspection report are to be corrected within thirty (30) days and proof of those corrections submitted to this office in the same time frame. CERTIFICATION OF RETURN TO COMPLIANCE I certify that the violation(s) noted in this Hazardous Materials Business Plan [Truncated]

Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-07-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: NO OBSERVED VIOLATIONS
Eval Division: Oakland City Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COOKS COLLISION DBA OAKLAND AUTO BODY #1 (Continued)

S121744297

Eval Date: 08-15-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: No violations were observed during the inspection.
Eval Division: Oakland City Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-22-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Routine unannounced hazardous waste generator (HWG) inspection of Cooks Collision dba Oakland Auto Body #1 at 149 11th St, Oakland, CA. Facility walk through conducted with Alex Vincenzi, Manager. Facility provides auto body services: auto body repair, and painting. Overall, facility is neat, clean and well run. No leaks, drips or spills were observed. Hazardous materials containers and drums are in good condition, properly labeled, and stored inside and closed. Maintain these best management practices. Email inspection reports to: Matt Wood (mwood@cookscollision.com), Alex Vincenzi (avincenzi@cookscollision.com). NO VIOLATIONS NOTED IN THIS HAZARDOUS WASTE GENERATOR INSPECTION.

Eval Division: Alameda County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-10-2013
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: At the time of my inspection the site personnel could not access their consolidated manifest receipts; empty hazardous waste containers in the rear of the shop were not marked with the date emptied; based on my observations the facility personnel did not perform weekly hazardous waste inspections.

Eval Division: Oakland City Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-07-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: NO OBSERVED VIOLATIONS
Eval Division: Oakland City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-15-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: No violations were observed during the inspection.
Eval Division: Oakland City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COOKS COLLISION DBA OAKLAND AUTO BODY #1 (Continued)

S121744297

Coordinates:

Site ID: 139486
Facility Name: Cooks Collision DBA Oakland Auto Body #1
Env Int Type Code: HWG
Program ID: 10418038
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.799100
Longitude: -122.265130

Affiliation:

Affiliation Type Desc: Parent Corporation
Entity Name: Cooks Collision
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Document Preparer
Entity Name: KPA, LLC
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 149 11th St
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94607
Affiliation Phone: Not reported

Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Environmental Contact
Entity Name: Christine Abad
Entity Title: Not reported
Affiliation Address: 2990 Lava Ridge Ct Ste 200
Affiliation City: Roseville

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COOKS COLLISION DBA OAKLAND AUTO BODY #1 (Continued)

S121744297

Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 95661
Affiliation Phone: (916) 786-2943

Affiliation Type Desc: Legal Owner
Entity Name: COOKS COLLISION INC
Entity Title: Not reported
Affiliation Address: 2990 Lava Ridge Court Suite 200
Affiliation City: Roseville
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 95661
Affiliation Phone: (916) 786-2943

Affiliation Type Desc: Operator
Entity Name: Christine Abad
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (916) 305-8386

Affiliation Type Desc: Identification Signer
Entity Name: Christine Abad
Entity Title: Compliance Director
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

G50
NNE
< 1/8
0.097 mi.
510 ft.

OAKLAND AUTO BODY & FRAME
149 11TH STREET
OAKLAND, CA 94607
Site 6 of 6 in cluster G

RCRA-SQG 1000277309
FINDS CAD028813178
ECHO
EMI
HAZNET

Relative:
Higher

RCRA-SQG:

Actual:
35 ft.

Date form received by agency: 06/03/1986
Facility name: OAKLAND AUTO BODY
Facility address: 149 11TH STREET
OAKLAND, CA 94607
EPA ID: CAD028813178
Contact: ENVIRONMENTAL MANAGER
Contact address: 149 ELEVEN STREET
OAKLAND, CA 94607
Contact country: US
Contact telephone: 415-444-4574
Contact email: Not reported
EPA Region: 09
Land type: Other land type
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OAKLAND AUTO BODY & FRAME (Continued)

1000277309

waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: RON VICRNZI
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

Evaluation Action Summary:

Evaluation date: 07/13/1986
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OAKLAND AUTO BODY & FRAME (Continued)

1000277309

Evaluation lead agency: State Contractor/Grantee

FINDS:

Registry ID: 110001151958

Environmental Interest/Information System

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

HAZARDOUS AIR POLLUTANT MAJOR

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1000277309
Registry ID: 110001151958
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110001151958>

EMI:

Year: 1990
County Code: 1
Air Basin: SF
Facility ID: 6154
Air District Name: BA
SIC Code: 7532
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 3
Reactive Organic Gases Tons/Yr: 3
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr: 0

Year: 1995
County Code: 1
Air Basin: SF
Facility ID: 6154
Air District Name: BA
SIC Code: 7532
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OAKLAND AUTO BODY & FRAME (Continued)

1000277309

Total Organic Hydrocarbon Gases Tons/Yr: 1
Reactive Organic Gases Tons/Yr: 1
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 1996
County Code: 1
Air Basin: SF
Facility ID: 6154
Air District Name: BA
SIC Code: 7532
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 1
Reactive Organic Gases Tons/Yr: 1
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 1997
County Code: 1
Air Basin: SF
Facility ID: 6154
Air District Name: BA
SIC Code: 7532
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 2
Reactive Organic Gases Tons/Yr: 2
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 1998
County Code: 1
Air Basin: SF
Facility ID: 6154
Air District Name: BA
SIC Code: 7532
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 1
Reactive Organic Gases Tons/Yr: 1
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OAKLAND AUTO BODY & FRAME (Continued)

1000277309

Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 1999
County Code: 1
Air Basin: SF
Facility ID: 6154
Air District Name: BA
SIC Code: 7532
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 1
Reactive Organic Gases Tons/Yr: 1
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2000
County Code: 1
Air Basin: SF
Facility ID: 6154
Air District Name: BA
SIC Code: 7532
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 1
Reactive Organic Gases Tons/Yr: 1
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2001
County Code: 1
Air Basin: SF
Facility ID: 6154
Air District Name: BA
SIC Code: 7532
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 1
Reactive Organic Gases Tons/Yr: 1
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2002
County Code: 1
Air Basin: SF
Facility ID: 6154

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OAKLAND AUTO BODY & FRAME (Continued)

1000277309

Air District Name: BA
SIC Code: 7532
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 1
Reactive Organic Gases Tons/Yr: 1
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smllr Tons/Yr:0

Year: 2003
County Code: 1
Air Basin: SF
Facility ID: 6154
Air District Name: BA
SIC Code: 7532
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 2
Reactive Organic Gases Tons/Yr: 1
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smllr Tons/Yr:0

Year: 2004
County Code: 1
Air Basin: SF
Facility ID: 6154
Air District Name: BA
SIC Code: 7532
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 1.089
Reactive Organic Gases Tons/Yr: 1.0471953
Carbon Monoxide Emissions Tons/Yr: 0.005
NOX - Oxides of Nitrogen Tons/Yr: 0.022
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smllr Tons/Yr:0

Year: 2005
County Code: 1
Air Basin: SF
Facility ID: 6154
Air District Name: BA
SIC Code: 7532
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: .572

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OAKLAND AUTO BODY & FRAME (Continued)

1000277309

Reactive Organic Gases Tons/Yr: .5002813
Carbon Monoxide Emissions Tons/Yr: .007
NOX - Oxides of Nitrogen Tons/Yr: .027
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: .001
Part. Matter 10 Micrometers and Smlr Tons/Yr:.000574

Year: 2006
County Code: 1
Air Basin: SF
Facility ID: 6154
Air District Name: BA
SIC Code: 7532
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: .694
Reactive Organic Gases Tons/Yr: .6369659
Carbon Monoxide Emissions Tons/Yr: .007
NOX - Oxides of Nitrogen Tons/Yr: .028
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: .001
Part. Matter 10 Micrometers and Smlr Tons/Yr:.000574

Year: 2007
County Code: 1
Air Basin: SF
Facility ID: 6154
Air District Name: BA
SIC Code: 7532
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: .737
Reactive Organic Gases Tons/Yr: .6713161
Carbon Monoxide Emissions Tons/Yr: .007
NOX - Oxides of Nitrogen Tons/Yr: .028
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: .001
Part. Matter 10 Micrometers and Smlr Tons/Yr:.000574

Year: 2008
County Code: 1
Air Basin: SF
Facility ID: 6154
Air District Name: BA
SIC Code: 7532
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: .441
Reactive Organic Gases Tons/Yr: .3894998
Carbon Monoxide Emissions Tons/Yr: .008
NOX - Oxides of Nitrogen Tons/Yr: .031
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: .001
Part. Matter 10 Micrometers and Smlr Tons/Yr:.000574

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OAKLAND AUTO BODY & FRAME (Continued)

1000277309

Year: 2009
County Code: 1
Air Basin: SF
Facility ID: 6154
Air District Name: BA
SIC Code: 7532
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.249
Reactive Organic Gases Tons/Yr: 0.20896780000000001
Carbon Monoxide Emissions Tons/Yr: 1.0999999999999999E-2
NOX - Oxides of Nitrogen Tons/Yr: 4.2999999999999997E-2
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0.001
Part. Matter 10 Micrometers and Smlr Tons/Yr:5.7399999999999997E-4

Year: 2010
County Code: 1
Air Basin: SF
Facility ID: 6154
Air District Name: BA
SIC Code: 7532
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.42599999999999999
Reactive Organic Gases Tons/Yr: 0.34151019999999999
Carbon Monoxide Emissions Tons/Yr: 0.01
NOX - Oxides of Nitrogen Tons/Yr: 4.1000000000000002E-2
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0.00174216027874564
Part. Matter 10 Micrometers and Smlr Tons/Yr:0.001

Year: 2011
County Code: 1
Air Basin: SF
Facility ID: 6154
Air District Name: BA
SIC Code: 7532
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.917
Reactive Organic Gases Tons/Yr: 0.8243414
Carbon Monoxide Emissions Tons/Yr: 0.01
NOX - Oxides of Nitrogen Tons/Yr: 0.04
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2012
County Code: 1
Air Basin: SF
Facility ID: 6154
Air District Name: BA
SIC Code: 7532

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OAKLAND AUTO BODY & FRAME (Continued)

1000277309

Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.44
Reactive Organic Gases Tons/Yr: 0.3945265
Carbon Monoxide Emissions Tons/Yr: 0.012
NOX - Oxides of Nitrogen Tons/Yr: 0.047
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0.0017421602787
Part. Matter 10 Micrometers and Smlr Tons/Yr:0.001

Year: 2013
County Code: 1
Air Basin: SF
Facility ID: 6154
Air District Name: BA
SIC Code: 7532
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.693
Reactive Organic Gases Tons/Yr: 0.5798987
Carbon Monoxide Emissions Tons/Yr: 0.007
NOX - Oxides of Nitrogen Tons/Yr: 0.027
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0.001
Part. Matter 10 Micrometers and Smlr Tons/Yr:0.001

Year: 2014
County Code: 1
Air Basin: SF
Facility ID: 23040
Air District Name: BA
SIC Code: 7532
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.707322869
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0.008531665
NOX - Oxides of Nitrogen Tons/Yr: 0.034182981
SOX - Oxides of Sulphur Tons/Yr: 0.000138517
Particulate Matter Tons/Yr: 0.000731286
Part. Matter 10 Micrometers and Smlr Tons/Yr:0.000731286

Year: 2015
County Code: 1
Air Basin: SF
Facility ID: 23040
Air District Name: BA
SIC Code: 7532
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.707322811
Reactive Organic Gases Tons/Yr: 0.597298734
Carbon Monoxide Emissions Tons/Yr: 0.008531665

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OAKLAND AUTO BODY & FRAME (Continued)

1000277309

NOX - Oxides of Nitrogen Tons/Yr: 0.03418298
SOX - Oxides of Sulphur Tons/Yr: 0.000138517
Particulate Matter Tons/Yr: 0.000731286
Part. Matter 10 Micrometers and Smlr Tons/Yr:0.000731286

HAZNET:

Facility Name: COOKS COLLISION OF OAKLAND
envid: 1000277309
Year: 2017
GEPaid: CAL000405373
Contact: COURTNEY MORGAN-VOYCE
Telephone: 9167194193
Mailing Name: Not reported
Mailing Address: 2990 LAVA RIDGE CT STE 200
Mailing City,St,Zip: ROSEVILLE, CA 956610000
Gen County: Alameda
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Unspecified organic liquid mixture
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
Tons: 0.0204
Cat Decode: Unspecified organic liquid mixture
Method Decode: Fuel Blending Prior To Energy Recovery At Another Site
Facility County: Alameda

envid: 1000277309
Year: 2017
GEPaid: CAL000405373
Contact: COURTNEY MORGAN-VOYCE
Telephone: 9167194193
Mailing Name: Not reported
Mailing Address: 2990 LAVA RIDGE CT STE 200
Mailing City,St,Zip: ROSEVILLE, CA 956610000
Gen County: Alameda
TSD EPA ID: CAD008252405
TSD County: Los Angeles
Waste Category: Other organic solids
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 1.09
Cat Decode: Other organic solids
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Alameda

envid: 1000277309
Year: 2017
GEPaid: CAL000405373
Contact: COURTNEY MORGAN-VOYCE
Telephone: 9167194193
Mailing Name: Not reported
Mailing Address: 2990 LAVA RIDGE CT STE 200
Mailing City,St,Zip: ROSEVILLE, CA 956610000
Gen County: Alameda
TSD EPA ID: CAD097030993
TSD County: Los Angeles
Waste Category: Other organic solids

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OAKLAND AUTO BODY & FRAME (Continued)

1000277309

Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.955
Cat Decode: Other organic solids
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Alameda

envid: 1000277309
Year: 2017
GEPaid: CAL000405373
Contact: COURTNEY MORGAN-VOYCE
Telephone: 9167194193
Mailing Name: Not reported
Mailing Address: 2990 LAVA RIDGE CT STE 200
Mailing City,St,Zip: ROSEVILLE, CA 956610000
Gen County: Alameda
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Aqueous solution with total organic residues 10 percent or more
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.34611
Cat Decode: Aqueous solution with total organic residues 10 percent or more
Method Decode: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County: Alameda

envid: 1000277309
Year: 2017
GEPaid: CAL000405373
Contact: COURTNEY MORGAN-VOYCE
Telephone: 9167194193
Mailing Name: Not reported
Mailing Address: 2990 LAVA RIDGE CT STE 200
Mailing City,St,Zip: ROSEVILLE, CA 956610000
Gen County: Alameda
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Waste oil and mixed oil
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.0228
Cat Decode: Waste oil and mixed oil
Method Decode: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County: Alameda

[Click this hyperlink](#) while viewing on your computer to access 63 additional CA_HAZNET: record(s) in the EDR Site Report.

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

H51
SSE
 < 1/8
 0.112 mi.
 592 ft.

CORPORATION YARD
2 FALLON ST
OAKLAND, CA 94607

US BROWNFIELDS 1016352511
FINDS N/A

Site 2 of 3 in cluster H

Relative:
Lower

US BROWNFIELDS:

Actual:
 19 ft.

Property Name:	CORPORATION YARD
Recipient Name:	Oakland, City of
Grant Type:	Assessment
Property Number:	Not reported
Parcel size:	17
Latitude:	37.791649
Longitude:	-122.266823
HCM Label:	Not reported
Map Scale:	Not reported
Point of Reference:	Not reported
Highlights:	Not reported
Datum:	Not reported
Acres Property ID:	14254
IC Data Access:	Not reported
Start Date:	09/30/1997 00:00:00
Redev Completion Date:	Not reported
Completed Date:	09/30/1997 00:00:00
Acres Cleaned Up:	Not reported
Cleanup Funding:	Not reported
Cleanup Funding Source:	Not reported
Assessment Funding:	Not reported
Assessment Funding Source:	Not reported
Redevelopment Funding:	Not reported
Redev. Funding Source:	Not reported
Redev. Funding Entity Name:	Not reported
Redevelopment Start Date:	Not reported
Assessment Funding Entity:	Not reported
Cleanup Funding Entity:	Not reported
Grant Type:	N/A
Accomplishment Type:	Not reported
Accomplishment Count:	0
Cooperative Agreement Number:	98913601
Start Date:	Not reported
Ownership Entity:	Not reported
Completion Date:	Not reported
Current Owner:	Not reported
Did Owner Change:	Not reported
Cleanup Required:	Y
Video Available:	Not reported
Photo Available:	Not reported
Institutional Controls Required:	Not reported
IC Category Proprietary Controls:	Not reported
IC Cat. Info. Devices:	Not reported
IC Cat. Gov. Controls:	Not reported
IC Cat. Enforcement Permit Tools:	Not reported
IC in place date:	Not reported
IC in place:	U
State/tribal program date:	Not reported
State/tribal program ID:	Not reported
State/tribal NFA date:	Not reported
Air contaminated:	Not reported
Air cleaned:	Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CORPORATION YARD (Continued)

1016352511

Asbestos found:	Not reported
Asbestos cleaned:	Not reported
Controlled substance found:	Not reported
Controlled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Y
Groundwater cleaned:	Not reported
Lead contaminant found:	Not reported
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Not reported
Other metals found:	Not reported
Other metals cleaned:	Not reported
Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Not reported
PAHs cleaned up:	Not reported
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Not reported
Petro products cleaned:	Not reported
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Y
Soil cleaned up:	Not reported
Surface water cleaned:	Not reported
VOCs found:	Not reported
VOCs cleaned:	Not reported
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
Surface Water:	Not reported
Past use commercial acreage:	Not reported
Past use industrial acreage:	Not reported
Future use greenspace acreage:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	Not reported
Arsenic cleaned up:	Not reported
Cadmium cleaned up:	Not reported
Chromium cleaned up:	Not reported
Copper cleaned up:	Not reported
Iron cleaned up:	Not reported
mercury cleaned up:	Not reported
Nickel Cleaned Up:	Not reported
No clean up:	Not reported
Pesticides cleaned up:	Not reported
Selenium cleaned up:	Not reported
SVOCs cleaned up:	Not reported
Unknown clean up:	Not reported
Arsenic contaminant found:	Not reported
Cadmium contaminant found:	Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CORPORATION YARD (Continued)

1016352511

Chromium contaminant found:	Not reported
Copper contaminant found:	Not reported
Iron contaminant found:	Not reported
Mercury contaminant found:	Not reported
Nickel contaminant found:	Not reported
No contaminant found:	Not reported
Pesticides contaminant found:	Not reported
Selenium contaminant found:	Not reported
SVOCs contaminant found:	Not reported
Unknown contaminant found:	Not reported
Future Use: Multistory	Not reported
Media affected Bluiding Material:	Not reported
Media affected indoor air:	Not reported
Building material media cleaned up:	Not reported
Indoor air media cleaned up:	Not reported
Unknown media cleaned up:	Not reported
Past Use: Multistory	Not reported
Property Description:	Not reported
Below Poverty Number:	920
Below Poverty Percent:	20.6%
Meidan Income:	3436
Meidan Income Number:	1750
Meidan Income Percent:	39.1%
Vacant Housing Number:	418
Vacant Housing Percent:	15.0%
Unemployed Number:	131
Unemployed Percent:	2.9%

FINDS:

Registry ID: 110039553024

Environmental Interest/Information System

US EPA Assessment, Cleanup and Redevelopment Exchange System (ACRES) is a federal online database for Brownfields Grantees to electronically submit data directly to EPA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

H52
SSE
 < 1/8
 0.112 mi.
 592 ft.

RETAIL/ENTERTAINMENT CENTER
2 FALLON ST
OAKLAND, CA 94607
Site 3 of 3 in cluster H

US BROWNFIELDS **1016352509**
FINDS **N/A**

Relative:
Lower
Actual:
19 ft.

US BROWNFIELDS:
 Property Name: RETAIL/ENTERTAINMENT CENTER
 Recipient Name: Oakland, City of
 Grant Type: Assessment
 Property Number: Not reported
 Parcel size: 2
 Latitude: 37.791649
 Longitude: -122.266823
 HCM Label: Not reported
 Map Scale: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RETAIL/ENTERTAINMENT CENTER (Continued)

1016352509

Point of Reference:	Not reported
Highlights:	Not reported
Datum:	Not reported
Acres Property ID:	14253
IC Data Access:	Not reported
Start Date:	09/30/1997 00:00:00
Redev Completion Date:	Not reported
Completed Date:	09/30/1997 00:00:00
Acres Cleaned Up:	Not reported
Cleanup Funding:	Not reported
Cleanup Funding Source:	Not reported
Assessment Funding:	Not reported
Assessment Funding Source:	Not reported
Redevelopment Funding:	Not reported
Redev. Funding Source:	Not reported
Redev. Funding Entity Name:	Not reported
Redevelopment Start Date:	09/30/1998 00:00:00
Assessment Funding Entity:	Not reported
Cleanup Funding Entity:	Not reported
Grant Type:	N/A
Accomplishment Type:	Phase I Environmental Assessment
Accomplishment Count:	0
Cooperative Agreement Number:	98913601
Start Date:	09/30/1997 00:00:00
Ownership Entity:	Not reported
Completion Date:	09/30/1997 00:00:00
Current Owner:	Not reported
Did Owner Change:	Not reported
Cleanup Required:	Y
Video Available:	Not reported
Photo Available:	Not reported
Institutional Controls Required:	Not reported
IC Category Proprietary Controls:	Not reported
IC Cat. Info. Devices:	Not reported
IC Cat. Gov. Controls:	Not reported
IC Cat. Enforcement Permit Tools:	Not reported
IC in place date:	Not reported
IC in place:	U
State/tribal program date:	Not reported
State/tribal program ID:	Not reported
State/tribal NFA date:	Not reported
Air contaminated:	Not reported
Air cleaned:	Not reported
Asbestos found:	Not reported
Asbestos cleaned:	Not reported
Controlled substance found:	Not reported
Controlled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Y
Groundwater cleaned:	Not reported
Lead contaminant found:	Not reported
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Not reported
Other metals found:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RETAIL/ENTERTAINMENT CENTER (Continued)

1016352509

Other metals cleaned:	Not reported
Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Not reported
PAHs cleaned up:	Not reported
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Not reported
Petro products cleaned:	Not reported
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Not reported
Soil cleaned up:	Not reported
Surface water cleaned:	Not reported
VOCs found:	Not reported
VOCs cleaned:	Not reported
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
Surface Water:	Not reported
Past use commercial acreage:	Not reported
Past use industrial acreage:	Not reported
Future use greenspace acreage:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	Not reported
Arsenic cleaned up:	Not reported
Cadmium cleaned up:	Not reported
Chromium cleaned up:	Not reported
Copper cleaned up:	Not reported
Iron cleaned up:	Not reported
mercury cleaned up:	Not reported
Nickel Cleaned Up:	Not reported
No clean up:	Not reported
Pesticides cleaned up:	Not reported
Selenium cleaned up:	Not reported
SVOCs cleaned up:	Not reported
Unknown clean up:	Not reported
Arsenic contaminant found:	Not reported
Cadmium contaminant found:	Not reported
Chromium contaminant found:	Not reported
Copper contaminant found:	Not reported
Iron contaminant found:	Not reported
Mercury contaminant found:	Not reported
Nickel contaminant found:	Not reported
No contaminant found:	Not reported
Pesticides contaminant found:	Not reported
Selenium contaminant found:	Not reported
SVOCs contaminant found:	Not reported
Unknown contaminant found:	Not reported
Future Use: Multistory	Not reported
Media affected Bluiding Material:	Not reported
Media affected indoor air:	Not reported
Building material media cleaned up:	Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

RETAIL/ENTERTAINMENT CENTER (Continued)

1016352509

Indoor air media cleaned up:	Not reported
Unknown media cleaned up:	Not reported
Past Use: Multistory	Not reported
Property Description:	Parking lot
Below Poverty Number:	920
Below Poverty Percent:	20.6%
Meidan Income:	3436
Meidan Income Number:	1750
Meidan Income Percent:	39.1%
Vacant Housing Number:	418
Vacant Housing Percent:	15.0%
Unemployed Number:	131
Unemployed Percent:	2.9%

FINDS:

Registry ID: 110039552980

Environmental Interest/Information System

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[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

J53
 WNW
 1/8-1/4
 0.132 mi.
 697 ft.

DICK AND VICS ARCO
245 8TH ST
OAKLAND, CA 94607

HIST UST S112848478
HAZNET N/A

Site 1 of 8 in cluster J

Relative:
Higher
Actual:
34 ft.

HIST UST:	
File Number:	000362B7
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/000362B7.pdf
Region:	Not reported
Facility ID:	Not reported
Facility Type:	Not reported
Other Type:	Not reported
Contact Name:	Not reported
Telephone:	Not reported
Owner Name:	Not reported
Owner Address:	Not reported
Owner City,St,Zip:	Not reported
Total Tanks:	Not reported
Tank Num:	Not reported
Container Num:	Not reported
Year Installed:	Not reported
Tank Capacity:	Not reported
Tank Used for:	Not reported
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DICK AND VICS ARCO (Continued)

S112848478

[Click here for Geo Tracker PDF:](#)

HAZNET:

Facility Name: 1X VICTOR LUM
envid: S112848478
Year: 1993
GEPAID: CAC000866928
Contact: VICTOR LUM
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 245 8TH ST
Mailing City,St,Zip: OAKLAND, CA 946070000
Gen County: Not reported
TSD EPA ID: CAD009466392
TSD County: Not reported
Waste Category: Other empty containers 30 gallons or more
Disposal Method: Recycler
Tons: 2.25
Cat Decode: Not reported
Method Decode: Not reported
Facility County: 1

envid: S112848478
Year: 1993
GEPAID: CAC000866928
Contact: VICTOR LUM
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 245 8TH ST
Mailing City,St,Zip: OAKLAND, CA 946070000
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Tons: 1.7722
Cat Decode: Not reported
Method Decode: Not reported
Facility County: 1

**J54
WNW
1/8-1/4
0.132 mi.
697 ft.**

**DICK & VICS ARCO
245-8TH ST.
OAKLAND, CA 94607
Site 2 of 8 in cluster J**

**HIST UST U001599169
N/A**

**Relative:
Higher
Actual:
34 ft.**

HIST UST:
File Number: Not reported
URL: Not reported
Region: STATE
Facility ID: 00000006918
Facility Type: Gas Station
Other Type: Not reported
Contact Name: RICHARD LUM
Telephone: 4158329014
Owner Name: RICHARD LUM
Owner Address: 245-8TH ST.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DICK & VICS ARCO (Continued)

U001599169

Owner City,St,Zip: OAKLAND, CA 94607
Total Tanks: 0007

Tank Num: 001
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00006000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor, None

Tank Num: 002
Container Num: 2
Year Installed: Not reported
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor, None

Tank Num: 003
Container Num: 3
Year Installed: Not reported
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor, None

Tank Num: 004
Container Num: 4
Year Installed: Not reported
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor, None

Tank Num: 005
Container Num: 5
Year Installed: Not reported
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor, None

Tank Num: 006
Container Num: 6
Year Installed: Not reported
Tank Capacity: 00006000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor, None

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

DICK & VICS ARCO (Continued)

U001599169

Tank Num: 007
 Container Num: 7
 Year Installed: Not reported
 Tank Capacity: 00000300
 Tank Used for: WASTE
 Type of Fuel: WASTE OIL
 Container Construction Thickness: Not reported
 Leak Detection: Stock Inventor, None

J55
WNW
1/8-1/4
0.132 mi.
697 ft.

VIC'S AUTOMOTIVE
245 8TH ST
OAKLAND, CA 94607
Site 3 of 8 in cluster J

UST **U003970784**
N/A

Relative:
Higher
Actual:
34 ft.

UST:
 Facility ID: 170
 Permitting Agency: OAKLAND, CITY OF
 Latitude: 37.7993509
 Longitude: -122.267462

J56
WNW
1/8-1/4
0.132 mi.
697 ft.

VIC'S AUTOMOTIVE SERVICE
245 8TH
OAKLAND, CA 94607
Site 4 of 8 in cluster J

LUST **S102657129**
Alameda County CS **N/A**
HIST CORTESE

Relative:
Higher
Actual:
34 ft.

LUST:
 Lead Agency: ALAMEDA COUNTY LOP
 Case Type: LUST Cleanup Site
 Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101143
 Global Id: T0600101143
 Latitude: 37.7980687488044
 Longitude: -122.268948554993
 Status: Completed - Case Closed
 Status Date: 10/22/2013
 Case Worker: Not reported
 RB Case Number: 01-1244
 Local Agency: Not reported
 File Location: All Files are on GeoTracker or in the Local Agency Database
 Local Case Number: RO0000202
 Potential Media Affect: Other Groundwater (uses other than drinking water)
 Potential Contaminants of Concern: Gasoline
 Site History: The site is currently occupied by Vics Auto, an automotive repair facility equipped with one 13,000-gallon underground storage tank (UST). Surrounding land use is mixed commercial and residential. Soils in the vicinity of the site are mostly fine to medium sand, with varying silt and clay content. On June 17, 1993, four 1,000-gallon gasoline USTs and one 250-gallon waste oil UST were removed from the site. No groundwater was encountered during excavation activities. The tank conditions were slightly rusted, with two visible holes noted in the waste oil tank. Soil samples collected from the gasoline UST pit and waste oil UST pit contained up to 24 parts per million (ppm) Total Petroleum Hydrocarbons as gasoline (TPHg) and 2,100 ppm Total Oil and Grease (TOG), respectively. The waste oil tank pit was over-excavated and re-sampled. The

MAP FINDINGS

VIC'S AUTOMOTIVE SERVICE (Continued)

S102657129

over-excavation soil sample contained 3.9 ppm TPHg. On August 23, 1994, the two remaining 6,000-gallon gasoline tanks were removed from the site. The UST located in the northern corner of the site was replaced with a 13,000-gallon gasoline UST. Fourteen soil samples were collected from the tank pits and soil stockpiles. The soil samples collected from beneath the southern-most tank contained the greatest petroleum hydrocarbon concentrations of 160 ppm TPHg and 0.82 ppm benzene. The two tank pits were subsequently over-excavated to approximately 19 feet below ground surface (bgs). Heavily contaminated groundwater and soils were encountered. Confirmation soil samples collected after over-excavation contained up to 3,900 ppm TPHg and 6.1 ppm benzene. On July 14, 1995, two soil borings were advanced and completed as groundwater monitoring wells (MW-1 and MW-2). Soil samples were collected from each boring at approximately five-foot intervals. Well MW-1 was not sampled for groundwater because free product was observed in the well at a thickness of 2.22 feet. Groundwater depth at the site was measured to be 17.21 feet bgs. The soil samples contained up to 390 ppm TPHg and 0.3 ppm benzene. The groundwater sample from MW-2 contained 68,000 parts per billion (ppb) TPHg and 480 ppb benzene. On August 8, 1996, three soil borings (SB-1 through SB-3) were advanced to depths ranging between 24 and 25 feet bgs. Soil samples were collected from each boring at 24 feet bgs, with an additional sample collected from boring SB-1 at 18 feet bgs. Grab groundwater samples were also collected from each boring. The soil sample collected from boring SB-1 at 18 feet bgs contained the greatest contamination of 9,100 ppm TPHg, 57 ppm benzene, and 47 ppm MTBE. The grab groundwater samples contained concentrations of up to 140,000 ppb TPHg, 19,000 ppb benzene, and 27,000 ppb MTBE. Manual bailing and pumping of Light Non-Aqueous Phase Liquid (LNAPL) from well MW-1 occurred intermittently from 1997 to 1998. On May 25, 2001, two soil borings were advanced and converted to monitoring wells MW-3 and MW-4. Soil samples were collected from each boring at 15 and 20 feet bgs. The completed wells were sampled during the next monitoring event on June 29, 2001. Soil samples collected from the borings did not contain petroleum hydrocarbons or fuel oxygenates at concentrations above reporting limits. Groundwater from wells MW-3 and MW-4 contained up to 550 ppb TPHg. Groundwater from well MW-2 collected during the same monitoring event contained 69,000 ppb TPHg, 7,200 ppb benzene, and 4,400 ppb MTBE. Due to the continued presence of free product, a LNAPL recovery system was installed in well MW-1 in July 2001. Well MW-1 is located within the backfill of the southern-most gasoline UST. The LNAPL recovery system operated between 2001 and 2003. On April 2 and 3, 2003, fourteen soil borings (SB-4 through SB-17) were advanced both on-site and off-site. Soil samples were collected from the borings at depths ranging between 11 and 18 feet bgs. Grab groundwater samples were collected from each boring and soil vapor samples were collected from five of the borings. The soil samples collected from boring SB-7 at 18 feet bgs and SB-11 at 16 feet bgs contained the highest TPHg concentrations of 4,900 ppm and 2,700 ppm, respectively. Borings SB-7 and SB-11 are located southwest of the former UST locations. Similarly, groundwater samples collected southwest of the former UST locations contained the highest TPHg concentrations. TPHg and benzene were detected in grab groundwater samples at concentrations up to 310,000 ppb and 45,000 ppb, respectively. Soil vapor samples did not contain petroleum hydrocarbons at concentrations above reporting limits. On January 11, 19, and 20, 2005, six extraction/monitoring

VIC'S AUTOMOTIVE SERVICE (Continued)

S102657129

wells (MW-5 through MW-7 and MW-10 through MW-12) were installed both on-site and off-site, with the intent of utilizing a High Vacuum Dual-Phase Extraction (HVDPE) system in the near future. At least one soil sample was selected for analysis from each well. Groundwater samples were collected from newly completed and previously constructed wells (MW-1 through MW-4) on February 3, 2005. The soil samples contained up to 3,200 ppm TPHg, 35 ppm benzene, and 8.5 ppm MTBE. Results of the groundwater samples were similar to previous investigations with the high petroleum hydrocarbon concentrations detected south of the former UST locations. From July 11 to July 27, 2005, a 15-day HVDPE event was conducted in five of the extraction/monitoring wells. During the event, an estimated 10,600 pounds of hydrocarbons were removed in the vapor phase. Following this event, preparations were made to implement a fixed HVDPE system at the site. Startup of the HVDPE system began on June 26, 2007. On July 13, 2006, eight soil borings were advanced throughout the site and off-site in the downgradient direction. Four of the borings were converted to permanent, nested soil gas probes (GP-1 through GP-4). Soil samples and soil gas samples were collected from the gas probes at depths of five and ten feet bgs. The soil samples contained up to 1.6 ppm TPHg, with no concentrations of MTBE above reporting limits. The soil gas samples contained up to 705 micrograms per cubic meter (a%g/m³) TPHg and 6.1 a%g/m³ benzene. On March 18, 2008, wells MW-8, MW-9, and MW-13 were installed to delineate the petroleum hydrocarbon plume in groundwater. Soil samples were collected from the new wells at depths of 15 and 20 feet bgs and contained up to 1.5 ppm TPHG, 0.37 ppm benzene, and 0.089 ppm MTBE. Between August 21 and 22, 2008, soil gas probes GP-3 and GP-4 were decommissioned due to property development. Horizontal HVDPE conveyance piping laterals were installed on wells MW-10 through MW-12 to continue remediation. On July 28, 2009, three monitoring wells (MW-14 through MW-16) were installed off-site to delineate the downgradient extent of the petroleum hydrocarbon plume in groundwater. Soil samples were collected from each of the monitoring well borings at depths ranging between 16 and 25 feet bgs. Groundwater samples were collected from the new wells during the next monitoring event on August 21, 2009. Results of the monitoring event incorporating the newly established wells indicated that the petroleum hydrocarbon plume extended laterally from the former UST location to approximately 7th Street. On March 17, 2010, four soil borings (SB-16 through SB-19) were advanced as part of a source zone delineation study. Soil samples were collected from the borings at approximately two or three foot intervals at depths ranging between 15 and 25 feet bgs. The highest concentrations of TPHg and benzene in soil were detected in soil samples collected below the water table at a depth of 20 feet bgs. Soil samples from borings SB-19, SB-16, and SB-17 contained TPHg at concentrations up to 7,500 ppm, 4,300 ppm, and 2,100 ppm, respectively. Benzene concentrations in soil were highest in borings SB-19 and SB-17 at concentrations of 100 ppm and 87 ppm, respectively (both samples collected at a depth of 20 feet bgs). Groundwater was first encountered in the borings at approximately 19.5 feet bgs with the exception of borings SB-16 and SB-19, where groundwater was encountered at approximately 25 and 21 feet bgs, respectively. One grab groundwater sample collected from boring SB-18 contained 230 ppb TPHg and 3.2 ppb benzene. On June 30 and July 1, 2010, four air sparge wells (AS-1 through AS-4) were installed within the source zone to a total depth of 30 feet bgs. A pilot test for HVDPE with air

MAP FINDINGS

VIC'S AUTOMOTIVE SERVICE (Continued)

S102657129

sparging was conducted between August and October 2010. Results indicated that air sparging in conjunction with the HVDPE system increased the effectiveness of petroleum hydrocarbon mass removal by increasing the off-gas vapor concentrations. High Vacuum Dual Phase Extraction (HVDPE) remediation was conducted at the site from June 2007 to June 2011 in both on-site and off-site wells. The remediation system removed an estimated total of 5,663 gallons of Total Petroleum Hydrocarbons as gasoline (TPHg). A soil vapor sampling event was conducted on October 16, 2012. Five new soil gas probes (GP-5 through GP-9) were installed and sampled along with the remaining two existing soil gas probes (GP-1 and GP-2) on October 31, 2012. TPHg was detected in soil vapor from vapor probe GP-1 at a concentration of 2,700 a%g/m3. TPHg was not detected at concentrations above reporting limits in the remaining eight soil vapor samples. Benzene was not detected in soil vapor depth at concentrations above reporting limits in any of the nine soil vapor samples collected. Groundwater monitoring began at the site on June 29, 2001 and was conducted quarterly until the most recent groundwater monitoring event on May 5, 2012. The depth to groundwater in site monitoring wells has ranged between 12.61 to 20.44 feet bgs. Soil vapor was also monitored on a quarterly schedule from August 2006 to August 2008. Results of soil, groundwater, and soil vapor investigations indicate that a plume of petroleum hydrocarbons extended from the former southern-most UST location a distance of approximately 200 feet southwest (downgradient) of the site. HVDPE and air sparging remediation has reduced the concentrations of TPHg in groundwater from the highest detection of 310,000 ppb in 2003 to a maximum concentration of 250 ppb during the most recent groundwater monitoring event in May 2012. Benzene has also been reduced from a maximum of 52,000 ppb in February 2005 to a maximum concentration of 250 ppb during the most recent groundwater monitoring event in May 2012. Groundwater monitoring data indicate that the plume of petroleum hydrocarbons is stable or shrinking in extent. Based on evidence from recent investigations, the residual soil, groundwater, and soil vapor contamination from the former USTs does not appear to pose a threat to public or environmental health. Therefore, no further action is required for the site.

LUST:

Global Id: T0600101143
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600101143
Action Type: Other
Date: 06/18/1993
Action: Leak Reported

Global Id: T0600101143
Action Type: RESPONSE
Date: 06/17/2003

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VIC'S AUTOMOTIVE SERVICE (Continued)

S102657129

Action: Soil and Water Investigation Report

Global Id: T0600101143
Action Type: RESPONSE
Date: 07/29/1993
Action: Tank Removal Report / UST Sampling Report

Global Id: T0600101143
Action Type: RESPONSE
Date: 10/23/1995
Action: Well Installation Report

Global Id: T0600101143
Action Type: RESPONSE
Date: 03/25/2005
Action: Well Installation Report

Global Id: T0600101143
Action Type: RESPONSE
Date: 11/28/1994
Action: CAP/RAP - Final Remediation / Design Plan

Global Id: T0600101143
Action Type: RESPONSE
Date: 09/19/1996
Action: Soil and Water Investigation Report

Global Id: T0600101143
Action Type: RESPONSE
Date: 09/29/2006
Action: Soil Vapor Intrusion Investigation Report

Global Id: T0600101143
Action Type: RESPONSE
Date: 07/31/2001
Action: Well Installation Report

Global Id: T0600101143
Action Type: RESPONSE
Date: 05/28/2008
Action: Well Destruction Report

Global Id: T0600101143
Action Type: RESPONSE
Date: 08/03/1993
Action: Tank Removal Report / UST Sampling Report

Global Id: T0600101143
Action Type: RESPONSE
Date: 06/01/2010
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0600101143
Action Type: RESPONSE
Date: 05/18/1993
Action: Correspondence

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VIC'S AUTOMOTIVE SERVICE (Continued)

S102657129

Global Id: T0600101143
Action Type: RESPONSE
Date: 05/24/2006
Action: Interim Remedial Action Plan

Global Id: T0600101143
Action Type: RESPONSE
Date: 01/13/2013
Action: Soil Vapor Intrusion Investigation Report

Global Id: T0600101143
Action Type: RESPONSE
Date: 01/07/2014
Action: Well Destruction Report - Regulator Responded

Global Id: T0600101143
Action Type: ENFORCEMENT
Date: 10/03/2008
Action: Staff Letter - #20081003

Global Id: T0600101143
Action Type: RESPONSE
Date: 02/20/2013
Action: Correspondence

Global Id: T0600101143
Action Type: ENFORCEMENT
Date: 07/24/2009
Action: Staff Letter - #20090724

Global Id: T0600101143
Action Type: ENFORCEMENT
Date: 12/03/2009
Action: Staff Letter - #20091203

Global Id: T0600101143
Action Type: ENFORCEMENT
Date: 12/04/2009
Action: Staff Letter - #20091204

Global Id: T0600101143
Action Type: ENFORCEMENT
Date: 02/22/2010
Action: Staff Letter - #20100222

Global Id: T0600101143
Action Type: ENFORCEMENT
Date: 02/13/2013
Action: Staff Letter - #20130213

Global Id: T0600101143
Action Type: ENFORCEMENT
Date: 05/24/2010
Action: Staff Letter - #20100524

Global Id: T0600101143
Action Type: ENFORCEMENT

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VIC'S AUTOMOTIVE SERVICE (Continued)

S102657129

Date: 05/04/2011
Action: Meeting - #20110504

Global Id: T0600101143
Action Type: ENFORCEMENT
Date: 05/04/2011
Action: File review - #20110504

Global Id: T0600101143
Action Type: ENFORCEMENT
Date: 04/02/2012
Action: File review - #20120402

Global Id: T0600101143
Action Type: ENFORCEMENT
Date: 04/02/2012
Action: Staff Letter - #20120402

Global Id: T0600101143
Action Type: ENFORCEMENT
Date: 09/10/2012
Action: Staff Letter - #20120910

Global Id: T0600101143
Action Type: ENFORCEMENT
Date: 02/11/2013
Action: File Review - Closure - #20130211

Global Id: T0600101143
Action Type: ENFORCEMENT
Date: 02/13/2013
Action: Notification - Fee Title Owners Notice - #20130213

Global Id: T0600101143
Action Type: ENFORCEMENT
Date: 04/30/2013
Action: Staff Letter - #20130430

Global Id: T0600101143
Action Type: ENFORCEMENT
Date: 10/22/2013
Action: Closure/No Further Action Letter - #20131022

Global Id: T0600101143
Action Type: ENFORCEMENT
Date: 05/26/2006
Action: Staff Letter - #20060526

Global Id: T0600101143
Action Type: RESPONSE
Date: 05/13/2010
Action: Interim Remedial Action Plan

Global Id: T0600101143
Action Type: REMEDIATION
Date: 06/15/2007
Action: In Situ Physical/Chemical Treatment (other than SVE)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VIC'S AUTOMOTIVE SERVICE (Continued)

S102657129

Global Id: T0600101143
Action Type: ENFORCEMENT
Date: 10/14/2013
Action: Notice to Comply - #20131014

Global Id: T0600101143
Action Type: ENFORCEMENT
Date: 02/27/2013
Action: Notification - Public Notice of Case Closure - #20130227

Global Id: T0600101143
Action Type: RESPONSE
Date: 09/30/2010
Action: Pilot Study/ Treatability Report

Global Id: T0600101143
Action Type: Other
Date: 06/18/1993
Action: Leak Discovery

Global Id: T0600101143
Action Type: RESPONSE
Date: 09/15/2010
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0600101143
Action Type: ENFORCEMENT
Date: 12/24/2007
Action: * NEL - #20071224

Global Id: T0600101143
Action Type: RESPONSE
Date: 06/06/2012
Action: Soil Vapor Intrusion Investigation Workplan - Regulator Responded

LUST:

Global Id: T0600101143
Status: Completed - Case Closed
Status Date: 10/22/2013

Global Id: T0600101143
Status: Open - Case Begin Date
Status Date: 06/18/1993

Global Id: T0600101143
Status: Open - Eligible for Closure
Status Date: 04/04/2013

Global Id: T0600101143
Status: Open - Remediation
Status Date: 06/15/2007

Global Id: T0600101143
Status: Open - Site Assessment
Status Date: 06/18/1993

Global Id: T0600101143

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VIC'S AUTOMOTIVE SERVICE (Continued)

S102657129

Status: Open - Site Assessment
Status Date: 10/18/1993

Global Id: T0600101143
Status: Open - Site Assessment
Status Date: 07/14/1995

Global Id: T0600101143
Status: Open - Verification Monitoring
Status Date: 09/10/2012

LUST REG 2:

Region: 2
Facility Id: 01-1244
Facility Status: Preliminary site assessment underway
Case Number: 263
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: 1/2/1965
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Leak Confirmation
Record Id: RO0000202
PE: 5602
Facility Status: Leak Confirmation
Latitude: 37.798155625
Longitude: -122.26894388

Status: Preliminary Site Assessment Underway
Record Id: RO0000202
PE: 5602
Facility Status: Preliminary Site Assessment Underway
Latitude: 37.798155625
Longitude: -122.26894388

Status: Pollution Characterization
Record Id: RO0000202
PE: 5602
Facility Status: Pollution Characterization
Latitude: 37.798155625
Longitude: -122.26894388

Status: Remedial Action Underway
Record Id: RO0000202
PE: 5602
Facility Status: Remedial Action Underway
Latitude: 37.798155625

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VIC'S AUTOMOTIVE SERVICE (Continued)

S102657129

Longitude: -122.26894388

Status: Case Closed
Record Id: RO0000202
PE: 5602
Facility Status: Case Closed
Latitude: 37.798155625
Longitude: -122.26894388

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-1244

**J57
WNW
1/8-1/4
0.137 mi.
724 ft.**

**CITY OF OAKLAND FIRE STATION #12
822 ALICE ST
OAKLAND, CA 94607**

**LUST
Alameda County CS
HIST CORTESE
CERS**

**U003713310
N/A**

Site 5 of 8 in cluster J

**Relative:
Higher
Actual:
36 ft.**

LUST:
Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100576
Global Id: T0600100576
Latitude: 37.798722
Longitude: -122.268401
Status: Completed - Case Closed
Status Date: 06/09/1995
Case Worker: Not reported
RB Case Number: 01-0626
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0001139
Potential Media Affect: Soil
Potential Contaminants of Concern: Waste Oil / Motor / Hydraulic / Lubricating
Site History: Not reported

LUST:
Global Id: T0600100576
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:
Global Id: T0600100576
Action Type: Other
Date: 04/14/1989
Action: Leak Reported

LUST:
Global Id: T0600100576

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CITY OF OAKLAND FIRE STATION #12 (Continued)

U003713310

Status: Completed - Case Closed
Status Date: 06/09/1995

Global Id: T0600100576
Status: Open - Case Begin Date
Status Date: 04/14/1989

LUST REG 2:

Region: 2
Facility Id: 01-0626
Facility Status: Case Closed
Case Number: 3709
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 11/2/1989
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Case Closed
Record Id: RO0001139
PE: 5602
Facility Status: Case Closed
Latitude: 37.798432837
Longitude: -122.26873721

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-0626

CERS TANKS:

Site ID: 230735
CERS ID: T0600100576
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

J58
WNW
1/8-1/4
0.152 mi.
802 ft.

AQUA SCIENCE ENGINEERS, INC (A
250 8TH STREET
OAKLAND, CA 94607
Site 6 of 8 in cluster J

LUST S101580030
Alameda County CS N/A
SWEEPS UST
EMI
HIST CORTESE
CERS

Relative:
Higher

Actual:
35 ft.

LUST:

Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100535
Global Id: T0600100535
Latitude: 37.7985604517513
Longitude: -122.269098758698
Status: Open - Verification Monitoring
Status Date: 04/30/2015
Case Worker: JES
RB Case Number: 01-0582
Local Agency: ALAMEDA COUNTY LOP
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000479
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: A gasoline service station formerly occupied the site. Ten USTs were removed in May 1992. Soil overexcavation was conducted between December 1992 and March 1993. Various site investigation activities have been conducted since 1995. Several remedial actions have taken place since 1999. A remedial system consisting of a soil vapor extraction and ozone sparging system was installed at the site in early 2011. The systems operated at the site until April 2015 when they were shut down to monitor for potential rebound. Quarterly groundwater monitoring is ongoing to evaluate potential rebound of groundwater concentrations while the remedial systems are not operating. A soil vapor sampling work plan has been requested by ACEH to evaluate the effectiveness of the remediation.

LUST:

Global Id: T0600100535
Contact Type: Local Agency Caseworker
Contact Name: JONATHAN E. SANDERS
Organization Name: ALAMEDA COUNTY LOP
Address: 1131 Harbor Bay Pkwy
City: ALAMEDA
Email: jonathan.sanders@acgov.org
Phone Number: 5105676791

Global Id: T0600100535
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600100535
Action Type: Other
Date: 05/07/1992

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUA SCIENCE ENGINEERS, INC (A (Continued))

S101580030

Action: Leak Reported

Global Id: T0600100535
Action Type: RESPONSE
Date: 09/30/2004
Action: Corrective Action Plan / Remedial Action Plan - Addendum

Global Id: T0600100535
Action Type: RESPONSE
Date: 11/30/2007
Action: Interim Remedial Action Report

Global Id: T0600100535
Action Type: RESPONSE
Date: 08/26/2002
Action: Soil and Water Investigation Report

Global Id: T0600100535
Action Type: RESPONSE
Date: 08/01/2006
Action: Soil and Water Investigation Report

Global Id: T0600100535
Action Type: RESPONSE
Date: 06/26/2007
Action: Soil and Water Investigation Report

Global Id: T0600100535
Action Type: RESPONSE
Date: 02/22/2000
Action: Well Installation Report

Global Id: T0600100535
Action Type: RESPONSE
Date: 08/04/2006
Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0600100535
Action Type: RESPONSE
Date: 02/13/2013
Action: Remedial Progress Report

Global Id: T0600100535
Action Type: RESPONSE
Date: 03/28/2012
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0600100535
Action Type: RESPONSE
Date: 03/28/2012
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0600100535
Action Type: RESPONSE
Date: 02/17/1995
Action: Soil and Water Investigation Report

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUA SCIENCE ENGINEERS, INC (A (Continued))

S101580030

Global Id: T0600100535
Action Type: RESPONSE
Date: 03/17/1999
Action: Remedial Progress Report

Global Id: T0600100535
Action Type: RESPONSE
Date: 11/08/2000
Action: Remedial Progress Report

Global Id: T0600100535
Action Type: RESPONSE
Date: 02/22/2007
Action: Interim Remedial Action Report

Global Id: T0600100535
Action Type: RESPONSE
Date: 06/05/1997
Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0600100535
Action Type: RESPONSE
Date: 06/01/1992
Action: Tank Removal Report / UST Sampling Report

Global Id: T0600100535
Action Type: RESPONSE
Date: 06/02/1992
Action: Correspondence

Global Id: T0600100535
Action Type: RESPONSE
Date: 06/08/1993
Action: Final Remedial Action Report / Corrective Action Report

Global Id: T0600100535
Action Type: RESPONSE
Date: 02/10/1993
Action: Other Report / Document

Global Id: T0600100535
Action Type: RESPONSE
Date: 02/11/1993
Action: Other Report / Document

Global Id: T0600100535
Action Type: RESPONSE
Date: 04/03/2016
Action: Monitoring Report - Semi-Annually

Global Id: T0600100535
Action Type: RESPONSE
Date: 09/28/2018
Action: Correspondence

Global Id: T0600100535
Action Type: RESPONSE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUA SCIENCE ENGINEERS, INC (A (Continued))

S101580030

Date: 07/30/2013
Action: Remedial Progress Report - Regulator Responded

Global Id: T0600100535
Action Type: RESPONSE
Date: 02/28/2014
Action: Remedial Progress Report - Regulator Responded

Global Id: T0600100535
Action Type: RESPONSE
Date: 09/23/2013
Action: Remedial Progress Report - Regulator Responded

Global Id: T0600100535
Action Type: ENFORCEMENT
Date: 10/23/2008
Action: Staff Letter - #20081023

Global Id: T0600100535
Action Type: ENFORCEMENT
Date: 01/21/2016
Action: Staff Letter

Global Id: T0600100535
Action Type: RESPONSE
Date: 08/30/2014
Action: Remedial Progress Report - Regulator Responded

Global Id: T0600100535
Action Type: ENFORCEMENT
Date: 01/03/2017
Action: Email Correspondence - #20170103

Global Id: T0600100535
Action Type: ENFORCEMENT
Date: 12/28/2016
Action: Staff Letter - #20161228

Global Id: T0600100535
Action Type: ENFORCEMENT
Date: 09/14/2016
Action: Staff Letter - #20160914

Global Id: T0600100535
Action Type: RESPONSE
Date: 03/21/2016
Action: Soil Vapor Intrusion Investigation Workplan - Regulator Responded

Global Id: T0600100535
Action Type: ENFORCEMENT
Date: 07/23/2009
Action: Staff Letter - #20090723

Global Id: T0600100535
Action Type: ENFORCEMENT
Date: 08/17/2016
Action: Meeting - #20160817

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUA SCIENCE ENGINEERS, INC (A (Continued))

S101580030

Global Id: T0600100535
Action Type: ENFORCEMENT
Date: 02/09/2017
Action: Meeting - #20170209

Global Id: T0600100535
Action Type: ENFORCEMENT
Date: 07/22/2016
Action: Email Correspondence

Global Id: T0600100535
Action Type: RESPONSE
Date: 03/02/2015
Action: Remedial Progress Report

Global Id: T0600100535
Action Type: REMEDIATION
Date: 10/01/2004
Action: In Situ Physical/Chemical Treatment (other than SVE)

Global Id: T0600100535
Action Type: REMEDIATION
Date: 11/01/1992
Action: Excavation

Global Id: T0600100535
Action Type: ENFORCEMENT
Date: 05/04/2010
Action: Staff Letter - #20100504

Global Id: T0600100535
Action Type: ENFORCEMENT
Date: 04/18/2011
Action: Staff Letter - #20110418

Global Id: T0600100535
Action Type: ENFORCEMENT
Date: 10/25/2010
Action: Staff Letter - #20101025

Global Id: T0600100535
Action Type: ENFORCEMENT
Date: 09/20/2010
Action: Staff Letter - #20100920

Global Id: T0600100535
Action Type: ENFORCEMENT
Date: 09/27/2011
Action: Staff Letter - #20110927

Global Id: T0600100535
Action Type: ENFORCEMENT
Date: 09/20/2010
Action: Notification - Public Notice of ROD/RAP/CAP - #20100920

Global Id: T0600100535
Action Type: ENFORCEMENT

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUA SCIENCE ENGINEERS, INC (A (Continued))

S101580030

Date: 04/09/2012
Action: Staff Letter - #20120409

Global Id: T0600100535
Action Type: ENFORCEMENT
Date: 03/25/2013
Action: Staff Letter - #20130325

Global Id: T0600100535
Action Type: ENFORCEMENT
Date: 08/18/2006
Action: Staff Letter - #20060818

Global Id: T0600100535
Action Type: ENFORCEMENT
Date: 08/06/2013
Action: Staff Letter - #20130806

Global Id: T0600100535
Action Type: ENFORCEMENT
Date: 08/26/2013
Action: Staff Letter - #20130826

Global Id: T0600100535
Action Type: ENFORCEMENT
Date: 08/22/2012
Action: Staff Letter - #20120822

Global Id: T0600100535
Action Type: ENFORCEMENT
Date: 06/28/2018
Action: Staff Letter

Global Id: T0600100535
Action Type: ENFORCEMENT
Date: 04/24/2012
Action: Technical Correspondence / Assistance / Other - #20120424

Global Id: T0600100535
Action Type: ENFORCEMENT
Date: 04/16/2014
Action: Staff Letter - #20140416

Global Id: T0600100535
Action Type: ENFORCEMENT
Date: 09/08/2014
Action: Staff Letter - #20140908

Global Id: T0600100535
Action Type: RESPONSE
Date: 07/13/2010
Action: Pilot Study / Treatability Workplan

Global Id: T0600100535
Action Type: ENFORCEMENT
Date: 05/02/2017
Action: Email Correspondence

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUA SCIENCE ENGINEERS, INC (A (Continued))

S101580030

Global Id: T0600100535
Action Type: REMEDIATION
Date: 02/01/2011
Action: Soil Vapor Extraction (SVE)

Global Id: T0600100535
Action Type: REMEDIATION
Date: 02/01/2011
Action: In Situ Physical/Chemical Treatment (other than SVE)

Global Id: T0600100535
Action Type: Other
Date: 05/07/1992
Action: Leak Discovery

Global Id: T0600100535
Action Type: RESPONSE
Date: 03/18/2010
Action: Remedial Progress Report

Global Id: T0600100535
Action Type: RESPONSE
Date: 03/10/2009
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0600100535
Action Type: RESPONSE
Date: 06/11/2009
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0600100535
Action Type: RESPONSE
Date: 07/13/2010
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0600100535
Action Type: RESPONSE
Date: 07/12/2011
Action: Remedial Progress Report

Global Id: T0600100535
Action Type: RESPONSE
Date: 10/12/2016
Action: Other Report / Document

Global Id: T0600100535
Action Type: RESPONSE
Date: 05/15/2012
Action: Interim Remedial Action Report

LUST:

Global Id: T0600100535
Status: Open - Case Begin Date
Status Date: 05/07/1992

Global Id: T0600100535
Status: Open - Remediation

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUA SCIENCE ENGINEERS, INC (A (Continued))

S101580030

Status Date: 11/30/2007

Global Id: T0600100535
Status: Open - Site Assessment
Status Date: 05/07/1992

Global Id: T0600100535
Status: Open - Site Assessment
Status Date: 06/08/1992

Global Id: T0600100535
Status: Open - Site Assessment
Status Date: 01/30/1995

Global Id: T0600100535
Status: Open - Site Assessment
Status Date: 09/08/1999

Global Id: T0600100535
Status: Open - Verification Monitoring
Status Date: 04/30/2015

LUST REG 2:

Region: 2
Facility Id: 01-0582
Facility Status: Remedial action (cleanup) Underway
Case Number: 1585
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: 11/1/1992
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Leak Confirmation
Record Id: RO0000479
PE: 5602
Facility Status: Leak Confirmation
Latitude: 37.798466508
Longitude: -122.26895504

Status: Preliminary Site Assessment Workplan Submitted
Record Id: RO0000479
PE: 5602
Facility Status: Preliminary Site Assessment Workplan Submitted
Latitude: 37.798466508
Longitude: -122.26895504

Status: Preliminary Site Assessment Underway

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUA SCIENCE ENGINEERS, INC (A (Continued))

S101580030

Record Id: RO0000479
PE: 5602
Facility Status: Preliminary Site Assessment Underway
Latitude: 37.798466508
Longitude: -122.26895504

Status: Pollution Characterization
Record Id: RO0000479
PE: 5602
Facility Status: Pollution Charaterization
Latitude: 37.798466508
Longitude: -122.26895504

Status: Remediation Plan
Record Id: RO0000479
PE: 5602
Facility Status: Remediation Plan
Latitude: 37.798466508
Longitude: -122.26895504

SWEEPS UST:

Status: Not reported
Comp Number: 51110
Number: Not reported
Board Of Equalization: 44-034216
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-051110-000001
Tank Status: Not reported
Capacity: 2000
Active Date: Not reported
Tank Use: M.V.FUEL
STG: PRODUCT
Content: DIESEL
Number Of Tanks: 10

Status: Not reported
Comp Number: 51110
Number: Not reported
Board Of Equalization: 44-034216
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-051110-000002
Tank Status: Not reported
Capacity: 2000
Active Date: Not reported
Tank Use: M.V.FUEL
STG: PRODUCT
Content: LEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 51110

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUA SCIENCE ENGINEERS, INC (A (Continued))

S101580030

Number: Not reported
Board Of Equalization: 44-034216
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-051110-000003
Tank Status: Not reported
Capacity: 2000
Active Date: Not reported
Tank Use: M.V.FUEL
STG: PRODUCT
Content: LEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 51110
Number: Not reported
Board Of Equalization: 44-034216
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-051110-000004
Tank Status: Not reported
Capacity: 2000
Active Date: Not reported
Tank Use: M.V.FUEL
STG: PRODUCT
Content: LEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 51110
Number: Not reported
Board Of Equalization: 44-034216
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-051110-000005
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V.FUEL
STG: PRODUCT
Content: LEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 51110
Number: Not reported
Board Of Equalization: 44-034216
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUA SCIENCE ENGINEERS, INC (A (Continued))

S101580030

SWRCB Tank Id: 01-000-051110-000006
Tank Status: Not reported
Capacity: 5000
Active Date: Not reported
Tank Use: M.V.FUEL
STG: PRODUCT
Content: DIESEL
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 51110
Number: Not reported
Board Of Equalization: 44-034216
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-051110-000007
Tank Status: Not reported
Capacity: 250
Active Date: Not reported
Tank Use: OIL
STG: WASTE
Content: WASTE OIL
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 51110
Number: Not reported
Board Of Equalization: 44-034216
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-051110-000008
Tank Status: Not reported
Capacity: 500
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: LEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 51110
Number: Not reported
Board Of Equalization: 44-034216
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-051110-000009
Tank Status: Not reported
Capacity: 500
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUA SCIENCE ENGINEERS, INC (A (Continued))

S101580030

Content: LEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 51110
Number: Not reported
Board Of Equalization: 44-034216
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-051110-000010
Tank Status: Not reported
Capacity: 500
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: LEADED
Number Of Tanks: Not reported

EMI:

Year: 2011
County Code: 1
Air Basin: SF
Facility ID: 18100
Air District Name: BA
SIC Code: 4953
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.006
Reactive Organic Gases Tons/Yr: 0.0041916
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2012
County Code: 1
Air Basin: SF
Facility ID: 18100
Air District Name: BA
SIC Code: 4953
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.006
Reactive Organic Gases Tons/Yr: 0.0041916
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2013
County Code: 1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AQUA SCIENCE ENGINEERS, INC (A (Continued))

S101580030

Air Basin: SF
Facility ID: 18100
Air District Name: BA
SIC Code: 4953
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.006
Reactive Organic Gases Tons/Yr: 0.0041916
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2014
County Code: 1
Air Basin: SF
Facility ID: 18100
Air District Name: BA
SIC Code: 4953
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.006046482
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2015
County Code: 1
Air Basin: SF
Facility ID: 18100
Air District Name: BA
SIC Code: 4953
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.006046482
Reactive Organic Gases Tons/Yr: 0.006046482
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-0582

CERS TANKS:

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

AQUA SCIENCE ENGINEERS, INC (A (Continued))

S101580030

Site ID: 244222
 CERS ID: T0600100535
 CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
 Affiliation Type Desc: Local Agency Caseworker
 Entity Name: JONATHAN E. SANDERS - ALAMEDA COUNTY LOP
 Entity Title: Not reported
 Affiliation Address: 1131 Harbor Bay Pkwy
 Affiliation City: ALAMEDA
 Affiliation State: CA
 Affiliation Country: Not reported
 Affiliation Zip: Not reported
 Affiliation Phone: 5105676791

Affiliation Type Desc: Regional Board Caseworker
 Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
 Entity Title: Not reported
 Affiliation Address: 1515 CLAY ST SUITE 1400
 Affiliation City: OAKLAND
 Affiliation State: CA
 Affiliation Country: Not reported
 Affiliation Zip: Not reported
 Affiliation Phone: Not reported

**J59
 WNW
 1/8-1/4
 0.152 mi.
 802 ft.**

**MANDARIN AUTO SERVICE
 250 8TH ST
 OAKLAND, CA 94607
 Site 7 of 8 in cluster J**

**HIST UST U001599190
 N/A**

**Relative:
 Higher
 Actual:
 35 ft.**

HIST UST:
 File Number: 0003610F
 URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0003610F.pdf>
 Region: STATE
 Facility ID: 00000051110
 Facility Type: Gas Station
 Other Type: Not reported
 Contact Name: JAMES LEE
 Telephone: 4154511529
 Owner Name: MANDARIN AUTO SERVICE
 Owner Address: 250 8TH ST.
 Owner City,St,Zip: OAKLAND, CA 94607
 Total Tanks: 0007

Tank Num: 001
 Container Num: 1
 Year Installed: 1950
 Tank Capacity: 00002000
 Tank Used for: PRODUCT
 Type of Fuel: DIESEL
 Container Construction Thickness: Not reported
 Leak Detection: Stock Inventor

Tank Num: 002
 Container Num: 2
 Year Installed: 1950

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MANDARIN AUTO SERVICE (Continued)

U001599190

Tank Capacity: 00002000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: 3
Year Installed: 1950
Tank Capacity: 00002000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 004
Container Num: 4
Year Installed: 1950
Tank Capacity: 00002000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 005
Container Num: 5
Year Installed: 1963
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 006
Container Num: 6
Year Installed: 1974
Tank Capacity: 00005000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 007
Container Num: 7
Year Installed: 1950
Tank Capacity: 00000200
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

[Click here for Geo Tracker PDF:](#)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

K60
NNE
1/8-1/4
0.153 mi.
808 ft.

PACIFIC BELL
125 TWELVE ST
OAKLAND, CA 94607

RCRA NonGen / NLR **1000250628**
CAD980881809

Site 1 of 4 in cluster K

Relative:
Lower

RCRA NonGen / NLR:

Actual:
32 ft.

Date form received by agency: 09/09/1997
Facility name: PACIFIC BELL
Facility address: 125 TWELVE ST
OAKLAND, CA 94607
EPA ID: CAD980881809
Mailing address: 220 MONTGOMERY ST RM 1051
SAN FRANCISCO, CA 94104
Contact: ENVIRONMENTAL MANAGER
Contact address: 125 TWELVE ST
OAKLAND, CA 94607
Contact country: US
Contact telephone: 415-774-9836
Contact email: Not reported
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: OAK STREET BUILDING
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
Used oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 09/01/1996
Site name: PACIFIC BELL

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PACIFIC BELL (Continued)

1000250628

Classification: Small Quantity Generator

Date form received by agency: 03/14/1984

Site name: PACIFIC BELL

Classification: Large Quantity Generator

Violation Status: No violations found

K61 WESTERN UNION
NNE 125 12TH
1/8-1/4 OAKLAND, CA 94607
0.153 mi.
808 ft. Site 2 of 4 in cluster K

LUST S100933266
Alameda County CS N/A
SWEEPS UST
HIST CORTESE
CERS

Relative:
Lower
Actual:
32 ft.

LUST:
Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101541
Global Id: T0600101541
Latitude: 37.799628
Longitude: -122.264292
Status: Completed - Case Closed
Status Date: 08/01/1995
Case Worker: Not reported
RB Case Number: 01-1668
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0001155
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel
Site History: Not reported

LUST:
Global Id: T0600101541
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:
Global Id: T0600101541
Action Type: Other
Date: 08/06/1990
Action: Leak Reported

Global Id: T0600101541
Action Type: REMEDIATION
Date: 09/09/9999
Action: Excavation

LUST:
Global Id: T0600101541
Status: Completed - Case Closed
Status Date: 08/01/1995

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WESTERN UNION (Continued)

S100933266

Global Id: T0600101541
Status: Open - Case Begin Date
Status Date: 08/06/1990

LUST REG 2:

Region: 2
Facility Id: 01-1668
Facility Status: Case Closed
Case Number: 3741
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: 3/9/1992
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: 11/28/1990
Preliminary Site Assessment Began: 9/28/1990
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Case Closed
Record Id: RO0001155
PE: 5602
Facility Status: Case Closed
Latitude: 37.799796106
Longitude: -122.26440275

SWEEPS UST:

Status: Not reported
Comp Number: 1416
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-001416-000001
Tank Status: Not reported
Capacity: 350
Active Date: Not reported
Tank Use: OIL
STG: PRODUCT
Content: DIESEL
Number Of Tanks: 1

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-1668

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WESTERN UNION (Continued)

S100933266

CERS TANKS:

Site ID: 209778
CERS ID: T0600101541
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

L62
North
1/8-1/4
0.160 mi.
845 ft.

D R HORTON INC
1110 JACKSON ST
OAKLAND, CA 94607

Alameda County CS **S112958819**
HAZNET **N/A**

Site 1 of 6 in cluster L

Relative:
Higher
Actual:
37 ft.

Alameda County CS:
Status: Leak Confirmation
Record Id: RO0003232
PE: 5602
Facility Status: Leak Confirmation
Latitude: Not reported
Longitude: Not reported

HAZNET:

Facility Name: D R HORTON INC
envid: S112958819
Year: 2007
GEPaid: CAC002612403
Contact: DENNIS HUDSPETH
Telephone: 9258082300
Mailing Name: Not reported
Mailing Address: 2300 CLAYTON RD
Mailing City,St,Zip: CONCORD, CA 94520
Gen County: Not reported
TSD EPA ID: ARD981057870
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
Tons: 0.6
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

L63
North
1/8-1/4
0.160 mi.
845 ft.

1110 JACKSON ST
1110 JACKSON STREET
OAKLAND, CA 94607

Site 2 of 6 in cluster L

LUST **S112909506**
HAZNET **N/A**
CERS

Relative:
Higher

LUST:

Actual:
37 ft.

Lead Agency: ALAMEDA COUNTY LOP
 Case Type: LUST Cleanup Site
 Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000009472
 Global Id: T10000009472
 Latitude: 37.80025
 Longitude: -122.26598
 Status: Open - Active
 Status Date: 10/11/2016
 Case Worker: KEN
 RB Case Number: Not reported
 Local Agency: ALAMEDA COUNTY LOP
 File Location: All Files are on GeoTracker or in the Local Agency Database
 Local Case Number: RO0003232
 Potential Media Affect: Other Groundwater (uses other than drinking water), Soil
 Potential Contaminants of Concern: Acetone, Benzene, Diesel, Ethylbenzene, Gasoline, Naphthalene, Toluene, Xylene
 Site History:

Site is a 5-story multi-family mixed-use residential complex on Jackson between 11th and 12th Streets. The first floor of the building is commercial and on grade parking with utility rooms and 2 elevators. Previously, the site was developed with the Oakland Hospital as early as 1889. Residential structures were located on-site in the early 1900s, with an automobile repair garage present from at least 1911 through 1933. By the 1940s/1950s, a glass shop was present, as was a retail building and parking lots. By the 1960s/1970s, a store and warehouse were present, as was a private school. In 2005, site development included a warehouse, beauty salon, market, and offices. All historic on-site structures reportedly were demolished in January 2007 and the current building constructed. Three underground storage tanks (USTs) used for the storage of gasoline were removed from the sidewalk adjacent to the site along Jackson St. during utility trench work associated with site redevelopment. The USTs, having capacities of 265 gallons, 265 gallons, and 110 gallons, were removed on April 15, 2016 and noted to be poor condition. Petroleum hydrocarbon was observed in the tank pit. The laboratory analysis report for excavation samples included total petroleum hydrocarbons as gasoline (TPHg) to 2,480 milligrams per kilogram (mg/kg) and naphthalene to 4.59 mg/kg. On May 4, 2016 a limited excavation of the tank pit was performed with concentrations of TPHg reported to 6,320 mg/kg and benzene, toluene, ethyl benzene, and xylenes (BTEX) to 0.943 mg/kg, 0.805 mg/kg, 0.624 mg/kg, and 3.05 mg/kg, respectively, and naphthalene to 2.58 mg/kg. Additionally, several volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) were reported at concentrations above their respective reporting limits. A total of 78.20 tons soil manifested for off site disposal. A fourth sidewalk UST, having a capacity of 750 gallons, reported to be used for the storage of diesel fuel, was discovered and removed in November 2016. The tank was reported in poor condition with visible holes. Over excavation was performed on 12-02-2016 and visually impacted soil was removed to the extent feasible, removing approximately 24.74 tons for off site disposal. A site investigation consisting of four soil borings, five temporary soil gas wells, and five sub-slab soil gas sample points was performed in November 2016. A sixth sub-slab soil gas sample point

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

1110 JACKSON ST (Continued)

S112909506

was added with the discovery of the fourth UST. Based on the findings of the investigation there does not appear to be vapor intrusion risk to building occupants. Petroleum hydrocarbon contamination is present in soil and groundwater beneath the sidewalk/site and grab groundwater concentrations exceed the Tier I ESLs. Plume delineation completed w/ down gradient GGW sampling. No significant VI risks identified for on- and off-site receptors.

LUST:

Global Id: T10000009472
Contact Type: Local Agency Caseworker
Contact Name: KEITH NOWELL
Organization Name: ALAMEDA COUNTY LOP
Address: 1131 Harbor Bay Parkway
City: ALAMEDA
Email: keith.nowell@acgov.org
Phone Number: 5105676764

LUST:

Global Id: T10000009472
Action Type: ENFORCEMENT
Date: 09/22/2016
Action: Referral to Local Agency - #20160922

Global Id: T10000009472
Action Type: ENFORCEMENT
Date: 12/05/2016
Action: Meeting - #20161205

Global Id: T10000009472
Action Type: ENFORCEMENT
Date: 12/02/2016
Action: Site Visit / Inspection / Sampling - #20161202

Global Id: T10000009472
Action Type: ENFORCEMENT
Date: 10/17/2016
Action: Notice of Responsibility - #20161017

Global Id: T10000009472
Action Type: Other
Date: 01/13/2017
Action: Leak Stopped

Global Id: T10000009472
Action Type: RESPONSE
Date: 06/13/2018
Action: Email Correspondence

Global Id: T10000009472
Action Type: RESPONSE
Date: 03/03/2017
Action: Tank Removal Report / UST Sampling Report

Global Id: T10000009472
Action Type: ENFORCEMENT
Date: 10/14/2016

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

1110 JACKSON ST (Continued)

S112909506

Action: Unauthorized Release Form - #20161014

Global Id: T10000009472
Action Type: ENFORCEMENT
Date: 03/03/2017
Action: Unauthorized Release Form - #20170303

Global Id: T10000009472
Action Type: ENFORCEMENT
Date: 04/15/2016
Action: Site Visit / Inspection / Sampling - #20160415

Global Id: T10000009472
Action Type: ENFORCEMENT
Date: 10/13/2016
Action: Staff Letter - #20161013

Global Id: T10000009472
Action Type: ENFORCEMENT
Date: 10/11/2016
Action: Meeting - #20161011

Global Id: T10000009472
Action Type: Other
Date: 04/15/2016
Action: Leak Reported

Global Id: T10000009472
Action Type: RESPONSE
Date: 06/20/2017
Action: Soil and Water Investigation Workplan - Regulator Responded

Global Id: T10000009472
Action Type: RESPONSE
Date: 10/16/2017
Action: Other Workplan - Regulator Responded

Global Id: T10000009472
Action Type: ENFORCEMENT
Date: 04/30/2018
Action: Meeting - #20180430

Global Id: T10000009472
Action Type: ENFORCEMENT
Date: 04/09/2018
Action: Email Correspondence - #20180409

Global Id: T10000009472
Action Type: ENFORCEMENT
Date: 07/07/2017
Action: Meeting - #20170707

Global Id: T10000009472
Action Type: ENFORCEMENT
Date: 11/16/2017
Action: Staff Letter - #20171116

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

1110 JACKSON ST (Continued)

S112909506

Global Id: T10000009472
Action Type: ENFORCEMENT
Date: 02/21/2018
Action: Email Correspondence - #20180221

Global Id: T10000009472
Action Type: RESPONSE
Date: 03/09/2018
Action: Soil and Water Investigation Report

Global Id: T10000009472
Action Type: REMEDIATION
Date: 05/04/2016
Action: Excavation

Global Id: T10000009472
Action Type: REMEDIATION
Date: 12/02/2016
Action: Excavation

Global Id: T10000009472
Action Type: Other
Date: 04/15/2016
Action: Leak Discovery

Global Id: T10000009472
Action Type: RESPONSE
Date: 10/13/2016
Action: Email Correspondence

LUST:

Global Id: T10000009472
Status: Open - Active
Status Date: 09/22/2016

Global Id: T10000009472
Status: Open - Active
Status Date: 10/11/2016

Global Id: T10000009472
Status: Open - Case Begin Date
Status Date: 04/15/2016

HAZNET:

Facility Name: 1110 JACKSON ST
envid: S112909506
Year: 2016
GEPaid: CAC002885669
Contact: EVERETT CLEVELAND
Telephone: 5102875353
Mailing Name: Not reported
Mailing Address: 1825 SAN PABLO AVENUE
Mailing City,St,Zip: OAKLAND, CA 94612
Gen County: Alameda
TSD EPA ID: CAD009466392

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

1110 JACKSON ST (Continued)

S112909506

TSD County: Contra Costa
Waste Category: Other empty containers 30 gallons or more
Disposal Method: Other Treatment
Tons: 1
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

envid: S112909506
Year: 2016
GEPaid: CAC002885669
Contact: EVERETT CLEVELAND
Telephone: 5102875353
Mailing Name: Not reported
Mailing Address: 1825 SAN PABLO AVENUE
Mailing City,St,Zip: OAKLAND, CA 94612
Gen County: Alameda
TSD EPA ID: CAL000190816
TSD County: Stanislaus
Waste Category: Unspecified oil-containing waste
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 2.502
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

envid: S112909506
Year: 2016
GEPaid: CAC002853474
Contact: EVERETT CLEVELAND JR.
Telephone: 5102875353
Mailing Name: Not reported
Mailing Address: 1825 SAN PABLO AVE
Mailing City,St,Zip: OAKLAND, CA 946121517
Gen County: Alameda
TSD EPA ID: CAD028409019
TSD County: Los Angeles
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Tons: 3.15
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

envid: S112909506
Year: 2016
GEPaid: CAC002853474
Contact: EVERETT CLEVELAND JR.
Telephone: 5102875353
Mailing Name: Not reported
Mailing Address: 1825 SAN PABLO AVE
Mailing City,St,Zip: OAKLAND, CA 946121517
Gen County: Alameda
TSD EPA ID: CAD009466392
TSD County: Contra Costa

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

1110 JACKSON ST (Continued)

S112909506

Waste Category: Other empty containers 30 gallons or more
Disposal Method: Other Treatment
Tons: 0.75
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

envid: S112909506
Year: 2000
GEPaid: CAC002285681
Contact: ALLAN S KUPERSTEIN - OWNER
Telephone: 9253768486
Mailing Name: Not reported
Mailing Address: 315 DRAEGER DR
Mailing City,St,Zip: MORAGA, CA 945560000
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Transfer Station
Tons: 0.2
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

[Click this hyperlink](#) while viewing on your computer to access additional CA_HAZNET: detail in the EDR Site Report.

CERS TANKS:

Site ID: 409267
CERS ID: T10000009472
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Local Agency Caseworker
Entity Name: KEITH NOWELL - ALAMEDA COUNTY LOP
Entity Title: Not reported
Affiliation Address: 1131 Harbor Bay Parkway
Affiliation City: ALAMEDA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 5105676764

J64
West
1/8-1/4
0.164 mi.
866 ft.

OAKLAND AUTOMATIC SALES
719 ALICE ST
OAKLAND, CA 94607
Site 8 of 8 in cluster J

CPS-SLIC **S108246031**
Alameda County CS **N/A**
CERS

Relative:
Higher
Actual:
33 ft.

CPS-SLIC:
Region: STATE
Facility Status: Completed - Case Closed
Status Date: 10/27/1995
Global Id: T06019702686
Lead Agency: ALAMEDA COUNTY LOP
Lead Agency Case Number: RO0002838

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OAKLAND AUTOMATIC SALES (Continued)

S108246031

Latitude: 37.798104
Longitude: -122.269465
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: 01S0438
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affected: Under Investigation
Potential Contaminants of Concern: Not reported
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Alameda County CS:

Status: Case Closed
Record Id: RO0002838
PE: 5502
Facility Status: Case Closed
Latitude: 37.797835929
Longitude: -122.26949651

CERS TANKS:

Site ID: 242696
CERS ID: T06019702686
CERS Description: Cleanup Program Site

L65
North
1/8-1/4
0.166 mi.
875 ft.

OFFICE OF FLEET ADMINISTRATION
1111 JACKSON ST
OAKLAND, CA 94607
Site 3 of 6 in cluster L

SWEEPS UST **S101630361**
HIST UST **N/A**
CA FID UST

Relative:
Higher
Actual:
38 ft.

SWEEPS UST:
Status: Active
Comp Number: 42513
Number: 6
Board Of Equalization: Not reported
Referral Date: 05-16-91
Action Date: 05-16-91
Created Date: 02-29-88
Owner Tank Id: #1
SWRCB Tank Id: 01-000-042513-000003
Tank Status: A
Capacity: 6000
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: 3

Status: Active
Comp Number: 42513
Number: 6
Board Of Equalization: Not reported
Referral Date: 05-16-91
Action Date: 05-16-91
Created Date: 02-29-88

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OFFICE OF FLEET ADMINISTRATION (Continued)

S101630361

Owner Tank Id: #2
SWRCB Tank Id: 01-000-042513-000004
Tank Status: A
Capacity: 3750
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 42513
Number: 6
Board Of Equalization: Not reported
Referral Date: 05-16-91
Action Date: 05-16-91
Created Date: 02-29-88

Owner Tank Id: #3
SWRCB Tank Id: 01-000-042513-000005
Tank Status: A
Capacity: 3750
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

HIST UST:

File Number: 00036398
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00036398.pdf>
Region: Not reported
Facility ID: Not reported
Facility Type: Not reported
Other Type: Not reported
Contact Name: Not reported
Telephone: Not reported
Owner Name: Not reported
Owner Address: Not reported
Owner City,St,Zip: Not reported
Total Tanks: Not reported

Tank Num: Not reported
Container Num: Not reported
Year Installed: Not reported
Tank Capacity: Not reported
Tank Used for: Not reported
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: Not reported

Tank Num: Not reported
Container Num: Not reported
Year Installed: Not reported
Tank Capacity: Not reported
Tank Used for: Not reported
Type of Fuel: Not reported
Container Construction Thickness: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OFFICE OF FLEET ADMINISTRATION (Continued)

S101630361

Leak Detection: Not reported

[Click here for Geo Tracker PDF:](#)

CA FID UST:

Facility ID: 01002695
Regulated By: UTNKA
Regulated ID: 00042513
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4154640901
Mail To: Not reported
Mailing Address: 1111 JACKSON ST
Mailing Address 2: Not reported
Mailing City,St,Zip: OAKLAND 94607
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

L66
North
1/8-1/4
0.166 mi.
875 ft.

OFFICE OF FLEET ADMINISTRATION
1111 JACKSON ST
OAKLAND, CA 94607
Site 4 of 6 in cluster L

HIST UST U001599202
EMI N/A

Relative:
Higher
Actual:
38 ft.

HIST UST:
File Number: Not reported
URL: Not reported
Region: STATE
Facility ID: 00000042513
Facility Type: Other
Other Type: STATE GARAGE
Contact Name: CHARLES ALLEN
Telephone: 4154640901
Owner Name: STATE OF CALIFORNIA-DEPARTMENT
Owner Address: 1416 10TH STREET
Owner City,St,Zip: SACRAMENTO, CA 95814
Total Tanks: 0002

Tank Num: 001
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00003750
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: 2
Year Installed: Not reported
Tank Capacity: 00003750
Tank Used for: PRODUCT

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OFFICE OF FLEET ADMINISTRATION (Continued)

U001599202

Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

EMI:

Year: 2012
County Code: 1
Air Basin: SF
Facility ID: 20828
Air District Name: BA
SIC Code: 9199
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0.003
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2013
County Code: 1
Air Basin: SF
Facility ID: 20828
Air District Name: BA
SIC Code: 9199
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0.003
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2014
County Code: 1
Air Basin: SF
Facility ID: 20828
Air District Name: BA
SIC Code: 9199
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 1.5821e-005
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0.000119052
NOX - Oxides of Nitrogen Tons/Yr: 0.001021296
SOX - Oxides of Sulphur Tons/Yr: 7.61e-007
Particulate Matter Tons/Yr: 1.4173e-005
Part. Matter 10 Micrometers and Smlr Tons/Yr:1.3606e-005

Year: 2015

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OFFICE OF FLEET ADMINISTRATION (Continued)

U001599202

County Code: 1
Air Basin: SF
Facility ID: 20828
Air District Name: BA
SIC Code: 9199
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 1.5821e-005
Reactive Organic Gases Tons/Yr: 1.2699e-005
Carbon Monoxide Emissions Tons/Yr: 0.000119052
NOX - Oxides of Nitrogen Tons/Yr: 0.001021296
SOX - Oxides of Sulphur Tons/Yr: 7.61e-007
Particulate Matter Tons/Yr: 1.4173e-005
Part. Matter 10 Micrometers and Smlr Tons/Yr:1.3606e-005

Year: 2016
County Code: 1
Air Basin: SF
Facility ID: 20828
Air District Name: BA
SIC Code: 9199
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.000113008
Reactive Organic Gases Tons/Yr: 9.9277528e-005
Carbon Monoxide Emissions Tons/Yr: 0.000850371
NOX - Oxides of Nitrogen Tons/Yr: 0.007294972
SOX - Oxides of Sulphur Tons/Yr: 5.438e-006
Particulate Matter Tons/Yr: 0.000101237
Part. Matter 10 Micrometers and Smlr Tons/Yr:9.7188e-005

L67
North
1/8-1/4
0.166 mi.
875 ft.

OAKLAND STATE BUILDING 601
1111 JACKSON STREET
OAKLAND, CA 94607
Site 5 of 6 in cluster L

RCRA-SQG 1000277339
FINDS CAD982474744
ECHO
HAZNET

Relative:
Higher
Actual:
38 ft.

RCRA-SQG:
Date form received by agency:06/17/1988
Facility name: OAKLAND STATE BUILDING 601
Facility address: 1111 JACKSON STREET
OAKLAND, CA 94607
EPA ID: CAD982474744
Mailing address: 1111 JACKSON STREET ROOM 7020
OAKLAND, CA 94607
Contact: ENVIRONMENTAL MANAGER
Contact address: 1111 JACKSON STREET
OAKLAND, CA 94607
Contact country: US
Contact telephone: 415-464-0676
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OAKLAND STATE BUILDING 601 (Continued)

1000277339

waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: STATE OF CA
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: State
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: State
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002822116

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport,

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OAKLAND STATE BUILDING 601 (Continued)

1000277339

and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1000277339
Registry ID: 110002822116
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110002822116>

HAZNET:

Facility Name: OAKLAND STATE BUILDING 601
envid: 1000277339
Year: 1999
GEPaid: CAD982474744
Contact: Not reported
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 1111 JACKSON STREET ROOM 7020
Mailing City,St,Zip: OAKLAND, CA 946070000
Gen County: Not reported
TSD EPA ID: CAD982446874
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Transfer Station
Tons: .3336
Cat Decode: Not reported
Method Decode: Not reported
Facility County: 1

envid: 1000277339
Year: 1997
GEPaid: CAD982474744
Contact: Not reported
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 1111 JACKSON STREET ROOM 7020
Mailing City,St,Zip: OAKLAND, CA 946070000
Gen County: Not reported
TSD EPA ID: CAD980887418
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Transfer Station
Tons: .4170
Cat Decode: Not reported
Method Decode: Not reported
Facility County: 1

envid: 1000277339
Year: 1996
GEPaid: CAD982474744
Contact: Not reported
Telephone: 0000000000

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OAKLAND STATE BUILDING 601 (Continued)

1000277339

Mailing Name: Not reported
Mailing Address: 1111 JACKSON STREET ROOM 7020
Mailing City,St,Zip: OAKLAND, CA 946070000
Gen County: Not reported
TSD EPA ID: CAD980887418
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Transfer Station
Tons: .2293
Cat Decode: Not reported
Method Decode: Not reported
Facility County: 1

envid: 1000277339
Year: 1994
GEPaid: CAD982474744
Contact: Not reported
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 1111 JACKSON STREET ROOM 7020
Mailing City,St,Zip: OAKLAND, CA 946070000
Gen County: Not reported
TSD EPA ID: CAD980887418
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Transfer Station
Tons: .2293
Cat Decode: Not reported
Method Decode: Not reported
Facility County: 1

envid: 1000277339
Year: 1993
GEPaid: CAD982474744
Contact: Not reported
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 1111 JACKSON STREET ROOM 7020
Mailing City,St,Zip: OAKLAND, CA 946070000
Gen County: Not reported
TSD EPA ID: CAD980887415
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Not reported
Tons: 0.2293
Cat Decode: Not reported
Method Decode: Not reported
Facility County: 1

[Click this hyperlink](#) while viewing on your computer to access
2 additional CA_HAZNET: record(s) in the EDR Site Report.

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

L68
North
1/8-1/4
0.166 mi.
875 ft.

STATE OFFICE BUILDING
1111 JACKSON ST
OAKLAND, CA 94607

Site 6 of 6 in cluster L

HIST UST **U001599226**
N/A

Relative:
Higher

Actual:
38 ft.

HIST UST:

File Number:	Not reported
URL:	Not reported
Region:	STATE
Facility ID:	00000008624
Facility Type:	Gas Station
Other Type:	OFFICE BUILDING
Contact Name:	BUILDING MANAGER
Telephone:	4154640676
Owner Name:	STATE OF CALIFORNIA, DEPARTMEN
Owner Address:	1111 JACKSON STREET, ROOM 7020
Owner City,St,Zip:	OAKLAND, CA 94607
Total Tanks:	0003

Tank Num:	001
Container Num:	#1
Year Installed:	1960
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

Tank Num:	002
Container Num:	#2
Year Installed:	1960
Tank Capacity:	00003750
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor

Tank Num:	003
Container Num:	#3
Year Installed:	1960
Tank Capacity:	00003750
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor

M69
SSW
1/8-1/4
0.178 mi.
942 ft.

105 OAK STREET LLC
105 5TH ST
OAKLAND, CA 94607

Site 1 of 8 in cluster M

CERS TANKS **S121787578**
CERS **N/A**

Relative:
Lower

Actual:
16 ft.

CERS TANKS:

Site ID:	53280
CERS ID:	10409038
CERS Description:	Underground Storage Tank

Violations:

Site ID:	53280
----------	-------

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

105 OAK STREET LLC (Continued)

S121787578

Site Name: 105 Oak Street LLC
Violation Date: 02-15-2018
Citation: 23 CCR 16 2632(c)(2)(B), 2634(d)(1)(a), 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2632(c)(2)(B), 2634(d)(1)(a), 2636(f)(1)
Violation Description: Failure of the leak detection equipment to have an audible and visual alarm as required.
Violation Notes: Returned to compliance on 02/26/2018. OBSERVATION: 87-1 ATG sump sensor failed. ICC Technician did not have a 208 sump sensor on site and will need to return to replace. CORRECTIVE ACTION: Replace 208 sump sensor. Submit proof of corrective action including test results within 30 days.
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 53280
Site Name: 105 Oak Street LLC
Violation Date: 02-15-2018
Citation: HSC 6.7 25292.1(a) - California Health and Safety Code, Chapter 6.7, Section(s) 25292.1(a)
Violation Description: Failure to operate the UST system to prevent unauthorized releases including leaks, spills, and/or overfills.
Violation Notes: Returned to compliance on 02/15/2018. OBSERVATION: High product alarm is set at 98 percent. Overfill is set at 95 percent. Observed one high product alarm on tape. UST system is not operated to prevent unauthorized release, including spills and overfills. CORRECTIVE ACTION: Reset high product alarm to 95 percent or below. Corrected on-site. Ensure that overfill alarm stays set at 90% and high product alarm stays at 95%.
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 53280
Site Name: 105 Oak Street LLC
Violation Date: 05-16-2016
Citation: 22 CCR 12 66262.42 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.42
Violation Description: Failure to complete the uniform hazardous waste manifest exception requirements.
Violation Notes: Returned to compliance on 05/16/2016. OBSERVATION: Two hazardous waste manifests without completed TSDf signature. CORRECTIVE ACTION: Investigate completed manifest. Completed manifests must be maintained for at least three years. Corrected at time of inspection.
Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 53280
Site Name: 105 Oak Street LLC
Violation Date: 02-10-2017
Citation: HSC 6.7 25290.1(c)(3), 25290.2(c)(3) - California Health and Safety Code, Chapter 6.7, Section(s) 25290.1(c)(3), 25290.2(c)(3)
Violation Description: Failure to keep water out of the secondary containment of UST systems installed on or after July 1, 2003 and before July 1, 2004, or on or after July 1, 2004.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

105 OAK STREET LLC (Continued)

S121787578

Violation Notes: Returned to compliance on 02/10/2017. Observations: all turbine sumps contained liquid Corrective Action: all liquid was removed from the sumps and the violation was corrected during the inspection.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 53280
Site Name: 105 Oak Street LLC
Violation Date: 02-10-2017
Citation: 23 CCR 6.7 25284, 25286 - California Code of Regulations, Title 23, Chapter 6.7, Section(s) 25284, 25286

Violation Description: Failure to submit a complete and accurate application for a permit to operate a UST, or for renewal of the permit.

Violation Notes: Returned to compliance on 04/26/2017. Observations; UST permit to operate and permit conditions is not available onsite. Corrective Action: obtain a UST permit to operate from ACDEH, maintain the permit at the facility and notify our office when the permit has been obtained.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 53280
Site Name: 105 Oak Street LLC
Violation Date: 02-15-2018
Citation: 23 CCR 16 2712 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712

Violation Description: Failure to comply with any of the applicable requirements of the permit issued for the operation of the UST system.

Violation Notes: Returned to compliance on 02/15/2018. OBSERVATION: High product alarm is set at 98 percent. Overfill is set at 95 percent. Observed one high product alarm in T1 87 tank on July 2, 2017. Permit conditions are not complied with due to filling tank to 95%. No tank should be overfilled above 95%. In addition, overfill alarms are not registering on the tape as seen by the Highy product alarms on the alarm history report which means that the tanks could have been filled above 95% without being recorded. CORRECTIVE ACTION: Corrected onsite. The overfill alarm was reset to 90% and the high product was set at 95%. Ensure that this set-up is maintained.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-09-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Kevin Texara provides verbal approval for inspection. ECR not working so no signature on inspection report. Routine inspection of Oak Street Shell located at 105 5th St Oakland CA 94607. Bill Mc Carthy and Tony Fontana of UST Compliance perform annual monitoring certification at this single-wall UST and single-wall piping facility. Tony Fontana's certs ICC#1064273 Expires 5/18/18; VR#A23686 Expires 7/29/19; VMI#2333 Expires 6/7/19 Contractor's License#846288. Mr. Fontana printed out the CSLD tests for all tests for the year. All tanks passed. The

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

105 OAK STREET LLC (Continued)

S121787578

Monthly and annual tests were printed out and attached to the DO reports. Email inspection report to RTexara@aol.com CERTIFICATION OF RETURN TO COMPLIANCE I certify that the violation(s) noted in this UST inspection report for Oak Street Shell located at 105 5th St Oakland CA 94607 have been corrected. I have personally examined any documentation attached to the certification to establish that the violations have been [Truncated]

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-10-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Oak Street Shell 105 5th St Oakland, 94607 CERS ID10409038 Initial Hazardous Material Business Plan (HMBP) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on March 10, 2016 Consent to inspect was given by and the completed inspection report was reviewed with Kevin Texera, manager. There are four 10,000 gallon single walled fiberglass underground storage tank (one Regular Unleaded, one Mid-grade unleaded, one Premium Unleaded gasoline and one Diesel). Need to add Hazardous Waste Generator program element. Annual submittal into CERS is required by Alameda County Department of Environmental Health.

Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-31-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: No Violations observed during the inspections.
Eval Division: Oakland City Fire Department
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-10-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: ACDEH staff completed a previously scheduled inspection for a retail fuel station. The facility does not have a current UST permit to operate from ACDEH. Meet with facility owner Richard Texara who granted permission to complete the inspection. The facility operates 4-10000 gallon SW fiberglass USTs to store 87, 89, 91 fuel and diesel product. All buried fuel piping is sw fiberglass and leak detection is accomplished by ELLD while overfill prevention is via fill tube shutoff valves and spill buckets located within the turbine sump. CSLD is in use at the facility and 0.2 gal monthly and 0.1 gallon annual line test are completed. ACDEH reviewed DO reports on site and other UST document submitted via CERS which were accepted on 3/5/2016; all documentation are current and up to date. Employee training was completed by the facility DO and is documented and is due again 3/2017. Secondary containment testing was completed on 7/2016. Email contact: texara@aol.com

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

105 OAK STREET LLC (Continued)

S121787578

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-10-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Oak Street Shell 105 5th St Oakland, 94607 Initial Underground Storage Tank (UST) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on March 10, 2016. The annual monitoring equipment and spill container testing was conducted on February 12, 2016, by UST Compliance Testing. Consent to inspect was given by and the completed inspection report was reviewed with Kevin Texera, manager There are four 10,000 gallon single walled fiberglass underground storage tank (one Regular Unleaded, one Mid-grade unleaded, one Premium Unleaded gasoline and one Diesel). According to CERS there is single wall fiberglass product piping with ELLD with monthly 0.2 gph testing. UST CERS submittal accepted on 3/6/2016.

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 07-08-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: SECONDARY CONTAINMENT TESTING INSPECTION OAK STREET SHELL 105 5TH STREET OAKLAND Secondary containment testing inspection. Tony Fontana and Bill MCarthy of UST Compliance conducting the testing. Four single wall fiberglass tank with single wall fiberglass product piping. Sump sensors are in the fill sump, ATG riser sump, and turbine sump. There is a flapper valve in the fill drop tubes. There are Beaudreau stand alone sensors in the dispenser UDC. Components tested: Turbine sumps and UDC. All passed. NO VIOLATIONS OBSERVED AT THE TIME OF INSPECTION.

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-31-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: No Violations observed during the inspections.
Eval Division: Oakland City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-16-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: OAK STREET SHELL 105 OAK STREET OAKLAND EPA ID NUMBER: CAL000314299 Initial hazardous waste generator inspection conducted by Alameda County Department of Environmental Health on March 10, 2016. This inspection report was written after signatures were taken. All violations were corrected at the time of inspection. Returned to

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

105 OAK STREET LLC (Continued)

S121787578

Eval Division: Compliance.
Eval Program: Alameda County Environmental Health
Eval Source: HW
CERS

Coordinates:
Site ID: 53280
Facility Name: 105 Oak Street LLC
Env Int Type Code: HMBP
Program ID: 10409038
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.794760
Longitude: -122.267230

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Identification Signer
Entity Name: Vikas Patel
Entity Title: Dealer
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Operator
Entity Name: VIKAS PATEL
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (415) 572-4837

Affiliation Type Desc: Environmental Contact
Entity Name: De Len Holbrook
Entity Title: Not reported
Affiliation Address: 1800 West Katella Ave. Suite 400
Affiliation City: Orange
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92867
Affiliation Phone: (714) 516-7273

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

105 OAK STREET LLC (Continued)

S121787578

Affiliation Type Desc: Property Owner
Entity Name: Southern Counties Oil Co., California Limited Partnership
Entity Title: Not reported
Affiliation Address: 1800 West Katella Avenue, Suite 400
Affiliation City: Orange
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 92867
Affiliation Phone: (714) 744-7140

Affiliation Type Desc: UST Tank Operator
Entity Name: VIKAS PATEL
Entity Title: Not reported
Affiliation Address: 782 28th Ave.
Affiliation City: San Francisco
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94121
Affiliation Phone: (415) 572-4837

Affiliation Type Desc: Legal Owner
Entity Name: VIKAS PATEL
Entity Title: Not reported
Affiliation Address: 782 28th Ave.
Affiliation City: San Francisco
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94121
Affiliation Phone: (415) 572-4837

Affiliation Type Desc: UST Property Owner Name
Entity Name: Southern Counties Oil Co., California Limited Partnership
Entity Title: Not reported
Affiliation Address: 1800 West Katella Ave. Suite 400
Affiliation City: Orange
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 92867
Affiliation Phone: (714) 516-7273

Affiliation Type Desc: Document Preparer
Entity Name: Stantec Consulting Services Inc.
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 1800 West Katella Ave. Suite 400
Affiliation City: Orange
Affiliation State: CA
Affiliation Country: Not reported

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

105 OAK STREET LLC (Continued)

S121787578

Affiliation Zip: 92867
Affiliation Phone: Not reported

Affiliation Type Desc: Parent Corporation
Entity Name: Southern Counties Oil Co.,LP
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: UST Permit Applicant
Entity Name: De Len B. Holbrook
Entity Title: Vice President of Facilities
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (714) 516-7273

Affiliation Type Desc: UST Tank Owner
Entity Name: Southern Counties Oil Co., California Limited Partnership
Entity Title: Not reported
Affiliation Address: 1800 West Katella Ave. Suite 400
Affiliation City: Orange
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 92867
Affiliation Phone: (714) 516-7273

CERS TANKS:
Site ID: 53280
CERS ID: 10409038
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 53280
Site Name: 105 Oak Street LLC
Violation Date: 02-15-2018
Citation: 23 CCR 16 2632(c)(2)(B), 2634(d)(1)(a), 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2632(c)(2)(B), 2634(d)(1)(a), 2636(f)(1)
Violation Description: Failure of the leak detection equipment to have an audible and visual alarm as required.
Violation Notes: Returned to compliance on 02/26/2018. OBSERVATION: 87-1 ATG sump sensor failed. ICC Technician did not have a 208 sump sensor on site and will need to return to replace. CORRECTIVE ACTION: Replace 208 sump sensor. Submit proof of corrective action including test results within 30 days.
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

105 OAK STREET LLC (Continued)

S121787578

Site ID: 53280
Site Name: 105 Oak Street LLC
Violation Date: 02-15-2018
Citation: HSC 6.7 25292.1(a) - California Health and Safety Code, Chapter 6.7, Section(s) 25292.1(a)
Violation Description: Failure to operate the UST system to prevent unauthorized releases including leaks, spills, and/or overfills.
Violation Notes: Returned to compliance on 02/15/2018. OBSERVATION: High product alarm is set at 98 percent. Overfill is set at 95 percent. Observed one high product alarm on tape. UST system is not operated to prevent unauthorized release, including spills and overfills. CORRECTIVE ACTION: Reset high product alarm to 95 percent or below. Corrected on-site. Ensure that overfill alarm stays set at 90% and high product alarm stays at 95%.
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 53280
Site Name: 105 Oak Street LLC
Violation Date: 05-16-2016
Citation: 22 CCR 12 66262.42 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.42
Violation Description: Failure to complete the uniform hazardous waste manifest exception requirements.
Violation Notes: Returned to compliance on 05/16/2016. OBSERVATION: Two hazardous waste manifests without completed TSDF signature. CORRECTIVE ACTION: Investigate completed manifest. Completed manifests must be maintained for at least three years. Corrected at time of inspection.
Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 53280
Site Name: 105 Oak Street LLC
Violation Date: 02-10-2017
Citation: HSC 6.7 25290.1(c)(3), 25290.2(c)(3) - California Health and Safety Code, Chapter 6.7, Section(s) 25290.1(c)(3), 25290.2(c)(3)
Violation Description: Failure to keep water out of the secondary containment of UST systems installed on or after July 1, 2003 and before July 1, 2004, or on or after July 1, 2004.
Violation Notes: Returned to compliance on 02/10/2017. Observations: all turbine sumps contained liquid Corrective Action: all liquid was removed from the sumps and the violation was corrected during the inspection.
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 53280
Site Name: 105 Oak Street LLC
Violation Date: 02-10-2017
Citation: 23 CCR 6.7 25284, 25286 - California Code of Regulations, Title 23, Chapter 6.7, Section(s) 25284, 25286
Violation Description: Failure to submit a complete and accurate application for a permit to operate a UST, or for renewal of the permit.
Violation Notes: Returned to compliance on 04/26/2017. Observations; UST permit to operate and permit conditions is not available onsite. Corrective

Map ID
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

105 OAK STREET LLC (Continued)

S121787578

Action: obtain a UST permit to operate from ACDEH, maintain the permit at the facility and notify our office when the permit has been obtained.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 53280
Site Name: 105 Oak Street LLC
Violation Date: 02-15-2018
Citation: 23 CCR 16 2712 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712

Violation Description: Failure to comply with any of the applicable requirements of the permit issued for the operation of the UST system.

Violation Notes: Returned to compliance on 02/15/2018. OBSERVATION: High product alarm is set at 98 percent. Overfill is set at 95 percent. Observed one high product alarm in T1 87 tank on July 2, 2017. Permit conditions are not complied with due to filling tank to 95%. No tank should be overfilled above 95%. In addition, overfill alarms are not registering on the tape as seen by the High product alarms on the alarm history report which means that the tanks could have been filled above 95% without being recorded. CORRECTIVE ACTION: Corrected onsite. The overfill alarm was reset to 90% and the high product was set at 95%. Ensure that this set-up is maintained.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Evaluation:

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-09-2018
Violations Found: Yes
Eval Type: Routine done by local agency

Eval Notes: Kevin Texara provides verbal approval for inspection. ECR not working so no signature on inspection report. Routine inspection of Oak Street Shell located at 105 5th St Oakland CA 94607. Bill Mc Carthy and Tony Fontana of UST Compliance perform annual monitoring certification at this single-wall UST and single-wall piping facility. Tony Fontana's certs ICC#1064273 Expires 5/18/18; VR#A23686 Expires 7/29/19; VMI#2333 Expires 6/7/19 Contractor's License#846288. Mr. Fontana printed out the CSLD tests for all tests for the year. All tanks passed. The Monthly and annual tests were printed out and attached to the DO reports. Email inspection report to RTexara@aol.com CERTIFICATION OF RETURN TO COMPLIANCE I certify that the violation(s) noted in this UST inspection report for Oak Street Shell located at 105 5th St Oakland CA 94607 have been corrected. I have personally examined any documentation attached to the certification to establish that the violations have been [Truncated]

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-10-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Oak Street Shell 105 5th St Oakland, 94607 CERS ID10409038 Initial

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

105 OAK STREET LLC (Continued)

S121787578

Hazardous Material Business Plan (HMBP) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on March 10, 2016 Consent to inspect was given by and the completed inspection report was reviewed with Kevin Texera, manager. There are four 10,000 gallon single walled fiberglass underground storage tank (one Regular Unleaded, one Mid-grade unleaded, one Premium Unleaded gasoline and one Diesel). Need to add Hazardous Waste Generator program element. Annual submittal into CERS is required by Alameda County Department of Environmental Health.

Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-31-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: No Violations observed during the inspections.
Eval Division: Oakland City Fire Department
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-10-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: ACDEH staff completed a previously scheduled inspection for a retail fuel station. The facility does not have a current UST permit to operate from ACDEH. Meet with facility owner Richard Texera who granted permission to complete the inspection. The facility operates 4-10000 gallon SW fiberglass USTs to store 87, 89, 91 fuel and diesel product. All buried fuel piping is sw fiberglass and leak detection is accomplished by ELLD while overfill prevention is via fill tube shutoff valves and spill buckets located within the turbine sump. CSLD is in use at the facility and 0.2 gal monthly and 0.1 gallon annual line test are completed. ACDEH reviewed DO reports on site and other UST document submitted via CERS which were accepted on 3/5/2016; all documentation are current and up to date. Employee training was completed by the facility DO and is documented and is due again 3/2017. Secondary containment testing was completed on 7/2016. Email contact: texara@aol.com

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-10-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Oak Street Shell 105 5th St Oakland, 94607 Initial Underground Storage Tank (UST) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on March 10, 2016. The annual monitoring equipment and spill container testing was conducted on February 12, 2016, by UST Compliance Testing. Consent to inspect was given by and the completed inspection report was reviewed with Kevin Texera, manager There are four 10,000 gallon single walled fiberglass underground storage tank (one Regular Unleaded, one Mid-grade

Map ID
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Database(s)

EDR ID Number
EPA ID Number

105 OAK STREET LLC (Continued)

S121787578

unleaded, one Premium Unleaded gasoline and one Diesel). According to CERS there is single wall fiberglass product piping with ELLD with monthly 0.2 gph testing. UST CERS submittal accepted on 3/6/2016.

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 07-08-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: SECONDARY CONTAINMENT TESTING INSPECTION OAK STREET SHELL 105 5TH STREET OAKLAND Secondary containment testing inspection. Tony Fontana and Bill MCarthy of UST Compliance conducting the testing. Four single wall fiberglass tank with single wall fiberglass product piping. Sump sensors are in the fill sump, ATG riser sump, and turbine sump. There is a flapper valve in the fill drop tubes. There are Beaudreau stand alone sensors in the dispenser UDC. Components tested: Turbine sumps and UDC. All passed. NO VIOLATIONS OBSERVED AT THE TIME OF INSPECTION.

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-31-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: No Violations observed during the inspections.
Eval Division: Oakland City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-16-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: OAK STREET SHELL 105 OAK STREET OAKLAND EPA ID NUMBER: CAL000314299 Initial hazardous waste generator inspection conducted by alameda County Department of Environmental Health on March 10, 2016. This inspection report was written after signatures were taken. All violations were corrected at the time of inspection. Returned to Compliance.

Eval Division: Alameda County Environmental Health
Eval Program: HW
Eval Source: CERS

Coordinates:
Site ID: 53280
Facility Name: 105 Oak Street LLC
Env Int Type Code: HMBP
Program ID: 10409038
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.794760
Longitude: -122.267230

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

105 OAK STREET LLC (Continued)

S121787578

Affiliation:

Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Identification Signer
Entity Name: Vikas Patel
Entity Title: Dealer
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Operator
Entity Name: VIKAS PATEL
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (415) 572-4837

Affiliation Type Desc: Environmental Contact
Entity Name: De Len Holbrook
Entity Title: Not reported
Affiliation Address: 1800 West Katella Ave. Suite 400
Affiliation City: Orange
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92867
Affiliation Phone: (714) 516-7273

Affiliation Type Desc: Property Owner
Entity Name: Southern Counties Oil Co., California Limited Partnership
Entity Title: Not reported
Affiliation Address: 1800 West Katella Avenue, Suite 400
Affiliation City: Orange
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 92867
Affiliation Phone: (714) 744-7140

Affiliation Type Desc: UST Tank Operator
Entity Name: VIKAS PATEL
Entity Title: Not reported
Affiliation Address: 782 28th Ave.
Affiliation City: San Francisco
Affiliation State: CA

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

105 OAK STREET LLC (Continued)

S121787578

Affiliation Country: United States
Affiliation Zip: 94121
Affiliation Phone: (415) 572-4837

Affiliation Type Desc: Legal Owner
Entity Name: VIKAS PATEL
Entity Title: Not reported
Affiliation Address: 782 28th Ave.
Affiliation City: San Francisco
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94121
Affiliation Phone: (415) 572-4837

Affiliation Type Desc: UST Property Owner Name
Entity Name: Southern Counties Oil Co., California Limited Partnership
Entity Title: Not reported
Affiliation Address: 1800 West Katella Ave. Suite 400
Affiliation City: Orange
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 92867
Affiliation Phone: (714) 516-7273

Affiliation Type Desc: Document Preparer
Entity Name: Stantec Consulting Services Inc.
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 1800 West Katella Ave. Suite 400
Affiliation City: Orange
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92867
Affiliation Phone: Not reported

Affiliation Type Desc: Parent Corporation
Entity Name: Southern Counties Oil Co.,LP
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: UST Permit Applicant
Entity Name: De Len B. Holbrook
Entity Title: Vice President of Facilities

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

105 OAK STREET LLC (Continued)

S121787578

Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (714) 516-7273

Affiliation Type Desc: UST Tank Owner
Entity Name: Southern Counties Oil Co., California Limited Partnership
Entity Title: Not reported
Affiliation Address: 1800 West Katella Ave. Suite 400
Affiliation City: Orange
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 92867
Affiliation Phone: (714) 516-7273

M70
SSW
1/8-1/4
0.178 mi.
942 ft.

105 OAK STREET LLC
105 5TH ST
OAKLAND, CA 94607
Site 2 of 8 in cluster M

UST U004228582
N/A

Relative:
Lower
Actual:
16 ft.

UST:
Facility ID: Not reported
Permitting Agency: Alameda County Environmental Health
Latitude: 37.79476
Longitude: -122.26723

Facility ID: Not reported
Permitting Agency: Alameda County Environmental Health
Latitude: 37.79476
Longitude: -122.26723

ALAMEDA CO. UST:
Facility ID: FA0326954
Facility Status: Active
Program Element: 4104
Description: UNDERGROUND STORAGE TANK 4 CONTAINERS
Inspection Date: 12/30/1899
Closed: Not reported
Owner Name: Vikas Patel
Owner ID: OW0330415
Fstatus Decode: Open

Facility ID: FA0321264
Facility Status: Closed or Inactive
Program Element: 4104
Description: UNDERGROUND STORAGE TANK 4 CONTAINERS
Inspection Date: 02/15/2019
Closed: YES
Owner Name: Rick Texara
Owner ID: OW0324500
Fstatus Decode: Closed

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

M71 **SHELL**
SSW **105 5TH ST**
1/8-1/4 **OAKLAND, CA 94607**
0.178 mi.
942 ft. **Site 3 of 8 in cluster M**

LUST **S105035865**
N/A

Relative: LUST REG 2:
Lower Region: 2
Actual: Facility Id: 01-2300
16 ft. Facility Status: Preliminary site assessment workplan submitted
 Case Number: 3849
 How Discovered: OM
 Leak Cause: UNK
 Leak Source: Piping
 Date Leak Confirmed: Not reported
 Oversight Program: LUST
 Prelim. Site Assesment Wokplan Submitted: 3/16/1998
 Preliminary Site Assesment Began: Not reported
 Pollution Characterization Began: Not reported
 Pollution Remediation Plan Submitted: Not reported
 Date Remediation Action Underway: Not reported
 Date Post Remedial Action Monitoring Began: Not reported

M72 **SHELL #13-5700**
SSW **105 5TH**
1/8-1/4 **OAKLAND, CA 94607**
0.178 mi.
942 ft. **Site 4 of 8 in cluster M**

LUST **U001599221**
Alameda County CS **N/A**
HIST UST
HIST CORTESE
CERS

Relative: LUST:
Lower Lead Agency: ALAMEDA COUNTY LOP
Actual: Case Type: LUST Cleanup Site
16 ft. Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600102116
 Global Id: T0600102116
 Latitude: 37.795076578
 Longitude: -122.26751925
 Status: Completed - Case Closed
 Status Date: 01/24/2013
 Case Worker: Not reported
 RB Case Number: 01-2300
 Local Agency: Not reported
 File Location: All Files are on GeoTracker or in the Local Agency Database
 Local Case Number: RO0000487
 Potential Media Affect: Other Groundwater (uses other than drinking water)
 Potential Contaminants of Concern: Gasoline
 Site History: Summary This fact sheet has been prepared to inform community members and other interested parties of potential case closure for a fuel leak case at the Shell-branded service station at 105 5th Street in Oakland, California (see attached map on back). Site investigation and cleanup activities have been completed and it does not appear that the fuel release presents a risk to human health for nearby residents or site workers. Site investigation activities, which were conducted at various times between 1999 and 2012, have defined the extent of petroleum hydrocarbons in soil, soil vapor, and groundwater beneath the site. Groundwater monitoring was conducted from July 1999 to July 2008 using seven groundwater monitoring wells at the site. The groundwater monitoring data indicate that the concentrations of petroleum hydrocarbons in groundwater have decreased since 1999 and that water quality is expected to be restored to water quality objectives through natural attenuation processes. During the most

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL #13-5700 (Continued)

U001599221

recent groundwater sampling event in July 2008, the maximum concentration of total petroleum hydrocarbons as gasoline (TPHg) detected in groundwater beneath the site was 980 micrograms per liter (parts per billion). Between August 2009 and December 2011, soil vapor sampling was conducted at ten locations throughout and along the margins of the site. Elevated concentrations of petroleum hydrocarbons were detected in soil vapor samples collected from three locations within the interior portion of the site but were not detected at concentrations of concern along the margins of the service station or near the station kiosk. The residual contamination does not appear to pose a risk to nearby residents or site workers. Background The site is an active service station at the corner of 5th Street and Oak Street in Oakland, CA. A fuel release was discovered during an upgrade of the dispensers and piping system in November 1996. Soil and groundwater sampling activities have taken place at various times between 1999 and 2012. Periodic dual-phase vacuum extraction was conducted from April 2000 to March 2001 to remove petroleum hydrocarbons in the vapor and groundwater phases. Periodic groundwater extraction was conducted at the site from November 2001 to June 2006.

LUST:

Global Id: T0600102116
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600102116
Action Type: Other
Date: 05/14/1998
Action: Leak Reported

Global Id: T0600102116
Action Type: RESPONSE
Date: 10/16/2012
Action: Well Destruction Report

Global Id: T0600102116
Action Type: ENFORCEMENT
Date: 01/13/2009
Action: Staff Letter - #20090113

Global Id: T0600102116
Action Type: ENFORCEMENT
Date: 05/01/2009
Action: Staff Letter - #20090501

Global Id: T0600102116
Action Type: ENFORCEMENT
Date: 07/24/2009
Action: Staff Letter - #20090724

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL #13-5700 (Continued)

U001599221

Global Id: T0600102116
Action Type: REMEDIATION
Date: 04/15/2000
Action: In Situ Physical/Chemical Treatment (other than SVE)

Global Id: T0600102116
Action Type: ENFORCEMENT
Date: 02/11/2010
Action: Staff Letter - #20100211

Global Id: T0600102116
Action Type: ENFORCEMENT
Date: 05/24/2010
Action: Staff Letter - #20100524

Global Id: T0600102116
Action Type: ENFORCEMENT
Date: 09/12/2011
Action: Staff Letter - #20110912

Global Id: T0600102116
Action Type: ENFORCEMENT
Date: 10/05/2010
Action: Staff Letter - #20101005

Global Id: T0600102116
Action Type: ENFORCEMENT
Date: 06/16/2011
Action: Staff Letter - #20110616

Global Id: T0600102116
Action Type: ENFORCEMENT
Date: 03/13/2012
Action: Notification - Preclosure - #20120313

Global Id: T0600102116
Action Type: ENFORCEMENT
Date: 03/13/2012
Action: Staff Letter - #20120312

Global Id: T0600102116
Action Type: ENFORCEMENT
Date: 03/13/2012
Action: Notification - Fee Title Owners Notice - #20120313

Global Id: T0600102116
Action Type: ENFORCEMENT
Date: 03/12/2012
Action: File Review - Closure - #20120312

Global Id: T0600102116
Action Type: ENFORCEMENT
Date: 07/03/2012
Action: LOP Case Closure Summary to RB - #20120703

Global Id: T0600102116
Action Type: ENFORCEMENT

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL #13-5700 (Continued)

U001599221

Date: 07/03/2012
Action: Staff Letter - #20120703

Global Id: T0600102116
Action Type: ENFORCEMENT
Date: 07/16/2012
Action: Staff Letter - #20120716

Global Id: T0600102116
Action Type: RESPONSE
Date: 04/28/2010
Action: Other Workplan

Global Id: T0600102116
Action Type: ENFORCEMENT
Date: 01/24/2013
Action: Closure/No Further Action Letter - #20130124

Global Id: T0600102116
Action Type: RESPONSE
Date: 09/15/2010
Action: Site Assessment Report

Global Id: T0600102116
Action Type: RESPONSE
Date: 04/04/2011
Action: Site Assessment Report

Global Id: T0600102116
Action Type: REMEDIATION
Date: 04/01/2000
Action: Soil Vapor Extraction (SVE)

Global Id: T0600102116
Action Type: Other
Date: 11/27/1996
Action: Leak Discovery

Global Id: T0600102116
Action Type: RESPONSE
Date: 08/19/2011
Action: Other Workplan

Global Id: T0600102116
Action Type: RESPONSE
Date: 01/27/2012
Action: Site Assessment Report

Global Id: T0600102116
Action Type: RESPONSE
Date: 03/20/2012
Action: Correspondence

LUST:

Global Id: T0600102116
Status: Completed - Case Closed
Status Date: 01/24/2013

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL #13-5700 (Continued)

U001599221

Global Id: T0600102116
Status: Open - Case Begin Date
Status Date: 11/27/1996

Global Id: T0600102116
Status: Open - Eligible for Closure
Status Date: 12/06/2012

Global Id: T0600102116
Status: Open - Site Assessment
Status Date: 05/14/1998

Global Id: T0600102116
Status: Open - Site Assessment
Status Date: 05/26/1998

Global Id: T0600102116
Status: Open - Site Assessment
Status Date: 07/23/1998

Global Id: T0600102116
Status: Open - Site Assessment
Status Date: 05/14/1999

Global Id: T0600102116
Status: Open - Verification Monitoring
Status Date: 12/21/2011

Alameda County CS:

Status: Leak Confirmation
Record Id: RO0000487
PE: 5602
Facility Status: Leak Confirmation
Latitude: 37.795062372
Longitude: -122.26763735

Status: Preliminary Site Assessment Workplan Submitted
Record Id: RO0000487
PE: 5602
Facility Status: Preliminary Site Assessment Workplan Submitted
Latitude: 37.795062372
Longitude: -122.26763735

Status: Preliminary Site Assessment Underway
Record Id: RO0000487
PE: 5602
Facility Status: Preliminary Site Assessment Underway
Latitude: 37.795062372
Longitude: -122.26763735

Status: Pollution Characterization
Record Id: RO0000487
PE: 5602
Facility Status: Pollution Characterization
Latitude: 37.795062372
Longitude: -122.26763735

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL #13-5700 (Continued)

U001599221

Status: Case Closed
Record Id: RO0000487
PE: 5602
Facility Status: Case Closed
Latitude: 37.795062372
Longitude: -122.26763735

HIST UST:

File Number: 0002EE17
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002EE17.pdf>
Region: STATE
Facility ID: 00000056698
Facility Type: Gas Station
Other Type: Not reported
Contact Name: Not reported
Telephone: 4158390784
Owner Name: SHELL OIL COMPANY
Owner Address: P.O. BOX 4848
Owner City,St,Zip: ANAHEIM, CA 92803
Total Tanks: 0004

Tank Num: 001
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: 1/4
Leak Detection: Stock Inventor, 10

Tank Num: 002
Container Num: 2
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: 1/4
Leak Detection: Stock Inventor, 10

Tank Num: 003
Container Num: 3
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Container Construction Thickness: 1/4
Leak Detection: Stock Inventor, 10

Tank Num: 004
Container Num: 4
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: 1/4
Leak Detection: Stock Inventor, 10

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL #13-5700 (Continued)

U001599221

Click here for Geo Tracker PDF:

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-2300

CERS TANKS:

Site ID: 207978
CERS ID: T0600102116
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

M73
SSW
1/8-1/4
0.178 mi.
942 ft.

SP OPER
105 5TH ST
OAKLAND, CA 94607
Site 5 of 8 in cluster M

HIST UST **U001599225**
N/A

Relative:
Lower
Actual:
16 ft.

HIST UST:

File Number: 0003636A
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0003636A.pdf>
Region: STATE
Facility ID: 00000067189
Facility Type: Gas Station
Other Type: Not reported
Contact Name: BILL HENDERSON
Telephone: 4158390784
Owner Name: SHELL OIL COMPANY
Owner Address: P.O. BOX 4848
Owner City,St,Zip: ANAHEIM, CA 92803
Total Tanks: 0004

Tank Num: 001
Container Num: 1
Year Installed: 1983
Tank Capacity: 00010000
Tank Used for: WASTE
Type of Fuel: 1
Container Construction Thickness: /4 2
Leak Detection: Stock Inventor, 10

Tank Num: 002
Container Num: 2
Year Installed: 1983

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SP OPER (Continued)

U001599225

Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: 1/4
Leak Detection: 10

Tank Num: 003
Container Num: 3
Year Installed: 1983
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Container Construction Thickness: 1/4
Leak Detection: Stock Inventor, 10

Tank Num: 004
Container Num: 4
Year Installed: 1983
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: 1/4
Leak Detection: Stock Inventor, 10

[Click here for Geo Tracker PDF:](#)

N74
NE
1/8-1/4
0.178 mi.
942 ft.

ALAMEDA COURTHOUSE COUNTY OF
1225 FALLON ST
OAKLAND, CA 94612
Site 1 of 2 in cluster N

RCRA-SQG 1000297250
SWEEPS UST CAD982469389
HIST UST
CA FID UST
FINDS
ECHO

Relative:
Lower

RCRA-SQG:

Actual:
22 ft.

Date form received by agency: 02/07/1989
Facility name: ALAMEDA COURTHOUSE COUNTY OF
Facility address: 1225 FALLON ST
OAKLAND, CA 94612
EPA ID: CAD982469389
Mailing address: 4400 MACARTHUR BLVD
OAKLAND, CA 94619
Contact: ENVIRONMENTAL MANAGER
Contact address: 1225 FALLON ST
OAKLAND, CA 94612
Contact country: US
Contact telephone: 415-530-9660
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: COUNTY OF ALAMEDA

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ALAMEDA COURTHOUSE COUNTY OF (Continued)

1000297250

Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: County
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: County
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

SWEEPS UST:

Status: Active
Comp Number: 56236
Number: 5
Board Of Equalization: 44-000544
Referral Date: 03-13-91
Action Date: 03-13-91
Created Date: 02-29-88
Owner Tank Id: 1901-1
SWRCB Tank Id: 01-000-056236-000001
Tank Status: A
Capacity: 3000
Active Date: 03-13-91

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ALAMEDA COURTHOUSE COUNTY OF (Continued)

1000297250

Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: 2

Status: Active
Comp Number: 56236
Number: 5
Board Of Equalization: 44-000544
Referral Date: 03-13-91
Action Date: 03-13-91
Created Date: 02-29-88
Owner Tank Id: 1901-2
SWRCB Tank Id: 01-000-056236-000002
Tank Status: A
Capacity: 3000
Active Date: 03-13-91
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: Not reported

HIST UST:

File Number: 00035ECF
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00035ECF.pdf>
Region: STATE
Facility ID: 00000056236
Facility Type: Other
Other Type: COUNTY GOVT.
Contact Name: Not reported
Telephone: 4158746850
Owner Name: COUNTY OF ALAMEDA, GENERAL SER
Owner Address: 4400 MACARTHUR BOULEVARD
Owner City,St,Zip: OAKLAND, CA 94619
Total Tanks: 0002

Tank Num: 001
Container Num: 1
Year Installed: 1935
Tank Capacity: 00003012
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: 1/4
Leak Detection: None

Tank Num: 002
Container Num: 2
Year Installed: 1935
Tank Capacity: 00003012
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: 1/4
Leak Detection: None

Click here for Geo Tracker PDF:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ALAMEDA COURTHOUSE COUNTY OF (Continued)

1000297250

CA FID UST:

Facility ID: 01002748
Regulated By: UTNKA
Regulated ID: 00056236
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4158746850
Mail To: Not reported
Mailing Address: 1225 FALLON ST
Mailing Address 2: Not reported
Mailing City,St,Zip: OAKLAND 94612
Contact: Not reported
Contact Phone: Not reported
DUNS Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

FINDS:

Registry ID: 110055841503

Environmental Interest/Information System
STATE MASTER

Registry ID: 110002819200

Environmental Interest/Information System

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1000297250
Registry ID: 110002819200
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110002819200>

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

N75 COUNTY OF ALAMEDA GSA RENE C. DAVIDSON COURTHOUSE CERS HAZ WASTE S121772399
NE 1225 FALLON ST CERS N/A
1/8-1/4 OAKLAND, CA 94612

0.178 mi.
942 ft. Site 2 of 2 in cluster N

Relative: CERS HAZ WASTE:
Lower Site ID: 390685
Actual: CERS ID: 10398001
22 ft. CERS Description: Hazardous Waste Generator

Violations:
Site ID: 390685
Site Name: County of Alameda GSA Rene C. Davidson Courthouse
Violation Date: 04-20-2018
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes: Returned to compliance on 05/29/2018. OBSERVATION: Employee training documentation for all applicable employees was not available for review. CORRECTIVE ACTION: Submit documentation to the CUPA demonstrating that employees have received training on safe handling of hazardous materials and the Emergency Response Plan and procedures. Submit employee training records for the past three years.
Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-20-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: On site with Rod Alston, GSA Supervisor of Building & Plant Maintenance, who granted permission to conduct the inspection. Ed Hunter, GSA Building Engineer, assisted with the walk-through of the facility. Facility does not routinely generate hazardous waste. Facility does generate universal waste (lamps, ballasts and non-empty aerosols). Facility is to ensure that lamps are properly stored in containers large enough to enclose the entire lamp. Lamps must always be stored to prevent breakage. Ballasts and non-empty aerosols must be stored in containers and not in cardboard boxes. This facility will be removed from the Hazardous Waste Generator program.
Eval Division: Alameda County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-20-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: On site with Rod Alston, GSA Supervisor of Building & Plant Maintenance, who granted permission to conduct the inspection. Ed Hunter, GSA Building Engineer, assisted with the walk-through of the facility. All violations noted in this HMBP inspection report are to be corrected within 30 days and proof of those corrections submitted

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA RENE C. DAVIDSON COURTHOUSE (Continued)

S121772399

to this office in the same time frame. CERTIFICATION OF RETURN TO COMPLIANCE I certify that the violation(s) noted in this HMBP inspection report have been corrected. I have personally examined any documentation attached to the certification to establish that the violations have been corrected. Facility Name: Alameda County GSA Rene C. Davidson Courthouse Facility Address: 1225 Fallon Street, Oakland, CA 94612 PRINT: _____ SIGN: _____

TITLE:

DATE:

Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Coordinates:
Site ID: 390685
Facility Name: County of Alameda GSA Rene C. Davidson Courthouse
Env Int Type Code: HMBP
Program ID: 10398001
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.799480
Longitude: -122.262470

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 1225 Fallon Street
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94612
Affiliation Phone: Not reported

Affiliation Type Desc: Document Preparer
Entity Name: Joe Moulton, CHMM
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA RENE C. DAVIDSON COURTHOUSE (Continued)

S121772399

Entity Name: Rod Freitag
Entity Title: Not reported
Affiliation Address: 1401 Lakeside Drive, Ste. 800
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94612
Affiliation Phone: (510) 208-9522

Affiliation Type Desc: Operator
Entity Name: County of Alameda GSA - Building Maintenance Dept.
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (510) 618-3450

Affiliation Type Desc: Identification Signer
Entity Name: Rod Freitag
Entity Title: Environmental Program Manager
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: County of Alameda
Entity Title: Not reported
Affiliation Address: 1401 Lakeside Drive, 6th flr (Attn: Matt Muniz, Facilities Mgr.)
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94612
Affiliation Phone: (510) 667-3047

Affiliation Type Desc: Parent Corporation
Entity Name: Alameda County General Services Agency
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

CERS TANKS:
Site ID: 390685
CERS ID: 10398001
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 390685

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA RENE C. DAVIDSON COURTHOUSE (Continued)

S121772399

Site Name: County of Alameda GSA Rene C. Davidson Courthouse
 Violation Date: 04-20-2018
 Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
 Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
 Violation Notes: Returned to compliance on 05/29/2018. OBSERVATION: Employee training documentation for all applicable employees was not available for review. CORRECTIVE ACTION: Submit documentation to the CUPA demonstrating that employees have received training on safe handling of hazardous materials and the Emergency Response Plan and procedures. Submit employee training records for the past three years.
 Violation Division: Alameda County Environmental Health
 Violation Program: HMRRP
 Violation Source: CERS

Evaluation:
 Eval General Type: Compliance Evaluation Inspection
 Eval Date: 04-20-2018
 Violations Found: No
 Eval Type: Routine done by local agency
 Eval Notes: On site with Rod Alston, GSA Supervisor of Building & Plant Maintenance, who granted permission to conduct the inspection. Ed Hunter, GSA Building Engineer, assisted with the walk-through of the facility. Facility does not routinely generate hazardous waste. Facility does generate universal waste (lamps, ballasts and non-empty aerosols). Facility is to ensure that lamps are properly stored in containers large enough to enclose the entire lamp. Lamps must always be stored to prevent breakage. Ballasts and non-empty aerosols must be stored in containers and not in cardboard boxes. This facility will be removed from the Hazardous Waste Generator program.
 Eval Division: Alameda County Environmental Health
 Eval Program: HW
 Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
 Eval Date: 04-20-2018
 Violations Found: Yes
 Eval Type: Routine done by local agency
 Eval Notes: On site with Rod Alston, GSA Supervisor of Building & Plant Maintenance, who granted permission to conduct the inspection. Ed Hunter, GSA Building Engineer, assisted with the walk-through of the facility. All violations noted in this HMBP inspection report are to be corrected within 30 days and proof of those corrections submitted to this office in the same time frame. CERTIFICATION OF RE TURN TO COMPLIANCE I certify that the violation(s) noted in this HMBP inspection report have been corrected. I have personally examined any documentation attached to the certification to establish that the violations have been corrected. Facility Name: Alameda County GSA Rene C. Davidson Courthouse Facility Address: 1225 Fallon Street, Oakland, CA 94612 PRINT: _____ SIGN: _____

 TITLE:

 DATE:

Eval Division: Alameda County Environmental Health

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA RENE C. DAVIDSON COURTHOUSE (Continued)

S121772399

Eval Program: HMRRP
Eval Source: CERS

Coordinates:
Site ID: 390685
Facility Name: County of Alameda GSA Rene C. Davidson Courthouse
Env Int Type Code: HMBP
Program ID: 10398001
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.799480
Longitude: -122.262470

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 1225 Fallon Street
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94612
Affiliation Phone: Not reported

Affiliation Type Desc: Document Preparer
Entity Name: Joe Moulton, CHMM
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: Rod Freitag
Entity Title: Not reported
Affiliation Address: 1401 Lakeside Drive, Ste. 800
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94612
Affiliation Phone: (510) 208-9522

Affiliation Type Desc: Operator
Entity Name: County of Alameda GSA - Building Maintenance Dept.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA RENE C. DAVIDSON COURTHOUSE (Continued)

S121772399

Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (510) 618-3450

Affiliation Type Desc: Identification Signer
Entity Name: Rod Freitag
Entity Title: Environmental Program Manager
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: County of Alameda
Entity Title: Not reported
Affiliation Address: 1401 Lakeside Drive, 6th flr (Attn: Matt Muniz, Facilities Mgr.)
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94612
Affiliation Phone: (510) 667-3047

Affiliation Type Desc: Parent Corporation
Entity Name: Alameda County General Services Agency
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

M76
SSW
1/8-1/4
0.183 mi.
967 ft.

ESSEX MADISON, LLC REDEVELOPMENT
412 MADISON STREET
OAKLAND, CA 94607
Site 6 of 8 in cluster M

CPS-SLIC S123102548
CERS N/A

Relative:
Lower

CPS-SLIC:
Region: STATE
Facility Status: Open - Active
Status Date: 10/02/2018
Global Id: T10000012162
Lead Agency: ALAMEDA COUNTY LOP
Lead Agency Case Number: RO0003337
Latitude: 37.79496
Longitude: -122.26794
Case Type: Cleanup Program Site
Case Worker: PK
Local Agency: ALAMEDA COUNTY LOP
RB Case Number: Not reported

Actual:
16 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ESSEX MADISON, LLC REDEVELOPMENT (Continued)

S123102548

File Location: Not reported
Potential Media Affected: Not reported
Potential Contaminants of Concern: Not reported
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

CERS TANKS:

Site ID: 443883
CERS ID: T10000012162
CERS Description: Cleanup Program Site

Affiliation:

Affiliation Type Desc: Local Agency Caseworker
Entity Name: PARESH KHATRI - ALAMEDA COUNTY LOP
Entity Title: Not reported
Affiliation Address: 1131 HARBOR BAY PARKWAY
Affiliation City: ALAMEDA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 5107772478

Affiliation Type Desc: Regional Board Caseworker
Entity Name: UUU - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

M77
SSW
1/8-1/4
0.183 mi.
967 ft.
Relative:
Lower
Actual:
16 ft.

PORT OF OAKLAND / LAKESIDE NON-FERROUS METALS
412 MADISON
OAKLAND, CA 94607
Site 7 of 8 in cluster M

ENVIROSTOR **S103472374**
LUST **N/A**
Alameda County CS
SWRCY
HIST CORTESE
NPDES
PROC
WDS
CIWQS
CERS

ENVIROSTOR:

Facility ID: 1350115
Status: Inactive - Needs Evaluation
Status Date: 06/30/2003
Site Code: 201468
Site Type: Evaluation
Site Type Detailed: Evaluation
Acres: 0.69
NPL: NO
Regulatory Agencies: SMBRP, ALAMEDA COUNTY
Lead Agency: ALAMEDA COUNTY
Program Manager: Not reported
Supervisor: Karen Toth

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORT OF OAKLAND / LAKESIDE NON-FERROUS METALS (Continued)

S103472374

Division Branch: Cleanup Berkeley
Assembly: 18
Senate: 09
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: EPA Grant
Latitude: 37.79495
Longitude: -122.2679
APN: 001 016300100, 001 016300200, 001 016300800, 001 016300900, 001 016301000, 001 016301100
Past Use: RECYCLING - SCRAP METAL
Potential COC: Lead Nickel
Confirmed COC: NONE SPECIFIED
Potential Description: SOIL
Alias Name: Not reported
Alias Type: Not reported

Completed Info:

Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

LUST:

Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600102245
Global Id: T0600102245
Latitude: 37.7947286
Longitude: -122.2682826
Status: Completed - Case Closed
Status Date: 10/13/2005
Case Worker: Not reported
RB Case Number: 01-2436
Local Agency: Not reported
File Location: DTSC
Local Case Number: RO0000244
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:

Global Id: T0600102245
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORT OF OAKLAND / LAKESIDE NON-FERROUS METALS (Continued)

S103472374

Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600102245
Action Type: Other
Date: 08/11/1993
Action: Leak Reported

Global Id: T0600102245
Action Type: REMEDIATION
Date: 09/09/9999
Action: Not reported

Global Id: T0600102245
Action Type: Other
Date: 06/01/1993
Action: Leak Discovery

LUST:

Global Id: T0600102245
Status: Completed - Case Closed
Status Date: 10/13/2005

Global Id: T0600102245
Status: Open - Case Begin Date
Status Date: 05/12/1993

Global Id: T0600102245
Status: Open - Site Assessment
Status Date: 05/12/1993

Global Id: T0600102245
Status: Open - Site Assessment
Status Date: 11/21/1996

LUST REG 2:

Region: 2
Facility Id: 01-2436
Facility Status: Preliminary site assessment underway
Case Number: 2048
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: 7/9/1996
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 1/2/1965
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORT OF OAKLAND / LAKESIDE NON-FERROUS METALS (Continued)

S103472374

Alameda County CS:

Status: Leak Confirmation
Record Id: RO0000244
PE: 5602
Facility Status: Leak Confirmation
Latitude: 37.794683496
Longitude: -122.26814185

Status: 11
Record Id: RO0000244
PE: 5602
Facility Status: Not reported
Latitude: 37.794683496
Longitude: -122.26814185

Status: Pollution Characterization
Record Id: RO0000244
PE: 5602
Facility Status: Pollution Charaterization
Latitude: 37.794683496
Longitude: -122.26814185

SWRCY:

Reg Id: 27482
Cert Id: RC0698
Mailing Address: P O Box 957
Mailing City: Oakland
Mailing State: CA
Mailing Zip Code: 94604
Website: Not reported
Email: copperking@pacbell.net
Phone Number: (510) 444-5466
Rural: N
Operation Begin Date: 09/11/1987
Aluminium: Y
Glass: Y
Plastic: Y
Bimetal: Y
Hours of Operation: Mon - Fri 8:00 am - 3:45 pm, Closed 11:45 pm - 12:30 pm; Sat 8:00 am - 12:00 pm; Sun Closed
Organization ID: 18921
Organization Name: Lakeside Non Ferrous Metals Inc

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: CALSI
Reg Id: 013501

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-2436

NPDES:

Facility Status: Active

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORT OF OAKLAND / LAKESIDE NON-FERROUS METALS (Continued)

S103472374

NPDES Number: CAS000001
Region: 2
Agency Number: 0
Regulatory Measure ID: 180932
Place ID: Not reported
Order Number: 97-03-DWQ
WDID: 2 011011285
Regulatory Measure Type: Enrollee
Program Type: Industrial
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: 11/28/1994
Termination Date Of Regulatory Measure: Not reported
Expiration Date Of Regulatory Measure: Not reported
Discharge Address: 412 Madison St
Discharge Name: Lakeside Non Ferrous Metals
Discharge City: Oakland
Discharge State: California
Discharge Zip: 94607
Status: Not reported
Status Date: Not reported
Operator Name: Not reported
Operator Address: Not reported
Operator City: Not reported
Operator State: Not reported
Operator Zip: Not reported

NPDES as of 03/2018:

NPDES Number: CAS000001
Status: Active
Agency Number: 0
Region: 2
Regulatory Measure ID: 180932
Order Number: 97-03-DWQ
Regulatory Measure Type: Enrollee
Place ID: Not reported
WDID: 2 011011285
Program Type: Industrial
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: 11/28/1994
Expiration Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: Not reported
Discharge Name: Lakeside Non Ferrous Metals
Discharge Address: 412 Madison St
Discharge City: Oakland
Discharge State: California
Discharge Zip: 94607
Received Date: Not reported
Processed Date: Not reported
Status: Not reported
Status Date: Not reported
Place Size: Not reported
Place Size Unit: Not reported
Contact: Not reported
Contact Title: Not reported
Contact Phone: Not reported
Contact Phone Ext: Not reported
Contact Email: Not reported
Operator Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORT OF OAKLAND / LAKESIDE NON-FERROUS METALS (Continued)

S103472374

Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commercial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	2
Regulatory Measure ID:	180932
Order Number:	Not reported
Regulatory Measure Type:	Industrial
Place ID:	Not reported
WDID:	2 011011285
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORT OF OAKLAND / LAKESIDE NON-FERROUS METALS (Continued)

S103472374

Expiration Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: Not reported
Discharge Name: Not reported
Discharge Address: Not reported
Discharge City: Not reported
Discharge State: Not reported
Discharge Zip: Not reported
Received Date: 05/09/2008
Processed Date: 11/28/1994
Status: Active
Status Date: 11/28/1994
Place Size: .5
Place Size Unit: Acres
Contact: Lance Finkel
Contact Title: President
Contact Phone: 510-444-5466
Contact Phone Ext: Not reported
Contact Email: copperking@pacbell.net
Operator Name: Lakeside Non Ferrous Metals
Operator Address: 412 Madison St
Operator City: Oakland
Operator State: California
Operator Zip: 94607
Operator Contact: Lance Finkel
Operator Contact Title: President
Operator Contact Phone: 510-444-5466
Operator Contact Phone Ext: Not reported
Operator Contact Email: copperking@pacbell.net
Operator Type: Private Business
Developer: Not reported
Developer Address: Not reported
Developer City: Not reported
Developer State: California
Developer Zip: Not reported
Developer Contact: Not reported
Developer Contact Title: Not reported
Constype Linear Utility Ind: Not reported
Emergency Phone: 510-444-5466
Emergency Phone Ext: Not reported
Constype Above Ground Ind: Not reported
Constype Below Ground Ind: Not reported
Constype Cable Line Ind: Not reported
Constype Comm Line Ind: Not reported
Constype Commercial Ind: Not reported
Constype Electrical Line Ind: Not reported
Constype Gas Line Ind: Not reported
Constype Industrial Ind: Not reported
Constype Other Description: Not reported
Constype Other Ind: Not reported
Constype Recons Ind: Not reported
Constype Residential Ind: Not reported
Constype Transport Ind: Not reported
Constype Utility Description: Not reported
Constype Utility Ind: Not reported
Constype Water Sewer Ind: Not reported
Dir Discharge Uswater Ind: N
Receiving Water Name: Oakland Estuary

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORT OF OAKLAND / LAKESIDE NON-FERROUS METALS (Continued)

S103472374

Certifier:	Lance Finkel
Certifier Title:	President
Certification Date:	15-APR-15
Primary Sic:	5093-Scrap and Waste Materials
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
Facility Status:	Not reported
NPDES Number:	Not reported
Region:	Not reported
Agency Number:	Not reported
Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	2 011011285
Regulatory Measure Type:	Industrial
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	Not reported
Discharge Name:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Status:	Active
Status Date:	11/28/1994
Operator Name:	Lakeside Non Ferrous Metals
Operator Address:	412 Madison St
Operator City:	Oakland
Operator State:	California
Operator Zip:	94607
NPDES as of 03/2018:	
NPDES Number:	CAS000001
Status:	Active
Agency Number:	0
Region:	2
Regulatory Measure ID:	180932
Order Number:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	2 011011285
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	11/28/1994
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Lakeside Non Ferrous Metals
Discharge Address:	412 Madison St
Discharge City:	Oakland
Discharge State:	California
Discharge Zip:	94607
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORT OF OAKLAND / LAKESIDE NON-FERROUS METALS (Continued)

S103472374

Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commercial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORT OF OAKLAND / LAKESIDE NON-FERROUS METALS (Continued)

S103472374

Region: 2
Regulatory Measure ID: 180932
Order Number: Not reported
Regulatory Measure Type: Industrial
Place ID: Not reported
WDID: 2 011011285
Program Type: Not reported
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: Not reported
Expiration Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: Not reported
Discharge Name: Not reported
Discharge Address: Not reported
Discharge City: Not reported
Discharge State: Not reported
Discharge Zip: Not reported
Received Date: 05/09/2008
Processed Date: 11/28/1994
Status: Active
Status Date: 11/28/1994
Place Size: .5
Place Size Unit: Acres
Contact: Lance Finkel
Contact Title: President
Contact Phone: 510-444-5466
Contact Phone Ext: Not reported
Contact Email: copperking@pacbell.net
Operator Name: Lakeside Non Ferrous Metals
Operator Address: 412 Madison St
Operator City: Oakland
Operator State: California
Operator Zip: 94607
Operator Contact: Lance Finkel
Operator Contact Title: President
Operator Contact Phone: 510-444-5466
Operator Contact Phone Ext: Not reported
Operator Contact Email: copperking@pacbell.net
Operator Type: Private Business
Developer: Not reported
Developer Address: Not reported
Developer City: Not reported
Developer State: California
Developer Zip: Not reported
Developer Contact: Not reported
Developer Contact Title: Not reported
Constype Linear Utility Ind: Not reported
Emergency Phone: 510-444-5466
Emergency Phone Ext: Not reported
Constype Above Ground Ind: Not reported
Constype Below Ground Ind: Not reported
Constype Cable Line Ind: Not reported
Constype Comm Line Ind: Not reported
Constype Commercial Ind: Not reported
Constype Electrical Line Ind: Not reported
Constype Gas Line Ind: Not reported
Constype Industrial Ind: Not reported
Constype Other Description: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORT OF OAKLAND / LAKESIDE NON-FERROUS METALS (Continued)

S103472374

Constype Other Ind: Not reported
Constype Recons Ind: Not reported
Constype Residential Ind: Not reported
Constype Transport Ind: Not reported
Constype Utility Description: Not reported
Constype Utility Ind: Not reported
Constype Water Sewer Ind: Not reported
Dir Discharge Uswater Ind: N
Receiving Water Name: Oakland Estuary
Certifier: Lance Finkel
Certifier Title: President
Certification Date: 15-APR-15
Primary Sic: 5093-Scrap and Waste Materials
Secondary Sic: Not reported
Tertiary Sic: Not reported

PROC:

Reg Id: 27482
Cert Id: PR0023
Organization Id: 18921
Organization Name: Lakeside Non Ferrous Metals Inc
Mailing Address: P O Box 957
Mailing City: Oakland
Mailing State: CA
Mailing Zip Code: 94604
Website: Not reported
Email: copperking@pacbell.net
Phone Number: (510) 444-5466
Rural: N/A
Operation Begin Date: 09/11/1987
Aluminium: Not reported
Glass: Not reported
Plastic: Not reported
Bimetal: Not reported
Hours of Operation: Mon - Fri 8:00 am - 3:45 pm, Closed 12:00 pm - 12:30 pm; Sat 8:00 am - 12:00 pm; Sun Closed

WDS:

Facility ID: San Francisco Bay 011011285
Facility Type: Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number: CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion: 2
Facility Telephone: 5104445466
Facility Contact: LESTER FINKEL
Agency Name: LAKESIDE NONFERROUS METALS
Agency Address: 412 Madison St
Agency City,St,Zip: Oakland 946074634
Agency Contact: LESTER FINKEL

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORT OF OAKLAND / LAKESIDE NON-FERROUS METALS (Continued)

S103472374

Agency Telephone: 5104445466
Agency Type: Private
SIC Code: 0
SIC Code 2: Not reported
Primary Waste Type: Not reported
Primary Waste: Not reported
Waste Type2: Not reported
Waste2: Not reported
Primary Waste Type: Not reported
Secondary Waste: Not reported
Secondary Waste Type: Not reported
Design Flow: 0
Baseline Flow: 0
Reclamation: Not reported
POTW: Not reported
Treat To Water: Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity: Category C - Facilities having no waste treatment systems, such as cooling water dischargers or those who must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

CIWQS:

Agency: Lakeside Non Ferrous Metals
Agency Address: 412 Madison St, Oakland, CA 94607
Place/Project Type: Industrial - Scrap and Waste Materials
SIC/NAICS: 5093
Region: 2
Program: INDSTW
Regulatory Measure Status: Active
Regulatory Measure Type: Storm water industrial
Order Number: 2014-0057-DWQ
WDID: 2 011011285
NPDES Number: CAS000001
Adoption Date: Not reported
Effective Date: 11/28/1994
Termination Date: Not reported
Expiration/Review Date: Not reported
Design Flow: Not reported
Major/Minor: Not reported
Complexity: Not reported
TTWQ: Not reported
Enforcement Actions within 5 years: 0
Violations within 5 years: 0
Latitude: 37.79467
Longitude: -122.26831

CERS TANKS:

Site ID: 202236
CERS ID: T0600102245

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

PORT OF OAKLAND / LAKESIDE NON-FERROUS METALS (Continued)

S103472374

CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
 Affiliation Type Desc: Regional Board Caseworker
 Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
 Entity Title: Not reported
 Affiliation Address: 1515 CLAY ST SUITE 1400
 Affiliation City: OAKLAND
 Affiliation State: CA
 Affiliation Country: Not reported
 Affiliation Zip: Not reported
 Affiliation Phone: Not reported

M78	LAKESIDE NON-FERROUS METALS, INC.	CERS HAZ WASTE	S121774035
SSW	412 MADISON ST	CERS	N/A
1/8-1/4	OAKLAND, CA 94607		
0.183 mi.	Site 8 of 8 in cluster M		
967 ft.			

Relative: CERS HAZ WASTE:
Lower Site ID: 396230

Actual: CERS ID: 10415737
16 ft. CERS Description: Hazardous Waste Generator

Violations:
 Site ID: 396230
 Site Name: Lakeside Non-Ferrous Metals, Inc.
 Violation Date: 04-14-2017
 Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
 Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
 Violation Notes: Returned to compliance on 01/15/2018.
 Violation Division: Alameda County Environmental Health
 Violation Program: HMRRP
 Violation Source: CERS

Site ID: 396230
 Site Name: Lakeside Non-Ferrous Metals, Inc.
 Violation Date: 11-09-2017
 Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
 Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
 Violation Notes: Returned to compliance on 01/15/2018.
 Violation Division: Alameda County Environmental Health
 Violation Program: HMRRP
 Violation Source: CERS

Evaluation:
 Eval General Type: Compliance Evaluation Inspection
 Eval Date: 05-14-2014
 Violations Found: No
 Eval Type: Routine done by local agency
 Eval Notes: No violations were cited at the time of the inspection.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LAKESIDE NON-FERROUS METALS, INC. (Continued)

S121774035

Eval Division: Oakland City Fire Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-14-2017
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: HMBP NOV LETTER/ADD VIOLATION
Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 11-09-2017
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: GENERATE NOV//ADDING VIOLATION
Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-14-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: No violations were cited at the time of the inspection.
Eval Division: Oakland City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Enforcement Action:
Site ID: 396230
Site Name: Lakeside Non-Ferrous Metals, Inc.
Site Address: 412 MADISON ST
Site City: OAKLAND
Site Zip: 94607
Enf Action Date: 11-09-2017
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Alameda County Environmental Health
Enf Action Program: HMRRP
Enf Action Source: CERS

Coordinates:
Site ID: 396230
Facility Name: Lakeside Non-Ferrous Metals, Inc.
Env Int Type Code: HMBP
Program ID: 10415737
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.794710
Longitude: -122.267820

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LAKESIDE NON-FERROUS METALS, INC. (Continued)

S121774035

Affiliation:

Affiliation Type Desc: Property Owner
Entity Name: Lance Finkel
Entity Title: Not reported
Affiliation Address: 412 Madison St
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94607
Affiliation Phone: (510) 444-5466

Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Legal Owner
Entity Name: Lance Finkel
Entity Title: Not reported
Affiliation Address: 412 Madison St
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94607
Affiliation Phone: (510) 444-5466

Affiliation Type Desc: Operator
Entity Name: Lakeside Non-Ferrous Metals, Inc.
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (510) 444-5466

Affiliation Type Desc: Document Preparer
Entity Name: Robin Spencer
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: Robin Spencer
Entity Title: Not reported
Affiliation Address: 6 Via San Inigo
Affiliation City: Orinda
Affiliation State: CA

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LAKESIDE NON-FERROUS METALS, INC. (Continued)

S121774035

Affiliation Country: Not reported
Affiliation Zip: 94563
Affiliation Phone: (925) 383-8224

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 412 Madison St
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94607
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: LANCE FINKEL
Entity Title: PRESIDENT
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Parent Corporation
Entity Name: Lakeside Non-Ferrous Metals, Inc.
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

CERS TANKS:
Site ID: 396230
CERS ID: 10415737
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 396230
Site Name: Lakeside Non-Ferrous Metals, Inc.
Violation Date: 04-14-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Returned to compliance on 01/15/2018.
Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 396230
Site Name: Lakeside Non-Ferrous Metals, Inc.
Violation Date: 11-09-2017

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LAKESIDE NON-FERROUS METALS, INC. (Continued)

S121774035

Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.

Violation Notes: Returned to compliance on 01/15/2018.

Violation Division: Alameda County Environmental Health

Violation Program: HMRRP

Violation Source: CERS

Evaluation:

Eval General Type: Compliance Evaluation Inspection

Eval Date: 05-14-2014

Violations Found: No

Eval Type: Routine done by local agency

Eval Notes: No violations were cited at the time of the inspection.

Eval Division: Oakland City Fire Department

Eval Program: HW

Eval Source: CERS

Eval General Type: Other/Unknown

Eval Date: 04-14-2017

Violations Found: Yes

Eval Type: Other, not routine, done by local agency

Eval Notes: HMBP NOV LETTER/ADD VIOLATION

Eval Division: Alameda County Environmental Health

Eval Program: HMRRP

Eval Source: CERS

Eval General Type: Other/Unknown

Eval Date: 11-09-2017

Violations Found: Yes

Eval Type: Other, not routine, done by local agency

Eval Notes: GENERATE NOV/ADDING VIOLATION

Eval Division: Alameda County Environmental Health

Eval Program: HMRRP

Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection

Eval Date: 05-14-2014

Violations Found: No

Eval Type: Routine done by local agency

Eval Notes: No violations were cited at the time of the inspection.

Eval Division: Oakland City Fire Department

Eval Program: HMRRP

Eval Source: CERS

Enforcement Action:

Site ID: 396230

Site Name: Lakeside Non-Ferrous Metals, Inc.

Site Address: 412 MADISON ST

Site City: OAKLAND

Site Zip: 94607

Enf Action Date: 11-09-2017

Enf Action Type: Notice of Violation (Unified Program)

Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LAKESIDE NON-FERROUS METALS, INC. (Continued)

S121774035

Enf Action Notes: Not reported
Enf Action Division: Alameda County Environmental Health
Enf Action Program: HMRRP
Enf Action Source: CERS

Coordinates:

Site ID: 396230
Facility Name: Lakeside Non-Ferrous Metals, Inc.
Env Int Type Code: HMBP
Program ID: 10415737
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.794710
Longitude: -122.267820

Affiliation:

Affiliation Type Desc: Property Owner
Entity Name: Lance Finkel
Entity Title: Not reported
Affiliation Address: 412 Madison St
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94607
Affiliation Phone: (510) 444-5466

Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Legal Owner
Entity Name: Lance Finkel
Entity Title: Not reported
Affiliation Address: 412 Madison St
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94607
Affiliation Phone: (510) 444-5466

Affiliation Type Desc: Operator
Entity Name: Lakeside Non-Ferrous Metals, Inc.
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (510) 444-5466

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LAKESIDE NON-FERROUS METALS, INC. (Continued)

S121774035

Affiliation Type Desc: Document Preparer
Entity Name: Robin Spencer
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: Robin Spencer
Entity Title: Not reported
Affiliation Address: 6 Via San Inigo
Affiliation City: Orinda
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94563
Affiliation Phone: (925) 383-8224

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 412 Madison St
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94607
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: LANCE FINKEL
Entity Title: PRESIDENT
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Parent Corporation
Entity Name: Lakeside Non-Ferrous Metals, Inc.
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

O79
South
1/8-1/4
0.185 mi.
976 ft.

CONTROLCO, INC.
70 4TH ST
OAKLAND, CA 94602

Site 1 of 2 in cluster O

SWEEPS UST **S106924895**
N/A

Relative: **SWEEPS UST:**
Lower Status: Not reported
Actual: Comp Number: 8001
16 ft. Number: Not reported
 Board Of Equalization: Not reported
 Referral Date: Not reported
 Action Date: Not reported
 Created Date: Not reported
 Owner Tank Id: Not reported
 SWRCB Tank Id: 01-000-008001-000001
 Tank Status: Not reported
 Capacity: 2000
 Active Date: Not reported
 Tank Use: M.V. FUEL
 STG: PRODUCT
 Content: REG UNLEADED
 Number Of Tanks: 1

P80
WNW
1/8-1/4
0.185 mi.
979 ft.

PORT OF OAKLAND / BLDG H-209
271 8TH AVENUE
OAKLAND, CA 94606

Site 1 of 9 in cluster P

LUST **S103723094**
Alameda County CS **N/A**
HIST CORTESE
CERS

Relative: **LUST:**
Higher Lead Agency: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
Actual: Case Type: LUST Cleanup Site
34 ft. Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600102211
 Global Id: T0600102211
 Latitude: 37.7985218
 Longitude: -122.2695617
 Status: Completed - Case Closed
 Status Date: 10/13/2005
 Case Worker: Not reported
 RB Case Number: Not reported
 Local Agency: Not reported
 File Location: DTSC
 Local Case Number: 70000109
 Potential Media Affect: Other Groundwater (uses other than drinking water)
 Potential Contaminants of Concern: Diesel
 Site History: The cases below are all DTSC lead as part of the Ninth Ave Terminal (OAK STREET TO 9TH AVENUE (70000109)) residential redevelopment project for which DTSC is the lead agency. RO106 PORT OF OAKLAND / KEEP ON TRUCKING RO108 PORT OF OAKLAND / BLDG H-209 RO109 PORT OF OAKLAND / CANNERY BLDG H-211 RO110 PORT OF OAKLAND / MARINE TERMINALS CORPORATION RO423 PORT OF OAKLAND / PACIFIC DRY DOCK YARD 2 RO485 PORT OF OAKLAND / CARD LOCK BLDG H-204 RO2461 SEABREEZE YACHT CENTER RO2462 PRAXAIR INC RO2492 PORT OF OAKLAND / NINTH AVE TERMINAL RB Case #: SLT2O160264

LUST:
Global Id: T0600102211
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORT OF OAKLAND / BLDG H-209 (Continued)

S103723094

Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600102211
Action Type: Other
Date: 06/03/1996
Action: Leak Reported

Global Id: T0600102211
Action Type: REMEDIATION
Date: 09/09/9999
Action: Not reported

Global Id: T0600102211
Action Type: RESPONSE
Date: 03/17/1997
Action: Correspondence

LUST:

Global Id: T0600102211
Status: Completed - Case Closed
Status Date: 10/13/2005

Global Id: T0600102211
Status: Open - Case Begin Date
Status Date: 06/03/1996

LUST REG 2:

Region: 2
Facility Id: 01-2401
Facility Status: Preliminary site assessment workplan submitted
Case Number: 6895
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: 10/30/1997
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: 1/2/1965
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: 11
Record Id: RO0000108
PE: 5602
Facility Status: Not reported
Latitude: 37.788981611

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORT OF OAKLAND / BLDG H-209 (Continued)

S103723094

Longitude: -122.25859084

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-2401

CERS TANKS:

Site ID: 218586
CERS ID: T0600102211
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

K81
NNE
1/8-1/4
0.192 mi.
1013 ft.

COUNTY OF ALAMEDA GSA ADMINISTRATION BLDG.
1221 OAK ST
OAKLAND, CA 94612
Site 3 of 4 in cluster K

AST A100419045
N/A

Relative:
Lower

AST:

Actual:
31 ft.

Certified Unified Program Agencies: Not reported
Owner: County of Alameda
Total Gallons: Not reported
CERSID: 10397998
Facility ID: Not reported
Business Name: Alameda County General Services Agency
Phone: 510-618-3450
Fax: Not reported
Mailing Address: 1225 Fallon Street
Mailing Address City: Oakland
Mailing Address State: CA
Mailing Address Zip Code: 94612
Operator Name: County of Alameda GSA - Building Maintenance Department
Operator Phone: 510-618-3450
Owner Phone: 510-618-3450
Owner Mail Address: 1401 Lakeside Drive, 6th Floor (Attn: Matt Muniz, Facilities Mngr)
Owner State: CA
Owner Zip Code: 94612
Owner Country: United States
Property Owner Name: County of Alameda
Property Owner Phone: Not reported
Property Owner Mailing Address: Not reported
Property Owner City: Not reported
Property Owner Stat: Not reported
Property Owner Zip Code: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

COUNTY OF ALAMEDA GSA ADMINISTRATION BLDG. (Continued)

A100419045

Property Owner Country: United States
 EPAID: CAD982469389

K82
NNE
 1/8-1/4
 0.192 mi.
 1013 ft.

COUNTY OF ALAMEDA GSA ADMINISTRATION BLDG.
1221 OAK ST
OAKLAND, CA 94612

CERS HAZ WASTE
CERS TANKS
CERS

S121752861
N/A

Site 4 of 4 in cluster K

Relative:
Lower
Actual:
31 ft.

CERS HAZ WASTE:
 Site ID: 22062
 CERS ID: 10397998
 CERS Description: Hazardous Waste Generator

Violations:

Site ID: 22062
 Site Name: County of Alameda GSA Administration Bldg.
 Violation Date: 04-20-2018
 Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
 Violation Description: Failure to complete and electronically submit a site map with all required content.
 Violation Notes: Returned to compliance on 05/10/2018. OBSERVATION: The site map submitted to CERS does not include the location of the hydraulic fluid in the elevator rooms 24A and 13. The site map for the Generator/AST Enclosure incorrectly shows compressed nitrogen stored in two locations inside the generator. Nitrogen is only stored on the northeast side. CORRECTIVE ACTION: Revise the site map to include the hydraulic fluid in the elevator rooms and remove one of the nitrogen locations and resubmit the maps to CERS.
 Violation Division: Alameda County Environmental Health
 Violation Program: HMRRP
 Violation Source: CERS

Site ID: 22062
 Site Name: County of Alameda GSA Administration Bldg.
 Violation Date: 04-20-2018
 Citation: HSC 6.67 25270.4.5 (a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5 (a)
 Violation Description: Failure to comply with one or more of the following requirements: 1. Have record of inspections and integrity tests signed by the appropriate supervisor or inspector. 2. Keep written procedures and records of inspections and integrity tests for at least three years. 3. Keep comparison records.
 Violation Notes: OBSERVATION: Failure to comply with all of the following requirements: 1. Failure to conduct inspections and tests in accordance with written procedures that you or a certifying engineer have developed for the facility. 2. Failure to sign written procedures and/or a record of inspections and/or customary business records by the appropriate supervisor or inspector. 3. Failure to keep written procedures and/or a record of inspections and/or customary business records with the plan. 4. Failure to maintain written procedures and/or a record of inspections and/or customary business records for three years. The only inspection record found for tank inspections is a "Generator Service Bi-Weekly" form which does not cover all of the tank inspection requirements such as visually looking for corrosion or inspecting foundations. Please refer to Table G10 in the SPCC Plan or the "Tank Inspections" document that was submitted as part of the SPCC

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ADMINISTRATION BLDG. (Continued)

S121752861

Plan for details on what is [Truncated]
Violation Division: Alameda County Environmental Health
Violation Program: APSA
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.95 25507 - California Health and Safety Code, Chapter 6.95, Section(s) 25507
Violation Description: Failure to adequately establish and implement a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: OBSERVATIONS: The HMBP has not been adequately implemented as demonstrated by emergency equipment is not tested and maintained as necessary. One emergency eye wash fountain in the maintenance area is missing a cover to one of the spouts. It is unknown when this fountain was last inspected. Compressed gases stored throughout the maintenance area are not adequately secured. CORRECTIVE ACTION: Submit photos/documentation demonstrating that the emergency eye wash fountain has been inspected and the missing cover has been replaced and that all compressed gases have been properly secured.

Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)
Violation Description: Failure to regularly inspect aboveground valves, piping, and appurtenances.
Violation Notes: OBSERVATION: Facility is not currently inspecting the tank's aboveground valves, piping, and appurtenances. CORRECTIVE ACTION: Regularly inspect aboveground valves, piping, and appurtenances. Submit documentation that this is taking place.

Violation Division: Alameda County Environmental Health
Violation Program: APSA
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)
Violation Description: Failure to provide the following training to all oil-handling personnel: 1. Operation and maintenance of equipment to prevent discharges. 2. Discharge procedure protocols. 3. Applicable pollution control laws, rules, and regulations. 4. General facility operations. 5. Contents of the SPCC Plan.
Violation Notes: Returned to compliance on 05/29/2018. OBSERVATION: Facility failed to provide training regarding one or more of the following: 1. The operation and maintenance of equipment to prevent discharges. 2. Discharge procedure protocols. 3. Applicable pollution control laws, rules, and regulations. 4. General facility operations. 5. The contents of the SPCC Plan. CORRECTIVE ACTION: Submit documentation

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
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COUNTY OF ALAMEDA GSA ADMINISTRATION BLDG. (Continued)

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that all employees have been trained in all of the above requirements.
This training is to be provided annually.

Violation Division: Alameda County Environmental Health
Violation Program: APSA
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)

Violation Description: Failure to maintain a complete copy of the SPCC Plan at the facility if the facility is normally attended at least four hours per day, or at the nearest field office if the facility is not so attended.

Violation Notes: OBSERVATION: A Tier 1 SPCC Plan dated December 2010 (with February 2015 Admin Updates) was last uploaded to CERS on March 2, 2015. No copy of the SPCC Plan was found on site or at the GSA maintenance office at the Rene C. Davidson Courthouse at 1225 Fallon Street, Oakland. CORRECTIVE ACTIONS: Maintain a current copy of the SPCC Plan on site. Submit a written statement indicating that a copy of the plan is available on site or at the maintenance office.

Violation Division: Alameda County Environmental Health
Violation Program: APSA
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)

Violation Description: Failure to prepare a Spill Prevention, Control, and Countermeasures (SPCC) Plan.

Violation Notes: OBSERVATIONS: A Tier 1 SPCC Plan dated December 2010 (with February 2015 Admin Updates) was last uploaded to CERS on March 2, 2015. The SPCC Plan is not being implemented due to the following: a copy of the plan is not available on site; AST weekly inspections are not occurring weekly as directed by the plan and no training on the SPCC Plan has occurred. CORRECTIVE ACTIONS: Provide a copy of the latest SPCC Plan to the site. Begin weekly inspections of both of the ASTs. Train all employees on the contents of the SPCC plan. Submit documentation supporting the above corrections.

Violation Division: Alameda County Environmental Health
Violation Program: APSA
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.67 25270.4.5 (a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5 (a)

Violation Description: Failure to include in the SPCC plan an adequate description of employee training. Training shall address, at a minimum: operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules, and regulations; general facility operations; content of the facility SPCC plan; and annual discharge prevention briefings for oil-handling personnel to assure adequate understanding of the SPCC plan.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ADMINISTRATION BLDG. (Continued)

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Violation Notes: Returned to compliance on 05/29/2018. OBSERVATION: No records of employee training on spill prevention briefings were found. CORRECTIVE ACTION: Conduct spill prevention briefings annually. Provide training documentation showing that this training occurs annually.

Violation Division: Alameda County Environmental Health
Violation Program: APSA
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)

Violation Description: Failure to discuss in the SPCC Plan procedures to test or inspect each aboveground container for integrity in accordance with industry standards: 1. On a regular schedule. 2. After material repairs are made. 3. By qualified personnel. 4. The frequency and type of testing and inspections based on container size, configuration, and design.

Violation Notes: OBSERVATION: Facility is not inspecting tank supports/foundation, deterioration, and discharges. CORRECTIVE ACTION: Immediately begin inspecting tanks as directed by your SPCC plan and ensure that the inspections include supports/foundation, deterioration, and discharges.

Violation Division: Alameda County Environmental Health
Violation Program: APSA
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)

Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.

Violation Notes: Returned to compliance on 05/29/2018. OBSERVATION: Employee training documentation for all applicable employees was not available for review. CORRECTIVE ACTION: Submit documentation to the CUPA demonstrating that employees have received training on safe handling of hazardous materials and the Emergency Response Plan and procedures. Submit training records for the last three years.

Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple

Violation Description: APSA Program - Administration/Documentation - General

Violation Notes: OBSERVATIONS: The SPCC Plan is not being implemented due to the following: a copy of the plan is not available on site; AST weekly inspections are not occurring weekly as directed by the plan and no training on the SPCC Plan has occurred. CORRECTIVE ACTIONS: Provide a copy of the latest SPCC Plan to the site. Begin weekly inspections of

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ADMINISTRATION BLDG. (Continued)

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both of the ASTs. Train all employees on the contents of the SPCC plan. Submit documentation supporting the above corrections.

Violation Division: Alameda County Environmental Health
Violation Program: APSA
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-20-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: On site with Rod Alston, GSA Supervisor of Building & Plant Maintenance, who granted permission to conduct the inspection. Ed Hunter, GSA Building Engineer, assisted with the walk-through of the facility. Facility has one 2700 gallon AST for diesel which is connected to a 500 gallon diesel generator AST. RL Stevens services the Veeder Root monitoring system. The display on the system is currently malfunctioning and is not readable. The system printout currently reads All Functions Normal . The Hazardous Materials Business Plan (HMBP) was last submitted to CERS on February 28, 2018. All violations noted in this HMBP inspection report are to be corrected within 30 days and proof of those corrections submitted to this office in the same time frame. CERTIFICATION OF RE TURN TO COMPLIANCE I certify that the violation(s) noted in this HMBP inspection report have been corrected. I have personally examined any documentation attached to the certification to establish [Truncated]

Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-20-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: On site with Rod Alston, GSA Supervisor of Building & Plant Maintenance, who granted permission to conduct the inspection. Ed Hunter, GSA Building Engineer, assisted with the walk-through of the facility. Facility does not routinely generate hazardous waste. Diesel generators and hydraulic elevator units are serviced by outside vendors. Facility does generate universal waste (lamps, ballasts and non-empty aerosols). Facility is to ensure that lamps are properly stored in containers large enough to enclose the entire lamp. Lamps must always be stored to prevent breakage. Ballasts and non-empty aerosols must be stored in containers and not in cardboard boxes. This facility will be removed from the Hazardous Waste Generator program.

Eval Division: Alameda County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-20-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: On site with Rod Alston, GSA Supervisor of Building & Plant Maintenance, who granted permission to conduct the inspection. Ed Hunter, GSA Building Engineer, assisted with the walk-through of the facility. Facility has one 2700 gallon AST for diesel which is

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ADMINISTRATION BLDG. (Continued)

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connected to a 500 gallon diesel generator AST. RL Stevens services the Veeder Root monitoring system. The display on the system is currently malfunctioning and is not readable. The system printout currently reads All Functions Normal . It is highly recommended that the display on the Veeder Root monitoring system be fixed or replaced. Reviewed the Tier 1 SPCC Plan prepared in December 2010 and updated in February 2015 that was submitted to CERS on March 2, 2015. Update Table G-8 Contact List to reflect current personnel. All violations noted in this Aboveground Petroleum Storage Act inspection report are to be corrected within 30 days and proof of those corrections submitted to this office in the same [Truncated]

Eval Division: Alameda County Environmental Health
Eval Program: APSA
Eval Source: CERS

Coordinates:
Site ID: 22062
Facility Name: County of Alameda GSA Administration Bldg.
Env Int Type Code: HWG
Program ID: 10397998
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.800260
Longitude: -122.264110

Affiliation:
Affiliation Type Desc: Document Preparer
Entity Name: Joe Moulton, CHMM, Consultant
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: Rod Freitag
Entity Title: Environmental Program Manager, GSA-CPED
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Operator
Entity Name: County of Alameda GSA - Building Maintenance Department
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (510) 618-3450

Map ID
Direction
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MAP FINDINGS

Site

Database(s)

EDR ID Number
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COUNTY OF ALAMEDA GSA ADMINISTRATION BLDG. (Continued)

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Affiliation Type Desc: Parent Corporation
Entity Name: Alameda County General Services Agency
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: Rod Freitag
Entity Title: Not reported
Affiliation Address: 1401 Lakeside Drive, Ste. 800
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94612
Affiliation Phone: (510) 208-9522

Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Legal Owner
Entity Name: County of Alameda
Entity Title: Not reported
Affiliation Address: 1401 Lakeside Drive, Ste. 600 (Attn: Facilities Manager)
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94612
Affiliation Phone: (510) 618-3450

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 1225 Fallon Street
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94612
Affiliation Phone: Not reported

CERS TANKS:
Site ID: 22062
CERS ID: 10397998
CERS Description: Aboveground Petroleum Storage

Violations:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
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COUNTY OF ALAMEDA GSA ADMINISTRATION BLDG. (Continued)

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Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a site map with all required content.
Violation Notes: Returned to compliance on 05/10/2018. OBSERVATION: The site map submitted to CERS does not include the location of the hydraulic fluid in the elevator rooms 24A and 13. The site map for the Generator/AST Enclosure incorrectly shows compressed nitrogen stored in two locations inside the generator. Nitrogen is only stored on the northeast side. CORRECTIVE ACTION: Revise the site map to include the hydraulic fluid in the elevator rooms and remove one of the nitrogen locations and resubmit the maps to CERS.
Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.67 25270.4.5 (a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5 (a)
Violation Description: Failure to comply with one or more of the following requirements: 1. Have record of inspections and integrity tests signed by the appropriate supervisor or inspector. 2. Keep written procedures and records of inspections and integrity tests for at least three years. 3. Keep comparison records.
Violation Notes: OBSERVATION: Failure to comply with all of the following requirements: 1. Failure to conduct inspections and tests in accordance with written procedures that you or a certifying engineer have developed for the facility. 2. Failure to sign written procedures and/or a record of inspections and/or customary business records by the appropriate supervisor or inspector. 3. Failure to keep written procedures and/or a record of inspections and/or customary business records with the plan. 4. Failure to maintain written procedures and/or a record of inspections and/or customary business records for three years. The only inspection record found for tank inspections is a "Generator Service Bi-Weekly" form which does not cover all of the tank inspection requirements such as visually looking for corrosion or inspecting foundations. Please refer to Table G10 in the SPCC Plan or the "Tank Inspections" document that was submitted as part of the SPCC Plan for details on what is [Truncated]
Violation Division: Alameda County Environmental Health
Violation Program: APSA
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.95 25507 - California Health and Safety Code, Chapter 6.95, Section(s) 25507
Violation Description: Failure to adequately establish and implement a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: OBSERVATIONS: The HMBP has not been adequately implemented as

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Elevation

MAP FINDINGS

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Database(s)

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COUNTY OF ALAMEDA GSA ADMINISTRATION BLDG. (Continued)

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demonstrated by emergency equipment is not tested and maintained as necessary. One emergency eye wash fountain in the maintenance area is missing a cover to one of the spouts. It is unknown when this fountain was last inspected. Compressed gases stored throughout the maintenance area are not adequately secured. CORRECTIVE ACTION: Submit photos/documentation demonstrating that the emergency eye wash fountain has been inspected and the missing cover has been replaced and that all compressed gases have been properly secured.

Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)

Violation Description: Failure to regularly inspect aboveground valves, piping, and appurtenances.

Violation Notes: OBSERVATION: Facility is not currently inspecting the tank's aboveground valves, piping, and appurtenances. CORRECTIVE ACTION: Regularly inspect aboveground valves, piping, and appurtenances. Submit documentation that this is taking place.

Violation Division: Alameda County Environmental Health
Violation Program: APSA
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)

Violation Description: Failure to provide the following training to all oil-handling personnel: 1. Operation and maintenance of equipment to prevent discharges. 2. Discharge procedure protocols. 3. Applicable pollution control laws, rules, and regulations. 4. General facility operations. 5. Contents of the SPCC Plan.

Violation Notes: Returned to compliance on 05/29/2018. OBSERVATION: Facility failed to provide training regarding one or more of the following: 1. The operation and maintenance of equipment to prevent discharges. 2. Discharge procedure protocols. 3. Applicable pollution control laws, rules, and regulations. 4. General facility operations. 5. The contents of the SPCC Plan. CORRECTIVE ACTION: Submit documentation that all employees have been trained in all of the above requirements. This training is to be provided annually.

Violation Division: Alameda County Environmental Health
Violation Program: APSA
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)

Violation Description: Failure to maintain a complete copy of the SPCC Plan at the facility if the facility is normally attended at least four hours per day, or at the nearest field office if the facility is not so attended.

Map ID
Direction
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MAP FINDINGS

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COUNTY OF ALAMEDA GSA ADMINISTRATION BLDG. (Continued)

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Violation Notes: OBSERVATION: A Tier 1 SPCC Plan dated December 2010 (with February 2015 Admin Updates) was last uploaded to CERS on March 2, 2015. No copy of the SPCC Plan was found on site or at the GSA maintenance office at the Rene C. Davidson Courthouse at 1225 Fallon Street, Oakland. CORRECTIVE ACTIONS: Maintain a current copy of the SPCC Plan on site. Submit a written statement indicating that a copy of the plan is available on site or at the maintenance office.

Violation Division: Alameda County Environmental Health
Violation Program: APSA
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)

Violation Description: Failure to prepare a Spill Prevention, Control, and Countermeasures (SPCC) Plan.

Violation Notes: OBSERVATIONS: A Tier 1 SPCC Plan dated December 2010 (with February 2015 Admin Updates) was last uploaded to CERS on March 2, 2015. The SPCC Plan is not being implemented due to the following: a copy of the plan is not available on site; AST weekly inspections are not occurring weekly as directed by the plan and no training on the SPCC Plan has occurred. CORRECTIVE ACTIONS: Provide a copy of the latest SPCC Plan to the site. Begin weekly inspections of both of the ASTs. Train all employees on the contents of the SPCC plan. Submit documentation supporting the above corrections.

Violation Division: Alameda County Environmental Health
Violation Program: APSA
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.67 25270.4.5 (a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5 (a)

Violation Description: Failure to include in the SPCC plan an adequate description of employee training. Training shall address, at a minimum: operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules, and regulations; general facility operations; content of the facility SPCC plan; and annual discharge prevention briefings for oil-handling personnel to assure adequate understanding of the SPCC plan.

Violation Notes: Returned to compliance on 05/29/2018. OBSERVATION: No records of employee training on spill prevention briefings were found. CORRECTIVE ACTION: Conduct spill prevention briefings annually. Provide training documentation showing that this training occurs annually.

Violation Division: Alameda County Environmental Health
Violation Program: APSA
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)

Violation Description: Failure to discuss in the SPCC Plan procedures to test or inspect each

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Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
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COUNTY OF ALAMEDA GSA ADMINISTRATION BLDG. (Continued)

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Violation Notes: aboveground container for integrity in accordance with industry standards: 1. On a regular schedule. 2. After material repairs are made. 3. By qualified personnel. 4. The frequency and type of testing and inspections based on container size, configuration, and design. OBSERVATION: Facility is not inspecting tank supports/foundation, deterioration, and discharges. CORRECTIVE ACTION: Immediately begin inspecting tanks as directed by your SPCC plan and ensure that the inspections include supports/foundation, deterioration, and discharges.

Violation Division: Alameda County Environmental Health
Violation Program: APSA
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)

Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.

Violation Notes: Returned to compliance on 05/29/2018. OBSERVATION: Employee training documentation for all applicable employees was not available for review. CORRECTIVE ACTION: Submit documentation to the CUPA demonstrating that employees have received training on safe handling of hazardous materials and the Emergency Response Plan and procedures. Submit training records for the last three years.

Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple

Violation Description: APSA Program - Administration/Documentation - General
Violation Notes: OBSERVATIONS: The SPCC Plan is not being implemented due to the following: a copy of the plan is not available on site; AST weekly inspections are not occurring weekly as directed by the plan and no training on the SPCC Plan has occurred. CORRECTIVE ACTIONS: Provide a copy of the latest SPCC Plan to the site. Begin weekly inspections of both of the ASTs. Train all employees on the contents of the SPCC plan. Submit documentation supporting the above corrections.

Violation Division: Alameda County Environmental Health
Violation Program: APSA
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-20-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: On site with Rod Alston, GSA Supervisor of Building & Plant Maintenance, who granted permission to conduct the inspection. Ed Hunter, GSA Building Engineer, assisted with the walk-through of the

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
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COUNTY OF ALAMEDA GSA ADMINISTRATION BLDG. (Continued)

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facility. Facility has one 2700 gallon AST for diesel which is connected to a 500 gallon diesel generator AST. RL Stevens services the Veeder Root monitoring system. The display on the system is currently malfunctioning and is not readable. The system printout currently reads All Functions Normal . The Hazardous Materials Business Plan (HMBP) was last submitted to CERS on February 28, 2018. All violations noted in this HMBP inspection report are to be corrected within 30 days and proof of those corrections submitted to this office in the same time frame. CERTIFICATION OF RE TURN TO COMPLIANCE I certify that the violation(s) noted in this HMBP inspection report have been corrected. I have personally examined any documentation attached to the certification to establish [Truncated]

Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-20-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: On site with Rod Alston, GSA Supervisor of Building & Plant

Maintenance, who granted permission to conduct the inspection. Ed Hunter, GSA Building Engineer, assisted with the walk-through of the facility. Facility does not routinely generate hazardous waste. Diesel generators and hydraulic elevator units are serviced by outside vendors. Facility does generate universal waste (lamps, ballasts and non-empty aerosols). Facility is to ensure that lamps are properly stored in containers large enough to enclose the entire lamp. Lamps must always be stored to prevent breakage. Ballasts and non-empty aerosols must be stored in containers and not in cardboard boxes. This facility will be removed from the Hazardous Waste Generator program.

Eval Division: Alameda County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-20-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: On site with Rod Alston, GSA Supervisor of Building & Plant

Maintenance, who granted permission to conduct the inspection. Ed Hunter, GSA Building Engineer, assisted with the walk-through of the facility. Facility has one 2700 gallon AST for diesel which is connected to a 500 gallon diesel generator AST. RL Stevens services the Veeder Root monitoring system. The display on the system is currently malfunctioning and is not readable. The system printout currently reads All Functions Normal . It is highly recommended that the display on the Veeder Root monitoring system be fixed or replaced. Reviewed the Tier 1 SPCC Plan prepared in December 2010 and updated in February 2015 that was submitted to CERS on March 2, 2015. Update Table G-8 Contact List to reflect current personnel. All violations noted in this Aboveground Petroleum Storage Act inspection report are to be corrected within 30 days and proof of those corrections submitted to this office in the same [Truncated]

Eval Division: Alameda County Environmental Health
Eval Program: APSA
Eval Source: CERS

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ADMINISTRATION BLDG. (Continued)

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Coordinates:

Site ID: 22062
Facility Name: County of Alameda GSA Administration Bldg.
Env Int Type Code: HWG
Program ID: 10397998
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.800260
Longitude: -122.264110

Affiliation:

Affiliation Type Desc: Document Preparer
Entity Name: Joe Moulton, CHMM, Consultant
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: Rod Freitag
Entity Title: Environmental Program Manager, GSA-CPED
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Operator
Entity Name: County of Alameda GSA - Building Maintenance Department
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (510) 618-3450

Affiliation Type Desc: Parent Corporation
Entity Name: Alameda County General Services Agency
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: Rod Freitag
Entity Title: Not reported
Affiliation Address: 1401 Lakeside Drive, Ste. 800
Affiliation City: Oakland

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ADMINISTRATION BLDG. (Continued)

S121752861

Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94612
Affiliation Phone: (510) 208-9522

Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Legal Owner
Entity Name: County of Alameda
Entity Title: Not reported
Affiliation Address: 1401 Lakeside Drive, Ste. 600 (Attn: Facilities Manager)
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94612
Affiliation Phone: (510) 618-3450

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 1225 Fallon Street
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94612
Affiliation Phone: Not reported

CERS TANKS:

Site ID: 22062
CERS ID: 10397998
CERS Description: Chemical Storage Facilities

Violations:

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a site map with all required content.
Violation Notes: Returned to compliance on 05/10/2018. OBSERVATION: The site map submitted to CERS does not include the location of the hydraulic fluid in the elevator rooms 24A and 13. The site map for the Generator/AST Enclosure incorrectly shows compressed nitrogen stored in two locations inside the generator. Nitrogen is only stored on the northeast side. CORRECTIVE ACTION: Revise the site map to include the hydraulic fluid in the elevator rooms and remove one of the nitrogen locations and resubmit the maps to CERS.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ADMINISTRATION BLDG. (Continued)

S121752861

Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.67 25270.4.5 (a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5 (a)

Violation Description: Failure to comply with one or more of the following requirements: 1. Have record of inspections and integrity tests signed by the appropriate supervisor or inspector. 2. Keep written procedures and records of inspections and integrity tests for at least three years. 3. Keep comparison records.

Violation Notes: OBSERVATION: Failure to comply with all of the following requirements: 1. Failure to conduct inspections and tests in accordance with written procedures that you or a certifying engineer have developed for the facility. 2. Failure to sign written procedures and/or a record of inspections and/or customary business records by the appropriate supervisor or inspector. 3. Failure to keep written procedures and/or a record of inspections and/or customary business records with the plan. 4. Failure to maintain written procedures and/or a record of inspections and/or customary business records for three years. The only inspection record found for tank inspections is a "Generator Service Bi-Weekly" form which does not cover all of the tank inspection requirements such as visually looking for corrosion or inspecting foundations. Please refer to Table G10 in the SPCC Plan or the "Tank Inspections" document that was submitted as part of the SPCC Plan for details on what is [Truncated]

Violation Division: Alameda County Environmental Health
Violation Program: APSA
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.95 25507 - California Health and Safety Code, Chapter 6.95, Section(s) 25507

Violation Description: Failure to adequately establish and implement a business plan when storing/handling a hazardous material at or above reportable quantities.

Violation Notes: OBSERVATIONS: The HMBP has not been adequately implemented as demonstrated by emergency equipment is not tested and maintained as necessary. One emergency eye wash fountain in the maintenance area is missing a cover to one of the spouts. It is unknown when this fountain was last inspected. Compressed gases stored throughout the maintenance area are not adequately secured. CORRECTIVE ACTION: Submit photos/documentation demonstrating that the emergency eye wash fountain has been inspected and the missing cover has been replaced and that all compressed gases have been properly secured.

Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ADMINISTRATION BLDG. (Continued)

S121752861

Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)

Violation Description: Failure to regularly inspect aboveground valves, piping, and appurtenances.

Violation Notes: OBSERVATION: Facility is not currently inspecting the tank's aboveground valves, piping, and appurtenances. CORRECTIVE ACTION: Regularly inspect aboveground valves, piping, and appurtenances. Submit documentation that this is taking place.

Violation Division: Alameda County Environmental Health
Violation Program: APSA
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)

Violation Description: Failure to provide the following training to all oil-handling personnel: 1. Operation and maintenance of equipment to prevent discharges. 2. Discharge procedure protocols. 3. Applicable pollution control laws, rules, and regulations. 4. General facility operations. 5. Contents of the SPCC Plan.

Violation Notes: Returned to compliance on 05/29/2018. OBSERVATION: Facility failed to provide training regarding one or more of the following: 1. The operation and maintenance of equipment to prevent discharges. 2. Discharge procedure protocols. 3. Applicable pollution control laws, rules, and regulations. 4. General facility operations. 5. The contents of the SPCC Plan. CORRECTIVE ACTION: Submit documentation that all employees have been trained in all of the above requirements. This training is to be provided annually.

Violation Division: Alameda County Environmental Health
Violation Program: APSA
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)

Violation Description: Failure to maintain a complete copy of the SPCC Plan at the facility if the facility is normally attended at least four hours per day, or at the nearest field office if the facility is not so attended.

Violation Notes: OBSERVATION: A Tier 1 SPCC Plan dated December 2010 (with February 2015 Admin Updates) was last uploaded to CERS on March 2, 2015. No copy of the SPCC Plan was found on site or at the GSA maintenance office at the Rene C. Davidson Courthouse at 1225 Fallon Street, Oakland. CORRECTIVE ACTIONS: Maintain a current copy of the SPCC Plan on site. Submit a written statement indicating that a copy of the plan is available on site or at the maintenance office.

Violation Division: Alameda County Environmental Health
Violation Program: APSA
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ADMINISTRATION BLDG. (Continued)

S121752861

Violation Description: 6.67, Section(s) 25270.4.5(a)
Failure to prepare a Spill Prevention, Control, and Countermeasures (SPCC) Plan.

Violation Notes: OBSERVATIONS: A Tier 1 SPCC Plan dated December 2010 (with February 2015 Admin Updates) was last uploaded to CERS on March 2, 2015. The SPCC Plan is not being implemented due to the following: a copy of the plan is not available on site; AST weekly inspections are not occurring weekly as directed by the plan and no training on the SPCC Plan has occurred. CORRECTIVE ACTIONS: Provide a copy of the latest SPCC Plan to the site. Begin weekly inspections of both of the ASTs. Train all employees on the contents of the SPCC plan. Submit documentation supporting the above corrections.

Violation Division: Alameda County Environmental Health
Violation Program: APSA
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.67 25270.4.5 (a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5 (a)

Violation Description: Failure to include in the SPCC plan an adequate description of employee training. Training shall address, at a minimum: operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules, and regulations; general facility operations; content of the facility SPCC plan; and annual discharge prevention briefings for oil-handling personnel to assure adequate understanding of the SPCC plan.

Violation Notes: Returned to compliance on 05/29/2018. OBSERVATION: No records of employee training on spill prevention briefings were found. CORRECTIVE ACTION: Conduct spill prevention briefings annually. Provide training documentation showing that this training occurs annually.

Violation Division: Alameda County Environmental Health
Violation Program: APSA
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)

Violation Description: Failure to discuss in the SPCC Plan procedures to test or inspect each aboveground container for integrity in accordance with industry standards: 1. On a regular schedule. 2. After material repairs are made. 3. By qualified personnel. 4. The frequency and type of testing and inspections based on container size, configuration, and design.

Violation Notes: OBSERVATION: Facility is not inspecting tank supports/foundation, deterioration, and discharges. CORRECTIVE ACTION: Immediately begin inspecting tanks as directed by your SPCC plan and ensure that the inspections include supports/foundation, deterioration, and discharges.

Violation Division: Alameda County Environmental Health
Violation Program: APSA
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ADMINISTRATION BLDG. (Continued)

S121752861

Violation Date: 04-20-2018
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes: Returned to compliance on 05/29/2018. OBSERVATION: Employee training documentation for all applicable employees was not available for review. CORRECTIVE ACTION: Submit documentation to the CUPA demonstrating that employees have received training on safe handling of hazardous materials and the Emergency Response Plan and procedures. Submit training records for the last three years.
Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 22062
Site Name: County of Alameda GSA Administration Bldg.
Violation Date: 04-20-2018
Citation: HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple
Violation Description: APSA Program - Administration/Documentation - General
Violation Notes: OBSERVATIONS: The SPCC Plan is not being implemented due to the following: a copy of the plan is not available on site; AST weekly inspections are not occurring weekly as directed by the plan and no training on the SPCC Plan has occurred. CORRECTIVE ACTIONS: Provide a copy of the latest SPCC Plan to the site. Begin weekly inspections of both of the ASTs. Train all employees on the contents of the SPCC plan. Submit documentation supporting the above corrections.
Violation Division: Alameda County Environmental Health
Violation Program: APSA
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-20-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: On site with Rod Alston, GSA Supervisor of Building & Plant Maintenance, who granted permission to conduct the inspection. Ed Hunter, GSA Building Engineer, assisted with the walk-through of the facility. Facility has one 2700 gallon AST for diesel which is connected to a 500 gallon diesel generator AST. RL Stevens services the Veeder Root monitoring system. The display on the system is currently malfunctioning and is not readable. The system printout currently reads All Functions Normal . The Hazardous Materials Business Plan (HMBP) was last submitted to CERS on February 28, 2018. All violations noted in this HMBP inspection report are to be corrected within 30 days and proof of those corrections submitted to this office in the same time frame. CERTIFICATION OF RE TURN TO COMPLIANCE I certify that the violation(s) noted in this HMBP inspection report have been corrected. I have personally examined any documentation attached to the certification to establish [Truncated]
Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ADMINISTRATION BLDG. (Continued)

S121752861

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-20-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: On site with Rod Alston, GSA Supervisor of Building & Plant Maintenance, who granted permission to conduct the inspection. Ed Hunter, GSA Building Engineer, assisted with the walk-through of the facility. Facility does not routinely generate hazardous waste. Diesel generators and hydraulic elevator units are serviced by outside vendors. Facility does generate universal waste (lamps, ballasts and non-empty aerosols). Facility is to ensure that lamps are properly stored in containers large enough to enclose the entire lamp. Lamps must always be stored to prevent breakage. Ballasts and non-empty aerosols must be stored in containers and not in cardboard boxes. This facility will be removed from the Hazardous Waste Generator program.
Eval Division: Alameda County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-20-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: On site with Rod Alston, GSA Supervisor of Building & Plant Maintenance, who granted permission to conduct the inspection. Ed Hunter, GSA Building Engineer, assisted with the walk-through of the facility. Facility has one 2700 gallon AST for diesel which is connected to a 500 gallon diesel generator AST. RL Stevens services the Veeder Root monitoring system. The display on the system is currently malfunctioning and is not readable. The system printout currently reads All Functions Normal . It is highly recommended that the display on the Veeder Root monitoring system be fixed or replaced. Reviewed the Tier 1 SPCC Plan prepared in December 2010 and updated in February 2015 that was submitted to CERS on March 2, 2015. Update Table G-8 Contact List to reflect current personnel. All violations noted in this Aboveground Petroleum Storage Act inspection report are to be corrected within 30 days and proof of those corrections submitted to this office in the same [Truncated]
Eval Division: Alameda County Environmental Health
Eval Program: APSA
Eval Source: CERS

Coordinates:
Site ID: 22062
Facility Name: County of Alameda GSA Administration Bldg.
Env Int Type Code: HWG
Program ID: 10397998
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.800260
Longitude: -122.264110

Affiliation:
Affiliation Type Desc: Document Preparer
Entity Name: Joe Moulton, CHMM, Consultant
Entity Title: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ADMINISTRATION BLDG. (Continued)

S121752861

Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: Rod Freitag
Entity Title: Environmental Program Manager, GSA-CPED
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Operator
Entity Name: County of Alameda GSA - Building Maintenance Department
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (510) 618-3450

Affiliation Type Desc: Parent Corporation
Entity Name: Alameda County General Services Agency
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: Rod Freitag
Entity Title: Not reported
Affiliation Address: 1401 Lakeside Drive, Ste. 800
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94612
Affiliation Phone: (510) 208-9522

Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ADMINISTRATION BLDG. (Continued)

S121752861

Affiliation Type Desc: Legal Owner
Entity Name: County of Alameda
Entity Title: Not reported
Affiliation Address: 1401 Lakeside Drive, Ste. 600 (Attn: Facilities Manager)
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94612
Affiliation Phone: (510) 618-3450

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 1225 Fallon Street
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94612
Affiliation Phone: Not reported

Q83
SW
1/8-1/4
0.193 mi.
1021 ft.

OAK STREET SHELL
105 005TH ST
OAKLAND, CA 94607
Site 1 of 3 in cluster Q

SWEEPS UST S101630364
CA FID UST N/A

Relative:
Lower

SWEEPS UST:

Actual:
18 ft.

Status: Active
Comp Number: 56698
Number: 1
Board Of Equalization: 44-000074
Referral Date: 12-14-93
Action Date: 05-09-94
Created Date: 02-29-88
Owner Tank Id: 5510-04-RU-1
SWRCB Tank Id: 01-000-056698-000001
Tank Status: A
Capacity: 10000
Active Date: 12-13-93
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 4

Status: Active
Comp Number: 56698
Number: 1
Board Of Equalization: 44-000074
Referral Date: 12-14-93
Action Date: 05-09-94
Created Date: 02-29-88
Owner Tank Id: 5510-04-PL-1
SWRCB Tank Id: 01-000-056698-000002
Tank Status: A
Capacity: 10000
Active Date: 12-13-93
Tank Use: M.V. FUEL

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OAK STREET SHELL (Continued)

S101630364

STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 56698
Number: 1
Board Of Equalization: 44-000074
Referral Date: 12-14-93
Action Date: 05-09-94
Created Date: 02-29-88
Owner Tank Id: 5510-04-SU-1
SWRCB Tank Id: 01-000-056698-000003
Tank Status: A
Capacity: 10000
Active Date: 12-13-93
Tank Use: M.V. FUEL
STG: P
Content: PRM UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 56698
Number: 1
Board Of Equalization: 44-000074
Referral Date: 12-14-93
Action Date: 05-09-94
Created Date: 02-29-88
Owner Tank Id: 5510-04-DSL-1
SWRCB Tank Id: 01-000-056698-000004
Tank Status: A
Capacity: 10000
Active Date: 12-13-93
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: Not reported

CA FID UST:

Facility ID: 01002750
Regulated By: UTNKA
Regulated ID: 00056698
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4158390784
Mail To: Not reported
Mailing Address: 105 005TH ST
Mailing Address 2: Not reported
Mailing City,St,Zip: OAKLAND 94607
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

O84 **BALCO PROPERTIES**
South **55 4TH ST**
1/8-1/4 **OAKLAND, CA 94607**
0.210 mi.
1107 ft. **Site 2 of 2 in cluster O**

LUST **S102424907**
Alameda County CS
HIST CORTESE
CERS **N/A**

Relative:
Lower
Actual:
13 ft.

LUST:
 Lead Agency: ALAMEDA COUNTY LOP
 Case Type: LUST Cleanup Site
 Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100135
 Global Id: T0600100135
 Latitude: 37.793648
 Longitude: -122.266467
 Status: Completed - Case Closed
 Status Date: 02/14/1996
 Case Worker: Not reported
 RB Case Number: 01-0146
 Local Agency: Not reported
 File Location: All Files are on GeoTracker or in the Local Agency Database
 Local Case Number: RO0000751
 Potential Media Affect: Other Groundwater (uses other than drinking water)
 Potential Contaminants of Concern: Gasoline
 Site History: Not reported

LUST:
 Global Id: T0600100135
 Contact Type: Regional Board Caseworker
 Contact Name: Regional Water Board
 Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
 Address: 1515 CLAY ST SUITE 1400
 City: OAKLAND
 Email: Not reported
 Phone Number: Not reported

LUST:
 Global Id: T0600100135
 Action Type: Other
 Date: 10/30/1990
 Action: Leak Reported

Global Id: T0600100135
 Action Type: REMEDIATION
 Date: 09/09/9999
 Action: Not reported

Global Id: T0600100135
 Action Type: ENFORCEMENT
 Date: 07/20/1995
 Action: State Water Board Closure Order

LUST:
 Global Id: T0600100135
 Status: Completed - Case Closed
 Status Date: 02/14/1996

Global Id: T0600100135
 Status: Open - Case Begin Date
 Status Date: 10/30/1990

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BALCO PROPERTIES (Continued)

S102424907

LUST REG 2:

Region: 2
Facility Id: 01-0146
Facility Status: Case Closed
Case Number: 3698
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assessment Wokplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Case Closed
Record Id: RO0000751
PE: 5602
Facility Status: Case Closed
Latitude: 37.793930054
Longitude: -122.2660225

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-0146

CERS TANKS:

Site ID: 211947
CERS ID: T0600100135
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

R85 **ALCOPARK GARAGE**
North **165 13TH ST**
1/8-1/4 **OAKLAND, CA 94612**
0.210 mi.
1110 ft. **Site 1 of 5 in cluster R**

LUST **U001599399**
UST **N/A**
SWEEPS UST
HIST UST

Relative: LUST REG 2:
Higher Region: 2
Actual: Facility Id: 01-0055
35 ft. Facility Status: Preliminary site assessment underway
 Case Number: 3909
 How Discovered: Tank Closure
 Leak Cause: Structure Failure
 Leak Source: Tank
 Date Leak Confirmed: Not reported
 Oversight Program: LUST
 Prelim. Site Assesment Wokplan Submitted: 8/10/1990
 Preliminary Site Assesment Began: 8/19/1990
 Pollution Characterization Began: Not reported
 Pollution Remediation Plan Submitted: Not reported
 Date Remediation Action Underway: Not reported
 Date Post Remedial Action Monitoring Began: Not reported

UST:
 Facility ID: 179
 Permitting Agency: OAKLAND, CITY OF
 Latitude: 37.802076
 Longitude: -122.263942

 Facility ID: Not reported
 Permitting Agency: Alameda County Environmental Health
 Latitude: 37.80073
 Longitude: -122.26529

ALAMEDA CO. UST:
 Facility ID: FA0321139
 Facility Status: Active
 Program Element: 4102
 Description: UNDERGROUND STORAGE TANK 2 CONTAINERS
 Inspection Date: 07/16/2019
 Closed: Not reported
 Owner Name: County of Alameda GSA
 Owner ID: OW0302893
 Fstatus Decode: Open

SWEEPS UST:
 Status: Active
 Comp Number: 27246
 Number: 5
 Board Of Equalization: 44-000324
 Referral Date: 03-08-91
 Action Date: 03-08-91
 Created Date: 02-29-88
 Owner Tank Id: 1921-1
 SWRCB Tank Id: 01-000-027246-000001
 Tank Status: A
 Capacity: 8000
 Active Date: 03-08-91

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ALCOPARK GARAGE (Continued)

U001599399

Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: 7

Status: Active
Comp Number: 27246
Number: 5
Board Of Equalization: 44-000324
Referral Date: 03-08-91
Action Date: 03-08-91
Created Date: 02-29-88
Owner Tank Id: 1921-2
SWRCB Tank Id: 01-000-027246-000002
Tank Status: A
Capacity: 8000
Active Date: 03-08-91
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 27246
Number: 5
Board Of Equalization: 44-000324
Referral Date: 03-08-91
Action Date: 03-08-91
Created Date: 02-29-88
Owner Tank Id: 1921-3
SWRCB Tank Id: 01-000-027246-000003
Tank Status: A
Capacity: 10000
Active Date: 03-08-91
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 27246
Number: 5
Board Of Equalization: 44-000324
Referral Date: 03-08-91
Action Date: 03-08-91
Created Date: 02-29-88
Owner Tank Id: 1921-4
SWRCB Tank Id: 01-000-027246-000004
Tank Status: A
Capacity: 8000
Active Date: 03-08-91
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ALCOPARK GARAGE (Continued)

U001599399

Comp Number: 27246
Number: 5
Board Of Equalization: 44-000324
Referral Date: 03-08-91
Action Date: 03-08-91
Created Date: 02-29-88
Owner Tank Id: 1921-5
SWRCB Tank Id: 01-000-027246-000005
Tank Status: A
Capacity: 550
Active Date: 03-08-91
Tank Use: OIL
STG: W
Content: WASTE OIL
Number Of Tanks: Not reported

Status: Active
Comp Number: 27246
Number: 5
Board Of Equalization: 44-000324
Referral Date: 03-08-91
Action Date: 03-08-91
Created Date: 02-29-88
Owner Tank Id: 1921-6
SWRCB Tank Id: 01-000-027246-000006
Tank Status: A
Capacity: 225
Active Date: 03-08-91
Tank Use: OIL
STG: P
Content: TRANSMISSION
Number Of Tanks: Not reported

Status: Active
Comp Number: 27246
Number: 5
Board Of Equalization: 44-000324
Referral Date: 03-08-91
Action Date: 03-08-91
Created Date: 02-29-88
Owner Tank Id: 1921-7
SWRCB Tank Id: 01-000-027246-000007
Tank Status: A
Capacity: 250
Active Date: 03-08-91
Tank Use: OIL
STG: P
Content: MOTOR OIL
Number Of Tanks: Not reported

HIST UST:

File Number: Not reported
URL: Not reported
Region: STATE
Facility ID: 00000027246
Facility Type: Other
Other Type: COUNTY GARAGE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ALCOPARK GARAGE (Continued)

U001599399

Contact Name: Not reported
Telephone: 4158746340
Owner Name: COUNTY OF ALAMEDA
Owner Address: 440- MACARTHUR BOULEVARD
Owner City,St,Zip: OAKLAND, CA 94619
Total Tanks: 0005

Tank Num: 001
Container Num: 20-1
Year Installed: 1962
Tank Capacity: 00008000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: 20-2
Year Installed: 1962
Tank Capacity: 00008000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: 20-3
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 004
Container Num: 20-4
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 005
Container Num: 20-5
Year Installed: 1962
Tank Capacity: 00000000
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Container Construction Thickness: Not reported
Leak Detection: None

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

R86
North
1/8-1/4
0.210 mi.
1110 ft.
Site 2 of 5 in cluster R

LUST **S101624486**
Alameda County CS
HIST UST
CA FID UST
HIST CORTESE
CERS
N/A

Relative:
Higher

Actual:
35 ft.

LUST:

Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)
 Case Type: LUST Cleanup Site
 Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100049
 Global Id: T0600100049
 Latitude: 37.800737996185
 Longitude: -122.264840984131
 Status: Completed - Case Closed
 Status Date: 04/29/2010
 Case Worker: UUU
 RB Case Number: 01-0055
 Local Agency: Not reported
 File Location: All Files are on GeoTracker or in the Local Agency Database
 Local Case Number: Not reported
 Potential Media Affect: Other Groundwater (uses other than drinking water)
 Potential Contaminants of Concern: Gasoline
 Site History: Not reported

LUST:

Global Id: T0600100049
 Contact Type: Regional Board Caseworker
 Contact Name: Regional Water Board
 Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
 Address: 1515 CLAY ST SUITE 1400
 City: OAKLAND
 Email: Not reported
 Phone Number: Not reported

LUST:

Global Id: T0600100049
 Action Type: Other
 Date: 08/10/1994
 Action: Leak Reported

Global Id: T0600100049
 Action Type: ENFORCEMENT
 Date: 07/10/2009
 Action: Staff Letter - #20090710

Global Id: T0600100049
 Action Type: ENFORCEMENT
 Date: 07/28/2009
 Action: Staff Letter - #20090728

Global Id: T0600100049
 Action Type: RESPONSE
 Date: 08/25/2009
 Action: Electronic Reporting Submittal Due

Global Id: T0600100049
 Action Type: RESPONSE
 Date: 08/18/2008

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ALCOPARK GARAGE (Continued)

S101624486

Action: Soil and Water Investigation Report

Global Id: T0600100049
Action Type: RESPONSE
Date: 10/30/2008
Action: Monitoring Report - Annually

Global Id: T0600100049
Action Type: REMEDIATION
Date: 09/09/9999
Action: Not reported

Global Id: T0600100049
Action Type: ENFORCEMENT
Date: 11/19/2009
Action: Site Visit / Inspection / Sampling

Global Id: T0600100049
Action Type: ENFORCEMENT
Date: 04/29/2010
Action: Closure/No Further Action Letter

Global Id: T0600100049
Action Type: RESPONSE
Date: 09/08/2009
Action: Soil and Water Investigation Workplan - Addendum

Global Id: T0600100049
Action Type: Other
Date: 06/29/1994
Action: Leak Discovery

Global Id: T0600100049
Action Type: RESPONSE
Date: 05/18/2009
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0600100049
Action Type: ENFORCEMENT
Date: 06/19/2008
Action: Staff Letter - #20080619A

Global Id: T0600100049
Action Type: ENFORCEMENT
Date: 06/19/2008
Action: Staff Letter - #20080619B

LUST:

Global Id: T0600100049
Status: Completed - Case Closed
Status Date: 04/29/2010

Global Id: T0600100049
Status: Open - Case Begin Date
Status Date: 06/29/1994

Global Id: T0600100049

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ALCOPARK GARAGE (Continued)

S101624486

Status: Open - Site Assessment
Status Date: 08/10/1994

Global Id: T0600100049
Status: Open - Site Assessment
Status Date: 01/15/1998

Global Id: T0600100049
Status: Open - Site Assessment
Status Date: 03/09/1998

Global Id: T0600100049
Status: Open - Site Assessment
Status Date: 04/17/1998

Alameda County CS:

Status: Leak Confirmation
Record Id: RO0000401
PE: 5602
Facility Status: Leak Confirmation
Latitude: 37.800856603
Longitude: -122.26491865

Status: 11
Record Id: RO0000401
PE: 5602
Facility Status: Not reported
Latitude: 37.800856603
Longitude: -122.26491865

Status: Preliminary Site Assessment Workplan Submitted
Record Id: RO0000401
PE: 5602
Facility Status: Preliminary Site Assessment Workplan Submitted
Latitude: 37.800856603
Longitude: -122.26491865

Status: Preliminary Site Assessment Underway
Record Id: RO0000401
PE: 5602
Facility Status: Preliminary Site Assessment Underway
Latitude: 37.800856603
Longitude: -122.26491865

Status: Pollution Characterization
Record Id: RO0000401
PE: 5602
Facility Status: Pollution Characterization
Latitude: 37.800856603
Longitude: -122.26491865

HIST UST:

File Number: 00035EC6
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00035EC6.pdf>
Region: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ALCOPARK GARAGE (Continued)

S101624486

Facility ID: Not reported
Facility Type: Not reported
Other Type: Not reported
Contact Name: Not reported
Telephone: Not reported
Owner Name: Not reported
Owner Address: Not reported
Owner City,St,Zip: Not reported
Total Tanks: Not reported

Tank Num: Not reported
Container Num: Not reported
Year Installed: Not reported
Tank Capacity: Not reported
Tank Used for: Not reported
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: Not reported

[Click here for Geo Tracker PDF:](#)

CA FID UST:

Facility ID: 01000174
Regulated By: UTNKA
Regulated ID: 00027246
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4155309660
Mail To: Not reported
Mailing Address: 4400 MACARTHUR BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: OAKLAND 94612
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-0055

CERS TANKS:

Site ID: 237724
CERS ID: T0600100049
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ALCOPARK GARAGE (Continued)

S101624486

Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

R87
North
1/8-1/4
0.210 mi.
1110 ft.

COUNTY OF ALAMEDA GSA ALCOPARK GARAGE
165 13TH ST
OAKLAND, CA 94612

CERS HAZ WASTE
CERS TANKS
CERS

S121738512
N/A

Site 3 of 5 in cluster R

Relative:
Higher
Actual:
35 ft.

CERS HAZ WASTE:
Site ID: 108426
CERS ID: 10398013
CERS Description: Hazardous Waste Generator

Violations:

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-20-2017
Citation: 23 CCR 16 2715(e) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(e)

Violation Description: Failure to maintain a copy of the designated operator monthly inspections for the last 12 months on-site or off-site at a readily available location, if approved by the UPA.

Violation Notes: Returned to compliance on 07/05/2018. OBSERVATION: Copies of DO trained employees were not on site and not readily available for review. A list of the DO employee training records should be available for review during inspection upon the request of ACDEH inspector. CORRECTIVE ACTION: Locate and ensure that the employee training records are maintained on site. Submit copies of the training roster to the CUPA by August 24, 2017

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-23-2015
Citation: 23 CCR 16 2715(d) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(d)

Violation Description: Failure to notify the owner or operator of any condition discovered during the monthly visual inspection that may require follow-up actions.

Violation Notes: Returned to compliance on 07/20/2017. SEE ITEM 72
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-20-2017
Citation: 23 CCR 16 2715(f) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(f)

Violation Description: Failure to have at least one employee present during operating hours that has been trained in the proper operation and maintenance of the

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

Violation Notes: UST system by a designated operator (DO). Returned to compliance on 07/05/2018. "OBSERVATION: The designated operator employee training records were not on site or readily available for review and therefore it could not be verified by ACDEH that employee training was performed and current. The designated operator shall document the training on a required form for facility employees for which he or she is responsible in the proper operation and maintenance of the UST system once every 12 months. The training shall include, but is not limited to: 1. Operation of the UST system in a manner consistent with the facility's best management practices 2. Employee's role with regard to monitoring equipment as specified in the facility's monitoring plan 3. Employee's role with regard to spills and overfills as specified in the facility's response plan 4. Name of the contact person(s) for emergencies and monitoring equipment alarms. CORRECTIVE ACTION: Ensure that employees have been trained by the designated operator, use the required form attached to maintain [Truncated]

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 22 CCR 12 66262.42(a), (b), (d) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.42(a), (b), (d)

Violation Description: Failure to determine the status of any hazardous waste if a signed copy of the manifest isn't received within 35 days of the date the waste was accepted by the initial transporter and/or to submit an Exception Report to DTSC if a signed copy of the manifest isn't received within 45 days of the date the waste was accepted by the initial transporter.

Violation Notes: Returned to compliance on 07/16/2018. OBSERVATIONS: At least three uniform hazardous waste receipts did not have the final signed copy from the Designated Disposal Facility. It is unknown if the final receipts were misplaced or never received, nor it is unknown if an exception report was submitted to the Department of Toxic Substances Control (DTSC). CORRECTIVE ACTIONS: Facility is to obtain the final signed copy of the receipts from the Designated Disposal Facility for the following three manifests and submit copies to ACDEH: 006424035SKS dated 12/28/17 006363398SKS dated 10/26/17 006036052SKS dated 6/26/17

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-18-2016
Citation: HSC 6.7 25284 - California Health and Safety Code, Chapter 6.7, Section(s) 25284

Violation Description: Failure to obtain a valid permit to operate from the CUPA.

Violation Notes: Returned to compliance on 07/20/2017.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-16-2018
Citation: 23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)
Violation Description: Failure to have current UST Monitoring Plan available on site.
Violation Notes: Returned to compliance on 08/07/2018. OBSERVATION: The monitoring plan on site is not approved by the CUPA. UST facility UST tank information for both tanks (Tank ID #1921-3 and Tank ID #1921-4) is not current in CERS. Line item 464 (e) for both tanks should be fiberglass and line item 452 (a) for both tanks should be no. The monitoring plan must be current and approved by the CUPA. CORRECTIVE ACTION: Correct line items listed above, submit monitoring plan to CERS for approval and maintain an approved copy on site. Submit verification to the CUPA within 30 days.
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)
Violation Description: Failure to keep a copy of each properly signed manifest for at least three years from the date the waste was accepted by the initial transporter. The manifest signed at the time the waste was accepted for transport shall be kept until receiving a signed copy from the designated facility which received the waste.
Violation Notes: Returned to compliance on 07/16/2018. OBSERVATIONS: At least three uniform hazardous waste receipts did not have the final signed copy from the Designated Disposal Facility. . CORRECTIVE ACTIONS: Facility is to obtain the final signed copy of the receipts from the Designated Disposal Facility for the following three manifests and submit copies to ACDEH: 006424035SKS dated 12/28/17 006363398SKS dated 10/26/17 006036052SKS dated 6/26/17
Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 06-21-2016
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes: Returned to compliance on 07/18/2016. OBSERVATION: [INITIAL / ANNUAL] training documentation for all applicable employees was not available. CORRECTIVE ACTION: Submit documentation to the CUPA demonstrating that employees have received training on safe handling of hazardous materials and the Emergency Response Plan. SIGN IN SHEET WAS FOUND AND EMAILED TO ME AFTER I LEFT THE SITE.
Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 40 CFR 1 265.31 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.31
Violation Description: Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.
Violation Notes: Returned to compliance on 07/16/2018. OBSERVATIONS: Waste brake shavings are overflowing their container and are all over the floor. Facility has determined that this waste stream is a hazardous waste. CORRECTIVE ACTIONS: Immediately place all brake shavings into a closed metal drum and manage it as a hazardous waste. Submit a written statement on how this area will be managed. Dispose of the brake shavings and submit a copy of the disposal receipt to ACDEH.
Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
Violation Description: Failure to meet the following container management requirements: (a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.
Violation Notes: Returned to compliance on 07/16/2018. OBSERVATIONS: The used oil tank was found open. CORRECTIVE ACTIONS: Keep all hazardous waste containers closed except when adding or removing waste. Submit written documentation that this occurs.
Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 40 CFR 1 265.171 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.171
Violation Description: Failure to accumulate hazardous waste in a container that is in good condition.
Violation Notes: Returned to compliance on 07/16/2018. OBSERVATIONS: Brake shavings are currently overflowing the container and are all over the floor. Facility has determined that this waste stream is a hazardous waste. CORRECTIVE ACTIONS: Immediately place brake shavings into a closed metal drum and manage it as a hazardous waste. Label the container with a completely filled out hazardous waste label. Dispose of it and submit copies of the disposal receipts. This waste stream must be disposed of every six months.
Violation Division: Alameda County Environmental Health
Violation Program: HW

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-20-2017
Citation: 23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)

Violation Description: Failure to have a UST Monitoring Plan available on site.
Violation Notes: Returned to compliance on 07/03/2018. OBSERVATION: Approved copies of the monitoring and response plans were not found on site and facility personnel did not have access to CERS. Copies of these plans shall be accessible on site at all times. CORRECTIVE ACTION: Immediately locate and retain a copy on site or provide access to CERS. Submit verification to ACDEH.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)

Violation Description: Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.
Violation Notes: Returned to compliance on 07/16/2018. OBSERVATION: The facility failed to properly train personnel who handle hazardous waste. All employees shall be trained within six months of assignment and take part in an annual review of the initial training received. At a minimum, the training program shall be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including where applicable: 1) procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment; 2) key parameters for automatic waste feed cut-off systems; 3) communications or alarm systems; 4) response to fires or explosions; 5) response to ground-water contamination incidents; and 6) shutdown of operations. Training records on current personnel shall be kept until closure of the facility. Training records on former employees shall be kept for at least three years from the date the employee [Truncated]

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-23-2015
Citation: 23 CCR 16 2712(b) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(b)

Violation Description: Failure to maintain leak detection alarm logs and/or maintain records of appropriate follow-up actions
Violation Notes: Returned to compliance on 12/15/2015. SEE ITEM 72
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-23-2015
Citation: 23 CCR 16 2715 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715
Violation Description: Failure to comply with one or more of the designated operator monthly inspection requirements: failed to inspect the monthly alarm history report; attach a copy of the alarm history; failed to inspect for the presence of liquid or debris in the spill container/spill bucket and under dispenser containment; failed to inspect the under dispenser containment to ensure that monitoring equipment is placed in the proper position; failure to inspect for liquid or debris in the containment sump where an alarm occurred or for which there is no record of a service visit; or failure to check that all testing and maintenance has been completed and documented.
Violation Notes: Returned to compliance on 07/20/2017. OBSERVATION: JUNE 2015 REPORT DOES NOT INCLUDE ANY DOCUMENTATION OR RESPONSE TO TANK 1 BEING FILLED TO 100% OF CAPACITY IN VIOLATION FOR TITLE 23 AND THE H&SC.
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-20-2017
Citation: 23 CCR 16 2712(b) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(b)
Violation Description: Failure to maintain records of repairs, lining, and upgrades on site, or off site if approved by the CUPA, for the life of the UST.
Violation Notes: Returned to compliance on 07/05/2018. OBSERVATION: The facility did not have 2015 Annual Monitoring Certification test results and 2016 Annual Monitoring Certification test results on site during inspection. CORRECTIVE ACTION: Maintain written monitoring and maintenance records for a period of 3 years. Submit verification to ACDEH.
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 40 CFR 1 265.201(c)(3) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.201(c)(3)
Violation Description: Failure to inspect hazardous waste tanks at least once each operating day for the following, when present: (1) Discharge control equipment (e.g., waste feed cutoff systems, by-pass systems, and drainage systems) to ensure that it is in good working order; (2) Data gathered from monitoring equipment (e.g., pressure and temperature gauges) to ensure that the tank is being operated according to its design; (3) The level of waste in the tank.
Violation Notes: Returned to compliance on 07/16/2018. OBSERVATION: The facility does not conduct daily tank inspection of the discharge systems, monitoring equipment, and tank levels. CORRECTIVE ACTION: Immediately begin to conduct daily inspections of the discharge systems, monitoring equipment, and tank levels for all tanks containing hazardous waste. Submit documentation that this is occurring.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: HSC 6.5 25250.22 - California Health and Safety Code, Chapter 6.5, Section(s) 25250.22

Violation Description: Failure to properly manage used oil and/or fuel filters in accordance with the requirements.

Violation Notes: Returned to compliance on 07/16/2018. OBSERVATIONS: There are two drums of used oil filters currently on site. Last disposal of used oil filters occurred on 11/19/16. Used oil filters are to be disposed of at least once a year. CORRECTIVE ACTIONS: Dispose of the used oil filters and submit a copy of the receipt to ACDEH. Dispose of the used oil filters at least once a year.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 22 CCR 23 66273.35 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.35

Violation Description: Failure to accumulate universal waste for one year or less and to demonstrate the length of time that the universal waste has been accumulated from the date it became a waste or was received.

Violation Notes: Returned to compliance on 07/16/2018. OBSERVATIONS: Waste aerosols were last disposed of on 4/24/14. Universal waste must be disposed of at least once a year. CORRECTIVE ACTIONS: Dispose of the waste aerosols and submit a copy of the disposal receipt. Dispose annually.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-23-2015
Citation: HSC 6.7 25292.1(a) - California Health and Safety Code, Chapter 6.7, Section(s) 25292.1(a)

Violation Description: Failure to operate the UST system to prevent spills and/or overfills.

Violation Notes: Returned to compliance on 12/15/2015. OBSERVATION: ACCORDING TO THE VR TANK HISTORY REPORT- TANK 1 WAS FILLED TO 100% OF THE NOMINAL CAPACITY ON MAY 6, 2015 AT 10:27pm. NO FOLLOW UP RECORDS OR REPORTS FOUND TO DOCUMENT THIS INCIDENT. DO REPORT SIMPLY NOTES "OVERFILL ALARM ON 5-6-15 THIS IS A SERIOUS VIOLATION THIS COULD RESULT IN AN UNAUTHORIZED RELEASE. CORRECTIVE ACTION: PROVIDE WRITTEN DOCUMENTATION OF THE TANK FILLING PROCEDURE.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

Citation: 40 CFR 1 265.201(c)(5) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.201(c)(5)

Violation Description: Failure to inspect hazardous waste tanks for the following, when present: 4) The construction materials of the tank at least weekly to detect corrosion or leaking of fixtures or seams. 5) The construction materials of, and the area immediately surrounding, discharge confinement structures (e.g., dikes) at least weekly to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation).

Violation Notes: Returned to compliance on 07/16/2018. OBSERVATION: The facility is not conducting weekly inspections of the construction materials, fixtures, and surrounding areas of the used oil tank. The tank was open with oil spills on top of the tank. Some absorbent observed on the floor around the tank. CORRECTIVE ACTIONS: Immediately begin to conduct weekly inspections of the construction materials, fixtures, and surrounding areas of the used oil tank. Submit documentation that these inspections are occurring to ACDEH.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-16-2018
Citation: HSC 6.7 25284, 25286 - California Health and Safety Code, Chapter 6.7, Section(s) 25284, 25286

Violation Description: Failure to submit a complete and accurate application for a permit to operate a UST, or for renewal of the permit.

Violation Notes: Returned to compliance on 08/07/2018. OBSERVATION: The facility UST tank information for both tanks (Tank ID #1921-3 and Tank ID #1921-4) is not current in CERS. Line item 464 (e) for both tanks should be fiberglass and line item 452 (a) for both tanks should be no. Any change of information must be updated in CERS within 30 days of the change. CORRECTIVE ACTION: Submit and maintain an accurate UST Tank information.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-23-2015
Citation: HSC 6.7 25286(a) - California Health and Safety Code, Chapter 6.7, Section(s) 25286(a)

Violation Description: Failure to submit an complete and accurate application for a permit to operate an underground storage tank, or for renewal of the permit.

Violation Notes: Returned to compliance on 07/20/2017. OBSERVATION: Owner/Operator did not submit accurate information to the UST section of CERS. CORRECTIVE ACTIONS: EDIT AND CHANGE THE INFORMATION IN CELL 422-8, STATE FUND AND CFO LETTER; 490-70 CHANGE FROM NO TO YES;

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22,

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Elevation

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EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

Violation Description: Chapter 12, Section(s) 66262.34(f)
Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.

Violation Notes: Returned to compliance on 07/16/2018. OBSERVATION: Two drums of waste oily solids were not marked with a completely filled out hazardous waste label. The waste coolant container is missing the accumulation start date. All hazardous waste containers shall be marked with the following information: 1) the words Hazardous Waste ; 2) name and address of generator; 3) hazardous properties; 4) physical state; 5) composition (contents); 6) accumulation start date. CORRECTIVE ACTION: Immediately label these containers and ensure that all containers are marked with all the required information. Submit photos or written documentation that this has occurred.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: HSC 6.5 25123.3(h)(1) - California Health and Safety Code, Chapter 6.5, Section(s) 25123.3(h)(1)

Violation Description: Failure to send hazardous waste offsite for treatment, storage, or disposal within 180 days (or 270 days if waste is transported over 200 miles) for a generator who generates less than 1000 kilogram per month if all of the following conditions are met: (1) The quantity of hazardous waste accumulated onsite never exceeds 6,000 kilograms. (2) The generator complies with the requirements of 40 Code of Federal Regulations section 262.34(d), (e) and (f). (3) The generator does not hold acutely hazardous waste or extremely hazardous waste in an amount greater than one kilogram for more than 90 days.

Violation Notes: Returned to compliance on 07/16/2018. OBSERVATION: Facility last disposed of waste coolant on 1/11/17. Waste oily debris was last disposed of on 3/10/14. Facilities who generate less than 1000 kg of hazardous waste per month and do not exceed 6000 kg of waste stored on site at any time may store waste on site up to 180 days. All hazardous waste must be disposed of every six months. CORRECTIVE ACTION: Immediately contact a licensed hazardous waste hauler to dispose of this waste under manifest and submit a copy of the manifest to ACDEH.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 40 CFR 1 262.34(d)(5)(ii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(ii)

Violation Description: Failure to post the following information next to the telephone: (A) The name and telephone number of the emergency coordinator; (B) Location of fire extinguishers and spill control material, and, if present, fire alarm; and (C) The telephone number of the fire department, unless the facility has a direct alarm.

Violation Notes: Returned to compliance on 07/16/2018. OBSERVATION: The facility failed

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EDR ID Number
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COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

to post, next to the telephone, Emergency Information containing the location of emergency equipment, contact names and numbers. CORRECTIVE ACTION: Facility shall post, next to the telephone, emergency information that contains the required information in accordance with Title 22. A blank Emergency Procedures form was left with Mr. Salaverria. Provide a written statement saying this form or something comparable was posted in the facility. A blank Emergency Procedures form was left with Mr. Salaverria.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Evaluation:

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-20-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: ON SITE FOR ANNUAL MONITORING CERTIFICATION AND SPILL BUCKET TESTING. THE SERVICE TECHNICIAN WAS DAVID PEREIRA OF R.L STEVENS CO WHO POSSESSES THE CALIFORNIA ICC UST SERVICE TECHNICIAN CERTIFICATION THAT EXPIRES 5-31-18 AND THE VEEDER ROOT CERTIFICATION THAT EXPIRES 1-18-18. ALL VIOLATIONS NOTED IN THE INSPECTION REPORT SHALL TO BE CORRECTED BY AUGUST 24, 2017 AND SUBMIT DOCUMENTATION VERIFICATION WITHIN THE SAME TIME FRAME.

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-16-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH ON SITE FOR HAZARDOUS MATERIALS BUSINESS PLAN INSPECTION. ESCORTED BY RICKY SALAVERRIA, LEAD MECHANIC. NO VIOLATIONS NOTED DURING THE INSPECTION.

Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-18-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: ROUTINE INSPECTION- INVENTORY OF UNDER THRESHOLD CHEMICALS CAN BE REMOVED FROM THE INVENTORY, INCLUDING GASES LESS THAN 200 CU FT. ONE GALLON CONTAINERS OF COOLANT DO NOT NEED TO BE REPORTED SINCE LESS THAN 55 GALLONS. RECOMMEND SERVICING EYE WASH STATIONS ON A 30 DAY BASIS, AS THEY ARE NOT SERVICED CURRENTLY.

Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 07-11-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: ON SITE FOR SECONDARY CONTAINMENT TESTING. THE TECHNICIAN WAS DAVID

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Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

PEREIRA OF R.L STEVENS CO WHO POSSESS THE CALIFORNIA ICC UST SERVICE TECHNICIAN CERTIFICATION THAT EXPIRES 5-31-2018 AND THE INCON TESTER BY FRANKLIN FUELING CERTIFICATION THAT EXPIRES 2-15-2018. ALL PASSED.

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-23-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes:

ROUTINE INSPECTION SINGLE WALL SITE DISCOVERED THAT THE TWO GRADE LEVEL STEEL ACCESS COVERS OVER THE PIPING SUMPS DO NOT HAVE BOLTS AND GASKETS TO SEAL AGAINST LIQUID INTRUSION INTO THE SUBSURFACE. ALL SURFACE LIDS SHALL BE INSTALLED AT THE MANUFACTURER INTENDED. THE GREEN LIGHT IS BURNED OUT ON THE VR TLS 350 MONITORING CONSOLE; THE END OF THE ATG CAP WAS REPLACED DUE TO IT BEING CRACKED AND POSSIBLY ALLOWING CONTACT OF METAL ROD WITH THE SW FRP TANK INTERIOR. THE FUEL TANKS CAN NEVER BE FILLED PAST 95% OF THE NOMINAL CAPACITY. AN EXPLANATION OF THE MAX FILL ALARM AND FILLING THE TANK 1 TO 100% WILL BE REQUIRED. THE DO SHOULD BE ALERTED TO DOCUMENT FULLY THESE EVENTS.

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-24-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Light on veederroot had to be replaced
Eval Division: Oakland City Fire Department
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-23-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: On site with Rick Salaverria, Lead Mechanic for GSA. Scot Allan previously granted permission to conduct this inspection. The Hazardous Waste Generator program was the only program inspected today. There is a sump near the waste coolant and new soap storage area that has liquid in it. According to Mr. Salaverria Safety-Kleen will be pumping it out later this week. Ensure that no liquid accumulated in that sump. Facility may want to consider moving all hazardous materials/waste from that area to avoid contaminating this sump. Facility is a Small Quantity Generator and thus all hazardous waste must be disposed of at least every six months (except for used oil filters and waste aerosols which must be disposed of annually). Ensure that all empty drums are labeled as "empty". All violations noted in this Hazardous Waste Generator inspection report are to be corrected within 30 days and proof of those corrections submitted to this office in the same time [Truncated]

Eval Division: Alameda County Environmental Health
Eval Program: HW
Eval Source: CERS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

Eval General Type: Other/Unknown
Eval Date: 07-11-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: ON SITE FOR SECONDARY CONTAINMENT TESTING. THE TECHNICIAN WAS DAVID PEREIRA OF R.L STEVENS CO WHO POSSESS THE CALIFORNIA ICC UST SERVICE TECHNICIAN CERTIFICATION THAT EXPIRES 5-31-2018 AND THE INCON TESTER BY FRANKLIN FUELING CERTIFICATION THAT EXPIRES 2-15-2018.

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-16-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH (ACDEH) ON SITE FOR ANNUAL MONITORING CERTIFICATION (AMC) AND ROUTINE INSPECTION. THE SERVICE TECHNICIAN WAS DAVID PEREIRA OF R.L STEVENS CO. WHO POSSESSES THE CALIFORNIA ICC UST SERVICE TECHNICIAN CERTIFICATION THAT EXPIRES 5-21-20 AND THE VEEDER ROOT CERTIFICATION THAT EXPIRES 1-22-20. ALL VIOLATIONS NOTED IN THE INSPECTION REPORT SHALL BE CORRECTED BY AUGUST 15, 2018 AND ANY VERIFICATION DOCUMENTATION SUBMITTED WITHIN THE SAME TIME FRAME.

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-18-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: ROUTINE INSPECTION OF THE TWO USTS- SINGLE WALL OBSERVATION: DID NOT SEE A LIST OF BMPS FOR THE SITE USED IN THE TRAINING, ATTACH A COPY TO THE SIGN IN SHEET. PERMITTING OF THE TWO TANKS WILL BE RESEARCHED TO DETERMINE WHAT VIOLATIONS NEED TO BE CORRECTED IF ANY. PERMIT WILL BE ISSUED AS SOON AS POSSIBLE.

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-24-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: no violations noted
Eval Division: Oakland City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-24-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: no violations noted
Eval Division: Oakland City Fire Department
Eval Program: HW

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Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

Eval Source: CERS

Coordinates:
Site ID: 108426
Facility Name: County of Alameda GSA AlcoPark Garage
Env Int Type Code: HWG
Program ID: 10398013
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.800730
Longitude: -122.265290

Affiliation:
Affiliation Type Desc: Operator
Entity Name: County of Alameda GSA - Motor Vehicle Division
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (510) 272-6403

Affiliation Type Desc: UST Permit Applicant
Entity Name: Rod Freitag
Entity Title: Environmental Program Manager
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (510) 208-9522

Affiliation Type Desc: UST Property Owner Name
Entity Name: County of Alameda
Entity Title: Not reported
Affiliation Address: 1401 Lakeside Drive (Attn: GSA-Capital Programs, Environmental Dept.)
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94612
Affiliation Phone: (510) 208-9525

Affiliation Type Desc: UST Tank Owner
Entity Name: County of Alameda
Entity Title: Not reported
Affiliation Address: 1401 Lakeside Drive (Attn: GSA-Capital Programs, Environmetnal Dept.)
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94612
Affiliation Phone: (510) 208-9525

Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not reported

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Document Preparer
Entity Name: Rod Freitag
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 165 - 13th Street
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94612
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: Rod Freitag
Entity Title: Not reported
Affiliation Address: 1401 Lakeside Drive, Ste. 800
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94612
Affiliation Phone: (510) 208-9522

Affiliation Type Desc: UST Tank Operator
Entity Name: County of Alameda GSA - Motor Vehicle Division
Entity Title: Not reported
Affiliation Address: 165 13th Street
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94612
Affiliation Phone: (510) 272-6403

Affiliation Type Desc: Identification Signer
Entity Name: Rod Freitag
Entity Title: Environmental Program Manager
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Map ID
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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

Affiliation Type Desc: Legal Owner
Entity Name: County of Alameda GSA
Entity Title: Not reported
Affiliation Address: 165 - 13th Street
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94612
Affiliation Phone: (510) 272-6401

Affiliation Type Desc: Parent Corporation
Entity Name: Alameda County General Services Agency
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

CERS TANKS:

Site ID: 108426
CERS ID: 10398013
CERS Description: Underground Storage Tank

Violations:

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-20-2017
Citation: 23 CCR 16 2715(e) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(e)
Violation Description: Failure to maintain a copy of the designated operator monthly inspections for the last 12 months on-site or off-site at a readily available location, if approved by the UPA.
Violation Notes: Returned to compliance on 07/05/2018. OBSERVATION: Copies of DO trained employees were not on site and not readily available for review. A list of the DO employee training records should be available for review during inspection upon the request of ACDEH inspector. CORRECTIVE ACTION: Locate and ensure that the employee training records are maintained on site. Submit copies of the training roster to the CUPA by August 24, 2017
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-23-2015
Citation: 23 CCR 16 2715(d) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(d)
Violation Description: Failure to notify the owner or operator of any condition discovered during the monthly visual inspection that may require follow-up actions.
Violation Notes: Returned to compliance on 07/20/2017. SEE ITEM 72
Violation Division: Alameda County Environmental Health
Violation Program: UST

Map ID
Direction
Distance
Elevation

MAP FINDINGS

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EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-20-2017
Citation: 23 CCR 16 2715(f) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(f)

Violation Description: Failure to have at least one employee present during operating hours that has been trained in the proper operation and maintenance of the UST system by a designated operator (DO).

Violation Notes: Returned to compliance on 07/05/2018. "OBSERVATION: The designated operator employee training records were not on site or readily available for review and therefore it could not be verified by ACDEH that employee training was performed and current. The designated operator shall document the training on a required form for facility employees for which he or she is responsible in the proper operation and maintenance of the UST system once every 12 months. The training shall include, but is not limited to: 1. Operation of the UST system in a manner consistent with the facility s best management practices 2. Employee s role with regard to monitoring equipment as specified in the facility s monitoring plan 3. Employee s role with regard to spills and overfills as specified in the facility s response plan 4. Name of the contact person(s) for emergencies and monitoring equipment alarms. CORRECTIVE ACTION: Ensure that employees have been trained by the designated operator, use the required form attached to maintain [Truncated]

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 22 CCR 12 66262.42(a), (b), (d) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.42(a), (b), (d)

Violation Description: Failure to determine the status of any hazardous waste if a signed copy of the manifest isn t received within 35 days of the date the waste was accepted by the initial transporter and/or to submit an Exception Report to DTSC if a signed copy of the manifest isn t received within 45 days of the date the waste was accepted by the initial transporter.

Violation Notes: Returned to compliance on 07/16/2018. OBSERVATIONS: At least three uniform hazardous waste receipts did not have the final signed copy from the Designated Disposal Facility. It is unknown if the final receipts were misplaced or never received, nor it is unknown if an exception report was submitted to the Department of Toxic Substances Control (DTSC). CORRECTIVE ACTIONS: Facility is to obtain the final signed copy of the receipts from the Designated Disposal Facility for the following three manifests and submit copies to ACDEH: 006424035SKS dated 12/28/17 006363398SKS dated 10/26/17 006036052SKS dated 6/26/17

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-18-2016

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EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

Citation: HSC 6.7 25284 - California Health and Safety Code, Chapter 6.7, Section(s) 25284

Violation Description: Failure to obtain a valid permit to operate from the CUPA.

Violation Notes: Returned to compliance on 07/20/2017.

Violation Division: Alameda County Environmental Health

Violation Program: UST

Violation Source: CERS

Site ID: 108426

Site Name: County of Alameda GSA AlcoPark Garage

Violation Date: 07-16-2018

Citation: 23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)

Violation Description: Failure to have current UST Monitoring Plan available on site.

Violation Notes: Returned to compliance on 08/07/2018. OBSERVATION: The monitoring plan on site is not approved by the CUPA. UST facility UST tank information for both tanks (Tank ID #1921-3 and Tank ID #1921-4) is not current in CERS. Line item 464 (e) for both tanks should be fiberglass and line item 452 (a) for both tanks should be no. The monitoring plan must be current and approved by the CUPA. CORRECTIVE ACTION: Correct line items listed above, submit monitoring plan to CERS for approval and maintain an approved copy on site. Submit verification to the CUPA within 30 days.

Violation Division: Alameda County Environmental Health

Violation Program: UST

Violation Source: CERS

Site ID: 108426

Site Name: County of Alameda GSA AlcoPark Garage

Violation Date: 04-23-2018

Citation: 22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)

Violation Description: Failure to keep a copy of each properly signed manifest for at least three years from the date the waste was accepted by the initial transporter. The manifest signed at the time the waste was accepted for transport shall be kept until receiving a signed copy from the designated facility which received the waste.

Violation Notes: Returned to compliance on 07/16/2018. OBSERVATIONS: At least three uniform hazardous waste receipts did not have the final signed copy from the Designated Disposal Facility. . CORRECTIVE ACTIONS: Facility is to obtain the final signed copy of the receipts from the Designated Disposal Facility for the following three manifests and submit copies to ACDEH: 006424035SKS dated 12/28/17 006363398SKS dated 10/26/17 006036052SKS dated 6/26/17

Violation Division: Alameda County Environmental Health

Violation Program: HW

Violation Source: CERS

Site ID: 108426

Site Name: County of Alameda GSA AlcoPark Garage

Violation Date: 06-21-2016

Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)

Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

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Violation Notes: Returned to compliance on 07/18/2016. OBSERVATION: [INITIAL / ANNUAL] training documentation for all applicable employees was not available. CORRECTIVE ACTION: Submit documentation to the CUPA demonstrating that employees have received training on safe handling of hazardous materials and the Emergency Response Plan. SIGN IN SHEET WAS FOUND AND EMAILED TO ME AFTER I LEFT THE SITE.

Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 40 CFR 1 265.31 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.31

Violation Description: Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

Violation Notes: Returned to compliance on 07/16/2018. OBSERVATIONS: Waste brake shavings are overflowing their container and are all over the floor. Facility has determined that this waste stream is a hazardous waste. CORRECTIVE ACTIONS: Immediately place all brake shavings into a closed metal drum and manage it as a hazardous waste. Submit a written statement on how this area will be managed. Dispose of the brake shavings and submit a copy of the disposal receipt to ACDEH.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173

Violation Description: Failure to meet the following container management requirements: (a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

Violation Notes: Returned to compliance on 07/16/2018. OBSERVATIONS: The used oil tank was found open. CORRECTIVE ACTIONS: Keep all hazardous waste containers closed except when adding or removing waste. Submit written documentation that this occurs.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 40 CFR 1 265.171 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.171

Violation Description: Failure to accumulate hazardous waste in a container that is in good condition.

Map ID
Direction
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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

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Violation Notes: Returned to compliance on 07/16/2018. OBSERVATIONS: Brake shavings are currently overflowing the container and are all over the floor. Facility has determined that this waste stream is a hazardous waste. CORRECTIVE ACTIONS: Immediately place brake shavings into a closed metal drum and manage it as a hazardous waste. Label the container with a completely filled out hazardous waste label. Dispose of it and submit copies of the disposal receipts. This waste stream must be disposed of every six months.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-20-2017
Citation: 23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)

Violation Description: Failure to have a UST Monitoring Plan available on site.
Violation Notes: Returned to compliance on 07/03/2018. OBSERVATION: Approved copies of the monitoring and response plans were not found on site and facility personnel did not have access to CERS. Copies of these plans shall be accessible on site at all times. CORRECTIVE ACTION: Immediately locate and retain a copy on site or provide access to CERS. Submit verification to ACDEH.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)

Violation Description: Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.

Violation Notes: Returned to compliance on 07/16/2018. OBSERVATION: The facility failed to properly train personnel who handle hazardous waste. All employees shall be trained within six months of assignment and take part in an annual review of the initial training received. At a minimum, the training program shall be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including where applicable: 1) procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment; 2) key parameters for automatic waste feed cut-off systems; 3) communications or alarm systems; 4) response to fires or explosions; 5) response to ground-water contamination incidents; and 6) shutdown of operations. Training records on current personnel shall be kept until closure of the facility. Training records on former employees shall be kept for at least three years from the date the employee [Truncated]

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426

Map ID
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MAP FINDINGS

Site

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EDR ID Number
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COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

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Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-23-2015
Citation: 23 CCR 16 2712(b) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(b)
Violation Description: Failure to maintain leak detection alarm logs and/or maintain records of appropriate follow-up actions
Violation Notes: Returned to compliance on 12/15/2015. SEE ITEM 72
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-23-2015
Citation: 23 CCR 16 2715 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715
Violation Description: Failure to comply with one or more of the designated operator monthly inspection requirements: failed to inspect the monthly alarm history report; attach a copy of the alarm history; failed to inspect for the presence of liquid or debris in the spill container/spill bucket and under dispenser containment; failed to inspect the under dispenser containment to ensure that monitoring equipment is placed in the proper position; failure to inspect for liquid or debris in the containment sump where an alarm occurred or for which there is no record of a service visit; or failure to check that all testing and maintenance has been completed and documented.
Violation Notes: Returned to compliance on 07/20/2017. OBSERVATION: JUNE 2015 REPORT DOES NOT INCLUDE ANY DOCUMENTATION OR RESPONSE TO TANK 1 BEING FILLED TO 100% OF CAPACITY IN VIOLATION FOR TITLE 23 AND THE H&SC.
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-20-2017
Citation: 23 CCR 16 2712(b) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(b)
Violation Description: Failure to maintain records of repairs, lining, and upgrades on site, or off site if approved by the CUPA, for the life of the UST.
Violation Notes: Returned to compliance on 07/05/2018. OBSERVATION: The facility did not have 2015 Annual Monitoring Certification test results and 2016 Annual Monitoring Certification test results on site during inspection. CORRECTIVE ACTION: Maintain written monitoring and maintenance records for a period of 3 years. Submit verification to ACDEH.
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 40 CFR 1 265.201(c)(3) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.201(c)(3)
Violation Description: Failure to inspect hazardous waste tanks at least once each operating day for the following, when present: (1) Discharge control equipment

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COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

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(e.g., waste feed cutoff systems, by-pass systems, and drainage systems) to ensure that it is in good working order; (2) Data gathered from monitoring equipment (e.g., pressure and temperature gauges) to ensure that the tank is being operated according to its design; (3) The level of waste in the tank.

Violation Notes: Returned to compliance on 07/16/2018. OBSERVATION: The facility does not conduct daily tank inspection of the discharge systems, monitoring equipment, and tank levels. CORRECTIVE ACTION: Immediately begin to conduct daily inspections of the discharge systems, monitoring equipment, and tank levels for all tanks containing hazardous waste. Submit documentation that this is occurring.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: HSC 6.5 25250.22 - California Health and Safety Code, Chapter 6.5, Section(s) 25250.22

Violation Description: Failure to properly manage used oil and/or fuel filters in accordance with the requirements.

Violation Notes: Returned to compliance on 07/16/2018. OBSERVATIONS: There are two drums of used oil filters currently on site. Last disposal of used oil filters occurred on 11/19/16. Used oil filters are to be disposed of at least once a year. CORRECTIVE ACTIONS: Dispose of the used oil filters and submit a copy of the receipt to ACDEH. Dispose of the used oil filters at least once a year.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 22 CCR 23 66273.35 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.35

Violation Description: Failure to accumulate universal waste for one year or less and to demonstrate the length of time that the universal waste has been accumulated from the date it became a waste or was received.

Violation Notes: Returned to compliance on 07/16/2018. OBSERVATIONS: Waste aerosols were last disposed of on 4/24/14. Universal waste must be disposed of at least once a year. CORRECTIVE ACTIONS: Dispose of the waste aerosols and submit a copy of the disposal receipt. Dispose annually.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-23-2015
Citation: HSC 6.7 25292.1(a) - California Health and Safety Code, Chapter 6.7, Section(s) 25292.1(a)

Violation Description: Failure to operate the UST system to prevent spills and/or overfills.

Violation Notes: Returned to compliance on 12/15/2015. OBSERVATION: ACCORDING TO THE VR TANK HISTORY REPORT- TANK 1 WAS FILLED TO 100% OF THE NOMINAL CAPACITY ON MAY 6, 2015 AT 10:27pm. NO FOLLOW UP RECORDS OR REPORTS FOUND TO

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COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

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DOCUMENT THIS INCIDENT. DO REPORT SIMPLY NOTES "OVERFILL ALARM ON 5-6-15 THIS IS A SERIOUS VIOLATION THIS COULD RESULT IN AN UNAUTHORIZED RELEASE. CORRECTIVE ACTION: PROVIDE WRITTEN DOCUMENTATION OF THE TANK FILLING PROCEDURE.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 40 CFR 1 265.201(c)(5) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.201(c)(5)

Violation Description: Failure to inspect hazardous waste tanks for the following, when present: 4) The construction materials of the tank at least weekly to detect corrosion or leaking of fixtures or seams. 5) The construction materials of, and the area immediately surrounding, discharge confinement structures (e.g., dikes) at least weekly to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation).

Violation Notes: Returned to compliance on 07/16/2018. OBSERVATION: The facility is not conducting weekly inspections of the construction materials, fixtures, and surrounding areas of the used oil tank. The tank was open with oil spills on top of the tank. Some absorbent observed on the floor around the tank. CORRECTIVE ACTIONS: Immediately begin to conduct weekly inspections of the construction materials, fixtures, and surrounding areas of the used oil tank. Submit documentation that these inspections are occurring to ACDEH.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-16-2018
Citation: HSC 6.7 25284, 25286 - California Health and Safety Code, Chapter 6.7, Section(s) 25284, 25286

Violation Description: Failure to submit a complete and accurate application for a permit to operate a UST, or for renewal of the permit.

Violation Notes: Returned to compliance on 08/07/2018. OBSERVATION: The facility UST tank information for both tanks (Tank ID #1921-3 and Tank ID #1921-4) is not current in CERS. Line item 464 (e) for both tanks should be fiberglass and line item 452 (a) for both tanks should be no. Any change of information must be updated in CERS within 30 days of the change. CORRECTIVE ACTION: Submit and maintain an accurate UST Tank information.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-23-2015
Citation: HSC 6.7 25286(a) - California Health and Safety Code, Chapter 6.7, Section(s) 25286(a)

Violation Description: Failure to submit a complete and accurate application for a permit to operate an underground storage tank, or for renewal of the permit.

Violation Notes: Returned to compliance on 07/20/2017. OBSERVATION: Owner/Operator did

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COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

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not submit accurate information to the UST section of CERS. CORRECTIVE ACTIONS: EDIT AND CHANGE THE INFORMATION IN CELL 422-8, STATE FUND AND CFO LETTER; 490-70 CHANGE FROM NO TO YES;

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)

Violation Description: Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.

Violation Notes: Returned to compliance on 07/16/2018. OBSERVATION: Two drums of waste oily solids were not marked with a completely filled out hazardous waste label. The waste coolant container is missing the accumulation start date. All hazardous waste containers shall be marked with the following information: 1) the words Hazardous Waste ; 2) name and address of generator; 3) hazardous properties; 4) physical state; 5) composition (contents); 6) accumulation start date. CORRECTIVE ACTION: Immediately label these containers and ensure that all containers are marked with all the required information. Submit photos or written documentation that this has occurred.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: HSC 6.5 25123.3(h)(1) - California Health and Safety Code, Chapter 6.5, Section(s) 25123.3(h)(1)

Violation Description: Failure to send hazardous waste offsite for treatment, storage, or disposal within 180 days (or 270 days if waste is transported over 200 miles) for a generator who generates less than 1000 kilogram per month if all of the following conditions are met: (1) The quantity of hazardous waste accumulated onsite never exceeds 6,000 kilograms. (2) The generator complies with the requirements of 40 Code of Federal Regulations section 262.34(d), (e) and (f). (3) The generator does not hold acutely hazardous waste or extremely hazardous waste in an amount greater than one kilogram for more than 90 days.

Violation Notes: Returned to compliance on 07/16/2018. OBSERVATION: Facility last disposed of waste coolant on 1/11/17. Waste oily debris was last disposed of on 3/10/14. Facilities who generate less than 1000 kg of hazardous waste per month and do not exceed 6000 kg of waste stored on site at any time may store waste on site up to 180 days. All hazardous waste must be disposed of every six months. CORRECTIVE ACTION: Immediately contact a licensed hazardous waste hauler to dispose of this waste under manifest and submit a copy of the manifest to ACDEH.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

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COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

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Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 40 CFR 1 262.34(d)(5)(ii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(ii)
Violation Description: Failure to post the following information next to the telephone: (A) The name and telephone number of the emergency coordinator; (B) Location of fire extinguishers and spill control material, and, if present, fire alarm; and (C) The telephone number of the fire department, unless the facility has a direct alarm.
Violation Notes: Returned to compliance on 07/16/2018. OBSERVATION: The facility failed to post, next to the telephone, Emergency Information containing the location of emergency equipment, contact names and numbers. CORRECTIVE ACTION: Facility shall post, next to the telephone, emergency information that contains the required information in accordance with Title 22. A blank Emergency Procedures form was left with Mr. Salaverria. Provide a written statement saying this form or something comparable was posted in the facility. A blank Emergency Procedures form was left with Mr. Salaverria.
Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-20-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: ON SITE FOR ANNUAL MONITORING CERTIFICATION AND SPILL BUCKET TESTING. THE SERVICE TECHNICIAN WAS DAVID PEREIRA OF R.L STEVENS CO WHO POSSESSES THE CALIFORNIA ICC UST SERVICE TECHNICIAN CERTIFICATION THAT EXPIRES 5-31-18 AND THE VEEDER ROOT CERTIFICATION THAT EXPIRES 1-18-18. ALL VIOLATIONS NOTED IN THE INSPECTION REPORT SHALL TO BE CORRECTED BY AUGUST 24, 2017 AND SUBMIT DOCUMENTATION VERIFICATION WITHIN THE SAME TIME FRAME.
Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-16-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH ON SITE FOR HAZARDOUS MATERIALS BUSINESS PLAN INSPECTION. ESCORTED BY RICKY SALAVERRIA, LEAD MECHANIC. NO VIOLATIONS NOTED DURING THE INSPECTION.
Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-18-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: ROUTINE INSPECTION- INVENTORY OF UNDER THRESHOLD CHEMICALS CAN BE REMOVED FROM THE INVENTORY, INCLUDING GASES LESS THAN 200 CU FT. ONE GALLON CONTAINERS OF COOLANT DO NOT NEED TO BE REPORTED SINCE LESS

Map ID
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Elevation

MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

THAN 55 GALLONS. RECOMMEND SERVICING EYE WASH STATIONS ON A 30 DAY BASIS, AS THEY ARE NOT SERVICED CURRENTLY.

Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 07-11-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: ON SITE FOR SECONDARY CONTAINMENT TESTING. THE TECHNICIAN WAS DAVID PEREIRA OF R.L STEVENS CO WHO POSSESS THE CALIFORNIA ICC UST SERVICE TECHNICIAN CERTIFICATION THAT EXPIRES 5-31-2018 AND THE INCON TESTER BY FRANKLIN FUELING CERTIFICATION THAT EXPIRES 2-15-2018. ALL PASSED.

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-23-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: ROUTINE INSPECTION SINGLE WALL SITE DISCOVERED THAT THE TWO GRADE LEVEL STEEL ACCESS COVERS OVER THE PIPING SUMPS DO NOT HAVE BOLTS AND GASKETS TO SEAL AGAINST LIQUID INTRUSION INTO THE SUBSURFACE. ALL SURFACE LIDS SHALL BE INSTALLED AT THE MANUFACTURER INTENDED. THE GREEN LIGHT IS BURNED OUT ON THE VR TLS 350 MONITORING CONSOLE; THE END OF THE ATG CAP WAS REPLACED DUE TO IT BEING CRACKED AND POSSIBLY ALLOWING CONTACT OF METAL ROD WITH THE SW FRP TANK INTERIOR. THE FUEL TANKS CAN NEVER BE FILLED PAST 95% OF THE NOMINAL CAPACITY. AN EXPLANATION OF THE MAX FILL ALARM AND FILLING THE TANK 1 TO 100% WILL BE REQUIRED. THE DO SHOULD BE ALERTED TO DOCUMENT FULLY THESE EVENTS.

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-24-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Light on veederroot had to be replaced
Eval Division: Oakland City Fire Department
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-23-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: On site with Rick Salaverria, Lead Mechanic for GSA. Scot Allan previously granted permission to conduct this inspection. The Hazardous Waste Generator program was the only program inspected today. There is a sump near the waste coolant and new soap storage area that has liquid in it. According to Mr. Salaverria Safety-Kleen will be pumping it out later this week. Ensure that no liquid accumulated in that sump. Facility may want to consider moving all hazardous materials/waste from that area to avoid contaminating this

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COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

sump. Facility is a Small Quantity Generator and thus all hazardous waste must be disposed of at least every six months (except for used oil filters and waste aerosols which must be disposed of annually). Ensure that all empty drums are labeled as "empty". All violations noted in this Hazardous Waste Generator inspection report are to be corrected within 30 days and proof of those corrections submitted to this office in the same time [Truncated]

Eval Division: Alameda County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 07-11-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: ON SITE FOR SECONDARY CONTAINMENT TESTING. THE TECHNICIAN WAS DAVID PEREIRA OF R.L STEVENS CO WHO POSSESS THE CALIFORNIA ICC UST SERVICE

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-16-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH (ACDEH) ON SITE FOR ANNUAL MONITORING CERTIFICATION (AMC) AND ROUTINE INSPECTION. THE SERVICE TECHNICIAN WAS DAVID PEREIRA OF R.L STEVENS CO. WHO POSSESSES THE CALIFORNIA ICC UST SERVICE TECHNICIAN CERTIFICATION THAT EXPIRES 5-21-20 AND THE VEEDER ROOT CERTIFICATION THAT EXPIRES 1-22-20. ALL VIOLATIONS NOTED IN THE INSPECTION REPORT SHALL BE CORRECTED BY AUGUST 15, 2018 AND ANY VERIFICATION DOCUMENTATION SUBMITTED WITHIN THE SAME TIME FRAME.

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-18-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: ROUTINE INSPECTION OF THE TWO USTS- SINGLE WALL OBSERVATION: DID NOT SEE A LIST OF BMPS FOR THE SITE USED IN THE TRAINING, ATTACH A COPY TO THE SIGN IN SHEET. PERMITTING OF THE TWO TANKS WILL BE RESEARCHED TO DETERMINE WHAT VIOLATIONS NEED TO BE CORRECTED IF ANY. PERMIT WILL BE ISSUED AS SOON AS POSSIBLE.

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-24-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: no violations noted

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COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

Eval Division: Oakland City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-24-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: no violations noted
Eval Division: Oakland City Fire Department
Eval Program: HW
Eval Source: CERS

Coordinates:

Site ID: 108426
Facility Name: County of Alameda GSA AlcoPark Garage
Env Int Type Code: HWG
Program ID: 10398013
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.800730
Longitude: -122.265290

Affiliation:

Affiliation Type Desc: Operator
Entity Name: County of Alameda GSA - Motor Vehicle Division
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (510) 272-6403

Affiliation Type Desc: UST Permit Applicant
Entity Name: Rod Freitag
Entity Title: Environmental Program Manager
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (510) 208-9522

Affiliation Type Desc: UST Property Owner Name
Entity Name: County of Alameda
Entity Title: Not reported
Affiliation Address: 1401 Lakeside Drive (Attn: GSA-Capital Programs, Environmental Dept.)
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94612
Affiliation Phone: (510) 208-9525

Affiliation Type Desc: UST Tank Owner
Entity Name: County of Alameda

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EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

Entity Title: Not reported
Affiliation Address: 1401 Lakeside Drive (Attn: GSA-Capital Programs, Environmetnal Dept.)
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94612
Affiliation Phone: (510) 208-9525

Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Document Preparer
Entity Name: Rod Freitag
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 165 - 13th Street
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94612
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: Rod Freitag
Entity Title: Not reported
Affiliation Address: 1401 Lakeside Drive, Ste. 800
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94612
Affiliation Phone: (510) 208-9522

Affiliation Type Desc: UST Tank Operator
Entity Name: County of Alameda GSA - Motor Vehicle Division
Entity Title: Not reported
Affiliation Address: 165 13th Street
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94612
Affiliation Phone: (510) 272-6403

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COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

Affiliation Type Desc: Identification Signer
Entity Name: Rod Freitag
Entity Title: Environmental Program Manager
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: County of Alameda GSA
Entity Title: Not reported
Affiliation Address: 165 - 13th Street
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94612
Affiliation Phone: (510) 272-6401

Affiliation Type Desc: Parent Corporation
Entity Name: Alameda County General Services Agency
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

CERS TANKS:

Site ID: 108426
CERS ID: 10398013
CERS Description: Chemical Storage Facilities

Violations:

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-20-2017
Citation: 23 CCR 16 2715(e) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(e)
Violation Description: Failure to maintain a copy of the designated operator monthly inspections for the last 12 months on-site or off-site at a readily available location, if approved by the UPA.
Violation Notes: Returned to compliance on 07/05/2018. OBSERVATION: Copies of DO trained employees were not on site and not readily available for review. A list of the DO employee training records should be available for review during inspection upon the request of ACDEH inspector. CORRECTIVE ACTION: Locate and ensure that the employee training records are maintained on site. Submit copies of the training roster to the CUPA by August 24, 2017
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426

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COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-23-2015
Citation: 23 CCR 16 2715(d) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(d)
Violation Description: Failure to notify the owner or operator of any condition discovered during the monthly visual inspection that may require follow-up actions.
Violation Notes: Returned to compliance on 07/20/2017. SEE ITEM 72
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-20-2017
Citation: 23 CCR 16 2715(f) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(f)
Violation Description: Failure to have at least one employee present during operating hours that has been trained in the proper operation and maintenance of the UST system by a designated operator (DO).
Violation Notes: Returned to compliance on 07/05/2018. "OBSERVATION: The designated operator employee training records were not on site or readily available for review and therefore it could not be verified by ACDEH that employee training was performed and current. The designated operator shall document the training on a required form for facility employees for which he or she is responsible in the proper operation and maintenance of the UST system once every 12 months. The training shall include, but is not limited to: 1. Operation of the UST system in a manner consistent with the facility s best management practices 2. Employee s role with regard to monitoring equipment as specified in the facility s monitoring plan 3. Employee s role with regard to spills and overfills as specified in the facility s response plan 4. Name of the contact person(s) for emergencies and monitoring equipment alarms. CORRECTIVE ACTION: Ensure that employees have been trained by the designated operator, use the required form attached to maintain [Truncated]
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 22 CCR 12 66262.42(a), (b), (d) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.42(a), (b), (d)
Violation Description: Failure to determine the status of any hazardous waste if a signed copy of the manifest isn t received within 35 days of the date the waste was accepted by the initial transporter and/or to submit an Exception Report to DTSC if a signed copy of the manifest isn t received within 45 days of the date the waste was accepted by the initial transporter.
Violation Notes: Returned to compliance on 07/16/2018. OBSERVATIONS: At least three uniform hazardous waste receipts did not have the final signed copy from the Designated Disposal Facility. It is unknown if the final receipts were misplaced or never received, nor it is unknown if an exception report was submitted to the Department of Toxic Substances Control (DTSC). CORRECTIVE ACTIONS: Facility is to obtain the final

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COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

Violation Division: signed copy of the receipts from the Designated Disposal Facility for the following three manifests and submit copies to ACDEH: 006424035SKS dated 12/28/17 006363398SKS dated 10/26/17 006036052SKS dated 6/26/17
Violation Program: Alameda County Environmental Health
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-18-2016
Citation: HSC 6.7 25284 - California Health and Safety Code, Chapter 6.7, Section(s) 25284

Violation Description: Failure to obtain a valid permit to operate from the CUPA.
Violation Notes: Returned to compliance on 07/20/2017.
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-16-2018
Citation: 23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)

Violation Description: Failure to have current UST Monitoring Plan available on site.
Violation Notes: Returned to compliance on 08/07/2018. OBSERVATION: The monitoring plan on site is not approved by the CUPA. UST facility UST tank information for both tanks (Tank ID #1921-3 and Tank ID #1921-4) is not current in CERS. Line item 464 (e) for both tanks should be fiberglass and line item 452 (a) for both tanks should be no. The monitoring plan must be current and approved by the CUPA. CORRECTIVE ACTION: Correct line items listed above, submit monitoring plan to CERS for approval and maintain an approved copy on site. Submit verification to the CUPA within 30 days.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)

Violation Description: Failure to keep a copy of each properly signed manifest for at least three years from the date the waste was accepted by the initial transporter. The manifest signed at the time the waste was accepted for transport shall be kept until receiving a signed copy from the designated facility which received the waste.

Violation Notes: Returned to compliance on 07/16/2018. OBSERVATIONS: At least three uniform hazardous waste receipts did not have the final signed copy from the Designated Disposal Facility. . CORRECTIVE ACTIONS: Facility is to obtain the final signed copy of the receipts from the Designated Disposal Facility for the following three manifests and submit copies to ACDEH: 006424035SKS dated 12/28/17 006363398SKS dated 10/26/17 006036052SKS dated 6/26/17

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

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COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 06-21-2016
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes: Returned to compliance on 07/18/2016. OBSERVATION: [INITIAL / ANNUAL] training documentation for all applicable employees was not available. CORRECTIVE ACTION: Submit documentation to the CUPA demonstrating that employees have received training on safe handling of hazardous materials and the Emergency Response Plan. SIGN IN SHEET WAS FOUND AND EMAILED TO ME AFTER I LEFT THE SITE.
Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 40 CFR 1 265.31 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.31
Violation Description: Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.
Violation Notes: Returned to compliance on 07/16/2018. OBSERVATIONS: Waste brake shavings are overflowing their container and are all over the floor. Facility has determined that this waste stream is a hazardous waste. CORRECTIVE ACTIONS: Immediately place all brake shavings into a closed metal drum and manage it as a hazardous waste. Submit a written statement on how this area will be managed. Dispose of the brake shavings and submit a copy of the disposal receipt to ACDEH.
Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
Violation Description: Failure to meet the following container management requirements: (a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.
Violation Notes: Returned to compliance on 07/16/2018. OBSERVATIONS: The used oil tank was found open. CORRECTIVE ACTIONS: Keep all hazardous waste containers closed except when adding or removing waste. Submit written documentation that this occurs.
Violation Division: Alameda County Environmental Health
Violation Program: HW

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COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 40 CFR 1 265.171 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.171
Violation Description: Failure to accumulate hazardous waste in a container that is in good condition.
Violation Notes: Returned to compliance on 07/16/2018. OBSERVATIONS: Brake shavings are currently overflowing the container and are all over the floor. Facility has determined that this waste stream is a hazardous waste. CORRECTIVE ACTIONS: Immediately place brake shavings into a closed metal drum and manage it as a hazardous waste. Label the container with a completely filled out hazardous waste label. Dispose of it and submit copies of the disposal receipts. This waste stream must be disposed of every six months.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-20-2017
Citation: 23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)
Violation Description: Failure to have a UST Monitoring Plan available on site.
Violation Notes: Returned to compliance on 07/03/2018. OBSERVATION: Approved copies of the monitoring and response plans were not found on site and facility personnel did not have access to CERS. Copies of these plans shall be accessible on site at all times. CORRECTIVE ACTION: Immediately locate and retain a copy on site or provide access to CERS. Submit verification to ACDEH.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)
Violation Description: Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.
Violation Notes: Returned to compliance on 07/16/2018. OBSERVATION: The facility failed to properly train personnel who handle hazardous waste. All employees shall be trained within six months of assignment and take part in an annual review of the initial training received. At a minimum, the training program shall be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including where applicable: 1) procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment; 2) key parameters for automatic waste feed cut-off systems; 3) communications or alarm systems; 4) response to fires or explosions; 5) response to ground-water contamination incidents; and 6) shutdown

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COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

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of operations. Training records on current personnel shall be kept until closure of the facility. Training records on former employees shall be kept for at least three years from the date the employee [Truncated]

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-23-2015
Citation: 23 CCR 16 2712(b) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(b)
Violation Description: Failure to maintain leak detection alarm logs and/or maintain records of appropriate follow-up actions
Violation Notes: Returned to compliance on 12/15/2015. SEE ITEM 72
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-23-2015
Citation: 23 CCR 16 2715 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715
Violation Description: Failure to comply with one or more of the designated operator monthly inspection requirements: failed to inspect the monthly alarm history report; attach a copy of the alarm history; failed to inspect for the presence of liquid or debris in the spill container/spill bucket and under dispenser containment; failed to inspect the under dispenser containment to ensure that monitoring equipment is placed in the proper position; failure to inspect for liquid or debris in the containment sump where an alarm occurred or for which there is no record of a service visit; or failure to check that all testing and maintenance has been completed and documented.
Violation Notes: Returned to compliance on 07/20/2017. OBSERVATION: JUNE 2015 REPORT DOES NOT INCLUDE ANY DOCUMENTATION OR RESPONSE TO TANK 1 BEING FILLED TO 100% OF CAPACITY IN VIOLATION FOR TITLE 23 AND THE H&SC.
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-20-2017
Citation: 23 CCR 16 2712(b) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(b)
Violation Description: Failure to maintain records of repairs, lining, and upgrades on site, or off site if approved by the CUPA, for the life of the UST.
Violation Notes: Returned to compliance on 07/05/2018. OBSERVATION: The facility did not have 2015 Annual Monitoring Certification test results and 2016 Annual Monitoring Certification test results on site during inspection. CORRECTIVE ACTION: Maintain written monitoring and maintenance records for a period of 3 years. Submit verification to ACDEH.
Violation Division: Alameda County Environmental Health
Violation Program: UST

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COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 40 CFR 1 265.201(c)(3) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.201(c)(3)

Violation Description: Failure to inspect hazardous waste tanks at least once each operating day for the following, when present: (1) Discharge control equipment (e.g., waste feed cutoff systems, by-pass systems, and drainage systems) to ensure that it is in good working order; (2) Data gathered from monitoring equipment (e.g., pressure and temperature gauges) to ensure that the tank is being operated according to its design; (3) The level of waste in the tank.

Violation Notes: Returned to compliance on 07/16/2018. OBSERVATION: The facility does not conduct daily tank inspection of the discharge systems, monitoring equipment, and tank levels. CORRECTIVE ACTION: Immediately begin to conduct daily inspections of the discharge systems, monitoring equipment, and tank levels for all tanks containing hazardous waste. Submit documentation that this is occurring.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: HSC 6.5 25250.22 - California Health and Safety Code, Chapter 6.5, Section(s) 25250.22

Violation Description: Failure to properly manage used oil and/or fuel filters in accordance with the requirements.

Violation Notes: Returned to compliance on 07/16/2018. OBSERVATIONS: There are two drums of used oil filters currently on site. Last disposal of used oil filters occurred on 11/19/16. Used oil filters are to be disposed of at least once a year. CORRECTIVE ACTIONS: Dispose of the used oil filters and submit a copy of the receipt to ACDEH. Dispose of the used oil filters at least once a year.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 22 CCR 23 66273.35 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.35

Violation Description: Failure to accumulate universal waste for one year or less and to demonstrate the length of time that the universal waste has been accumulated from the date it became a waste or was received.

Violation Notes: Returned to compliance on 07/16/2018. OBSERVATIONS: Waste aerosols were last disposed of on 4/24/14. Universal waste must be disposed of at least once a year. CORRECTIVE ACTIONS: Dispose of the waste aerosols and submit a copy of the disposal receipt. Dispose annually.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

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COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-23-2015
Citation: HSC 6.7 25292.1(a) - California Health and Safety Code, Chapter 6.7, Section(s) 25292.1(a)
Violation Description: Failure to operate the UST system to prevent spills and/or overfills.
Violation Notes: Returned to compliance on 12/15/2015. OBSERVATION: ACCORDING TO THE VR TANK HISTORY REPORT- TANK 1 WAS FILLED TO 100% OF THE NOMINAL CAPACITY ON MAY 6, 2015 AT 10:27pm. NO FOLLOW UP RECORDS OR REPORTS FOUND TO DOCUMENT THIS INCIDENT. DO REPORT SIMPLY NOTES "OVERFILL ALARM ON 5-6-15 THIS IS A SERIOUS VIOLATION THIS COULD RESULT IN AN UNAUTHORIZED RELEASE. CORRECTIVE ACTION: PROVIDE WRITTEN DOCUMENTATION OF THE TANK FILLING PROCEDURE.
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 40 CFR 1 265.201(c)(5) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.201(c)(5)
Violation Description: Failure to inspect hazardous waste tanks for the following, when present: 4) The construction materials of the tank at least weekly to detect corrosion or leaking of fixtures or seams. 5) The construction materials of, and the area immediately surrounding, discharge confinement structures (e.g., dikes) at least weekly to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation).
Violation Notes: Returned to compliance on 07/16/2018. OBSERVATION: The facility is not conducting weekly inspections of the construction materials, fixtures, and surrounding areas of the used oil tank. The tank was open with oil spills on top of the tank. Some absorbent observed on the floor around the tank. CORRECTIVE ACTIONS: Immediately begin to conduct weekly inspections of the construction materials, fixtures, and surrounding areas of the used oil tank. Submit documentation that these inspections are occurring to ACDEH.
Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-16-2018
Citation: HSC 6.7 25284, 25286 - California Health and Safety Code, Chapter 6.7, Section(s) 25284, 25286
Violation Description: Failure to submit a complete and accurate application for a permit to operate a UST, or for renewal of the permit.
Violation Notes: Returned to compliance on 08/07/2018. OBSERVATION: The facility UST tank information for both tanks (Tank ID #1921-3 and Tank ID #1921-4) is not current in CERS. Line item 464 (e) for both tanks should be fiberglass and line item 452 (a) for both tanks should be no. Any change of information must be updated in CERS within 30 days of the change. CORRECTIVE ACTION: Submit and maintain an accurate UST Tank information.
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

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Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 07-23-2015
Citation: HSC 6.7 25286(a) - California Health and Safety Code, Chapter 6.7, Section(s) 25286(a)
Violation Description: Failure to submit an complete and accurate application for a permit to operate an underground storage tank, or for renewal of the permit.
Violation Notes: Returned to compliance on 07/20/2017. OBSERVATION: Owner/Operator did not submit accurate information to the UST section of CERS. CORRECTIVE ACTIONS: EDIT AND CHANGE THE INFORMATION IN CELL 422-8, STATE FUND AND CFO LETTER; 490-70 CHANGE FROM NO TO YES;
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: Returned to compliance on 07/16/2018. OBSERVATION: Two drums of waste oily solids were not marked with a completely filled out hazardous waste label. The waste coolant container is missing the accumulation start date. All hazardous waste containers shall be marked with the following information: 1) the words Hazardous Waste ; 2) name and address of generator; 3) hazardous properties; 4) physical state; 5) composition (contents); 6) accumulation start date. CORRECTIVE ACTION: Immediately label these containers and ensure that all containers are marked with all the required information. Submit photos or written documentation that this has occurred.
Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: HSC 6.5 25123.3(h)(1) - California Health and Safety Code, Chapter 6.5, Section(s) 25123.3(h)(1)
Violation Description: Failure to send hazardous waste offsite for treatment, storage, or disposal within 180 days (or 270 days if waste is transported over 200 miles) for a generator who generates less than 1000 kilogram per month if all of the following conditions are met: (1) The quantity of hazardous waste accumulated onsite never exceeds 6,000 kilograms. (2) The generator complies with the requirements of 40 Code of Federal Regulations section 262.34(d), (e) and (f). (3) The generator does not hold acutely hazardous waste or extremely hazardous waste in an amount greater than one kilogram for more than 90 days.
Violation Notes: Returned to compliance on 07/16/2018. OBSERVATION: Facility last disposed of waste coolant on 1/11/17. Waste oily debris was last disposed of on 3/10/14. Facilities who generate less than 1000 kg of hazardous waste per month and do not exceed 6000 kg of waste stored on

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COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

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Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

site at any time may store waste on site up to 180 days. All hazardous waste must be disposed of every six months. CORRECTIVE ACTION: Immediately contact a licensed hazardous waste hauler to dispose of this waste under manifest and submit a copy of the manifest to ACDEH.

Site ID: 108426
Site Name: County of Alameda GSA AlcoPark Garage
Violation Date: 04-23-2018
Citation: 40 CFR 1 262.34(d)(5)(ii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(ii)

Violation Description: Failure to post the following information next to the telephone: (A) The name and telephone number of the emergency coordinator; (B) Location of fire extinguishers and spill control material, and, if present, fire alarm; and (C) The telephone number of the fire department, unless the facility has a direct alarm.

Violation Notes: Returned to compliance on 07/16/2018. OBSERVATION: The facility failed to post, next to the telephone, Emergency Information containing the location of emergency equipment, contact names and numbers. CORRECTIVE ACTION: Facility shall post, next to the telephone, emergency information that contains the required information in accordance with Title 22. A blank Emergency Procedures form was left with Mr. Salaverria. Provide a written statement saying this form or something comparable was posted in the facility. A blank Emergency Procedures form was left with Mr. Salaverria.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-20-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: ON SITE FOR ANNUAL MONITORING CERTIFICATION AND SPILL BUCKET TESTING. THE SERVICE TECHNICIAN WAS DAVID PEREIRA OF R.L STEVENS CO WHO POSSESSES THE CALIFORNIA ICC UST SERVICE TECHNICIAN CERTIFICATION THAT EXPIRES 5-31-18 AND THE VEEDER ROOT CERTIFICATION THAT EXPIRES 1-18-18. ALL VIOLATIONS NOTED IN THE INSPECTION REPORT SHALL TO BE CORRECTED BY AUGUST 24, 2017 AND SUBMIT DOCUMENTATION VERIFICATION WITHIN THE SAME TIME FRAME.

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-16-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH ON SITE FOR HAZARDOUS MATERIALS BUSINESS PLAN INSPECTION. ESCORTED BY RICKY SALAVERRIA, LEAD MECHANIC. NO VIOLATIONS NOTED DURING THE INSPECTION.

Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-18-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: ROUTINE INSPECTION- INVENTORY OF UNDER THRESHOLD CHEMICALS CAN BE REMOVED FROM THE INVENTORY, INCLUDING GASES LESS THAN 200 CU FT. ONE GALLON CONTAINERS OF COOLANT DO NOT NEED TO BE REPORTED SINCE LESS THAN 55 GALLONS. RECOMMEND SERVICING EYE WASH STATIONS ON A 30 DAY BASIS, AS THEY ARE NOT SERVICED CURRENTLY.

Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 07-11-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: ON SITE FOR SECONDARY CONTAINMENT TESTING. THE TECHNICIAN WAS DAVID PEREIRA OF R.L STEVENS CO WHO POSSESS THE CALIFORNIA ICC UST SERVICE TECHNICIAN CERTIFICATION THAT EXPIRES 5-31-2018 AND THE INCON TESTER BY FRANKLIN FUELING CERTIFICATION THAT EXPIRES 2-15-2018. ALL PASSED.

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-23-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: ROUTINE INSPECTION SINGLE WALL SITE DISCOVERED THAT THE TWO GRADE LEVEL STEEL ACCESS COVERS OVER THE PIPING SUMPS DO NOT HAVE BOLTS AND GASKETS TO SEAL AGAINST LIQUID INTRUSION INTO THE SUBSURFACE. ALL SURFACE LIDS SHALL BE INSTALLED AT THE MANUFACTURER INTENDED. THE GREEN LIGHT IS BURNED OUT ON THE VR TLS 350 MONITORING CONSOLE; THE END OF THE ATG CAP WAS REPLACED DUE TO IT BEING CRACKED AND POSSIBLY ALLOWING CONTACT OF METAL ROD WITH THE SW FRP TANK INTERIOR. THE FUEL TANKS CAN NEVER BE FILLED PAST 95% OF THE NOMINAL CAPACITY. AN EXPLANATION OF THE MAX FILL ALARM AND FILLING THE TANK 1 TO 100% WILL BE REQUIRED. THE DO SHOULD BE ALERTED TO DOCUMENT FULLY THESE EVENTS.

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-24-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Light on veederroot had to be replaced
Eval Division: Oakland City Fire Department
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-23-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: On site with Rick Salaverria, Lead Mechanic for GSA. Scot Allan

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

previously granted permission to conduct this inspection. The Hazardous Waste Generator program was the only program inspected today. There is a sump near the waste coolant and new soap storage area that has liquid in it. According to Mr. Salaverria Safety-Kleen will be pumping it out later this week. Ensure that no liquid accumulated in that sump. Facility may want to consider moving all hazardous materials/waste from that area to avoid contaminating this sump. Facility is a Small Quantity Generator and thus all hazardous waste must be disposed of at least every six months (except for used oil filters and waste aerosols which must be disposed of annually). Ensure that all empty drums are labeled as "empty". All violations noted in this Hazardous Waste Generator inspection report are to be corrected within 30 days and proof of those corrections submitted to this office in the same time [Truncated]

Eval Division: Alameda County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown

Eval Date: 07-11-2017

Violations Found: No

Eval Type: Other, not routine, done by local agency

Eval Notes: ON SITE FOR SECONDARY CONTAINMENT TESTING. THE TECHNICIAN WAS DAVID PEREIRA OF R.L STEVENS CO WHO POSSESS THE CALIFORNIA ICC UST SERVICE TECHNICIAN CERTIFICATION THAT EXPIRES 5-31-2018 AND THE INCON TESTER BY FRANKLIN FUELING CERTIFICATION THAT EXPIRES 2-15-2018.

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection

Eval Date: 07-16-2018

Violations Found: Yes

Eval Type: Routine done by local agency

Eval Notes: ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH (ACDEH) ON SITE FOR ANNUAL MONITORING CERTIFICATION (AMC) AND ROUTINE INSPECTION. THE SERVICE TECHNICIAN WAS DAVID PEREIRA OF R.L STEVENS CO. WHO POSSESSES THE CALIFORNIA ICC UST SERVICE TECHNICIAN CERTIFICATION THAT EXPIRES 5-21-20 AND THE VEEDER ROOT CERTIFICATION THAT EXPIRES 1-22-20. ALL VIOLATIONS NOTED IN THE INSPECTION REPORT SHALL BE CORRECTED BY AUGUST 15, 2018 AND ANY VERIFICATION DOCUMENTATION SUBMITTED WITHIN THE SAME TIME FRAME.

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection

Eval Date: 07-18-2016

Violations Found: Yes

Eval Type: Routine done by local agency

Eval Notes: ROUTINE INSPECTION OF THE TWO USTS- SINGLE WALL OBSERVATION: DID NOT SEE A LIST OF BMPS FOR THE SITE USED IN THE TRAINING, ATTACH A COPY TO THE SIGN IN SHEET. PERMITTING OF THE TWO TANKS WILL BE RESEARCHED TO DETERMINE WHAT VIOLATIONS NEED TO BE CORRECTED IF ANY. PERMIT WILL BE ISSUED AS SOON AS POSSIBLE.

Eval Division: Alameda County Environmental Health
Eval Program: UST

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-24-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: no violations noted
Eval Division: Oakland City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-24-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: no violations noted
Eval Division: Oakland City Fire Department
Eval Program: HW
Eval Source: CERS

Coordinates:
Site ID: 108426
Facility Name: County of Alameda GSA AlcoPark Garage
Env Int Type Code: HWG
Program ID: 10398013
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.800730
Longitude: -122.265290

Affiliation:
Affiliation Type Desc: Operator
Entity Name: County of Alameda GSA - Motor Vehicle Division
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (510) 272-6403

Affiliation Type Desc: UST Permit Applicant
Entity Name: Rod Freitag
Entity Title: Environmental Program Manager
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (510) 208-9522

Affiliation Type Desc: UST Property Owner Name
Entity Name: County of Alameda
Entity Title: Not reported
Affiliation Address: 1401 Lakeside Drive (Attn: GSA-Capital Programs, Environmental Dept.)
Affiliation City: Oakland

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94612
Affiliation Phone: (510) 208-9525

Affiliation Type Desc: UST Tank Owner
Entity Name: County of Alameda
Entity Title: Not reported
Affiliation Address: 1401 Lakeside Drive (Attn: GSA-Capital Programs, Environmetnal Dept.)
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94612
Affiliation Phone: (510) 208-9525

Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Document Preparer
Entity Name: Rod Freitag
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 165 - 13th Street
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94612
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: Rod Freitag
Entity Title: Not reported
Affiliation Address: 1401 Lakeside Drive, Ste. 800
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94612
Affiliation Phone: (510) 208-9522

Affiliation Type Desc: UST Tank Operator
Entity Name: County of Alameda GSA - Motor Vehicle Division

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COUNTY OF ALAMEDA GSA ALCOPARK GARAGE (Continued)

S121738512

Entity Title: Not reported
Affiliation Address: 165 13th Street
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94612
Affiliation Phone: (510) 272-6403

Affiliation Type Desc: Identification Signer
Entity Name: Rod Freitag
Entity Title: Environmental Program Manager
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: County of Alameda GSA
Entity Title: Not reported
Affiliation Address: 165 - 13th Street
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94612
Affiliation Phone: (510) 272-6401

Affiliation Type Desc: Parent Corporation
Entity Name: Alameda County General Services Agency
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

88
South
1/8-1/4
0.211 mi.
1116 ft.

ALAMEDA COUNTY WAREHOUSE
39 4TH ST
OAKLAND, CA 94607

RCRA-SQG 1000297253
FINDS CAD982523938
ECHO

Relative:
Lower

RCRA-SQG:
Date form received by agency: 07/07/1989
Facility name: ALAMEDA COUNTY WAREHOUSE
Facility address: 39 4TH ST
OAKLAND, CA 94607
EPA ID: CAD982523938
Mailing address: 4400 MACARTHUR BLVD
OAKLAND, CA 94619
Contact: ENVIRONMENTAL MANAGER
Contact address: 39 FOURTH ST
OAKLAND, CA 94607
Contact country: US
Contact telephone: 415-530-9660

Actual:
12 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ALAMEDA COUNTY WAREHOUSE (Continued)

1000297253

Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: COUNTY OF ALAMEDA
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: County
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: County
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
Used oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ALAMEDA COUNTY WAREHOUSE (Continued)

1000297253

Registry ID: 110002841989

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1000297253
Registry ID: 110002841989
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110002841989>

P89
WNW
1/8-1/4
0.213 mi.
1125 ft.

UNOCAL #0752
800 HARRISON
OAKLAND, CA 94607
Site 2 of 9 in cluster P

LUST **1000167097**
SWEEPS UST **N/A**
HIST UST
HIST CORTESE
CERS

Relative:
Higher
Actual:
36 ft.

LUST:

Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101486
Global Id: T0600101486
Latitude: 37.798989492
Longitude: -122.269965472
Status: Open - Remediation
Status Date: 07/15/2014
Case Worker: JES
RB Case Number: 01-1611
Local Agency: ALAMEDA COUNTY LOP
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000231
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Three UST were removed in 1990 and significantly elevated concentrations of petroleum hydrocarbons were detected in soil during the UST removal. A program of groundwater monitoring was implemented in 1991 and dissolved phase contamination is migrating offsite and impacting the downgradient sites located at 726 and 706 Harrison Street. Soil and groundwater sampling completed in 2007 detected elevated levels of MTBE in the deeper water bearing zone at 48 feet bgs. This site is part of a commingled plume and remedial action is proposed to remove residual mass beneath the sites. A pilot test of multi-phase extraction and air sparging/soil vapor extraction was conducted in 2013. Based on the results of the pilot test, remediation of 706 and 726 Harrison Street is planned to begin in 2014 using air sparging and soil vapor extraction. A Remedial Action Plan that describes the planned remediation was approved in July 2014 following a public comment period on the Remedial Action Plan.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNOCAL #0752 (Continued)

1000167097

LUST:

Global Id: T0600101486
Contact Type: Local Agency Caseworker
Contact Name: JONATHAN E. SANDERS
Organization Name: ALAMEDA COUNTY LOP
Address: 1131 Harbor Bay Pkwy
City: ALAMEDA
Email: jonathan.sanders@acgov.org
Phone Number: 5105676791

Global Id: T0600101486
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600101486
Action Type: ENFORCEMENT
Date: 03/08/2017
Action: Email Correspondence - #20170308

Global Id: T0600101486
Action Type: ENFORCEMENT
Date: 08/30/2016
Action: Meeting - #20160830

Global Id: T0600101486
Action Type: Other
Date: 11/12/1990
Action: Leak Reported

Global Id: T0600101486
Action Type: RESPONSE
Date: 10/23/2012
Action: CAP/RAP - Feasibility Study Report

Global Id: T0600101486
Action Type: RESPONSE
Date: 11/15/2018
Action: Remedial Progress Report

Global Id: T0600101486
Action Type: RESPONSE
Date: 02/19/2013
Action: Pilot Study / Treatability Workplan - Regulator Responded

Global Id: T0600101486
Action Type: RESPONSE
Date: 04/24/2013
Action: Corrective Action Plan / Remedial Action Plan - Addendum - Regulator Responded

Global Id: T0600101486

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNOCAL #0752 (Continued)

1000167097

Action Type: RESPONSE
Date: 10/09/2013
Action: Pilot Study/ Treatability Report - Regulator Responded

Global Id: T0600101486
Action Type: RESPONSE
Date: 11/15/2018
Action: CAP/RAP - Other Report

Global Id: T0600101486
Action Type: RESPONSE
Date: 12/02/2016
Action: Other Report / Document

Global Id: T0600101486
Action Type: RESPONSE
Date: 04/18/2014
Action: Corrective Action Plan / Remedial Action Plan - Regulator Responded

Global Id: T0600101486
Action Type: RESPONSE
Date: 09/19/2014
Action: Corrective Action Plan / Remedial Action Plan - Addendum - Regulator Responded

Global Id: T0600101486
Action Type: RESPONSE
Date: 07/01/2014
Action: Corrective Action Plan / Remedial Action Plan - Addendum - Regulator Responded

Global Id: T0600101486
Action Type: ENFORCEMENT
Date: 06/12/2009
Action: Staff Letter - #20090612

Global Id: T0600101486
Action Type: RESPONSE
Date: 12/16/2016
Action: Monitoring Report - Semi-Annually

Global Id: T0600101486
Action Type: RESPONSE
Date: 11/15/2018
Action: Remedial Progress Report

Global Id: T0600101486
Action Type: RESPONSE
Date: 12/02/2016
Action: Corrective Action Plan / Remedial Action Plan - Addendum - Regulator Responded

Global Id: T0600101486
Action Type: RESPONSE
Date: 05/14/2018
Action: Correspondence - Regulator Responded

Global Id: T0600101486
Action Type: ENFORCEMENT
Date: 07/24/2009

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNOCAL #0752 (Continued)

1000167097

Action: Staff Letter - #20090724

Global Id: T0600101486
Action Type: ENFORCEMENT
Date: 11/16/2009
Action: File review

Global Id: T0600101486
Action Type: ENFORCEMENT
Date: 08/03/2016
Action: Email Correspondence

Global Id: T0600101486
Action Type: ENFORCEMENT
Date: 11/03/2016
Action: Staff Letter - #20161103

Global Id: T0600101486
Action Type: ENFORCEMENT
Date: 04/25/2011
Action: Staff Letter - #20110425

Global Id: T0600101486
Action Type: ENFORCEMENT
Date: 01/04/2011
Action: Staff Letter - #20110104

Global Id: T0600101486
Action Type: ENFORCEMENT
Date: 10/20/2011
Action: Staff Letter - #20111020

Global Id: T0600101486
Action Type: ENFORCEMENT
Date: 05/13/2013
Action: Staff Letter - #20130513

Global Id: T0600101486
Action Type: ENFORCEMENT
Date: 07/09/2012
Action: Staff Letter - #20120709

Global Id: T0600101486
Action Type: ENFORCEMENT
Date: 12/10/2012
Action: Staff Letter - #20121210

Global Id: T0600101486
Action Type: ENFORCEMENT
Date: 03/11/2013
Action: Staff Letter - #20130311

Global Id: T0600101486
Action Type: REMEDIATION
Date: 12/26/1990
Action: Excavation

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNOCAL #0752 (Continued)

1000167097

Global Id:	T0600101486
Action Type:	ENFORCEMENT
Date:	12/02/2013
Action:	Staff Letter - #20131202
Global Id:	T0600101486
Action Type:	ENFORCEMENT
Date:	03/11/2015
Action:	Staff Letter - #20150311
Global Id:	T0600101486
Action Type:	ENFORCEMENT
Date:	07/14/2014
Action:	Staff Letter - #20140714
Global Id:	T0600101486
Action Type:	ENFORCEMENT
Date:	05/13/2014
Action:	Staff Letter - #20130513
Global Id:	T0600101486
Action Type:	RESPONSE
Date:	09/30/2009
Action:	CAP/RAP - Feasibility Study Report
Global Id:	T0600101486
Action Type:	RESPONSE
Date:	11/15/2018
Action:	Remedial Progress Report
Global Id:	T0600101486
Action Type:	REMEDIATION
Date:	08/01/1995
Action:	Soil Vapor Extraction (SVE)
Global Id:	T0600101486
Action Type:	ENFORCEMENT
Date:	05/21/2018
Action:	Staff Letter
Global Id:	T0600101486
Action Type:	REMEDIATION
Date:	08/21/1995
Action:	Soil Vapor Extraction (SVE)
Global Id:	T0600101486
Action Type:	Other
Date:	11/12/1990
Action:	Leak Discovery
Global Id:	T0600101486
Action Type:	RESPONSE
Date:	03/31/2011
Action:	Soil and Water Investigation Workplan
Global Id:	T0600101486
Action Type:	RESPONSE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNOCAL #0752 (Continued)

1000167097

Date: 04/15/2015
Action: Monitoring Report - Semi-Annually

Global Id: T0600101486
Action Type: RESPONSE
Date: 11/15/2018
Action: Remedial Progress Report

Global Id: T0600101486
Action Type: ENFORCEMENT
Date: 05/13/2014
Action: Notification - Public Notice of ROD/RAP/CAP - #20140513

Global Id: T0600101486
Action Type: RESPONSE
Date: 08/30/2011
Action: Soil and Water Investigation Report

Global Id: T0600101486
Action Type: ENFORCEMENT
Date: 08/16/2007
Action: * No Action - #20071608

Global Id: T0600101486
Action Type: RESPONSE
Date: 03/20/2012
Action: Site Assessment Report

LUST:

Global Id: T0600101486
Status: Open - Assessment & Interim Remedial Action
Status Date: 12/10/2012

Global Id: T0600101486
Status: Open - Case Begin Date
Status Date: 11/12/1990

Global Id: T0600101486
Status: Open - Remediation
Status Date: 07/15/2014

Global Id: T0600101486
Status: Open - Site Assessment
Status Date: 11/26/1990

Global Id: T0600101486
Status: Open - Site Assessment
Status Date: 02/01/1991

Global Id: T0600101486
Status: Open - Site Assessment
Status Date: 07/05/1991

Global Id: T0600101486
Status: Open - Site Assessment
Status Date: 09/23/1992

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNOCAL #0752 (Continued)

1000167097

LUST REG 2:

Region: 2
Facility Id: 01-1611
Facility Status: Pollution Characterization
Case Number: 918
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assessment Wokplan Submitted: Not reported
Preliminary Site Assessment Began: 6/1/1991
Pollution Characterization Began: 12/4/1991
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

SWEEPS UST:

Status: Active
Comp Number: 31763
Number: 2
Board Of Equalization: 44-000051
Referral Date: 11-18-92
Action Date: 04-14-93
Created Date: 02-29-88
Owner Tank Id: 752-RU-1
SWRCB Tank Id: 01-000-031763-000001
Tank Status: A
Capacity: 12000
Active Date: 11-18-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 3

Status: Active
Comp Number: 31763
Number: 2
Board Of Equalization: 44-000051
Referral Date: 11-18-92
Action Date: 04-14-93
Created Date: 02-29-88
Owner Tank Id: 752-SU-1
SWRCB Tank Id: 01-000-031763-000002
Tank Status: A
Capacity: 12000
Active Date: 11-18-92
Tank Use: M.V. FUEL
STG: P
Content: PRM UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 31763
Number: 2
Board Of Equalization: 44-000051

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNOCAL #0752 (Continued)

1000167097

Referral Date: 11-18-92
Action Date: 04-14-93
Created Date: 02-29-88
Owner Tank Id: 752-WO-1
SWRCB Tank Id: 01-000-031763-000003
Tank Status: A
Capacity: 520
Active Date: 11-18-92
Tank Use: OIL
STG: W
Content: WASTE OIL
Number Of Tanks: Not reported

HIST UST:

File Number: 00036474
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00036474.pdf>
Region: STATE
Facility ID: 00000031763
Facility Type: Gas Station
Other Type: Not reported
Contact Name: CHESTER C. U. LAU
Telephone: 4158327838
Owner Name: UNION OIL CO.
Owner Address: 1 CALIFORNIA ST. SUITE 2700
Owner City,St,Zip: SAN FRANCISCO, CA 94111
Total Tanks: 0003

Tank Num: 001
Container Num: 0752-1-1
Year Installed: 1967
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 002
Container Num: 0752-2-1
Year Installed: 1967
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 003
Container Num: 0752-4-1
Year Installed: Not reported
Tank Capacity: 00000280
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

[Click here for Geo Tracker PDF:](#)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNOCAL #0752 (Continued)

1000167097

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-1611

CERS TANKS:

Site ID: 246175
CERS ID: T0600101486
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Local Agency Caseworker
Entity Name: JONATHAN E. SANDERS - ALAMEDA COUNTY LOP
Entity Title: Not reported
Affiliation Address: 1131 Harbor Bay Pkwy
Affiliation City: ALAMEDA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 5105676791

P90
WNW
1/8-1/4
0.213 mi.
1125 ft.

UNION OIL SS0752
800 HARRISON ST
OAKLAND, CA 94607

Alameda County CS
HIST UST
HAZNET

U001599230
N/A

Site 3 of 9 in cluster P

Relative:
Higher

Alameda County CS:

Actual:
36 ft.

Status: Leak Confirmation
Record Id: RO0000231
PE: 5602
Facility Status: Leak Confirmation
Latitude: 37.798750081
Longitude: -122.27001085

Status: Preliminary Site Assessment Workplan Submitted
Record Id: RO0000231
PE: 5602
Facility Status: Preliminary Site Assessment Workplan Submitted
Latitude: 37.798750081
Longitude: -122.27001085

Status: Preliminary Site Assessment Underway
Record Id: RO0000231
PE: 5602

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNION OIL SS0752 (Continued)

U001599230

Facility Status: Preliminary Site Assessment Underway
Latitude: 37.798750081
Longitude: -122.27001085

Status: Pollution Characterization
Record Id: RO0000231
PE: 5602
Facility Status: Pollution Characterization
Latitude: 37.798750081
Longitude: -122.27001085

HIST UST:

File Number: 00036469
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00036469.pdf>
Region: STATE
Facility ID: 00000058996
Facility Type: Gas Station
Other Type: Not reported
Contact Name: CHESTER C. U. LAU
Telephone: 4158327838
Owner Name: UNION OIL CO.
Owner Address: 1 CALIFORNIA ST., SUITE 2700
Owner City,St,Zip: SAN FRANCISCO, CA 94111
Total Tanks: 0001

Tank Num: 001
Container Num: 1
Year Installed: 1967
Tank Capacity: 00000000
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: 6
Leak Detection: Visual

Click here for Geo Tracker PDF:

HAZNET:

Facility Name: FORMER UNOCAL 351646
envid: U001599230
Year: 2017
GEPaid: CAC002925835
Contact: CHEVRON EMC WASTE DESK
Telephone: 8773866044
Mailing Name: Not reported
Mailing Address: PO BOX 6004
Mailing City,St,Zip: SAN RAMON, CA 94583
Gen County: Alameda
TSD EPA ID: CAT000646117
TSD County: Kings
Waste Category: Contaminated soil from site clean-up
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 126.9
Cat Decode: Contaminated soil from site clean-up
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNION OIL SS0752 (Continued)

U001599230

Facility County: Alameda

P91
WNW
1/8-1/4
0.213 mi.
1125 ft.

TOSCO CORPORATION #30343
800 HARRISON ST
OAKLAND, CA 94607

UST **U003949139**
N/A

Site 4 of 9 in cluster P

Relative:
Higher
Actual:
36 ft.

UST:
Facility ID: 209
Permitting Agency: OAKLAND, CITY OF
Latitude: 37.800299
Longitude: -122.26843

Facility ID: Not reported
Permitting Agency: Alameda County Environmental Health
Latitude: 37.79895
Longitude: -122.26978

ALAMEDA CO. UST:
Facility ID: FA0321483
Facility Status: Active
Program Element: 4102
Description: UNDERGROUND STORAGE TANK 2 CONTAINERS
Inspection Date: 03/22/2019
Closed: Not reported
Owner Name: ALMASOON, INC.
Owner ID: OW0324591
Fstatus Decode: Open

P92
WNW
1/8-1/4
0.213 mi.
1125 ft.

UNION 76
800 HARRISON ST
OAKLAND, CA 94607

CERS HAZ WASTE **S121750648**
CERS TANKS **N/A**
CERS

Site 5 of 9 in cluster P

Relative:
Higher
Actual:
36 ft.

CERS HAZ WASTE:
Site ID: 18619
CERS ID: 10495918
CERS Description: Hazardous Waste Generator

Violations:
Site ID: 18619
Site Name: Union 76
Violation Date: 05-21-2018
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2
Violation Description: Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.
Violation Notes: Returned to compliance on 06/08/2018.
Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 18619

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNION 76 (Continued)

S121750648

Site Name: Union 76
Violation Date: 03-25-2016
Citation: HSC 6.7 25292(e) - California Health and Safety Code, Chapter 6.7, Section(s) 25292(e)
Violation Description: Failure to maintain secondary containment, as evidenced by failure of secondary containment testing.
Violation Notes: Returned to compliance on 07/05/2016. OBSERVATION: 87 Regular product piping interstitial failed secondary containment testing at dispenser 5/6. CORRECTIVE ACTION: Repair/replace the failed component and re-test. Submit the test results to ACDEH within 30 days of completion of testing. Check with Rob Weston if a ACDEH modification permit is required.
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-23-2017
Citation: 23 CCR 16 2636(f)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(2)
Violation Description: Failure of the line leak detector (LLD) monitoring pressurized piping to meet one or more of the following requirements: Monitor at least hourly. Be capable of detecting a release of 3.0 gallons per hour at 10 p.s.i.g. Restrict or shut off the flow of product through the piping when a leak is detected.
Violation Notes: Returned to compliance on 03/23/2017. OBSERVATION: Regular MLLD failed to detect a 3 gph leak at 10 psi. CORRECTIVE ACTION: The VMI MLLD was adjusted and was able to detect a 3 gph leak at 10 psi. CORRECTED AT THE TIME OF INSPECTION.
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-22-2018
Citation: 23 CCR 16 2641(j) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2641(j)
Violation Description: Failure of the leak detection equipment to be installed, calibrated, operated, and/or maintained properly.
Violation Notes: Returned to compliance on 03/22/2018. OBSERVATION: The Bravo box float and chain in the UDC # 7-8 sump failed to stop the flow of product at the dispenser when tested. All monitoring equipment shall be maintained to activate an audible and visual alarm or stop the flow of product at the dispenser when it detects a leak. CORRECTED ON SITE: The service technician adjusted the chain(s) and verified functionality. This was corrected on site.
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-22-2018
Citation: HSC 6.75 25299.30-25299.34 - California Health and Safety Code, Chapter 6.75, Section(s) 25299.30-25299.34

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNION 76 (Continued)

S121750648

Violation Description: Failure to submit and maintain complete and current Certification of Financial Responsibility or other mechanism of financial assurance.
Violation Notes: Returned to compliance on 06/08/2018. OBSERVATION: Current financial responsibility documents have not been submitted to the CUPA. The Chief Financial Officer document is dated 3-6-17. Current financial responsibility documents are required to be submitted annually. CORRECTIVE ACTION: Upload the required information into CERS and submit for review by the CUPA. Submit within 30 days.
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS
Site ID: 18619
Site Name: Union 76
Violation Date: 03-23-2017
Citation: HSC 6.7 29291(b) - California Health and Safety Code, Chapter 6.7, Section(s) 29291(b)
Violation Description: Failure of the UST system to be designed and constructed with a monitoring system capable of detecting the entry of the hazardous substance into the secondary containment.
Violation Notes: Returned to compliance on 03/23/2017. OBSERVATION: UDC 3/4 Premium float and chain failed functional test. Float responded to water but the shear valve assembly was not triggered. Lead seal on chain was interfering with the trigger mechanism. CORRECTIVE ACTION: Service tech re-positioned lead seal and re-tested. Passed. CORRECTED AT THE TIME OF INSPECTION.
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS
Site ID: 18619
Site Name: Union 76
Violation Date: 03-22-2018
Citation: 23 CCR 16 2636(f)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(2)
Violation Description: Failure of the functional line leak detector (LLD) monitoring pressurized piping to meet one or more of the following requirements: Monitored at least hourly with the capability of detecting a release of 3.0 gallons per hour leak at 10 p.s.i.g. and restrict or shut off the flow of product through the piping when a leak is detected.
Violation Notes: Returned to compliance on 03/22/2018. OBSERVATION: The Regular Unleaded (Tank ID # 1-87) line leak detector failed to detect a leak when tested. All line leak detectors shall be capable of detecting a 3-gallon per hour leak at 10 psi. CORRECTED ON SITE: The service technician adjusted the leak detector, retested it, and it passed. This was corrected on site.
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS
Site ID: 18619
Site Name: Union 76
Violation Date: 03-25-2016
Citation: 23 CCR 16 2666 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2666
Violation Description: Failure to maintain entry fitting such that it properly seals to the containment.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNION 76 (Continued)

S121750648

Violation Notes: Returned to compliance on 07/11/2016. OBSERVATION: 87 Regular product piping interstitial failed secondary containment testing at dispenser 5/6. CORRECTIVE ACTION: Repair/replace the failed component and re-test. Submit the test results to ACDEH within 30 days of completion of testing. Check with Rob Weston if a ACDEH modification permit is required.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-25-2016
Citation: 23 CCR 16 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(1)

Violation Description: Failure of the double wall pressurized piping in the under dispenser containment to be continuously monitored by a method that either shuts down the flow of product to the dispenser or activates an audible/visual alarm when a leak is detected.

Violation Notes: Returned to compliance on 03/25/2016. OBSERVATION: Float and chain monitoring devices failed at dispensers 3/4, 5/6, and 7/8. CORRECTIVE ACTION: Chains were adjusted and re-tested. Passed. Corrected at time of inspection.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-23-2017
Citation: 23 CCR 16 2712 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712

Violation Description: Failure to comply with any of the applicable requirements of the permit issued for the operation of the UST system.

Violation Notes: Returned to compliance on 03/23/2017. OBSERVATION: Daily monitoring panel inspection not being documented. Daily inspection of the monitoring panel is a condition of the ACDEH Underground Storage Tank Operating Permit. CORRECTIVE ACTION: A daily monitoring panel inspection checklist was left with the operator. The inspection was explained to the operator. CORRECTED AT THE TIME OF INSPECTION

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-25-2016
Citation: 23 CCR 16 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(1)

Violation Description: Failure of the double wall pressurized piping in the turbine sump to be continuously monitored with a system that activates an audible and visual alarm or restricts or stops flow at dispenser when a leak is detected.

Violation Notes: Returned to compliance on 03/25/2016. OBSERVATION: Liquid sensor in 87 Regular sump failed functional test. CORRECTIVE ACTION: 87 Regular turbine/pipe sump liquid sensor replaced and re-tested. Passed. Corrected at time of inspection.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNION 76 (Continued)

S121750648

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-22-2018
Citation: 23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)

Violation Description: Failure to have current UST Monitoring Plan available on site.
Violation Notes: Returned to compliance on 06/06/2018. OBSERVATION: An approved copy of the monitoring plan was not found on site. The UST Monitoring Site Plan that is part of the UST Monitoring Plan does not have the Bravo box float and chains that monitor the UDC's. A copy of this plan shall be retained on site at all times. CORRECTIVE ACTION: Immediately locate and retain a copy on site.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-25-2016
Citation: HSC 6.7 25291 - California Health and Safety Code, Chapter 6.7, Section(s) 25291

Violation Description: Failure to maintain under-dispenser containment, sumps, and/or other secondary containment in good condition and/or free of debris/liquid.
Violation Notes: Returned to compliance on 07/05/2016. OBSERVATION: 87 Regular product piping interstitial failed secondary containment testing at dispenser 5/6. CORRECTIVE ACTION: Repair/replace the failed component and re-test. Submit the test results to ACDEH within 30 days of completion of testing. Check with Rob Weston if a ACDEH modification permit is required.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Evaluation:

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-22-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH (ACDEH) ON SITE FOR ANNUAL MONITORING CERTIFICATION AND ROUTINE INSPECTION. THE SERVICE TECHNICIAN WAS NIK ZAGOROV OF ECO-CHECK COMPLIANCE WHO POSSESSES THE CALIFORNIA UST ICC CERTIFICATION THAT EXPIRES 5-8-19, THE VMI CERTIFICATION THAT EXPIRES 12-26-20 AND THE VEEDER ROOT CERTIFICATION THAT EXPIRES 12-8-18. ALL VIOLATIONS NOTED IN THE INSPECTION REPORT SHALL BE CORRECTED BY APRIL 21, 2018 AND ANY VERIFICATION DOCUMENTATION SUBMITTED WITHIN THE SAME TIME FRAME.

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-25-2016
Violations Found: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNION 76 (Continued)

S121750648

Eval Type: Routine done by local agency
Eval Notes: Chinatown 76 800 Harrison St Oakland, CA 94607 (415) 724-6951 EPA ID Number CAL000175934 Initial Hazardous Waste Generator (HWG) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on March 25, 2016. Consent to inspect was given by and the completed inspection report was reviewed with Sraven Redy Vinjamun, cashier. Waste streams may include: drained used fuel filters and hoses, contaminated absorbent, contaminated water. No hazardous waste available for inspection. There is an auto smog/repair shop at the same address.

Eval Division: Alameda County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-25-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Chinatown 76 800 Harrison St Oakland, CA 94607 (415) 724-6951 Initial Underground Storage Tank (UST) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on March 25, 2016. Nik Zagorov is the service technician conducting the monitoring equipment certification and spill container testing. Consent to inspect was given by and the completed inspection report was reviewed with Sraven Redy Vinjamun, cashier. There are two 12,000 gallon double walled steel underground storage tank (One Regular Unleaded and one Premium Unleaded gasoline).

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-23-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Chinatown 76 800 Harrison St Oakland, CA 94607 Underground Storage Tank (UST) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on March 23, 2017. Nik Zagorov is the service technician conducting the monitoring equipment certification and spill container testing. Consent to inspect was given by and the completed inspection report was reviewed with Farukh Cho, manager. OBSERVATION: Unable to locate UST Operating Permit. Action: I will review with ACDEH to determine status of UST Operating Permit. A current valid UST Operating Permit will be issued by ACDEH upon return to compliance. Submit the annual monitoring equipment certification and spill container test results to ACDEH within 30-days of completion of testing.

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-25-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Chinatown 76 800 Harrison St Oakland, CA 94607 (415) 724-6951 CERS ID10495918 Initial Hazardous Material Business Plan (HMBP) inspection

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNION 76 (Continued)

S121750648

conducted by Alameda County Department of Environmental Health (ACDEH) on March 25, 2016. Consent to inspect was given by and the completed inspection report was reviewed with Sraven Redy Vinjamun, cashier. There are two 12,000 gallon double walled steel/fiberglass underground storage tank (One Regular Unleaded and one Premium Unleaded gasoline).

Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-21-2018
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: GENERATE NIV NOV LTR/ADDING VIOLATION IN EC
Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Coordinates:
Site ID: 18619
Facility Name: Union 76
Env Int Type Code: HWG
Program ID: 10495918
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.798950
Longitude: -122.269780

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Document Preparer
Entity Name: Nik Zagorov
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: UST Permit Applicant
Entity Name: Rab Ilyas
Entity Title: CEO
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNION 76 (Continued)

S121750648

Affiliation Zip: Not reported
Affiliation Phone: (415) 724-6951

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 800 Harrison St
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94607
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: Rab Ilyas
Entity Title: Not reported
Affiliation Address: 800 Harrison St
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94607
Affiliation Phone: (415) 724-6951

Affiliation Type Desc: Identification Signer
Entity Name: Rab Ilyas
Entity Title: CEO
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: Almasoon, Inc.
Entity Title: Not reported
Affiliation Address: 800 Harrison St
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94607
Affiliation Phone: (510) 893-2356

Affiliation Type Desc: UST Property Owner Name
Entity Name: Muhammad Usman
Entity Title: Not reported
Affiliation Address: 1555 Thomas Avenue
Affiliation City: San Francisco
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94124
Affiliation Phone: (415) 822-6900

Affiliation Type Desc: UST Tank Owner
Entity Name: Almasoon, Inc.
Entity Title: Not reported
Affiliation Address: 800 Harrison Street

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNION 76 (Continued)

S121750648

Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94607
Affiliation Phone: (510) 893-2356

Affiliation Type Desc: Operator
Entity Name: Almasoon, Inc.
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (510) 893-2356

Affiliation Type Desc: Parent Corporation
Entity Name: Chinatown 76
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Property Owner
Entity Name: Usman Mohammad
Entity Title: Not reported
Affiliation Address: 1555 Thomas Avenue
Affiliation City: San Francisco
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94124
Affiliation Phone: (415) 822-6900

Affiliation Type Desc: UST Tank Operator
Entity Name: Almasoon, Inc.
Entity Title: Not reported
Affiliation Address: 800 Harrison Street
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94607
Affiliation Phone: (510) 893-2356

CERS TANKS:
Site ID: 18619
CERS ID: 10495918
CERS Description: Underground Storage Tank

Violations:
Site ID: 18619
Site Name: Union 76
Violation Date: 05-21-2018
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95,

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Elevation

MAP FINDINGS

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UNION 76 (Continued)

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Section(s) 25508.2
Violation Description: Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.
Violation Notes: Returned to compliance on 06/08/2018.
Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-25-2016
Citation: HSC 6.7 25292(e) - California Health and Safety Code, Chapter 6.7, Section(s) 25292(e)
Violation Description: Failure to maintain secondary containment, as evidenced by failure of secondary containment testing.
Violation Notes: Returned to compliance on 07/05/2016. OBSERVATION: 87 Regular product piping interstitial failed secondary containment testing at dispenser 5/6. CORRECTIVE ACTION: Repair/replace the failed component and re-test. Submit the test results to ACDEH within 30 days of completion of testing. Check with Rob Weston if a ACDEH modification permit is required.
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-23-2017
Citation: 23 CCR 16 2636(f)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(2)
Violation Description: Failure of the line leak detector (LLD) monitoring pressurized piping to meet one or more of the following requirements: Monitor at least hourly. Be capable of detecting a release of 3.0 gallons per hour at 10 p.s.i.g. Restrict or shut off the flow of product through the piping when a leak is detected.
Violation Notes: Returned to compliance on 03/23/2017. OBSERVATION: Regular MLLD failed to detect a 3 gph leak at 10 psi. CORRECTIVE ACTION: The VMI MLLD was adjusted and was able to detect a 3 gph leak at 10 psi. CORRECTED AT THE TIME OF INSPECTION.
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-22-2018
Citation: 23 CCR 16 2641(j) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2641(j)
Violation Description: Failure of the leak detection equipment to be installed, calibrated, operated, and/or maintained properly.
Violation Notes: Returned to compliance on 03/22/2018. OBSERVATION: The Bravo box float and chain in the UDC # 7-8 sump failed to stop the flow of product at the dispenser when tested. All monitoring equipment shall be maintained to activate an audible and visual alarm or stop the flow of product at the dispenser when it detects a leak. CORRECTED ON SITE: The service technician adjusted the chain(s) and verified

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EPA ID Number

UNION 76 (Continued)

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functionality. This was corrected on site.
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-22-2018
Citation: HSC 6.75 25299.30-25299.34 - California Health and Safety Code, Chapter 6.75, Section(s) 25299.30-25299.34
Violation Description: Failure to submit and maintain complete and current Certification of Financial Responsibility or other mechanism of financial assurance.
Violation Notes: Returned to compliance on 06/08/2018. OBSERVATION: Current financial responsibility documents have not been submitted to the CUPA. The Chief Financial Officer document is dated 3-6-17. Current financial responsibility documents are required to be submitted annually. CORRECTIVE ACTION: Upload the required information into CERS and submit for review by the CUPA. Submit within 30 days.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-23-2017
Citation: HSC 6.7 29291(b) - California Health and Safety Code, Chapter 6.7, Section(s) 29291(b)
Violation Description: Failure of the UST system to be designed and constructed with a monitoring system capable of detecting the entry of the hazardous substance into the secondary containment.
Violation Notes: Returned to compliance on 03/23/2017. OBSERVATION: UDC 3/4 Premium float and chain failed functional test. Float responded to water but the shear valve assembly was not triggered. Lead seal on chain was interfering with the trigger mechanism. CORRECTIVE ACTION: Service tech re-positioned lead seal and re-tested. Passed. CORRECTED AT THE TIME OF INSPECTION.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-22-2018
Citation: 23 CCR 16 2636(f)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(2)
Violation Description: Failure of the functional line leak detector (LLD) monitoring pressurized piping to meet one or more of the following requirements: Monitored at least hourly with the capability of detecting a release of 3.0 gallons per hour leak at 10 p.s.i.g. and restrict or shut off the flow of product through the piping when a leak is detected.
Violation Notes: Returned to compliance on 03/22/2018. OBSERVATION: The Regular Unleaded (Tank ID # 1-87) line leak detector failed to detect a leak when tested. All line leak detectors shall be capable of detecting a 3-gallon per hour leak at 10 psi. CORRECTED ON SITE: The service technician adjusted the leak detector, retested it, and it passed. This was corrected on site.

Violation Division: Alameda County Environmental Health

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Direction
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EPA ID Number

UNION 76 (Continued)

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Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-25-2016
Citation: 23 CCR 16 2666 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2666

Violation Description: Failure to maintain entry fitting such that it properly seals to the containment.

Violation Notes: Returned to compliance on 07/11/2016. OBSERVATION: 87 Regular product piping interstitial failed secondary containment testing at dispenser 5/6. CORRECTIVE ACTION: Repair/replace the failed component and re-test. Submit the test results to ACDEH within 30 days of completion of testing. Check with Rob Weston if a ACDEH modification permit is required.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-25-2016
Citation: 23 CCR 16 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(1)

Violation Description: Failure of the double wall pressurized piping in the under dispenser containment to be continuously monitored by a method that either shuts down the flow of product to the dispenser or activates an audible/visual alarm when a leak is detected.

Violation Notes: Returned to compliance on 03/25/2016. OBSERVATION: Float and chain monitoring devices failed at dispensers 3/4, 5/6, and 7/8. CORRECTIVE ACTION: Chains were adjusted and re-tested. Passed. Corrected at time of inspection.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-23-2017
Citation: 23 CCR 16 2712 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712

Violation Description: Failure to comply with any of the applicable requirements of the permit issued for the operation of the UST system.

Violation Notes: Returned to compliance on 03/23/2017. OBSERVATION: Daily monitoring panel inspection not being documented. Daily inspection of the monitoring panel is a condition of the ACDEH Underground Storage Tank Operating Permit. CORRECTIVE ACTION: A daily monitoring panel inspection checklist was left with the operator. The inspection was explained to the operator. CORRECTED AT THE TIME OF INSPECTION

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-25-2016

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UNION 76 (Continued)

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Citation: 23 CCR 16 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(1)

Violation Description: Failure of the double wall pressurized piping in the turbine sump to be continuously monitored with a system that activates an audible and visual alarm or restricts or stops flow at dispenser when a leak is detected.

Violation Notes: Returned to compliance on 03/25/2016. OBSERVATION: Liquid sensor in 87 Regular sump failed functional test. CORRECTIVE ACTION: 87 Regular turbine/pipe sump liquid sensor replaced and re-tested. Passed. Corrected at time of inspection.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-22-2018
Citation: 23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)

Violation Description: Failure to have current UST Monitoring Plan available on site.

Violation Notes: Returned to compliance on 06/06/2018. OBSERVATION: An approved copy of the monitoring plan was not found on site. The UST Monitoring Site Plan that is part of the UST Monitoring Plan does not have the Bravo box float and chains that monitor the UDC's. A copy of this plan shall be retained on site at all times. CORRECTIVE ACTION: Immediately locate and retain a copy on site.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-25-2016
Citation: HSC 6.7 25291 - California Health and Safety Code, Chapter 6.7, Section(s) 25291

Violation Description: Failure to maintain under-dispenser containment, sumps, and/or other secondary containment in good condition and/or free of debris/liquid.

Violation Notes: Returned to compliance on 07/05/2016. OBSERVATION: 87 Regular product piping interstitial failed secondary containment testing at dispenser 5/6. CORRECTIVE ACTION: Repair/replace the failed component and re-test. Submit the test results to ACDEH within 30 days of completion of testing. Check with Rob Weston if a ACDEH modification permit is required.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-22-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH (ACDEH) ON SITE FOR ANNUAL MONITORING CERTIFICATION AND ROUTINE INSPECTION. THE SERVICE TECHNICIAN WAS NIK ZAGOROV OF ECO-CHECK COMPLIANCE WHO POSSESSES THE CALIFORNIA UST ICC CERTIFICATION THAT EXPIRES 5-8-19, THE VMI CERTIFICATION THAT EXPIRES 12-26-20 AND THE VEEDER ROOT CERTIFICATION

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THAT EXPIRES 12-8-18. ALL VIOLATIONS NOTED IN THE INSPECTION REPORT SHALL BE CORRECTED BY APRIL 21, 2018 AND ANY VERIFICATION DOCUMENTATION SUBMITTED WITHIN THE SAME TIME FRAME.

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-25-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Chinatown 76 800 Harrison St Oakland, CA 94607 (415) 724-6951 EPA ID Number CAL000175934 Initial Hazardous Waste Generator (HWG) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on March 25, 2016. Consent to inspect was given by and the completed inspection report was reviewed with Sraven Redy Vinjamun, cashier. Waste streams may include: drained used fuel filters and hoses, contaminated absorbent, contaminated water. No hazardous waste available for inspection. There is an auto smog/repair shop at the same address.

Eval Division: Alameda County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-25-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Chinatown 76 800 Harrison St Oakland, CA 94607 (415) 724-6951 Initial Underground Storage Tank (UST) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on March 25, 2016. Nik Zagorov is the service technician conducting the monitoring equipment certification and spill container testing. Consent to inspect was given by and the completed inspection report was reviewed with Sraven Redy Vinjamun, cashier. There are two 12,000 gallon double walled steel underground storage tank (One Regular Unleaded and one Premium Unleaded gasoline).

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-23-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Chinatown 76 800 Harrison St Oakland, CA 94607 Underground Storage Tank (UST) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on March 23, 2017. Nik Zagorov is the service technician conducting the monitoring equipment certification and spill container testing. Consent to inspect was given by and the completed inspection report was reviewed with Farukh Cho, manager. OBSERVATION: Unable to locate UST Operating Permit. Action: I will review with ACDEH to determine status of UST Operating Permit. A current valid UST Operating Permit will be issued by ACDEH upon return to compliance. Submit the annual monitoring equipment certification and spill container test results to ACDEH within 30-days of completion of testing.

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UNION 76 (Continued)

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Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-25-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Chinatown 76 800 Harrison St Oakland, CA 94607 (415) 724-6951 CERS ID10495918 Initial Hazardous Material Business Plan (HMBP) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on March 25, 2016. Consent to inspect was given by and the completed inspection report was reviewed with Sraven Redy Vinjamun, cashier. There are two 12,000 gallon double walled steel/fiberglass underground storage tank (One Regular Unleaded and one Premium Unleaded gasoline).

Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-21-2018
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: GENERATE NIV NOV LTR/ADDING VIOLATION IN EC
Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Coordinates:
Site ID: 18619
Facility Name: Union 76
Env Int Type Code: HWG
Program ID: 10495918
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.798950
Longitude: -122.269780

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Document Preparer
Entity Name: Nik Zagorov
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported

Map ID
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UNION 76 (Continued)

S121750648

Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: UST Permit Applicant
Entity Name: Rab Ilyas
Entity Title: CEO
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (415) 724-6951

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 800 Harrison St
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94607
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: Rab Ilyas
Entity Title: Not reported
Affiliation Address: 800 Harrison St
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94607
Affiliation Phone: (415) 724-6951

Affiliation Type Desc: Identification Signer
Entity Name: Rab Ilyas
Entity Title: CEO
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: Almasoon, Inc.
Entity Title: Not reported
Affiliation Address: 800 Harrison St
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94607
Affiliation Phone: (510) 893-2356

Affiliation Type Desc: UST Property Owner Name
Entity Name: Muhammad Usman
Entity Title: Not reported
Affiliation Address: 1555 Thomas Avenue

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UNION 76 (Continued)

S121750648

Affiliation City: San Francisco
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94124
Affiliation Phone: (415) 822-6900

Affiliation Type Desc: UST Tank Owner
Entity Name: Almasoon, Inc.
Entity Title: Not reported
Affiliation Address: 800 Harrison Street
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94607
Affiliation Phone: (510) 893-2356

Affiliation Type Desc: Operator
Entity Name: Almasoon, Inc.
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (510) 893-2356

Affiliation Type Desc: Parent Corporation
Entity Name: Chinatown 76
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Property Owner
Entity Name: Usman Mohammad
Entity Title: Not reported
Affiliation Address: 1555 Thomas Avenue
Affiliation City: San Francisco
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94124
Affiliation Phone: (415) 822-6900

Affiliation Type Desc: UST Tank Operator
Entity Name: Almasoon, Inc.
Entity Title: Not reported
Affiliation Address: 800 Harrison Street
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94607
Affiliation Phone: (510) 893-2356

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UNION 76 (Continued)

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CERS TANKS:

Site ID: 18619
CERS ID: 10495918
CERS Description: Chemical Storage Facilities

Violations:

Site ID: 18619
Site Name: Union 76
Violation Date: 05-21-2018
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2

Violation Description: Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.

Violation Notes: Returned to compliance on 06/08/2018.
Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-25-2016
Citation: HSC 6.7 25292(e) - California Health and Safety Code, Chapter 6.7, Section(s) 25292(e)

Violation Description: Failure to maintain secondary containment, as evidenced by failure of secondary containment testing.

Violation Notes: Returned to compliance on 07/05/2016. OBSERVATION: 87 Regular product piping interstitial failed secondary containment testing at dispenser 5/6. CORRECTIVE ACTION: Repair/replace the failed component and re-test. Submit the test results to ACDEH within 30 days of completion of testing. Check with Rob Weston if a ACDEH modification permit is required.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-23-2017
Citation: 23 CCR 16 2636(f)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(2)

Violation Description: Failure of the line leak detector (LLD) monitoring pressurized piping to meet one or more of the following requirements: Monitor at least hourly. Be capable of detecting a release of 3.0 gallons per hour at 10 p.s.i.g. Restrict or shut off the flow of product through the piping when a leak is detected.

Violation Notes: Returned to compliance on 03/23/2017. OBSERVATION: Regular MLLD failed to detect a 3 gph leak at 10 psi. CORRECTIVE ACTION: The VMI MLLD was adjusted and was able to detect a 3 gph leak at 10 psi. CORRECTED AT THE TIME OF INSPECTION.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-22-2018

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UNION 76 (Continued)

S121750648

Citation: 23 CCR 16 2641(j) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2641(j)

Violation Description: Failure of the leak detection equipment to be installed, calibrated, operated, and/or maintained properly.

Violation Notes: Returned to compliance on 03/22/2018. OBSERVATION: The Bravo box float and chain in the UDC # 7-8 sump failed to stop the flow of product at the dispenser when tested. All monitoring equipment shall be maintained to activate an audible and visual alarm or stop the flow of product at the dispenser when it detects a leak. CORRECTED ON SITE: The service technician adjusted the chain(s) and verified functionality. This was corrected on site.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-22-2018

Citation: HSC 6.75 25299.30-25299.34 - California Health and Safety Code, Chapter 6.75, Section(s) 25299.30-25299.34

Violation Description: Failure to submit and maintain complete and current Certification of Financial Responsibility or other mechanism of financial assurance.

Violation Notes: Returned to compliance on 06/08/2018. OBSERVATION: Current financial responsibility documents have not been submitted to the CUPA. The Chief Financial Officer document is dated 3-6-17. Current financial responsibility documents are required to be submitted annually. CORRECTIVE ACTION: Upload the required information into CERS and submit for review by the CUPA. Submit within 30 days.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-23-2017

Citation: HSC 6.7 29291(b) - California Health and Safety Code, Chapter 6.7, Section(s) 29291(b)

Violation Description: Failure of the UST system to be designed and constructed with a monitoring system capable of detecting the entry of the hazardous substance into the secondary containment.

Violation Notes: Returned to compliance on 03/23/2017. OBSERVATION: UDC 3/4 Premium float and chain failed functional test. Float responded to water but the shear valve assembly was not triggered. Lead seal on chain was interfering with the trigger mechanism. CORRECTIVE ACTION: Service tech re-positioned lead seal and re-tested. Passed. CORRECTED AT THE TIME OF INSPECTION.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-22-2018

Citation: 23 CCR 16 2636(f)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(2)

Violation Description: Failure of the functional line leak detector (LLD) monitoring pressurized piping to meet one or more of the following requirements:

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Database(s)

EDR ID Number
EPA ID Number

UNION 76 (Continued)

S121750648

Violation Notes: Monitored at least hourly with the capability of detecting a release of 3.0 gallons per hour leak at 10 p.s.i.g. and restrict or shut off the flow of product through the piping when a leak is detected. Returned to compliance on 03/22/2018. OBSERVATION: The Regular Unleaded (Tank ID # 1-87) line leak detector failed to detect a leak when tested. All line leak detectors shall be capable of detecting a 3-gallon per hour leak at 10 psi. CORRECTED ON SITE: The service technician adjusted the leak detector, retested it, and it passed. This was corrected on site.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-25-2016
Citation: 23 CCR 16 2666 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2666

Violation Description: Failure to maintain entry fitting such that it properly seals to the containment.

Violation Notes: Returned to compliance on 07/11/2016. OBSERVATION: 87 Regular product piping interstitial failed secondary containment testing at dispenser 5/6. CORRECTIVE ACTION: Repair/replace the failed component and re-test. Submit the test results to ACDEH within 30 days of completion of testing. Check with Rob Weston if a ACDEH modification permit is required.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-25-2016
Citation: 23 CCR 16 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(1)

Violation Description: Failure of the double wall pressurized piping in the under dispenser containment to be continuously monitored by a method that either shuts down the flow of product to the dispenser or activates an audible/visual alarm when a leak is detected.

Violation Notes: Returned to compliance on 03/25/2016. OBSERVATION: Float and chain monitoring devices failed at dispensers 3/4, 5/6, and 7/8. CORRECTIVE ACTION: Chains were adjusted and re-tested. Passed. Corrected at time of inspection.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-23-2017
Citation: 23 CCR 16 2712 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712

Violation Description: Failure to comply with any of the applicable requirements of the permit issued for the operation of the UST system.

Violation Notes: Returned to compliance on 03/23/2017. OBSERVATION: Daily monitoring panel inspection not being documented. Daily inspection of the monitoring panel is a condition of the ACDEH Underground Storage Tank

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UNION 76 (Continued)

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Operating Permit. CORRECTIVE ACTION: A daily monitoring panel inspection checklist was left with the operator. The inspection was explained to the operator. CORRECTED AT THE TIME OF INSPECTION

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-25-2016
Citation: 23 CCR 16 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(1)

Violation Description: Failure of the double wall pressurized piping in the turbine sump to be continuously monitored with a system that activates an audible and visual alarm or restricts or stops flow at dispenser when a leak is detected.

Violation Notes: Returned to compliance on 03/25/2016. OBSERVATION: Liquid sensor in 87 Regular sump failed functional test. CORRECTIVE ACTION: 87 Regular turbine/pipe sump liquid sensor replaced and re-tested. Passed. Corrected at time of inspection.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-22-2018
Citation: 23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)

Violation Description: Failure to have current UST Monitoring Plan available on site.

Violation Notes: Returned to compliance on 06/06/2018. OBSERVATION: An approved copy of the monitoring plan was not found on site. The UST Monitoring Site Plan that is part of the UST Monitoring Plan does not have the Bravo box float and chains that monitor the UDC's. A copy of this plan shall be retained on site at all times. CORRECTIVE ACTION: Immediately locate and retain a copy on site.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-25-2016
Citation: HSC 6.7 25291 - California Health and Safety Code, Chapter 6.7, Section(s) 25291

Violation Description: Failure to maintain under-dispenser containment, sumps, and/or other secondary containment in good condition and/or free of debris/liquid.

Violation Notes: Returned to compliance on 07/05/2016. OBSERVATION: 87 Regular product piping interstitial failed secondary containment testing at dispenser 5/6. CORRECTIVE ACTION: Repair/replace the failed component and re-test. Submit the test results to ACDEH within 30 days of completion of testing. Check with Rob Weston if a ACDEH modification permit is required.

Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNION 76 (Continued)

S121750648

Evaluation:

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-22-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH (ACDEH) ON SITE FOR ANNUAL MONITORING CERTIFICATION AND ROUTINE INSPECTION. THE SERVICE TECHNICIAN WAS NIK ZAGOROV OF ECO-CHECK COMPLIANCE WHO POSSESSES THE CALIFORNIA UST ICC CERTIFICATION THAT EXPIRES 5-8-19, THE VMI CERTIFICATION THAT EXPIRES 12-26-20 AND THE VEEDER ROOT CERTIFICATION THAT EXPIRES 12-8-18. ALL VIOLATIONS NOTED IN THE INSPECTION REPORT SHALL BE CORRECTED BY APRIL 21, 2018 AND ANY VERIFICATION DOCUMENTATION SUBMITTED WITHIN THE SAME TIME FRAME.

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-25-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Chinatown 76 800 Harrison St Oakland, CA 94607 (415) 724-6951 EPA ID Number CAL000175934 Initial Hazardous Waste Generator (HWG) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on March 25, 2016. Consent to inspect was given by and the completed inspection report was reviewed with Sraven Redy Vinjamun, cashier. Waste streams may include: drained used fuel filters and hoses, contaminated absorbent, contaminated water. No hazardous waste available for inspection. There is an auto smog/repair shop at the same address.

Eval Division: Alameda County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-25-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Chinatown 76 800 Harrison St Oakland, CA 94607 (415) 724-6951 Initial Underground Storage Tank (UST) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on March 25, 2016. Nik Zagorov is the service technician conducting the monitoring equipment certification and spill container testing. Consent to inspect was given by and the completed inspection report was reviewed with Sraven Redy Vinjamun, cashier. There are two 12,000 gallon double walled steel underground storage tank (One Regular Unleaded and one Premium Unleaded gasoline).

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-23-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Chinatown 76 800 Harrison St Oakland, CA 94607 Underground Storage Tank (UST) inspection conducted by Alameda County Department of

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNION 76 (Continued)

S121750648

Environmental Health (ACDEH) on March 23, 2017. Nik Zagorov is the service technician conducting the monitoring equipment certification and spill container testing. Consent to inspect was given by and the completed inspection report was reviewed with Farukh Cho, manager. OBSERVATION: Unable to locate UST Operating Permit. Action: I will review with ACDEH to determine status of UST Operating Permit. A current valid UST Operating Permit will be issued by ACDEH upon return to compliance. Submit the annual monitoring equipment certification and spill container test results to ACDEH within 30-days of completion of testing.

Eval Division: Alameda County Environmental Health
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 03-25-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Chinatown 76 800 Harrison St Oakland, CA 94607 (415) 724-6951 CERS ID10495918 Initial Hazardous Material Business Plan (HMBP) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on March 25, 2016. Consent to inspect was given by and the completed inspection report was reviewed with Sraven Redy Vinjamun, cashier. There are two 12,000 gallon double walled steel/fiberglass underground storage tank (One Regular Unleaded and one Premium Unleaded gasoline).

Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-21-2018
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: GENERATE NIV NOV LTR/ADDING VIOLATION IN EC
Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Coordinates:
Site ID: 18619
Facility Name: Union 76
Env Int Type Code: HWG
Program ID: 10495918
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.798950
Longitude: -122.269780

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNION 76 (Continued)

S121750648

Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Document Preparer
Entity Name: Nik Zagorov
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: UST Permit Applicant
Entity Name: Rab Ilyas
Entity Title: CEO
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (415) 724-6951

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 800 Harrison St
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94607
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: Rab Ilyas
Entity Title: Not reported
Affiliation Address: 800 Harrison St
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94607
Affiliation Phone: (415) 724-6951

Affiliation Type Desc: Identification Signer
Entity Name: Rab Ilyas
Entity Title: CEO
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: Almasoon, Inc.
Entity Title: Not reported
Affiliation Address: 800 Harrison St

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNION 76 (Continued)

S121750648

Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94607
Affiliation Phone: (510) 893-2356

Affiliation Type Desc: UST Property Owner Name
Entity Name: Muhammad Usman
Entity Title: Not reported
Affiliation Address: 1555 Thomas Avenue
Affiliation City: San Francisco
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94124
Affiliation Phone: (415) 822-6900

Affiliation Type Desc: UST Tank Owner
Entity Name: Almasoon, Inc.
Entity Title: Not reported
Affiliation Address: 800 Harrison Street
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94607
Affiliation Phone: (510) 893-2356

Affiliation Type Desc: Operator
Entity Name: Almasoon, Inc.
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (510) 893-2356

Affiliation Type Desc: Parent Corporation
Entity Name: Chinatown 76
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Property Owner
Entity Name: Usman Mohammad
Entity Title: Not reported
Affiliation Address: 1555 Thomas Avenue
Affiliation City: San Francisco
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94124
Affiliation Phone: (415) 822-6900

Affiliation Type Desc: UST Tank Operator

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNION 76 (Continued)

S121750648

Entity Name: Almasoon, Inc.
Entity Title: Not reported
Affiliation Address: 800 Harrison Street
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94607
Affiliation Phone: (510) 893-2356

R93
North
1/8-1/4
0.218 mi.
1152 ft.

CIVIC CENTER ANNEX
201 13TH ST
OAKLAND, CA 94612
Site 4 of 5 in cluster R

SWEEPS UST **S101624500**
CA FID UST **N/A**

Relative:
Higher
Actual:
36 ft.

SWEEPS UST:
Status: Not reported
Comp Number: 66334
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-066334-000001
Tank Status: Not reported
Capacity: 1
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: DIESEL
Number Of Tanks: 1

CA FID UST:
Facility ID: 01002262
Regulated By: UTKNI
Regulated ID: 00066334
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4158748670
Mail To: Not reported
Mailing Address: 210 013TH ST
Mailing Address 2: Not reported
Mailing City,St,Zip: OAKLAND 94612
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

R94 **CIVIC CENTER ANNEX**
North **201 13TH STREET**
1/8-1/4 **OAKLAND, CA 94612**
0.218 mi.
1152 ft. **Site 5 of 5 in cluster R**

HIST UST **U001599423**
 N/A

Relative:
Higher
Actual:
36 ft.

HIST UST:
 File Number: 00036420
 URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00036420.pdf>
 Region: STATE
 Facility ID: 00000066334
 Facility Type: Other
 Other Type: POST OFFICE
 Contact Name: Not reported
 Telephone: 4158748670
 Owner Name: U.S. POSTAL SERVICE
 Owner Address: 201 - 13TH STREET
 Owner City,St,Zip: OAKLAND, CA 94612-999
 Total Tanks: 0001

Tank Num: 001
 Container Num: 1
 Year Installed: 1932
 Tank Capacity: 00000000
 Tank Used for: WASTE
 Type of Fuel: 4
 Container Construction Thickness: X
 Leak Detection: None

[Click here for Geo Tracker PDF:](#)

Q95 **94607**
SW **401 JACKSON ST**
1/8-1/4 **OAKLAND, CA 94607**
0.222 mi.
1170 ft. **Site 2 of 3 in cluster Q**

Alameda County CS **S120928216**
 N/A

Relative:
Lower
Actual:
18 ft.

Alameda County CS:
 Status: Leak Confirmation
 Record Id: RO0003262
 PE: 5602
 Facility Status: Leak Confirmation
 Latitude: Not reported
 Longitude: Not reported

Status: 12
 Record Id: RO0003262
 PE: 5602
 Facility Status: Not reported
 Latitude: Not reported
 Longitude: Not reported

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

Q96 **401 JACKSON ST**
SW **401 JACKSON ST**
1/8-1/4 **OAKLAND, CA 94607**
0.222 mi.
1170 ft. **Site 3 of 3 in cluster Q**

LUST **S121307862**
Alameda County CS **N/A**
CERS
NON-CASE INFO

Relative:
Lower
Actual:
18 ft.

LUST:
Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000011031
Global Id: T10000011031
Latitude: 37.79544
Longitude: -122.26968
Status: Completed - Case Closed
Status Date: 06/11/2018
Case Worker: DY
RB Case Number: Not reported
Local Agency: ALAMEDA COUNTY LOP
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0003262
Potential Media Affect: Soil Vapor, Well used for drinking water supply
Potential Contaminants of Concern: Heating Oil / Fuel Oil, Total Petroleum Hydrocarbons (TPH), Waste Oil / Motor / Hydraulic / Lubrication Oil
Site History: This site is eligible for closure based on the low risk from petroleum constituents under the Low Threat Closure Policy. The site is located at 401 Jackson Street at the northwest corner of Jackson Street and 4th Street. The site consists of one parcel and is surrounded by mixed-commercial and residential properties. Historically the property consisted of a two-story structure and operated as residential dwellings between the 1880's and 1900's. In the 1940's the site was redeveloped as the currently developed industrial building consisting of a single story commercial warehouse. Operations between 1940's and 1990's included food processing and packing, wholesale poultry sales, and slaughterhouse. Between the 1990's and 2010's the site primarily operated as a meat processing and packing facility. Currently the property is pending a sales transaction. Information collected in the Phase I investigation indicated one underground storage tank (UST) was located beneath the southwestern corner of the warehouse. Based on interviews conducted during the Phase I, the UST was reportedly used for gasoline and installed in 1960's and abandoned in place and filled with concrete in 1980's. No evidence of a release at the site was identified during record review. Subsurface investigations were performed at the site during July, August, and November 2017 and included the collection of soil, sub-slab vapor, soil gas, and groundwater samples and completion of two geophysical surveys. Concentrations of Total Petroleum Hydrocarbon as motor oil (TPH-mo) in soil were reported up to 12 milligrams per kilogram (mg/kg). Groundwater samples reported Total Petroleum Hydrocarbon as gasoline (TPH-g), benzene, and methyl tert butyl ether (MTBE) at concentrations of 3,800, 21, and 16 micrograms per liter (ug/l) respectively. Additionally, Total Petroleum Hydrocarbon as diesel (TPH-d) and TPH-mo in groundwater were reported up to 3,400 and 45,000 ug/l, respectively, in an area located outside the southeast corner of the building which was not consistent with the noted former gasoline UST reported and consistent of a home heating oil tank. Concentrations reported in temporary sub-slab soil vapor probes installed beneath the foundation in the vicinity of the former gasoline UST indicated a low threat from petroleum hydrocarbons and associated constituents. Additionally, results of the geophysical surveys did not identify the presence of a

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

401 JACKSON ST (Continued)

S121307862

historical heating oil tank or gasoline UST. Subsequent investigation activities were conducted in first quarter 2018 to evaluate secondary source below the suspected heating oil tank pit, delineate the petroleum hydrocarbon groundwater plume, and evaluate vapor intrusion in sub-slab soil gas across the building footprint.

LUST:

Global Id: T10000011031
Contact Type: Local Agency Caseworker
Contact Name: DREW YORK
Organization Name: ALAMEDA COUNTY LOP
Address: 1131 HARBOR BAY PARKWAY
City: ALAMEDA
Email: andrew.york@acgov.org
Phone Number: Not reported

LUST:

Global Id: T10000011031
Action Type: RESPONSE
Date: 12/07/2017
Action: Electronic Reporting Submittal Due

Global Id: T10000011031
Action Type: Other
Date: 01/01/1964
Action: Leak Reported

Global Id: T10000011031
Action Type: RESPONSE
Date: 03/05/2018
Action: Request for Closure - Regulator Responded

Global Id: T10000011031
Action Type: RESPONSE
Date: 11/30/2017
Action: Request for Closure - Regulator Responded

Global Id: T10000011031
Action Type: RESPONSE
Date: 01/30/2018
Action: Soil Vapor Intrusion Investigation Workplan - Regulator Responded

Global Id: T10000011031
Action Type: RESPONSE
Date: 11/08/2017
Action: Site Investigation Workplan - Regulator Responded

Global Id: T10000011031
Action Type: ENFORCEMENT
Date: 03/28/2018
Action: Notification - Public Notice of Case Closure - #3/28/2018

Global Id: T10000011031
Action Type: ENFORCEMENT
Date: 11/09/2017
Action: Site Visit / Inspection / Sampling

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

401 JACKSON ST (Continued)

S121307862

Global Id: T10000011031
Action Type: ENFORCEMENT
Date: 08/29/2017
Action: Preliminary Site Review - #8/29/2017

Global Id: T10000011031
Action Type: RESPONSE
Date: 01/05/2018
Action: Soil and Water Investigation Report

Global Id: T10000011031
Action Type: ENFORCEMENT
Date: 06/11/2018
Action: Closure/No Further Action Letter

Global Id: T10000011031
Action Type: ENFORCEMENT
Date: 02/02/2018
Action: Staff Letter - #2/2/2018

Global Id: T10000011031
Action Type: ENFORCEMENT
Date: 02/27/2018
Action: Closure Denial Letter

Global Id: T10000011031
Action Type: ENFORCEMENT
Date: 11/07/2017
Action: Staff Letter

Global Id: T10000011031
Action Type: ENFORCEMENT
Date: 12/20/2017
Action: Staff Letter - #12/20/2017

Global Id: T10000011031
Action Type: ENFORCEMENT
Date: 01/12/2018
Action: Meeting - #01/12/2018

Global Id: T10000011031
Action Type: RESPONSE
Date: 01/31/2017
Action: Correspondence

Global Id: T10000011031
Action Type: Other
Date: 01/01/1964
Action: Leak Began

Global Id: T10000011031
Action Type: Other
Date: 01/01/1964
Action: Leak Discovery

Global Id: T10000011031
Action Type: RESPONSE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

401 JACKSON ST (Continued)

S121307862

Date: 01/12/2018
Action: Electronic Reporting Submittal Due

LUST:

Global Id: T10000011031
Status: Completed - Case Closed
Status Date: 06/11/2018

Global Id: T10000011031
Status: Open - Active
Status Date: 10/17/2017

Global Id: T10000011031
Status: Open - Case Begin Date
Status Date: 10/17/2017

Global Id: T10000011031
Status: Open - Eligible for Closure
Status Date: 03/15/2018

Global Id: T10000011031
Status: Open - Site Assessment
Status Date: 07/14/2017

Global Id: T10000011031
Status: Open - Site Assessment
Status Date: 07/14/2017

Global Id: T10000011031
Status: Open - Site Assessment
Status Date: 11/29/2017

Alameda County CS:

Status: 12
Record Id: RO0003301
PE: 5502
Facility Status: Not reported
Latitude: Not reported
Longitude: Not reported

CERS TANKS:

Site ID: 427858
CERS ID: T10000011031
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Local Agency Caseworker
Entity Name: DREW YORK - ALAMEDA COUNTY LOP
Entity Title: Not reported
Affiliation Address: 1131 HARBOR BAY PARKWAY
Affiliation City: ALAMEDA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

401 JACKSON ST (Continued)

S121307862

NON-CASE INFO:

Global ID: T10000011487
Case Type: Non-Case Information
Status: Informational Item
Status Date: 03/27/2018
Lead Agency: ALAMEDA COUNTY LOP
Case Worker: DY
Local Agency: ALAMEDA COUNTY LOP
RB Case Number: Not reported
Loc Case Number: RO0003301
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Contaminants of Concern: Not reported
Potential Media Affected: Not reported
Site History: Not reported
Begin Date: 2018-03-27 00:00:00
How Discovered: Not reported
How Discovered Description: Not reported
Stop Method: Not reported
Stop Description: Not reported
Latitude: 37.79541
Longitude: -122.26968
Geotracker: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000011487

97
SSW
1/8-1/4
0.223 mi.
1178 ft.

JLS/4TH AND MADISON - SITE A
155 4TH ST
OAKLAND, CA 94607

RCRA-LQG 1023674939
CAP000272047

Relative:
Lower

RCRA-LQG:

Actual:
15 ft.

Date form received by agency: 04/14/2017
Facility name: JLS/4TH AND MADISON - SITE A
Facility address: 155 4TH ST
OAKLAND, CA 94607
EPA ID: CAP000272047
Mailing address: SANSOME ST 1ST FLR
SAN FRANCISCO, CA 94111
Contact: JASON A SMITH
Contact address: SANSOME ST 1ST FLR
SAN FRANCISCO, CA 94111
Contact country: US
Contact telephone: 510-455-0819
Contact email: JASON.SMITH@CARMELPARTNERS.COM
EPA Region: 09
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JLS/4TH AND MADISON - SITE A (Continued)

1023674939

Owner/Operator Summary:

Owner/operator name: CP V JLS, LLC
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/2017
Owner/Op end date: Not reported

Owner/operator name: CP V JLS, LLC
Owner/operator address: SANSOME ST 1ST FLR
SAN FRANCISCO, CA 94111
Owner/operator country: US
Owner/operator telephone: 415-273-2900
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 04/05/2016
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: 611
. Waste name: Contaminated soil from site clean-ups

. Waste code: D008
. Waste name: LEAD

Violation Status: No violations found

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

P98
WNW
1/8-1/4
0.223 mi.
1179 ft.
KIN SHELL
726 HARRISON ST
OAKLAND, CA 94607
Site 6 of 9 in cluster P

LUST **S101580397**
Alameda County CS
SWEEPS UST
CA FID UST
HIST CORTESE
N/A

Relative:
Higher
Actual:
33 ft.

LUST:
Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600102122
Global Id: T0600102122
Latitude: 37.7984332875099
Longitude: -122.270128726959
Status: Open - Remediation
Status Date: 07/14/2014
Case Worker: JES
RB Case Number: 01-2307
Local Agency: ALAMEDA COUNTY LOP
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000321
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Three UST were removed in 1990 and significantly elevated concentrations of petroleum hydrocarbons were detected in soil during the UST removal. A program of groundwater monitoring was implemented in 1991 and dissolved phase contamination is migrating offsite and impacting the downgradient sites located at 726 and 706 Harrison Street. Soil and groundwater sampling completed in 2007 detected elevated levels of MTBE in the deeper water bearing zone at 48 feet bgs. This site is part of a commingled plume and remedial action is proposed to remove residual mass beneath the sites. A pilot test of multi-phase extraction and air sparging/soil vapor extraction was conducted in 2013. Based on the results of the pilot test, remediation of 706 and 726 Harrison Street is planned to begin in 2014 using air sparging and soil vapor extraction. A Remedial Action Plan that describes the planned remediation was approved in July 2014 following a public comment period on the Remedial Action Plan.

LUST:
Global Id: T0600102122
Contact Type: Local Agency Caseworker
Contact Name: JONATHAN E. SANDERS
Organization Name: ALAMEDA COUNTY LOP
Address: 1131 Harbor Bay Pkwy
City: ALAMEDA
Email: jonathan.sanders@acgov.org
Phone Number: 5105676791

Global Id: T0600102122
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:
Global Id: T0600102122

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KIN SHELL (Continued)

S101580397

Action Type:	Other
Date:	10/06/1995
Action:	Leak Reported
Global Id:	T0600102122
Action Type:	RESPONSE
Date:	10/23/2012
Action:	CAP/RAP - Feasibility Study Report
Global Id:	T0600102122
Action Type:	RESPONSE
Date:	01/08/1999
Action:	Soil and Water Investigation Report
Global Id:	T0600102122
Action Type:	RESPONSE
Date:	10/08/1986
Action:	Correspondence
Global Id:	T0600102122
Action Type:	RESPONSE
Date:	10/07/2005
Action:	Correspondence
Global Id:	T0600102122
Action Type:	RESPONSE
Date:	03/21/1996
Action:	Interim Remedial Action Report
Global Id:	T0600102122
Action Type:	RESPONSE
Date:	05/11/2012
Action:	Soil and Water Investigation Report
Global Id:	T0600102122
Action Type:	RESPONSE
Date:	12/21/2001
Action:	Soil and Water Investigation Report
Global Id:	T0600102122
Action Type:	RESPONSE
Date:	07/31/1997
Action:	Soil and Water Investigation Report
Global Id:	T0600102122
Action Type:	RESPONSE
Date:	10/08/1995
Action:	Tank Removal Report / UST Sampling Report
Global Id:	T0600102122
Action Type:	RESPONSE
Date:	04/24/2013
Action:	Corrective Action Plan / Remedial Action Plan - Addendum - Regulator Responded
Global Id:	T0600102122
Action Type:	RESPONSE
Date:	04/19/2013

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KIN SHELL (Continued)

S101580397

Action: Pilot Study / Treatability Workplan - Regulator Responded

Global Id: T0600102122
Action Type: RESPONSE
Date: 10/09/2013
Action: Pilot Study/ Treatability Report - Regulator Responded

Global Id: T0600102122
Action Type: RESPONSE
Date: 02/19/2013
Action: Pilot Study / Treatability Workplan

Global Id: T0600102122
Action Type: RESPONSE
Date: 04/15/2015
Action: Monitoring Report - Semi-Annually

Global Id: T0600102122
Action Type: RESPONSE
Date: 04/18/2014
Action: Corrective Action Plan / Remedial Action Plan - Regulator Responded

Global Id: T0600102122
Action Type: RESPONSE
Date: 04/18/2014
Action: Corrective Action Plan / Remedial Action Plan - Regulator Responded

Global Id: T0600102122
Action Type: RESPONSE
Date: 10/15/2014
Action: Other Workplan - Regulator Responded

Global Id: T0600102122
Action Type: RESPONSE
Date: 07/01/2014
Action: Corrective Action Plan / Remedial Action Plan - Addendum - Regulator Responded

Global Id: T0600102122
Action Type: RESPONSE
Date: 02/10/2015
Action: Other Workplan - Regulator Responded

Global Id: T0600102122
Action Type: ENFORCEMENT
Date: 06/12/2009
Action: Staff Letter - #20090612

Global Id: T0600102122
Action Type: ENFORCEMENT
Date: 08/03/2016
Action: Email Correspondence

Global Id: T0600102122
Action Type: ENFORCEMENT
Date: 07/24/2009
Action: Staff Letter - #20090724

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KIN SHELL (Continued)

S101580397

Global Id:	T0600102122
Action Type:	ENFORCEMENT
Date:	11/18/2009
Action:	File review
Global Id:	T0600102122
Action Type:	ENFORCEMENT
Date:	01/04/2011
Action:	Staff Letter - #20110104
Global Id:	T0600102122
Action Type:	ENFORCEMENT
Date:	04/25/2011
Action:	Staff Letter - #20110425
Global Id:	T0600102122
Action Type:	ENFORCEMENT
Date:	10/20/2011
Action:	Staff Letter - #20111020
Global Id:	T0600102122
Action Type:	ENFORCEMENT
Date:	12/10/2012
Action:	Staff Letter - #20121210
Global Id:	T0600102122
Action Type:	ENFORCEMENT
Date:	07/09/2012
Action:	Staff Letter - #20120709
Global Id:	T0600102122
Action Type:	ENFORCEMENT
Date:	03/11/2013
Action:	Staff Letter - #20130311
Global Id:	T0600102122
Action Type:	ENFORCEMENT
Date:	05/21/2018
Action:	Staff Letter
Global Id:	T0600102122
Action Type:	RESPONSE
Date:	09/30/2009
Action:	CAP/RAP - Feasibility Study Report
Global Id:	T0600102122
Action Type:	REMEDIATION
Date:	12/13/1995
Action:	Excavation
Global Id:	T0600102122
Action Type:	ENFORCEMENT
Date:	12/02/2013
Action:	Staff Letter - #20131202
Global Id:	T0600102122
Action Type:	ENFORCEMENT

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KIN SHELL (Continued)

S101580397

Date: 03/11/2015
Action: Staff Letter - #20150311

Global Id: T0600102122
Action Type: ENFORCEMENT
Date: 07/14/2014
Action: Staff Letter - #20140714

Global Id: T0600102122
Action Type: RESPONSE
Date: 11/15/2018
Action: Remedial Progress Report

Global Id: T0600102122
Action Type: RESPONSE
Date: 11/15/2018
Action: CAP/RAP - Other Report

Global Id: T0600102122
Action Type: REMEDIATION
Date: 09/01/2001
Action: Soil Vapor Extraction (SVE)

Global Id: T0600102122
Action Type: RESPONSE
Date: 03/31/2011
Action: Soil and Water Investigation Workplan

Global Id: T0600102122
Action Type: RESPONSE
Date: 12/29/2010
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0600102122
Action Type: RESPONSE
Date: 11/15/2018
Action: Remedial Progress Report

Global Id: T0600102122
Action Type: RESPONSE
Date: 05/14/2018
Action: Correspondence

Global Id: T0600102122
Action Type: ENFORCEMENT
Date: 05/13/2014
Action: Staff Letter - #20140513

Global Id: T0600102122
Action Type: ENFORCEMENT
Date: 05/13/2014
Action: Notification - Public Notice of ROD/RAP/CAP - #20140513

Global Id: T0600102122
Action Type: Other
Date: 10/06/1995
Action: Leak Discovery

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KIN SHELL (Continued)

S101580397

Global Id: T0600102122
Action Type: RESPONSE
Date: 08/30/2011
Action: Soil and Water Investigation Report

Global Id: T0600102122
Action Type: RESPONSE
Date: 11/15/2018
Action: Remedial Progress Report

Global Id: T0600102122
Action Type: ENFORCEMENT
Date: 08/23/2007
Action: * No Action - #20072308

Global Id: T0600102122
Action Type: Other
Date: 10/06/1995
Action: Leak Stopped

Global Id: T0600102122
Action Type: RESPONSE
Date: 03/20/2012
Action: Site Assessment Report

Global Id: T0600102122
Action Type: RESPONSE
Date: 08/30/2011
Action: Soil and Water Investigation Report

Global Id: T0600102122
Action Type: RESPONSE
Date: 11/04/2011
Action: Soil and Water Investigation Workplan - Addendum

Global Id: T0600102122
Action Type: RESPONSE
Date: 12/01/2011
Action: Clean Up Fund - 5-Year Review Summary

LUST:

Global Id: T0600102122
Status: Open - Assessment & Interim Remedial Action
Status Date: 12/10/2012

Global Id: T0600102122
Status: Open - Case Begin Date
Status Date: 10/06/1995

Global Id: T0600102122
Status: Open - Remediation
Status Date: 12/21/2001

Global Id: T0600102122
Status: Open - Remediation
Status Date: 07/14/2014

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KIN SHELL (Continued)

S101580397

Global Id: T0600102122
Status: Open - Site Assessment
Status Date: 10/06/1995

Global Id: T0600102122
Status: Open - Site Assessment
Status Date: 11/23/1998

Global Id: T0600102122
Status: Open - Site Assessment
Status Date: 01/08/1999

Global Id: T0600102122
Status: Open - Site Assessment
Status Date: 12/11/2007

Global Id: T0600102122
Status: Open - Site Assessment
Status Date: 11/18/2009

LUST REG 2:

Region: 2
Facility Id: 01-2307
Facility Status: Pollution Characterization
Case Number: 39
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: 3/16/1998
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Leak Confirmation
Record Id: RO0000321
PE: 5602
Facility Status: Leak Confirmation
Latitude: 37.79823142
Longitude: -122.27033088

Status: Preliminary Site Assessment Workplan Submitted
Record Id: RO0000321
PE: 5602
Facility Status: Preliminary Site Assessment Workplan Submitted
Latitude: 37.79823142
Longitude: -122.27033088

Status: Preliminary Site Assessment Underway
Record Id: RO0000321
PE: 5602

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KIN SHELL (Continued)

S101580397

Facility Status: Preliminary Site Assessment Underway
Latitude: 37.79823142
Longitude: -122.27033088

Status: Remediation Plan
Record Id: RO0000321
PE: 5602
Facility Status: Remediation Plan
Latitude: 37.79823142
Longitude: -122.27033088

SWEEPS UST:

Status: Active
Comp Number: 59146
Number: 2
Board Of Equalization: 44-000588
Referral Date: 03-13-91
Action Date: 03-13-91
Created Date: 02-29-88
Owner Tank Id: 2
SWRCB Tank Id: 01-000-059146-000001
Tank Status: A
Capacity: 5000
Active Date: 03-13-91
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 5

Status: Active
Comp Number: 59146
Number: 2
Board Of Equalization: 44-000588
Referral Date: 03-13-91
Action Date: 03-13-91
Created Date: 02-29-88
Owner Tank Id: 1
SWRCB Tank Id: 01-000-059146-000002
Tank Status: A
Capacity: 5000
Active Date: 03-13-91
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 59146
Number: 2
Board Of Equalization: 44-000588
Referral Date: 03-13-91
Action Date: 03-13-91
Created Date: 02-29-88
Owner Tank Id: 5
SWRCB Tank Id: 01-000-059146-000003
Tank Status: A
Capacity: 1000

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KIN SHELL (Continued)

S101580397

Active Date: 03-13-91
Tank Use: OIL
STG: W
Content: WASTE OIL
Number Of Tanks: Not reported

Status: Active
Comp Number: 59146
Number: 2
Board Of Equalization: 44-000588
Referral Date: 03-13-91
Action Date: 03-13-91
Created Date: 02-29-88
Owner Tank Id: 3
SWRCB Tank Id: 01-000-059146-000004
Tank Status: A
Capacity: 8000
Active Date: 03-13-91
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 59146
Number: 2
Board Of Equalization: 44-000588
Referral Date: 03-13-91
Action Date: 03-13-91
Created Date: 02-29-88
Owner Tank Id: 4
SWRCB Tank Id: 01-000-059146-000005
Tank Status: A
Capacity: 5000
Active Date: 03-13-91
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

CA FID UST:

Facility ID: 01002773
Regulated By: UTNKA
Regulated ID: 00059146
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4154446583
Mail To: Not reported
Mailing Address: 726 HARRISON ST
Mailing Address 2: Not reported
Mailing City,St,Zip: OAKLAND 94607
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KIN SHELL (Continued)

S101580397

Status: Active

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-2307

P99
WNW
1/8-1/4
0.223 mi.
1179 ft.

KINS SHELL SERVICE
726 HARRISON ST
OAKLAND, CA 94607
Site 7 of 9 in cluster P

HIST UST **U001599186**
N/A

Relative:
Higher
Actual:
33 ft.

HIST UST:

File Number: 000360BF
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/000360BF.pdf>
Region: STATE
Facility ID: 00000059146
Facility Type: Gas Station
Other Type: Not reported
Contact Name: KIN CHAN
Telephone: 4154446583
Owner Name: KIN'S SHELL SERVICE
Owner Address: 726 HARRISON ST.
Owner City,St,Zip: OAKLAND, CA 94607
Total Tanks: 0005

Tank Num: 001
Container Num: 2
Year Installed: Not reported
Tank Capacity: 00005000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Container Construction Thickness: 1/4
Leak Detection: Stock Inventor, Groundwater Monitoring Well, 10

Tank Num: 002
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00005000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Container Construction Thickness: 1/4
Leak Detection: Stock Inventor, Groundwater Monitoring Well, 10

Tank Num: 003
Container Num: 5
Year Installed: Not reported
Tank Capacity: 00001000
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Container Construction Thickness: 1/4
Leak Detection: Stock Inventor, 10

Tank Num: 004
Container Num: 3

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KINS SHELL SERVICE (Continued)

U001599186

Year Installed: Not reported
Tank Capacity: 00005000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: 1/4
Leak Detection: Stock Inventor, Groundwater Monitoring Well, 10

Tank Num: 005
Container Num: 4
Year Installed: Not reported
Tank Capacity: 00008000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: 1/4
Leak Detection: Stock Inventor, Groundwater Monitoring Well, 10

[Click here for Geo Tracker PDF:](#)

P100
West
1/8-1/4
0.226 mi.
1192 ft.

GIN'S ARCO SERVICE
706 HARRISON ST
OAKLAND, CA 94607
Site 8 of 9 in cluster P

LUST S101624367
Alameda County CS N/A
SWEEPS UST
CA FID UST
HIST CORTESE
CERS

Relative:
Lower

Actual:
32 ft.

LUST:

Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100985
Global Id: T0600100985
Latitude: 37.7981959136734
Longitude: -122.270396947861
Status: Open - Remediation
Status Date: 07/14/2014
Case Worker: JES
RB Case Number: NA
Local Agency: ALAMEDA COUNTY LOP
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000484
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Benzene, Gasoline
Site History: In February 1991 six USTs were removed and confirmation soil sampling detected elevated levels of hydrocarbon contamination beneath the site. Additional site characterization completed from 1993 through 1995 detected significantly elevated levels of TPHg and benzene in soil and groundwater. This site is part of a commingled plume and remedial action is proposed to remove residual mass beneath the sites. A pilot test of multi-phase extraction and air sparging/soil vapor extraction was conducted in 2013. Based on the results of the pilot test, remediation of 706 and 726 Harrison Street is planned to begin in 2014 using air sparging and soil vapor extraction. A Remedial Action Plan that describes the planned remediation was approved in July 2014 following a public comment period on the Remedial Action Plan.

LUST:

Global Id: T0600100985
Contact Type: Local Agency Caseworker

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GIN'S ARCO SERVICE (Continued)

S101624367

Contact Name: JONATHAN E. SANDERS
Organization Name: ALAMEDA COUNTY LOP
Address: 1131 Harbor Bay Pkwy
City: ALAMEDA
Email: jonathan.sanders@acgov.org
Phone Number: 5105676791

Global Id: T0600100985
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600100985
Action Type: Other
Date: 01/17/1991
Action: Leak Reported

Global Id: T0600100985
Action Type: RESPONSE
Date: 10/23/2012
Action: CAP/RAP - Feasibility Study Report

Global Id: T0600100985
Action Type: RESPONSE
Date: 03/10/1995
Action: Soil and Water Investigation Report

Global Id: T0600100985
Action Type: RESPONSE
Date: 11/04/2011
Action: Other Workplan

Global Id: T0600100985
Action Type: RESPONSE
Date: 04/22/1991
Action: Preliminary Site Assessment Workplan

Global Id: T0600100985
Action Type: RESPONSE
Date: 02/07/1991
Action: Other Report / Document

Global Id: T0600100985
Action Type: RESPONSE
Date: 01/13/1993
Action: Well Installation Workplan

Global Id: T0600100985
Action Type: RESPONSE
Date: 06/27/1990
Action: Correspondence

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GIN'S ARCO SERVICE (Continued)

S101624367

Global Id:	T0600100985
Action Type:	RESPONSE
Date:	01/25/1994
Action:	Other Report / Document
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	12/09/1992
Action:	Other Report / Document
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	12/12/1991
Action:	Preliminary Site Assessment Report
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	01/29/1993
Action:	Preliminary Site Assessment Report
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	10/11/2000
Action:	Remedial Progress Report
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	05/11/2012
Action:	Site Assessment Report
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	04/12/1994
Action:	Corrective Action Plan / Remedial Action Plan
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	09/15/1994
Action:	Remedial Progress Report
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	08/30/2011
Action:	Site Assessment Report
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	06/01/1991
Action:	Preliminary Site Assessment Workplan
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	07/19/1993
Action:	Other Report / Document
Global Id:	T0600100985
Action Type:	RESPONSE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GIN'S ARCO SERVICE (Continued)

S101624367

Date: 08/29/1995
Action: CAP/RAP - Other Report

Global Id: T0600100985
Action Type: RESPONSE
Date: 07/07/1994
Action: Remedial Progress Report

Global Id: T0600100985
Action Type: RESPONSE
Date: 09/20/1993
Action: Well Installation Report

Global Id: T0600100985
Action Type: RESPONSE
Date: 08/15/1994
Action: Soil and Water Investigation Workplan

Global Id: T0600100985
Action Type: RESPONSE
Date: 06/01/1994
Action: CAP/RAP - Feasibility Study Report

Global Id: T0600100985
Action Type: RESPONSE
Date: 06/07/1993
Action: Well Installation Workplan

Global Id: T0600100985
Action Type: RESPONSE
Date: 02/17/1994
Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0600100985
Action Type: RESPONSE
Date: 05/19/1994
Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0600100985
Action Type: RESPONSE
Date: 06/02/1994
Action: Soil and Water Investigation Workplan

Global Id: T0600100985
Action Type: RESPONSE
Date: 02/18/2004
Action: Other Report / Document

Global Id: T0600100985
Action Type: RESPONSE
Date: 11/15/2018
Action: Remedial Progress Report

Global Id: T0600100985
Action Type: RESPONSE
Date: 04/19/2013
Action: Pilot Study / Treatability Workplan - Regulator Responded

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GIN'S ARCO SERVICE (Continued)

S101624367

Global Id:	T0600100985
Action Type:	RESPONSE
Date:	10/09/2013
Action:	Pilot Study/ Treatability Report - Regulator Responded
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	02/19/2013
Action:	Pilot Study / Treatability Workplan
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	04/15/2015
Action:	Monitoring Report - Semi-Annually
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	04/18/2014
Action:	Corrective Action Plan / Remedial Action Plan - Regulator Responded
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	07/01/2014
Action:	Corrective Action Plan / Remedial Action Plan - Addendum - Regulator Responded
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	04/18/2014
Action:	Corrective Action Plan / Remedial Action Plan - Regulator Responded
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	07/01/2014
Action:	Corrective Action Plan / Remedial Action Plan - Addendum - Regulator Responded
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	10/15/2014
Action:	Other Workplan - Regulator Responded
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	02/10/2015
Action:	Other Workplan - Regulator Responded
Global Id:	T0600100985
Action Type:	ENFORCEMENT
Date:	06/12/2009
Action:	Staff Letter - #20090612
Global Id:	T0600100985
Action Type:	ENFORCEMENT
Date:	07/24/2009
Action:	Staff Letter
Global Id:	T0600100985
Action Type:	ENFORCEMENT

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GIN'S ARCO SERVICE (Continued)

S101624367

Date: 08/03/2016
Action: Email Correspondence

Global Id: T0600100985
Action Type: ENFORCEMENT
Date: 11/18/2009
Action: File review

Global Id: T0600100985
Action Type: ENFORCEMENT
Date: 03/11/2013
Action: Staff Letter - #20130311

Global Id: T0600100985
Action Type: ENFORCEMENT
Date: 10/20/2011
Action: Staff Letter - #20111020

Global Id: T0600100985
Action Type: ENFORCEMENT
Date: 04/25/2011
Action: Staff Letter - #20110425

Global Id: T0600100985
Action Type: ENFORCEMENT
Date: 01/04/2011
Action: Staff Letter - #20110104

Global Id: T0600100985
Action Type: ENFORCEMENT
Date: 12/10/2012
Action: Staff Letter - #20121210

Global Id: T0600100985
Action Type: ENFORCEMENT
Date: 07/09/2012
Action: Staff Letter - #20120709

Global Id: T0600100985
Action Type: ENFORCEMENT
Date: 12/11/1989
Action: Staff Letter

Global Id: T0600100985
Action Type: RESPONSE
Date: 09/05/2007
Action: Soil and Water Investigation Workplan

Global Id: T0600100985
Action Type: RESPONSE
Date: 11/15/2018
Action: Remedial Progress Report

Global Id: T0600100985
Action Type: REMEDIATION
Date: 01/17/1991
Action: Excavation

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GIN'S ARCO SERVICE (Continued)

S101624367

Global Id:	T0600100985
Action Type:	ENFORCEMENT
Date:	05/13/2013
Action:	Staff Letter - #20130513
Global Id:	T0600100985
Action Type:	ENFORCEMENT
Date:	12/02/2013
Action:	Staff Letter - #20131202
Global Id:	T0600100985
Action Type:	ENFORCEMENT
Date:	03/11/2015
Action:	Staff Letter - #20150311
Global Id:	T0600100985
Action Type:	ENFORCEMENT
Date:	07/14/2014
Action:	Staff Letter - #20140714
Global Id:	T0600100985
Action Type:	ENFORCEMENT
Date:	05/13/2014
Action:	Staff Letter - #20140513
Global Id:	T0600100985
Action Type:	ENFORCEMENT
Date:	05/21/2018
Action:	Staff Letter
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	09/30/2009
Action:	Conceptual Site Model
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	11/15/2018
Action:	Remedial Progress Report
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	05/14/2018
Action:	Correspondence
Global Id:	T0600100985
Action Type:	REMEDIATION
Date:	05/01/1998
Action:	Soil Vapor Extraction (SVE)
Global Id:	T0600100985
Action Type:	REMEDIATION
Date:	04/01/1994
Action:	Soil Vapor Extraction (SVE)
Global Id:	T0600100985
Action Type:	Other

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GIN'S ARCO SERVICE (Continued)

S101624367

Date: 01/17/1991
Action: Leak Discovery

Global Id: T0600100985
Action Type: RESPONSE
Date: 12/01/2010
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0600100985
Action Type: RESPONSE
Date: 12/29/2010
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0600100985
Action Type: RESPONSE
Date: 03/31/2011
Action: Soil and Water Investigation Workplan

Global Id: T0600100985
Action Type: RESPONSE
Date: 11/15/2018
Action: CAP/RAP - Other Report

Global Id: T0600100985
Action Type: ENFORCEMENT
Date: 05/13/2014
Action: Notification - Public Notice of ROD/RAP/CAP - #20140513

Global Id: T0600100985
Action Type: RESPONSE
Date: 08/30/2011
Action: Soil and Water Investigation Report

Global Id: T0600100985
Action Type: ENFORCEMENT
Date: 07/30/2007
Action: * Historical Enforcement - #20073007

Global Id: T0600100985
Action Type: RESPONSE
Date: 03/20/2012
Action: Site Assessment Report

Global Id: T0600100985
Action Type: RESPONSE
Date: 12/01/2011
Action: Clean Up Fund - 5-Year Review Summary

LUST:
Global Id: T0600100985
Status: Open - Assessment & Interim Remedial Action
Status Date: 12/10/2012

Global Id: T0600100985
Status: Open - Case Begin Date
Status Date: 01/17/1991

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GIN'S ARCO SERVICE (Continued)

S101624367

Global Id: T0600100985
Status: Open - Remediation
Status Date: 02/15/1993

Global Id: T0600100985
Status: Open - Remediation
Status Date: 07/14/2014

Global Id: T0600100985
Status: Open - Site Assessment
Status Date: 01/17/1991

Global Id: T0600100985
Status: Open - Site Assessment
Status Date: 07/15/1993

Global Id: T0600100985
Status: Open - Site Assessment
Status Date: 10/05/2007

LUST REG 2:

Region: 2
Facility Id: 01-1068
Facility Status: Preliminary site assessment underway
Case Number: 3749
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: 4/22/1991
Preliminary Site Assessment Began: 1/2/1965
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Leak Confirmation
Record Id: RO0000484
PE: 5602
Facility Status: Leak Confirmation
Latitude: 37.798098146
Longitude: -122.27041225

Status: Preliminary Site Assessment Underway
Record Id: RO0000484
PE: 5602
Facility Status: Preliminary Site Assessment Underway
Latitude: 37.798098146
Longitude: -122.27041225

Status: Pollution Characterization
Record Id: RO0000484
PE: 5602

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GIN'S ARCO SERVICE (Continued)

S101624367

Facility Status: Pollution Characterization
Latitude: 37.798098146
Longitude: -122.27041225

Status: Remedial Action Underway
Record Id: RO0000484
PE: 5602
Facility Status: Remedial Action Underway
Latitude: 37.798098146
Longitude: -122.27041225

SWEEPS UST:

Status: Not reported
Comp Number: 61568
Number: Not reported
Board Of Equalization: 44-000632
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-061568-000001
Tank Status: Not reported
Capacity: 2667
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 6

Status: Not reported
Comp Number: 61568
Number: Not reported
Board Of Equalization: 44-000632
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-061568-000002
Tank Status: Not reported
Capacity: 2667
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 61568
Number: Not reported
Board Of Equalization: 44-000632
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-061568-000003
Tank Status: Not reported
Capacity: 2667

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GIN'S ARCO SERVICE (Continued)

S101624367

Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	LEADED
Number Of Tanks:	Not reported
Status:	Not reported
Comp Number:	61568
Number:	Not reported
Board Of Equalization:	44-000632
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	01-000-061568-000004
Tank Status:	Not reported
Capacity:	2667
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	LEADED
Number Of Tanks:	Not reported
Status:	Not reported
Comp Number:	61568
Number:	Not reported
Board Of Equalization:	44-000632
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	01-000-061568-000005
Tank Status:	Not reported
Capacity:	2667
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported
Status:	Not reported
Comp Number:	61568
Number:	Not reported
Board Of Equalization:	44-000632
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	01-000-061568-000006
Tank Status:	Not reported
Capacity:	2667
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GIN'S ARCO SERVICE (Continued)

S101624367

CA FID UST:

Facility ID: 01001180
Regulated By: UTKNI
Regulated ID: 00061568
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4154442997
Mail To: Not reported
Mailing Address: 706 HARRISON ST
Mailing Address 2: Not reported
Mailing City,St,Zip: OAKLAND 94607
Contact: Not reported
Contact Phone: Not reported
DUNS Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-1068

CERS TANKS:

Site ID: 235747
CERS ID: T0600100985
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Local Agency Caseworker
Entity Name: JONATHAN E. SANDERS - ALAMEDA COUNTY LOP
Entity Title: Not reported
Affiliation Address: 1131 Harbor Bay Pkwy
Affiliation City: ALAMEDA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 5105676791

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

P101 **GINS ARCO SERVICE**
West **706 HARRISON ST**
1/8-1/4 **OAKLAND, CA 94607**
0.226 mi.
1192 ft. **Site 9 of 9 in cluster P**

HIST UST **U001599177**
 N/A

Relative:
Lower
Actual:
32 ft.

HIST UST:

File Number:	00035D9A
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00035D9A.pdf
Region:	STATE
Facility ID:	00000061568
Facility Type:	Gas Station
Other Type:	Not reported
Contact Name:	Not reported
Telephone:	4154442997
Owner Name:	BO K. GIN
Owner Address:	706 HARRISON ST.
Owner City,St,Zip:	OAKLAND, CA 94607
Total Tanks:	0006

Tank Num:	001
Container Num:	1
Year Installed:	Not reported
Tank Capacity:	00002667
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

Tank Num:	002
Container Num:	2
Year Installed:	Not reported
Tank Capacity:	00002667
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	None

Tank Num:	003
Container Num:	3
Year Installed:	Not reported
Tank Capacity:	00002667
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	Not reported
Leak Detection:	None

Tank Num:	004
Container Num:	4
Year Installed:	Not reported
Tank Capacity:	00002667
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	Not reported
Leak Detection:	None

Tank Num:	005
Container Num:	5
Year Installed:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GINS ARCO SERVICE (Continued)

U001599177

Tank Capacity: 00002667
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Container Construction Thickness: Not reported
Leak Detection: None

Tank Num: 006
Container Num: 6
Year Installed: Not reported
Tank Capacity: 00002667
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Container Construction Thickness: Not reported
Leak Detection: None

[Click here for Geo Tracker PDF:](#)

S102
West
1/8-1/4
0.227 mi.
1197 ft.

PORT OF OAKLAND, FORMER SEABREEZE CAFE
280 6TH AVE
OAKLAND, CA 94606
Site 1 of 2 in cluster S

RCRA-LQG 1000393266
CPS-SLIC CAD982401127
CERS

Relative:
Lower
Actual:
31 ft.

RCRA-LQG:
Date form received by agency: 02/25/2008
Facility name: PORT OF OAKLAND, FORMER SEABREEZE CAFE
Facility address: 280 6TH AVE
OAKLAND, CA 94606
EPA ID: CAD982401127
Mailing address: 530 WATER STREET
OAKLAND, CA 94607
Contact: JEFFREY L RUBIN
Contact address: Not reported
Not reported
Contact country: US
Contact telephone: 510-627-1134
Contact email: JRUBIN@PORTOAKLAND.COM
EPA Region: 09
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:
Owner/operator name: PORT OF OAKLAND
Owner/operator address: Not reported
Not reported
Owner/operator country: US

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORT OF OAKLAND, FORMER SEABREEZE CAFE (Continued)

1000393266

Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Municipal
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1927
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999

Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: SEABREEZE YACHT CENTER INC
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999

Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: PORT OF OAKLAND
Owner/operator address: 530 WATER STREET
OAKLAND, CA 94607

Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Municipal
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1927
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORT OF OAKLAND, FORMER SEABREEZE CAFE (Continued)

1000393266

Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKEY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

. Waste code: D003
. Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

Historical Generators:

Date form received by agency: 09/01/1996
Site name: SEABREEZE YACHT CENTER
Classification: Small Quantity Generator

Date form received by agency: 07/12/1990
Site name: SEABREEZE YACHT CENTER
Classification: Large Quantity Generator

Violation Status: No violations found

CPS-SLIC:

Region: STATE
Facility Status: **Open - Remediation**
Status Date: 03/01/2003
Global Id: SL18328748
Lead Agency: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
Lead Agency Case Number: 70000109
Latitude: 37.796927
Longitude: -122.268674
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
RB Case Number: SL18328748
File Location: Not reported
Potential Media Affected: Not reported
Potential Contaminants of Concern: Not reported
Site History: Case incorporated into DTSC's Oak St. to 9th Ave. project, Oakland (Envirostor ID 70000109)

[Click here to access the California GeoTracker records for this facility:](#)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORT OF OAKLAND, FORMER SEABREEZE CAFE (Continued)

1000393266

SLIC REG 2:

Region: 2
Facility ID: SL18328748
Facility Status: Remedial action (cleanup) Underway
Date Closed: Not reported
Local Case #: Not reported
How Discovered: DVA
Leak Cause: Not reported
Leak Source: Not reported
Date Confirmed: Not reported
Date Prelim Site Assmnt Workplan Submitted: Not reported
Date Preliminary Site Assessment Began: Not reported
Date Pollution Characterization Began: Not reported
Date Remediation Plan Submitted: Not reported
Date Remedial Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

CERS TANKS:

Site ID: 204753
CERS ID: SL18328748
CERS Description: Cleanup Program Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Local Agency Caseworker
Entity Name: Homayune Atiqee - DEPARTMENT OF TOXIC SUBSTANCES CONTROL
Entity Title: Not reported
Affiliation Address: 700 HEINZ AVENUE
Affiliation City: BERKELEY
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

103
NE
1/8-1/4
0.234 mi.
1234 ft.

**CITY OF OAKLAND
1310 OAK ST
OAKLAND, CA 94612**

**LUST U003713696
Alameda County CS N/A
SWEEPS UST
HAZNET
HIST CORTESE
CERS**

Relative:
Lower

LUST:

Actual:
27 ft.

Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101703
Global Id: T0600101703
Latitude: 37.800428

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CITY OF OAKLAND (Continued)

U003713696

Longitude: -122.2632162
Status: Completed - Case Closed
Status Date: 05/04/1994
Case Worker: Not reported
RB Case Number: 01-1837
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000779
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel
Site History: Not reported

LUST:

Global Id: T0600101703
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600101703
Action Type: Other
Date: 07/30/1993
Action: Leak Reported

Global Id: T0600101703
Action Type: REMEDIATION
Date: 09/09/9999
Action: Excavation

LUST:

Global Id: T0600101703
Status: Completed - Case Closed
Status Date: 05/04/1994

Global Id: T0600101703
Status: Open - Case Begin Date
Status Date: 07/30/1993

LUST REG 2:

Region: 2
Facility Id: 01-1837
Facility Status: Case Closed
Case Number: 4605
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: Tank
Date Leak Confirmed: 8/11/1993
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CITY OF OAKLAND (Continued)

U003713696

Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Case Closed
Record Id: RO0000779
PE: 5602
Facility Status: Case Closed
Latitude: 37.8004018
Longitude: -122.26309248

SWEEPS UST:

Status: Not reported
Comp Number: 4599
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-004599-000001
Tank Status: Not reported
Capacity: 1
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: DIESEL
Number Of Tanks: 1

HAZNET:

Facility Name: CITY OF OAKLAND
envid: U003713696
Year: 2013
GEPaid: CAL000383466
Contact: NANCY HUMPHREY
Telephone: 5102386259
Mailing Name: Not reported
Mailing Address: 250 FRANK H OGAWA PLAZA STE 5301
Mailing City,St,Zip: OAKLAND, CA 946120000
Gen County: Alameda
TSD EPA ID: CAD028409019
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.1875
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Not reported

envid: U003713696
Year: 2013
GEPaid: CAL000383466
Contact: NANCY HUMPHREY
Telephone: 5102386259

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CITY OF OAKLAND (Continued)

U003713696

Mailing Name: Not reported
Mailing Address: 250 FRANK H OGAWA PLAZA STE 5301
Mailing City,St,Zip: OAKLAND, CA 946120000
Gen County: Alameda
TSD EPA ID: CAD028409019
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
Tons: 0.0825
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Not reported

envid: U003713696
Year: 2013
GEPaid: CAL000383466
Contact: NANCY HUMPHREY
Telephone: 5102386259
Mailing Name: Not reported
Mailing Address: 250 FRANK H OGAWA PLAZA STE 5301
Mailing City,St,Zip: OAKLAND, CA 946120000
Gen County: Alameda
TSD EPA ID: CAD028409019
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.125
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Not reported

envid: U003713696
Year: 2013
GEPaid: CAL000383466
Contact: NANCY HUMPHREY
Telephone: 5102386259
Mailing Name: Not reported
Mailing Address: 250 FRANK H OGAWA PLAZA STE 5301
Mailing City,St,Zip: OAKLAND, CA 946120000
Gen County: Alameda
TSD EPA ID: CAD028409019
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.0834
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Not reported

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-1837

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CITY OF OAKLAND (Continued)

U003713696

CERS TANKS:
 Site ID: 250314
 CERS ID: T0600101703
 CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
 Affiliation Type Desc: Regional Board Caseworker
 Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
 Entity Title: Not reported
 Affiliation Address: 1515 CLAY ST SUITE 1400
 Affiliation City: OAKLAND
 Affiliation State: CA
 Affiliation Country: Not reported
 Affiliation Zip: Not reported
 Affiliation Phone: Not reported

**T104
 SSW
 1/8-1/4
 0.234 mi.
 1238 ft.**

**CASH & CARRY # 567
 400 OAK ST
 OAKLAND, CA 94607
 Site 1 of 3 in cluster T**

**CERS HAZ WASTE S121749532
 CERS N/A**

**Relative:
 Lower
 Actual:
 14 ft.**

CERS HAZ WASTE:
 Site ID: 16954
 CERS ID: 10456867
 CERS Description: Hazardous Waste Generator

Violations:
 Site ID: 16954
 Site Name: Cash & Carry # 567
 Violation Date: 04-03-2018
 Citation: 22 CCR 18 66268.7(a) - California Code of Regulations, Title 22, Chapter 18, Section(s) 66268.7(a)
 Violation Description: Failure to determine if the waste has to be treated before it can be land disposed and retain the documentation at least three years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal.
 Violation Notes: Returned to compliance on 04/03/2018. OBSERVATION: Observed no copy of land disposal restriction (LDR) notification made available for review during inspection for the following: Manifest #010824354 FLE dated 12/21/2017 CORRECTIVE ACTION: The generator shall make a determination of all hazardous wastes if the waste is restricted from land disposal. Submit to the inspector a copy of the missing LDR Notification or documentation showing that the hazardous waste is not subject to land disposal. Facility manager contacted corporate headquarters and was able to obtain the missing LDR to correct violation on-site.
 Violation Division: Alameda County Environmental Health
 Violation Program: HW
 Violation Source: CERS

Site ID: 16954
 Site Name: Cash & Carry # 567
 Violation Date: 04-03-2018
 Citation: 40 CFR 1 262.34(d)(5)(ii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(ii)
 Violation Description: Failure to post the following information next to the telephone: (A) The name and telephone number of the emergency coordinator; (B)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CASH & CARRY # 567 (Continued)

S121749532

Location of fire extinguishers and spill control material, and, if present, fire alarm; and (C) The telephone number of the fire department, unless the facility has a direct alarm.
Returned to compliance on 04/19/2018. OBSERVATION: Generator failed to post, next to the telephone, Emergency Information (SQG) containing the location of emergency equipment and contact names and numbers for the emergency coordinator(s) and fire department. CORRECTIVE ACTION: Owner/Operator shall immediately post, next to the telephone, emergency information that contains the required information in accordance with Title 22. Submit proof of corrective action to inspector within 30 days.

Violation Notes: Location of fire extinguishers and spill control material, and, if present, fire alarm; and (C) The telephone number of the fire department, unless the facility has a direct alarm.
Returned to compliance on 04/19/2018. OBSERVATION: Generator failed to post, next to the telephone, Emergency Information (SQG) containing the location of emergency equipment and contact names and numbers for the emergency coordinator(s) and fire department. CORRECTIVE ACTION: Owner/Operator shall immediately post, next to the telephone, emergency information that contains the required information in accordance with Title 22. Submit proof of corrective action to inspector within 30 days.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 16954
Site Name: Cash & Carry # 567
Violation Date: 04-03-2018
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)

Violation Description: Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.

Violation Notes: Returned to compliance on 04/03/2018. OBSERVATIONS: Observed the following: 1. Hazardous waste container for Oxidizers Waste has an accumulation start date of 5/4/15. No waste observed in container. 2. Hazardous waste container for Corrosive Bases, OTC Pharmaceuticals and Toxics has an accumulation start date of 7/26/17. No waste observed in container. 3. Labeling for all hazardous waste containers are missing generator name. All hazardous waste containers shall be marked with the following information: 1) the words Hazardous Waste ; 2) name and address of generator; 3) hazardous properties; 4) physical state; 5) composition (contents); 6) most current accumulation start date. CORRECTIVE ACTION: Immediately label all hazardous waste containers with the name of the generator and most current accumulation start date and submit proof of corrective action to inspector within 30 days. Facility manager corrected on-site. Facility currently has no hazardous waste stored on site.

Violation Division: Alameda County Environmental Health
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 04-03-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Routine Hazardous Waste Generator (HWG) inspection conducted at Cash & Carry #567 located at 400 Oak Street Oakland CA 94607. Met with Ken Miller, Facility Manager, who granted consent to perform inspection. Alameda County Department of Environmental Health (ACDEH) to provide inspection report by email to: cc567@smartfoodservice.com. Facility waste streams include: damaged, returned, or expired products including aerosols, corrosive acid products, and waste flammable liquids (ethanol, isopropyl alcohol.) Facility has four employees that

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CASH & CARRY # 567 (Continued)

S121749532

handle hazardous waste (facility manager and assistant managers). Facility generates less than 220 pounds a month and is an extremely small quantity generator. Returned or damaged goods from customers are either restocked on shelf or sold at a discounted price. Damaged/returned/expired products that cannot be resold or restocked are handled as hazardous waste. No hazardous waste was observed on-site. CERTIFICATION OF RETURN TO [Truncated]

Eval Division: Alameda County Environmental Health
Eval Program: HW
Eval Source: CERS

Coordinates:
Site ID: 16954
Facility Name: Cash & Carry # 567
Env Int Type Code: HWG
Program ID: 10456867
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.794560
Longitude: -122.266870

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: P.O. BOX 512377 ATTN: LOSS PREVENTION
Affiliation City: LOS ANGELES
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 90051
Affiliation Phone: Not reported

Affiliation Type Desc: Operator
Entity Name: Cash & Carry # 567
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (323) 869-7725

Affiliation Type Desc: Parent Corporation
Entity Name: Cash & Carry Stores
Entity Title: Not reported
Affiliation Address: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CASH & CARRY # 567 (Continued)

S121749532

Affiliation City: Not reported
 Affiliation State: Not reported
 Affiliation Country: Not reported
 Affiliation Zip: Not reported
 Affiliation Phone: Not reported

Affiliation Type Desc: Document Preparer
 Entity Name: Darryl Dinson
 Entity Title: Not reported
 Affiliation Address: Not reported
 Affiliation City: Not reported
 Affiliation State: Not reported
 Affiliation Country: Not reported
 Affiliation Zip: Not reported
 Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
 Entity Name: Darryl Dinson
 Entity Title: Not reported
 Affiliation Address: P.O. BOX 512377 ATTN: LOSS PREVENTION
 Affiliation City: LOS ANGELES
 Affiliation State: CA
 Affiliation Country: Not reported
 Affiliation Zip: 90051
 Affiliation Phone: (323) 869-7704

Affiliation Type Desc: Identification Signer
 Entity Name: Darryl Dinson
 Entity Title: Environmental Health Compliance
 Affiliation Address: Not reported
 Affiliation City: Not reported
 Affiliation State: Not reported
 Affiliation Country: Not reported
 Affiliation Zip: Not reported
 Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
 Entity Name: Smart & Final LLC
 Entity Title: Not reported
 Affiliation Address: P.O. BOX 512377 ATTN: LOSS PREVENTION
 Affiliation City: LOS ANGELES
 Affiliation State: CA
 Affiliation Country: United States
 Affiliation Zip: 90051
 Affiliation Phone: (323) 869-7725

T105
SSW
1/8-1/4
0.234 mi.
1238 ft.

POST TOOL
400 OAK
OAKLAND, CA 94607
Site 2 of 3 in cluster T

LUST **S102435424**
Alameda County CS **N/A**
CERS

Relative:
Lower
Actual:
14 ft.

LUST:
 Lead Agency: ALAMEDA COUNTY LOP
 Case Type: LUST Cleanup Site
 Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101649
 Global Id: T0600101649

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

POST TOOL (Continued)

S102435424

Latitude: 37.793854
Longitude: -122.266954
Status: Completed - Case Closed
Status Date: 01/05/1994
Case Worker: Not reported
RB Case Number: 01-1781
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0001144
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Diesel
Site History: Not reported

LUST:

Global Id: T0600101649
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600101649
Action Type: Other
Date: 05/10/1991
Action: Leak Reported

Global Id: T0600101649
Action Type: REMEDIATION
Date: 09/09/9999
Action: Excavation

LUST:

Global Id: T0600101649
Status: Completed - Case Closed
Status Date: 01/05/1994

Global Id: T0600101649
Status: Open - Case Begin Date
Status Date: 05/10/1991

LUST REG 2:

Region: 2
Facility Id: 01-1781
Facility Status: Case Closed
Case Number: 3720
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: 2/10/1993
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: 7/13/1993
Preliminary Site Assessment Began: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

POST TOOL (Continued)

S102435424

Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Case Closed
Record Id: RO0001144
PE: 5602
Facility Status: Case Closed
Latitude: 37.794125829
Longitude: -122.26701433

CERS TANKS:

Site ID: 203307
CERS ID: T0600101649
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

U106
WNW
1/8-1/4
0.238 mi.
1257 ft.

BAYPORTE VILLAGE (ACORN II APARTMENTS)
0 8TH ST & MARKET
OAKLAND, CA 94607
Site 1 of 2 in cluster U

CPS-SLIC
Alameda County CS
CERS

S109926666
N/A

Relative:
Higher

CPS-SLIC:
Region: STATE
Facility Status: Completed - Case Closed
Status Date: 07/21/1998
Global Id: T06019791750
Lead Agency: ALAMEDA COUNTY LOP
Lead Agency Case Number: RO0002710
Latitude: 37.798999
Longitude: -122.2704
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: NA
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affected: Soil
Potential Contaminants of Concern: Not reported
Site History: Not reported

Actual:
36 ft.

[Click here to access the California GeoTracker records for this facility:](#)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BAYPORTE VILLAGE (ACORN II APARTMENTS) (Continued)

S109926666

Alameda County CS:

Status: Case Closed
Record Id: RO0002710
PE: 5502
Facility Status: Case Closed
Latitude: 37.799018529
Longitude: -122.27036874

CERS TANKS:

Site ID: 210514
CERS ID: T06019791750
CERS Description: Cleanup Program Site

T107
SSW
1/8-1/4
0.242 mi.
1278 ft.

PENN PARTNERS
333 OAK ST
OAKLAND, CA 94607
Site 3 of 3 in cluster T

LUST S101306651
CERS N/A

Relative:
Lower
Actual:
14 ft.

LUST:

Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101060
Global Id: T0600101060
Latitude: 37.7940179
Longitude: -122.2673055
Status: Completed - Case Closed
Status Date: 06/24/1993
Case Worker: UUU
RB Case Number: 01-1151
Local Agency: Not reported
File Location: Not reported
Local Case Number: 01-1151
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel
Site History: Not reported

LUST:

Global Id: T0600101060
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600101060
Action Type: Other
Date: 08/26/1991
Action: Leak Reported

Global Id: T0600101060
Action Type: Other
Date: 08/26/1991
Action: Leak Discovery

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PENN PARTNERS (Continued)

S101306651

Global Id: T0600101060
Action Type: Other
Date: 08/26/1991
Action: Leak Stopped

LUST:

Global Id: T0600101060
Status: Completed - Case Closed
Status Date: 06/24/1993

Global Id: T0600101060
Status: Open - Case Begin Date
Status Date: 08/26/1991

LUST REG 2:

Region: 2
Facility Id: 01-1151
Facility Status: Case Closed
Case Number: 01-1151
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assessment Wokplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

CERS TANKS:

Site ID: 187112
CERS ID: T0600101060
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

V108
NW
1/8-1/4
0.243 mi.
1284 ft.

OAKLAND NATIONAL ENGRAVING CO INC
307 10TH ST
OAKLAND, CA 94607

RCRA-SQG 1000277308
FINDS CAD009185307
ECHO

Site 1 of 2 in cluster V

Relative:
Higher
Actual:
40 ft.

RCRA-SQG:
Date form received by agency: 09/01/1996
Facility name: OAKLAND NATIONAL ENGRAVING CO INC
Facility address: 307 10TH ST
OAKLAND, CA 94607
EPA ID: CAD009185307
Mailing address: P.O. BOX SECOND HUNDRED THIRTY
OAKLAND, CA 94604
Contact: Not reported
Contact address: Not reported
Contact country: US
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09
Land type: Facility is not located on Indian land. Additional information is not known.
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: EDWARD R. KOZEL PRESIDENT
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OAKLAND NATIONAL ENGRAVING CO INC (Continued)

1000277308

Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 09/01/1996
Site name: OAKLAND NATIONAL ENGRAVING CO INC
Classification: Small Quantity Generator

Date form received by agency: 08/18/1980
Site name: OAKLAND NATIONAL ENGRAVING CO INC
Classification: Large Quantity Generator

Violation Status: No violations found

Evaluation Action Summary:

Evaluation date: 11/17/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 06/30/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 01/08/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

FINDS:

Registry ID: 110002636005

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OAKLAND NATIONAL ENGRAVING CO INC (Continued)

1000277308

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1000277308
Registry ID: 110002636005
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110002636005>

W109
NNW
1/8-1/4
0.245 mi.
1296 ft.

BENDER PROPERTY
250 12TH STREET
OAKLAND, CA 94607

Site 1 of 2 in cluster W

LUST
Alameda County CS
HAZNET
CERS

S112904293
N/A

Relative:
Higher
Actual:
39 ft.

LUST:

Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000011336
Global Id: T10000011336
Latitude: 37.8015
Longitude: -122.26737
Status: Open - Active
Status Date: 02/23/2018
Case Worker: DY
RB Case Number: Not reported
Local Agency: ALAMEDA COUNTY LOP
File Location: Not reported
Local Case Number: RO0003295
Potential Media Affect: Aquifer used for drinking water supply, Soil, Soil Vapor
Potential Contaminants of Concern: Tetrachloroethylene (PCE), Benzene, Diesel, Gasoline, Total Petroleum Hydrocarbons (TPH)
Site History: Not reported

LUST:

Global Id: T10000011336
Contact Type: Local Agency Caseworker
Contact Name: DREW YORK
Organization Name: ALAMEDA COUNTY LOP
Address: 1131 HARBOR BAY PARKWAY
City: ALAMEDA
Email: andrew.york@acgov.org
Phone Number: Not reported

LUST:

Global Id: T10000011336
Action Type: RESPONSE
Date: 04/10/2018
Action: Site Assessment Report

Global Id: T10000011336
Action Type: RESPONSE
Date: 05/11/2018
Action: Other Report / Document

Global Id: T10000011336
Action Type: RESPONSE
Date: 09/19/2018

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BENDER PROPERTY (Continued)

S112904293

Action: Soil and Water Investigation Report

Global Id: T10000011336
Action Type: RESPONSE
Date: 09/19/2018
Action: Electronic Reporting Submittal Due

Global Id: T10000011336
Action Type: Other
Date: 01/26/2018
Action: Leak Reported

Global Id: T10000011336
Action Type: RESPONSE
Date: 05/11/2018
Action: Other Report / Document

Global Id: T10000011336
Action Type: RESPONSE
Date: 07/09/2018
Action: Soil and Water Investigation Workplan - Addendum - Regulator Responded

Global Id: T10000011336
Action Type: RESPONSE
Date: 05/30/2018
Action: Soil Vapor Intrusion Investigation Workplan - Regulator Responded

Global Id: T10000011336
Action Type: RESPONSE
Date: 06/15/2018
Action: Soil and Water Investigation Workplan - Regulator Responded

Global Id: T10000011336
Action Type: ENFORCEMENT
Date: 06/28/2018
Action: Staff Letter - #06/28/2018

Global Id: T10000011336
Action Type: ENFORCEMENT
Date: 05/07/2018
Action: Meeting - #5/7/2018

Global Id: T10000011336
Action Type: ENFORCEMENT
Date: 03/08/2018
Action: Preliminary Site Review - #3/8/2018

Global Id: T10000011336
Action Type: ENFORCEMENT
Date: 07/18/2018
Action: Staff Letter - #7/18/2018

Global Id: T10000011336
Action Type: RESPONSE
Date: 05/08/2018
Action: Other Report / Document

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BENDER PROPERTY (Continued)

S112904293

Global Id: T10000011336
Action Type: Other
Date: 01/26/2018
Action: Leak Discovery

LUST:

Global Id: T10000011336
Status: Open - Active
Status Date: 02/23/2018

Global Id: T10000011336
Status: Open - Case Begin Date
Status Date: 01/26/2018

Alameda County CS:

Status: Leak Confirmation
Record Id: RO0003295
PE: 5602
Facility Status: Leak Confirmation
Latitude: Not reported
Longitude: Not reported

HAZNET:

Facility Name: JIM BENDER
envid: S112904293
Year: 2000
GEPaid: CAC002212713
Contact: JIM BENDER
Telephone: 4153785341
Mailing Name: Not reported
Mailing Address: 4 BRENT CT
Mailing City,St,Zip: LAFAYETTE, CA 945490000
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Other empty containers 30 gallons or more
Disposal Method: Transfer Station
Tons: 0.2
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

envid: S112904293
Year: 2000
GEPaid: CAC002212713
Contact: JIM BENDER
Telephone: 4153785341
Mailing Name: Not reported
Mailing Address: 4 BRENT CT
Mailing City,St,Zip: LAFAYETTE, CA 945490000
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Latex waste
Disposal Method: Transfer Station

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BENDER PROPERTY (Continued)

S112904293

Tons: 0.2
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

envid: S112904293
Year: 2000
GEPaid: CAC002212713
Contact: JIM BENDER
Telephone: 4153785341
Mailing Name: Not reported
Mailing Address: 4 BRENT CT
Mailing City,St,Zip: LAFAYETTE, CA 945490000
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Treatment, Tank
Tons: 0.2
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

envid: S112904293
Year: 2000
GEPaid: CAC002212713
Contact: JIM BENDER
Telephone: 4153785341
Mailing Name: Not reported
Mailing Address: 4 BRENT CT
Mailing City,St,Zip: LAFAYETTE, CA 945490000
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Transfer Station
Tons: 0.2
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

CERS TANKS:

Site ID: 434169
CERS ID: T10000011336
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Local Agency Caseworker
Entity Name: DREW YORK - ALAMEDA COUNTY LOP
Entity Title: Not reported
Affiliation Address: 1131 HARBOR BAY PARKWAY
Affiliation City: ALAMEDA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

S110 **JAL-VUE WINDOW CORPORATION**
West **295 6TH AVE**
1/4-1/2 **OAKLAND, CA 94607**
0.259 mi.
1370 ft. **Site 2 of 2 in cluster S**

LUST **S101580218**
SWEEPS UST **N/A**
HIST UST
CA FID UST
HIST CORTESE
CERS

Relative:
Lower

Actual:
30 ft.

LUST:

Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)
 Case Type: LUST Cleanup Site
 Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100587
 Global Id: T0600100587
 Latitude: 37.7966897
 Longitude: -122.2695549
 Status: Completed - Case Closed
 Status Date: 01/22/1993
 Case Worker: UUU
 RB Case Number: 01-0637
 Local Agency: Not reported
 File Location: Not reported
 Local Case Number: 01-0637
 Potential Media Affect: Soil
 Potential Contaminants of Concern: Diesel
 Site History: Not reported

LUST:

Global Id: T0600100587
 Contact Type: Regional Board Caseworker
 Contact Name: Regional Water Board
 Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
 Address: 1515 CLAY ST SUITE 1400
 City: OAKLAND
 Email: Not reported
 Phone Number: Not reported

LUST:

Global Id: T0600100587
 Action Type: Other
 Date: 01/22/1993
 Action: Leak Reported

Global Id: T0600100587
 Action Type: Other
 Date: 01/01/1991
 Action: Leak Discovery

Global Id: T0600100587
 Action Type: Other
 Date: 01/01/1991
 Action: Leak Stopped

LUST:

Global Id: T0600100587
 Status: Completed - Case Closed
 Status Date: 01/22/1993

Global Id: T0600100587
 Status: Open - Case Begin Date
 Status Date: 01/01/1991

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JAL-VUE WINDOW CORPORATION (Continued)

S101580218

LUST REG 2:

Region: 2
Facility Id: 01-0637
Facility Status: Case Closed
Case Number: 01-0637
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assessment Wokplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

SWEEPS UST:

Status: Active
Comp Number: 58420
Number: 1
Board Of Equalization: Not reported
Referral Date: 03-04-91
Action Date: 03-04-91
Created Date: 02-29-88
Owner Tank Id: HF01
SWRCB Tank Id: 01-000-058420-000001
Tank Status: A
Capacity: 1000
Active Date: 03-04-91
Tank Use: EMPTY
STG: P
Content: LEADED GASOL
Number Of Tanks: 1

HIST UST:

File Number: 00036252
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00036252.pdf>
Region: Not reported
Facility ID: Not reported
Facility Type: Not reported
Other Type: Not reported
Contact Name: Not reported
Telephone: Not reported
Owner Name: Not reported
Owner Address: Not reported
Owner City,St,Zip: Not reported
Total Tanks: Not reported

Tank Num: Not reported
Container Num: Not reported
Year Installed: Not reported
Tank Capacity: Not reported
Tank Used for: Not reported
Type of Fuel: Not reported
Container Construction Thickness: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JAL-VUE WINDOW CORPORATION (Continued)

S101580218

Leak Detection: Not reported

Click here for Geo Tracker PDF:

CA FID UST:

Facility ID: 01002032
Regulated By: UTNKA
Regulated ID: 00058420
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4158342535
Mail To: Not reported
Mailing Address: 530 WATER ST
Mailing Address 2: Not reported
Mailing City,St,Zip: OAKLAND 94607
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-0637

CERS TANKS:

Site ID: 188095
CERS ID: T0600100587
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

V111
NW
1/4-1/2
0.260 mi.
1374 ft.

OAKLAND UNIFIED SCHOOL DISTRICT - HARPER BLDG
314 10TH STREET
OAKLAND, CA 94606
Site 2 of 2 in cluster V

LUST S108245815
CERS N/A

Relative:
Higher
Actual:
40 ft.

LUST:
Lead Agency: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T06019710391
Global Id: T06019710391

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OAKLAND UNIFIED SCHOOL DISTRICT - HARPER BLDG (Continued)

S108245815

Latitude: 37.7946436926523
Longitude: -122.257554531097
Status: Open - Site Assessment
Status Date: 10/28/2010
Case Worker: Not reported
RB Case Number: NA
Local Agency: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0002856
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Polychlorinated biphenyls (PCBs), Other Insecticides / Pesticide / Fumigants / Herbicides, Other Met
Site History: Not reported

LUST:

Global Id: T06019710391
Action Type: Other
Date: 11/09/2004
Action: Leak Reported

Global Id: T06019710391
Action Type: ENFORCEMENT
Date: 07/03/2008
Action: Staff Letter - #20080703

Global Id: T06019710391
Action Type: ENFORCEMENT
Date: 07/24/2009
Action: Staff Letter - #20090724

Global Id: T06019710391
Action Type: ENFORCEMENT
Date: 07/24/2009
Action: Staff Letter - #20090724

Global Id: T06019710391
Action Type: Other
Date: 08/28/1992
Action: Leak Discovery

LUST:

Global Id: T06019710391
Status: Open - Case Begin Date
Status Date: 08/28/1992

Global Id: T06019710391
Status: Open - Site Assessment
Status Date: 05/19/1993

Global Id: T06019710391
Status: Open - Site Assessment
Status Date: 10/28/2010

CERS TANKS:

Site ID: 249183
CERS ID: T06019710391
CERS Description: Leaking Underground Storage Tank Cleanup Site

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

X112
North
1/4-1/2
0.274 mi.
1449 ft.

OAKLAND AREA HOSP
OAKLAND, CA
Site 1 of 4 in cluster X

RESPONSE S107736944
ENVIROSTOR N/A

Relative:
Higher
Actual:
38 ft.

RESPONSE:
Facility ID: 80000561
Site Type: State Response
Site Type Detail: FUDS
Acres: 4
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Carrie Tatoian-Cain
Supervisor: Dan Ward
Division Branch: Engineering & Special Projects
Site Code: 201758
Site Mgmt. Req.: NONE SPECIFIED
Assembly: 18
Senate: 09
Special Program Status: Not reported
Status: No Further Action
Status Date: 04/08/2014
Restricted Use: NO
Funding: DERA
Latitude: 37.80194
Longitude: -122.2663
APN: 002 006700100, 002 006900200, 002 007500100, 002 007700100, 002 010000100
Past Use: HOSPITAL
Potential COC : TPH-diesel TPH-gas TPH-MOTOR OIL
Confirmed COC: 30024-NO 30025-NO 3002502-NO
Potential Description: UE
Alias Name: 002 006700100
Alias Type: APN
Alias Name: 002 006900200
Alias Type: APN
Alias Name: 002 007500100
Alias Type: APN
Alias Name: 002 007700100
Alias Type: APN
Alias Name: 002 010000100
Alias Type: APN
Alias Name: CA99799F581100
Alias Type: Federal Facility ID
Alias Name: J09CA0886
Alias Type: INPR
Alias Name: 201758
Alias Type: Project Code (Site Code)
Alias Name: 80000561
Alias Type: Envirostor ID Number
Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: No Department of Defense Action Indicated (NDAI)
Completed Date: 06/30/2008
Comments: DTSC did not concur with the Corps request for No Further Defense Action Indicated. The site has potential releases, and the DoD 2007

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OAKLAND AREA HOSP (Continued)

S107736944

Report to Congress identifies significant funds for this site.
Potential releases are from tanks and piping, maintenance activities,
and solvents.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: No Department of Defense Action Indicated (NDAI)
Completed Date: 04/08/2014
Comments: Please note that this determination is based on information in DTSC s
and the Water Boards possession at this time concerning Department of
Defense (DoD) activities on the sites listed above. DTSC and the
Water Boards reserve the right to address any appropriate
environmental or human health related issue, should additional
information concerning the environmental condition of this site
becomes available in the future

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:

Facility ID: 80000561
Status: No Further Action
Status Date: 04/08/2014
Site Code: 201758
Site Type: State Response
Site Type Detailed: FUDS
Acres: 4
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Carrie Tatoian-Cain
Supervisor: Dan Ward
Division Branch: Engineering & Special Projects
Assembly: 18
Senate: 09
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: DERA
Latitude: 37.80194
Longitude: -122.2663
APN: 002 006700100, 002 006900200, 002 007500100, 002 007700100, 002
010000100
Past Use: HOSPITAL
Potential COC: TPH-diesel TPH-gas TPH-MOTOR OIL
Confirmed COC: 30024-NO 30025-NO 3002502-NO
Potential Description: UE
Alias Name: 002 006700100
Alias Type: APN
Alias Name: 002 006900200

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OAKLAND AREA HOSP (Continued)

S107736944

Alias Type: APN
Alias Name: 002 007500100
Alias Type: APN
Alias Name: 002 007700100
Alias Type: APN
Alias Name: 002 010000100
Alias Type: APN
Alias Name: CA99799F581100
Alias Type: Federal Facility ID
Alias Name: J09CA0886
Alias Type: INPR
Alias Name: 201758
Alias Type: Project Code (Site Code)
Alias Name: 80000561
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: No Department of Defense Action Indicated (NDAI)
Completed Date: 06/30/2008
Comments: DTSC did not concur with the Corps request for No Further Defense Action Indicated. The site has potential releases, and the DoD 2007 Report to Congress identifies significant funds for this site. Potential releases are from tanks and piping, maintenance activities, and solvents.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: No Department of Defense Action Indicated (NDAI)
Completed Date: 04/08/2014
Comments: Please note that this determination is based on information in DTSC s and the Water Boards possession at this time concerning Department of Defense (DoD) activities on the sites listed above. DTSC and the Water Boards reserve the right to address any appropriate environmental or human health related issue, should additional information concerning the environmental condition of this site becomes available in the future

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

MAP FINDINGS

Map ID			EDR ID Number
Direction			EPA ID Number
Distance			
Elevation	Site	Database(s)	

X113 North 1/4-1/2 0.275 mi. 1450 ft.	OAKLAND AREA HOSPITAL SITE OAKLAND, CA Site 2 of 4 in cluster X	FUDS	1007211913 N/A
--	--	-------------	---------------------------------

Relative: Higher Actual: 38 ft.	FUDS: EPA Region: 09 Congressional District: 13 FUDS Number: J09CA0886 State: CA Facility Name: OAKLAND AREA HOSPITAL SITE Fiscal Year: 2013 City: OAKLAND Federal Facility ID: CA9799F5811 Telephone: 916-557-7461 INST ID: 61285 County: ALAMEDA RAB: Not reported **CORPS_DIST**: Sacramento District (SPK) NPL Status: Not Listed CTC: 190 Current Owner: Private Sector Future Prog: Not reported Description: The 4.259-acre site is located in Alameda County, CA within the city of Oakland. The Hotel Oakland (former Army Hospital building) has been renovated several times since Department of Defense (DoD) activity was terminated. Current owners of the associated parcels include Hotel Oakland Associates, ICH Associates, and four private owners. Current Program: Not reported History: In 1943, the U.S. acquired 12 leases for a total of 4.259 acres. The site was used as a station hospital by the U.S. Army Medical Corps. In 1946, 1.377 acres were transferred to the Veterans Administration (VA). In 1947, the remaining acres were transferred to the VA. No potential hazards have been identified at this site.	
	Latitude Degree: 37 Latitude Minute: 48 Latitude Second: 7 Latitude Direction: N Longitude Degree: -122 Longitude Minute: 16 Longitude Second: 59 Longitude Direction: E	

W114 NNW 1/4-1/2 0.282 mi. 1491 ft.	FRANK G MAR COMMUNITY HOUSING 283 13TH ST OAKLAND, CA 94612 Site 2 of 2 in cluster W	CPS-SLIC Alameda County CS CERS	S106784884 N/A
--	---	--	---------------------------------

Relative: Higher Actual: 39 ft.	CPS-SLIC: Region: STATE Facility Status: Completed - Case Closed Status Date: 06/26/1996 Global Id: T06019767396 Lead Agency: ALAMEDA COUNTY LOP Lead Agency Case Number: RO0002829 Latitude: 37.802103 Longitude: -122.26767 Case Type: Cleanup Program Site	
--	--	--

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FRANK G MAR COMMUNITY HOUSING (Continued)

S106784884

Case Worker: Not reported
Local Agency: Not reported
RB Case Number: NA
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affected: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Dioxin / Furans, Other Chlorinated Hydrocarbons
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Alameda County CS:

Status: Pollution Characterization
Record Id: RO0002829
PE: 5502
Facility Status: Pollution Characterization
Latitude: Not reported
Longitude: Not reported

Status: Case Closed
Record Id: RO0002829
PE: 5502
Facility Status: Case Closed
Latitude: Not reported
Longitude: Not reported

CERS TANKS:

Site ID: 186767
CERS ID: T06019767396
CERS Description: Cleanup Program Site

Y115 **MACY'S MOVERS**
South **200 VICTORY**
1/4-1/2 **OAKLAND, CA 94607**
0.284 mi.
1500 ft. **Site 1 of 3 in cluster Y**

LUST **U003713855**
CPS-SLIC **N/A**
Alameda County CS
HIST CORTESE

Relative:
Lower
Actual:
11 ft.

LUST:
Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101602
Global Id: T0600101602
Latitude: 37.7928122
Longitude: -122.265754
Status: Completed - Case Closed
Status Date: 12/21/1993
Case Worker: Not reported
RB Case Number: 01-1731
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000882
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Diesel
Site History: Not all historic documents for the fuel leak case may be available on GeoTracker. A more complete historic case file for this site is located on the Alameda County Environmental Health website at <https://ehgis.acgov.org/dehpublic/dehpublic.jsp>. Area reported to have been occupied by a lumber and milling company in early 1900s to

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MACY'S MOVERS (Continued)

U003713855

about 1929. Site developed in the 1940s-possibly military related, becoming vacant land by the late 1950s through the early 1970s. Development of site, consistent with current development, performed in the late 1970s. A 1,000-gal UST was removed in 1992. TPHd identified up to 54,000 mg/kg in soil & 580 ug/L in GW. Elevated metals levels of up to 720 mg/kg Zn, 600 mg/kg Pb, and 120 mg/kg Ni in soil and 8.5 ug/L Cd, 27 ug/L Cr, 46 ug/L Pb, 45 ug/L Ni and 52 ug/L Zn in GW. Numerous PNAs identified in soil and GW. Much of the contamination documented during UST investigation was not attributable to the UST but to a more regional industrial source-possibly the lumber mill with possible wood treatment. The LUST case was closed and this SCP case opened as RO2666.

LUST:

Global Id: T0600101602
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600101602
Action Type: Other
Date: 09/03/1992
Action: Leak Reported

Global Id: T0600101602
Action Type: REMEDIATION
Date: 09/09/9999
Action: Not reported

Global Id: T0600101602
Action Type: ENFORCEMENT
Date: 10/01/1992
Action: * Historical Enforcement - #UNK

LUST:

Global Id: T0600101602
Status: Completed - Case Closed
Status Date: 12/21/1993

Global Id: T0600101602
Status: Open - Case Begin Date
Status Date: 09/03/1992

LUST REG 2:

Region: 2
Facility Id: 01-1731
Facility Status: Case Closed
Case Number: 4334
How Discovered: Tank Closure
Leak Cause: UNK

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MACY'S MOVERS (Continued)

U003713855

Leak Source: Tank
Date Leak Confirmed: 10/1/1992
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: 11/20/1989
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

CPS-SLIC:

Region: STATE
Facility Status: **Open - Site Assessment**
Status Date: 08/02/2012
Global Id: T06019763876
Lead Agency: ALAMEDA COUNTY LOP
Lead Agency Case Number: RO0002666
Latitude: 37.792786
Longitude: -122.266323
Case Type: Cleanup Program Site
Case Worker: KEN
Local Agency: ALAMEDA COUNTY LOP
RB Case Number: NA
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affected: Under Investigation
Potential Contaminants of Concern: Lead, Nickel, Zinc, Diesel, Polynuclear aromatic hydrocarbons (PAHs), Waste Oil / Motor / Hydraulic / Lubricating
Site History: Not all historic documents for the fuel leak case may be available on GeoTracker. A more complete historic case file for this site is located on the Alameda County Environmental Health website at <https://ehgis.acgov.org/dehpublic/dehpublic.jsp>. Area reported to have been occupied by a lumber and milling company in early 1900s to about 1929. Site developed in the 1940s-possibly military related, becoming vacant land by the late 1950s through the early 1970s. Development of site, consistent with current development, performed in the late 1970s. A 1,000-gal UST was removed in 1992. TPHd identified up to 54,000 mg/kg in soil & 580 ug/L in GW. Elevated metals levels of up to 720 mg/kg Zn, 600 mg/kg Pb, and 120 mg/kg Ni in soil and 8.5 ug/L Cd, 27 ug/L Cr, 46 ug/L Pb, 45 ug/L Ni and 52 ug/L Zn in GW. Numerous PNAs identified in soil and GW. Much of the contamination documented during UST investigation was not attributable to the UST but to a more regional industrial source-possibly the lumber mill with possible wood treatment. The LUST case was closed and this SCP case opened.

Click here to access the California GeoTracker records for this facility:

Alameda County CS:

Status: Case Closed
Record Id: RO0000882
PE: 5602
Facility Status: Case Closed
Latitude: 37.792101041
Longitude: -122.26473196

Status: Leak Confirmation

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MACY'S MOVERS (Continued)

U003713855

Record Id: RO0002666
PE: 5502
Facility Status: Leak Confirmation
Latitude: Not reported
Longitude: Not reported

Status: 11
Record Id: RO0002666
PE: 5502
Facility Status: Not reported
Latitude: Not reported
Longitude: Not reported

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-1731

**U116
WNW
1/4-1/2
0.285 mi.
1504 ft.**

**ASIAN HEALTH SERVICES
814 WEBSTER STREET
OAKLAND, CA 94607**

**ENVIROSTOR S118756496
N/A**

Site 2 of 2 in cluster U

**Relative:
Higher
Actual:
37 ft.**

ENVIROSTOR:
Facility ID: 1800002
Status: No Action Required
Status Date: 07/27/1995
Site Code: 200630
Site Type: Calmortgage
Site Type Detailed: Calmortgage
Acres: 0
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Sandra Karinen
Supervisor: William Beckman
Division Branch: Cleanup Sacramento
Assembly: 18
Senate: 09
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: CalMortgage
Latitude: 37.79888
Longitude: -122.2722
APN: NONE SPECIFIED
Past Use: NONE
Potential COC: NONE SPECIFIED No Contaminants found
Confirmed COC: No Contaminants found
Potential Description: NMA
Alias Name: Not reported
Alias Type: Not reported

Completed Info:

Completed Area Name: Not reported
Completed Sub Area Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ASIAN HEALTH SERVICES (Continued)

S118756496

Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Z117
NNE
1/4-1/2
0.285 mi.
1505 ft.

MOBIL #10-MHG
160 14TH ST
OAKLAND, CA 94612
Site 1 of 3 in cluster Z

LUST **S102433469**
Alameda County CS **N/A**
HIST UST
HIST CORTESE
CERS

Relative:
Higher
Actual:
33 ft.

LUST:

Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T06019782296
Global Id: T06019782296
Latitude: 37.8018496907312
Longitude: -122.264227867126
Status: Open - Eligible for Closure
Status Date: 02/02/2018
Case Worker: KLD
RB Case Number: NA
Local Agency: ALAMEDA COUNTY LOP
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0002922
Potential Media Affect: Other Groundwater (uses other than drinking water), Soil, Soil Vapor
Potential Contaminants of Concern: Gasoline
Site History: The three underground storage tanks (USTs) were removed from operation in May 1986. Four soil samples collected at the time of removal were below the detection limits. However, no groundwater samples were collected at the time. Subsequent sampling beginning in 2001 detected elevated petroleum hydrocarbons in soil and groundwater. In addition, PCE, TCE, cis-1,2-DCE and vinyl chloride were detected in water samples collected at the site. The site was converted to a condominium building with parking and commercial on the lower floor. Soil vapor sampling and downgradient extent of groundwater contamination sampling requested.

LUST:

Global Id: T06019782296
Contact Type: Local Agency Caseworker
Contact Name: KAREL DETTERMAN
Organization Name: ALAMEDA COUNTY LOP
Address: 1131 Harbor Bay Parkway
City: ALAMEDA
Email: karel.detterman@acgov.org
Phone Number: 5105676708

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MOBIL #10-MHG (Continued)

S102433469

LUST:

Global Id:	T06019782296
Action Type:	ENFORCEMENT
Date:	02/09/2016
Action:	Staff Letter - #20160209
Global Id:	T06019782296
Action Type:	Other
Date:	04/27/2006
Action:	Leak Reported
Global Id:	T06019782296
Action Type:	RESPONSE
Date:	12/15/2017
Action:	Email Correspondence
Global Id:	T06019782296
Action Type:	RESPONSE
Date:	08/29/2017
Action:	Other Report / Document
Global Id:	T06019782296
Action Type:	ENFORCEMENT
Date:	11/06/2008
Action:	Staff Letter - #20081106
Global Id:	T06019782296
Action Type:	ENFORCEMENT
Date:	02/04/2016
Action:	Meeting - #20160204
Global Id:	T06019782296
Action Type:	ENFORCEMENT
Date:	01/26/2017
Action:	Staff Letter - #20170126
Global Id:	T06019782296
Action Type:	RESPONSE
Date:	04/12/2006
Action:	Monitoring Report - Other
Global Id:	T06019782296
Action Type:	RESPONSE
Date:	03/31/2017
Action:	Soil and Water Investigation Report
Global Id:	T06019782296
Action Type:	RESPONSE
Date:	04/26/2016
Action:	Soil and Water Investigation Workplan - Regulator Responded
Global Id:	T06019782296
Action Type:	RESPONSE
Date:	08/25/2017
Action:	Request for Closure - Regulator Responded
Global Id:	T06019782296

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MOBIL #10-MHG (Continued)

S102433469

Action Type: ENFORCEMENT
Date: 07/24/2009
Action: Staff Letter - #20090724

Global Id: T06019782296
Action Type: ENFORCEMENT
Date: 07/24/2009
Action: Notice of Violation - #20090724

Global Id: T06019782296
Action Type: ENFORCEMENT
Date: 10/17/2011
Action: Staff Letter - #20111017

Global Id: T06019782296
Action Type: ENFORCEMENT
Date: 06/05/2006
Action: Technical Correspondence / Assistance / Other

Global Id: T06019782296
Action Type: ENFORCEMENT
Date: 03/23/2018
Action: Notification - Fee Title Owners Notice - #20180323

Global Id: T06019782296
Action Type: RESPONSE
Date: 02/06/2009
Action: Soil and Water Investigation Workplan

Global Id: T06019782296
Action Type: RESPONSE
Date: 08/10/2009
Action: Electronic Reporting Submittal Due

Global Id: T06019782296
Action Type: ENFORCEMENT
Date: 06/29/2014
Action: Staff Letter - #20140629

Global Id: T06019782296
Action Type: ENFORCEMENT
Date: 06/26/2015
Action: Staff Letter - #20150626

Global Id: T06019782296
Action Type: ENFORCEMENT
Date: 07/12/2017
Action: Staff Letter - #20170712

Global Id: T06019782296
Action Type: ENFORCEMENT
Date: 03/15/2018
Action: Fact Sheets - Public Participation - #20180315

Global Id: T06019782296
Action Type: ENFORCEMENT
Date: 03/13/2018

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MOBIL #10-MHG (Continued)

S102433469

Action: Staff Letter - #20180313

Global Id: T06019782296
Action Type: ENFORCEMENT
Date: 11/15/2017
Action: Staff Letter - #20171115

Global Id: T06019782296
Action Type: RESPONSE
Date: 07/29/2016
Action: Soil and Water Investigation Report

Global Id: T06019782296
Action Type: Other
Date: 08/06/2001
Action: Leak Discovery

Global Id: T06019782296
Action Type: RESPONSE
Date: 07/29/2016
Action: Soil and Water Investigation Report

Global Id: T06019782296
Action Type: RESPONSE
Date: 04/26/2016
Action: Soil and Water Investigation Workplan

Global Id: T06019782296
Action Type: RESPONSE
Date: 03/27/2018
Action: Other Report / Document

Global Id: T06019782296
Action Type: Other
Date: 05/01/1986
Action: Leak Stopped

Global Id: T06019782296
Action Type: RESPONSE
Date: 12/19/2011
Action: Soil and Water Investigation Workplan

Global Id: T06019782296
Action Type: ENFORCEMENT
Date: 07/03/2008
Action: Staff Letter - #20080703

LUST:

Global Id: T06019782296
Status: Open - Case Begin Date
Status Date: 07/23/2001

Global Id: T06019782296
Status: Open - Eligible for Closure
Status Date: 02/02/2018

Global Id: T06019782296

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MOBIL #10-MHG (Continued)

S102433469

Status: Open - Site Assessment
Status Date: 07/23/2001

Alameda County CS:

Status: Preliminary Site Assessment Underway
Record Id: RO0002922
PE: 5602
Facility Status: Preliminary Site Assessment Underway
Latitude: 37.801761646
Longitude: -122.26424717

Status: Pollution Characterization
Record Id: RO0002922
PE: 5602
Facility Status: Pollution Charaterization
Latitude: 37.801761646
Longitude: -122.26424717

HIST UST:

File Number: 00036167
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00036167.pdf>
Region: Not reported
Facility ID: Not reported
Facility Type: Not reported
Other Type: Not reported
Contact Name: Not reported
Telephone: Not reported
Owner Name: Not reported
Owner Address: Not reported
Owner City,St,Zip: Not reported
Total Tanks: Not reported

Tank Num: Not reported
Container Num: Not reported
Year Installed: Not reported
Tank Capacity: Not reported
Tank Used for: Not reported
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: Not reported

Click here for Geo Tracker PDF:

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-0992

CERS TANKS:

Site ID: 223856
CERS ID: T06019782296
CERS Description: Leaking Underground Storage Tank Cleanup Site

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MOBIL #10-MHG (Continued)

S102433469

Affiliation:

Affiliation Type Desc: Local Agency Caseworker
Entity Name: KAREL DETTERMAN - ALAMEDA COUNTY LOP
Entity Title: Not reported
Affiliation Address: 1131 Harbor Bay Parkway
Affiliation City: ALAMEDA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 5105676708

Z118
North
1/4-1/2
0.289 mi.
1525 ft.

ONE HOUR CLEANERS
190 14TH ST
OAKLAND, CA 94612
Site 2 of 3 in cluster Z

Alameda County CS
HAZNET

S113010793
N/A

Relative:
Higher
Actual:
34 ft.

Alameda County CS:
Status: 12
Record Id: RO0003308
PE: 5502
Facility Status: Not reported
Latitude: Not reported
Longitude: Not reported

HAZNET:

Facility Name: ONE HOUR CLEANERS
envid: S113010793
Year: 1998
GEPaid: CAD981966088
Contact: B&T ONE HR CLEANER
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 190 14TH ST
Mailing City,St,Zip: OAKLAND, CA 946120000
Gen County: Not reported
TSD EPA ID: CAD981397417
TSD County: Not reported
Waste Category: Not reported
Disposal Method: Recycler
Tons: .0000
Cat Decode: Not reported
Method Decode: Not reported
Facility County: 1

envid: S113010793
Year: 1998
GEPaid: CAD981966088
Contact: B&T ONE HR CLEANER
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 190 14TH ST
Mailing City,St,Zip: OAKLAND, CA 946120000
Gen County: Not reported
TSD EPA ID: CAD981397417
TSD County: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ONE HOUR CLEANERS (Continued)

S113010793

Waste Category: Halogenated solvents (chloroforms, methyl chloride, perchloroethylene, etc)
Disposal Method: Recycler
Tons: .5268
Cat Decode: Not reported
Method Decode: Not reported
Facility County: 1

envid: S113010793
Year: 1997
GEPaid: CAD981966088
Contact: B&T ONE HR CLEANER
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 190 14TH ST
Mailing City,St,Zip: OAKLAND, CA 946120000
Gen County: Not reported
TSD EPA ID: CAD981397417
TSD County: Not reported

Waste Category: Halogenated solvents (chloroforms, methyl chloride, perchloroethylene, etc)
Disposal Method: Recycler
Tons: .6321
Cat Decode: Not reported
Method Decode: Not reported
Facility County: 1

envid: S113010793
Year: 1997
GEPaid: CAD981966088
Contact: B&T ONE HR CLEANER
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 190 14TH ST
Mailing City,St,Zip: OAKLAND, CA 946120000
Gen County: Not reported
TSD EPA ID: CAD981397417
TSD County: Not reported
Waste Category: Not reported
Disposal Method: Recycler
Tons: .0000
Cat Decode: Not reported
Method Decode: Not reported
Facility County: 1

Z119
North
1/4-1/2
0.289 mi.
1525 ft.

KRISTICH MONTEREY PIPE CO
190 14TH
OAKLAND, CA 94612
Site 3 of 3 in cluster Z

DRYCLEANERS **S104574470**
HIST CORTESE **N/A**

Relative:
Higher
Actual:
34 ft.

DRYCLEANERS:
EPA Id: CAL000013149
NAICS Code: 81232
NAICS Description: Drycleaning and Laundry Services (except Coin-Operated)
SIC Code: 7211
SIC Description: Power Laundries, Family and Commercial
Create Date: 11/14/1989

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KRISTICH MONTEREY PIPE CO (Continued)

S104574470

Facility Active: No
Inactive Date: 06/30/2015
Facility Addr2: Not reported
Owner Name: B & T ONE HR CLEANER
Owner Address: 190 14TH ST
Owner Address 2: Not reported
Owner Telephone: 5108325526
Contact Name: TERI CHEN/MANAGER
Contact Address: ADDRESS NEEDED
Contact Address 2: Not reported
Contact Telephone: 5108325526
Mailing Name: Not reported
Mailing Address 1: 190 14TH ST
Mailing Address 2: Not reported
Mailing City: OAKLAND
Mailing State: CA
Mailing Zip: 946124311
Owner Fax: 0000000000
Region Code: 2

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 3069

AA120
SW
1/4-1/2
0.293 mi.
1548 ft.

EAST BAY TIRE COMPANY
225 3RD
OAKLAND, CA 94607
Site 1 of 3 in cluster AA

LUST **S104162440**
Alameda County CS **N/A**
CERS

Relative:
Lower
Actual:
14 ft.

LUST:

Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600102045
Global Id: T0600102045
Latitude: 37.7946275
Longitude: -122.2705706
Status: Completed - Case Closed
Status Date: 05/30/1997
Case Worker: Not reported
RB Case Number: 01-2227
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000743
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:

Global Id: T0600102045
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

EAST BAY TIRE COMPANY (Continued)

S104162440

Phone Number: Not reported

LUST:

Global Id: T0600102045
Action Type: Other
Date: 03/25/1987
Action: Leak Reported

Global Id: T0600102045
Action Type: REMEDIATION
Date: 09/09/9999
Action: Excavation

LUST:

Global Id: T0600102045
Status: Completed - Case Closed
Status Date: 05/30/1997

Global Id: T0600102045
Status: Open - Case Begin Date
Status Date: 03/25/1987

LUST REG 2:

Region: 2
Facility Id: 01-2227
Facility Status: Case Closed
Case Number: 6244
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: 6/5/1995
Oversight Program: LUST
Prelim. Site Assessment Wokplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Case Closed
Record Id: RO0000743
PE: 5602
Facility Status: Case Closed
Latitude: 37.794526061
Longitude: -122.27063747

CERS TANKS:

Site ID: 229017
CERS ID: T0600102045
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

EAST BAY TIRE COMPANY (Continued)

S104162440

Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
 Entity Title: Not reported
 Affiliation Address: 1515 CLAY ST SUITE 1400
 Affiliation City: OAKLAND
 Affiliation State: CA
 Affiliation Country: Not reported
 Affiliation Zip: Not reported
 Affiliation Phone: Not reported

121
 NNW
 1/4-1/2
 0.300 mi.
 1582 ft.

301 12TH STREET FUTURE DEVELOPMENT
301 12TH STREET
OAKLAND, CA 94607

ENVIROSTOR **S118757314**
VCP **N/A**

Relative:
Higher
Actual:
41 ft.

ENVIROSTOR:
 Facility ID: 60002362
 Status: Active
 Status Date: 05/24/2016
 Site Code: 202101
 Site Type: Voluntary Cleanup
 Site Type Detailed: Voluntary Cleanup
 Acres: 1.37
 NPL: NO
 Regulatory Agencies: SMBRP
 Lead Agency: SMBRP
 Program Manager: Harold (Bud) Duke
 Supervisor: Jose Salcedo
 Division Branch: Northern California Schools & Santa Susana
 Assembly: , 18
 Senate: , 09
 Special Program: Voluntary Cleanup Program
 Restricted Use: NO
 Site Mgmt Req: NONE SPECIFIED
 Funding: Responsible Party
 Latitude: 37.80139
 Longitude: -122.2692
 APN: 002 006300600, 2-63-6
 Past Use: UNDERGROUND STORAGE TANKS, VEHICLE MAINTENANCE
 Potential COC: Under Investigation Benzene Lead Tetrachloroethylene (PCE Toxaphene
 TPH-diesel TPH-gas Trichloroethylene (TCE Vinyl chloride
 Confirmed COC: Benzene Lead Tetrachloroethylene (PCE 30023-NO 30024-NO TPH-gas
 Trichloroethylene (TCE Vinyl chloride Under Investigation
 Potential Description: IA, OTH, SOIL, SV, UE
 Alias Name: 002 006300600
 Alias Type: APN
 Alias Name: 2-63-6
 Alias Type: APN
 Alias Name: 202097
 Alias Type: Project Code (Site Code)
 Alias Name: 202101
 Alias Type: Project Code (Site Code)
 Alias Name: 60002362
 Alias Type: Envirostor ID Number
 Completed Info:
 Completed Area Name: PROJECT WIDE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

301 12TH STREET FUTURE DEVELOPMENT (Continued)

S118757314

Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 06/23/2016
Comments: DTSC approval of the Indoor Air Sampling Work Plan

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 09/12/2016
Comments: DTSC provided electronic copies of a fact sheet to be distributed by AMethod Public Schools to the students and staff of the Oakland Charter High School. The fact sheet was produced in English and translated into Cantonese and Spanish.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 06/23/2016
Comments: DTSC issued its conditional approval of the 6/22/2016 Indoor Air Sampling Work Plan developed by Terraphase.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 04/20/2017
Comments: DTSC issued its approval of the Groundwater Investigation Report and Well Installation Work Plan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 12/14/2017
Comments: DTSC completed preparation of the Community Profile for the Response Plan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: AB 389 Response Plan
Completed Date: 10/18/2017
Comments: DTSC issued a letter approving the Response Plan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 02/02/2017
Comments: DTSC issued a letter approving the Report of Findings: Indoor-Air Sampling Results July 28, 2016 through September 18, 2016.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Plan
Completed Date: 11/28/2016
Comments: DTSC issued a letter approving the revised OM&M Plan as final.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

301 12TH STREET FUTURE DEVELOPMENT (Continued)

S118757314

Completed Date: 04/07/2017
Comments: DTSC provided conditional approval of the document entitled Indoor-Air Sampling Results, Fourth Quarter 2016.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 05/11/2017
Comments: DTSC provided to AMethod the May 2017 Fact Sheet (in english, Spanish and chinese) via email.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 05/09/2017
Comments: DTSC issued its conditional approval of the First Quarter 2017 Indoor-Air Sampling Report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Pilot Study/Treatability Workplan
Completed Date: 07/20/2017
Comments: DTSC issued a letter approving the ZVI Pilot Test Work Plan via email and poste.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 08/11/2017
Comments: Issued public notices for the draft Response Plan to the Alameda Times Star, the La Opinion De la Bahia and the Sing Tao Daily. Papers are to publish notices on 8/18/2017.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Work Notice
Completed Date: 11/17/2017
Comments: DTSC issued the work notices (English, Spanish and Chinese versions) for the Response Action field work to commence the week of November 27, 2017 with the pre-demo investigation soil, soil gas and groundwater sampling.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 08/14/2017
Comments: DTSC prepared a Community Update (aka Fact Sheet) for the Response Plan in English, Spanish and Chinese and mailed the update to occupants within a 1/4-mile radius of the project site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 11/15/2017
Comments: DTSC approved the Pre-demolition Investigation Work Plan. Field activities are scheduled to be conducted the week of November 27, 2017.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

301 12TH STREET FUTURE DEVELOPMENT (Continued)

S118757314

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 11/27/2017
Comments: DTSC traveled to site and oversaw the drilling of soil boring and the collection of soil and groundwater samples as part of the Pre-demolition Investigation fieldwork.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 02/15/2018
Comments: DTSC issued a letter approving the 1/17/2018 PES Environmental ZVI Pilot Test Report and Preliminary Design.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 02/21/2018
Comments: DTSC observed field investigation activities.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 04/05/2018
Comments: DTSC issued a letter approving the Revised Final ZVI Design report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 03/26/2018
Comments: DTSC's project manager (Harold D.) and engineering support (Li W.) conducted site visit to oversee ZVI injection activities associated with the approved response plan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 08/17/2018
Comments: DTSC issued an email indicating it has no concerns or recommendations regarding the proposed shoring plans with respect to the remedial activities. However, DTSC in a later transmittal provide comments/recommendations pertaining to geotechnical issues.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 06/25/2018
Comments: DTSC approved the PES Environmental Response to Comments and the Pre-Construction Soil Profiling Report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: California Land Reuse and Revitalization Agreement
Completed Date: 05/03/2018
Comments: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

301 12TH STREET FUTURE DEVELOPMENT (Continued)

S118757314

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Initial Study/ Environmental Impact Report
Completed Date: 08/14/2017
Comments: DTSC signed the Addendum to the Final EIR for the Lake Merritt Area Plan which addresses DTSC's response plan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: California Land Reuse and Revitalization Agreement
Completed Date: 10/18/2017
Comments: CLRRRA Agreement executed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 03/30/2017
Comments: Signed Voluntary Cleanup Agreement between DTSC and the sellers.

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: 5 Year Review Reports
Future Due Date: 2025
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

VCP:

Facility ID: 60002362
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 1.37
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Harold (Bud) Duke
Supervisor: Jose Salcedo
Division Branch: Northern California Schools & Santa Susana
Site Code: 202101
Assembly: , 18
Senate: , 09
Special Programs Code: Voluntary Cleanup Program
Status: Active
Status Date: 05/24/2016
Restricted Use: NO
Funding: Responsible Party
Lat/Long: 37.80139 / -122.2692
APN: 002 006300600, 2-63-6
Past Use: UNDERGROUND STORAGE TANKS, VEHICLE MAINTENANCE
Potential COC: 31001, 30003, 30013, 30022, 30023, 30024, 30025, 30027, 30028
Confirmed COC: 30003,30013,30022,30023-NO,30024-NO,30025,30027,30028,31001
Potential Description: IA, OTH, SOIL, SV, UE
Alias Name: 002 006300600

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

301 12TH STREET FUTURE DEVELOPMENT (Continued)

S118757314

Alias Type: APN
Alias Name: 2-63-6
Alias Type: APN
Alias Name: 202097
Alias Type: Project Code (Site Code)
Alias Name: 202101
Alias Type: Project Code (Site Code)
Alias Name: 60002362
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 06/23/2016
Comments: DTSC approval of the Indoor Air Sampling Work Plan

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 09/12/2016
Comments: DTSC provided electronic copies of a fact sheet to be distributed by AMethod Public Schools to the students and staff of the Oakland Charter High School. The fact sheet was produced in English and translated into Cantonese and Spanish.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 06/23/2016
Comments: DTSC issued its conditional approval of the 6/22/2016 Indoor Air Sampling Work Plan developed by Terraphase.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 04/20/2017
Comments: DTSC issued its approval of the Groundwater Investigation Report and Well Installation Work Plan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 12/14/2017
Comments: DTSC completed preparation of the Community Profile for the Response Plan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: AB 389 Response Plan
Completed Date: 10/18/2017
Comments: DTSC issued a letter approving the Response Plan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 02/02/2017
Comments: DTSC issued a letter approving the Report of Findings: Indoor-Air

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

301 12TH STREET FUTURE DEVELOPMENT (Continued)

S118757314

Sampling Results July 28, 2016 through September 18, 2016.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Plan
Completed Date: 11/28/2016
Comments: DTSC issued a letter approving the revised OM&M Plan as final.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 04/07/2017
Comments: DTSC provided conditional approval of the document entitled Indoor-Air Sampling Results, Fourth Quarter 2016.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 05/11/2017
Comments: DTSC provided to AMethod the May 2017 Fact Sheet (in english, Spanish and chinese) via email.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 05/09/2017
Comments: DTSC issued its conditional approval of the First Quarter 2017 Indoor-Air Sampling Report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Pilot Study/Treatability Workplan
Completed Date: 07/20/2017
Comments: DTSC issued a letter approving the ZVI Pilot Test Work Plan via email and poste.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 08/11/2017
Comments: Issued public notices for the draft Response Plan to the Alameda Times Star, the La Opinion De la Bahia and the Sing Tao Daily. Papers are to publish notices on 8/18/2017.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Work Notice
Completed Date: 11/17/2017
Comments: DTSC issued the work notices (English, Spanish and Chinese versions) for the Response Action field work to commence the week of November 27, 2017 with the pre-demo investigation soil, soil gas and groundwater sampling.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 08/14/2017

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

301 12TH STREET FUTURE DEVELOPMENT (Continued)

S118757314

Comments: DTSC prepared a Community Update (aka Fact Sheet) for the Response Plan in English, Spanish and Chinese and mailed the update to occupants within a 1/4-mile radius of the project site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 11/15/2017
Comments: DTSC approved the Pre-demolition Investigation Work Plan. Field activities are scheduled to be conducted the week of November 27, 2017.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 11/27/2017
Comments: DTSC traveled to site and oversaw the drilling of soil boring and the collection of soil and groundwater samples as part of the Pre-demolition Investigation fieldwork.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 02/15/2018
Comments: DTSC issued a letter approving the 1/17/2018 PES Environmental ZVI Pilot Test Report and Preliminary Design.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 02/21/2018
Comments: DTSC observed field investigation activities.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 04/05/2018
Comments: DTSC issued a letter approving the Revised Final ZVI Design report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 03/26/2018
Comments: DTSC's project manager (Harold D.) and engineering support (Li W.) conducted site visit to oversee ZVI injection activities associated with the approved response plan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 08/17/2018
Comments: DTSC issued an email indicating it has no concerns or recommendations regarding the proposed shoring plans with respect to the remedial activities. However, DTSC in a later transmittal provide comments/recommendations pertaining to geotechnical issues.

Completed Area Name: PROJECT WIDE

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

301 12TH STREET FUTURE DEVELOPMENT (Continued)

S118757314

Completed Sub Area Name: Not reported
 Completed Document Type: Technical Report
 Completed Date: 06/25/2018
 Comments: DTSC approved the PES Environmental Response to Comments and the Pre-Construction Soil Profiling Report.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: California Land Reuse and Revitalization Agreement
 Completed Date: 05/03/2018
 Comments: Not reported

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: CEQA - Initial Study/ Environmental Impact Report
 Completed Date: 08/14/2017
 Comments: DTSC signed the Addendum to the Final EIR for the Lake Merritt Area Plan which addresses DTSC's response plan.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: California Land Reuse and Revitalization Agreement
 Completed Date: 10/18/2017
 Comments: CLRRRA Agreement executed.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: Voluntary Cleanup Agreement
 Completed Date: 03/30/2017
 Comments: Signed Voluntary Cleanup Agreement between DTSC and the sellers.

Future Area Name: PROJECT WIDE
 Future Sub Area Name: Not reported
 Future Document Type: 5 Year Review Reports
 Future Due Date: 2025
 Schedule Area Name: Not reported
 Schedule Sub Area Name: Not reported
 Schedule Document Type: Not reported
 Schedule Due Date: Not reported
 Schedule Revised Date: Not reported

Y122
South
1/4-1/2
0.304 mi.
1607 ft.

PEERLESS COFFEE
225 FALLON ST
OAKLAND, CA 94607
Site 2 of 3 in cluster Y

LUST **S102435051**
Alameda County CS **N/A**
HIST CORTESE
CERS

Relative:
Lower
Actual:
11 ft.

LUST:
 Lead Agency: ALAMEDA COUNTY LOP
 Case Type: LUST Cleanup Site
 Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101056
 Global Id: T0600101056
 Latitude: 37.7931857
 Longitude: -122.2663637
 Status: Completed - Case Closed
 Status Date: 12/08/1999
 Case Worker: Not reported
 RB Case Number: 01-1146

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PEERLESS COFFEE (Continued)

S102435051

Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0001201
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: This case was closed by ACEH on December 8, 1999. A separate case (ACEH case RO0003037) was apparently opened for this site in 2012 using a different address (54 Embarcadero). Further review of the case files indicates that both cases apply to the same site and that the 1999 case closure closes the investigation and cleanup related to underground storage tanks at the site. Approximately 1,400 cubic yards of soil that was impacted by polycyclic aromatic hydrocarbons (PAHs) was excavated from three areas of the site. The soil containing PAHs was used for road base under the parking lot and under a portion of a building. Due to the PAHs in these areas, the site was closed in 1999 with site management requirements that require review of the corrective action if land use changes. The integrity of the asphalt and concrete cap over the soil containing PAHs is to be maintained.

LUST:

Global Id: T0600101056
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600101056
Action Type: Other
Date: 12/13/1988
Action: Leak Reported

Global Id: T0600101056
Action Type: RESPONSE
Date: 04/24/2015
Action: Other Report / Document - Regulator Responded

Global Id: T0600101056
Action Type: REMEDIATION
Date: 12/13/1988
Action: Not reported

Global Id: T0600101056
Action Type: RESPONSE
Date: 02/15/1990
Action: Correspondence

Global Id: T0600101056
Action Type: RESPONSE
Date: 08/17/2010
Action: Correspondence

Global Id: T0600101056

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PEERLESS COFFEE (Continued)

S102435051

Action Type: ENFORCEMENT
Date: 12/08/1999
Action: Closure/No Further Action Letter - #19991208

Global Id: T0600101056
Action Type: ENFORCEMENT
Date: 03/23/1992
Action: Notice of Responsibility - #19920323

Global Id: T0600101056
Action Type: ENFORCEMENT
Date: 05/14/2014
Action: Site Visit / Inspection / Sampling

Global Id: T0600101056
Action Type: RESPONSE
Date: 04/06/2012
Action: Correspondence

Global Id: T0600101056
Action Type: Other
Date: 12/13/1988
Action: Leak Discovery

Global Id: T0600101056
Action Type: ENFORCEMENT
Date: 04/06/2015
Action: File review

Global Id: T0600101056
Action Type: ENFORCEMENT
Date: 01/22/2015
Action: 13267 Requirement

LUST:

Global Id: T0600101056
Status: Completed - Case Closed
Status Date: 12/08/1999

Global Id: T0600101056
Status: Open - Case Begin Date
Status Date: 12/13/1988

LUST REG 2:

Region: 2
Facility Id: 01-1146
Facility Status: Case Closed
Case Number: 3778
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: 6/13/1991

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PEERLESS COFFEE (Continued)

S102435051

Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Case Closed
Record Id: RO0001201
PE: 5602
Facility Status: Case Closed
Latitude: 37.792603248
Longitude: -122.26687713

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-1146

CERS TANKS:

Site ID: 243740
CERS ID: T0600101056
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

AA123 EAST BAY PACKING COMPANY
SW 208 JACKSON ST
1/4-1/2 OAKLAND, CA 94607
0.306 mi.
1614 ft. Site 2 of 3 in cluster AA

LUST S101624364
Alameda County CS N/A
SWEEPS UST
HIST UST
CA FID UST
HIST CORTESE
CERS

Relative:
Lower

Actual:
13 ft.

LUST:

Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100487
Global Id: T0600100487
Latitude: 37.794291
Longitude: -122.269534
Status: Completed - Case Closed
Status Date: 04/12/2002
Case Worker: Not reported
RB Case Number: 01-0533
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

EAST BAY PACKING COMPANY (Continued)

S101624364

Local Case Number: RO0000012
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Diesel
Site History: Not reported

LUST:

Global Id: T0600100487
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600100487
Action Type: Other
Date: 03/21/1990
Action: Leak Reported

Global Id: T0600100487
Action Type: ENFORCEMENT
Date: 04/12/2002
Action: Closure/No Further Action Letter - #20020412

Global Id: T0600100487
Action Type: REMEDIATION
Date: 09/09/9999
Action: Excavation

LUST:

Global Id: T0600100487
Status: Completed - Case Closed
Status Date: 04/12/2002

Global Id: T0600100487
Status: Open - Case Begin Date
Status Date: 03/21/1990

LUST REG 2:

Region: 2
Facility Id: 01-0533
Facility Status: Preliminary site assessment underway
Case Number: 3707
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: 7/9/1990
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 8/8/1990
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

EAST BAY PACKING COMPANY (Continued)

S101624364

Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Case Closed
Record Id: RO0000012
PE: 5602
Facility Status: Case Closed
Latitude: 37.793735014
Longitude: -122.27018747

SWEEPS UST:

Status: Not reported
Comp Number: 5922
Number: Not reported
Board Of Equalization: 44-000082
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-005922-000001
Tank Status: Not reported
Capacity: 2000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 4

Status: Not reported
Comp Number: 5922
Number: Not reported
Board Of Equalization: 44-000082
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-005922-000002
Tank Status: Not reported
Capacity: 8000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: DIESEL
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 5922
Number: Not reported
Board Of Equalization: 44-000082
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-005922-000003
Tank Status: Not reported
Capacity: 10000

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

EAST BAY PACKING COMPANY (Continued)

S101624364

Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 5922
Number: Not reported
Board Of Equalization: 44-000082
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-005922-000004
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: DIESEL
Number Of Tanks: Not reported

HIST UST:

File Number: 00036496
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00036496.pdf>
Region: Not reported
Facility ID: Not reported
Facility Type: Not reported
Other Type: Not reported
Contact Name: Not reported
Telephone: Not reported
Owner Name: Not reported
Owner Address: Not reported
Owner City,St,Zip: Not reported
Total Tanks: Not reported

Tank Num: Not reported
Container Num: Not reported
Year Installed: Not reported
Tank Capacity: Not reported
Tank Used for: Not reported
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: Not reported

Click here for Geo Tracker PDF:

CA FID UST:

Facility ID: 01000663
Regulated By: UTKNI
Regulated ID: CAC000257
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4154657700
Mail To: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

EAST BAY PACKING COMPANY (Continued)

S101624364

Mailing Address: 208 JACKSON ST
Mailing Address 2: Not reported
Mailing City,St,Zip: OAKLAND 94607
Contact: Not reported
Contact Phone: Not reported
DUNS Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-0533

CERS TANKS:

Site ID: 192988
CERS ID: T0600100487
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Y124
South
1/4-1/2
0.306 mi.
1616 ft.

VUKASIN/SOUTHERN PACIFIC
250 FALLON STREET
OAKLAND, CA 94607

CPS-SLIC S118406174
CERS N/A

Site 3 of 3 in cluster Y

Relative:
Lower
Actual:
11 ft.

CPS-SLIC:
Region: STATE
Facility Status: Open - Inactive
Status Date: 11/10/2015
Global Id: T10000007955
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)
Lead Agency Case Number: Not reported
Latitude: 37.79161
Longitude: -122.26309
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: 01NBT0120
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affected: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Other Solvent or Non-Petroleum Hydrocarbon, Benzene, Ethylbenzene, Naphthalene

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

VUKASIN/SOUTHERN PACIFIC (Continued)

S118406174

Site History: Kaldveer Associates indicated that the site was created in the early 1900's by in-filling of shallow water tidal flats. Kleinfelder reported that the Southern Pacific Transportation Company purchased the property in 1929 from Tilden Lumber and Mill Company and retained ownership until 1987. The property was leased to lumber wholesalers in the 1940's and 1950's for storage and distribution of lumber arriving by rail. Kleinfelder reported that aerial photographs taken in 1959 to 1975 indicate that the southwestern half of the site and the adjacent lot to the north (bordering Oak Street) apparently served as telephone pole storage areas and possible treatment areas, although Kleinfelder reported that none of the photos indicated the presence of drum storage or staining or other visible signs of contamination. After 1959, the site was used as a railroad team spur. A team spur is a secondary location for freight handling for a number of companies which do not own private spurs. In 1980, the Ford Motor Company leased a portion of the property for freight storage. The property was purchased by Mr. George Vukasin in 1987.

Click here to access the California GeoTracker records for this facility:

CERS TANKS:
 Site ID: 360573
 CERS ID: T10000007955
 CERS Description: Cleanup Program Site

<p>X125 North 1/4-1/2 0.310 mi. 1639 ft.</p> <p>Relative: Higher</p> <p>Actual: 38 ft.</p>	<p>TIME OIL COMPANY 255 14TH OAKLAND, CA</p> <p>Site 3 of 4 in cluster X</p> <p>HIST CORTESE: Region: CORTESE Facility County Code: 1 Reg By: LTNKA Reg Id: 01-1486</p>	<p>HIST CORTESE</p> <p>S102439119 N/A</p>
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<p>126 West 1/4-1/2 0.315 mi. 1661 ft.</p> <p>Relative: Lower</p> <p>Actual: 29 ft.</p>	<p>SALVATION ARMY 601 WEBSTER ST OAKLAND, CA 94607</p> <p>LUST: Lead Agency: ALAMEDA COUNTY LOP Case Type: LUST Cleanup Site Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000003428 Global Id: T10000003428 Latitude: 37.7988274959459 Longitude: -122.272872626781 Status: Open - Site Assessment Status Date: 12/09/2011 Case Worker: KEN RB Case Number: Not reported Local Agency: ALAMEDA COUNTY LOP File Location: All Files are on GeoTracker or in the Local Agency Database</p>	<p>LUST</p> <p>Alameda County CS</p> <p>U003713877 N/A</p>
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Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SALVATION ARMY (Continued)

U003713877

Local Case Number: RO0003084
Potential Media Affect: Other Groundwater (uses other than drinking water), Soil, Under Investigation
Potential Contaminants of Concern: Benzene, Diesel, Ethylbenzene, Gasoline, MTBE / TBA / Other Fuel Oxygenates, Naphthalene, Toluene
Site History: Not all historic documents for the fuel leak case may be available on GeoTracker. A more complete historic case file for this site is located on the Alameda County Environmental Health (ACEH) website at <https://ehgis.acgov.org/dehpublic/dehpublic.jsp>. Site is developed as a warehouse and distribution center for The Salvation Army (TSA) and is in the initial characterization phase of investigation. In November 2010, two USTs, a 10,000-gallon diesel and an 8,000-gallon gasoline tank, were removed. Discolored soil and obvious petroleum odor was noted in the pit excavation. Samples recovered from the tank pit were reported to include up to 17,000 milligrams per kilogram (mg/kg) total petroleum hydrocarbons as gasoline (TPHg) and 300 mg/kg benzene. Diesel and MTBE were not detected at the site. The 10,000-gallon diesel and an 8,000-gallon gasoline USTs are second generation tanks. Previous USTs were removed circa 2000. A strong odor emanated from the tank pit, so it was left open to aerate prior to the installation of the second generation USTs. No record of tank condition or sampling was found for the first generation tanks in the files. Initial soil and groundwater investigation performed in January 2014 with the advance of 7 soil bores- three in the former tank pit with 4 bores forming a transect along the SSW side of the pit. No soil samples were collected within 10 feet of the ground surface. Maximum soil concentrations within the pit were near the northwest corner (SB7 @ 20) with TPHg: 8,900 mg/kg, total petroleum hydrocarbons as diesel (TPHd): 41 mg/kg, benzene, toluene, ethylbenzene, and xylenes (collectively BTEX): 64, 260, 170, & 610 mg/kg, & 12 mg/kg methyl tertiary butyl ether (MTBE). Maximum soil concentrations along transect were located in a western bore (SB3 @ 20) at TPHg: 9,400 mg/kg, TPHd: 120 mg/kg, BTEX: 110, 380, 240, & 890 mg/kg, & <2.0 mg/kg MTBE. Maximum grab groundwater (GGW) concentrations within the pit were reported for SB1 with TPHg: 210,000 micrograms per liter (ug/L) (x8015), BTEX (x8015): 35,000, 47,000, 3,000, & 16,000 ug/L, respectively, & 240 ug/L (x8260) MTBE; and maximum GGW concentrations along transect were reported for SB4, the western most soil bore, at TPHg: 280,000 ug/L (x8015), BTEX (x8015): 35,000, 30,000, 3,900, & 20,000 ug/L & 5,300 ug/L (x8260) MTBE. Note: no water was recovered in SB3. Three on-site and one off-site wells installed for GW investigation. Skimmers operational in two wells and seen consistently reported in two of the 3 on-site wells & intermittent in other well. Most recent event- conducted 1Q18 reported 2 inches of FP in MW-3 skimmer. Passive soil gas survey performed for down gradient plume delineation- report over due, but may have been delayed due to weather-related issues.

LUST:

Global Id: T10000003428
Contact Type: Local Agency Caseworker
Contact Name: KEITH NOWELL
Organization Name: ALAMEDA COUNTY LOP
Address: 1131 Harbor Bay Parkway
City: ALAMEDA
Email: keith.nowell@acgov.org
Phone Number: 5105676764

Global Id: T10000003428

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SALVATION ARMY (Continued)

U003713877

Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T10000003428
Action Type: ENFORCEMENT
Date: 10/26/2016
Action: Staff Letter - #20161026

Global Id: T10000003428
Action Type: ENFORCEMENT
Date: 05/24/2016
Action: Verbal Communication - #5/24/2016

Global Id: T10000003428
Action Type: Other
Date: 11/23/2010
Action: Leak Stopped

Global Id: T10000003428
Action Type: RESPONSE
Date: 06/04/2012
Action: Electronic Reporting Submittal Due

Global Id: T10000003428
Action Type: RESPONSE
Date: 05/18/2018
Action: Site Assessment Report

Global Id: T10000003428
Action Type: ENFORCEMENT
Date: 04/14/2016
Action: Email Correspondence - #20160414

Global Id: T10000003428
Action Type: RESPONSE
Date: 10/28/2017
Action: Monitoring Report - Quarterly

Global Id: T10000003428
Action Type: RESPONSE
Date: 05/20/2014
Action: Correspondence - Regulator Responded

Global Id: T10000003428
Action Type: RESPONSE
Date: 02/07/2015
Action: Soil and Water Investigation Workplan - Regulator Responded

Global Id: T10000003428
Action Type: RESPONSE
Date: 10/02/2015

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SALVATION ARMY (Continued)

U003713877

Action: Email Correspondence - Regulator Responded

Global Id: T10000003428
Action Type: ENFORCEMENT
Date: 05/04/2016
Action: Meeting - #20160504

Global Id: T10000003428
Action Type: ENFORCEMENT
Date: 09/25/2015
Action: Staff Letter - #20150925

Global Id: T10000003428
Action Type: Other
Date: 09/16/2011
Action: Leak Reported

Global Id: T10000003428
Action Type: RESPONSE
Date: 07/01/2013
Action: Electronic Reporting Submittal Due

Global Id: T10000003428
Action Type: RESPONSE
Date: 08/30/2013
Action: Conceptual Site Model

Global Id: T10000003428
Action Type: RESPONSE
Date: 07/28/2017
Action: Monitoring Report - Quarterly

Global Id: T10000003428
Action Type: RESPONSE
Date: 04/22/2016
Action: Soil and Water Investigation Workplan - Regulator Responded

Global Id: T10000003428
Action Type: RESPONSE
Date: 10/03/2017
Action: Site Investigation Workplan - Regulator Responded

Global Id: T10000003428
Action Type: RESPONSE
Date: 08/15/2017
Action: Soil and Water Investigation Workplan - Regulator Responded

Global Id: T10000003428
Action Type: ENFORCEMENT
Date: 08/03/2016
Action: Staff Letter - #20160803

Global Id: T10000003428
Action Type: RESPONSE
Date: 02/14/2014
Action: Soil and Water Investigation Report

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SALVATION ARMY (Continued)

U003713877

Global Id:	T10000003428
Action Type:	RESPONSE
Date:	01/08/2014
Action:	Correspondence
Global Id:	T10000003428
Action Type:	RESPONSE
Date:	01/17/2014
Action:	Correspondence
Global Id:	T10000003428
Action Type:	ENFORCEMENT
Date:	05/18/2012
Action:	Staff Letter - #20120518
Global Id:	T10000003428
Action Type:	ENFORCEMENT
Date:	06/15/2017
Action:	Staff Letter - #20170615
Global Id:	T10000003428
Action Type:	RESPONSE
Date:	09/24/2015
Action:	Email Correspondence
Global Id:	T10000003428
Action Type:	RESPONSE
Date:	11/18/2015
Action:	Soil and Water Investigation Report
Global Id:	T10000003428
Action Type:	RESPONSE
Date:	08/14/2014
Action:	Soil and Water Investigation Workplan
Global Id:	T10000003428
Action Type:	ENFORCEMENT
Date:	05/31/2013
Action:	Staff Letter - #20130531
Global Id:	T10000003428
Action Type:	ENFORCEMENT
Date:	11/26/2012
Action:	Technical Correspondence / Assistance / Other - #20121126
Global Id:	T10000003428
Action Type:	ENFORCEMENT
Date:	01/08/2014
Action:	Staff Letter - #20140108
Global Id:	T10000003428
Action Type:	ENFORCEMENT
Date:	07/14/2014
Action:	Email Correspondence - #20140714
Global Id:	T10000003428
Action Type:	ENFORCEMENT

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SALVATION ARMY (Continued)

U003713877

Date: 07/29/2014
Action: Technical Correspondence / Assistance / Other - #20140729

Global Id: T10000003428
Action Type: ENFORCEMENT
Date: 12/24/2014
Action: Staff Letter - #20141224

Global Id: T10000003428
Action Type: ENFORCEMENT
Date: 04/04/2014
Action: Staff Letter - #20140404

Global Id: T10000003428
Action Type: ENFORCEMENT
Date: 07/02/2014
Action: Staff Letter - #20140702

Global Id: T10000003428
Action Type: ENFORCEMENT
Date: 05/13/2014
Action: Staff Letter - #20140513

Global Id: T10000003428
Action Type: ENFORCEMENT
Date: 06/01/2015
Action: Staff Letter - #20150601

Global Id: T10000003428
Action Type: ENFORCEMENT
Date: 05/21/2018
Action: Staff Letter - #20180521

Global Id: T10000003428
Action Type: ENFORCEMENT
Date: 10/24/2017
Action: Staff Letter - #20171024

Global Id: T10000003428
Action Type: RESPONSE
Date: 08/15/2014
Action: Soil and Water Investigation Workplan

Global Id: T10000003428
Action Type: RESPONSE
Date: 08/28/2015
Action: Email Correspondence

Global Id: T10000003428
Action Type: RESPONSE
Date: 04/28/2017
Action: Monitoring Report - Quarterly

Global Id: T10000003428
Action Type: RESPONSE
Date: 08/06/2018
Action: Email Correspondence

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SALVATION ARMY (Continued)

U003713877

Global Id:	T10000003428
Action Type:	ENFORCEMENT
Date:	01/30/2018
Action:	Staff Letter - #20180130
Global Id:	T10000003428
Action Type:	RESPONSE
Date:	11/15/2014
Action:	Soil and Water Investigation Report
Global Id:	T10000003428
Action Type:	RESPONSE
Date:	12/31/2014
Action:	Corrective Action Plan / Remedial Action Plan
Global Id:	T10000003428
Action Type:	RESPONSE
Date:	06/29/2017
Action:	Electronic Reporting Submittal Due
Global Id:	T10000003428
Action Type:	RESPONSE
Date:	01/12/2018
Action:	Email Correspondence
Global Id:	T10000003428
Action Type:	ENFORCEMENT
Date:	10/14/2014
Action:	Staff Letter - #20141014
Global Id:	T10000003428
Action Type:	Other
Date:	11/23/2010
Action:	Leak Discovery
Global Id:	T10000003428
Action Type:	RESPONSE
Date:	09/25/2015
Action:	Email Correspondence
Global Id:	T10000003428
Action Type:	RESPONSE
Date:	11/27/2017
Action:	Electronic Reporting Submittal Due
Global Id:	T10000003428
Action Type:	RESPONSE
Date:	11/27/2017
Action:	Email Correspondence
Global Id:	T10000003428
Action Type:	RESPONSE
Date:	09/24/2016
Action:	Monitoring Report - Quarterly
Global Id:	T10000003428
Action Type:	RESPONSE

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

SALVATION ARMY (Continued)

U003713877

Date: 01/22/2017
 Action: Monitoring Report - Quarterly

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 11/01/2016
 Action: Soil Vapor Intrusion Investigation Report

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 06/04/2012
 Action: Soil and Water Investigation Workplan - Addendum - Regulator Responded

LUST:

Global Id: T10000003428
 Status: Open - Case Begin Date
 Status Date: 12/09/2011

Global Id: T10000003428
 Status: Open - Site Assessment
 Status Date: 12/09/2011

Alameda County CS:

Status: Leak Confirmation
 Record Id: RO0003084
 PE: 5602
 Facility Status: Leak Confirmation
 Latitude: Not reported
 Longitude: Not reported

Status: Pollution Characterization
 Record Id: RO0003084
 PE: 5602
 Facility Status: Pollution Characterization
 Latitude: Not reported
 Longitude: Not reported

X127
North
1/4-1/2
0.317 mi.
1676 ft.

SHELL / QUALITY TUNE UP
246 14TH ST
OAKLAND, CA 94612
Site 4 of 4 in cluster X

LUST **S102435544**
Alameda County CS **N/A**
HIST UST
HIST CORTESE
CERS

Relative:
Higher
Actual:
37 ft.

LUST:

Lead Agency: ALAMEDA COUNTY LOP
 Case Type: LUST Cleanup Site
 Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101884
 Global Id: T0600101884
 Latitude: 37.802566
 Longitude: -122.266002
 Status: Completed - Case Closed
 Status Date: 04/05/1995
 Case Worker: Not reported
 RB Case Number: 01-2039
 Local Agency: Not reported
 File Location: All Files are on GeoTracker or in the Local Agency Database

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL / QUALITY TUNE UP (Continued)

S102435544

Local Case Number: RO0000601
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:

Global Id: T0600101884
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600101884
Action Type: Other
Date: 12/11/1991
Action: Leak Reported

Global Id: T0600101884
Action Type: REMEDIATION
Date: 09/09/9999
Action: Excavation

LUST:

Global Id: T0600101884
Status: Completed - Case Closed
Status Date: 04/05/1995

Global Id: T0600101884
Status: Open - Case Begin Date
Status Date: 12/11/1991

LUST REG 2:

Region: 2
Facility Id: 01-2039
Facility Status: Case Closed
Case Number: 1098
How Discovered: OM
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Case Closed
Record Id: RO0000601

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL / QUALITY TUNE UP (Continued)

S102435544

PE: 5602
Facility Status: Case Closed
Latitude: 37.802549498
Longitude: -122.26626459

HIST UST:

File Number: 00036277
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00036277.pdf>
Region: Not reported
Facility ID: Not reported
Facility Type: Not reported
Other Type: Not reported
Contact Name: Not reported
Telephone: Not reported
Owner Name: Not reported
Owner Address: Not reported
Owner City,St,Zip: Not reported
Total Tanks: Not reported

Tank Num: Not reported
Container Num: Not reported
Year Installed: Not reported
Tank Capacity: Not reported
Tank Used for: Not reported
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: Not reported

Click here for Geo Tracker PDF:

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-2039

CERS TANKS:

Site ID: 201434
CERS ID: T0600101884
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

AA128 **MILLER PACKING**
SW **206 2ND ST**
1/4-1/2 **OAKLAND, CA 94607**
0.333 mi.
1756 ft. **Site 3 of 3 in cluster AA**

LUST **S101293775**
Alameda County CS
HIST CORTESE
CERS **N/A**

Relative:
Lower
Actual:
13 ft.

LUST:
Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100897
Global Id: T0600100897
Latitude: 37.794118
Longitude: -122.270692
Status: Completed - Case Closed
Status Date: 02/04/2002
Case Worker: Not reported
RB Case Number: 01-0974
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000080
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Diesel
Site History: Not reported

LUST:
Global Id: T0600100897
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:
Global Id: T0600100897
Action Type: Other
Date: 08/06/1996
Action: Leak Reported

Global Id: T0600100897
Action Type: REMEDIATION
Date: 09/09/9999
Action: Not reported

Global Id: T0600100897
Action Type: ENFORCEMENT
Date: 02/04/2002
Action: Closure/No Further Action Letter - #20020204

LUST:
Global Id: T0600100897
Status: Completed - Case Closed
Status Date: 02/04/2002

Global Id: T0600100897
Status: Open - Case Begin Date
Status Date: 08/06/1996

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MILLER PACKING (Continued)

S101293775

LUST REG 2:

Region: 2
Facility Id: 01-0974
Facility Status: Preliminary site assessment underway
Case Number: 5846
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: 1/2/1965
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Case Closed
Record Id: RO0000080
PE: 5602
Facility Status: Case Closed
Latitude: 37.793911812
Longitude: -122.27048621

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-0974

CERS TANKS:

Site ID: 248503
CERS ID: T0600100897
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

**AB129
NW
1/4-1/2
0.334 mi.
1763 ft.**

**CHINATOWN REDEVELOPMENT - OAKLAND
BOUNDED BY 11TH, 10TH, WEBSTER & FRANKLIN
OAKLAND, CA 94601**

**ENVIROSTOR S116165239
N/A**

Site 1 of 3 in cluster AB

**Relative:
Higher
Actual:
42 ft.**

ENVIROSTOR:

Facility ID: 1490015
Status: Refer: Other Agency
Status Date: 07/29/1994
Site Code: Not reported
Site Type: Historical
Site Type Detailed: * Historical
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Referred - Not Assigned
Division Branch: Cleanup Berkeley
Assembly: Not reported
Senate: Not reported
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 37.80093
Longitude: -122.2710
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: * CONTAMINATED SOIL * WASTE OIL & MIXED OIL
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: Not reported
Alias Type: Not reported

Completed Info:

Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

130
East
1/4-1/2
0.334 mi.
1764 ft.

DEWEY DOWNTOWN SCHOOL
1102 2ND AVENUE
OAKLAND, CA 94606

ENVIROSTOR S118756498
SCH N/A

Relative:
Lower
Actual:
24 ft.

ENVIROSTOR:
Facility ID: 1820002
Status: No Action Required
Status Date: 05/16/2001
Site Code: 204075
Site Type: School Investigation
Site Type Detailed: School
Acres: 1
NPL: NO
Regulatory Agencies: DTSC
Lead Agency: DTSC
Program Manager: Not reported
Supervisor: Juan Koponen
Division Branch: Northern California Schools & Santa Susana
Assembly: 18
Senate: 09
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 37.79730
Longitude: -122.2587
APN: NONE SPECIFIED
Past Use: * EDUCATIONAL SERVICES
Potential COC: Benzo[a]pyrene
Confirmed COC: NONE SPECIFIED
Potential Description: NMA
Alias Name: Not reported
Alias Type: Not reported

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SCH:

Facility ID: 1820002
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DEWEY DOWNTOWN SCHOOL (Continued)

S118756498

Acres: 1
National Priorities List: NO
Cleanup Oversight Agencies: DTSC
Lead Agency: DTSC
Lead Agency Description: * DTSC
Project Manager: Not reported
Supervisor: Juan Koponen
Division Branch: Northern California Schools & Santa Susana
Site Code: 204075
Assembly: 18
Senate: 09
Special Program Status: Not reported
Status: No Action Required
Status Date: 05/16/2001
Restricted Use: NO
Funding: School District
Latitude: 37.79730
Longitude: -122.2587
APN: NONE SPECIFIED
Past Use: * EDUCATIONAL SERVICES
Potential COC: Benzo[a]pyrene
Confirmed COC: NONE SPECIFIED
Potential Description: NMA
Alias Name: Not reported
Alias Type: Not reported

Completed Info:

Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

131
SSW
1/4-1/2
0.335 mi.
1767 ft.

VUKASIM PROPERTY
54 EMBARCADERO
OAKLAND, CA 94607

Alameda County CS S102440985
HIST CORTESE N/A

Relative:
Lower
Actual:
10 ft.

Alameda County CS:
Status: Leak Confirmation
Record Id: RO0003037
PE: 5602
Facility Status: Leak Confirmation
Latitude: 37.792293
Longitude: -122.267142

Status: 11

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

VUKASIM PROPERTY (Continued)

S102440985

Record Id: RO0003037
 PE: 5602
 Facility Status: Not reported
 Latitude: 37.792293
 Longitude: -122.267142

Status: 12
 Record Id: RO0003037
 PE: 5602
 Facility Status: Not reported
 Latitude: 37.792293
 Longitude: -122.267142

Status: Pollution Characterization
 Record Id: RO0003037
 PE: 5602
 Facility Status: Pollution Characterization
 Latitude: 37.792293
 Longitude: -122.267142

HIST CORTESE:

Region: CORTESE
 Facility County Code: 1
 Reg By: LTNKA
 Reg Id: 01-1564

132
 SSW
 1/4-1/2
 0.335 mi.
 1767 ft.

**A. BERCOVICH 2ND STREET
 127 2ND STREET
 OAKLAND, CA 94607**

**RESPONSE S105838302
 ENVIROSTOR N/A
 DEED**

**Relative:
 Lower
 Actual:
 11 ft.**

RESPONSE:
 Facility ID: 1590002
 Site Type: State Response
 Site Type Detail: State Response or NPL
 Acres: 0.75
 National Priorities List: NO
 Cleanup Oversight Agencies: SMBRP, CITY OF OAKLAND
 Lead Agency Description: DTSC - Site Cleanup Program
 Project Manager: Claude Jemison
 Supervisor: Mark Piros
 Division Branch: Cleanup Berkeley
 Site Code: 201722
 Site Mgmt. Req.: NONE SPECIFIED
 Assembly: 18
 Senate: 09
 Special Program Status: EPA - PASI
 Status: Certified O&M - Land Use Restrictions Only
 Status Date: 11/09/2010
 Restricted Use: YES
 Funding: Responsible Party
 Latitude: 37.79279
 Longitude: -122.2689
 APN: 001 016512200, 001-0165-018, 001-0165-019, 001-0165-020,
 001-0165-021, 001-0165-022, 001-0165-023, 001-0165-024, 001-0165-025,
 001-0165-026, 001-0165-027, 001-0165-028, 001-0165-029, 001-0165-030,

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A. BERCOVICH 2ND STREET (Continued)

S105838302

001-0165-031, 001-0165-032, 001-0165-033, 001-0165-034, 001-0165-035,
001-0165-036, 001-0165-037, 001-0165-038, 001-0165-039, 001-0165-040,
001-0165-041, 001-0165-042, 001-0165-043, 001-0165-044, 001-0165-045,
001-0165-046, 001-0165-047, 001-0165-048, 001-0165-049, 001-0165-050,
001-0165-051, 001-0165-052, 001-0165-053, 001-0165-054, 001-0165-055,
001-0165-056, 001-0165-057, 001-0165-058, 001-0165-059, 001-0165-060,
001-0165-061, 001-0165-062, 001-0165-063, 001-0165-064, 001-0165-065,
001-0165-066, 001-0165-067, 001-0165-068, 001-0165-069, 001-0165-070,
001-0165-071, 001-0165-072, 001-0165-073, 001-0165-074, 001-0165-075,
001-0165-076, 001-0165-077, 001-0165-078, 001-0165-079, 001-0165-080,
001-0165-081, 001-0165-082, 001-0165-083, 001-0165-084, 001-0165-085,
001-0165-086, 001-0165-087, 001-0165-088, 001-0165-089, 001-0165-090,
001-0165-091, 001-0165-092, 001-0165-093, 001-0165-094, 001-0165-095,
001-0165-096, 001-0165-097, 001-0165-098, 001-0165-099, 001-0165-100,
001-0165-101, 001-0165-102, 001-0165-103, 001-0165-104, 001-0165-105,
001-0165-106, 001-0165-107, 001-0165-108, 001-0165-109, 001-0165-110,
001-0165-111, 001-0165-112, 001-0165-113, 001-0165-114, 001-0165-115,
001-0165-116, 001-0165-117, 001-0165-118, 001-0165-119, 001-0165-120,
001-0165-121, 001-0165-122

Past Use: JUNKYARD
Potential COC : Arsenic Lead Polychlorinated biphenyls (PCBs TPH-diesel TPH-MOTOR
OIL Antimony and compounds Cadmium and compounds Copper and compounds
Thallium and compounds
Confirmed COC: 30542-NO 30018-NO 30024-NO 30058-NO 30108-NO 30156-NO 30001-NO
30013-NO 3002502-NO
Potential Description: SOIL
Alias Name: Not reported
Alias Type: Not reported

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Facility ID: 1590002
Status: Certified O&M - Land Use Restrictions Only
Status Date: 11/09/2010
Site Code: 201722
Site Type: State Response
Site Type Detailed: State Response or NPL
Acres: 0.75
NPL: NO
Regulatory Agencies: SMBRP, CITY OF OAKLAND
Lead Agency: SMBRP

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A. BERCOVICH 2ND STREET (Continued)

S105838302

Program Manager: Claude Jemison
Supervisor: Mark Piros
Division Branch: Cleanup Berkeley
Assembly: 18
Senate: 09
Special Program: EPA - PASI
Restricted Use: YES
Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 37.79279
Longitude: -122.2689
APN: 001 016512200, 001-0165-018, 001-0165-019, 001-0165-020,
001-0165-021, 001-0165-022, 001-0165-023, 001-0165-024, 001-0165-025,
001-0165-026, 001-0165-027, 001-0165-028, 001-0165-029, 001-0165-030,
001-0165-031, 001-0165-032, 001-0165-033, 001-0165-034, 001-0165-035,
001-0165-036, 001-0165-037, 001-0165-038, 001-0165-039, 001-0165-040,
001-0165-041, 001-0165-042, 001-0165-043, 001-0165-044, 001-0165-045,
001-0165-046, 001-0165-047, 001-0165-048, 001-0165-049, 001-0165-050,
001-0165-051, 001-0165-052, 001-0165-053, 001-0165-054, 001-0165-055,
001-0165-056, 001-0165-057, 001-0165-058, 001-0165-059, 001-0165-060,
001-0165-061, 001-0165-062, 001-0165-063, 001-0165-064, 001-0165-065,
001-0165-066, 001-0165-067, 001-0165-068, 001-0165-069, 001-0165-070,
001-0165-071, 001-0165-072, 001-0165-073, 001-0165-074, 001-0165-075,
001-0165-076, 001-0165-077, 001-0165-078, 001-0165-079, 001-0165-080,
001-0165-081, 001-0165-082, 001-0165-083, 001-0165-084, 001-0165-085,
001-0165-086, 001-0165-087, 001-0165-088, 001-0165-089, 001-0165-090,
001-0165-091, 001-0165-092, 001-0165-093, 001-0165-094, 001-0165-095,
001-0165-096, 001-0165-097, 001-0165-098, 001-0165-099, 001-0165-100,
001-0165-101, 001-0165-102, 001-0165-103, 001-0165-104, 001-0165-105,
001-0165-106, 001-0165-107, 001-0165-108, 001-0165-109, 001-0165-110,
001-0165-111, 001-0165-112, 001-0165-113, 001-0165-114, 001-0165-115,
001-0165-116, 001-0165-117, 001-0165-118, 001-0165-119, 001-0165-120,
001-0165-121, 001-0165-122
Past Use: JUNKYARD
Potential COC: Arsenic Lead Polychlorinated biphenyls (PCBs TPH-diesel TPH-MOTOR
OIL Antimony and compounds Cadmium and compounds Copper and compounds
Thallium and compounds
Confirmed COC: 30542-NO 30018-NO 30024-NO 30058-NO 30108-NO 30156-NO 30001-NO
30013-NO 3002502-NO
Potential Description: SOIL
Alias Name: Not reported
Alias Type: Not reported
Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported
Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A. BERCOVICH 2ND STREET (Continued)

S105838302

Schedule Revised Date: Not reported

DEED:

Envirostor ID: 1590002
Area: PROJECT WIDE
Sub Area: Not reported
Site Type: STATE RESPONSE
Status: CERTIFIED O&M - LAND USE RESTRICTIONS ONLY
Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): 10/29/2010
File Name: Envirostor Land Use Restrictions

AC133
WSW
1/4-1/2
0.342 mi.
1805 ft.

**P. E. O'HAIR & CO.
309 FOURTH STREET
OAKLAND, CA 92626**
Site 1 of 3 in cluster AC

**Notify 65 S100179449
N/A**

Relative:
Lower
Actual:
21 ft.

NOTIFY 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Issue Date: Not reported
Incident Description: Not reported

AC134
WSW
1/4-1/2
0.342 mi.
1805 ft.

**P E O'HARE
309 4TH ST
OAKLAND, CA 94607**
Site 2 of 3 in cluster AC

**LUST S104164401
Alameda County CS N/A
HIST CORTESE**

Relative:
Lower
Actual:
21 ft.

LUST:
Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101054
Global Id: T0600101054
Latitude: 37.796049
Longitude: -122.2719755
Status: Completed - Case Closed
Status Date: 09/12/1996
Case Worker: Not reported
RB Case Number: 01-1144
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0001134
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0600101054
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

P E O'HARE (Continued)

S104164401

Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600101054
Action Type: Other
Date: 08/25/1988
Action: Leak Reported

Global Id: T0600101054
Action Type: REMEDIATION
Date: 09/09/9999
Action: Excavation

LUST:

Global Id: T0600101054
Status: Completed - Case Closed
Status Date: 09/12/1996

Global Id: T0600101054
Status: Open - Case Begin Date
Status Date: 08/25/1988

LUST REG 2:

Region: 2
Facility Id: 01-1144
Facility Status: Case Closed
Case Number: 3697
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: 11/23/1992
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Case Closed
Record Id: RO0001134
PE: 5602
Facility Status: Case Closed
Latitude: 37.796000266
Longitude: -122.27216739

HIST CORTESE:

Region: CORTESE
Facility County Code: 1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

P E O'HARE (Continued)

S104164401

Reg By: LTNKA
Reg Id: 01-1144

**AB135
NW
1/4-1/2
0.344 mi.
1818 ft.**

**CITY OF OAKLAND REDEVELOPMENT AGENCY / EBMUD
383 11TH STREET
OAKLAND, CA 94607
Site 2 of 3 in cluster AB**

**LUST
Alameda County CS
CERS**

**S108724722
N/A**

**Relative:
Higher
Actual:
43 ft.**

LUST:
Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600191509
Global Id: T0600191509
Latitude: 37.8013495323911
Longitude: -122.270761728287
Status: Completed - Case Closed
Status Date: 06/30/2010
Case Worker: PK
RB Case Number: NA
Local Agency: ALAMEDA COUNTY LOP
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0002947
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Four USTs, located under the sidewalk on 11th Street near the Webster Street intersection were removed from the site in April 1987. Significantly elevated concentrations of soil and groundwater contamination was present at the site. In 1987, borings and monitoring wells were installed at the site. In 1988, a groundwater extraction system began operation. The site was later redeveloped to an multi-story office complex with three floors of sub-grade parking.

LUST:
Global Id: T0600191509
Contact Type: Local Agency Caseworker
Contact Name: PARESH KHATRI
Organization Name: ALAMEDA COUNTY LOP
Address: 1131 HARBOR BAY PARKWAY
City: ALAMEDA
Email: paresh.khatri@acgov.org
Phone Number: 5107772478

Global Id: T0600191509
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:
Global Id: T0600191509
Action Type: Other
Date: 01/21/1988
Action: Leak Reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CITY OF OAKLAND REDEVELOPMENT AGENCY / EBMUD (Continued)

S108724722

Global Id: T0600191509
Action Type: ENFORCEMENT
Date: 07/03/2008
Action: Technical Correspondence / Assistance / Other - #20080703

Global Id: T0600191509
Action Type: ENFORCEMENT
Date: 07/24/2009
Action: Staff Letter - #20090724

Global Id: T0600191509
Action Type: ENFORCEMENT
Date: 07/24/2009
Action: Notice of Violation - #20090724

Global Id: T0600191509
Action Type: REMEDIATION
Date: 03/14/1988
Action: Excavation

Global Id: T0600191509
Action Type: REMEDIATION
Date: 04/01/1987
Action: Excavation

Global Id: T0600191509
Action Type: REMEDIATION
Date: 03/14/1988
Action: Pump & Treat (P&T) Groundwater

Global Id: T0600191509
Action Type: ENFORCEMENT
Date: 06/30/2010
Action: Closure/No Further Action Letter - #20100630

Global Id: T0600191509
Action Type: Other
Date: 04/23/1987
Action: Leak Discovery

LUST:

Global Id: T0600191509
Status: Completed - Case Closed
Status Date: 06/30/2010

Global Id: T0600191509
Status: Open - Case Begin Date
Status Date: 04/23/1987

Global Id: T0600191509
Status: Open - Remediation
Status Date: 03/18/1988

Global Id: T0600191509
Status: Open - Site Assessment
Status Date: 04/23/1987

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CITY OF OAKLAND REDEVELOPMENT AGENCY / EBMUD (Continued)

S108724722

Global Id: T0600191509
Status: Open - Site Assessment
Status Date: 08/27/1987

Global Id: T0600191509
Status: Open - Verification Monitoring
Status Date: 03/18/1988

Alameda County CS:

Status: Leak Confirmation
Record Id: RO0002947
PE: 5602
Facility Status: Leak Confirmation
Latitude: 37.80150382
Longitude: -122.27092234

Status: Preliminary Site Assessment Underway
Record Id: RO0002947
PE: 5602
Facility Status: Preliminary Site Assessment Underway
Latitude: 37.80150382
Longitude: -122.27092234

Status: Remedial Action Underway
Record Id: RO0002947
PE: 5602
Facility Status: Remedial Action Underway
Latitude: 37.80150382
Longitude: -122.27092234

Status: Verificaiton Monitoring Underway
Record Id: RO0002947
PE: 5602
Facility Status: Verification Monitoring Underway
Latitude: 37.80150382
Longitude: -122.27092234

Status: Case Closed
Record Id: RO0002947
PE: 5602
Facility Status: Case Closed
Latitude: 37.80150382
Longitude: -122.27092234

CERS TANKS:

Site ID: 230979
CERS ID: T0600191509
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Local Agency Caseworker
Entity Name: PARESH KHATRI - ALAMEDA COUNTY LOP
Entity Title: Not reported
Affiliation Address: 1131 HARBOR BAY PARKWAY
Affiliation City: ALAMEDA
Affiliation State: CA

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CITY OF OAKLAND REDEVELOPMENT AGENCY / EBMUD (Continued)

S108724722

Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 5107772478

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

**AD136
NNW
1/4-1/2
0.350 mi.
1846 ft.**

**CHEVRON #9-4816
301 14TH ST
OAKLAND, CA 94612
Site 1 of 6 in cluster AD**

**LUST
Alameda County CS
HIST CORTESE
CERS**

**S110060676
N/A**

**Relative:
Higher
Actual:
39 ft.**

LUST:
Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100327
Global Id: T0600100327
Latitude: 37.802915699
Longitude: -122.267861
Status: Completed - Case Closed
Status Date: 09/30/2005
Case Worker: Not reported
RB Case Number: 01-0355
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000290
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0600100327
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:
Global Id: T0600100327
Action Type: Other
Date: 06/21/1990
Action: Leak Reported

LUST:
Global Id: T0600100327
Action Type: REMEDIATION
Date: 03/12/1992

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHEVRON #9-4816 (Continued)

S110060676

Action: Excavation

Global Id: T0600100327
Action Type: Other
Date: 06/15/1990
Action: Leak Discovery

LUST:

Global Id: T0600100327
Status: Completed - Case Closed
Status Date: 09/30/2005

Global Id: T0600100327
Status: Open - Case Begin Date
Status Date: 06/15/1990

Global Id: T0600100327
Status: Open - Site Assessment
Status Date: 06/21/1990

Global Id: T0600100327
Status: Open - Site Assessment
Status Date: 06/13/1991

Alameda County CS:

Status: Leak Confirmation
Record Id: RO0000290
PE: 5602
Facility Status: Leak Confirmation
Latitude: 37.802812418
Longitude: -122.26771297

Status: Preliminary Site Assessment Underway
Record Id: RO0000290
PE: 5602
Facility Status: Preliminary Site Assessment Underway
Latitude: 37.802812418
Longitude: -122.26771297

Status: Pollution Characterization
Record Id: RO0000290
PE: 5602
Facility Status: Pollution Characterization
Latitude: 37.802812418
Longitude: -122.26771297

Status: Case Closed
Record Id: RO0000290
PE: 5602
Facility Status: Case Closed
Latitude: 37.802812418
Longitude: -122.26771297

HIST CORTESE:

Region: CORTESE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHEVRON #9-4816 (Continued)

S110060676

Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-0694

CERS TANKS:

Site ID: 214933
CERS ID: T0600100327
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

**AD137
NNW
1/4-1/2
0.350 mi.
1846 ft.**

**CHEVRON
301 14TH ST
OAKLAND, CA 94612
Site 2 of 6 in cluster AD**

**LUST S105030453
N/A**

**Relative:
Higher
Actual:
39 ft.**

LUST REG 2:
Region: 2
Facility Id: 01-0355
Facility Status: Pollution Characterization
Case Number: 478
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: 6/25/1990
Oversight Program: LUST
Prelim. Site Assessment Wokplan Submitted: Not reported
Preliminary Site Assessment Began: 7/25/1990
Pollution Characterization Began: 2/12/1992
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

**AD138
NNW
1/4-1/2
0.350 mi.
1846 ft.**

**CHEVRON
301 14TH
OAKLAND, CA 94612
Site 3 of 6 in cluster AD**

**HIST CORTESE S110060529
N/A**

**Relative:
Higher
Actual:
39 ft.**

HIST CORTESE:
Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-0355

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

AE139 **MILLER PACKING COMPANY**
SW **201 2ND ST**
1/4-1/2 **OAKLAND, CA 94607**
0.352 mi.
1859 ft. **Site 1 of 4 in cluster AE**

LUST **U001599195**
Alameda County CS **N/A**
HIST UST
HIST CORTESE
CERS

Relative:
Lower
Actual:
12 ft.

LUST:
Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600102305
Global Id: T0600102305
Latitude: 37.793643
Longitude: -122.270892
Status: Completed - Case Closed
Status Date: 02/04/2002
Case Worker: Not reported
RB Case Number: 21-2395
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000003
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0600102305
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:
Global Id: T0600102305
Action Type: Other
Date: 12/05/1989
Action: Leak Reported

Global Id: T0600102305
Action Type: REMEDIATION
Date: 09/09/9999
Action: Not reported

Global Id: T0600102305
Action Type: ENFORCEMENT
Date: 02/04/2002
Action: Closure/No Further Action Letter - #20020204

LUST:
Global Id: T0600102305
Status: Completed - Case Closed
Status Date: 02/04/2002

Global Id: T0600102305
Status: Open - Case Begin Date
Status Date: 12/05/1989

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MILLER PACKING COMPANY (Continued)

U001599195

Alameda County CS:

Status: Case Closed
Record Id: RO0000003
PE: 5602
Facility Status: Case Closed
Latitude: 37.793610949
Longitude: -122.27050072

HIST UST:

File Number: Not reported
URL: Not reported
Region: STATE
Facility ID: 00000065942
Facility Type: Other
Other Type: MEAT PROCESSING PLAN
Contact Name: WILLIAM MILTON
Telephone: 4154517200
Owner Name: MILLER PACKING COMPANY
Owner Address: 206 SECOND STREET
Owner City,St,Zip: OAKLAND, CA 94607
Total Tanks: 0001

Tank Num: 001
Container Num: 201
Year Installed: Not reported
Tank Capacity: 00000550
Tank Used for: WASTE
Type of Fuel: 2
Container Construction Thickness: X
Leak Detection: None

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 21-2395

CERS TANKS:

Site ID: 229111
CERS ID: T0600102305
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LA ESCUELITA EDUCATION CENTER (Continued)

S109548309

Confirmed COC: Not reported
Arsenic Chlordane Lead 30016-NO 30006-NO 30007-NO 30008-NO
Polynuclear aromatic hydrocarbons (PAHs TPH-diesel 30025-NO TPH-MOTOR
OIL Polychlorinated biphenyls (PCBs 30023-NO Under Investigation

Potential Description: IA, OTH, SOIL, SV

Alias Name: Auto Shop/Centro Infantil Annex
Alias Type: Alternate Name

Alias Name: California Jute Mill Company
Alias Type: Alternate Name

Alias Name: Central Trade School
Alias Type: Alternate Name

Alias Name: Downtown Education Complex Northwestern Area
Alias Type: Alternate Name

Alias Name: Downtown Education Complex Southeastern Area
Alias Type: Alternate Name

Alias Name: Downtown Educational Complex
Alias Type: Alternate Name

Alias Name: Information & Technology
Alias Type: Alternate Name

Alias Name: Instructional Services
Alias Type: Alternate Name

Alias Name: KDOL
Alias Type: Alternate Name

Alias Name: La Escuelita Education Center
Alias Type: Alternate Name

Alias Name: La Escuelita Elementary School
Alias Type: Alternate Name

Alias Name: Laney College Peralta Junior College District
Alias Type: Alternate Name

Alias Name: Laney Trade & Technical Institute
Alias Type: Alternate Name

Alias Name: MetWest High School
Alias Type: Alternate Name

Alias Name: Metwest High School
Alias Type: Alternate Name

Alias Name: New Teacher Support and Development
Alias Type: Alternate Name

Alias Name: Oakland City College Laney Campus
Alias Type: Alternate Name

Alias Name: Oakland City College Laney Trade & Technical Division
Alias Type: Alternate Name

Alias Name: Oakland Junior College Laney Trade & Technical Division
Alias Type: Alternate Name

Alias Name: Research & Assessment
Alias Type: Alternate Name

Alias Name: School to Career Adult Education
Alias Type: Alternate Name

Alias Name: Temporary Alternative Placement Center
Alias Type: Alternate Name

Alias Name: United Nation Child Development Center
Alias Type: Alternate Name

Alias Name: Willie D. Harper Building
Alias Type: Alternate Name

Alias Name: Yuk Yau Annex Child Development Center
Alias Type: Alternate Name

Alias Name: 019 002300101
Alias Type: APN

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LA ESCUELITA EDUCATION CENTER (Continued)

S109548309

Alias Name: 019 002400101
Alias Type: APN
Alias Name: 019 002901406
Alias Type: APN
Alias Name: 019 002901407
Alias Type: APN
Alias Name: 19-0023-001-01
Alias Type: APN
Alias Name: 19-0024-001-01
Alias Type: APN
Alias Name: 19-0029-014-06
Alias Type: APN
Alias Name: 19-0029-014-07
Alias Type: APN
Alias Name: T06019710391
Alias Type: GeoTracker Global ID
Alias Name: 204233
Alias Type: Project Code (Site Code)
Alias Name: 60001108
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 12/07/2016
Comments: ON Dec 7, 2016, DTSC issued the Cost Estimation Worksheet of planned costs associated with the project for the 2016/17 fiscal year.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 04/26/2017
Comments: On Apr 26, 2017, DTSC completed certification package for the Phase II area of the site.

Completed Area Name: Phase I OU
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 07/29/2011
Comments: Site certification was issued for the Phase I area (Northwest Area) of the site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 06/02/2009
Comments: DTSC approved the Fully Executed Environmental Oversight Agreement with the corrections requested by the Oakland Unified District

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: School Cleanup Agreement
Completed Date: 02/16/2010
Comments: DTSC entered into a SCA with the School District to develop, and implement a Removal Action Workplan, and other activities, under the oversight of DTSC.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LA ESCUELITA EDUCATION CENTER (Continued)

S109548309

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 06/25/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 12/29/2017
Comments: 2018 cost estimate finalized and sent out.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 05/26/2009
Comments: DTSC received two copies and an e-copy of the Phase I ESA, provided as background information for the project.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 08/03/2009
Comments: DTSC conditionally approved the revised PEA workplan. Condition was that gw sample AOC9-B-2 in TPH and VOC analysis.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement Application
Completed Date: 06/29/2009
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 08/06/2009
Comments: DTSC provided PEA fieldwork oversight.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 12/03/2009
Comments: DTSC approved the SSI workplan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 11/17/2009
Comments: Final Indoor Air Sampling Notice.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Tech Memo
Completed Date: 11/17/2009
Comments: DTSC approved the PEA Technical Memo - Indoor Air Monitoring. Results of the PEA Technical Memo - Indoor Air Monitoring will be reported in the Site PEA investigation report.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LA ESCUELITA EDUCATION CENTER (Continued)

S109548309

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 11/25/2009
Comments: SSI Field work implemented from Nov 25 through Nov 29, 2009.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/07/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/16/2010
Comments: DTSC responded to comments on the Draft Removal Action Workplan

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 03/22/2012
Comments: 1st Collection Letter for Inv. 10SM0895 and 11SM0366.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 05/21/2012
Comments: 2nd Collection Letter for Inv. 10SM0895 and 11SM0366.

Completed Area Name: Phase II OU
Completed Sub Area Name: Not reported
Completed Document Type: Operation & Maintenance Order/Agreement
Completed Date: 05/01/2014
Comments: O&M Agreement Fully Executed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Amendment - Order/Agreement
Completed Date: 11/17/2014
Comments: Not reported

Completed Area Name: Phase II OU
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 07/22/2017
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 11/23/2009
Comments: Eight hour indoor air monitoring completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LA ESCUELITA EDUCATION CENTER (Continued)

S109548309

Completed Date: 02/10/2010
Comments: DTSC approved the PEA with a further action determination

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Tech Memo
Completed Date: 12/30/2009
Comments: DTSC approved the SSI Technical Memorandum

Completed Area Name: Phase I OU
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 04/22/2010
Comments: DTSC approved the SSI report and concurred with the recommendation that a release has occurred and that the response action will be completed in two phases.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 02/01/2010
Comments: PEA public review and comment period ran from December 23, 2009 through February 1, 2010. The Public Hearing was held on January 27, 2010. Based on notice from district, no comments were received from the public during the public review period or at the public hearing. Notice of compliance was provided in the final PEA.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 06/28/2010
Comments: DTSC approved for implementation the RAW for the Phase I area.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 05/13/2010
Comments: DTSC finalized the Community Profile Report (CPR). A copy of the CPR is to be placed in the information repositories along with Draft RAW, Draft NOE, Site Fact Sheet, and other related documents.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 05/05/2010
Comments: Not reported

Completed Area Name: Phase I OU
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 05/05/2010
Comments: Draft RAW Phase I published. Draft RAW Phase I public review period will run from May 3, 2010 through June 2, 2010.

Completed Area Name: Phase II OU
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Tech Memo

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LA ESCUELITA EDUCATION CENTER (Continued)

S109548309

Completed Date: 05/04/2010
Comments: DTSC approved the SSI Workplan for the Phase II area

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 07/19/2010
Comments: DTSC provided field oversight of Phase I RAW excavation activities.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 07/10/2010
Comments: SSI fieldwork for Phase II area was completed on July 10 and 11, 2010 (Sat. and Sun).

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 01/25/2011
Comments: DTSC approved the SSI-II report for the Phase II area of the site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 09/08/2010
Comments: Received additional TEM analytical results for NOA. Additional samples results show non-detect (0.01%) NOA fibers. Fill material from the proposed Doyle Drive borrow source area between Doyle Drive and the Golden Gate Bridge in San Francisco is suitable for fill material. Additionally, DTSC was informed that a second proposed borrow source area, from a quarry in Brisbane, may be used. Additional information and analytical data to be submitted for proposed A/B source area in Brisbane.

Completed Area Name: Phase I OU
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 07/19/2011
Comments: DTSC approved the RACR for Phase 1

Completed Area Name: Phase I OU
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 05/10/2011
Comments: Not reported

Completed Area Name: Phase II OU
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 04/11/2012
Comments: Based on DTSC's review and no comments received during the 30-day public review and comment period, the Phase II RAW has been approved.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Supplemental Site Investigation Tech Memo

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LA ESCUELITA EDUCATION CENTER (Continued)

S109548309

Completed Date: 08/18/2011
Comments: DTSC approved the SSI workplan for collection of additional soil gas data in the Phase II Southeastern Area of the site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 4.15 Request
Completed Date: 08/16/2011
Comments: DTSC approved the 4.15 request.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Fact Sheets
Completed Date: 03/01/2012
Comments: Received notice from PPS (VLopez) that all translations (Spanish and Chinese) have been completed.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Public Notice
Completed Date: 02/29/2012
Comments: PNs (English, Spanish and Chinese) have been completed. Publication of the English version is expected to be published by March 5, 2012. Publication of the Spanish and Chinese versions may be delayed pending DTSC contact for publication services in the Oakland area. The 30-day Public Review and Comment period will run from March 5, 2012 through April 4, 2012.

Completed Area Name: Phase II OU
Completed Sub Area Name: Not reported
Completed Document Type: Public Participation Plan / Community Relations Plan
Completed Date: 02/09/2012
Comments: Community Survey Questionnaire were sent out to mailing list.

Completed Area Name: Phase II OU
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 08/25/2011
Comments: Additional round of soil gas sampling implemented in Phase II southeast area of site. Results of this sampling event to be reported in the Phase II RAW.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Fieldwork
Completed Date: 01/03/2013
Comments: Not reported

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage II
Completed Document Type: Fieldwork
Completed Date: 06/19/2014
Comments: RAW II, Phase II fieldwork implemented.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Work Notice

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LA ESCUELITA EDUCATION CENTER (Continued)

S109548309

Completed Date: 10/03/2012
Comments: DTSC finalized English, Spanish and Chinese versions of the Stage I Fieldwork Notice. District is to hand deliver notices to students, faculty and staff at the site. DTSC is scheduled to mail out to the distribution lists by Oct. 5, 2012

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Other Report
Completed Date: 02/05/2013
Comments: Informed district's environmental consultant that no additional proposed fill material sources would be submitted.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Supplemental Site Investigation Tech Memo
Completed Date: 02/13/2013
Comments: DTSC issued conditional approval of Tech Memo regarding actions to be taken if impacts beyond 4th Street sidewalk are found.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Removal Action Completion Report
Completed Date: 01/16/2014
Comments: DTSC approved RACR, site certification pending O&M agreement and Plan, and final site inspection.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Other Report
Completed Date: 10/24/2013
Comments: DTSC approved the RAW Tech Memo.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Monitoring Plan
Completed Date: 02/06/2014
Comments: PM issued conditional approval letter.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Well Installation Workplan
Completed Date: 04/02/2014
Comments: DTSC issued conditional approval of the Tech Memo for soil vapor well installations upon acceptance conditions and submittal of final Tech Memo.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Monitoring Report
Completed Date: 04/01/2014
Comments: DTSC approved first quarter vapor monitoring report.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Operations and Maintenance Plan
Completed Date: 05/13/2015

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LA ESCUELITA EDUCATION CENTER (Continued)

S109548309

Comments: DTSC approved the O&M Plan.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage II
Completed Document Type: Work Notice
Completed Date: 05/12/2014
Comments: DTSC finalized and mailed out Fact Sheet for Phase II, Stage II of RAW II. Fact Sheet translated into English, Spanish and Manderin.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Monitoring Report
Completed Date: 11/25/2014
Comments: Not reported

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Monitoring Report
Completed Date: 12/30/2014
Comments: DTSC issued conditional approval of the Third Quarter Monitoring Report.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Monitoring Report
Completed Date: 02/24/2015
Comments: On Feb 24, 2015, DTSC approved the Fourth Quarter Monitoring Report.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Other Report
Completed Date: 08/25/2015
Comments: On Aug 25, 2015, DTSC approved the One-Year Review Report.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Monitoring Report
Completed Date: 05/18/2015
Comments: On May 18, 2015, DTSC issued conditional approval of the First Quarter 2015 Monitoring Report.

Completed Area Name: Phase II OU
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 06/05/2015
Comments: On Jun 5, 2015, DTSC approved the Phase II Stage II Removal Action Completion Report and approved the site for occupancy.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Monitoring Report
Completed Date: 09/10/2015
Comments: On Sep 10, 2015, DTSC conditionally approved the 2nd Quarter 2015 Monitoring Report.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LA ESCUELITA EDUCATION CENTER (Continued)

S109548309

Completed Document Type: Monitoring Report
Completed Date: 03/03/2016
Comments: On Mar 3, 2016, DTSC approved the 3Q-2015 SV Monitoring Report. Response to DTSC comments were addressed in the 4Q-2015 SV Monitoring Report.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Monitoring Report
Completed Date: 03/03/2016
Comments: On Mar 3, 2016, DTSC approved the 3Q- (approval) and 4Q-2015 (conditional approval) SV Monitoring Report.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Operations and Maintenance Report
Completed Date: 10/07/2016
Comments: On Oct 7, 2016, DTSC conditionally approved the 1st Semi-Annual O&M Monitoring Report.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage II
Completed Document Type: Operations and Maintenance Report
Completed Date: 06/14/2017
Comments: On Jun 14, 2017, DTSC issues conditional approval of the 2nd Semi-Annual Soil Vapor Monitoring Report.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Operations and Maintenance Report
Completed Date: 10/30/2017
Comments: On Oct 30, 2017, DTSC issued conditional approval of the 1st Semi-Annual 2017 SV Monitoring Report.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Operations and Maintenance Report
Completed Date: 12/05/2018
Comments: On Dec 5, 2018, DTSC approved the 2nd 2017 Semi-Annual Soil Vapor Monitoring Report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 12/22/2015
Comments: On Dec 22, 2015, DTSC issued 2015/2016 Annual Cost Estimate for the Oakland USD, La Escuelita Center(204233) project.

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: 5 Year Review Reports
Future Due Date: 2019
Future Area Name: Phase II OU
Future Sub Area Name: Stage II
Future Document Type: Public Notice
Future Due Date: 2019
Schedule Area Name: PROJECT WIDE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LA ESCUELITA EDUCATION CENTER (Continued)

S109548309

Schedule Sub Area Name: Not reported
Schedule Document Type: Public Notice
Schedule Due Date: 04/06/2019
Schedule Revised Date: Not reported
Schedule Area Name: Phase II OU
Schedule Sub Area Name: Not reported
Schedule Document Type: Operations and Maintenance Report
Schedule Due Date: 01/13/2019
Schedule Revised Date: 04/15/2019

SCH:

Facility ID: 60001108
Site Type: School Cleanup
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 5.5
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Jose Luevano
Supervisor: Jose Salcedo
Division Branch: Northern California Schools & Santa Susana
Site Code: 204233
Assembly: 18
Senate: 09
Special Program Status: Not reported
Status: Certified / Operation & Maintenance
Status Date: 06/15/2015
Restricted Use: YES
Funding: School District
Latitude: 37.79520
Longitude: -122.2574
APN: 019 002300101, 019 002400101, 019 002901406, 019 002901407, 19-0023-001-01, 19-0024-001-01, 19-0029-014-06, 19-0029-014-07
Past Use: ABOVE GROUND STORAGE TANKS, ENGINE TESTING/REPAIR, FUEL - VEHICLE STORAGE/ REFUELING, INCINERATOR - OTHER, MACHINE SHOP, OFFICE BUILDING, RESIDENTIAL AREA, SCHOOL - COLLEGE, SCHOOL - OTHER, UNDERGROUND STORAGE TANKS, UNKNOWN, VEHICLE MAINTENANCE
Potential COC: Under Investigation, Arsenic, Chlordane, DDD, DDE, DDT, Lead, Methyl tertbutyl ether (MTBE), Polychlorinated biphenyls (PCBs), Polynuclear aromatic hydrocarbons (PAHs, Toxaphene, TPH-diesel, TPH-gas, TPH-MOTOR OIL
Confirmed COC: Arsenic, Chlordane, Lead, 30016-NO, 30006-NO, 30007-NO, 30008-NO, Polynuclear aromatic hydrocarbons (PAHs, TPH-diesel, 30025-NO, TPH-MOTOR OIL, Polychlorinated biphenyls (PCBs, 30023-NO, Under Investigation
Potential Description: IA, OTH, SOIL, SV
Alias Name: Auto Shop/Centro Infantil Annex
Alias Type: Alternate Name
Alias Name: California Jute Mill Company
Alias Type: Alternate Name
Alias Name: Central Trade School
Alias Type: Alternate Name
Alias Name: Downtown Education Complex Northwestern Area
Alias Type: Alternate Name

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LA ESCUELITA EDUCATION CENTER (Continued)

S109548309

Alias Name:	Downtown Education Complex Southeastern Area
Alias Type:	Alternate Name
Alias Name:	Downtown Educational Complex
Alias Type:	Alternate Name
Alias Name:	Information & Technology
Alias Type:	Alternate Name
Alias Name:	Instructional Services
Alias Type:	Alternate Name
Alias Name:	KDOL
Alias Type:	Alternate Name
Alias Name:	La Escuelita Education Center
Alias Type:	Alternate Name
Alias Name:	La Escuelita Elementary School
Alias Type:	Alternate Name
Alias Name:	Laney College Peralta Junior College District
Alias Type:	Alternate Name
Alias Name:	Laney Trade & Technical Institute
Alias Type:	Alternate Name
Alias Name:	MetWest High School
Alias Type:	Alternate Name
Alias Name:	Metwest High School
Alias Type:	Alternate Name
Alias Name:	New Teacher Support and Development
Alias Type:	Alternate Name
Alias Name:	Oakland City College Laney Campus
Alias Type:	Alternate Name
Alias Name:	Oakland City College Laney Trade & Technical Division
Alias Type:	Alternate Name
Alias Name:	Oakland Junior College Laney Trade & Technical Division
Alias Type:	Alternate Name
Alias Name:	Research & Assessment
Alias Type:	Alternate Name
Alias Name:	School to Career Adult Education
Alias Type:	Alternate Name
Alias Name:	Temporary Alternative Placement Center
Alias Type:	Alternate Name
Alias Name:	United Nation Child Development Center
Alias Type:	Alternate Name
Alias Name:	Willie D. Harper Building
Alias Type:	Alternate Name
Alias Name:	Yuk Yau Annex Child Development Center
Alias Type:	Alternate Name
Alias Name:	019 002300101
Alias Type:	APN
Alias Name:	019 002400101
Alias Type:	APN
Alias Name:	019 002901406
Alias Type:	APN
Alias Name:	019 002901407
Alias Type:	APN
Alias Name:	19-0023-001-01
Alias Type:	APN
Alias Name:	19-0024-001-01
Alias Type:	APN
Alias Name:	19-0029-014-06
Alias Type:	APN
Alias Name:	19-0029-014-07

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LA ESCUELITA EDUCATION CENTER (Continued)

S109548309

Alias Type: APN
Alias Name: T06019710391
Alias Type: GeoTracker Global ID
Alias Name: 204233
Alias Type: Project Code (Site Code)
Alias Name: 60001108
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 12/07/2016
Comments: ON Dec 7, 2016, DTSC issued the Cost Estimation Worksheet of planned costs associated with the project for the 2016/17 fiscal year.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 04/26/2017
Comments: On Apr 26, 2017, DTSC completed certification package for the Phase II area of the site.

Completed Area Name: Phase I OU
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 07/29/2011
Comments: Site certification was issued for the Phase I area (Northwest Area) of the site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 06/02/2009
Comments: DTSC approved the Fully Executed Environmental Oversight Agreement with the corrections requested by the Oakland Unified District

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: School Cleanup Agreement
Completed Date: 02/16/2010
Comments: DTSC entered into a SCA with the School District to develop, and implement a Removal Action Workplan, and other activities, under the oversight of DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 06/25/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 12/29/2017
Comments: 2018 cost estimate finalized and sent out.

Completed Area Name: PROJECT WIDE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LA ESCUELITA EDUCATION CENTER (Continued)

S109548309

Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 05/26/2009
Comments: DTSC received two copies and an e-copy of the Phase I ESA, provided as background information for the project.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 08/03/2009
Comments: DTSC conditionally approved the revised PEA workplan. Condition was that gw sample AOC9-B-2 in TPH and VOC analysis.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement Application
Completed Date: 06/29/2009
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 08/06/2009
Comments: DTSC provided PEA fieldwork oversight.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 12/03/2009
Comments: DTSC approved the SSI workplan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 11/17/2009
Comments: Final Indoor Air Sampling Notice.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Tech Memo
Completed Date: 11/17/2009
Comments: DTSC approved the PEA Technical Memo - Indoor Air Monitoring. Results of the PEA Technical Memo - Indoor Air Monitoring will be reported in the Site PEA investigation report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 11/25/2009
Comments: SSI Field work implemented from Nov 25 through Nov 29, 2009.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/07/2011
Comments: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LA ESCUELITA EDUCATION CENTER (Continued)

S109548309

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/16/2010
Comments: DTSC responded to comments on the Draft Removal Action Workplan

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 03/22/2012
Comments: 1st Collection Letter for Inv. 10SM0895 and 11SM0366.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 05/21/2012
Comments: 2nd Collection Letter for Inv. 10SM0895 and 11SM0366.

Completed Area Name: Phase II OU
Completed Sub Area Name: Not reported
Completed Document Type: Operation & Maintenance Order/Agreement
Completed Date: 05/01/2014
Comments: O&M Agreement Fully Executed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Amendment - Order/Agreement
Completed Date: 11/17/2014
Comments: Not reported

Completed Area Name: Phase II OU
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 07/22/2017
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 11/23/2009
Comments: Eight hour indoor air monitoring completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 02/10/2010
Comments: DTSC approved the PEA with a further action determination

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Tech Memo
Completed Date: 12/30/2009
Comments: DTSC approved the SSI Technical Memorandum

Completed Area Name: Phase I OU
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LA ESCUELITA EDUCATION CENTER (Continued)

S109548309

Completed Date: 04/22/2010
Comments: DTSC approved the SSI report and concurred with the recommendation that a release has occurred and that the response action will be completed in two phases.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 02/01/2010
Comments: PEA public review and comment period ran from December 23, 2009 through February 1, 2010. The Public Hearing was held on January 27, 2010. Based on notice from district, no comments were received from the public during the public review period or at the public hearing. Notice of compliance was provided in the final PEA.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 06/28/2010
Comments: DTSC approved for implementation the RAW for the Phase I area.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 05/13/2010
Comments: DTSC finalized the Community Profile Report (CPR). A copy of the CPR is to be placed in the information repositories along with Draft RAW, Draft NOE, Site Fact Sheet, and other related documents.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 05/05/2010
Comments: Not reported

Completed Area Name: Phase I OU
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 05/05/2010
Comments: Draft RAW Phase I published. Draft RAW Phase I public review period will run from May 3, 2010 through June 2, 2010.

Completed Area Name: Phase II OU
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Tech Memo
Completed Date: 05/04/2010
Comments: DTSC approved the SSI Workplan for the Phase II area

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 07/19/2010
Comments: DTSC provided field oversight of Phase I RAW excavation activities.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LA ESCUELITA EDUCATION CENTER (Continued)

S109548309

Completed Date: 07/10/2010
Comments: SSI fieldwork for Phase II area was completed on July 10 and 11, 2010 (Sat. and Sun).

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 01/25/2011
Comments: DTSC approved the SSI-II report for the Phase II area of the site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 09/08/2010
Comments: Received additional TEM analytical results for NOA. Additional samples results show non-detect (0.01%) NOA fibers. Fill material from the proposed Doyle Drive borrow source area between Doyle Drive and the Golden Gate Bridge in San Francisco is suitable for fill material. Additionally, DTSC was informed that a second proposed borrow source area, from a quarry in Brisbane, may be used. Additional information and analytical data to be submitted for proposed A/B source area in Brisbane.

Completed Area Name: Phase I OU
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 07/19/2011
Comments: DTSC approved the RACR for Phase 1

Completed Area Name: Phase I OU
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 05/10/2011
Comments: Not reported

Completed Area Name: Phase II OU
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 04/11/2012
Comments: Based on DTSC's review and no comments received during the 30-day public review and comment period, the Phase II RAW has been approved.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Supplemental Site Investigation Tech Memo
Completed Date: 08/18/2011
Comments: DTSC approved the SSI workplan for collection of additional soil gas data in the Phase II Southeastern Area of the site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 4.15 Request
Completed Date: 08/16/2011
Comments: DTSC approved the 4.15 request.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LA ESCUELITA EDUCATION CENTER (Continued)

S109548309

Completed Document Type: Fact Sheets
Completed Date: 03/01/2012
Comments: Received notice from PPS (VLopez) that all translations (Spanish and Chinese) have been completed.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Public Notice
Completed Date: 02/29/2012
Comments: PNs (English, Spanish and Chinese) have been completed. Publication of the English version is expected to be published by March 5, 2012. Publication of the Spanish and Chinese versions may be delayed pending DTSC contact for publication services in the Oakland area. The 30-day Public Review and Comment period will run from March 5, 2012 through April 4, 2012.

Completed Area Name: Phase II OU
Completed Sub Area Name: Not reported
Completed Document Type: Public Participation Plan / Community Relations Plan
Completed Date: 02/09/2012
Comments: Community Survey Questionnaire were sent out to mailing list.

Completed Area Name: Phase II OU
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 08/25/2011
Comments: Additional round of soil gas sampling implemented in Phase II southeast area of site. Results of this sampling event to be reported in the Phase II RAW.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Fieldwork
Completed Date: 01/03/2013
Comments: Not reported

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage II
Completed Document Type: Fieldwork
Completed Date: 06/19/2014
Comments: RAW II, Phase II fieldwork implemented.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Work Notice
Completed Date: 10/03/2012
Comments: DTSC finalized English, Spanish and Chinese versions of the Stage I Fieldwork Notice. District is to hand deliver notices to students, faculty and staff at the site. DTSC is scheduled to mail out to the distribution lists by Oct. 5, 2012

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Other Report
Completed Date: 02/05/2013
Comments: Informed district's environmental consultant that no additional proposed fill material sources would be submitted.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LA ESCUELITA EDUCATION CENTER (Continued)

S109548309

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Supplemental Site Investigation Tech Memo
Completed Date: 02/13/2013
Comments: DTSC issued conditional approval of Tech Memo regarding actions to be taken if impacts beyond 4th Street sidewalk are found.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Removal Action Completion Report
Completed Date: 01/16/2014
Comments: DTSC approved RACR, site certification pending O&M agreement and Plan, and final site inspection.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Other Report
Completed Date: 10/24/2013
Comments: DTSC approved the RAW Tech Memo.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Monitoring Plan
Completed Date: 02/06/2014
Comments: PM issued conditional approval letter.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Well Installation Workplan
Completed Date: 04/02/2014
Comments: DTSC issued conditional approval of the Tech Memo for soil vapor well installations upon acceptance conditions and submittal of final Tech Memo.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Monitoring Report
Completed Date: 04/01/2014
Comments: DTSC approved first quarter vapor monitoring report.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Operations and Maintenance Plan
Completed Date: 05/13/2015
Comments: DTSC approved the O&M Plan.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage II
Completed Document Type: Work Notice
Completed Date: 05/12/2014
Comments: DTSC finalized and mailed out Fact Sheet for Phase II, Stage II of RAW II. Fact Sheet translated into English, Spanish and Manderin.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Monitoring Report
Completed Date: 11/25/2014

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LA ESCUELITA EDUCATION CENTER (Continued)

S109548309

Comments: Not reported

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Monitoring Report
Completed Date: 12/30/2014
Comments: DTSC issued conditional approval of the Third Quarter Monitoring Report.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Monitoring Report
Completed Date: 02/24/2015
Comments: On Feb 24, 2015, DTSC approved the Fourth Quarter Monitoring Report.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Other Report
Completed Date: 08/25/2015
Comments: On Aug 25, 2015, DTSC approved the One-Year Review Report.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Monitoring Report
Completed Date: 05/18/2015
Comments: On May 18, 2015, DTSC issued conditional approval of the First Quarter 2015 Monitoring Report.

Completed Area Name: Phase II OU
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 06/05/2015
Comments: On Jun 5, 2015, DTSC approved the Phase II Stage II Removal Action Completion Report and approved the site for occupancy.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Monitoring Report
Completed Date: 09/10/2015
Comments: On Sep 10, 2015, DTSC conditionally approved the 2nd Quarter 2015 Monitoring Report.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Monitoring Report
Completed Date: 03/03/2016
Comments: On Mar 3, 2016, DTSC approved the 3Q-2015 SV Monitoring Report. Response to DTSC comments were addressed in the 4Q-2015 SV Monitoring Report.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Monitoring Report
Completed Date: 03/03/2016
Comments: On Mar 3, 2016, DTSC approved the 3Q- (approval) and 4Q-2015 (conditional approval) SV Monitoring Report.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LA ESCUELITA EDUCATION CENTER (Continued)

S109548309

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Operations and Maintenance Report
Completed Date: 10/07/2016
Comments: On Oct 7, 2016, DTSC conditionally approved the 1st Semi-Annual O&M Monitoring Report.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage II
Completed Document Type: Operations and Maintenance Report
Completed Date: 06/14/2017
Comments: On Jun 14, 2017, DTSC issues conditional approval of the 2nd Semi-Annual Soil Vapor Monitoring Report.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Operations and Maintenance Report
Completed Date: 10/30/2017
Comments: On Oct 30, 2017, DTSC issued conditional approval of the 1st Semi-Annual 2017 SV Monitoring Report.

Completed Area Name: Phase II OU
Completed Sub Area Name: Stage I
Completed Document Type: Operations and Maintenance Report
Completed Date: 12/05/2018
Comments: On Dec 5, 2018, DTSC approved the 2nd 2017 Semi-Annual Soil Vapor Monitoring Report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 12/22/2015
Comments: On Dec 22, 2015, DTSC issued 2015/2016 Annual Cost Estimate for the Oakland USD, La Escuelita Center(204233) project.

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: 5 Year Review Reports
Future Due Date: 2019
Future Area Name: Phase II OU
Future Sub Area Name: Stage II
Future Document Type: Public Notice
Future Due Date: 2019
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Public Notice
Schedule Due Date: 04/06/2019
Schedule Revised Date: Not reported
Schedule Area Name: Phase II OU
Schedule Sub Area Name: Not reported
Schedule Document Type: Operations and Maintenance Report
Schedule Due Date: 01/13/2019
Schedule Revised Date: 04/15/2019

DEED:

Envirostor ID: 60001108
Area: PHASE II OU

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LA ESCUELITA EDUCATION CENTER (Continued)

S109548309

Sub Area: Not reported
Site Type: SCHOOL CLEANUP
Status: CERTIFIED / OPERATION & MAINTENANCE
Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): 07/22/2017
File Name: Envirostor Land Use Restrictions

**AF142
ESE
1/4-1/2
0.353 mi.
1866 ft.**

**OAKLAND UNIFIED SCHOOL DISTRICT - H
314 E 10TH ST
OAKLAND, CA 94606**

Alameda County CS

**S108215291
N/A**

Site 2 of 2 in cluster AF

**Relative:
Lower
Actual:
25 ft.**

Alameda County CS:

Status: Leak Confirmation
Record Id: RO0002856
PE: 5602
Facility Status: Leak Confirmation
Latitude: 37.795191739
Longitude: -122.2580794

Status: 11
Record Id: RO0002856
PE: 5602
Facility Status: Not reported
Latitude: 37.795191739
Longitude: -122.2580794

Status: Preliminary Site Assessment Workplan Submitted
Record Id: RO0002856
PE: 5602
Facility Status: Preliminary Site Assessment Workplan Submitted
Latitude: 37.795191739
Longitude: -122.2580794

**143
WNW
1/4-1/2
0.354 mi.
1871 ft.**

**BILL LOUIE'S TEXACO
800 FRANKLIN ST
OAKLAND, CA 94607**

**LUST
Alameda County CS
SWEEPS UST
CA FID UST
HIST CORTESE**

**S101624352
N/A**

**Relative:
Higher
Actual:
38 ft.**

LUST:

Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100050
Global Id: T0600100050
Latitude: 37.7997642623921
Longitude: -122.272231578827
Status: Completed - Case Closed
Status Date: 06/11/2018
Case Worker: DR
RB Case Number: 01-0056
Local Agency: ALAMEDA COUNTY LOP
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000196

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BILL LOUIE'S TEXACO (Continued)

S101624352

Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Benzene, Diesel, Ethylbenzene, Gasoline, Naphthalene, Toluene, Waste Oil / Motor / Hydraulic / Lubricants
Site History: Prior to 1989 the site operated as a gasoline service station. Previous investigations indicate that five underground storage tanks (USTs) previously existed on site including two 6,000-gallon gasoline USTs, one 550-gallon waste oil, and one 1,000-gallon solvent UST. One of the USTs was said to have been removed prior to 1988; however, no documentation exists regarding this UST and its removal. Available records do not indicate who pulled the tank, the contents of the tank, or the exact date of the removal, but it is believed that this tank was located close to the location of monitoring well MW 1. The other four USTs were removed in 1989. During the 1989 UST excavation, soil samples were collected from beneath each tank, and the tanks were observed to have no obvious pitting or corrosion. 10 cubic yards of soil that were deemed contaminated were stockpiled onsite, and sent for analysis. High concentration of fuel contamination was detected in the northeastern excavation, and in the waste oil/solvent UST excavation. In September and October 1989, a preliminary investigation was conducted to determine whether fuel detected in soil during UST excavation activities impacted groundwater. Two locations (north western, and waste/oil solvent excavation area) were re-excavated and 25 cubic yards of additional contaminated soil was removed. The northwestern excavation was backfilled with a combination of clean fill and re-used uncontaminated soil from the initial excavation of the two gasoline USTs while the waste oil/solvent excavation was backfilled with clean fill. Construction of the existing commercial 2-story building began in early 1991. Starting from October 1989, monitoring wells (onsite and offsite) and soil borings were installed to define the lateral extent of the contaminant plume. A periodic subsurface monitoring program was implemented to monitor contaminants from October 1989 to December 2015. Trend analysis from these subsurface investigation indicates that dissolved-phase hydrocarbon plume in the groundwater appears to be generally stable. Two soil vapor probes and two sub-slab soil vapor probes were installed in November 2006 and December 2015 respectively to assess vapor intrusion risk to indoor air within the on-site building. Based on the sample results obtained from these vapor probes, no concentrations were detected above regulatory screening levels, and it was determined that no potential risk for vapor intrusion to the site building exists. Potential Exposure to Chemicals of Concern The chemicals of concern at the site are residual TPHg, TPH as diesel, and BTEX in groundwater and soil from the former gasoline USTs located in the northwest portion of the site and the former USTs located in the sidewalk along 8th Street. Since soil vapor results showed no concentrations were detected above regulatory screening levels, direct contact and ingestion appear to be the two potential exposure to these chemicals of concern. Remediation Activities Remediation was conducted by over excavating hydrocarbon contaminated soil below the former USTs. No additional corrective actions were performed at the site.

LUST:

Global Id: T0600100050
Contact Type: Local Agency Caseworker
Contact Name: DILAN ROE
Organization Name: ALAMEDA COUNTY LOP
Address: 1131 Harbor Bay Parkway
City: ALAMEDA

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BILL LOUIE'S TEXACO (Continued)

S101624352

Email: dilan.roe@acgov.org
Phone Number: 5105676767

Global Id: T0600100050
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600100050
Action Type: Other
Date: 07/06/1989
Action: Leak Reported

Global Id: T0600100050
Action Type: RESPONSE
Date: 08/19/2004
Action: Correspondence

Global Id: T0600100050
Action Type: RESPONSE
Date: 11/08/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0600100050
Action Type: RESPONSE
Date: 06/13/1988
Action: Other Report / Document

Global Id: T0600100050
Action Type: RESPONSE
Date: 11/03/1989
Action: Soil and Water Investigation Report

Global Id: T0600100050
Action Type: RESPONSE
Date: 10/09/1989
Action: Interim Remedial Action Report

Global Id: T0600100050
Action Type: RESPONSE
Date: 01/21/1992
Action: Preliminary Site Assessment Report

Global Id: T0600100050
Action Type: RESPONSE
Date: 01/20/1992
Action: Soil and Water Investigation Report

Global Id: T0600100050
Action Type: RESPONSE
Date: 08/08/2006
Action: Correspondence

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BILL LOUIE'S TEXACO (Continued)

S101624352

Global Id:	T0600100050
Action Type:	RESPONSE
Date:	04/16/2012
Action:	Clean Up Fund - 5-Year Review Summary
Global Id:	T0600100050
Action Type:	ENFORCEMENT
Date:	11/08/2010
Action:	Staff Letter - #20101108
Global Id:	T0600100050
Action Type:	ENFORCEMENT
Date:	11/18/2008
Action:	Staff Letter - #20081118
Global Id:	T0600100050
Action Type:	ENFORCEMENT
Date:	08/22/2016
Action:	Meeting - #20160822
Global Id:	T0600100050
Action Type:	ENFORCEMENT
Date:	09/14/2016
Action:	Staff Letter - #20160914
Global Id:	T0600100050
Action Type:	RESPONSE
Date:	05/08/2013
Action:	Monitoring Report - Semi-Annually
Global Id:	T0600100050
Action Type:	RESPONSE
Date:	06/10/2018
Action:	Well Destruction Report
Global Id:	T0600100050
Action Type:	RESPONSE
Date:	05/10/2015
Action:	Soil Vapor Intrusion Investigation Workplan - Regulator Responded
Global Id:	T0600100050
Action Type:	RESPONSE
Date:	01/15/2016
Action:	Soil Vapor Intrusion Investigation Report - Regulator Responded
Global Id:	T0600100050
Action Type:	ENFORCEMENT
Date:	03/31/2017
Action:	Staff Letter - #20170331
Global Id:	T0600100050
Action Type:	RESPONSE
Date:	11/18/2016
Action:	Request for Closure - Regulator Responded
Global Id:	T0600100050
Action Type:	RESPONSE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BILL LOUIE'S TEXACO (Continued)

S101624352

Date: 01/25/2016
Action: Soil Vapor Intrusion Investigation Report - Regulator Responded

Global Id: T0600100050
Action Type: ENFORCEMENT
Date: 07/24/2009
Action: Staff Letter - #20090724

Global Id: T0600100050
Action Type: ENFORCEMENT
Date: 09/14/2016
Action: Staff Letter - #20160914

Global Id: T0600100050
Action Type: ENFORCEMENT
Date: 04/18/2017
Action: Staff Letter - #20170418

Global Id: T0600100050
Action Type: ENFORCEMENT
Date: 05/30/2017
Action: Staff Letter - #20170530

Global Id: T0600100050
Action Type: ENFORCEMENT
Date: 10/09/2017
Action: Staff Letter - #20171009

Global Id: T0600100050
Action Type: ENFORCEMENT
Date: 03/04/2010
Action: Staff Letter - #20100304

Global Id: T0600100050
Action Type: ENFORCEMENT
Date: 08/09/2010
Action: Staff Letter - #20100809

Global Id: T0600100050
Action Type: ENFORCEMENT
Date: 05/16/2011
Action: Staff Letter - #20110516

Global Id: T0600100050
Action Type: ENFORCEMENT
Date: 08/13/2012
Action: Staff Letter - #20120813

Global Id: T0600100050
Action Type: ENFORCEMENT
Date: 12/19/2011
Action: File review - #20111219

Global Id: T0600100050
Action Type: ENFORCEMENT
Date: 06/19/2013
Action: File review - #20130619

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BILL LOUIE'S TEXACO (Continued)

S101624352

Global Id: T0600100050
Action Type: ENFORCEMENT
Date: 04/24/2012
Action: Technical Correspondence / Assistance / Other - #20120424

Global Id: T0600100050
Action Type: ENFORCEMENT
Date: 12/17/2012
Action: File review - #20121217

Global Id: T0600100050
Action Type: ENFORCEMENT
Date: 04/10/2018
Action: Staff Letter - #20180410

Global Id: T0600100050
Action Type: ENFORCEMENT
Date: 06/22/2018
Action: Closure/No Further Action Letter

Global Id: T0600100050
Action Type: REMEDIATION
Date: 07/06/1989
Action: Excavation

Global Id: T0600100050
Action Type: ENFORCEMENT
Date: 06/09/2014
Action: Staff Letter - #20140609

Global Id: T0600100050
Action Type: ENFORCEMENT
Date: 03/04/2014
Action: File review - #20140304

Global Id: T0600100050
Action Type: ENFORCEMENT
Date: 03/09/2015
Action: Staff Letter - #20150309

Global Id: T0600100050
Action Type: ENFORCEMENT
Date: 05/11/2015
Action: Staff Letter - #20150511

Global Id: T0600100050
Action Type: ENFORCEMENT
Date: 06/11/2018
Action: Closure/No Further Action Letter

Global Id: T0600100050
Action Type: ENFORCEMENT
Date: 03/30/2018
Action: Notice of Responsibility - #20180330

Global Id: T0600100050
Action Type: RESPONSE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BILL LOUIE'S TEXACO (Continued)

S101624352

Date: 10/31/2014
Action: Monitoring Report - Semi-Annually

Global Id: T0600100050
Action Type: RESPONSE
Date: 10/18/2017
Action: Other Report / Document

Global Id: T0600100050
Action Type: Other
Date: 07/06/1989
Action: Leak Discovery

Global Id: T0600100050
Action Type: RESPONSE
Date: 10/14/2010
Action: Soil and Water Investigation Workplan

Global Id: T0600100050
Action Type: RESPONSE
Date: 07/13/2010
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0600100050
Action Type: RESPONSE
Date: 04/04/2011
Action: Soil and Water Investigation Workplan - Addendum

Global Id: T0600100050
Action Type: RESPONSE
Date: 03/19/2009
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0600100050
Action Type: RESPONSE
Date: 06/29/2012
Action: Soil and Water Investigation Report

Global Id: T0600100050
Action Type: RESPONSE
Date: 07/02/2010
Action: CAP/RAP - Feasibility Study Report - Regulator Responded

LUST:

Global Id: T0600100050
Status: Completed - Case Closed
Status Date: 06/11/2018

Global Id: T0600100050
Status: Open - Case Begin Date
Status Date: 07/06/1989

Global Id: T0600100050
Status: Open - Eligible for Closure
Status Date: 04/26/2017

Global Id: T0600100050

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BILL LOUIE'S TEXACO (Continued)

S101624352

Status: Open - Remediation
Status Date: 11/19/2006

Global Id: T0600100050
Status: Open - Site Assessment
Status Date: 07/06/1989

Global Id: T0600100050
Status: Open - Site Assessment
Status Date: 08/24/1989

Global Id: T0600100050
Status: Open - Site Assessment
Status Date: 09/13/1989

Global Id: T0600100050
Status: Open - Site Assessment
Status Date: 09/11/1991

Global Id: T0600100050
Status: Open - Verification Monitoring
Status Date: 03/22/2014

LUST REG 2:

Region: 2
Facility Id: 01-0056
Facility Status: Preliminary site assessment underway
Case Number: 37
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: 9/12/1989
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Leak Confirmation
Record Id: RO0000196
PE: 5602
Facility Status: Leak Confirmation
Latitude: 37.799676025
Longitude: -122.27237816

Status: Preliminary Site Assessment Workplan Submitted
Record Id: RO0000196
PE: 5602
Facility Status: Preliminary Site Assessment Workplan Submitted
Latitude: 37.799676025
Longitude: -122.27237816

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BILL LOUIE'S TEXACO (Continued)

S101624352

Status: Preliminary Site Assessment Underway
Record Id: RO0000196
PE: 5602
Facility Status: Preliminary Site Assessment Underway
Latitude: 37.799676025
Longitude: -122.27237816

Status: Pollution Characterization
Record Id: RO0000196
PE: 5602
Facility Status: Pollution Characterization
Latitude: 37.799676025
Longitude: -122.27237816

Status: Remediation Plan
Record Id: RO0000196
PE: 5602
Facility Status: Remediation Plan
Latitude: 37.799676025
Longitude: -122.27237816

SWEEPS UST:

Status: Not reported
Comp Number: 38924
Number: Not reported
Board Of Equalization: 44-000398
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-038924-000001
Tank Status: Not reported
Capacity: 600
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 3

Status: Not reported
Comp Number: 38924
Number: Not reported
Board Of Equalization: 44-000398
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-038924-000002
Tank Status: Not reported
Capacity: 1
Active Date: Not reported
Tank Use: UNKNOWN
STG: PRODUCT
Content: Not reported
Number Of Tanks: Not reported

Status: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BILL LOUIE'S TEXACO (Continued)

S101624352

Comp Number: 38924
Number: Not reported
Board Of Equalization: 44-000398
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-038924-000003
Tank Status: Not reported
Capacity: 1
Active Date: Not reported
Tank Use: UNKNOWN
STG: PRODUCT
Content: Not reported
Number Of Tanks: Not reported

CA FID UST:

Facility ID: 01000080
Regulated By: UTKNI
Regulated ID: 00038924
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4154445632
Mail To: Not reported
Mailing Address: 800 FRANKLIN ST
Mailing Address 2: Not reported
Mailing City,St,Zip: OAKLAND 94607
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-0056

**AB144
NW
1/4-1/2
0.360 mi.
1903 ft.**

**CITY OF OAKLAND / PACIFIC RENAISSAN
1000 FRANKLIN ST
OAKLAND, CA 94607**

Site 3 of 3 in cluster AB

**LUST
Alameda County CS
HIST CORTESE
CERS**

**S102434907
N/A**

**Relative:
Higher**

LUST:

**Actual:
41 ft.**

Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101036
Global Id: T0600101036
Latitude: 37.8011568
Longitude: -122.2716282
Status: Completed - Case Closed
Status Date: 08/12/2009
Case Worker: PK

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CITY OF OAKLAND / PACIFIC RENAISSAN (Continued)

S102434907

RB Case Number: 01-1126
Local Agency: ALAMEDA COUNTY LOP
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000037
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:

Global Id: T0600101036
Contact Type: Local Agency Caseworker
Contact Name: PARESH KHATRI
Organization Name: ALAMEDA COUNTY LOP
Address: 1131 HARBOR BAY PARKWAY
City: ALAMEDA
Email: paresh.khatri@acgov.org
Phone Number: 5107772478

Global Id: T0600101036
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600101036
Action Type: Other
Date: 12/20/1991
Action: Leak Reported

Global Id: T0600101036
Action Type: ENFORCEMENT
Date: 07/03/2008
Action: Technical Correspondence / Assistance / Other - #20080703

Global Id: T0600101036
Action Type: ENFORCEMENT
Date: 07/24/2009
Action: Staff Letter - #20090724

Global Id: T0600101036
Action Type: ENFORCEMENT
Date: 07/24/2009
Action: Notice of Violation - #20090724

Global Id: T0600101036
Action Type: ENFORCEMENT
Date: 08/12/2009
Action: Closure/No Further Action Letter - #20090812

Global Id: T0600101036
Action Type: REMEDIATION
Date: 01/01/1989
Action: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CITY OF OAKLAND / PACIFIC RENAISSAN (Continued)

S102434907

Global Id: T0600101036
Action Type: RESPONSE
Date: 08/10/2009
Action: Electronic Reporting Submittal Due

LUST:

Global Id: T0600101036
Status: Completed - Case Closed
Status Date: 08/12/2009

Global Id: T0600101036
Status: Completed - Case Closed
Status Date: 08/12/2009

Global Id: T0600101036
Status: Open - Case Begin Date
Status Date: 12/20/1991

Global Id: T0600101036
Status: Open - Verification Monitoring
Status Date: 08/01/2007

LUST REG 2:

Region: 2
Facility Id: 01-1126
Facility Status: Remedial action (cleanup) Underway
Case Number: 4036
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: 4/27/1992
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: 5/29/1992
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: 11/1/1992
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Verification Monitoring Underway
Record Id: RO0000037
PE: 5602
Facility Status: Verification Monitoring Underway
Latitude: 37.801052115
Longitude: -122.2715141

Status: Case Closed
Record Id: RO0000037
PE: 5602
Facility Status: Case Closed
Latitude: 37.801052115
Longitude: -122.2715141

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CITY OF OAKLAND / PACIFIC RENAISSAN (Continued)

S102434907

HIST CORTESE:

Region: CORTESE
 Facility County Code: 1
 Reg By: LTNKA
 Reg Id: 01-1126

CERS TANKS:

Site ID: 221493
 CERS ID: T0600101036
 CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Local Agency Caseworker
 Entity Name: PARESH KHATRI - ALAMEDA COUNTY LOP
 Entity Title: Not reported
 Affiliation Address: 1131 HARBOR BAY PARKWAY
 Affiliation City: ALAMEDA
 Affiliation State: CA
 Affiliation Country: Not reported
 Affiliation Zip: Not reported
 Affiliation Phone: 5107772478

Affiliation Type Desc: Regional Board Caseworker
 Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
 Entity Title: Not reported
 Affiliation Address: 1515 CLAY ST SUITE 1400
 Affiliation City: OAKLAND
 Affiliation State: CA
 Affiliation Country: Not reported
 Affiliation Zip: Not reported
 Affiliation Phone: Not reported

**AE145
 SW
 1/4-1/2
 0.363 mi.
 1915 ft.**

**PORT OF OAKLAND / AMTRAK STATION
 245 2ND
 OAKLAND, CA 94607
 Site 3 of 4 in cluster AE**

**LUST S101293776
 CPS-SLIC N/A
 Alameda County CS
 SWEEPS UST
 HIST CORTESE
 CERS**

**Relative:
 Lower**

LUST:

**Actual:
 12 ft.**

Lead Agency: ALAMEDA COUNTY LOP
 Case Type: LUST Cleanup Site
 Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600102067
 Global Id: T0600102067
 Latitude: 37.793733
 Longitude: -122.271511
 Status: Completed - Case Closed
 Status Date: 04/03/1998
 Case Worker: Not reported
 RB Case Number: 01-2251
 Local Agency: Not reported
 File Location: All Files are on GeoTracker or in the Local Agency Database
 Local Case Number: RO0000987
 Potential Media Affect: Other Groundwater (uses other than drinking water)
 Potential Contaminants of Concern: Gasoline
 Site History: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORT OF OAKLAND / AMTRAK STATION (Continued)

S101293776

LUST:

Global Id: T0600102067
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600102067
Action Type: Other
Date: 05/10/1993
Action: Leak Reported

Global Id: T0600102067
Action Type: REMEDIATION
Date: 09/09/9999
Action: Excavation

LUST:

Global Id: T0600102067
Status: Completed - Case Closed
Status Date: 04/03/1998

Global Id: T0600102067
Status: Open - Case Begin Date
Status Date: 05/10/1993

LUST REG 2:

Region: 2
Facility Id: 01-2251
Facility Status: Case Closed
Case Number: 4581
How Discovered: Tank Closure
Leak Cause: Corrosion
Leak Source: Tank
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: 11/21/1997

CPS-SLIC:

Region: STATE
Facility Status: Open - Active
Status Date: 06/22/2017
Global Id: T10000010636
Lead Agency: ALAMEDA COUNTY LOP
Lead Agency Case Number: RO0003242

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORT OF OAKLAND / AMTRAK STATION (Continued)

S101293776

Latitude: 37.79377
Longitude: -122.27144
Case Type: Cleanup Program Site
Case Worker: DR
Local Agency: ALAMEDA COUNTY LOP
RB Case Number: Not reported
File Location: Not reported
Potential Media Affected: Not reported
Potential Contaminants of Concern: Waste Oil / Motor / Hydraulic / Lubricating
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

Alameda County CS:

Status: Case Closed
Record Id: RO0000987
PE: 5602
Facility Status: Case Closed
Latitude: 37.794012153
Longitude: -122.2715222

Status: Leak Confirmation
Record Id: RO0003242
PE: 5502
Facility Status: Leak Confirmation
Latitude: Not reported
Longitude: Not reported

SWEEPS UST:

Status: Not reported
Comp Number: 12599
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-012599-000001
Tank Status: Not reported
Capacity: 3000
Active Date: Not reported
Tank Use: OIL
STG: PRODUCT
Content: FUEL OIL
Number Of Tanks: 4

Status: Not reported
Comp Number: 12599
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-012599-000002
Tank Status: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORT OF OAKLAND / AMTRAK STATION (Continued)

S101293776

Capacity: 1000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 12599
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-012599-000003
Tank Status: Not reported
Capacity: 7500
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 12599
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-012599-000004
Tank Status: Not reported
Capacity: 3500
Active Date: Not reported
Tank Use: OIL
STG: PRODUCT
Content: BULK OIL
Number Of Tanks: Not reported

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-2251

CERS TANKS:

Site ID: 424606
CERS ID: T10000010636
CERS Description: Cleanup Program Site

Affiliation:

Affiliation Type Desc: Local Agency Caseworker
Entity Name: DILAN ROE - ALAMEDA COUNTY LOP
Entity Title: Not reported
Affiliation Address: 1131 Harbor Bay Parkway

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORT OF OAKLAND / AMTRAK STATION (Continued)

S101293776

Affiliation City: ALAMEDA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 5105676767

Site ID: 228450
CERS ID: T0600102067
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

**AD146
NNW
1/4-1/2
0.366 mi.
1935 ft.**

**SPARKS PROPERTY
1424 HARRISON
OAKLAND, CA 94612**

**LUST
Alameda County CS
CERS**

**S109348474
N/A**

Site 4 of 6 in cluster AD

**Relative:
Higher
Actual:
38 ft.**

LUST:

Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000000619
Global Id: T10000000619
Latitude: 37.803163
Longitude: -122.267256
Status: Open - Site Assessment
Status Date: 07/07/1995
Case Worker: MYM
RB Case Number: 01-3613
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0002992
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Two underground fuel tanks were closed in place beneath the sidewalk at 1424 Harrison Street in 1982. The tanks were filled with cement slurry. Site investigation activities conducted for a release from a UST system at the adjacent property at 1432 Harrison Street, detected petroleum hydrocarbons in soil adjacent to and beneath the USTs closed in place at 1424 Harrison Street. Further investigation of the site was requested. Not all historic documents for the fuel leak case may be available on GeoTracker. A more complete historic case file for this site is located on the Alameda County Environmental Health website at: <http://ehgis.acgov.org/dehpublic/dehpublic.jsp>.

LUST:

Global Id: T10000000619
Contact Type: Regional Board Caseworker

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SPARKS PROPERTY (Continued)

S109348474

Contact Name: MARTIN MUSONGE
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY STREET
City: OAKLAND
Email: martin.musonge@waterboards.ca.gov
Phone Number: Not reported

LUST:

Global Id: T10000000619
Action Type: RESPONSE
Date: 03/04/2002
Action: Other Report / Document

Global Id: T10000000619
Action Type: RESPONSE
Date: 01/15/2010
Action: Correspondence

Global Id: T10000000619
Action Type: RESPONSE
Date: 09/01/2009
Action: Correspondence

Global Id: T10000000619
Action Type: ENFORCEMENT
Date: 03/25/2009
Action: Staff Letter - #20090325

Global Id: T10000000619
Action Type: ENFORCEMENT
Date: 01/08/2009
Action: Staff Letter - #20090108

Global Id: T10000000619
Action Type: ENFORCEMENT
Date: 03/13/2009
Action: Staff Letter - #20090313

Global Id: T10000000619
Action Type: Other
Date: 07/23/2007
Action: Leak Reported

Global Id: T10000000619
Action Type: RESPONSE
Date: 12/09/2014
Action: Site Investigation Workplan - Regulator Responded

Global Id: T10000000619
Action Type: ENFORCEMENT
Date: 07/24/2009
Action: Staff Letter - #20090724

Global Id: T10000000619
Action Type: ENFORCEMENT
Date: 07/24/2009
Action: Notice to Comply - #20090724

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SPARKS PROPERTY (Continued)

S109348474

Global Id: T10000000619
Action Type: ENFORCEMENT
Date: 05/03/2013
Action: File Review - Closure

Global Id: T10000000619
Action Type: RESPONSE
Date: 04/04/2015
Action: Site Assessment Report

Global Id: T10000000619
Action Type: ENFORCEMENT
Date: 05/31/2012
Action: Referral to Regional Board - #20120531

Global Id: T10000000619
Action Type: ENFORCEMENT
Date: 01/14/2015
Action: 13267 Requirement

Global Id: T10000000619
Action Type: ENFORCEMENT
Date: 09/15/2014
Action: 13267 Requirement

Global Id: T10000000619
Action Type: ENFORCEMENT
Date: 06/27/2014
Action: File Review - Closure

Global Id: T10000000619
Action Type: ENFORCEMENT
Date: 04/10/2015
Action: 13267 Requirement

Global Id: T10000000619
Action Type: RESPONSE
Date: 12/12/2014
Action: Conceptual Site Model

Global Id: T10000000619
Action Type: RESPONSE
Date: 08/15/2015
Action: Soil and Water Investigation Report

Global Id: T10000000619
Action Type: Other
Date: 04/29/1991
Action: Leak Discovery

LUST:

Global Id: T10000000619
Status: Open - Case Begin Date
Status Date: 04/29/1991

Global Id: T10000000619
Status: Open - Site Assessment

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SPARKS PROPERTY (Continued)

S109348474

Status Date: 07/07/1995

Alameda County CS:

Status: Leak Confirmation
Record Id: RO0002992
PE: 5602
Facility Status: Leak Confirmation
Latitude: 37.803163
Longitude: -122.267256

Status: 11
Record Id: RO0002992
PE: 5602
Facility Status: Not reported
Latitude: 37.803163
Longitude: -122.267256

CERS TANKS:

Site ID: 254985
CERS ID: T10000000619
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: MARTIN MUSONGE - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY STREET
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

AG147 ALLRIGHT PARKING LOT
NNW 1225 WEBSTER
1/4-1/2 OAKLAND, CA 94612
0.367 mi.
1939 ft. Site 1 of 3 in cluster AG

LUST S103472405
Alameda County CS N/A
HIST CORTESE
CERS

Relative:
Higher
Actual:
41 ft.

LUST:
Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101854
Global Id: T0600101854
Latitude: 37.802597
Longitude: -122.269661
Status: Completed - Case Closed
Status Date: 06/27/1996
Case Worker: Not reported
RB Case Number: 01-2007
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000612
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Waste Oil / Motor / Hydraulic / Lubricating

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ALLRIGHT PARKING LOT (Continued)

S103472405

Site History: Not reported

LUST:
Global Id: T0600101854
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:
Global Id: T0600101854
Action Type: Other
Date: 05/20/1994
Action: Leak Reported

Global Id: T0600101854
Action Type: REMEDIATION
Date: 10/14/1994
Action: Ex Situ Physical/Chemical Treatment (other than P&T, SVE, or Excavation)

LUST:
Global Id: T0600101854
Status: Completed - Case Closed
Status Date: 06/27/1996

Global Id: T0600101854
Status: Open - Case Begin Date
Status Date: 05/20/1994

LUST REG 2:
Region: 2
Facility Id: 01-2007
Facility Status: Case Closed
Case Number: 5284
How Discovered: Subsurface Monitoring
Leak Cause: UNK
Leak Source: Tank
Date Leak Confirmed: 8/11/1994
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:
Status: Case Closed
Record Id: RO0000612
PE: 5602
Facility Status: Case Closed
Latitude: 37.802252605

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ALLRIGHT PARKING LOT (Continued)

S103472405

Longitude: -122.26968504

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-2007

CERS TANKS:

Site ID: 235024
CERS ID: T0600101854
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

AC148
WSW
1/4-1/2
0.368 mi.
1941 ft.

CITY AUTO REPAIR
330 WEBSTER
OAKLAND, CA
Site 3 of 3 in cluster AC

HIST CORTESE **S103653223**
N/A

Relative:
Lower
Actual:
21 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-0421

AG149
NNW
1/4-1/2
0.373 mi.
1971 ft.

F.G. MAR COMMUNITY HOUSING PRJ
HARRISON & 13TH STREETS
OAKLAND, CA 92626
Site 2 of 3 in cluster AG

Notify 65 **S100178793**
N/A

Relative:
Higher
Actual:
41 ft.

NOTIFY 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Issue Date: Not reported
Incident Description: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AD150 **HARRISON STREET GARAGE**
North **1432 HARRISON ST**
1/4-1/2 **OAKLAND, CA 94612**
0.374 mi.
1975 ft. **Site 5 of 6 in cluster AD**

LUST **S101624491**
Alameda County CS
SWEEPS UST
HIST UST
CA FID UST
HIST CORTESE
N/A

Relative:
Higher
Actual:
38 ft.

LUST REG 2:
Region: 2
Facility Id: 01-0739
Facility Status: Pollution Characterization
Case Number: 498
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: 2/15/1991
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: 6/16/1998
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Leak Confirmation
Record Id: RO0000266
PE: 5602
Facility Status: Leak Confirmation
Latitude: 37.803191692
Longitude: -122.26724193

Status: 11
Record Id: RO0000266
PE: 5602
Facility Status: Not reported
Latitude: 37.803191692
Longitude: -122.26724193

Status: Preliminary Site Assessment Workplan Submitted
Record Id: RO0000266
PE: 5602
Facility Status: Preliminary Site Assessment Workplan Submitted
Latitude: 37.803191692
Longitude: -122.26724193

Status: Preliminary Site Assessment Underway
Record Id: RO0000266
PE: 5602
Facility Status: Preliminary Site Assessment Underway
Latitude: 37.803191692
Longitude: -122.26724193

Status: Pollution Characterization
Record Id: RO0000266
PE: 5602
Facility Status: Pollution Characterization
Latitude: 37.803191692
Longitude: -122.26724193

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HARRISON STREET GARAGE (Continued)

S101624491

SWEEPS UST:

Status: Active
Comp Number: 67715
Number: 9
Board Of Equalization: 44-000755
Referral Date: 07-01-85
Action Date: Not reported
Created Date: 02-29-88
Owner Tank Id: 1
SWRCB Tank Id: 01-000-067715-000001
Tank Status: A
Capacity: 1000
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 3

Status: Active
Comp Number: 67715
Number: 9
Board Of Equalization: 44-000755
Referral Date: 07-01-85
Action Date: Not reported
Created Date: 02-29-88
Owner Tank Id: 5
SWRCB Tank Id: 01-000-067715-000002
Tank Status: A
Capacity: 1000
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 67715
Number: 9
Board Of Equalization: 44-000755
Referral Date: 07-01-85
Action Date: Not reported
Created Date: 02-29-88
Owner Tank Id: 6
SWRCB Tank Id: 01-000-067715-000003
Tank Status: A
Capacity: 1000
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

HIST UST:

File Number: 00035F1C
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00035F1C.pdf>
Region: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HARRISON STREET GARAGE (Continued)

S101624491

Facility ID: Not reported
Facility Type: Not reported
Other Type: Not reported
Contact Name: Not reported
Telephone: Not reported
Owner Name: Not reported
Owner Address: Not reported
Owner City,St,Zip: Not reported
Total Tanks: Not reported

Tank Num: Not reported
Container Num: Not reported
Year Installed: Not reported
Tank Capacity: Not reported
Tank Used for: Not reported
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: Not reported

Click here for Geo Tracker PDF:

CA FID UST:

Facility ID: 01000866
Regulated By: UTNKA
Regulated ID: 00067715
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4154447412
Mail To: Not reported
Mailing Address: 1721 WEBSTER ST
Mailing Address 2: Not reported
Mailing City,St,Zip: OAKLAND 94612
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-0739

AD151
North
1/4-1/2
0.374 mi.
1975 ft.

A BACHARACH TRUST & B BORSUK
1432 HARRISON STREET
OAKLAND, CA 94612
Site 6 of 6 in cluster AD

LUST S119777417
CERS N/A

Relative:
Higher
Actual:
38 ft.

LUST:
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100682
Global Id: T0600100682

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A BACHARACH TRUST & B BORSUK (Continued)

S119777417

Latitude: 37.8033636526497
Longitude: -122.267191214784
Status: Open - Eligible for Closure
Status Date: 09/13/2018
Case Worker: MYM
RB Case Number: 01-0739
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000266
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Site investigations were conducted at various times from July 1990 to October 1996. In December 1993, two 1,000-gallon gasoline underground storage tanks were removed from beneath the sidewalk along Harrison Street. In addition, three hydraulic lifts, one vault, one wash rack sump, and associated piping were reportedly excavate and removed from the site. A total of approximately 240 cubic yards of hydrocarbon-impacted soil was reportedly removed from these areas. Soil vapor extraction and air sparging remediation was conducted from December 2001 through April 2005. Not all historic documents for the fuel leak case are available on GeoTracker. A more complete historic case file for this site is located on the Alameda County Environmental Health website at: <http://ehgis.acgov.org/dehpublic/dehpublic.jsp>.

LUST:

Global Id: T0600100682
Contact Type: Regional Board Caseworker
Contact Name: MARTIN MUSONGE
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY STREET
City: OAKLAND
Email: martin.musonge@waterboards.ca.gov
Phone Number: Not reported

LUST:

Global Id: T0600100682
Action Type: ENFORCEMENT
Date: 02/21/2017
Action: Meeting

Global Id: T0600100682
Action Type: Other
Date: 08/21/1990
Action: Leak Reported

Global Id: T0600100682
Action Type: RESPONSE
Date: 09/07/1999
Action: Soil and Water Investigation Report

Global Id: T0600100682
Action Type: RESPONSE
Date: 02/22/1994
Action: Tank Removal Report / UST Sampling Report

Global Id: T0600100682

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A BACHARACH TRUST & B BORSUK (Continued)

S119777417

Action Type:	RESPONSE
Date:	01/06/1997
Action:	Soil and Water Investigation Report
Global Id:	T0600100682
Action Type:	RESPONSE
Date:	08/18/1990
Action:	Soil and Water Investigation Report
Global Id:	T0600100682
Action Type:	RESPONSE
Date:	08/10/1995
Action:	Soil and Water Investigation Report
Global Id:	T0600100682
Action Type:	RESPONSE
Date:	10/19/1990
Action:	Soil and Water Investigation Report
Global Id:	T0600100682
Action Type:	RESPONSE
Date:	09/01/1994
Action:	Soil and Water Investigation Report
Global Id:	T0600100682
Action Type:	ENFORCEMENT
Date:	12/15/2016
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0600100682
Action Type:	ENFORCEMENT
Date:	09/21/2016
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0600100682
Action Type:	ENFORCEMENT
Date:	01/20/2016
Action:	Meeting
Global Id:	T0600100682
Action Type:	ENFORCEMENT
Date:	09/25/2015
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0600100682
Action Type:	ENFORCEMENT
Date:	01/20/2016
Action:	Meeting
Global Id:	T0600100682
Action Type:	ENFORCEMENT
Date:	04/04/2017
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0600100682
Action Type:	ENFORCEMENT
Date:	08/13/2015

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A BACHARACH TRUST & B BORSUK (Continued)

S119777417

Action: 13267 Requirement

Global Id: T0600100682
Action Type: RESPONSE
Date: 03/19/2013
Action: Other Workplan - Regulator Responded

Global Id: T0600100682
Action Type: RESPONSE
Date: 01/09/2015
Action: Site Investigation Workplan - Regulator Responded

Global Id: T0600100682
Action Type: ENFORCEMENT
Date: 05/06/2009
Action: Staff Letter - #20090506

Global Id: T0600100682
Action Type: ENFORCEMENT
Date: 04/03/2017
Action: Technical Correspondence / Assistance / Other

Global Id: T0600100682
Action Type: ENFORCEMENT
Date: 12/12/2016
Action: Technical Correspondence / Assistance / Other

Global Id: T0600100682
Action Type: ENFORCEMENT
Date: 02/08/2017
Action: Meeting

Global Id: T0600100682
Action Type: RESPONSE
Date: 08/25/2015
Action: Clean Up Fund - 5-Year Review Summary - Regulator Responded

Global Id: T0600100682
Action Type: ENFORCEMENT
Date: 07/23/2009
Action: Staff Letter - #20090723

Global Id: T0600100682
Action Type: ENFORCEMENT
Date: 09/17/2015
Action: Technical Correspondence / Assistance / Other

Global Id: T0600100682
Action Type: ENFORCEMENT
Date: 09/25/2015
Action: Technical Correspondence / Assistance / Other

Global Id: T0600100682
Action Type: ENFORCEMENT
Date: 08/25/2016
Action: Meeting

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A BACHARACH TRUST & B BORSUK (Continued)

S119777417

Global Id:	T0600100682
Action Type:	ENFORCEMENT
Date:	12/22/2016
Action:	Meeting
Global Id:	T0600100682
Action Type:	REMEDIATION
Date:	12/01/2001
Action:	In Situ Physical/Chemical Treatment (other than SVE)
Global Id:	T0600100682
Action Type:	ENFORCEMENT
Date:	01/26/2010
Action:	Staff Letter
Global Id:	T0600100682
Action Type:	ENFORCEMENT
Date:	04/05/2011
Action:	Staff Letter - #20110405
Global Id:	T0600100682
Action Type:	ENFORCEMENT
Date:	07/19/2010
Action:	Staff Letter - #20100719
Global Id:	T0600100682
Action Type:	ENFORCEMENT
Date:	05/31/2012
Action:	Referral to Regional Board - #20120531
Global Id:	T0600100682
Action Type:	ENFORCEMENT
Date:	05/02/2013
Action:	File Review - Closure
Global Id:	T0600100682
Action Type:	ENFORCEMENT
Date:	11/20/2017
Action:	Meeting
Global Id:	T0600100682
Action Type:	RESPONSE
Date:	05/14/2010
Action:	Sensitive Receptor Survey Report
Global Id:	T0600100682
Action Type:	RESPONSE
Date:	06/06/2008
Action:	Soil and Water Investigation Workplan
Global Id:	T0600100682
Action Type:	REMEDIATION
Date:	12/01/1993
Action:	Excavation
Global Id:	T0600100682
Action Type:	ENFORCEMENT

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A BACHARACH TRUST & B BORSUK (Continued)

S119777417

Date: 05/12/2015
Action: Site Visit / Inspection / Sampling

Global Id: T0600100682
Action Type: ENFORCEMENT
Date: 06/26/2014
Action: File Review - Closure

Global Id: T0600100682
Action Type: ENFORCEMENT
Date: 01/05/2015
Action: Email Correspondence

Global Id: T0600100682
Action Type: ENFORCEMENT
Date: 09/16/2014
Action: 13267 Requirement

Global Id: T0600100682
Action Type: ENFORCEMENT
Date: 08/12/2015
Action: Technical Correspondence / Assistance / Other

Global Id: T0600100682
Action Type: ENFORCEMENT
Date: 05/19/2015
Action: 13267 Requirement

Global Id: T0600100682
Action Type: ENFORCEMENT
Date: 11/21/2018
Action: 13267 Requirement

Global Id: T0600100682
Action Type: ENFORCEMENT
Date: 03/12/2018
Action: Technical Correspondence / Assistance / Other

Global Id: T0600100682
Action Type: ENFORCEMENT
Date: 09/13/2018
Action: Notification - Preclosure

Global Id: T0600100682
Action Type: RESPONSE
Date: 09/30/2009
Action: Soil and Water Investigation Report

Global Id: T0600100682
Action Type: RESPONSE
Date: 09/29/2010
Action: Soil and Water Investigation Workplan

Global Id: T0600100682
Action Type: RESPONSE
Date: 09/30/2015
Action: Site Assessment Report

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A BACHARACH TRUST & B BORSUK (Continued)

S119777417

Global Id:	T0600100682
Action Type:	RESPONSE
Date:	01/15/2015
Action:	Site Assessment Report
Global Id:	T0600100682
Action Type:	ENFORCEMENT
Date:	04/10/2018
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0600100682
Action Type:	RESPONSE
Date:	02/05/2016
Action:	Soil and Water Investigation Report
Global Id:	T0600100682
Action Type:	Other
Date:	08/18/1990
Action:	Leak Discovery
Global Id:	T0600100682
Action Type:	RESPONSE
Date:	07/13/2010
Action:	Clean Up Fund - 5-Year Review Summary
Global Id:	T0600100682
Action Type:	RESPONSE
Date:	06/17/2011
Action:	Site Assessment Report
Global Id:	T0600100682
Action Type:	RESPONSE
Date:	03/05/2009
Action:	Clean Up Fund - 5-Year Review Summary
Global Id:	T0600100682
Action Type:	ENFORCEMENT
Date:	12/01/2010
Action:	Staff Letter
Global Id:	T0600100682
Action Type:	RESPONSE
Date:	12/21/2018
Action:	Well Destruction Report
Global Id:	T0600100682
Action Type:	ENFORCEMENT
Date:	02/22/2008
Action:	Staff Letter - #20080222
Global Id:	T0600100682
Action Type:	ENFORCEMENT
Date:	08/01/2008
Action:	Staff Letter - #20080801
Global Id:	T0600100682
Action Type:	RESPONSE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A BACHARACH TRUST & B BORSUK (Continued)

S119777417

Date: 02/27/2012
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0600100682
Action Type: RESPONSE
Date: 08/14/2018
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0600100682
Action Type: ENFORCEMENT
Date: 11/22/2010
Action: Staff Letter - #20101122

LUST:

Global Id: T0600100682
Status: Open - Case Begin Date
Status Date: 08/18/1990

Global Id: T0600100682
Status: Open - Eligible for Closure
Status Date: 08/02/2018

Global Id: T0600100682
Status: Open - Eligible for Closure
Status Date: 09/13/2018

Global Id: T0600100682
Status: Open - Site Assessment
Status Date: 02/22/1994

Global Id: T0600100682
Status: Open - Site Assessment
Status Date: 04/08/1994

Global Id: T0600100682
Status: Open - Site Assessment
Status Date: 09/01/1994

Global Id: T0600100682
Status: Open - Site Assessment
Status Date: 02/10/1995

Global Id: T0600100682
Status: Open - Verification Monitoring
Status Date: 04/03/2017

CERS TANKS:

Site ID: 192395
CERS ID: T0600100682
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: MARTIN MUSONGE - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY STREET

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A BACHARACH TRUST & B BORSUK (Continued)

S119777417

Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

AE152 UNITED BEVERAGE DISTRIBUTORS
SW 105 JACKSON ST
1/4-1/2 OAKLAND, CA 94607
0.375 mi.
1979 ft. Site 4 of 4 in cluster AE

LUST S101624397
Alameda County CS N/A
SWEEPS UST
CA FID UST
HIST CORTESE
CERS

Relative:
Lower

Actual:
11 ft.

LUST:

Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101578
Global Id: T0600101578
Latitude: 37.793397
Longitude: -122.271045
Status: Completed - Case Closed
Status Date: 10/18/2001
Case Worker: Not reported
RB Case Number: 01-1707
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000034
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:

Global Id: T0600101578
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600101578
Action Type: Other
Date: 05/20/1993
Action: Leak Reported

Global Id: T0600101578
Action Type: REMEDIATION
Date: 09/09/9999
Action: Not reported

Global Id: T0600101578
Action Type: ENFORCEMENT
Date: 10/17/2001
Action: Closure/No Further Action Letter - #20011017

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNITED BEVERAGE DISTRIBUTORS (Continued)

S101624397

LUST:

Global Id: T0600101578
Status: Completed - Case Closed
Status Date: 10/18/2001

Global Id: T0600101578
Status: Open - Case Begin Date
Status Date: 05/20/1993

LUST REG 2:

Region: 2
Facility Id: 01-1707
Facility Status: Preliminary site assessment underway
Case Number: 4004
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: 1/2/1965
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Case Closed
Record Id: RO0000034
PE: 5602
Facility Status: Case Closed
Latitude: 37.793236348
Longitude: -122.27089227

SWEEPS UST:

Status: Not reported
Comp Number: 18670
Number: Not reported
Board Of Equalization: 44-000244
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-018670-000001
Tank Status: Not reported
Capacity: 2000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 1

CA FID UST:

Facility ID: 01001655

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNITED BEVERAGE DISTRIBUTORS (Continued)

S101624397

Regulated By: UTNKA
Regulated ID: 00018670
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4158326081
Mail To: Not reported
Mailing Address: 105 JACKSON ST
Mailing Address 2: Not reported
Mailing City,St,Zip: OAKLAND 94607
Contact: Not reported
Contact Phone: Not reported
DUNS Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-1707

CERS TANKS:

Site ID: 224136
CERS ID: T0600101578
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

AH153 **LEE FAMILY ASSOCIATION**
NW **387 12TH**
1/4-1/2 **OAKLAND, CA 94607**
0.388 mi.
2048 ft. **Site 1 of 4 in cluster AH**

LUST **S103890839**
Alameda County CS **N/A**
HIST CORTESE
CERS

Relative:
Higher
Actual:
43 ft.

LUST:
Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101610
Global Id: T0600101610
Latitude: 37.802374
Longitude: -122.2706359
Status: Completed - Case Closed
Status Date: 06/14/1995
Case Worker: Not reported
RB Case Number: 01-1739

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LEE FAMILY ASSOCIATION (Continued)

S103890839

Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000602
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Diesel
Site History: Not reported

LUST:

Global Id: T0600101610
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600101610
Action Type: Other
Date: 07/24/1992
Action: Leak Reported

Global Id: T0600101610
Action Type: REMEDIATION
Date: 09/09/9999
Action: Excavation

LUST:

Global Id: T0600101610
Status: Completed - Case Closed
Status Date: 06/14/1995

Global Id: T0600101610
Status: Open - Case Begin Date
Status Date: 07/24/1992

LUST REG 2:

Region: 2
Facility Id: 01-1739
Facility Status: Case Closed
Case Number: 4445
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: Tank
Date Leak Confirmed: 3/17/1993
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: 2/25/1993
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LEE FAMILY ASSOCIATION (Continued)

S103890839

Alameda County CS:

Status: Case Closed
Record Id: RO0000602
PE: 5602
Facility Status: Case Closed
Latitude: 37.802227323
Longitude: -122.27058573

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-1739

CERS TANKS:

Site ID: 195824
CERS ID: T0600101610
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

154
SSW
1/4-1/2
0.393 mi.
2073 ft.

**VUKASIN/SOUTHERN PACIFIC TRANS
54 EMBARCADERO AT FALLON
OAKLAND, CA 92626**

**Notify 65 S100178704
N/A**

Relative:
Lower
Actual:
9 ft.

NOTIFY 65:

Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Issue Date: Not reported
Incident Description: Not reported

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

AI155 **SUNSET WHOLESALE COMPANY**
SW **105 EMBARCADERO**
1/4-1/2 **OAKLAND, CA 94607**
0.398 mi.
2103 ft. **Site 1 of 3 in cluster AI**

LUST **S102438229**
Alameda County CS **N/A**
HIST CORTESE
CERS

Relative:
Lower
Actual:
10 ft.

LUST:
Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101613
Global Id: T0600101613
Latitude: 37.8004439
Longitude: -122.2906401
Status: Completed - Case Closed
Status Date: 10/17/1996
Case Worker: Not reported
RB Case Number: 01-1742
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000735
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0600101613
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:
Global Id: T0600101613
Action Type: Other
Date: 03/29/1993
Action: Leak Reported

Global Id: T0600101613
Action Type: REMEDIATION
Date: 09/09/9999
Action: Excavation

LUST:
Global Id: T0600101613
Status: Completed - Case Closed
Status Date: 10/17/1996

Global Id: T0600101613
Status: Open - Case Begin Date
Status Date: 03/29/1993

LUST REG 2:
Region: 2
Facility Id: 01-1742

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SUNSET WHOLESALE COMPANY (Continued)

S102438229

Facility Status: Case Closed
Case Number: 4450
How Discovered: Tank Closure
Leak Cause: Corrosion
Leak Source: Tank
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Case Closed
Record Id: RO0000735
PE: 5602
Facility Status: Case Closed
Latitude: 37.79251619
Longitude: -122.27026544

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-1742

CERS TANKS:

Site ID: 245025
CERS ID: T0600101613
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

AG156
NNW
1/4-1/2
0.400 mi.
2112 ft.

FRANK MAR COMMUNITY HOUSING PROJECT
383 13TH ST
OAKLAND, CA 94607
Site 3 of 3 in cluster AG

CPS-SLIC S101641523
CERS N/A

Relative:
Higher

CPS-SLIC:
Region:

STATE

Actual:
42 ft.

Facility Status:
Status Date:
Global Id:
Lead Agency:

Completed - Case Closed
06/04/2009
SLT2O135141
SAN FRANCISCO BAY RWQCB (REGION 2)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FRANK MAR COMMUNITY HOUSING PROJECT (Continued)

S101641523

Lead Agency Case Number: Not reported
Latitude: 37.803231
Longitude: -122.269232
Case Type: Cleanup Program Site
Case Worker: UUU
Local Agency: Not reported
RB Case Number: SLT2O135141
File Location: Not reported
Potential Media Affected: Not reported
Potential Contaminants of Concern: Not reported
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

SLIC REG 2:

Region: 2
Facility ID: SLT2O135141
Facility Status: Leak being confirmed
Date Closed: Not reported
Local Case #: Not reported
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Confirmed: Not reported
Date Prelim Site Assmnt Workplan Submitted: Not reported
Date Preliminary Site Assessment Began: Not reported
Date Pollution Characterization Began: Not reported
Date Remediation Plan Submitted: Not reported
Date Remedial Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

CERS TANKS:

Site ID: 199986
CERS ID: SLT2O135141
CERS Description: Cleanup Program Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AH157
NW
1/4-1/2
0.403 mi.
2129 ft.

OFFICE OF THE PRESIDENT UC
1111 FRANKLIN ST
OAKLAND, CA 94607

Alameda County CS

LUST S103576558
N/A

Site 2 of 4 in cluster AH

Relative:
Higher

LUST REG 2:

Actual:
43 ft.

Region: 2
Facility Id: 01-2250
Facility Status: Case Closed
Case Number: 6253
How Discovered: Tank Closure
Leak Cause: Spill
Leak Source: UNK
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assessment Wokplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: 11/21/1997

Alameda County CS:

Status: Case Closed
Record Id: RO0001007
PE: 5602
Facility Status: Case Closed
Latitude: 37.801933937
Longitude: -122.27135016

AH158
NW
1/4-1/2
0.403 mi.
2129 ft.

UNIVERSITY OF CALIFORNIA, OFFICE OF THE PRESIDENT
1111 FRANKLIN
OAKLAND, CA 94607

HIST CORTESE
CERS

LUST S103623124
N/A

Site 3 of 4 in cluster AH

Relative:
Higher

LUST:

Actual:
43 ft.

Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600102066
Global Id: T0600102066
Latitude: 37.802293
Longitude: -122.271459
Status: Completed - Case Closed
Status Date: 01/08/1998
Case Worker: Not reported
RB Case Number: 01-2250
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0001007
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Diesel
Site History: Not reported

LUST:

Global Id: T0600102066
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNIVERSITY OF CALIFORNIA, OFFICE OF THE PRESIDENT (Continued)

S103623124

Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600102066
Action Type: Other
Date: 01/21/1997
Action: Leak Reported

LUST:

Global Id: T0600102066
Status: Completed - Case Closed
Status Date: 01/08/1998

Global Id: T0600102066
Status: Open - Case Begin Date
Status Date: 01/21/1997

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-2250

CERS TANKS:

Site ID: 257099
CERS ID: T0600102066
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

159
WSW
1/4-1/2
0.405 mi.
2138 ft.

PE O'HAIR & COMPANY
339 3RD ST
OAKLAND, CA 94607

LUST S102434797
HIST CORTESE N/A

Relative:
Lower
Actual:
18 ft.

LUST REG 2:
Region: 2
Facility Id: 01-0838
Facility Status: Leak being confirmed
Case Number: 01-0838
How Discovered: Tank Closure

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

PE O'HAIR & COMPANY (Continued)

S102434797

Leak Cause: Structure Failure
 Leak Source: Tank
 Date Leak Confirmed: 1/20/1996
 Oversight Program: LUST
 Prelim. Site Assessment Workplan Submitted: Not reported
 Preliminary Site Assessment Began: Not reported
 Pollution Characterization Began: Not reported
 Pollution Remediation Plan Submitted: Not reported
 Date Remediation Action Underway: Not reported
 Date Post Remedial Action Monitoring Began: Not reported

HIST CORTESE:

Region: CORTESE
 Facility County Code: 1
 Reg By: LTNKA
 Reg Id: 01-0838

**160
 ESE
 1/4-1/2
 0.406 mi.
 2143 ft.**

**STERN PROPERTY
 1033 4TH
 OAKLAND, CA**

**HIST CORTESE S102438106
 N/A**

**Relative:
 Lower
 Actual:
 26 ft.**

HIST CORTESE:
 Region: CORTESE
 Facility County Code: 1
 Reg By: LTNKA
 Reg Id: 01-1554

**AH161
 NW
 1/4-1/2
 0.413 mi.
 2183 ft.**

**SHORE ACRES GAS
 403 12TH
 OAKLAND, CA 94606
 Site 4 of 4 in cluster AH**

**LUST S108418274
 CERS N/A**

**Relative:
 Higher
 Actual:
 43 ft.**

LUST:
 Lead Agency: ALAMEDA COUNTY LOP
 Case Type: LUST Cleanup Site
 Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600174667
 Global Id: T0600174667
 Latitude: 37.7955378124464
 Longitude: -122.255686737434
 Status: Open - Assessment & Interim Remedial Action
 Status Date: 05/11/2012
 Case Worker: KLD
 RB Case Number: NA
 Local Agency: ALAMEDA COUNTY LOP
 File Location: All Files are on GeoTracker or in the Local Agency Database
 Local Case Number: RO0002931
 Potential Media Affect: Other Groundwater (uses other than drinking water)
 Potential Contaminants of Concern: Gasoline
 Site History: June 23, 2006 a phase II environmental assessment was performed. Petroleum hydrocarbons and oxygenates were observed in soil samples. Groundwater samples were not collected. Additional investigation was proposed and approved however, this was not performed. In August 2009, three 12,000-gallon USTs, dispensers and piping were removed

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHORE ACRES GAS (Continued)

S108418274

from the site. Confirmation samples indicated elevated petroleum hydrocarbon concentrations in soil and groundwater.

LUST:

Global Id: T0600174667
Contact Type: Local Agency Caseworker
Contact Name: KAREL DETTERMAN
Organization Name: ALAMEDA COUNTY LOP
Address: 1131 Harbor Bay Parkway
City: ALAMEDA
Email: karel.detterman@acgov.org
Phone Number: 5105676708

Global Id: T0600174667
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600174667
Action Type: Other
Date: 07/21/2006
Action: Leak Reported

Global Id: T0600174667
Action Type: RESPONSE
Date: 07/10/2012
Action: CAP/RAP - Feasibility Study Report

Global Id: T0600174667
Action Type: RESPONSE
Date: 03/08/2016
Action: Monitoring Report - Quarterly

Global Id: T0600174667
Action Type: RESPONSE
Date: 06/08/2018
Action: Monitoring Report - Semi-Annually

Global Id: T0600174667
Action Type: RESPONSE
Date: 06/27/2018
Action: Soil and Water Investigation Workplan - Addendum

Global Id: T0600174667
Action Type: RESPONSE
Date: 06/08/2018
Action: Monitoring Report - Semi-Annually

Global Id: T0600174667
Action Type: RESPONSE
Date: 11/07/2012
Action: Corrective Action Plan / Remedial Action Plan - Addendum - Regulator Responded

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHORE ACRES GAS (Continued)

S108418274

Global Id:	T0600174667
Action Type:	ENFORCEMENT
Date:	07/03/2008
Action:	Staff Letter - #20080703
Global Id:	T0600174667
Action Type:	ENFORCEMENT
Date:	07/25/2008
Action:	Staff Letter - #07/25/2008
Global Id:	T0600174667
Action Type:	ENFORCEMENT
Date:	06/30/2016
Action:	Staff Letter - #20160630
Global Id:	T0600174667
Action Type:	RESPONSE
Date:	04/08/2013
Action:	Soil and Water Investigation Workplan
Global Id:	T0600174667
Action Type:	RESPONSE
Date:	08/11/2017
Action:	Monitoring Report - Semi-Annually
Global Id:	T0600174667
Action Type:	RESPONSE
Date:	09/09/2017
Action:	Other Report / Document
Global Id:	T0600174667
Action Type:	RESPONSE
Date:	11/30/2017
Action:	Monitoring Report - Semi-Annually
Global Id:	T0600174667
Action Type:	ENFORCEMENT
Date:	11/17/2015
Action:	Meeting - #20151117
Global Id:	T0600174667
Action Type:	ENFORCEMENT
Date:	02/18/2016
Action:	Staff Letter - #20160218
Global Id:	T0600174667
Action Type:	RESPONSE
Date:	11/30/2018
Action:	Monitoring Report - Semi-Annually
Global Id:	T0600174667
Action Type:	RESPONSE
Date:	11/30/2019
Action:	Monitoring Report - Semi-Annually
Global Id:	T0600174667
Action Type:	RESPONSE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHORE ACRES GAS (Continued)

S108418274

Date: 04/19/2018
Action: Remedial Investigation Workplan - Regulator Responded

Global Id: T0600174667
Action Type: RESPONSE
Date: 06/26/2018
Action: Soil Vapor Intrusion Investigation Workplan - Regulator Responded

Global Id: T0600174667
Action Type: ENFORCEMENT
Date: 07/24/2009
Action: Notice of Violation - #20090724

Global Id: T0600174667
Action Type: ENFORCEMENT
Date: 07/24/2009
Action: Staff Letter - #20090724

Global Id: T0600174667
Action Type: ENFORCEMENT
Date: 04/25/2018
Action: Staff Letter - #20180425

Global Id: T0600174667
Action Type: ENFORCEMENT
Date: 05/25/2018
Action: Staff Letter - #20180525

Global Id: T0600174667
Action Type: ENFORCEMENT
Date: 05/25/2018
Action: Staff Letter - #20180525

Global Id: T0600174667
Action Type: RESPONSE
Date: 08/25/2016
Action: Interim Remedial Action Report

Global Id: T0600174667
Action Type: ENFORCEMENT
Date: 12/29/2010
Action: Staff Letter - #20101229

Global Id: T0600174667
Action Type: ENFORCEMENT
Date: 09/20/2011
Action: Staff Letter - #20110920

Global Id: T0600174667
Action Type: ENFORCEMENT
Date: 06/17/2011
Action: Staff Letter - #20110617

Global Id: T0600174667
Action Type: ENFORCEMENT
Date: 03/22/2011
Action: Staff Letter - #20110322

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHORE ACRES GAS (Continued)

S108418274

Global Id:	T0600174667
Action Type:	ENFORCEMENT
Date:	11/14/2011
Action:	Staff Letter - #20111114
Global Id:	T0600174667
Action Type:	ENFORCEMENT
Date:	02/07/2013
Action:	Staff Letter - #20130207
Global Id:	T0600174667
Action Type:	ENFORCEMENT
Date:	09/06/2012
Action:	Staff Letter - #20120906
Global Id:	T0600174667
Action Type:	ENFORCEMENT
Date:	03/22/2013
Action:	Staff Letter - #20130322
Global Id:	T0600174667
Action Type:	ENFORCEMENT
Date:	05/11/2012
Action:	Staff Letter - #20120511
Global Id:	T0600174667
Action Type:	ENFORCEMENT
Date:	11/05/2018
Action:	Site Visit / Inspection / Sampling - #20181105
Global Id:	T0600174667
Action Type:	ENFORCEMENT
Date:	05/18/2018
Action:	Meeting - #20180518
Global Id:	T0600174667
Action Type:	RESPONSE
Date:	06/14/2018
Action:	Soil and Water Investigation Workplan
Global Id:	T0600174667
Action Type:	RESPONSE
Date:	06/11/2018
Action:	Monitoring Report - Semi-Annually
Global Id:	T0600174667
Action Type:	RESPONSE
Date:	11/30/2017
Action:	Monitoring Report - Semi-Annually
Global Id:	T0600174667
Action Type:	ENFORCEMENT
Date:	04/07/2014
Action:	Staff Letter - #20140407
Global Id:	T0600174667
Action Type:	ENFORCEMENT

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHORE ACRES GAS (Continued)

S108418274

Date: 06/29/2015
Action: Staff Letter - #20150629

Global Id: T0600174667
Action Type: ENFORCEMENT
Date: 07/21/2006
Action: Unauthorized Release Form - #20060721

Global Id: T0600174667
Action Type: ENFORCEMENT
Date: 08/24/2018
Action: Staff Letter - #20180824

Global Id: T0600174667
Action Type: ENFORCEMENT
Date: 04/20/2018
Action: Staff Letter - #20180420

Global Id: T0600174667
Action Type: ENFORCEMENT
Date: 07/27/2017
Action: Staff Letter - #20170727

Global Id: T0600174667
Action Type: RESPONSE
Date: 08/10/2009
Action: Electronic Reporting Submittal Due

Global Id: T0600174667
Action Type: RESPONSE
Date: 05/31/2019
Action: Monitoring Report - Semi-Annually

Global Id: T0600174667
Action Type: RESPONSE
Date: 10/24/2018
Action: Soil and Water Investigation Report

Global Id: T0600174667
Action Type: RESPONSE
Date: 06/08/2018
Action: Electronic Reporting Submittal Due

Global Id: T0600174667
Action Type: ENFORCEMENT
Date: 08/11/2017
Action: Staff Letter - #20170811

Global Id: T0600174667
Action Type: RESPONSE
Date: 12/09/2016
Action: Other Report / Document

Global Id: T0600174667
Action Type: RESPONSE
Date: 11/28/2016
Action: Monitoring Report - Quarterly

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHORE ACRES GAS (Continued)

S108418274

Global Id:	T0600174667
Action Type:	RESPONSE
Date:	08/25/2016
Action:	Other Report / Document
Global Id:	T0600174667
Action Type:	RESPONSE
Date:	03/01/2011
Action:	Soil and Water Investigation Workplan
Global Id:	T0600174667
Action Type:	Other
Date:	07/10/2006
Action:	Leak Discovery
Global Id:	T0600174667
Action Type:	RESPONSE
Date:	05/23/2011
Action:	Soil and Water Investigation Workplan - Addendum
Global Id:	T0600174667
Action Type:	RESPONSE
Date:	11/17/2011
Action:	Pilot Study/ Treatability Report
Global Id:	T0600174667
Action Type:	RESPONSE
Date:	08/17/2011
Action:	Preliminary Site Assessment Report
Global Id:	T0600174667
Action Type:	RESPONSE
Date:	04/18/2016
Action:	Interim Remedial Action Report
Global Id:	T0600174667
Action Type:	RESPONSE
Date:	03/18/2016
Action:	Other Report / Document
Global Id:	T0600174667
Action Type:	RESPONSE
Date:	02/16/2017
Action:	Monitoring Report - Quarterly
Global Id:	T0600174667
Action Type:	RESPONSE
Date:	10/17/2011
Action:	Soil and Water Investigation Workplan - Addendum
Global Id:	T0600174667
Action Type:	RESPONSE
Date:	01/15/2011
Action:	Soil and Water Investigation Report
Global Id:	T0600174667
Action Type:	RESPONSE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHORE ACRES GAS (Continued)

S108418274

Date: 03/18/2016
Action: Other Report / Document

Global Id: T0600174667
Action Type: RESPONSE
Date: 10/15/2009
Action: Tank Removal Report / UST Sampling Report

LUST:

Global Id: T0600174667
Status: Open - Assessment & Interim Remedial Action
Status Date: 06/24/2011

Global Id: T0600174667
Status: Open - Assessment & Interim Remedial Action
Status Date: 05/11/2012

Global Id: T0600174667
Status: Open - Case Begin Date
Status Date: 07/10/2006

Global Id: T0600174667
Status: Open - Site Assessment
Status Date: 07/10/2006

CERS TANKS:

Site ID: 203424
CERS ID: T0600174667
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Local Agency Caseworker
Entity Name: KAREL DETTERMAN - ALAMEDA COUNTY LOP
Entity Title: Not reported
Affiliation Address: 1131 Harbor Bay Parkway
Affiliation City: ALAMEDA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 5105676708

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

AI162 **KTVU PARTNERSHIP**
SSW **2 JACK LONDON SQ**
1/4-1/2 **OAKLAND, CA 94607**
0.417 mi.
2204 ft. **Site 2 of 3 in cluster AI**

LUST **U003642715**
Alameda County CS **N/A**
UST
CERS

Relative:
Lower
Actual:
10 ft.

LUST:
Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101661
Global Id: T0600101661
Latitude: 37.7955
Longitude: -122.2771
Status: Completed - Case Closed
Status Date: 04/03/1996
Case Worker: Not reported
RB Case Number: 01-1793
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0001013
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Diesel
Site History: Not reported

LUST:
Global Id: T0600101661
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:
Global Id: T0600101661
Action Type: Other
Date: 08/05/1993
Action: Leak Reported

Global Id: T0600101661
Action Type: REMEDIATION
Date: 08/05/1993
Action: Excavation

LUST:
Global Id: T0600101661
Status: Completed - Case Closed
Status Date: 04/03/1996

Global Id: T0600101661
Status: Open - Case Begin Date
Status Date: 08/05/1993

Alameda County CS:
Status: Case Closed
Record Id: RO0001013

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KTVU PARTNERSHIP (Continued)

U003642715

PE: 5602
Facility Status: Case Closed
Latitude: 37.792558123
Longitude: -122.27007618

UST:

Facility ID: 229
Permitting Agency: OAKLAND, CITY OF
Latitude: 37.7953852
Longitude: -122.2736767

Facility ID: Not reported
Permitting Agency: Alameda County Environmental Health
Latitude: 37.79199
Longitude: -122.27033

ALAMEDA CO. UST:

Facility ID: FA0321386
Facility Status: Active
Program Element: 4101
Description: UNDERGROUND STORAGE TANK 1 CONTAINER
Inspection Date: 06/12/2019
Closed: Not reported
Owner Name: Fox Television Stations, LLC, dba KTVU
Owner ID: OW0324537
Fstatus Decode: Open

CERS TANKS:

Site ID: 246795
CERS ID: T0600101661
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

AI163
SSW
1/4-1/2
0.417 mi.
2204 ft.
Relative:
Lower
Actual:
10 ft.

KTVU-TV
2 JACK LONDON SQUARE
OAKLAND, CA 94607
Site 3 of 3 in cluster AI

RCRA-SQG:
Date form received by agency: 09/01/1996
Facility name: KTVU-TV
Facility address: 2 JACK LONDON SQUARE

RCRA-SQG 1000423958
SWEEPS UST CAD004275665
HIST UST
CA FID UST
FINDS
ECHO
EMI
HIST CORTESE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KTVU-TV (Continued)

1000423958

OAKLAND, CA 94607
EPA ID: CAD004275665
Mailing address: JACK LONDON SQUARE
OAKLAND, CA 94607
Contact: Not reported
Contact address: Not reported
Not reported
Contact country: US
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KTVU-TV (Continued)

1000423958

User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

SWEEPS UST:

Status: Not reported
Comp Number: 42635
Number: Not reported
Board Of Equalization: 44-000422
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-042635-000001
Tank Status: Not reported
Capacity: 4000
Active Date: Not reported
Tank Use: PETROLEUM
STG: PRODUCT
Content: DIESEL
Number Of Tanks: 2

Status: Not reported
Comp Number: 42635
Number: Not reported
Board Of Equalization: 44-000422
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-042635-000002
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 42635
Number: 1
Board Of Equalization: 44-000422
Referral Date: 08-05-93
Action Date: 12-16-93
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: Not reported
Tank Status: Not reported
Capacity: Not reported
Active Date: Not reported
Tank Use: Not reported
STG: Not reported
Content: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KTVU-TV (Continued)

1000423958

Number Of Tanks: Not reported

HIST UST:

File Number: 00035ED6
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00035ED6.pdf>
Region: STATE
Facility ID: 00000042635
Facility Type: Other
Other Type: TV STATION
Contact Name: Not reported
Telephone: 4158740253
Owner Name: COX COMMUNICATIONS, INC.
Owner Address: P.O. BOX 105357
Owner City,St,Zip: ATLANTA, GA 30348
Total Tanks: 0002

Tank Num: 001
Container Num: G-5 4, 000
Year Installed: 1980
Tank Capacity: 00004000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 002
Container Num: 2
Year Installed: 1980
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

[Click here for Geo Tracker PDF:](#)

CA FID UST:

Facility ID: 01002700
Regulated By: UTNKA
Regulated ID: 00042635
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4158740253
Mail To: Not reported
Mailing Address: P O BOX
Mailing Address 2: Not reported
Mailing City,St,Zip: OAKLAND 94607
Contact: Not reported
Contact Phone: Not reported
DUNS Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KTVU-TV (Continued)

1000423958

FINDS:

Registry ID: 110002629503

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and its Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1000423958
Registry ID: 110002629503
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110002629503>

EMI:

Year: 2013
County Code: 1
Air Basin: SF
Facility ID: 21415
Air District Name: BA
SIC Code: 4833
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.007
Reactive Organic Gases Tons/Yr: 0.0058569
Carbon Monoxide Emissions Tons/Yr: 0.015
NOX - Oxides of Nitrogen Tons/Yr: 0.121
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0.002
Part. Matter 10 Micrometers and Smllr Tons/Yr:0.002

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KTVU-TV (Continued)

1000423958

Year: 2014
County Code: 1
Air Basin: SF
Facility ID: 22746
Air District Name: BA
SIC Code: 4833
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.006937657
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0.014596823
NOX - Oxides of Nitrogen Tons/Yr: 0.120956369
SOX - Oxides of Sulphur Tons/Yr: 0.000140831
Particulate Matter Tons/Yr: 0.002411274
Part. Matter 10 Micrometers and Smlr Tons/Yr:0.002314823

Year: 2015
County Code: 1
Air Basin: SF
Facility ID: 22746
Air District Name: BA
SIC Code: 4833
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.006939351
Reactive Organic Gases Tons/Yr: 0.006410174
Carbon Monoxide Emissions Tons/Yr: 0.01471188
NOX - Oxides of Nitrogen Tons/Yr: 0.1218992
SOX - Oxides of Sulphur Tons/Yr: 0.000129021
Particulate Matter Tons/Yr: 0.00242827
Part. Matter 10 Micrometers and Smlr Tons/Yr:0.002331139

Year: 2016
County Code: 1
Air Basin: SF
Facility ID: 22746
Air District Name: BA
SIC Code: 4833
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.006939351
Reactive Organic Gases Tons/Yr: 0.0060962198535
Carbon Monoxide Emissions Tons/Yr: 0.014711878
NOX - Oxides of Nitrogen Tons/Yr: 0.121899163
SOX - Oxides of Sulphur Tons/Yr: 0.000129021
Particulate Matter Tons/Yr: 0.00242827
Part. Matter 10 Micrometers and Smlr Tons/Yr:0.002331139

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-1793

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

164
WSW
1/4-1/2
0.419 mi.
2212 ft.

THE COLONY / THE OLSON COMPANY
311 2ND
OAKLAND, CA 94607

LUST S102433335
CPS-SLIC N/A
Alameda County CS
HIST CORTESE
CERS

Relative:
Lower
Actual:
14 ft.

LUST:

Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101977
Global Id: T0600101977
Latitude: 37.794727
Longitude: -122.273156
Status: Completed - Case Closed
Status Date: 06/18/1996
Case Worker: Not reported
RB Case Number: 01-2151
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000541
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Diesel
Site History: Not reported

LUST:

Global Id: T0600101977
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600101977
Action Type: Other
Date: 10/05/1993
Action: Leak Reported

LUST:

Global Id: T0600101977
Status: Completed - Case Closed
Status Date: 06/18/1996

Global Id: T0600101977
Status: Open - Case Begin Date
Status Date: 10/05/1993

LUST REG 2:

Region: 2
Facility Id: 01-2151
Facility Status: Case Closed
Case Number: 4616
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

THE COLONY / THE OLSON COMPANY (Continued)

S102433335

Date Leak Confirmed: 6/11/1996
Oversight Program: LUST
Prelim. Site Assessment Wokplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

CPS-SLIC:

Region: STATE
Facility Status: Open - Site Assessment
Status Date: 05/03/2005
Global Id: SL0600180448
Lead Agency: ALAMEDA COUNTY LOP
Lead Agency Case Number: RO0002906
Latitude: 37.794808
Longitude: -122.273141
Case Type: Cleanup Program Site
Case Worker: KEN
Local Agency: ALAMEDA COUNTY LOP
RB Case Number: NA
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affected: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Copper, Lead, Diesel, Gasoline, Naphthalene
Site History: Not all historic documents for the fuel leak case may be available on GeoTracker. A more complete historic case file for this site is located on the Alameda County Environmental Health website at <https://ehgis.acgov.org/dehpublic/dehpublic.jsp>. A 1,000-gallon fuel UST was removed in October 2007. Stained and odiferous soil ws encountered at the time of the removal. The tank pit was over excavated. Impacts at the site were reported to include 5,300 mg/kg TPHg, 15,000 mg/kg TPHd and 1,200 mg/kg lead. VOCs are also reported at the site. Grab groundwater was reported to include up to 5,400 ug/L TPHg, 11,000 ug/L TPHd, 2.4 ug/L PCE, 1.3 ug/L TCE and 1.1 ug/L MTBE.

Click here to access the California GeoTracker records for this facility:

Alameda County CS:

Status: Case Closed
Record Id: RO0000541
PE: 5602
Facility Status: Case Closed
Latitude: 37.794630253
Longitude: -122.27310001

Status: Preliminary Site Assessment Underway
Record Id: RO0002906
PE: 5502
Facility Status: Preliminary Site Assessment Underway
Latitude: Not reported
Longitude: Not reported

HIST CORTESE:

Region: CORTESE
Facility County Code: 1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

THE COLONY / THE OLSON COMPANY (Continued)

S102433335

Reg By: LTNKA
Reg Id: 01-2151

CERS TANKS:

Site ID: 203738
CERS ID: T0600101977
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Site ID: 197434
CERS ID: SL0600180448
CERS Description: Cleanup Program Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Local Agency Caseworker
Entity Name: KEITH NOWELL - ALAMEDA COUNTY LOP
Entity Title: Not reported
Affiliation Address: 1131 Harbor Bay Parkway
Affiliation City: ALAMEDA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 5105676764

165
WNW
1/4-1/2
0.419 mi.
2212 ft.

HOWARD JOHNSON EXPRESS INN
423 7TH ST
OAKLAND, CA 94607

CPS-SLIC
Alameda County CS
CERS

S107138706
N/A

Relative:
Lower
Actual:
30 ft.

CPS-SLIC:
Region: STATE
Facility Status: **Completed - Case Closed**
Status Date: 12/04/2006
Global Id: SL0600167382
Lead Agency: ALAMEDA COUNTY LOP

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HOWARD JOHNSON EXPRESS INN (Continued)

S107138706

Lead Agency Case Number: RO0002872
Latitude: 37.79943
Longitude: -122.27398
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: NA
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affected: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Not reported
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Alameda County CS:

Status: Leak Confirmation
Record Id: RO0002872
PE: 5502
Facility Status: Leak Confirmation
Latitude: 37.799124821
Longitude: -122.27361414

Status: Case Closed
Record Id: RO0002872
PE: 5502
Facility Status: Case Closed
Latitude: 37.799124821
Longitude: -122.27361414

CERS TANKS:

Site ID: 220071
CERS ID: SL0600167382
CERS Description: Cleanup Program Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

AJ166 1244 2ND AVENUE LLC
East 1244 2ND AVENUE
1/4-1/2 OAKLAND, CA 94606
0.421 mi.
2224 ft. Site 1 of 2 in cluster AJ

LUST S118672069
Alameda County CS N/A
HAZNET
CERS

Relative: LUST:
Lower Lead Agency: ALAMEDA COUNTY LOP
Actual: Case Type: LUST Cleanup Site
24 ft. Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000008860
Global Id: T10000008860

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

1244 2ND AVENUE LLC (Continued)

S118672069

Latitude: 37.79768
Longitude: -122.25634
Status: Completed - Case Closed
Status Date: 12/30/2016
Case Worker: Not reported
RB Case Number: Not reported
Local Agency: Not reported
File Location: Not reported
Local Case Number: RO0003216
Potential Media Affect: Other Groundwater (uses other than drinking water), Soil
Potential Contaminants of Concern: Diesel, Waste Oil / Motor / Hydraulic / Lubricating
Site History: The site is currently developed with an apartment building with a liquor store occupying the first floor. On December 8, 2015, one 1,000 gallon underground storage tank (UST) used for light diesel heating fuel was removed from the sidewalk at the southeast side of the site. During the UST removal, 50 tons of impacted soil and 2,800 gallons of impacted groundwater were removed. Site investigation including soil, grab groundwater, and soil gas sampling was performed. This diesel UST release case has been evaluated for closure consistent with the current site use and the State Water Resource Control Board Low-Threat Underground Storage Tank Closure Policy (LTCP) for petroleum related contaminants. Based on this evaluation, the site has been closed as a low-risk site. Case closure is granted for current residential and commercial land use with no site management requirements.

LUST:

Global Id: T10000008860
Contact Type: Regional Board Caseworker
Contact Name: Cherie McCaulou
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY STREET, SUITE 1400
City: OAKLAND
Email: cherie.mccaulou@waterboards.ca.gov
Phone Number: Not reported

LUST:

Global Id: T10000008860
Action Type: ENFORCEMENT
Date: 10/14/2016
Action: Letter - Notice - #20161014

Global Id: T10000008860
Action Type: ENFORCEMENT
Date: 05/13/2016
Action: Staff Letter - #20160513

Global Id: T10000008860
Action Type: ENFORCEMENT
Date: 12/30/2016
Action: Closure/No Further Action Letter - #20161230

Global Id: T10000008860
Action Type: ENFORCEMENT
Date: 05/10/2016
Action: Notice of Responsibility - #2016/05/10

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

1244 2ND AVENUE LLC (Continued)

S118672069

Global Id: T1000008860
Action Type: ENFORCEMENT
Date: 08/30/2016
Action: Staff Letter - #20160830

Global Id: T1000008860
Action Type: ENFORCEMENT
Date: 10/17/2016
Action: Notice of Responsibility - #20161017

Global Id: T1000008860
Action Type: ENFORCEMENT
Date: 09/07/2016
Action: Staff Letter - #20160907

Global Id: T1000008860
Action Type: ENFORCEMENT
Date: 10/14/2016
Action: Letter - Notice - #20161014

Global Id: T1000008860
Action Type: ENFORCEMENT
Date: 10/18/2016
Action: Staff Letter - #20161018

Global Id: T1000008860
Action Type: ENFORCEMENT
Date: 08/18/2016
Action: Email Correspondence - #20160818

Global Id: T1000008860
Action Type: ENFORCEMENT
Date: 12/28/2016
Action: Email Correspondence - #20161228

Global Id: T1000008860
Action Type: ENFORCEMENT
Date: 12/28/2016
Action: Unauthorized Release Form - #20161228

Global Id: T1000008860
Action Type: ENFORCEMENT
Date: 05/10/2016
Action: Staff Letter - #20160510

Global Id: T1000008860
Action Type: Other
Date: 02/02/2016
Action: Leak Reported

Global Id: T1000008860
Action Type: RESPONSE
Date: 07/12/2016
Action: Request for Closure - Regulator Responded

Global Id: T1000008860
Action Type: RESPONSE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

1244 2ND AVENUE LLC (Continued)

S118672069

Date: 11/28/2016
Action: Request for Closure - Regulator Responded

Global Id: T1000008860
Action Type: RESPONSE
Date: 06/28/2016
Action: Other Workplan - Regulator Responded

Global Id: T1000008860
Action Type: RESPONSE
Date: 09/02/2016
Action: Request for Closure - Regulator Responded

Global Id: T1000008860
Action Type: ENFORCEMENT
Date: 10/20/2016
Action: Notification - Public Notice of Case Closure - #2016/10/20

Global Id: T1000008860
Action Type: ENFORCEMENT
Date: 10/20/2016
Action: Staff Letter - #20161020

Global Id: T1000008860
Action Type: REMEDIATION
Date: 12/08/2015
Action: Excavation

Global Id: T1000008860
Action Type: Other
Date: 02/02/2016
Action: Leak Discovery

LUST:

Global Id: T1000008860
Status: Completed - Case Closed
Status Date: 12/30/2016

Global Id: T1000008860
Status: Open - Active
Status Date: 05/04/2016

Global Id: T1000008860
Status: Open - Case Begin Date
Status Date: 02/02/2016

Global Id: T1000008860
Status: Open - Eligible for Closure
Status Date: 10/18/2016

Alameda County CS:

Status: Leak Confirmation
Record Id: RO0003216
PE: 5602
Facility Status: Leak Confirmation

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

1244 2ND AVENUE LLC (Continued)

S118672069

Latitude: Not reported
Longitude: Not reported

Status: Case Closed
Record Id: RO0003216
PE: 5602
Facility Status: Case Closed
Latitude: Not reported
Longitude: Not reported

HAZNET:

Facility Name: 1244 2ND AVENUE LLC
envid: S118672069
Year: 2016
GEPaid: CAC002851085
Contact: TRENT MOORE
Telephone: 4153592400
Mailing Name: Not reported
Mailing Address: C/O TRENT MOORE 2655 VAN NESS AVE.,
Mailing City,St,Zip: SAN FRANCISCO, CA 94109
Gen County: Alameda
TSD EPA ID: NVT330010000
TSD County: 99
Waste Category: Other organic solids
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To
Include On-Site Treatment And/Or Stabilization)
Tons: 1.65
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

envid: S118672069
Year: 2015
GEPaid: CAC002816072
Contact: TRENT MOORE
Telephone: 5102066431
Mailing Name: Not reported
Mailing Address: 1244 2ND AVE
Mailing City,St,Zip: OAKLAND, CA 946062206
Gen County: Alameda
TSD EPA ID: CAD981382732
TSD County: Alameda
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To
Include On-Site Treatment And/Or Stabilization)
Tons: 0.23
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

envid: S118672069
Year: 2015
GEPaid: CAC002814812
Contact: TRENT MOORE
Telephone: 5102066431
Mailing Name: Not reported
Mailing Address: 1244 2ND AVE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

1244 2ND AVENUE LLC (Continued)

S118672069

Mailing City,St,Zip: OAKLAND, CA 94606
Gen County: Alameda
TSD EPA ID: CAD981382732
TSD County: Alameda
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.23
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

envid: S118672069
Year: 2015
GEPaid: CAC002834742
Contact: TRENT MOORE
Telephone: 5102066431
Mailing Name: Not reported
Mailing Address: 1244 2ND AVE
Mailing City,St,Zip: OAKLAND, CA 946062206
Gen County: Alameda
TSD EPA ID: CAD981382732
TSD County: Alameda
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.23
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

envid: S118672069
Year: 2015
GEPaid: CAC002830313
Contact: TRENT MOORE
Telephone: 4153592400
Mailing Name: Not reported
Mailing Address: 2655 VAN NESS AVE STE 2
Mailing City,St,Zip: SAN FRANCISCO, CA 941091698
Gen County: Alameda
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Unspecified oil-containing waste
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 3.9615
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Alameda

[Click this hyperlink](#) while viewing on your computer to access
1 additional CA_HAZNET: record(s) in the EDR Site Report.

CERS TANKS:

Site ID: 369299
CERS ID: T10000008860
CERS Description: Leaking Underground Storage Tank Cleanup Site

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

1244 2ND AVENUE LLC (Continued)

S118672069

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Cherie McCaulou - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY STREET, SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

167
ENE
1/4-1/2
0.423 mi.
2234 ft.

APARTMENT BUILDING
1455 1ST
OAKLAND, CA 94610

CPS-SLIC
Alameda County CS
CERS

S108245907
N/A

Relative:
Lower

CPS-SLIC:

Actual:
13 ft.

Region: STATE
Facility Status: **Open - Site Assessment**
Status Date: 11/22/1994
Global Id: T06019752536
Lead Agency: ALAMEDA COUNTY LOP
Lead Agency Case Number: RO0002765
Latitude: 37.79932
Longitude: -122.256664
Case Type: Cleanup Program Site
Case Worker: MD
Local Agency: ALAMEDA COUNTY LOP
RB Case Number: NA
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affected: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Not reported
Site History: A 1,500 gallon heating oil UST was removed from the site, and floating product was observed in the excavation pit. Subsequent to several NOV's and a pre-enforcement hearing, a work plan for three soil bores was submitted, and approved. No additional work appears to have occurred at the site. Not all historic documents for the fuel leak case may be available on GeoTracker. A more complete historic case file for this site is located on the Alameda County Environmental Health website at: <http://ehgis.acgov.dehpublic/dehpublic.jsp>.

Click here to access the California GeoTracker records for this facility:

Alameda County CS:

Status: Leak Confirmation
Record Id: RO0002765
PE: 5502
Facility Status: Leak Confirmation
Latitude: 37.799173283
Longitude: -122.25672442

CERS TANKS:

Site ID: 258606

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

APARTMENT BUILDING (Continued)

S108245907

CERS ID: T06019752536
CERS Description: Cleanup Program Site
Affiliation:
Affiliation Type Desc: Local Agency Caseworker
Entity Name: MARK DETTERMAN - ALAMEDA COUNTY LOP
Entity Title: Not reported
Affiliation Address: 1131 HARBOR BAY PARKWAY
Affiliation City: ALAMEDA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 5105676876

**AK168
NNW
1/4-1/2
0.430 mi.
2271 ft.**

**FORMER MERCHANT'S GARAGE
1314 FRANKLIN ST
OAKLAND, CA 94612
Site 1 of 4 in cluster AK**

**CPS-SLIC S121308097
Alameda County CS N/A
NPDES
CIWQS**

**Relative:
Higher
Actual:
41 ft.**

CPS-SLIC:
Region: STATE
Facility Status: Open - Active
Status Date: 11/14/2017
Global Id: T10000011079
Lead Agency: ALAMEDA COUNTY LOP
Lead Agency Case Number: RO0003275
Latitude: 37.80327
Longitude: -122.26958
Case Type: Cleanup Program Site
Case Worker: DY
Local Agency: ALAMEDA COUNTY LOP
RB Case Number: Not reported
File Location: Local Agency
Potential Media Affected: Aquifer used for drinking water supply
Potential Contaminants of Concern: Trichloroethylene (TCE)
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Alameda County CS:

Status: Leak Confirmation
Record Id: RO0003275
PE: 5502
Facility Status: Leak Confirmation
Latitude: Not reported
Longitude: Not reported

NPDES:

Facility Status: Active
NPDES Number: CAS000002
Region: 2
Agency Number: 0
Regulatory Measure ID: 486758
Place ID: Not reported
Order Number: 2009-0009-DWQ

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FORMER MERCHANT'S GARAGE (Continued)

S121308097

WDID: 2 01C381892
Regulatory Measure Type: Enrollee
Program Type: Construction
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: 12/04/2017
Termination Date Of Regulatory Measure: Not reported
Expiration Date Of Regulatory Measure: Not reported
Discharge Address: 1000 Sansome Street 1st Floor
Discharge Name: CP VI Franklin LLC
Discharge City: San Francisco
Discharge State: California
Discharge Zip: 94111
Status: Not reported
Status Date: Not reported
Operator Name: Not reported
Operator Address: Not reported
Operator City: Not reported
Operator State: Not reported
Operator Zip: Not reported

NPDES as of 03/2018:
NPDES Number: CAS000002
Status: Active
Agency Number: 0
Region: 2
Regulatory Measure ID: 486758
Order Number: 2009-0009-DWQ
Regulatory Measure Type: Enrollee
Place ID: Not reported
WDID: 2 01C381892
Program Type: Construction
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: 12/04/2017
Expiration Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: Not reported
Discharge Name: CP VI Franklin LLC
Discharge Address: 1000 Sansome Street 1st Floor
Discharge City: San Francisco
Discharge State: California
Discharge Zip: 94111
Received Date: Not reported
Processed Date: Not reported
Status: Not reported
Status Date: Not reported
Place Size: Not reported
Place Size Unit: Not reported
Contact: Not reported
Contact Title: Not reported
Contact Phone: Not reported
Contact Phone Ext: Not reported
Contact Email: Not reported
Operator Name: Not reported
Operator Address: Not reported
Operator City: Not reported
Operator State: Not reported
Operator Zip: Not reported
Operator Contact: Not reported
Operator Contact Title: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FORMER MERCHANT'S GARAGE (Continued)

S121308097

Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commercial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
Facility Status:	Not reported
NPDES Number:	Not reported
Region:	Not reported
Agency Number:	Not reported
Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	2 01C381892
Regulatory Measure Type:	Construction
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	Not reported
Discharge Name:	Not reported
Discharge City:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FORMER MERCHANT'S GARAGE (Continued)

S121308097

Discharge State:	Not reported
Discharge Zip:	Not reported
Status:	Active
Status Date:	12/04/2017
Operator Name:	CP VI Franklin LLC
Operator Address:	1000 Sansome Street 1st Floor
Operator City:	San Francisco
Operator State:	California
Operator Zip:	94111
NPDES as of 03/2018:	
NPDES Number:	CAS000002
Status:	Active
Agency Number:	0
Region:	2
Regulatory Measure ID:	486758
Order Number:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	2 01C381892
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	12/04/2017
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	CP VI Franklin LLC
Discharge Address:	1000 Sansome Street 1st Floor
Discharge City:	San Francisco
Discharge State:	California
Discharge Zip:	94111
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FORMER MERCHANT'S GARAGE (Continued)

S121308097

Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commercial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

CIWQS:

Agency:	CP VI Franklin LLC
Agency Address:	1000 Sansome Street 1st Floor, San Francisco, CA 94111
Place/Project Type:	Construction
SIC/NAICS:	Not reported
Region:	2
Program:	CONSTW
Regulatory Measure Status:	Active
Regulatory Measure Type:	Storm water construction
Order Number:	2009-0009-DWQ
WDID:	2 01C381892
NPDES Number:	CAS000002
Adoption Date:	Not reported
Effective Date:	12/04/2017
Termination Date:	Not reported
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	37.80327
Longitude:	-122.26959

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

AL169 **PERALTA COLLEGE DISTRICT**
SE **501 5TH AVE**
1/4-1/2 **OAKLAND, CA 94606**
0.432 mi.
2281 ft. **Site 1 of 4 in cluster AL**

Alameda County CS **S111711154**
N/A

Relative: Alameda County CS:
Lower Status: Remediation Plan
Record Id: RO0000384
Actual: PE: 5602
11 ft. Facility Status: Remediation Plan
Latitude: 37.791978801
Longitude: -122.25920027

AL170 **PERALTA COLLEGE DISTRICT**
SE **501 5TH AVENUE**
1/4-1/2 **OAKLAND, CA 94606**
0.432 mi.
2281 ft. **Site 2 of 4 in cluster AL**

LUST **S111760307**
CERS **N/A**

Relative: LUST:
Lower Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Actual: Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100983
11 ft. Global Id: T0600100983
Latitude: 37.7924732778502
Longitude: -122.260730266571
Status: Open - Site Assessment
Status Date: 03/17/1994
Case Worker: RS
RB Case Number: 01-1066
Local Agency: ALAMEDA COUNTY LOP
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000384
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Diesel, Gasoline
Site History: In April 1992 five USTs were removed and confirmation soil sampling detected elevated levels of contamination in soil. In November 1993, three USTs were removed and four groundwater monitoring wells were installed at the site. In June 1995, overexcavation and removal of 2,250 yd3 of contaminated soil was completed, then in September 1998 an additional 2,200 yd3 of contaminated soil was removed and disposed offsite. However, groundwater monitoring was discontinued after the remedial action, and verification sampling not performed to determine the effectiveness of the remedial action. Several areas of the site that may have been affected by leaking fuel USTs have not been investigated. A Work Plan to conduct site assessment in these areas was approved by the ACDEH on 18 July 2013. Two Notices to Comply were sent to the responsible party, the first in 2015 and the second in 2016. ACDEH is preparing a Notice of Violation and plans to work with the Alameda County District Attorney's office to enforce compliance.

LUST:
Global Id: T0600100983
Contact Type: Local Agency Caseworker
Contact Name: ROBERT SCHULTZ
Organization Name: ALAMEDA COUNTY LOP
Address: 1131 HARBOR BAY PARKWAY
City: ALAMEDA
Email: robert.schultz@acgov.org

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PERALTA COLLEGE DISTRICT (Continued)

S111760307

Phone Number: 5105676721

Global Id: T0600100983
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600100983
Action Type: ENFORCEMENT
Date: 06/30/2016
Action: Notice to Comply - #20160630

Global Id: T0600100983
Action Type: Other
Date: 09/03/1992
Action: Leak Reported

Global Id: T0600100983
Action Type: RESPONSE
Date: 06/17/2013
Action: Soil and Water Investigation Workplan - Regulator Responded

Global Id: T0600100983
Action Type: RESPONSE
Date: 04/05/2013
Action: Soil and Water Investigation Workplan - Regulator Responded

Global Id: T0600100983
Action Type: ENFORCEMENT
Date: 07/03/2008
Action: Technical Correspondence / Assistance / Other - #20080703

Global Id: T0600100983
Action Type: RESPONSE
Date: 07/24/2015
Action: Site Assessment Report

Global Id: T0600100983
Action Type: RESPONSE
Date: 06/18/2018
Action: Conceptual Site Model

Global Id: T0600100983
Action Type: RESPONSE
Date: 05/02/2018
Action: Correspondence

Global Id: T0600100983
Action Type: ENFORCEMENT
Date: 07/24/2009
Action: Staff Letter

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PERALTA COLLEGE DISTRICT (Continued)

S111760307

Global Id: T0600100983
Action Type: ENFORCEMENT
Date: 07/24/2009
Action: Notice of Violation

Global Id: T0600100983
Action Type: ENFORCEMENT
Date: 12/03/2009
Action: File review

Global Id: T0600100983
Action Type: ENFORCEMENT
Date: 04/12/2018
Action: Warning Letter

Global Id: T0600100983
Action Type: ENFORCEMENT
Date: 07/19/2016
Action: Email Correspondence - #20160719

Global Id: T0600100983
Action Type: ENFORCEMENT
Date: 07/18/2018
Action: Meeting

Global Id: T0600100983
Action Type: ENFORCEMENT
Date: 12/28/2017
Action: Staff Letter

Global Id: T0600100983
Action Type: ENFORCEMENT
Date: 10/31/2017
Action: Meeting - #MEETING_2017-10-31

Global Id: T0600100983
Action Type: RESPONSE
Date: 08/10/2009
Action: Electronic Reporting Submittal Due

Global Id: T0600100983
Action Type: ENFORCEMENT
Date: 08/15/2011
Action: Staff Letter - #20110815

Global Id: T0600100983
Action Type: ENFORCEMENT
Date: 03/09/2011
Action: Staff Letter - #20110309

Global Id: T0600100983
Action Type: ENFORCEMENT
Date: 12/14/2011
Action: Staff Letter - #20111214

Global Id: T0600100983
Action Type: ENFORCEMENT

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PERALTA COLLEGE DISTRICT (Continued)

S111760307

Date: 09/25/2012
Action: Staff Letter - #20120925

Global Id: T0600100983
Action Type: ENFORCEMENT
Date: 04/29/2013
Action: Staff Letter - #20130429

Global Id: T0600100983
Action Type: RESPONSE
Date: 06/13/2018
Action: Phase I Assessment Report

Global Id: T0600100983
Action Type: REMEDIATION
Date: 06/01/1995
Action: Excavation

Global Id: T0600100983
Action Type: ENFORCEMENT
Date: 07/08/2013
Action: Staff Letter - #20130708

Global Id: T0600100983
Action Type: ENFORCEMENT
Date: 05/14/2015
Action: Notice to Comply - #20150514

Global Id: T0600100983
Action Type: ENFORCEMENT
Date: 12/12/2017
Action: Meeting

Global Id: T0600100983
Action Type: ENFORCEMENT
Date: 04/03/2018
Action: Notice to Comply

Global Id: T0600100983
Action Type: ENFORCEMENT
Date: 05/09/2018
Action: Staff Letter

Global Id: T0600100983
Action Type: ENFORCEMENT
Date: 11/13/2017
Action: Staff Letter

Global Id: T0600100983
Action Type: RESPONSE
Date: 06/13/2018
Action: Monitoring Report - Semi-Annually

Global Id: T0600100983
Action Type: RESPONSE
Date: 10/30/2018
Action: Monitoring Report - Semi-Annually

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PERALTA COLLEGE DISTRICT (Continued)

S111760307

Global Id:	T0600100983
Action Type:	RESPONSE
Date:	04/30/2019
Action:	Monitoring Report - Semi-Annually
Global Id:	T0600100983
Action Type:	RESPONSE
Date:	10/30/2019
Action:	Monitoring Report - Semi-Annually
Global Id:	T0600100983
Action Type:	RESPONSE
Date:	04/30/2020
Action:	Monitoring Report - Semi-Annually
Global Id:	T0600100983
Action Type:	RESPONSE
Date:	10/30/2020
Action:	Monitoring Report - Semi-Annually
Global Id:	T0600100983
Action Type:	RESPONSE
Date:	04/30/2021
Action:	Monitoring Report - Semi-Annually
Global Id:	T0600100983
Action Type:	RESPONSE
Date:	10/30/2021
Action:	Monitoring Report - Semi-Annually
Global Id:	T0600100983
Action Type:	RESPONSE
Date:	04/30/2022
Action:	Monitoring Report - Semi-Annually
Global Id:	T0600100983
Action Type:	RESPONSE
Date:	10/30/2022
Action:	Monitoring Report - Semi-Annually
Global Id:	T0600100983
Action Type:	Other
Date:	09/03/1992
Action:	Leak Discovery
Global Id:	T0600100983
Action Type:	ENFORCEMENT
Date:	04/17/2014
Action:	Staff Letter - #20140417
Global Id:	T0600100983
Action Type:	RESPONSE
Date:	07/25/2011
Action:	Soil and Water Investigation Workplan
Global Id:	T0600100983
Action Type:	Other

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PERALTA COLLEGE DISTRICT (Continued)

S111760307

Date: 09/03/1992
Action: Leak Stopped

Global Id: T0600100983
Action Type: RESPONSE
Date: 06/16/2012
Action: Site Assessment Report

Global Id: T0600100983
Action Type: RESPONSE
Date: 01/13/2012
Action: Electronic Reporting Submittal Due

LUST:

Global Id: T0600100983
Status: Open - Case Begin Date
Status Date: 09/03/1992

Global Id: T0600100983
Status: Open - Remediation
Status Date: 09/03/1992

Global Id: T0600100983
Status: Open - Site Assessment
Status Date: 03/01/1994

Global Id: T0600100983
Status: Open - Site Assessment
Status Date: 03/17/1994

CERS TANKS:

Site ID: 232069
CERS ID: T0600100983
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Local Agency Caseworker
Entity Name: ROBERT SCHULTZ - ALAMEDA COUNTY LOP
Entity Title: Not reported
Affiliation Address: 1131 HARBOR BAY PARKWAY
Affiliation City: ALAMEDA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 5105676721

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

AL171
SE
1/4-1/2
0.432 mi.
2281 ft.

PERALTA COLLEGE DISTRICT (NORTH PARCELS)
501 5TH AVENUE
OAKLAND, CA 94606

CPS-SLIC **S123102556**
CERS **N/A**

Site 3 of 4 in cluster AL

Relative:
Lower

CPS-SLIC:

Region: STATE
 Facility Status: **Open - Site Assessment**

Actual:
11 ft.

Status Date: 10/03/2018
 Global Id: T10000011168
 Lead Agency: ALAMEDA COUNTY LOP
 Lead Agency Case Number: RO0003283
 Latitude: 37.79015
 Longitude: -122.26009
 Case Type: Cleanup Program Site
 Case Worker: RS
 Local Agency: ALAMEDA COUNTY LOP
 RB Case Number: Not reported
 File Location: Not reported
 Potential Media Affected: Not reported
 Potential Contaminants of Concern: Freon, Total Petroleum Hydrocarbons (TPH), Waste Oil / Motor / Hydraulic / Lubricating
 Site History: An existing LUFT case RO0000384 is related to the releases from USTs located on the southwestern parcel. This case (Northern Parcels) is related to the contamination identified in the September 1992 Phase II Investigation.

[Click here to access the California GeoTracker records for this facility:](#)

CERS TANKS:

Site ID: 443894
 CERS ID: T10000011168
 CERS Description: Cleanup Program Site

Affiliation:

Affiliation Type Desc: Local Agency Caseworker
 Entity Name: ROBERT SCHULTZ - ALAMEDA COUNTY LOP
 Entity Title: Not reported
 Affiliation Address: 1131 HARBOR BAY PARKWAY
 Affiliation City: ALAMEDA
 Affiliation State: CA
 Affiliation Country: Not reported
 Affiliation Zip: Not reported
 Affiliation Phone: 5105676721

AL172
SE
1/4-1/2
0.432 mi.
2281 ft.

PERALTA DISTRICT ADMIN CENTER
501 5TH AVE
OAKLAND, CA 94606

RCRA-SQG **1000149341**
LUST **CAD076567718**
SWEEPS UST
FINDS
ECHO
HIST CORTESE

Site 4 of 4 in cluster AL

Relative:
Lower

RCRA-SQG:

Actual:
11 ft.

Date form received by agency: 08/20/1987
 Facility name: PERALTA DISTRICT ADMIN CENTER
 Facility address: 501 5TH AVE
 OAKLAND, CA 94606
 EPA ID: CAD076567718

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PERALTA DISTRICT ADMIN CENTER (Continued)

1000149341

Mailing address: 333 E EIGHTH ST
OAKLAND, CA 94606
Contact: ENVIRONMENTAL MANAGER
Contact address: 501 5TH AVE
OAKLAND, CA 94606
Contact country: US
Contact telephone: 415-466-7337
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: PERALTA COMM COLLEGE
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: District
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: District
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
Used oil refiner: No
Used oil fuel marketer to burner: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PERALTA DISTRICT ADMIN CENTER (Continued)

1000149341

Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

LUST REG 2:

Region: 2
Facility Id: 01-1066
Facility Status: Preliminary site assessment underway
Case Number: 3292
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: 9/2/1992
Preliminary Site Assessment Began: 1/2/1965
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

LUST REG 3:

Region: 3
Regional Board: Central Coast Region
Facility County: Santa Barbara
Global ID: T0608391920
Status: Case Closed
Case Number: 3292
Local Case Num: Not reported
Case Type: O
Substance: Diesel
Quantity: Not reported
Abatement Method: Excavate and Dispose - remove contaminated soil and dispose in approved site
Leak Source: Tank
Leak Cause: Corrosion
How Stopped: Not reported
How Discovered: Tank Closure
Release Date: 03/16/1999
Discovered Date: 12/8/98
Enter Date: 10/23/2000
Stop Date: Not reported
Review Date: 10/23/2000
Enforce Date: 1/1/65
Close Date: 4/19/99
Enforcement Type: None Taken
Responsible Party: Not reported
RP Address: Not reported
Contact: Not reported
Cross Street: unknown
Local Agency: 42000L
Lead Agency: Regional Board
Staff Initials: CHK
Confirm Leak: Not reported
Workplan: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PERALTA DISTRICT ADMIN CENTER (Continued)

1000149341

Prelim Assess: Not reported
Pollution Char: / /
Remedial Plan: Not reported
Remedial Action: Not reported
Monitoring: / /
Pilot Program: DOD
Interim Action: N
Funding: Not reported
MTBE Class: *
Max MTBE Grnd Wtr: Not reported
Max MTBE Soil: Not reported
Max MTBE Data: / /
MTBE Tested: NRQ
Lat/Long: Not reported
Soil Qualifier: Not reported
Grnd Wtr Qualifier: Not reported
Mtbe Concentratn: 0
Mtbe Fuel: 0
Org Name: Not reported
Basin Plan: 13.00
Beneficial: MUN
Priority: 3
UST Cleanup Fund ID: Not reported
Suspended: Not reported
Operator: Not reported
Water System: Not reported
Well Name: Not reported
Distance From Well: 0
Assigned Name: Not reported
Summary: Not reported

SWEEPS UST:

Status: Not reported
Comp Number: 24320
Number: Not reported
Board Of Equalization: 44-031506
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-024320-000002
Tank Status: Not reported
Capacity: 2000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 5

Status: Not reported
Comp Number: 24320
Number: Not reported
Board Of Equalization: 44-031506
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PERALTA DISTRICT ADMIN CENTER (Continued)

1000149341

SWRCB Tank Id: 01-000-024320-000003
Tank Status: Not reported
Capacity: 6000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: LEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 24320
Number: Not reported
Board Of Equalization: 44-031506
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-024320-000004
Tank Status: Not reported
Capacity: 6000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 24320
Number: Not reported
Board Of Equalization: 44-031506
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-024320-000005
Tank Status: Not reported
Capacity: 2000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: DIESEL
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 24320
Number: Not reported
Board Of Equalization: 44-031506
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-024320-000006
Tank Status: Not reported
Capacity: 500
Active Date: Not reported
Tank Use: OIL
STG: WASTE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PERALTA DISTRICT ADMIN CENTER (Continued)

1000149341

Content: WASTE OIL
Number Of Tanks: Not reported

Status: Active
Comp Number: 24320
Number: 9
Board Of Equalization: 44-031506
Referral Date: 06-01-93
Action Date: 11-23-93
Created Date: 02-29-88
Owner Tank Id: D-3
SWRCB Tank Id: 01-000-024320-000001
Tank Status: A
Capacity: 6000
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 3

Status: Active
Comp Number: 24320
Number: 9
Board Of Equalization: 44-031506
Referral Date: 06-01-93
Action Date: 11-23-93
Created Date: 02-29-88
Owner Tank Id: D-1
SWRCB Tank Id: 01-000-024320-000007
Tank Status: A
Capacity: 4000
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 24320
Number: 9
Board Of Equalization: 44-031506
Referral Date: 06-01-93
Action Date: 11-23-93
Created Date: 02-29-88
Owner Tank Id: D-2
SWRCB Tank Id: 01-000-024320-000008
Tank Status: A
Capacity: 6000
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

FINDS:

Registry ID: 110002658758

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

PERALTA DISTRICT ADMIN CENTER (Continued)

1000149341

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1000149341
 Registry ID: 110002658758
 DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110002658758>

HIST CORTESE:

Region: CORTESE
 Facility County Code: 1
 Reg By: LTNKA
 Reg Id: 01-1066

173
 WNW
 1/4-1/2
 0.434 mi.
 2290 ft.

**CITY OF OAKLAND PARKING LOT
 910 BROADWAY
 OAKLAND, CA 94607**

**CPS-SLIC S107735741
 Alameda County CS N/A
 CERS**

**Relative:
 Higher
 Actual:
 40 ft.**

CPS-SLIC:
 Region: STATE
Facility Status: Completed - Case Closed
 Status Date: 10/20/2016
 Global Id: T06019705750
 Lead Agency: ALAMEDA COUNTY LOP
 Lead Agency Case Number: RO0002914
 Latitude: 37.800977
 Longitude: -122.273272
 Case Type: Cleanup Program Site
 Case Worker: KEN
 Local Agency: ALAMEDA COUNTY LOP
 RB Case Number: NA
 File Location: All Files are on GeoTracker or in the Local Agency Database
 Potential Media Affected: Other Groundwater (uses other than drinking water)
 Potential Contaminants of Concern: Total Petroleum Hydrocarbons (TPH)
 Site History: The site is currently developed as a 5-story hotel having a slab-on-grade foundation. At the time this case was opened, the property was owned by Oakland Garden Hotel LLC. The property, a former parking lot, had recently been transferred from the Redevelopment Agency of the City of Oakland following closure of the Alameda County Department of Environmental Health (ACDEH) Spills, Leaks, Investigation and Cleanup (SLIC) Program case RO0002673, STID 5803 and GeoTracker Global ID T0601975838, for the subject site. Residual petroleum hydrocarbon (PH) contamination was encountered along the sidewalk area along Ninth Street during excavation activities for the hotel foundation. The residual PH concentrations exceeded the case closure concentrations reported for RO0002673,

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CITY OF OAKLAND PARKING LOT (Continued)

S107735741

closed on April 13, 2000. PH contaminated soil was excavated and the hotel constructed. However, the case had not been closed. ACDEHs review of the case file determined the case met all General Criteria of the State Water Resources Control Boards (SWRCBs) Low Threat Underground Storage Tank Case Closure Policy (LTCP) and two of the three Media Specific LTCP Criteria (Groundwater and Direct Contact and Outdoor Air Criteria). It was unclear to ACDEH if the site met the LTCP Media Specific Criteria for Vapor Intrusion to Indoor Air (VI-IA). Therefore, in a letter dated May 20, 2016, ACDEH requested the collection and analysis of indoor air samples in order to satisfy the VI-IA criteria. The findings of the vapor intrusion study, presented in a report dated June 8, 2016, demonstrated concentrations of PHs were below the laboratory reporting limits for the indoor air samples, thus satisfying the LTCP VI-IA Criteria.

[Click here to access the California GeoTracker records for this facility:](#)

Region:	STATE
Facility Status:	Completed - Case Closed
Status Date:	04/13/2000
Global Id:	T06019758386
Lead Agency:	ALAMEDA COUNTY LOP
Lead Agency Case Number:	RO0002673
Latitude:	37.8010189173918
Longitude:	-122.272478342056
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	NA
File Location:	All Files are on GeoTracker or in the Local Agency Database
Potential Media Affected:	Under Investigation
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

[Click here to access the California GeoTracker records for this facility:](#)

Alameda County CS:

Status:	Leak Confirmation
Record Id:	RO0002673
PE:	5502
Facility Status:	Leak Confirmation
Latitude:	Not reported
Longitude:	Not reported

Status:	Case Closed
Record Id:	RO0002673
PE:	5502
Facility Status:	Case Closed
Latitude:	Not reported
Longitude:	Not reported

Status:	Leak Confirmation
Record Id:	RO0002914
PE:	5502
Facility Status:	Leak Confirmation
Latitude:	Not reported
Longitude:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CITY OF OAKLAND PARKING LOT (Continued)

S107735741

Status: Pollution Characterization
Record Id: RO0002914
PE: 5502
Facility Status: Pollution Characterization
Latitude: Not reported
Longitude: Not reported

Status: Case Closed
Record Id: RO0002914
PE: 5502
Facility Status: Case Closed
Latitude: Not reported
Longitude: Not reported

CERS TANKS:

Site ID: 196318
CERS ID: T06019705750
CERS Description: Cleanup Program Site

Affiliation:

Affiliation Type Desc: Local Agency Caseworker
Entity Name: KEITH NOWELL - ALAMEDA COUNTY LOP
Entity Title: Not reported
Affiliation Address: 1131 Harbor Bay Parkway
Affiliation City: ALAMEDA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 5105676764

Site ID: 196318
CERS ID: T06019758386
CERS Description: Cleanup Program Site

Affiliation:

Affiliation Type Desc: Local Agency Caseworker
Entity Name: KEITH NOWELL - ALAMEDA COUNTY LOP
Entity Title: Not reported
Affiliation Address: 1131 Harbor Bay Parkway
Affiliation City: ALAMEDA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 5105676764

174
SE
1/4-1/2
0.434 mi.
2292 ft.

SOUTHERN PACIFIC TRANSPORTATION COMPANY
0 5TH AVE & 7TH
OAKLAND, CA 94606

LUST S106162375
Alameda County CS N/A
CERS

Relative:
Lower
Actual:
16 ft.

LUST:
Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101625
Global Id: T0600101625

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SOUTHERN PACIFIC TRANSPORTATION COMPANY (Continued)

S106162375

Latitude: 37.796145
Longitude: -122.253374
Status: Completed - Case Closed
Status Date: 09/20/2002
Case Worker: Not reported
RB Case Number: 01-1757
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000381
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Diesel
Site History: Not reported

LUST:

Global Id: T0600101625
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600101625
Action Type: Other
Date: 01/26/1989
Action: Leak Reported

Global Id: T0600101625
Action Type: REMEDIATION
Date: 09/09/9999
Action: Excavation

Global Id: T0600101625
Action Type: ENFORCEMENT
Date: 09/20/2002
Action: Closure/No Further Action Letter - #20020920

LUST:

Global Id: T0600101625
Status: Completed - Case Closed
Status Date: 09/20/2002

Global Id: T0600101625
Status: Open - Case Begin Date
Status Date: 01/26/1989

LUST REG 2:

Region: 2
Facility Id: 01-1757
Facility Status: Preliminary site assessment underway
Case Number: 3748
How Discovered: Tank Closure
Leak Cause: UNK

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SOUTHERN PACIFIC TRANSPORTATION COMPANY (Continued)

S106162375

Leak Source: Tank
Date Leak Confirmed: 3/13/1992
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: 1/2/1965
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Case Closed
Record Id: RO0000381
PE: 5602
Facility Status: Case Closed
Latitude: 37.79274706
Longitude: -122.25805186

CERS TANKS:

Site ID: 231614
CERS ID: T0600101625
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

175
SSE
1/4-1/2
0.437 mi.
2305 ft.

PACIFIC DRYDOCK & REPAIR COMPANY
321 EMBARCADERO
OAKLAND, CA 94606

RCRA-SQG 1000250609
LUST CAD103451035
Alameda County CS
HIST UST
CHMIRS
FINDS
ECHO
ENF
CERS

Relative:
Lower
Actual:
8 ft.

RCRA-SQG:

Date form received by agency: 09/01/1996
Facility name: PACIFIC DRYDOCK & REPAIR COMPANY
Facility address: 321 EMBARCADERO
OAKLAND, CA 94606
EPA ID: CAD103451035
Contact: Not reported
Contact address: Not reported
Not reported
Contact country: US
Contact telephone: Not reported
Contact email: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PACIFIC DRYDOCK & REPAIR COMPANY (Continued)

1000250609

EPA Region: 09
Land type: Facility is not located on Indian land. Additional information is not known.
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: PORT OF OAKLAND
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
Used oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 04/16/1990
Site name: PACIFIC DRYDOCK & REPAIR COMPANY

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PACIFIC DRYDOCK & REPAIR COMPANY (Continued)

1000250609

Classification: Large Quantity Generator

Date form received by agency: 06/13/1986
Site name: PACIFIC DRYDOCK & REPAIR COMPANY
Classification: Large Quantity Generator

Facility Has Received Notices of Violations:

Regulation violated: FR - FEA
Area of violation: Formal Enforcement Agreement or Order
Date violation determined: 09/15/1986
Date achieved compliance: 05/05/1992
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 07/17/1986
Date achieved compliance: 05/05/1992
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:

Evaluation date: 05/05/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 09/15/1986
Evaluation: COMPLIANCE SCHEDULE EVALUATION
Area of violation: Formal Enforcement Agreement or Order
Date achieved compliance: 05/05/1992
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 07/17/1986
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 05/05/1992
Evaluation lead agency: State Contractor/Grantee

LUST:

Lead Agency: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
Case Type: LUST Cleanup Site

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PACIFIC DRYDOCK & REPAIR COMPANY (Continued)

1000250609

Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600102267
Global Id: T0600102267
Latitude: 37.791056
Longitude: -122.263224
Status: Open - Assessment & Interim Remedial Action
Status Date: 07/29/2010
Case Worker: Not reported
RB Case Number: Not reported
Local Agency: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: 70000109
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Other Solvent or Non-Petroleum Hydrocarbon, Tetrachloroethylene (PCE), Chromium, Copper, Lead
Site History: The cases below are all DTSC lead as part of the Ninth Ave Terminal (OAK STREET TO 9TH AVENUE (70000109)) residential redevelopment project for which DTSC is the lead agency. RO106 PORT OF OAKLAND / KEEP ON TRUCKING RO108 PORT OF OAKLAND / BLDG H-209 RO109 PORT OF OAKLAND / CANNERY BLDG H-211 RO110 PORT OF OAKLAND / MARINE TERMINALS CORPORATION RO423 PORT OF OAKLAND / PACIFIC DRY DOCK YARD 2 RO485 PORT OF OAKLAND / CARD LOCK BLDG H-204 RO2461 SEABREEZE YACHT CENTER RO2462 PRAXAIR INC RO2492 PORT OF OAKLAND / NINTH AVE TERMINAL RB Case #: SLT2O160264

LUST:

Global Id: T0600102267
Action Type: Other
Date: 04/15/1991
Action: Leak Reported

Global Id: T0600102267
Action Type: ENFORCEMENT
Date: 07/31/2009
Action: Staff Letter - #20090731

Global Id: T0600102267
Action Type: REMEDIATION
Date: 06/30/1998
Action: Excavation

Global Id: T0600102267
Action Type: Other
Date: 04/15/1991
Action: Leak Discovery

LUST:

Global Id: T0600102267
Status: Open - Assessment & Interim Remedial Action
Status Date: 07/29/2010

Global Id: T0600102267
Status: Open - Case Begin Date
Status Date: 06/30/1998

Global Id: T0600102267
Status: Open - Referred
Status Date: 10/13/2005

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PACIFIC DRYDOCK & REPAIR COMPANY (Continued)

1000250609

Alameda County CS:

Status: Leak Confirmation
Record Id: RO0000423
PE: 5602
Facility Status: Leak Confirmation
Latitude: Not reported
Longitude: Not reported

Status: 11
Record Id: RO0000423
PE: 5602
Facility Status: Not reported
Latitude: Not reported
Longitude: Not reported

Status: Pollution Characterization
Record Id: RO0000423
PE: 5602
Facility Status: Pollution Charaterization
Latitude: Not reported
Longitude: Not reported

HIST UST:

File Number: Not reported
URL: Not reported
Region: STATE
Facility ID: 00000060504
Facility Type: Other
Other Type: SHIPYARD
Contact Name: R.G. HARTSOCK, GENERAL MANAGER
Telephone: 4158937020
Owner Name: PORT OF OAKLAND
Owner Address: 66 JACK LONDON SQUARE
Owner City,St,Zip: OAKLAND, CA 94604
Total Tanks: 0001

Tank Num: 001
Container Num: 66
Year Installed: Not reported
Tank Capacity: 00000500
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00000400
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

CHMIRS:

OES Incident Number: 10-7932

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PACIFIC DRYDOCK & REPAIR COMPANY (Continued)

1000250609

OES notification:	12/29/2010
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	Not reported
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agency Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Yes
Waterway:	San Francisco Bay
Spill Site:	Treatment/Sewage Facility
Cleanup By:	None
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Unknown
Other:	Not reported
Date/Time:	2354
Year:	2010
Agency:	East Bay MUD
Incident Date:	12/28/2010
Admin Agency:	City of Oakland Fire Department
Amount:	Not reported
Contained:	No
Site Type:	San Francisco Bay
E Date:	Not reported
Substance:	Treated Storm Water
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

PACIFIC DRYDOCK & REPAIR COMPANY (Continued)

1000250609

#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	RP states that they are releasing storm surge from their San Antonio Creek Wet Weather Facility.
	Not reported
OES Incident Number:	10-0457
OES notification:	01/20/2010
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	Not reported
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Yes
Waterway:	Oakland Estuary
Spill Site:	Treatment/Sewage Facility
Cleanup By:	Unrecoverable
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Gal(s)
Other:	Not reported
Date/Time:	1009
Year:	2010
Agency:	East Bay MUD
Incident Date:	1/20/2010
Admin Agency:	City of Oakland Fire Department
Amount:	Not reported
Contained:	No
Site Type:	Oakland Estuary
E Date:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PACIFIC DRYDOCK & REPAIR COMPANY (Continued)

1000250609

Substance:	Treated Primary Effluent
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Caller states that due to recent storm surge, the San Antonio Creek Wet weather facility is discharging.

FINDS:

Registry ID: 110001169592

Environmental Interest/Information System

NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1000250609
Registry ID:	110001169592
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110001169592

ENF:

Region:	2
Facility Id:	216209
Agency Name:	Crowley Marine Services Inc
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	All other facilities
Agency Type:	Privately-Owned Business

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

PACIFIC DRYDOCK & REPAIR COMPANY (Continued)

1000250609

# Of Agencies:	1
Place Latitude:	Not reported
Place Longitude:	Not reported
SIC Code 1:	Not reported
SIC Desc 1:	Not reported
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	UNREGS
Program Category1:	UNREGS
Program Category2:	UNREGS
# Of Programs:	1
WDID:	2 019174N01
Reg Measure Id:	162704
Reg Measure Type:	Unregulated
Region:	2
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	02/21/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	222404

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PACIFIC DRYDOCK & REPAIR COMPANY (Continued)

1000250609

Region: 2
Order / Resolution Number: 96-111
Enforcement Action Type: Clean-up and Abatement Order
Effective Date: 08/02/1996
Adoption/Issuance Date: Not reported
Achieve Date: Not reported
Termination Date: Not reported
ACL Issuance Date: Not reported
EPL Issuance Date: Not reported
Status: Active
Title: Enforcement - 2 019174N01
Description: CAO-
Program: UNREGS
Latest Milestone Completion Date: Not reported
Of Programs1: 1
Total Assessment Amount: 0
Initial Assessed Amount: 0
Liability \$ Amount: 0
Project \$ Amount: 0
Liability \$ Paid: 0
Project \$ Completed: 0
Total \$ Paid/Completed Amount: 0

CERS TANKS:

Site ID: 206226
CERS ID: T0600102267
CERS Description: Leaking Underground Storage Tank Cleanup Site

**AM176
SW
1/4-1/2
0.438 mi.
2312 ft.**

**EAST BASIN MARINA
EMBARCADERO @ ALICE ST, JACK LONDON SQUA
OAKLAND, CA**

**CPS-SLIC S106235187
NON-CASE INFO N/A**

Site 1 of 2 in cluster AM

**Relative:
Lower
Actual:
10 ft.**

SLIC REG 2:
Region: 2
Facility ID: SL18374794
Facility Status: Not reported
Date Closed: Not reported
Local Case #: Not reported
How Discovered: DVA
Leak Cause: Not reported
Leak Source: Not reported
Date Confirmed: Not reported
Date Prelim Site Assmnt Workplan Submitted: Not reported
Date Preliminary Site Assessment Began: Not reported
Date Pollution Characterization Began: Not reported
Date Remediation Plan Submitted: Not reported
Date Remedial Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

NON-CASE INFO:

Global ID: SL18374794
Case Type: Non-Case Information
Status: Informational Item
Status Date: 06/04/2009
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

EAST BASIN MARINA (Continued)

S106235187

Case Worker: UUU
 Local Agency: Not reported
 RB Case Number: 01S0508
 Loc Case Number: Not reported
 File Location: Not reported
 Potential Contaminants of Concern: Not reported
 Potential Media Affected: Not reported
 Site History: Not reported
 Begin Date: 1998-05-01 00:00:00
 How Discovered: * DVA
 How Discovered Description: Not reported
 Stop Method: Not reported
 Stop Description: Not reported
 Latitude: 37.7932363215716
 Longitude: -122.27246761322
 Geotracker: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=SL18374794

AJ177
East
1/4-1/2
0.441 mi.
2329 ft.

AMERICAN MEDIA RADIO TV REDEVELOPMENT
229 INTERNATIONAL BLVD
OAKLAND, CA 94606

CPS-SLIC **S120928218**
Alameda County CS **N/A**
CERS

Site 2 of 2 in cluster AJ

Relative:
Lower
Actual:
26 ft.

CPS-SLIC:
 Region: STATE
Facility Status: **Open - Site Assessment**
 Status Date: 02/21/2018
 Global Id: T10000011156
 Lead Agency: ALAMEDA COUNTY LOP
 Lead Agency Case Number: RO0003265
 Latitude: 37.79739
 Longitude: -122.25621
 Case Type: Cleanup Program Site
 Case Worker: DY
 Local Agency: ALAMEDA COUNTY LOP
 RB Case Number: Not reported
 File Location: All Files are on GeoTracker or in the Local Agency Database
 Potential Media Affected: Aquifer used for drinking water supply, Soil, Under Investigation
 Potential Contaminants of Concern: Total Petroleum Hydrocarbons (TPH), Waste Oil / Motor / Hydraulic / Lubricating
 Site History: The Site is located at 229 and 255 International Boulevard at the northeast corner of the intersection of 3rd Avenue and International Boulevard. The Site is currently a vacant lot developed with a single building, paved parking area, and an area with exposed dirt. The Site consists of one parcel and is surrounded by residential and sparse commercial properties. Currently redevelopment is proposed on the property and will include an eight story residential building with a subterranean garage and loading areas in the basement, commercial space, residential lobby, loading area and parking on the first floor, and residential condominium units on floors 2 through 7. The building will include 3 elevators (2 residential and 1 freight). Proposed redevelopment plans include the over-excavation of soils along the entire property to a depth of approximately 8 feet below ground surface to facilitate construction of the underground parking garage. Historical operations on the site included a commercial fueling facility, auto repair, and printing facility known to have handled hazardous materials in the past. Qualitative results from a previous Phase II Investigation conducted in August 2017, indicated

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

AMERICAN MEDIA RADIO TV REDEVELOPMENT (Continued)

S120928218

total petroleum hydrocarbons (TPH) as gasoline (g) were reported in groundwater above San Francisco Bay Regional Water Quality Control Board's Environmental Screening Levels (ESLs) beneath the building located 255 International Blvd. Subsequent investigation activities are being conducted to: 1) confirm the initial qualitative results presented in the Phase II investigation, 2) further assess the extent of onsite subsurface conditions in soil, soil gas, and groundwater, and 3) characterize in situ soils scheduled to be overexcavated during redevelopment for potential off-hauling and disposal.

Click here to access the California GeoTracker records for this facility:

Alameda County CS:

Status: Leak Confirmation
 Record Id: RO0003265
 PE: 5502
 Facility Status: Leak Confirmation
 Latitude: Not reported
 Longitude: Not reported

CERS TANKS:

Site ID: 430386
 CERS ID: T10000011156
 CERS Description: Cleanup Program Site

Affiliation:

Affiliation Type Desc: Local Agency Caseworker
 Entity Name: DREW YORK - ALAMEDA COUNTY LOP
 Entity Title: Not reported
 Affiliation Address: 1131 HARBOR BAY PARKWAY
 Affiliation City: ALAMEDA
 Affiliation State: CA
 Affiliation Country: Not reported
 Affiliation Zip: Not reported
 Affiliation Phone: Not reported

**178
 NW
 1/4-1/2
 0.444 mi.
 2342 ft.**

**TRIBUNE TOWER COMPLEX
 409 13TH ST
 OAKLAND, CA 94612**

**RCRA-SQG 1000277319
 CPS-SLIC CAD981396963
 FINDS
 ECHO
 HAZNET
 CERS**

**Relative:
 Higher**

RCRA-SQG:

**Actual:
 42 ft.**

Date form received by agency: 05/14/1998
 Facility name: TRIBUNE TOWER COMPLEX
 Facility address: 409 13TH ST
 OAKLAND, CA 94612
 EPA ID: CAD981396963
 Mailing address: 1155 5TH ST STE 101
 OAKLAND, CA 94607
 Contact: JUDY ROMANN
 Contact address: 1155 5TH ST STE 101
 OAKLAND, CA 94607
 Contact country: US
 Contact telephone: 510-891-9283

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRIBUNE TOWER COMPLEX (Continued)

1000277319

Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: TRIBUNE TOWER ASSOC L L C
Owner/operator address: 1155 5TH ST
OAKLAND, CA 94607
Owner/operator country: Not reported
Owner/operator telephone: 510-452-2944
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999

Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
Used oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKEY-MARTENS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRIBUNE TOWER COMPLEX (Continued)

1000277319

CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

CPS-SLIC:

Region: STATE
Facility Status: **Completed - Case Closed**
Status Date: 10/31/2018
Global Id: SLT2O136142
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)
Lead Agency Case Number: Not reported
Latitude: 37.8031565147529
Longitude: -122.270884153442
Case Type: Cleanup Program Site
Case Worker: UUU
Local Agency: Not reported
RB Case Number: 01S0361
File Location: Not reported
Potential Media Affected: Not reported
Potential Contaminants of Concern: Not reported
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

SLIC REG 2:

Region: 2
Facility ID: SLT2O136142
Facility Status: Leak being confirmed
Date Closed: Not reported
Local Case #: Not reported
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Confirmed: Not reported
Date Prelim Site Assmnt Workplan Submitted: Not reported
Date Preliminary Site Assessment Began: Not reported
Date Pollution Characterization Began: Not reported
Date Remediation Plan Submitted: Not reported
Date Remedial Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

FINDS:

Registry ID: 110002693363

Environmental Interest/Information System

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRIBUNE TOWER COMPLEX (Continued)

1000277319

events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1000277319
Registry ID: 110002693363
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110002693363>

HAZNET:

Facility Name: 409 13TH STREET PROPERTY OWNER, LLC
envid: 1000277319
Year: 2017
GEPaid: CAC002933818
Contact: TUCKER MORRIS
Telephone: 5103799348
Mailing Name: Not reported
Mailing Address: 409 13TH STREET
Mailing City,St,Zip: OAKLAND, CA 94612
Gen County: Alameda
TSD EPA ID: CAD982042475
TSD County: Solano
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.69
Cat Decode: Asbestos containing waste
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County: Alameda

envid: 1000277319
Year: 2017
GEPaid: CAC002920233
Contact: TUCKER MORRIS
Telephone: 5103799348
Mailing Name: Not reported
Mailing Address: 409 13TH STREET
Mailing City,St,Zip: OAKLAND, CA 94612
Gen County: Alameda
TSD EPA ID: CAD980675276
TSD County: Kern
Waste Category: Other inorganic solid waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 25.284
Cat Decode: Other inorganic solid waste
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County: Alameda

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRIBUNE TOWER COMPLEX (Continued)

1000277319

envid: 1000277319
Year: 2017
GEPAID: CAC002906907
Contact: TUCKER MORRIS
Telephone: 5103799348
Mailing Name: Not reported
Mailing Address: 555 12TH STREET, SUITE 650
Mailing City,St,Zip: OAKLAND, CA 94607
Gen County: Alameda
TSD EPA ID: CAD980675276
TSD County: Kern
Waste Category: Other inorganic solid waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.025
Cat Decode: Other inorganic solid waste
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County: Alameda

envid: 1000277319
Year: 2013
GEPAID: CAC002728817
Contact: KEVIN SHIMAMOTO
Telephone: 5107154603
Mailing Name: Not reported
Mailing Address: 409 13TH ST
Mailing City,St,Zip: OAKLAND, CA 946122605
Gen County: Alameda
TSD EPA ID: CAD982042475
TSD County: Solano
Waste Category: Not reported
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 4
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Not reported

CERS TANKS:

Site ID: 231814
CERS ID: SLT2O136142
CERS Description: Cleanup Program Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AM179
SW
1/4-1/2
0.452 mi.
2387 ft.

**JACK LONDON SQUARE PARCEL F2
40 JACK LONDON SQUARE
OAKLAND, CA 94607**

Site 2 of 2 in cluster AM

**CPS-SLIC S117897995
NPDES N/A
CIWQS
CERS**

**Relative:
Lower**

CPS-SLIC:

**Actual:
9 ft.**

Region: STATE
Facility Status: Open - Verification Monitoring
Status Date: 07/05/2018
Global Id: T10000006743
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)
Lead Agency Case Number: Not reported
Latitude: 37.7932
Longitude: -122.27277
Case Type: Cleanup Program Site
Case Worker: CH
Local Agency: Not reported
RB Case Number: 01S0728
File Location: Regional Board
Potential Media Affected: Soil
Potential Contaminants of Concern: Lead, Other Metal, Benzene, Total Petroleum Hydrocarbons (TPH)
Site History: Several environmental investigations have been performed at the Site between 1995 and 2014 to evaluate potential soil, soil gas, and groundwater contamination. Those investigations indicate the presence of petroleum compounds and heavy metals in soil and groundwater at concentrations slightly over environmental screening levels. In April 2015, soil with elevated concentrations of contaminants in one area of the Site was excavated and disposed of at an offsite permitted disposal facility. Potential long-term exposures to Site contaminants will be avoided by durable ground covers including the building structure, paved parking areas, and landscaping. After completion of the ground-disturbing activities, the Site owner will submit an SMP implementation report. The Regional Water Board will then evaluate the Site for case closure. Developer, CIM Group, began construction in 2018, implementing the 2015 soil management plan to manage contaminated soil and groundwater beneath the subject parcel.
Associated site: JACK LONDON SQUARE PARCEL D with Global ID # T10000004184.

Click here to access the California GeoTracker records for this facility:

NPDES:

Facility Status: Active
NPDES Number: CAS000002
Region: 2
Agency Number: 0
Regulatory Measure ID: 490555
Place ID: Not reported
Order Number: 2009-0009-DWQ
WDID: 2 01C381518
Regulatory Measure Type: Enrollee
Program Type: Construction
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: 10/24/2017
Termination Date Of Regulatory Measure: Not reported
Expiration Date Of Regulatory Measure: Not reported
Discharge Address: 4700 Wilshire Blvd
Discharge Name: Jack London Square Development Oakland Owner LLC

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JACK LONDON SQUARE PARCEL F2 (Continued)

S117897995

Discharge City:	Los Angeles
Discharge State:	California
Discharge Zip:	90010
Status:	Not reported
Status Date:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
NPDES as of 03/2018:	
NPDES Number:	CAS000002
Status:	Active
Agency Number:	0
Region:	2
Regulatory Measure ID:	490555
Order Number:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	2 01C381518
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	10/24/2017
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Jack London Square Development Oakland Owner LLC
Discharge Address:	4700 Wilshire Blvd
Discharge City:	Los Angeles
Discharge State:	California
Discharge Zip:	90010
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JACK LONDON SQUARE PARCEL F2 (Continued)

S117897995

Developer Contact: Not reported
Developer Contact Title: Not reported
Constype Linear Utility Ind: Not reported
Emergency Phone: Not reported
Emergency Phone Ext: Not reported
Constype Above Ground Ind: Not reported
Constype Below Ground Ind: Not reported
Constype Cable Line Ind: Not reported
Constype Comm Line Ind: Not reported
Constype Commercial Ind: Not reported
Constype Electrical Line Ind: Not reported
Constype Gas Line Ind: Not reported
Constype Industrial Ind: Not reported
Constype Other Description: Not reported
Constype Other Ind: Not reported
Constype Recons Ind: Not reported
Constype Residential Ind: Not reported
Constype Transport Ind: Not reported
Constype Utility Description: Not reported
Constype Utility Ind: Not reported
Constype Water Sewer Ind: Not reported
Dir Discharge Uswater Ind: Not reported
Receiving Water Name: Not reported
Certifier: Not reported
Certifier Title: Not reported
Certification Date: Not reported
Primary Sic: Not reported
Secondary Sic: Not reported
Tertiary Sic: Not reported

Facility Status: Not reported
NPDES Number: Not reported
Region: Not reported
Agency Number: Not reported
Regulatory Measure ID: Not reported
Place ID: Not reported
Order Number: Not reported
WDID: 2 01C381518
Regulatory Measure Type: Construction
Program Type: Not reported
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: Not reported
Expiration Date Of Regulatory Measure: Not reported
Discharge Address: Not reported
Discharge Name: Not reported
Discharge City: Not reported
Discharge State: Not reported
Discharge Zip: Not reported
Status: Active
Status Date: 10/24/2017
Operator Name: Jack London Square Development Oakland Owner LLC
Operator Address: 4700 Wilshire Blvd
Operator City: Los Angeles
Operator State: California
Operator Zip: 90010

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JACK LONDON SQUARE PARCEL F2 (Continued)

S117897995

NPDES as of 03/2018:

NPDES Number:	CAS000002
Status:	Active
Agency Number:	0
Region:	2
Regulatory Measure ID:	490555
Order Number:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	2 01C381518
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	10/24/2017
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Jack London Square Development Oakland Owner LLC
Discharge Address:	4700 Wilshire Blvd
Discharge City:	Los Angeles
Discharge State:	California
Discharge Zip:	90010
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commercial Ind:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JACK LONDON SQUARE PARCEL F2 (Continued)

S117897995

Constype Electrical Line Ind: Not reported
Constype Gas Line Ind: Not reported
Constype Industrial Ind: Not reported
Constype Other Description: Not reported
Constype Other Ind: Not reported
Constype Recons Ind: Not reported
Constype Residential Ind: Not reported
Constype Transport Ind: Not reported
Constype Utility Description: Not reported
Constype Utility Ind: Not reported
Constype Water Sewer Ind: Not reported
Dir Discharge Uswater Ind: Not reported
Receiving Water Name: Not reported
Certifier: Not reported
Certifier Title: Not reported
Certification Date: Not reported
Primary Sic: Not reported
Secondary Sic: Not reported
Tertiary Sic: Not reported

CIWQS:

Agency: Jack London Square Development Oakland Owner LLC
Agency Address: 4700 Wilshire Blvd, Los Angeles, CA 90010
Place/Project Type: Construction - Commercial
SIC/NAICS: Not reported
Region: 2
Program: CONSTW
Regulatory Measure Status: Active
Regulatory Measure Type: Storm water construction
Order Number: 2009-0009-DWQ
WDID: 2 01C381518
NPDES Number: CAS000002
Adoption Date: Not reported
Effective Date: 10/24/2017
Termination Date: Not reported
Expiration/Review Date: Not reported
Design Flow: Not reported
Major/Minor: Not reported
Complexity: Not reported
TTWQ: Not reported
Enforcement Actions within 5 years: 0
Violations within 5 years: 0
Latitude: 37.793056
Longitude: -122.272778

CERS TANKS:

Site ID: 273134
CERS ID: T10000006743
CERS Description: Cleanup Program Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: CELINA HERNANDEZ - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 Clay Street, suite 1400
Affiliation City: OAKLAND

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JACK LONDON SQUARE PARCEL F2 (Continued)

S117897995

Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 5106222447

**AK180
NNW
1/4-1/2
0.460 mi.
2429 ft.**

**FINANCIAL CENTER BUILDING
405 14TH ST
OAKLAND, CA 94612**

**LUST S103177071
N/A**

Site 2 of 4 in cluster AK

**Relative:
Higher**

LUST REG 2:

**Actual:
42 ft.**

Region: 2
Facility Id: 01-2280
Facility Status: Case Closed
Case Number: 6331
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assessment Wokplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: 3/27/1998

**AK181
NNW
1/4-1/2
0.460 mi.
2429 ft.**

**FINANCIAL CENTER BUILDING
405 14TH ST
OAKLAND, CA 94612**

**LUST S103953142
Alameda County CS
HIST CORTESE
CERS**

Site 3 of 4 in cluster AK

**Relative:
Higher**

LUST:

**Actual:
42 ft.**

Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600102096
Global Id: T0600102096
Latitude: 37.803827
Longitude: -122.270216
Status: Completed - Case Closed
Status Date: 04/03/1998
Case Worker: Not reported
RB Case Number: 01-2280
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000757
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel
Site History: Not reported

LUST:

Global Id: T0600102096
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FINANCIAL CENTER BUILDING (Continued)

S103953142

Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600102096
Action Type: Other
Date: 03/10/1997
Action: Leak Reported

Global Id: T0600102096
Action Type: ENFORCEMENT
Date: 04/03/1998
Action: Closure/No Further Action Letter

Global Id: T0600102096
Action Type: REMEDIATION
Date: 09/09/9999
Action: Excavation

LUST:

Global Id: T0600102096
Status: Completed - Case Closed
Status Date: 04/03/1998

Global Id: T0600102096
Status: Open - Case Begin Date
Status Date: 03/10/1997

Alameda County CS:

Status: Case Closed
Record Id: RO0000757
PE: 5602
Facility Status: Case Closed
Latitude: 37.80377419
Longitude: -122.27017046

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-2280

CERS TANKS:

Site ID: 239465
CERS ID: T0600102096
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FINANCIAL CENTER BUILDING (Continued)

S103953142

Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

AK182 PARKING GARAGE
NNW 420 13TH ST
1/4-1/2 OAKLAND, CA 94612
0.465 mi.
2454 ft.

LUST S101580208
Alameda County CS N/A
SWEEPS UST
CA FID UST
HIST CORTESE
CERS

Site 4 of 4 in cluster AK

Relative:
Higher

Actual:
42 ft.

LUST:

Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101641
Global Id: T0600101641
Latitude: 37.803976
Longitude: -122.270289
Status: Completed - Case Closed
Status Date: 05/04/1994
Case Worker: Not reported
RB Case Number: 01-1773
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000576
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel
Site History: Not reported

LUST:

Global Id: T0600101641
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600101641
Action Type: Other
Date: 04/24/1992
Action: Leak Reported

Global Id: T0600101641
Action Type: REMEDIATION
Date: 09/09/9999
Action: Excavation

LUST:

Global Id: T0600101641
Status: Completed - Case Closed

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PARKING GARAGE (Continued)

S101580208

Status Date: 05/04/1994
Global Id: T0600101641
Status: Open - Case Begin Date
Status Date: 04/24/1992

LUST REG 2:

Region: 2
Facility Id: 01-1773
Facility Status: Case Closed
Case Number: 4142
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: Tank
Date Leak Confirmed: 5/20/1992
Oversight Program: LUST
Prelim. Site Assessment Wokplan Submitted: 1/11/1993
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: 1/11/1993

Alameda County CS:

Status: Case Closed
Record Id: RO0000576
PE: 5602
Facility Status: Case Closed
Latitude: 37.803487161
Longitude: -122.27082939

SWEEPS UST:

Status: Not reported
Comp Number: 300
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-000300-000001
Tank Status: Not reported
Capacity: 6000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 4

Status: Not reported
Comp Number: 300
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PARKING GARAGE (Continued)

S101580208

Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-000300-000002
Tank Status: Not reported
Capacity: 5000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: DIESEL
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 300
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-000300-000003
Tank Status: Not reported
Capacity: 3000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: DIESEL
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 300
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-000300-000004
Tank Status: Not reported
Capacity: 600
Active Date: Not reported
Tank Use: OIL
STG: WASTE
Content: WASTE OIL
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 01001809
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4158342632
Mail To: Not reported
Mailing Address: 1330 BROADWAY
Mailing Address 2: Not reported
Mailing City,St,Zip: OAKLAND 94612
Contact: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PARKING GARAGE (Continued)

S101580208

Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-1773

CERS TANKS:

Site ID: 220127
CERS ID: T0600101641
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

**AN183
SE
1/4-1/2
0.466 mi.
2459 ft.**

**ALLIFT & EQUIPMENT COMPANY
251 5TH AVE
OAKLAND, CA 94606
Site 1 of 2 in cluster AN**

**LUST S103472298
N/A**

**Relative:
Lower**

LUST REG 2:

**Actual:
9 ft.**

Region: 2
Facility Id: 01-1194
Facility Status: Case Closed
Case Number: 1237
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: 11/18/1991
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: 12/6/1991
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AN184 **AM/PM SERVICE CO**
SE **251 5TH AVE**
1/4-1/2 **OAKLAND, CA 94607**
0.466 mi.
2459 ft. **Site 2 of 2 in cluster AN**

LUST **S101580113**
Alameda County CS **N/A**
SWEEPS UST
HIST UST
CA FID UST
HIST CORTESE
CERS

Relative:
Lower

Actual:
9 ft.

LUST:

Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101097
Global Id: T0600101097
Latitude: 37.7958874
Longitude: -122.2693125
Status: Completed - Case Closed
Status Date: 01/03/1994
Case Worker: Not reported
RB Case Number: 01-1194
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0001194
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:

Global Id: T0600101097
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600101097
Action Type: Other
Date: 10/06/1991
Action: Leak Reported

Global Id: T0600101097
Action Type: REMEDIATION
Date: 09/09/9999
Action: Excavation

LUST:

Global Id: T0600101097
Status: Completed - Case Closed
Status Date: 01/03/1994

Global Id: T0600101097
Status: Open - Case Begin Date
Status Date: 10/06/1991

Alameda County CS:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AM/PM SERVICE CO (Continued)

S101580113

Status: Case Closed
Record Id: RO0001194
PE: 5602
Facility Status: Case Closed
Latitude: 37.7905487
Longitude: -122.26012813

SWEEPS UST:

Status: Active
Comp Number: 58423
Number: 1
Board Of Equalization: 44-000574
Referral Date: 03-06-91
Action Date: 03-06-91
Created Date: 02-29-88
Owner Tank Id: GF02
SWRCB Tank Id: 01-000-058423-000001
Tank Status: A
Capacity: 1000
Active Date: 03-06-91
Tank Use: EMPTY
STG: P
Content: EMPTY
Number Of Tanks: 1

HIST UST:

File Number: 00036255
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00036255.pdf>
Region: Not reported
Facility ID: Not reported
Facility Type: Not reported
Other Type: Not reported
Contact Name: Not reported
Telephone: Not reported
Owner Name: Not reported
Owner Address: Not reported
Owner City,St,Zip: Not reported
Total Tanks: Not reported

Tank Num: Not reported
Container Num: Not reported
Year Installed: Not reported
Tank Capacity: Not reported
Tank Used for: Not reported
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: Not reported

Click here for Geo Tracker PDF:

CA FID UST:

Facility ID: 01001310
Regulated By: UTNKA
Regulated ID: 00058423
Cortese Code: Not reported
SIC Code: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

AM/PM SERVICE CO (Continued)

S101580113

Facility Phone: 4152689864
 Mail To: Not reported
 Mailing Address: 530 WATER ST
 Mailing Address 2: Not reported
 Mailing City,St,Zip: OAKLAND 94607
 Contact: Not reported
 Contact Phone: Not reported
 DUNs Number: Not reported
 NPDES Number: Not reported
 EPA ID: Not reported
 Comments: Not reported
 Status: Active

HIST CORTESE:

Region: CORTESE
 Facility County Code: 1
 Reg By: LTNKA
 Reg Id: 01-1194

CERS TANKS:

Site ID: 197002
 CERS ID: T0600101097
 CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
 Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
 Entity Title: Not reported
 Affiliation Address: 1515 CLAY ST SUITE 1400
 Affiliation City: OAKLAND
 Affiliation State: CA
 Affiliation Country: Not reported
 Affiliation Zip: Not reported
 Affiliation Phone: Not reported

**185
 WNW
 1/4-1/2
 0.467 mi.
 2468 ft.**

**SHELL
 461 8TH ST
 OAKLAND, CA 94607**

**LUST
 Alameda County CS
 HIST CORTESE
 CERS**

**S101293813
 N/A**

**Relative:
 Higher
 Actual:
 36 ft.**

LUST:
 Lead Agency: ALAMEDA COUNTY LOP
 Case Type: LUST Cleanup Site
 Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101263
 Global Id: T0600101263
 Latitude: 37.8001883284428
 Longitude: -122.274220123016
 Status: Open - Verification Monitoring
 Status Date: 02/27/2012
 Case Worker: RS
 RB Case Number: 01-1368
 Local Agency: ALAMEDA COUNTY LOP
 File Location: All Files are on GeoTracker or in the Local Agency Database
 Local Case Number: RO0000343
 Potential Media Affect: Other Groundwater (uses other than drinking water)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL (Continued)

S101293813

Potential Contaminants of Concern: Gasoline

Site History:

A former gasoline service station operated at the site until 1980. The site is currently a parking lot. Separate-phase hydrocarbons (SPH) were reported in a Bay Area Rapid Transit (BART) tunnel under the intersection of 7th Street and Broadway in January 1979. Approximately 2,600 gallons of a gasoline and water mixture was removed from the BART tunnel between October 1979 and April 1980. Groundwater monitoring and extraction wells were installed at the site between 1981 and 1988. On-site and off-site investigations were conducted at the site between 1994 and 2006. A Corrective Action Plan was prepared for the site in February 2008. Remediation by excavation and secondary remediation by in-situ chemical oxidation (ISCO) was approved as an interim remedial action in April 2008. Onsite soil excavation to 20 feet bgs was conducted in June 2008. ISCO injections were conducted at the site between December 2008 and August 2009. The site is under construction as of 6/23/17. A five-story building with a subterranean garage and commercial spaces on the ground floor and residential units on the upper floors is planned. Construction included excavation to 14 feet bgs in the vicinity of the subterranean parking areas. During excavation, impacted soil was encountered near the base of the excavation at 14 feet bgs; no soil samples were collected. Excavation was discontinued, and fill soil was emplaced on top of the contaminated soil. Semi-annual groundwater monitoring is being performed. Separate-phase product was observed in downgradient monitoring wells through April 2014. Benzene concentrations up to 1,200 ug/L and ethylbenzene concentrations up to 1,200 ug/L are reported in groundwater samples collected downgradient of the site. ACDEH has requested a report of site construction activities and will request an updated evaluation of vapor intrusion risk that incorporates current site construction and recent site data. Concurrent with assessment of onsite vapor intrusion risk, ACDEH will require delineation of offsite groundwater impacts and evaluation of offsite vapor intrusion risk.

LUST:

Global Id: T0600101263
Contact Type: Local Agency Caseworker
Contact Name: ROBERT SCHULTZ
Organization Name: ALAMEDA COUNTY LOP
Address: 1131 HARBOR BAY PARKWAY
City: ALAMEDA
Email: robert.schultz@acgov.org
Phone Number: 5105676721

Global Id: T0600101263
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 07/25/2016

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL (Continued)

S101293813

Action: Email Correspondence

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 02/22/2017
Action: Email Correspondence - #20170222

Global Id: T0600101263
Action Type: Other
Date: 04/16/1987
Action: Leak Reported

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 11/24/2008
Action: Technical Correspondence / Assistance / Other - #20081124

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 08/08/2016
Action: Meeting - #20160808

Global Id: T0600101263
Action Type: RESPONSE
Date: 11/14/2018
Action: Monitoring Report - Semi-Annually

Global Id: T0600101263
Action Type: RESPONSE
Date: 07/07/2014
Action: Monitoring Report - Semi-Annually - Regulator Responded

Global Id: T0600101263
Action Type: RESPONSE
Date: 08/29/2014
Action: Interim Remedial Action Plan - Regulator Responded

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 02/20/2009
Action: Staff Letter - #20090220

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 08/29/2016
Action: Email Correspondence

Global Id: T0600101263
Action Type: RESPONSE
Date: 06/30/2013
Action: Monitoring Report - Semi-Annually

Global Id: T0600101263
Action Type: RESPONSE
Date: 08/31/2015
Action: Soil and Water Investigation Workplan - Regulator Responded

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL (Continued)

S101293813

Global Id: T0600101263
Action Type: RESPONSE
Date: 05/15/2018
Action: Monitoring Report - Semi-Annually - Regulator Responded

Global Id: T0600101263
Action Type: RESPONSE
Date: 03/15/2018
Action: Request for Closure - Regulator Responded

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 07/24/2009
Action: Staff Letter - #20090724

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 08/14/2009
Action: Staff Letter - #20090814

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 03/14/2017
Action: Email Correspondence - #20170314

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 06/30/2018
Action: Closure Denial Letter

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 12/15/2017
Action: Deadline Extension

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 06/30/2018
Action: Staff Letter

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 09/11/2018
Action: Closure Denial Letter

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 12/15/2017
Action: Email Correspondence

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 10/09/2017
Action: Staff Letter - #DIR_L_2017-10-09

Global Id: T0600101263
Action Type: RESPONSE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL (Continued)

S101293813

Date: 04/30/2008
Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0600101263
Action Type: RESPONSE
Date: 01/15/2018
Action: Other Report / Document

Global Id: T0600101263
Action Type: RESPONSE
Date: 10/28/2016
Action: Other Report / Document

Global Id: T0600101263
Action Type: REMEDIATION
Date: 12/05/2008
Action: In Situ Physical/Chemical Treatment (other than SVE)

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 02/09/2010
Action: Staff Letter - #20100209

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 05/03/2010
Action: Staff Letter - #20100503

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 01/23/2013
Action: Meeting - #2013-01-23

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 05/02/2011
Action: Staff Letter - #20110502

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 08/08/2011
Action: Staff Letter - #20110808

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 02/27/2012
Action: Staff Letter - #20120227

Global Id: T0600101263
Action Type: RESPONSE
Date: 07/15/2008
Action: Soil and Water Investigation Workplan

Global Id: T0600101263
Action Type: RESPONSE
Date: 03/30/2010
Action: Sensitive Receptor Survey Report

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL (Continued)

S101293813

Global Id:	T0600101263
Action Type:	RESPONSE
Date:	01/07/2015
Action:	Monitoring Report - Semi-Annually
Global Id:	T0600101263
Action Type:	RESPONSE
Date:	11/15/2018
Action:	Monitoring Report - Semi-Annually
Global Id:	T0600101263
Action Type:	REMEDIATION
Date:	05/13/1993
Action:	Free Product Removal
Global Id:	T0600101263
Action Type:	ENFORCEMENT
Date:	07/09/2014
Action:	Staff Letter - #20140709
Global Id:	T0600101263
Action Type:	ENFORCEMENT
Date:	09/15/2014
Action:	Staff Letter - #20140915
Global Id:	T0600101263
Action Type:	ENFORCEMENT
Date:	04/28/2014
Action:	Staff Letter - #20140428
Global Id:	T0600101263
Action Type:	ENFORCEMENT
Date:	03/09/2015
Action:	Staff Letter - #20150309
Global Id:	T0600101263
Action Type:	ENFORCEMENT
Date:	09/01/2015
Action:	Staff Letter
Global Id:	T0600101263
Action Type:	ENFORCEMENT
Date:	09/18/2013
Action:	Meeting - #20130918
Global Id:	T0600101263
Action Type:	ENFORCEMENT
Date:	09/01/2015
Action:	Notice of Responsibility - #20150901
Global Id:	T0600101263
Action Type:	ENFORCEMENT
Date:	11/01/2017
Action:	Email Correspondence - #DIR_L-2017-11-01
Global Id:	T0600101263
Action Type:	ENFORCEMENT

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL (Continued)

S101293813

Date: 08/21/2018
Action: Email Correspondence

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 07/25/2017
Action: Notice of Responsibility - #20170725

Global Id: T0600101263
Action Type: RESPONSE
Date: 12/15/2009
Action: Interim Remedial Action Report

Global Id: T0600101263
Action Type: RESPONSE
Date: 09/22/2010
Action: Interim Remedial Action Report

Global Id: T0600101263
Action Type: RESPONSE
Date: 04/15/2011
Action: Monitoring Report - Other

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 01/17/2018
Action: Notice to Comply

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 10/31/2017
Action: Meeting

Global Id: T0600101263
Action Type: RESPONSE
Date: 05/15/2017
Action: Well Installation Report

Global Id: T0600101263
Action Type: RESPONSE
Date: 11/02/2016
Action: Other Report / Document

Global Id: T0600101263
Action Type: RESPONSE
Date: 11/15/2017
Action: Monitoring Report - Semi-Annually

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 04/24/2008
Action: * NEL - #20080424

Global Id: T0600101263
Action Type: RESPONSE
Date: 07/12/2011
Action: Soil and Water Investigation Workplan

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL (Continued)

S101293813

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 03/14/2008
Action: * NEL - #20080314

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 06/10/2008
Action: * NEL - #20080610

Global Id: T0600101263
Action Type: RESPONSE
Date: 01/27/2012
Action: Site Assessment Report

Global Id: T0600101263
Action Type: RESPONSE
Date: 06/30/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0600101263
Action Type: RESPONSE
Date: 12/14/2016
Action: Correspondence

Global Id: T0600101263
Action Type: ENFORCEMENT
Date: 07/25/2008
Action: Technical Correspondence / Assistance / Other - #20080725

LUST:

Global Id: T0600101263
Status: Open - Case Begin Date
Status Date: 06/15/1981

Global Id: T0600101263
Status: Open - Remediation
Status Date: 04/17/2008

Global Id: T0600101263
Status: Open - Site Assessment
Status Date: 06/15/1981

Global Id: T0600101263
Status: Open - Site Assessment
Status Date: 07/15/1994

Global Id: T0600101263
Status: Open - Verification Monitoring
Status Date: 02/27/2012

LUST REG 2:

Region: 2
Facility Id: 01-1368
Facility Status: Pollution Characterization

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL (Continued)

S101293813

Case Number: 4254
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: 1/31/1979
Pollution Characterization Began: 10/31/1988
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Leak Confirmation
Record Id: RO0000343
PE: 5602
Facility Status: Leak Confirmation
Latitude: 37.800181993
Longitude: -122.27411695

Status: Preliminary Site Assessment Workplan Submitted
Record Id: RO0000343
PE: 5602
Facility Status: Preliminary Site Assessment Workplan Submitted
Latitude: 37.800181993
Longitude: -122.27411695

Status: Preliminary Site Assessment Underway
Record Id: RO0000343
PE: 5602
Facility Status: Preliminary Site Assessment Underway
Latitude: 37.800181993
Longitude: -122.27411695

Status: Pollution Characterization
Record Id: RO0000343
PE: 5602
Facility Status: Pollution Characterization
Latitude: 37.800181993
Longitude: -122.27411695

Status: Remedial Action Underway
Record Id: RO0000343
PE: 5602
Facility Status: Remedial Action Underway
Latitude: 37.800181993
Longitude: -122.27411695

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-1368

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

SHELL (Continued)

S101293813

CERS TANKS:
 Site ID: 227758
 CERS ID: T0600101263
 CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
 Affiliation Type Desc: Local Agency Caseworker
 Entity Name: ROBERT SCHULTZ - ALAMEDA COUNTY LOP
 Entity Title: Not reported
 Affiliation Address: 1131 HARBOR BAY PARKWAY
 Affiliation City: ALAMEDA
 Affiliation State: CA
 Affiliation Country: Not reported
 Affiliation Zip: Not reported
 Affiliation Phone: 5105676721

Affiliation Type Desc: Regional Board Caseworker
 Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
 Entity Title: Not reported
 Affiliation Address: 1515 CLAY ST SUITE 1400
 Affiliation City: OAKLAND
 Affiliation State: CA
 Affiliation Country: Not reported
 Affiliation Zip: Not reported
 Affiliation Phone: Not reported

186
 SSE
 1/4-1/2
 0.467 mi.
 2468 ft.

NIR REPAIR OAKLAND (J09CA1086)
OAKLAND, CA

ENVIROSTOR S107736901
N/A

Relative:
Lower
Actual:
8 ft.

ENVIROSTOR:
 Facility ID: 80000712
 Status: No Further Action
 Status Date: 03/10/2014
 Site Code: Not reported
 Site Type: Military Evaluation
 Site Type Detailed: FUDS
 Acres: 3
 NPL: NO
 Regulatory Agencies: SMBRP
 Lead Agency: SMBRP
 Program Manager: Not reported
 Supervisor: Dan Ward
 Division Branch: Cleanup Sacramento
 Assembly: 18
 Senate: 09
 Special Program: Not reported
 Restricted Use: NO
 Site Mgmt Req: NONE SPECIFIED
 Funding: DERA
 Latitude: 37.78995
 Longitude: -122.2627
 APN: NONE SPECIFIED
 Past Use: NONE SPECIFIED
 Potential COC: NONE SPECIFIED

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

NIR REPAIR OAKLAND (J09CA1086) (Continued)

S107736901

Confirmed COC: NONE SPECIFIED
 Potential Description: NONE SPECIFIED
 Alias Name: Hurley Marine Works
 Alias Type: Alternate Name
 Alias Name: CA99799F598000
 Alias Type: Federal Facility ID
 Alias Name: J09CA1086
 Alias Type: INPR
 Alias Name: 80000712
 Alias Type: Envirostor ID Number
 Alias Name: <ftp://swrcb2a.waterboards.ca.gov/pub/swrcb/dwq/dodscp/CA%20FDE%20INPR%20Sac%20District%20disk%20/J09CA1086%20NIR%20Repair%20Facility/INPR%20NIR%20Repair%20Facility.pdf>
 Alias Type: External Website Link / URL
 Alias Name: <http://wikimapia.org/5384472/Naval-Industrial-Reserve-Repair-Facility-Oakland-site>
 Alias Type: External Website Link / URL

Completed Info:

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: Inventory Project Report (INPR)
 Completed Date: 09/22/1999
 Comments: Historical Inventory Project Report (INPR) Uploaded.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: No Department of Defense Action Indicated (NDAI)
 Completed Date: 03/10/2014
 Comments: Please note that this determination is based on information in DTSC s and the Water Boards possession at this time concerning Department of Defense (DoD) activities on the sites listed above. DTSC and the Water Boards reserve the right to address any appropriate environmental or human health related issue, should additional information concerning the environmental condition of this site becomes available in the future.

Future Area Name: Not reported
 Future Sub Area Name: Not reported
 Future Document Type: Not reported
 Future Due Date: Not reported
 Schedule Area Name: Not reported
 Schedule Sub Area Name: Not reported
 Schedule Document Type: Not reported
 Schedule Due Date: Not reported
 Schedule Revised Date: Not reported

187
 NNE
 1/4-1/2
 0.470 mi.
 2484 ft.

LAKEHURST HOTEL
1569 JACKSON ST
OAKLAND, CA 94612

LUST S102628249
Alameda County CS N/A
HIST CORTESE
CERS

Relative:
 Lower
 Actual:
 30 ft.

LUST:
 Lead Agency: ALAMEDA COUNTY LOP
 Case Type: LUST Cleanup Site
 Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600102048
 Global Id: T0600102048

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LAKEHURST HOTEL (Continued)

S102628249

Latitude: 37.804613
Longitude: -122.26408
Status: Completed - Case Closed
Status Date: 06/11/1997
Case Worker: Not reported
RB Case Number: 01-2231
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000744
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel
Site History: Not reported

LUST:

Global Id: T0600102048
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600102048
Action Type: Other
Date: 12/11/1996
Action: Leak Reported

Global Id: T0600102048
Action Type: REMEDIATION
Date: 09/09/9999
Action: Excavation

LUST:

Global Id: T0600102048
Status: Completed - Case Closed
Status Date: 06/11/1997

Global Id: T0600102048
Status: Open - Case Begin Date
Status Date: 12/11/1996

LUST REG 2:

Region: 2
Facility Id: 01-2231
Facility Status: Case Closed
Case Number: 6075
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: 6/10/1997
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LAKEHURST HOTEL (Continued)

S102628249

Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Case Closed
Record Id: RO0000744
PE: 5602
Facility Status: Case Closed
Latitude: 37.803573109
Longitude: -122.26444188

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-2231

CERS TANKS:

Site ID: 198701
CERS ID: T0600102048
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

188
ESE
1/4-1/2
0.471 mi.
2485 ft.

CENTURY PETROLEUM
403 E 12TH ST
OAKLAND, CA 94606

Alameda County CS **S101580323**
SWEEPS UST **N/A**
CA FID UST

Relative:
Lower
Actual:
29 ft.

Alameda County CS:

Status: Leak Confirmation
Record Id: RO0002931
PE: 5602
Facility Status: Leak Confirmation
Latitude: 37.795674537
Longitude: -122.25570685

Status: Preliminary Site Assessment Underway
Record Id: RO0002931
PE: 5602
Facility Status: Preliminary Site Assessment Underway
Latitude: 37.795674537
Longitude: -122.25570685

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CENTURY PETROLEUM (Continued)

S101580323

SWEEPS UST:

Status: Active
Comp Number: 271
Number: 2
Board Of Equalization: Not reported
Referral Date: 04-02-91
Action Date: 04-02-91
Created Date: 04-02-91
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-000271-000001
Tank Status: A
Capacity: 12000
Active Date: 04-02-91
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 3

Status: Active
Comp Number: 271
Number: 2
Board Of Equalization: Not reported
Referral Date: 04-02-91
Action Date: 04-02-91
Created Date: 04-02-91
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-000271-000002
Tank Status: A
Capacity: 12000
Active Date: 04-02-91
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 271
Number: 2
Board Of Equalization: Not reported
Referral Date: 04-02-91
Action Date: 04-02-91
Created Date: 04-02-91
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-000271-000003
Tank Status: A
Capacity: 12000
Active Date: 04-02-91
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

CA FID UST:

Facility ID: 01002495
Regulated By: UTNKA
Regulated ID: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CENTURY PETROLEUM (Continued)

S101580323

Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4158346393
Mail To: Not reported
Mailing Address: 96113 BANCRAFT WAY
Mailing Address 2: Not reported
Mailing City,St,Zip: OAKLAND 94606
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

189
NNW
1/4-1/2
0.476 mi.
2511 ft.

**YWCA OF OAKLAND
1515 WEBSTER ST
OAKLAND, CA 94612**

**LUST
Alameda County CS
HIST CORTESE
CERS**

**S102441463
N/A**

**Relative:
Higher**

LUST:

**Actual:
38 ft.**

Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600102030
Global Id: T0600102030
Latitude: 37.804548
Longitude: -122.268206
Status: Completed - Case Closed
Status Date: 03/24/1997
Case Worker: Not reported
RB Case Number: 01-2211
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000718
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Diesel
Site History: Not reported

LUST:

Global Id: T0600102030
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600102030
Action Type: Other
Date: 06/14/1996
Action: Leak Reported

LUST:

Global Id: T0600102030

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

YWCA OF OAKLAND (Continued)

S102441463

Status: Completed - Case Closed
Status Date: 03/24/1997

Global Id: T0600102030
Status: Open - Case Begin Date
Status Date: 06/14/1996

LUST REG 2:

Region: 2
Facility Id: 01-2211
Facility Status: Preliminary site assessment underway
Case Number: 5702
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: 6/15/1996
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 3/24/1997
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Case Closed
Record Id: RO0000718
PE: 5602
Facility Status: Case Closed
Latitude: 37.804549859
Longitude: -122.26824834

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-2211

CERS TANKS:

Site ID: 225650
CERS ID: T0600102030
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

190
NNW
1/4-1/2
0.479 mi.
2527 ft.

FRANKLIN HOME HEATING
1428-1432 FRANKLIN ST
OAKLAND, CA 94612

CPS-SLIC
Alameda County CS
CERS

S116362507
N/A

Relative:
Higher
Actual:
40 ft.

CPS-SLIC:
Region: STATE
Facility Status: **Completed - Case Closed**
Status Date: 06/04/2015
Global Id: T10000005804
Lead Agency: ALAMEDA COUNTY LOP
Lead Agency Case Number: RO0003132
Latitude: 37.8044873193888
Longitude: -122.269498454036
Case Type: Cleanup Program Site
Case Worker: KLD
Local Agency: ALAMEDA COUNTY LOP
RB Case Number: Not reported
File Location: Local Agency
Potential Media Affected: Under Investigation
Potential Contaminants of Concern: Heating Oil / Fuel Oil
Site History: Petroleum hydrocarbons were detected in soil samples collected during the removal of two underground storage tanks (USTs) from the site. The USTs were described as home heating oil tanks. The fuel leak was investigated. Not all historic documents for the fuel leak case may be available on GeoTracker. A more complete historic case file for this site is located on the Alameda County Environmental Health website at: <http://ehgis.acgov.org/dehpublic/dehpublic.jsp>

Click here to access the California GeoTracker records for this facility:

Alameda County CS:

Status: Leak Confirmation
Record Id: RO0003132
PE: 5502
Facility Status: Leak Confirmation
Latitude: Not reported
Longitude: Not reported

CERS TANKS:

Site ID: 241130
CERS ID: T10000005804
CERS Description: Cleanup Program SITE

Affiliation:

Affiliation Type Desc: Local Agency Caseworker
Entity Name: KAREL DETTERMAN - ALAMEDA COUNTY LOP
Entity Title: Not reported
Affiliation Address: 1131 Harbor Bay Parkway
Affiliation City: ALAMEDA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 5105676708

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FRANKLIN HOME HEATING (Continued)

S116362507

Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

**191
NNE
1/4-1/2
0.490 mi.
2589 ft.**

**TUDOR HALL APARTMENTS
150 17TH STREET
OAKLAND, CA 94612**

**LUST S117896764
CERS N/A**

**Relative:
Lower
Actual:
28 ft.**

LUST:

Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000007042
Global Id: T10000007042
Latitude: 37.8045
Longitude: -122.26254
Status: Open - Assessment & Interim Remedial Action
Status Date: 06/16/2015
Case Worker: KEN
RB Case Number: Not reported
Local Agency: ALAMEDA COUNTY LOP
File Location: Not reported
Local Case Number: RO0003165
Potential Media Affect: Other Groundwater (uses other than drinking water), Soil
Potential Contaminants of Concern: Heating Oil / Fuel Oil
Site History: Total petroleum hydrocarbons (C10-C28) were detected at concentrations up to 13,800 milligrams per kilogram in soil samples collected during the removal of a heating oil tank. Contractor reported oil was observed during sampling. Site investigation did not reveal presence of petroleum-related compounds in grab-groundwater samples. Soil samples did not contain total petroleum hydrocarbons (TPH) as gasoline (TPHg) or as motor oil (TPHmo), benzene, toluene, ethyl benzene, and xylenes (BTEX), methyl tertiary butyl ether (MTBE), and naphthalene at concentrations above the laboratory reporting limit. Diesel range petroleum hydrocarbons (TPHd) were reported up to 7.2 mg/kg. .

LUST:

Global Id: T10000007042
Contact Type: Local Agency Caseworker
Contact Name: KEITH NOWELL
Organization Name: ALAMEDA COUNTY LOP
Address: 1131 Harbor Bay Parkway
City: ALAMEDA
Email: keith.nowell@acgov.org
Phone Number: 5105676764

Global Id: T10000007042
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TUDOR HALL APARTMENTS (Continued)

S117896764

Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T1000007042
Action Type: Other
Date: 03/11/2015
Action: Leak Stopped

Global Id: T1000007042
Action Type: ENFORCEMENT
Date: 03/15/2017
Action: Staff Letter - #20170315

Global Id: T1000007042
Action Type: ENFORCEMENT
Date: 05/26/2016
Action: Staff Letter - #20160526

Global Id: T1000007042
Action Type: RESPONSE
Date: 07/07/2016
Action: Email Correspondence

Global Id: T1000007042
Action Type: RESPONSE
Date: 07/29/2016
Action: Preliminary Site Assessment Workplan - Regulator Responded

Global Id: T1000007042
Action Type: Other
Date: 03/16/2015
Action: Leak Reported

Global Id: T1000007042
Action Type: RESPONSE
Date: 11/29/2016
Action: Soil and Water Investigation Report

Global Id: T1000007042
Action Type: RESPONSE
Date: 01/05/2017
Action: Request for Closure - Regulator Responded

Global Id: T1000007042
Action Type: ENFORCEMENT
Date: 12/01/2016
Action: Unauthorized Release Form - #20161201

Global Id: T1000007042
Action Type: ENFORCEMENT
Date: 06/28/2018
Action: Staff Letter - #20180628

Global Id: T1000007042
Action Type: RESPONSE
Date: 06/28/2016

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TUDOR HALL APARTMENTS (Continued)

S117896764

Action: Electronic Reporting Submittal Due

Global Id: T10000007042

Action Type: RESPONSE

Date: 09/23/2016

Action: Correspondence

Global Id: T10000007042

Action Type: ENFORCEMENT

Date: 06/22/2015

Action: Notice of Responsibility - #20150622

Global Id: T10000007042

Action Type: ENFORCEMENT

Date: 06/22/2015

Action: Staff Letter - #20150622

Global Id: T10000007042

Action Type: ENFORCEMENT

Date: 06/21/2017

Action: Staff Letter - #20170621

Global Id: T10000007042

Action Type: RESPONSE

Date: 08/13/2018

Action: Electronic Reporting Submittal Due

Global Id: T10000007042

Action Type: RESPONSE

Date: 07/06/2017

Action: Electronic Reporting Submittal Due

Global Id: T10000007042

Action Type: RESPONSE

Date: 04/17/2017

Action: Correspondence

Global Id: T10000007042

Action Type: RESPONSE

Date: 09/23/2016

Action: Unauthorized Release Form

Global Id: T10000007042

Action Type: RESPONSE

Date: 07/20/2015

Action: Email Correspondence

Global Id: T10000007042

Action Type: REMEDIATION

Date: 02/23/2015

Action: Excavation

Global Id: T10000007042

Action Type: RESPONSE

Date: 06/28/2016

Action: Email Correspondence

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TUDOR HALL APARTMENTS (Continued)

S117896764

Global Id: T1000007042
Action Type: Other
Date: 03/11/2015
Action: Leak Discovery

LUST:

Global Id: T1000007042
Status: Open - Assessment & Interim Remedial Action
Status Date: 06/16/2015

Global Id: T1000007042
Status: Open - Case Begin Date
Status Date: 03/11/2015

Global Id: T1000007042
Status: Open - Site Assessment
Status Date: 06/09/2015

CERS TANKS:

Site ID: 277412
CERS ID: T1000007042
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Local Agency Caseworker
Entity Name: KEITH NOWELL - ALAMEDA COUNTY LOP
Entity Title: Not reported
Affiliation Address: 1131 Harbor Bay Parkway
Affiliation City: ALAMEDA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 5105676764

**AO192 PACIFIC DRY DOCK & REPAIR CO.
WSW 321 EMBARCADERO
1/4-1/2 OAKLAND, CA 94606
0.493 mi.
2603 ft. Site 1 of 2 in cluster AO**

**Relative:
Lower**

**Actual:
10 ft.**

LUST REG 2:
Region: 2

**LUST 1000726568
SWEEPS UST N/A
CA FID UST
CHMIRS
EMI
HIST CORTESE
NPDES
CIWQS**

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PACIFIC DRY DOCK & REPAIR CO. (Continued)

1000726568

Facility Id: 01-2459
Facility Status: Leak being confirmed
Case Number: 1222
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: 9/18/1998
Oversight Program: LUST
Prelim. Site Assessment Wokplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

SWEEPS UST:

Status: Active
Comp Number: 60504
Number: 9
Board Of Equalization: Not reported
Referral Date: 07-01-85
Action Date: Not reported
Created Date: 02-29-88
Owner Tank Id: 66
SWRCB Tank Id: 01-000-060504-000001
Tank Status: A
Capacity: 500
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: 2

Status: Active
Comp Number: 60504
Number: 9
Board Of Equalization: Not reported
Referral Date: 07-01-85
Action Date: Not reported
Created Date: 02-29-88
Owner Tank Id: 1
SWRCB Tank Id: 01-000-060504-000002
Tank Status: A
Capacity: 400
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

CA FID UST:

Facility ID: 01002788
Regulated By: UTNKA
Regulated ID: 00060504
Cortese Code: Not reported
SIC Code: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PACIFIC DRY DOCK & REPAIR CO. (Continued)

1000726568

Facility Phone: 4158937020
Mail To: Not reported
Mailing Address: 321 EMBARCADERO
Mailing Address 2: Not reported
Mailing City,St,Zip: OAKLAND 94606
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

CHMIRS:

OES Incident Number: 12-1473
OES notification: 03/14/2012
OES Date: Not reported
OES Time: Not reported
Date Completed: Not reported
Property Use: Not reported
Agency Id Number: Not reported
Agency Incident Number: Not reported
Time Notified: Not reported
Time Completed: Not reported
Surrounding Area: Not reported
Estimated Temperature: Not reported
Property Management: Not reported
More Than Two Substances Involved?: Not reported
Resp Agncy Personel # Of Decontaminated: Not reported
Responding Agency Personel # Of Injuries: Not reported
Responding Agency Personel # Of Fatalities: Not reported
Others Number Of Decontaminated: Not reported
Others Number Of Injuries: Not reported
Others Number Of Fatalities: Not reported
Vehicle Make/year: Not reported
Vehicle License Number: Not reported
Vehicle State: Not reported
Vehicle Id Number: Not reported
CA DOT PUC/ICC Number: Not reported
Company Name: Not reported
Reporting Officer Name/ID: Not reported
Report Date: Not reported
Facility Telephone: Not reported
Waterway Involved: Yes
Waterway: SF Bay
Spill Site: Treatment/Sewage Facility
Cleanup By: Reporting Party
Containment: Not reported
What Happened: Not reported
Type: Not reported
Measure: Gal(s)
Other: Not reported
Date/Time: 1010
Year: 2012
Agency: East Bay MUD
Incident Date: 3/14/2012
Admin Agency: City of Oakland Fire Department

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PACIFIC DRY DOCK & REPAIR CO. (Continued)

1000726568

Amount: Not reported
Contained: Unknown
Site Type: SF Bay
E Date: Not reported
Substance: Treated Waste Water
Quantity Released: Unknown
Unknown: Not reported
Substance #2: Not reported
Substance #3: Not reported
Evacuations: Not reported
Number of Injuries: Not reported
Number of Fatalities: Not reported
#1 Pipeline: Not reported
#2 Pipeline: Not reported
#3 Pipeline: Not reported
#1 Vessel >= 300 Tons: Not reported
#2 Vessel >= 300 Tons: Not reported
#3 Vessel >= 300 Tons: Not reported
Evacs: Not reported
Injuries: Not reported
Fataals: Not reported
Comments: Not reported
Description: RP states that the release is a mixture of sewage and storm surge discharge from the primary waste water treatment facility and facility is operating as designed. Release is not contained and is discharging into San Francisco Bay. East Bay MUD has posted signs and samples will be taken.

EMI:

Year: 1987
County Code: 1
Air Basin: SF
Facility ID: 959
Air District Name: BA
SIC Code: 4469
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 6
Reactive Organic Gases Tons/Yr: 5
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 8
Part. Matter 10 Micrometers and Smlr Tons/Yr:5

Year: 1990
County Code: 1
Air Basin: SF
Facility ID: 959
Air District Name: BA
SIC Code: 4449
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PACIFIC DRY DOCK & REPAIR CO. (Continued)

1000726568

Total Organic Hydrocarbon Gases Tons/Yr: 5
Reactive Organic Gases Tons/Yr: 4
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 6
Part. Matter 10 Micrometers and Smlr Tons/Yr:4

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-2459

Region: CORTESE
Facility County Code: 1
Reg By: WBC&D
Reg Id: 2 019174N01

NPDES:

Facility Status: Active
NPDES Number: CAS000002
Region: 2
Agency Number: 0
Regulatory Measure ID: 444195
Place ID: Not reported
Order Number: 2009-0009-DWQ
WDID: 2 01C369522
Regulatory Measure Type: Enrollee
Program Type: Construction
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: 04/23/2014
Termination Date Of Regulatory Measure: Not reported
Expiration Date Of Regulatory Measure: Not reported
Discharge Address: 2201 Broadway Avenue suite 604
Discharge Name: Zarsion OHP I LLLP
Discharge City: OAKLAND
Discharge State: California
Discharge Zip: 94610
Status: Not reported
Status Date: Not reported
Operator Name: Not reported
Operator Address: Not reported
Operator City: Not reported
Operator State: Not reported
Operator Zip: Not reported

NPDES as of 03/2018:

NPDES Number: CAS000002
Status: Active
Agency Number: 0
Region: 2
Regulatory Measure ID: 444195
Order Number: 2009-0009-DWQ
Regulatory Measure Type: Enrollee
Place ID: Not reported
WDID: 2 01C369522

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PACIFIC DRY DOCK & REPAIR CO. (Continued)

1000726568

Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	04/23/2014
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Zarsion OHP I LLP
Discharge Address:	2201 Broadway Avenue suite 604
Discharge City:	OAKLAND
Discharge State:	California
Discharge Zip:	94610
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commercial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PACIFIC DRY DOCK & REPAIR CO. (Continued)

1000726568

Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	2
Regulatory Measure ID:	444195
Order Number:	Not reported
Regulatory Measure Type:	Construction
Place ID:	Not reported
WDID:	2 01C369522
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	04/14/2014
Processed Date:	04/23/2014
Status:	Active
Status Date:	04/23/2014
Place Size:	2.75
Place Size Unit:	Acres
Contact:	Frank Flores
Contact Title:	Not reported
Contact Phone:	510-715-3892
Contact Phone Ext:	Not reported
Contact Email:	fflores@signaturedevelopment.com
Operator Name:	Zarsion OHP I LLP
Operator Address:	2201 Broadway Avenue
Operator City:	OAKLAND
Operator State:	California
Operator Zip:	94610
Operator Contact:	francis flores
Operator Contact Title:	Not reported
Operator Contact Phone:	510-715-3892
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	fflores@signaturedevelopment.com
Operator Type:	Private Business
Developer:	Zarsion OHP I LLP
Developer Address:	2335 Broadway Avenue
Developer City:	OAKLAND
Developer State:	California
Developer Zip:	94612
Developer Contact:	francis flores

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PACIFIC DRY DOCK & REPAIR CO. (Continued)

1000726568

Developer Contact Title:	development manager
Constype Linear Utility Ind:	N
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	N
Constype Below Ground Ind:	N
Constype Cable Line Ind:	N
Constype Comm Line Ind:	N
Constype Commercial Ind:	Y
Constype Electrical Line Ind:	N
Constype Gas Line Ind:	N
Constype Industrial Ind:	N
Constype Other Description:	Not reported
Constype Other Ind:	N
Constype Recons Ind:	N
Constype Residential Ind:	Y
Constype Transport Ind:	N
Constype Utility Description:	Not reported
Constype Utility Ind:	N
Constype Water Sewer Ind:	N
Dir Discharge Uswater Ind:	Y
Receiving Water Name:	Brooklyn Basin
Certifier:	francis flores
Certifier Title:	Development Manager
Certification Date:	14-APR-14
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
Facility Status:	Active
NPDES Number:	CAS000002
Region:	2
Agency Number:	0
Regulatory Measure ID:	444515
Place ID:	Not reported
Order Number:	2009-0009-DWQ
WDID:	2 01C369523
Regulatory Measure Type:	Enrollee
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	04/23/2014
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	2201 Broadway Avenue suite 604
Discharge Name:	Zarsion OHP I LLP
Discharge City:	OAKLAND
Discharge State:	California
Discharge Zip:	94610
Status:	Not reported
Status Date:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PACIFIC DRY DOCK & REPAIR CO. (Continued)

1000726568

NPDES as of 03/2018:

NPDES Number:	CAS000002
Status:	Active
Agency Number:	0
Region:	2
Regulatory Measure ID:	444515
Order Number:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	2 01C369523
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	04/23/2014
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Zarsion OHP I LLP
Discharge Address:	2201 Broadway Avenue suite 604
Discharge City:	OAKLAND
Discharge State:	California
Discharge Zip:	94610
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commercial Ind:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PACIFIC DRY DOCK & REPAIR CO. (Continued)

1000726568

Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	2
Regulatory Measure ID:	444515
Order Number:	Not reported
Regulatory Measure Type:	Construction
Place ID:	Not reported
WDID:	2 01C369523
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	04/14/2014
Processed Date:	04/23/2014
Status:	Active
Status Date:	04/23/2014
Place Size:	18.58
Place Size Unit:	Acres
Contact:	francis flores
Contact Title:	Not reported
Contact Phone:	510-715-3892
Contact Phone Ext:	Not reported
Contact Email:	fflores@signaturedevelopment.com
Operator Name:	Zarsion OHP I LLP
Operator Address:	2201 Broadway Avenue
Operator City:	OAKLAND
Operator State:	California
Operator Zip:	94610
Operator Contact:	francis flores
Operator Contact Title:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PACIFIC DRY DOCK & REPAIR CO. (Continued)

1000726568

Operator Contact Phone: 510-715-3892
Operator Contact Phone Ext: Not reported
Operator Contact Email: fflores@signaturedevelopment.com
Operator Type: Private Business
Developer: Zarsion OHP I LLP
Developer Address: 2201 Broadway Avenue
Developer City: OAKLAND
Developer State: California
Developer Zip: 94610
Developer Contact: francis flores
Developer Contact Title: Not reported
Constype Linear Utility Ind: N
Emergency Phone: Not reported
Emergency Phone Ext: Not reported
Constype Above Ground Ind: N
Constype Below Ground Ind: N
Constype Cable Line Ind: N
Constype Comm Line Ind: N
Constype Commercial Ind: Y
Constype Electrical Line Ind: N
Constype Gas Line Ind: N
Constype Industrial Ind: Y
Constype Other Description: Not reported
Constype Other Ind: N
Constype Recons Ind: N
Constype Residential Ind: Y
Constype Transport Ind: N
Constype Utility Description: Not reported
Constype Utility Ind: N
Constype Water Sewer Ind: N
Dir Discharge Uswater Ind: Y
Receiving Water Name: Brooklyn Basin
Certifier: francis flores
Certifier Title: Development Manager
Certification Date: 14-APR-14
Primary Sic: Not reported
Secondary Sic: Not reported
Tertiary Sic: Not reported

Facility Status: Not reported
NPDES Number: Not reported
Region: Not reported
Agency Number: Not reported
Regulatory Measure ID: Not reported
Place ID: Not reported
Order Number: Not reported
WDID: 2 01C369523
Regulatory Measure Type: Construction
Program Type: Not reported
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: Not reported
Expiration Date Of Regulatory Measure: Not reported
Discharge Address: Not reported
Discharge Name: Not reported
Discharge City: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PACIFIC DRY DOCK & REPAIR CO. (Continued)

1000726568

Discharge State:	Not reported
Discharge Zip:	Not reported
Status:	Active
Status Date:	04/23/2014
Operator Name:	Zarsion OHP I LLP
Operator Address:	2201 Broadway Avenue suite 604
Operator City:	OAKLAND
Operator State:	California
Operator Zip:	94610
NPDES as of 03/2018:	
NPDES Number:	CAS000002
Status:	Active
Agency Number:	0
Region:	2
Regulatory Measure ID:	444515
Order Number:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	2 01C369523
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	04/23/2014
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Zarsion OHP I LLP
Discharge Address:	2201 Broadway Avenue suite 604
Discharge City:	OAKLAND
Discharge State:	California
Discharge Zip:	94610
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PACIFIC DRY DOCK & REPAIR CO. (Continued)

1000726568

Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commercial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	2
Regulatory Measure ID:	444515
Order Number:	Not reported
Regulatory Measure Type:	Construction
Place ID:	Not reported
WDID:	2 01C369523
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	04/14/2014
Processed Date:	04/23/2014
Status:	Active
Status Date:	04/23/2014
Place Size:	18.58
Place Size Unit:	Acres
Contact:	francis flores
Contact Title:	Not reported
Contact Phone:	510-715-3892

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PACIFIC DRY DOCK & REPAIR CO. (Continued)

1000726568

Contact Phone Ext:	Not reported
Contact Email:	fflores@signaturedevelopment.com
Operator Name:	Zarsion OHP I LLP
Operator Address:	2201 Broadway Avenue
Operator City:	OAKLAND
Operator State:	California
Operator Zip:	94610
Operator Contact:	francis flores
Operator Contact Title:	Not reported
Operator Contact Phone:	510-715-3892
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	fflores@signaturedevelopment.com
Operator Type:	Private Business
Developer:	Zarsion OHP I LLP
Developer Address:	2201 Broadway Avenue
Developer City:	OAKLAND
Developer State:	California
Developer Zip:	94610
Developer Contact:	francis flores
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	N
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	N
Constype Below Ground Ind:	N
Constype Cable Line Ind:	N
Constype Comm Line Ind:	N
Constype Commercial Ind:	Y
Constype Electrical Line Ind:	N
Constype Gas Line Ind:	N
Constype Industrial Ind:	Y
Constype Other Description:	Not reported
Constype Other Ind:	N
Constype Recons Ind:	N
Constype Residential Ind:	Y
Constype Transport Ind:	N
Constype Utility Description:	Not reported
Constype Utility Ind:	N
Constype Water Sewer Ind:	N
Dir Discharge Uswater Ind:	Y
Receiving Water Name:	Brooklyn Basin
Certifier:	francis flores
Certifier Title:	Development Manager
Certification Date:	14-APR-14
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
Facility Status:	Not reported
NPDES Number:	Not reported
Region:	Not reported
Agency Number:	Not reported
Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	2 01C369522

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PACIFIC DRY DOCK & REPAIR CO. (Continued)

1000726568

Regulatory Measure Type: Construction
Program Type: Not reported
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: Not reported
Expiration Date Of Regulatory Measure: Not reported
Discharge Address: Not reported
Discharge Name: Not reported
Discharge City: Not reported
Discharge State: Not reported
Discharge Zip: Not reported
Status: Active
Status Date: 04/23/2014
Operator Name: Zarsion OHP I LLP
Operator Address: 2201 Broadway Avenue suite 604
Operator City: OAKLAND
Operator State: California
Operator Zip: 94610

NPDES as of 03/2018:
NPDES Number: CAS000002
Status: Active
Agency Number: 0
Region: 2
Regulatory Measure ID: 444195
Order Number: 2009-0009-DWQ
Regulatory Measure Type: Enrollee
Place ID: Not reported
WDID: 2 01C369522
Program Type: Construction
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: 04/23/2014
Expiration Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: Not reported
Discharge Name: Zarsion OHP I LLP
Discharge Address: 2201 Broadway Avenue suite 604
Discharge City: OAKLAND
Discharge State: California
Discharge Zip: 94610
Received Date: Not reported
Processed Date: Not reported
Status: Not reported
Status Date: Not reported
Place Size: Not reported
Place Size Unit: Not reported
Contact: Not reported
Contact Title: Not reported
Contact Phone: Not reported
Contact Phone Ext: Not reported
Contact Email: Not reported
Operator Name: Not reported
Operator Address: Not reported
Operator City: Not reported
Operator State: Not reported
Operator Zip: Not reported
Operator Contact: Not reported
Operator Contact Title: Not reported
Operator Contact Phone: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PACIFIC DRY DOCK & REPAIR CO. (Continued)

1000726568

Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commercial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	2
Regulatory Measure ID:	444195
Order Number:	Not reported
Regulatory Measure Type:	Construction
Place ID:	Not reported
WDID:	2 01C369522
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PACIFIC DRY DOCK & REPAIR CO. (Continued)

1000726568

Received Date: 04/14/2014
Processed Date: 04/23/2014
Status: Active
Status Date: 04/23/2014
Place Size: 2.75
Place Size Unit: Acres
Contact: Frank Flores
Contact Title: Not reported
Contact Phone: 510-715-3892
Contact Phone Ext: Not reported
Contact Email: fflores@signaturedevelopment.com
Operator Name: Zarsion OHP I LLP
Operator Address: 2201 Broadway Avenue
Operator City: OAKLAND
Operator State: California
Operator Zip: 94610
Operator Contact: francis flores
Operator Contact Title: Not reported
Operator Contact Phone: 510-715-3892
Operator Contact Phone Ext: Not reported
Operator Contact Email: fflores@signaturedevelopment.com
Operator Type: Private Business
Developer: Zarsion OHP I LLP
Developer Address: 2335 Broadway Avenue
Developer City: OAKLAND
Developer State: California
Developer Zip: 94612
Developer Contact: francis flores
Developer Contact Title: development manager
Constype Linear Utility Ind: N
Emergency Phone: Not reported
Emergency Phone Ext: Not reported
Constype Above Ground Ind: N
Constype Below Ground Ind: N
Constype Cable Line Ind: N
Constype Comm Line Ind: N
Constype Commercial Ind: Y
Constype Electrical Line Ind: N
Constype Gas Line Ind: N
Constype Industrial Ind: N
Constype Other Description: Not reported
Constype Other Ind: N
Constype Recons Ind: N
Constype Residential Ind: Y
Constype Transport Ind: N
Constype Utility Description: Not reported
Constype Utility Ind: N
Constype Water Sewer Ind: N
Dir Discharge Uswater Ind: Y
Receiving Water Name: Brooklyn Basin
Certifier: francis flores
Certifier Title: Development Manager
Certification Date: 14-APR-14
Primary Sic: Not reported
Secondary Sic: Not reported
Tertiary Sic: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PACIFIC DRY DOCK & REPAIR CO. (Continued)

1000726568

CIWQS:

Agency: Zarsion OHP I LLP
Agency Address: 2201 Broadway Avenue suite 604, Oakland, CA 94610
Place/Project Type: Construction - Commercial, Residential
SIC/NAICS: Not reported
Region: 2
Program: CONSTW
Regulatory Measure Status: Active
Regulatory Measure Type: Storm water construction
Order Number: 2009-0009-DWQ
WDID: 2 01C369522
NPDES Number: CAS000002
Adoption Date: Not reported
Effective Date: 04/23/2014
Termination Date: Not reported
Expiration/Review Date: Not reported
Design Flow: Not reported
Major/Minor: Not reported
Complexity: Not reported
TTWQ: Not reported
Enforcement Actions within 5 years: 1
Violations within 5 years: 1
Latitude: 37.78775
Longitude: -122.258428

Agency: Zarsion OHP I LLP
Agency Address: 2201 Broadway Avenue suite 604, Oakland, CA 94610
Place/Project Type: Construction - Commercial, Residential, Industrial
SIC/NAICS: Not reported
Region: 2
Program: CONSTW
Regulatory Measure Status: Active
Regulatory Measure Type: Storm water construction
Order Number: 2009-0009-DWQ
WDID: 2 01C369523
NPDES Number: CAS000002
Adoption Date: Not reported
Effective Date: 04/23/2014
Termination Date: Not reported
Expiration/Review Date: Not reported
Design Flow: Not reported
Major/Minor: Not reported
Complexity: Not reported
TTWQ: Not reported
Enforcement Actions within 5 years: 1
Violations within 5 years: 1
Latitude: 37.790855
Longitude: -122.263117

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

193
NW
1/4-1/2
0.493 mi.
2605 ft.

SHORENSTEIN REALTY SERVICES L
1111 BROADWAY
OAKLAND, CA 94607

LUST S102425717
Alameda County CS N/A
EMI
HIST CORTESE
CERS

Relative:
Higher

LUST:

Actual:
43 ft.

Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100221
Global Id: T0600100221
Latitude: 37.80268
Longitude: -122.27261
Status: Completed - Case Closed
Status Date: 02/03/1997
Case Worker: Not reported
RB Case Number: 01-0235
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0001116
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:

Global Id: T0600100221
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600100221
Action Type: Other
Date: 12/15/1988
Action: Leak Reported

Global Id: T0600100221
Action Type: REMEDIATION
Date: 09/09/9999
Action: Excavation

LUST:

Global Id: T0600100221
Status: Completed - Case Closed
Status Date: 02/03/1997

Global Id: T0600100221
Status: Open - Case Begin Date
Status Date: 12/15/1988

LUST REG 2:

Region: 2
Facility Id: 01-0235

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHORENSTEIN REALTY SERVICES L (Continued)

S102425717

Facility Status: Case Closed
Case Number: 3664
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: 12/21/1988
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Case Closed
Record Id: RO0001116
PE: 5602
Facility Status: Case Closed
Latitude: 37.802403797
Longitude: -122.27258041

EMI:

Year: 2006
County Code: 1
Air Basin: SF
Facility ID: 16836
Air District Name: BA
SIC Code: 6512
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: .016
Reactive Organic Gases Tons/Yr: .0133872
Carbon Monoxide Emissions Tons/Yr: .044
NOX - Oxides of Nitrogen Tons/Yr: .201
SOX - Oxides of Sulphur Tons/Yr: .003
Particulate Matter Tons/Yr: .015
Part. Matter 10 Micrometers and Smaller Tons/Yr: .01464

Year: 2007
County Code: 1
Air Basin: SF
Facility ID: 16836
Air District Name: BA
SIC Code: 6512
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: .016
Reactive Organic Gases Tons/Yr: .0133872
Carbon Monoxide Emissions Tons/Yr: .044
NOX - Oxides of Nitrogen Tons/Yr: .201
SOX - Oxides of Sulphur Tons/Yr: .003
Particulate Matter Tons/Yr: .015
Part. Matter 10 Micrometers and Smaller Tons/Yr: .01464

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHORENSTEIN REALTY SERVICES L (Continued)

S102425717

Year: 2008
County Code: 1
Air Basin: SF
Facility ID: 16836
Air District Name: BA
SIC Code: 6512
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: .004
Reactive Organic Gases Tons/Yr: .0033468
Carbon Monoxide Emissions Tons/Yr: .013
NOX - Oxides of Nitrogen Tons/Yr: .057
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: .004
Part. Matter 10 Micrometers and Smlr Tons/Yr:.003904

Year: 2009
County Code: 1
Air Basin: SF
Facility ID: 16836
Air District Name: BA
SIC Code: 6512
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 4.0000000000000001E-3
Reactive Organic Gases Tons/Yr: 0.0033468
Carbon Monoxide Emissions Tons/Yr: 1.2999999999999999E-2
NOX - Oxides of Nitrogen Tons/Yr: 5.7000000000000002E-2
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 4.0983606557376999E-3
Part. Matter 10 Micrometers and Smlr Tons/Yr:4.0000000000000001E-3

Year: 2010
County Code: 1
Air Basin: SF
Facility ID: 20724
Air District Name: BA
SIC Code: 9111
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 3.0000000000000001E-3
NOX - Oxides of Nitrogen Tons/Yr: 0.002
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2011
County Code: 1
Air Basin: SF
Facility ID: 20724
Air District Name: BA
SIC Code: 9111

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHORENSTEIN REALTY SERVICES L (Continued)

S102425717

Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0.003
NOX - Oxides of Nitrogen Tons/Yr: 0.002
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2012
County Code: 1
Air Basin: SF
Facility ID: 20724
Air District Name: BA
SIC Code: 9111
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0.003
NOX - Oxides of Nitrogen Tons/Yr: 0.002
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2013
County Code: 1
Air Basin: SF
Facility ID: 20724
Air District Name: BA
SIC Code: 9111
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0.003
NOX - Oxides of Nitrogen Tons/Yr: 0.002
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2014
County Code: 1
Air Basin: SF
Facility ID: 22884
Air District Name: BA
SIC Code: 6512
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.004871423
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0.013769996

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHORENSTEIN REALTY SERVICES L (Continued)

S102425717

NOX - Oxides of Nitrogen Tons/Yr: 0.06333907
SOX - Oxides of Sulphur Tons/Yr: 2.9362e-005
Particulate Matter Tons/Yr: 0.000904568
Part. Matter 10 Micrometers and Smlr Tons/Yr:0.000868386

Year: 2014
County Code: 1
Air Basin: SF
Facility ID: 20724
Air District Name: BA
SIC Code: 9111
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.000471096
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0.003928493
NOX - Oxides of Nitrogen Tons/Yr: 0.003190795
SOX - Oxides of Sulphur Tons/Yr: 2.175e-006
Particulate Matter Tons/Yr: 7.2553e-005
Part. Matter 10 Micrometers and Smlr Tons/Yr:6.9651e-005

Year: 2015
County Code: 1
Air Basin: SF
Facility ID: 22884
Air District Name: BA
SIC Code: 6512
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.004871423
Reactive Organic Gases Tons/Yr: 0.004750992
Carbon Monoxide Emissions Tons/Yr: 0.013769996
NOX - Oxides of Nitrogen Tons/Yr: 0.06333906
SOX - Oxides of Sulphur Tons/Yr: 2.9362e-005
Particulate Matter Tons/Yr: 0.000904568
Part. Matter 10 Micrometers and Smlr Tons/Yr:0.000868386

Year: 2015
County Code: 1
Air Basin: SF
Facility ID: 20724
Air District Name: BA
SIC Code: 9111
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.000471096
Reactive Organic Gases Tons/Yr: 0.000462176
Carbon Monoxide Emissions Tons/Yr: 0.003928493
NOX - Oxides of Nitrogen Tons/Yr: 0.003190795
SOX - Oxides of Sulphur Tons/Yr: 2.175e-006
Particulate Matter Tons/Yr: 7.2553e-005
Part. Matter 10 Micrometers and Smlr Tons/Yr:6.9651e-005

Year: 2016

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHORENSTEIN REALTY SERVICES L (Continued)

S102425717

County Code: 1
Air Basin: SF
Facility ID: 20724
Air District Name: BA
SIC Code: 9111
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.000471096
Reactive Organic Gases Tons/Yr: 0.000413857836
Carbon Monoxide Emissions Tons/Yr: 0.003928493
NOX - Oxides of Nitrogen Tons/Yr: 0.003190795
SOX - Oxides of Sulphur Tons/Yr: 2.175e-006
Particulate Matter Tons/Yr: 7.2553e-005
Part. Matter 10 Micrometers and Smlr Tons/Yr:6.9651e-005

Year: 2016
County Code: 1
Air Basin: SF
Facility ID: 22884
Air District Name: BA
SIC Code: 6512
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.037421059
Reactive Organic Gases Tons/Yr: 0.018477469231
Carbon Monoxide Emissions Tons/Yr: 0.083703137
NOX - Oxides of Nitrogen Tons/Yr: 0.476586248
SOX - Oxides of Sulphur Tons/Yr: 0.002389314
Particulate Matter Tons/Yr: 0.013324805
Part. Matter 10 Micrometers and Smlr Tons/Yr:0.013290498

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-0235

CERS TANKS:

Site ID: 196453
CERS ID: T0600100221
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

AP194 **CHEVRON**
North **1633 HARRISON ST**
1/4-1/2 **OAKLAND, CA 94612**
0.495 mi.
2611 ft. **Site 1 of 2 in cluster AP**

LUST **S105030325**
N/A

Relative: LUST REG 2:
Higher Region: 2
Actual: Facility Id: 01-0331
35 ft. Facility Status: Remedial action (cleanup) Underway
 Case Number: 3812
 How Discovered: Tank Closure
 Leak Cause: Structure Failure
 Leak Source: Tank
 Date Leak Confirmed: 3/20/1992
 Oversight Program: LUST
 Prelim. Site Assessment Wokplan Submitted: 12/1/1991
 Preliminary Site Assessment Began: 6/20/1990
 Pollution Characterization Began: 4/30/1989
 Pollution Remediation Plan Submitted: Not reported
 Date Remediation Action Underway: 1/2/1965
 Date Post Remedial Action Monitoring Began: Not reported

AP195 **CHEVRON #9-0020**
North **1633 HARRISON STREET**
1/4-1/2 **OAKLAND, CA 94612**
0.495 mi.
2611 ft. **Site 2 of 2 in cluster AP**

LUST **S110060468**
Alameda County CS **N/A**
HIST CORTESE
CERS

Relative: LUST:
Higher Lead Agency: ALAMEDA COUNTY LOP
Actual: Case Type: LUST Cleanup Site
35 ft. Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100304
 Global Id: T0600100304
 Latitude: 37.8051642137941
 Longitude: -122.266503721475
 Status: Completed - Case Closed
 Status Date: 01/27/2015
 Case Worker: MD
 RB Case Number: 01-0331
 Local Agency: ALAMEDA COUNTY LOP
 File Location: All Files are on GeoTracker or in the Local Agency Database
 Local Case Number: RO0000143
 Potential Media Affect: Other Groundwater (uses other than drinking water)
 Potential Contaminants of Concern: Gasoline, Waste Oil / Motor / Hydraulic / Lubricating
 Site History: Not all historic documents for the fuel leak case may be available on GeoTracker. A complete case file for this site is located on the Alameda County Environmental Health website at:
 <http://ehgis.acgov.org/dehpublic/dehpublic.jsp>. The subject site was used as a service station until 1972 when the site was demolished and the tanks removed. The station building, two dispenser islands, one waste oil UST, and two gasoline USTs were removed. An earlier generation of USTs had previously been removed. Since 1975 it has been used as a parking lot. A soil vapor survey was conducted in 1988 to determine if the site had been impacted, three wells were installed in October 1988, four wells were installed in 1989, four wells were installed offsite in June 1990, two offsite wells were installed in October 1991, and another two wells were installed offsite in late 1992, for a total of 16 wells. Limited soil excavation was conducted in January 1992. An SVE system operated

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHEVRON #9-0020 (Continued)

S110060468

onsite in 1993, but showed minimal effectiveness. In June 2004 the first generation UST pit was investigated and impacts were discovered. In April 2007 four bores were installed to investigate the extent of contamination associated with the first generation USTs. In June 2007 a vapor survey was conducted and elevated concentrations were detected in all vapor points. In early 2008 105 bucket auger bores were installed to remove impacted soil associated with the first generation USTs. A report on the installation of a post-remediation groundwater monitoring well and the installation of several soil bores to infill a data gap in the downgradient extent of the groundwater plume was generated. Well MW-17 was installed in October 2010. Additional excavation of soil impacted by the second generation USTs and the waste oil UST was conducted between January and June 2011 as part of the redevelopment project for the subject site.

LUST:

Global Id:	T0600100304
Contact Type:	Local Agency Caseworker
Contact Name:	MARK DETTERMAN
Organization Name:	ALAMEDA COUNTY LOP
Address:	1131 HARBOR BAY PARKWAY
City:	ALAMEDA
Email:	mark.detterman@acgov.org
Phone Number:	5105676876
Global Id:	T0600100304
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

LUST:

Global Id:	T0600100304
Action Type:	Other
Date:	01/27/1988
Action:	Leak Reported
Global Id:	T0600100304
Action Type:	RESPONSE
Date:	11/16/2012
Action:	Monitoring Report - Semi-Annually
Global Id:	T0600100304
Action Type:	RESPONSE
Date:	05/24/2013
Action:	Monitoring Report - Semi-Annually
Global Id:	T0600100304
Action Type:	RESPONSE
Date:	10/26/2012
Action:	Soil and Water Investigation Workplan
Global Id:	T0600100304

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHEVRON #9-0020 (Continued)

S110060468

Action Type: RESPONSE
Date: 11/09/2012
Action: Remedial Progress Report

Global Id: T0600100304
Action Type: RESPONSE
Date: 08/02/2013
Action: Site Assessment Report

Global Id: T0600100304
Action Type: RESPONSE
Date: 03/28/2014
Action: Request for Closure - Regulator Responded

Global Id: T0600100304
Action Type: ENFORCEMENT
Date: 02/09/2009
Action: Staff Letter - #20090209

Global Id: T0600100304
Action Type: ENFORCEMENT
Date: 03/26/2009
Action: Staff Letter - #20090326

Global Id: T0600100304
Action Type: ENFORCEMENT
Date: 05/21/2009
Action: Staff Letter - #20090521

Global Id: T0600100304
Action Type: ENFORCEMENT
Date: 07/24/2009
Action: Staff Letter - #20090724

Global Id: T0600100304
Action Type: REMEDIATION
Date: 01/07/1992
Action: Excavation

Global Id: T0600100304
Action Type: ENFORCEMENT
Date: 09/24/2009
Action: Staff Letter

Global Id: T0600100304
Action Type: ENFORCEMENT
Date: 02/19/2010
Action: Staff Letter

Global Id: T0600100304
Action Type: ENFORCEMENT
Date: 07/26/2010
Action: Staff Letter

Global Id: T0600100304
Action Type: ENFORCEMENT
Date: 07/03/2013

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHEVRON #9-0020 (Continued)

S110060468

Action: Staff Letter - #20130703

Global Id: T0600100304
Action Type: ENFORCEMENT
Date: 08/02/2012
Action: Staff Letter - #20120802

Global Id: T0600100304
Action Type: RESPONSE
Date: 01/16/2015
Action: Correspondence

Global Id: T0600100304
Action Type: ENFORCEMENT
Date: 01/27/2015
Action: Closure/No Further Action Letter - #20150127

Global Id: T0600100304
Action Type: ENFORCEMENT
Date: 05/23/2014
Action: Notification - Public Participation Document - #20140523

Global Id: T0600100304
Action Type: ENFORCEMENT
Date: 03/13/2014
Action: Meeting - #20140313

Global Id: T0600100304
Action Type: ENFORCEMENT
Date: 09/22/2014
Action: Staff Letter - #20140922

Global Id: T0600100304
Action Type: ENFORCEMENT
Date: 05/23/2014
Action: Staff Letter - #20140523

Global Id: T0600100304
Action Type: RESPONSE
Date: 07/07/2014
Action: Correspondence

Global Id: T0600100304
Action Type: RESPONSE
Date: 03/13/2015
Action: Well Destruction Report

Global Id: T0600100304
Action Type: REMEDIATION
Date: 01/18/2008
Action: Excavation

Global Id: T0600100304
Action Type: REMEDIATION
Date: 01/01/2011
Action: Excavation

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHEVRON #9-0020 (Continued)

S110060468

Global Id: T0600100304
Action Type: Other
Date: 12/17/1987
Action: Leak Discovery

Global Id: T0600100304
Action Type: RESPONSE
Date: 04/30/2010
Action: Risk Assessment Report

Global Id: T0600100304
Action Type: RESPONSE
Date: 02/26/2010
Action: Soil and Water Investigation Report

Global Id: T0600100304
Action Type: RESPONSE
Date: 12/15/2010
Action: Soil and Water Investigation Report

Global Id: T0600100304
Action Type: ENFORCEMENT
Date: 02/20/2008
Action: File review - #20082002

Global Id: T0600100304
Action Type: RESPONSE
Date: 06/01/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0600100304
Action Type: RESPONSE
Date: 12/01/2011
Action: Monitoring Report - Semi-Annually

LUST:

Global Id: T0600100304
Status: Completed - Case Closed
Status Date: 01/27/2015

Global Id: T0600100304
Status: Open - Assessment & Interim Remedial Action
Status Date: 11/11/1992

Global Id: T0600100304
Status: Open - Case Begin Date
Status Date: 12/17/1987

Global Id: T0600100304
Status: Open - Eligible for Closure
Status Date: 05/23/2014

Global Id: T0600100304
Status: Open - Remediation
Status Date: 07/01/1993

Global Id: T0600100304

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHEVRON #9-0020 (Continued)

S110060468

Status: Open - Remediation
Status Date: 01/05/2011

Global Id: T0600100304
Status: Open - Site Assessment
Status Date: 01/24/1988

Global Id: T0600100304
Status: Open - Site Assessment
Status Date: 01/27/1988

Global Id: T0600100304
Status: Open - Site Assessment
Status Date: 11/18/2003

Global Id: T0600100304
Status: Open - Verification Monitoring
Status Date: 08/02/2012

Alameda County CS:

Status: Leak Confirmation
Record Id: RO0000143
PE: 5602
Facility Status: Leak Confirmation
Latitude: 37.804841539
Longitude: -122.26659531

Status: Preliminary Site Assessment Underway
Record Id: RO0000143
PE: 5602
Facility Status: Preliminary Site Assessment Underway
Latitude: 37.804841539
Longitude: -122.26659531

Status: Pollution Characterization
Record Id: RO0000143
PE: 5602
Facility Status: Pollution Characterization
Latitude: 37.804841539
Longitude: -122.26659531

Status: Case Closed
Record Id: RO0000143
PE: 5602
Facility Status: Case Closed
Latitude: 37.804841539
Longitude: -122.26659531

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-0331

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CHEVRON #9-0020 (Continued)

S110060468

CERS TANKS:
 Site ID: 214269
 CERS ID: T0600100304
 CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
 Affiliation Type Desc: Local Agency Caseworker
 Entity Name: MARK DETTERMAN - ALAMEDA COUNTY LOP
 Entity Title: Not reported
 Affiliation Address: 1131 HARBOR BAY PARKWAY
 Affiliation City: ALAMEDA
 Affiliation State: CA
 Affiliation Country: Not reported
 Affiliation Zip: Not reported
 Affiliation Phone: 5105676876

Affiliation Type Desc: Regional Board Caseworker
 Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
 Entity Title: Not reported
 Affiliation Address: 1515 CLAY ST SUITE 1400
 Affiliation City: OAKLAND
 Affiliation State: CA
 Affiliation Country: Not reported
 Affiliation Zip: Not reported
 Affiliation Phone: Not reported

AQ196 MERRITT ROOF COMPANY
ESE 1044 5TH AVE
1/4-1/2 OAKLAND, CA 94606
0.495 mi.
2612 ft. Site 1 of 2 in cluster AQ

LUST U001599129
HIST UST N/A
CERS

Relative: LUST:
Lower Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)
 Case Type: LUST Cleanup Site
Actual: Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600102304
25 ft. Global Id: T0600102304
 Latitude: 37.7940989753991
 Longitude: -122.255816459656
 Status: Open - Eligible for Closure
 Status Date: 11/12/2015
 Case Worker: BGS
 RB Case Number: 01-2323
 Local Agency: Not reported
 File Location: All Files are on GeoTracker or in the Local Agency Database
 Local Case Number: Not reported
 Potential Media Affect: Other Groundwater (uses other than drinking water)
 Potential Contaminants of Concern: Gasoline
 Site History: In September 1995 one USTs was removed and confirmation soil sampling detected elevated levels of contamination in soil. In July 1997 groundwater monitoring was implemented to evaluate the dissolved contaminant plume. In 2007 ACEH evaluated the site for closure and determined that additional information was needed. The responsible party has not responded to requests for additional information. Not all historic documents for the fuel leak case may be available on GeoTracker. A more complete historic case file for this site is located on the Alameda County Environmental Health website at:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MERRITT ROOF COMPANY (Continued)

U001599129

<http://ehgis.acgov.org/dehpublic/dehpublic.jsp>

LUST:

Global Id: T0600102304
Contact Type: Regional Board Caseworker
Contact Name: BARBARA SIEMINSKI
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY STREET, SUITE 1400
City: OAKLAND
Email: bsieminski@waterboards.ca.gov
Phone Number: Not reported

LUST:

Global Id: T0600102304
Action Type: ENFORCEMENT
Date: 06/21/2016
Action: Technical Correspondence / Assistance / Other

Global Id: T0600102304
Action Type: Other
Date: 11/06/1995
Action: Leak Reported

Global Id: T0600102304
Action Type: RESPONSE
Date: 07/30/1997
Action: Soil and Water Investigation Report

Global Id: T0600102304
Action Type: RESPONSE
Date: 03/13/1996
Action: Site Assessment Report

Global Id: T0600102304
Action Type: RESPONSE
Date: 02/21/1996
Action: Site Assessment Report

Global Id: T0600102304
Action Type: RESPONSE
Date: 01/22/1996
Action: Tank Removal Report / UST Sampling Report

Global Id: T0600102304
Action Type: RESPONSE
Date: 04/28/1995
Action: Correspondence

Global Id: T0600102304
Action Type: RESPONSE
Date: 01/25/2000
Action: Correspondence

Global Id: T0600102304
Action Type: RESPONSE
Date: 06/08/1998
Action: Monitoring Report - Other

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MERRITT ROOF COMPANY (Continued)

U001599129

Global Id:	T0600102304
Action Type:	ENFORCEMENT
Date:	07/03/2008
Action:	Staff Letter - #20080703
Global Id:	T0600102304
Action Type:	ENFORCEMENT
Date:	10/14/2016
Action:	13267 Requirement
Global Id:	T0600102304
Action Type:	ENFORCEMENT
Date:	04/25/2016
Action:	Staff Letter
Global Id:	T0600102304
Action Type:	RESPONSE
Date:	12/23/2013
Action:	Soil and Water Investigation Workplan - Regulator Responded
Global Id:	T0600102304
Action Type:	ENFORCEMENT
Date:	08/08/2016
Action:	Notification - Public Notice of Case Closure
Global Id:	T0600102304
Action Type:	ENFORCEMENT
Date:	10/17/2016
Action:	Email Correspondence
Global Id:	T0600102304
Action Type:	RESPONSE
Date:	11/20/2014
Action:	Soil and Water Investigation Report - Regulator Responded
Global Id:	T0600102304
Action Type:	ENFORCEMENT
Date:	07/24/2009
Action:	Notice of Violation
Global Id:	T0600102304
Action Type:	ENFORCEMENT
Date:	07/24/2009
Action:	Staff Letter
Global Id:	T0600102304
Action Type:	ENFORCEMENT
Date:	11/12/2015
Action:	Staff Letter
Global Id:	T0600102304
Action Type:	RESPONSE
Date:	08/10/2009
Action:	Electronic Reporting Submittal Due
Global Id:	T0600102304
Action Type:	RESPONSE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MERRITT ROOF COMPANY (Continued)

U001599129

Date: 12/23/2013
Action: Electronic Reporting Submittal Due

Global Id: T0600102304
Action Type: ENFORCEMENT
Date: 12/03/2009
Action: File review

Global Id: T0600102304
Action Type: ENFORCEMENT
Date: 07/18/2011
Action: Notice to Comply - #20110718

Global Id: T0600102304
Action Type: ENFORCEMENT
Date: 02/28/2011
Action: Notice of Violation - #20110228

Global Id: T0600102304
Action Type: ENFORCEMENT
Date: 11/07/2011
Action: Notice of Violation - #20111107

Global Id: T0600102304
Action Type: ENFORCEMENT
Date: 03/21/2012
Action: Referral to Regional Board - #20120321

Global Id: T0600102304
Action Type: ENFORCEMENT
Date: 10/25/2013
Action: 13267 Requirement

Global Id: T0600102304
Action Type: ENFORCEMENT
Date: 06/26/2018
Action: File review

Global Id: T0600102304
Action Type: ENFORCEMENT
Date: 06/26/2018
Action: Staff Letter

Global Id: T0600102304
Action Type: ENFORCEMENT
Date: 09/06/2017
Action: Verbal Communication

Global Id: T0600102304
Action Type: RESPONSE
Date: 01/13/2017
Action: Well Destruction Report

Global Id: T0600102304
Action Type: REMEDIATION
Date: 10/18/1995
Action: Excavation

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MERRITT ROOF COMPANY (Continued)

U001599129

Global Id:	T0600102304
Action Type:	ENFORCEMENT
Date:	05/22/2013
Action:	Site Visit / Inspection / Sampling
Global Id:	T0600102304
Action Type:	ENFORCEMENT
Date:	04/01/2014
Action:	Meeting
Global Id:	T0600102304
Action Type:	ENFORCEMENT
Date:	01/23/2015
Action:	Staff Letter
Global Id:	T0600102304
Action Type:	ENFORCEMENT
Date:	08/21/2014
Action:	13267 Requirement
Global Id:	T0600102304
Action Type:	ENFORCEMENT
Date:	02/12/2015
Action:	Meeting
Global Id:	T0600102304
Action Type:	ENFORCEMENT
Date:	07/26/2018
Action:	Notice of Violation
Global Id:	T0600102304
Action Type:	ENFORCEMENT
Date:	06/20/2017
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0600102304
Action Type:	ENFORCEMENT
Date:	06/27/2014
Action:	File review
Global Id:	T0600102304
Action Type:	ENFORCEMENT
Date:	05/01/2014
Action:	Verbal Enforcement
Global Id:	T0600102304
Action Type:	Other
Date:	10/18/1995
Action:	Leak Discovery
Global Id:	T0600102304
Action Type:	RESPONSE
Date:	03/31/2011
Action:	Electronic Reporting Submittal Due
Global Id:	T0600102304
Action Type:	Other

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MERRITT ROOF COMPANY (Continued)

U001599129

Date: 10/18/1995
Action: Leak Stopped

Global Id: T0600102304
Action Type: RESPONSE
Date: 09/19/2011
Action: Soil and Water Investigation Workplan

Global Id: T0600102304
Action Type: RESPONSE
Date: 01/09/2012
Action: Soil and Water Investigation Workplan

LUST:

Global Id: T0600102304
Status: Open - Case Begin Date
Status Date: 10/18/1995

Global Id: T0600102304
Status: Open - Eligible for Closure
Status Date: 08/31/2015

Global Id: T0600102304
Status: Open - Eligible for Closure
Status Date: 11/12/2015

Global Id: T0600102304
Status: Open - Site Assessment
Status Date: 10/18/1995

Global Id: T0600102304
Status: Open - Site Assessment
Status Date: 11/06/1995

HIST UST:

File Number: Not reported
URL: Not reported
Region: STATE
Facility ID: 00000049481
Facility Type: Other
Other Type: CONTRACTOR
Contact Name: J. HAMMOND
Telephone: 4158349104
Owner Name: MERRITT ROOF COMPANY
Owner Address: 044 FIFTH AVENUE
Owner City,St,Zip: OAKLAND, CA 94606
Total Tanks: 0001

Tank Num: 001
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MERRITT ROOF COMPANY (Continued)

U001599129

Leak Detection: Visual, Stock Inventor

CERS TANKS:

Site ID: 191022
CERS ID: T0600102304
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: BARBARA SIEMINSKI - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY STREET, SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

AQ197 MERRITT ENV CORP
ESE 1044 5TH AVE
1/4-1/2 OAKLAND, CA 94606

LUST S103878999
Alameda County CS N/A
HIST CORTESE

0.495 mi.
2612 ft. Site 2 of 2 in cluster AQ

Relative: LUST REG 2:
Lower Region: 2
Facility Id: 21-2323
Actual: Facility Status: Preliminary site assessment underway
25 ft. Case Number: 3887
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: 3/20/1998
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 1/2/1965
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Leak Confirmation
Record Id: RO0000419
PE: 5602
Facility Status: Leak Confirmation
Latitude: 37.79392967
Longitude: -122.25613099

Status: 11
Record Id: RO0000419
PE: 5602
Facility Status: Not reported
Latitude: 37.79392967
Longitude: -122.25613099

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MERRITT ENV CORP (Continued)

S103878999

Status: Pollution Characterization
Record Id: RO0000419
PE: 5602
Facility Status: Pollution Characterization
Latitude: 37.79392967
Longitude: -122.25613099

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 21-2323

**198
SSE
1/4-1/2
0.495 mi.
2615 ft.**

**NAVAL INDUSTRIAL REPAIR FACILITY OAKLAND
OAKLAND, CA**

**FUDS 1007211917
N/A**

**Relative:
Lower
Actual:
0 ft.**

FUDS:

EPA Region: 09
Congressional District: 13
FUDS Number: J09CA1086
State: CA
Facility Name: NAVAL INDUSTRIAL REPAIR FACILITY OAKLAND
Fiscal Year: 2013
City: OAKLAND
Federal Facility ID: CA9799F5980
Telephone: 916-557-7461
INST ID: 61354
County: ALAMEDA
RAB: Not reported
CORPS_DIST: Sacramento District (SPK)
NPL Status: Not Listed
CTC: 175.19999999999999
Current Owner: Other
Future Prog: Not reported
Description: The 3.4-acre site is located in Alameda County, California, and is approximately five miles southwest of the City of Oakland on the port waterfront in the San Francisco Bay (Inner Oakland Harbor). After the Department of Defense left the site, Crowley Maritime Corporation used the site for vessel maintenance until 1992. There were three underground storage tanks, and one aboveground storage tank located on the site. One 500 gallon leaded gasoline underground tank was removed in September 1994 by Crowley. The two remaining underground storage tanks, each having a 5,000 gallon capacity, were removed on June 30, 1998 by the Port of Oakland. The Port of Oakland razed the buildings comprising the Naval Industrial Reserve (NIR) in 1998 in a renovation of the industrial waterfront. The Port of Oakland still owns the site and currently leases out the property to the Oakland Strokes boating school.

Current Program:
History:

Not reported
In 1942, the U.S. entered into a contract for ship repair facilities with Hurley Marine Works, Inc. (which leased 19.4 acres of land from the Port of Oakland) beginning in 1940 to form the NIR Repair Facility. In 1944, Amendment No. 4 to the Hurley contract provided for an expansion of the property to establish the NIR, which was comprised

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

NAVAL INDUSTRIAL REPAIR FACILITY OAKLAND (Continued)

1007211917

of approximately 3.4 acres of the Hurley property in Alameda County. The property was used by the 12th Naval District, Alameda for shipbuilding and ship repair during WWII. A Government-owned 2,800 ton Auxiliary Floating Drydock Light was moored at the NIR during WWII. Beginning in 1955 through the mid-1960s, the Martinolich Ship Repair Company leased the AFDL from the Government at the Hurley facility. The Department of Defense lease expired on 30 June 1965. The United States Navy leased the property from the City of Oakland and occupied it from 1942 to 1951 and sub-leased the property from 1951 to 1962. Pacific Dry Dock leased the site from the Port of Oakland and began operations at the site on July 14, 1964 for vessel maintenance. The parent company of Pacific Dry Dock (Crowley Maritime Corporation) informed the Port of Oakland that Pacific Dry Dock closed its operation at the site on 17 May 1991. Currently the Oakland Strokes lease the property from the Port of Oakland. A hazardous, toxic, and radioactive waste (HTRW) project is proposed to further investigate the former tanks on site.

Latitude Degree: 37
 Latitude Minute: 47
 Latitude Second: 25
 Latitude Direction: N
 Longitude Degree: -122
 Longitude Minute: 16
 Longitude Second: 47
 Longitude Direction: E

AO199
WSW
1/4-1/2
0.497 mi.
2626 ft.

GOLDEN STATE DIESEL
351 EMBARCADERO
OAKLAND, CA 94607

ENVIROSTOR
SWEEPS UST
CA FID UST

S101580394
N/A

Site 2 of 2 in cluster AO

Relative:
Lower
Actual:
10 ft.

ENVIROSTOR:
 Facility ID: 1500086
 Status: Refer: RCRA
 Status Date: 06/08/1994
 Site Code: Not reported
 Site Type: Historical
 Site Type Detailed: * Historical
 Acres: Not reported
 NPL: NO
 Regulatory Agencies: NONE SPECIFIED
 Lead Agency: NONE SPECIFIED
 Program Manager: Not reported
 Supervisor: Referred - Not Assigned
 Division Branch: Cleanup Berkeley
 Assembly: 18
 Senate: 09
 Special Program: Not reported
 Restricted Use: NO
 Site Mgmt Req: NONE SPECIFIED
 Funding: Not reported
 Latitude: 37.79039
 Longitude: -122.2620
 APN: NONE SPECIFIED
 Past Use: NONE SPECIFIED
 Potential COC: NONE SPECIFIED
 Confirmed COC: NONE SPECIFIED

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GOLDEN STATE DIESEL (Continued)

S101580394

Potential Description: NONE SPECIFIED
Alias Name: Not reported
Alias Type: Not reported

Completed Info:

Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SWEEPS UST:

Status: Active
Comp Number: 58419
Number: 1
Board Of Equalization: 44-000572
Referral Date: 03-13-91
Action Date: 03-13-91
Created Date: 02-29-88
Owner Tank Id: GF03
SWRCB Tank Id: 01-000-058419-000001
Tank Status: A
Capacity: 1000
Active Date: 03-13-91
Tank Use: EMPTY
STG: P
Content: UNKNOWN
Number Of Tanks: 1

CA FID UST:

Facility ID: 01002765
Regulated By: UTNKA
Regulated ID: 00058419
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4154651093
Mail To: Not reported
Mailing Address: 530 WATER ST
Mailing Address 2: Not reported
Mailing City,St,Zip: OAKLAND 94607
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

200
NNW
1/4-1/2
0.498 mi.
2632 ft.

WILTEL COMMUNICATIONS
1330 BROADWAY
OAKLAND, CA 94612

LUST S102441487
EMI N/A
HIST CORTESE

Relative:
Higher

LUST REG 2:

Actual:
43 ft.

Region: 2
Facility Id: 01-1694
Facility Status: Case Closed
Case Number: 2142
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: Tank
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assessment Wokplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

EMI:

Year: 2001
County Code: 1
Air Basin: SF
Facility ID: 12765
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Y
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 3
Reactive Organic Gases Tons/Yr: 2
Carbon Monoxide Emissions Tons/Yr: 7
NOX - Oxides of Nitrogen Tons/Yr: 33
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 2
Part. Matter 10 Micrometers and Smlr Tons/Yr:2

Year: 2002
County Code: 1
Air Basin: SF
Facility ID: 12765
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2002

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WILTEL COMMUNICATIONS (Continued)

S102441487

County Code: 1
Air Basin: SF
Facility ID: 13342
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2003
County Code: 1
Air Basin: SF
Facility ID: 12765
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2003
County Code: 1
Air Basin: SF
Facility ID: 13342
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2004
County Code: 1
Air Basin: SF
Facility ID: 13342
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WILTEL COMMUNICATIONS (Continued)

S102441487

Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.003
Reactive Organic Gases Tons/Yr: 0.0025101
Carbon Monoxide Emissions Tons/Yr: 0.003
NOX - Oxides of Nitrogen Tons/Yr: 0.016
SOX - Oxides of Sulphur Tons/Yr: 0.001
Particulate Matter Tons/Yr: 0.001
Part. Matter 10 Micrometers and Smlr Tons/Yr:0.000976

Year: 2004
County Code: 1
Air Basin: SF
Facility ID: 12765
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.003
Reactive Organic Gases Tons/Yr: 0.0025101
Carbon Monoxide Emissions Tons/Yr: 0.009
NOX - Oxides of Nitrogen Tons/Yr: 0.042
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0.003
Part. Matter 10 Micrometers and Smlr Tons/Yr:0.002928

Year: 2005
County Code: 1
Air Basin: SF
Facility ID: 12765
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: .005
Reactive Organic Gases Tons/Yr: .0041835
Carbon Monoxide Emissions Tons/Yr: .015
NOX - Oxides of Nitrogen Tons/Yr: .068
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: .005
Part. Matter 10 Micrometers and Smlr Tons/Yr:.00488

Year: 2005
County Code: 1
Air Basin: SF
Facility ID: 13342
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: .003
Reactive Organic Gases Tons/Yr: .0025101
Carbon Monoxide Emissions Tons/Yr: .003
NOX - Oxides of Nitrogen Tons/Yr: .016

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WILTEL COMMUNICATIONS (Continued)

S102441487

SOX - Oxides of Sulphur Tons/Yr: .001
Particulate Matter Tons/Yr: .001
Part. Matter 10 Micrometers and Smlr Tons/Yr:.000976

Year: 2006
County Code: 1
Air Basin: SF
Facility ID: 18110
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: .001
Reactive Organic Gases Tons/Yr: .0008367
Carbon Monoxide Emissions Tons/Yr: .001
NOX - Oxides of Nitrogen Tons/Yr: .004
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2006
County Code: 1
Air Basin: SF
Facility ID: 12765
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: .005
Reactive Organic Gases Tons/Yr: .0041835
Carbon Monoxide Emissions Tons/Yr: .015
NOX - Oxides of Nitrogen Tons/Yr: .068
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: .005
Part. Matter 10 Micrometers and Smlr Tons/Yr:.00488

Year: 2007
County Code: 1
Air Basin: SF
Facility ID: 12765
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: .005
Reactive Organic Gases Tons/Yr: .0041835
Carbon Monoxide Emissions Tons/Yr: .015
NOX - Oxides of Nitrogen Tons/Yr: .069
SOX - Oxides of Sulphur Tons/Yr: .001
Particulate Matter Tons/Yr: .005
Part. Matter 10 Micrometers and Smlr Tons/Yr:.00488

Year: 2007
County Code: 1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WILTEL COMMUNICATIONS (Continued)

S102441487

Air Basin: SF
Facility ID: 18110
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: .001
Reactive Organic Gases Tons/Yr: .0008367
Carbon Monoxide Emissions Tons/Yr: .001
NOX - Oxides of Nitrogen Tons/Yr: .004
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2007
County Code: 1
Air Basin: SF
Facility ID: 13342
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: .001
Reactive Organic Gases Tons/Yr: .0008367
Carbon Monoxide Emissions Tons/Yr: .001
NOX - Oxides of Nitrogen Tons/Yr: .004
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2008
County Code: 1
Air Basin: SF
Facility ID: 12765
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: .005
Reactive Organic Gases Tons/Yr: .0041835
Carbon Monoxide Emissions Tons/Yr: .015
NOX - Oxides of Nitrogen Tons/Yr: .069
SOX - Oxides of Sulphur Tons/Yr: .001
Particulate Matter Tons/Yr: .005
Part. Matter 10 Micrometers and Smlr Tons/Yr:.00488

Year: 2008
County Code: 1
Air Basin: SF
Facility ID: 18110
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WILTEL COMMUNICATIONS (Continued)

S102441487

Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: .001
Reactive Organic Gases Tons/Yr: .0008367
Carbon Monoxide Emissions Tons/Yr: .001
NOX - Oxides of Nitrogen Tons/Yr: .004
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2009
County Code: 1
Air Basin: SF
Facility ID: 12765
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.001
Reactive Organic Gases Tons/Yr: 8.3670000000000001E-4
Carbon Monoxide Emissions Tons/Yr: 3.0000000000000001E-3
NOX - Oxides of Nitrogen Tons/Yr: 0.014
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0.00102459016393442
Part. Matter 10 Micrometers and Smlr Tons/Yr:0.001

Year: 2009
County Code: 1
Air Basin: SF
Facility ID: 18110
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.001
Reactive Organic Gases Tons/Yr: 8.3670000000000001E-4
Carbon Monoxide Emissions Tons/Yr: 0.001
NOX - Oxides of Nitrogen Tons/Yr: 4.0000000000000001E-3
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2010
County Code: 1
Air Basin: SF
Facility ID: 18110
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 3.3000000000000002E-2
Reactive Organic Gases Tons/Yr: 0.0276111
Carbon Monoxide Emissions Tons/Yr: 4.0000000000000001E-2
NOX - Oxides of Nitrogen Tons/Yr: 0.1950000000000001
SOX - Oxides of Sulphur Tons/Yr: 0

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WILTEL COMMUNICATIONS (Continued)

S102441487

Particulate Matter Tons/Yr: 0.0133196721311475
Part. Matter 10 Micrometers and Smlr Tons/Yr:1.2999999999999999E-2

Year: 2010
County Code: 1
Air Basin: SF
Facility ID: 12765
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.001
Reactive Organic Gases Tons/Yr: 8.3670000000000001E-4
Carbon Monoxide Emissions Tons/Yr: 3.0000000000000001E-3
NOX - Oxides of Nitrogen Tons/Yr: 0.014
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0.00102459016393442
Part. Matter 10 Micrometers and Smlr Tons/Yr:0.001

Year: 2011
County Code: 1
Air Basin: SF
Facility ID: 12765
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.001
Reactive Organic Gases Tons/Yr: 0.0008367
Carbon Monoxide Emissions Tons/Yr: 0.004
NOX - Oxides of Nitrogen Tons/Yr: 0.019
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2011
County Code: 1
Air Basin: SF
Facility ID: 18110
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.033
Reactive Organic Gases Tons/Yr: 0.0276111
Carbon Monoxide Emissions Tons/Yr: 0.04
NOX - Oxides of Nitrogen Tons/Yr: 0.195
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2012
County Code: 1
Air Basin: SF

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WILTEL COMMUNICATIONS (Continued)

S102441487

Facility ID: 12765
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.001
Reactive Organic Gases Tons/Yr: 0.0008367
Carbon Monoxide Emissions Tons/Yr: 0.004
NOX - Oxides of Nitrogen Tons/Yr: 0.019
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0.0010245901639
Part. Matter 10 Micrometers and Smlr Tons/Yr:0.001

Year: 2012
County Code: 1
Air Basin: SF
Facility ID: 18110
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.014
Reactive Organic Gases Tons/Yr: 0.0117138
Carbon Monoxide Emissions Tons/Yr: 0.017
NOX - Oxides of Nitrogen Tons/Yr: 0.084
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0.0061475409836
Part. Matter 10 Micrometers and Smlr Tons/Yr:0.006

Year: 2013
County Code: 1
Air Basin: SF
Facility ID: 12765
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0.001
NOX - Oxides of Nitrogen Tons/Yr: 0.002
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Year: 2013
County Code: 1
Air Basin: SF
Facility ID: 18110
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WILTEL COMMUNICATIONS (Continued)

S102441487

Total Organic Hydrocarbon Gases Tons/Yr: 0.014
Reactive Organic Gases Tons/Yr: 0.0117138
Carbon Monoxide Emissions Tons/Yr: 0.017
NOX - Oxides of Nitrogen Tons/Yr: 0.084
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0.006
Part. Matter 10 Micrometers and Smlr Tons/Yr:0.006

Year: 2014
County Code: 1
Air Basin: SF
Facility ID: 18110
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.002773443
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0.003335308
NOX - Oxides of Nitrogen Tons/Yr: 0.016321694
SOX - Oxides of Sulphur Tons/Yr: 1.7859e-005
Particulate Matter Tons/Yr: 0.001122383
Part. Matter 10 Micrometers and Smlr Tons/Yr:0.001077488

Year: 2014
County Code: 1
Air Basin: SF
Facility ID: 12765
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.00017733
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0.0005355
NOX - Oxides of Nitrogen Tons/Yr: 0.002463186
SOX - Oxides of Sulphur Tons/Yr: 1.142e-006
Particulate Matter Tons/Yr: 0.000183364
Part. Matter 10 Micrometers and Smlr Tons/Yr:0.000176029

Year: 2015
County Code: 1
Air Basin: SF
Facility ID: 18110
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.002773443
Reactive Organic Gases Tons/Yr: 0.002700196
Carbon Monoxide Emissions Tons/Yr: 0.003335308
NOX - Oxides of Nitrogen Tons/Yr: 0.01632169
SOX - Oxides of Sulphur Tons/Yr: 1.7859e-005
Particulate Matter Tons/Yr: 0.001122383

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WILTEL COMMUNICATIONS (Continued)

S102441487

Part. Matter 10 Micrometers and Smlr Tons/Yr:0.001077488

Year: 2015
County Code: 1
Air Basin: SF
Facility ID: 12765
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.000569145
Reactive Organic Gases Tons/Yr: 0.000554114
Carbon Monoxide Emissions Tons/Yr: 0.0017187
NOX - Oxides of Nitrogen Tons/Yr: 0.007905655
SOX - Oxides of Sulphur Tons/Yr: 3.665e-006
Particulate Matter Tons/Yr: 0.000112904
Part. Matter 10 Micrometers and Smlr Tons/Yr:0.000108387

Year: 2016
County Code: 1
Air Basin: SF
Facility ID: 18110
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.003718866
Reactive Organic Gases Tons/Yr: 0.003267023781
Carbon Monoxide Emissions Tons/Yr: 0.004472263
NOX - Oxides of Nitrogen Tons/Yr: 0.021885509
SOX - Oxides of Sulphur Tons/Yr: 2.3947e-005
Particulate Matter Tons/Yr: 0.001504986
Part. Matter 10 Micrometers and Smlr Tons/Yr:0.001444786

Year: 2016
County Code: 1
Air Basin: SF
Facility ID: 12765
Air District Name: BA
SIC Code: 4813
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.000569145
Reactive Organic Gases Tons/Yr: 0.0004999938825
Carbon Monoxide Emissions Tons/Yr: 0.0017187
NOX - Oxides of Nitrogen Tons/Yr: 0.007905655
SOX - Oxides of Sulphur Tons/Yr: 3.665e-006
Particulate Matter Tons/Yr: 0.000112904
Part. Matter 10 Micrometers and Smlr Tons/Yr:0.000108387

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WILTEL COMMUNICATIONS (Continued)

S102441487

Reg Id: 01-1694

AR201
West
1/2-1
0.552 mi.
2914 ft.

THE MIRADOR
201 BROADWAY AVE
OAKLAND, CA 94607

ENVIROSTOR **S123133181**
VCP **N/A**

Site 1 of 2 in cluster AR

Relative:
Lower
Actual:
15 ft.

ENVIROSTOR:
Facility ID: 60002700
Status: Active
Status Date: 08/08/2018
Site Code: 202195
Site Type: Voluntary Cleanup
Site Type Detailed: Voluntary Cleanup
Acres: 0.3
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Min Wu
Supervisor: Noel Shrum
Division Branch: Cleanup Sacramento
Assembly: Not reported
Senate: Not reported
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 0
Longitude: 0
APN: 001 013500300
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: 001 013500300
Alias Type: APN
Alias Name: 202195
Alias Type: Project Code (Site Code)
Alias Name: 60002700
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

THE MIRADOR (Continued)

S123133181

VCP:

Facility ID: 60002700
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 0.3
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Min Wu
Supervisor: Noel Shrum
Division Branch: Cleanup Sacramento
Site Code: 202195
Assembly: Not reported
Senate: Not reported
Special Programs Code: Not reported
Status: Active
Status Date: 08/08/2018
Restricted Use: NO
Funding: Responsible Party
Lat/Long: 0 / 0
APN: 001 013500300
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: 001 013500300
Alias Type: APN
Alias Name: 202195
Alias Type: Project Code (Site Code)
Alias Name: 60002700
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

202 **AMERICAN INK PRODUCTS** **Notify 65** **S100178824**
ESE **630 EAST 10TH STREET** **N/A**
1/2-1 **OAKLAND, CA 92626**
0.568 mi.
2998 ft.

Relative: NOTIFY 65:
Lower Date Reported: Not reported
 Staff Initials: Not reported
Actual: Board File Number: Not reported
19 ft. Facility Type: Not reported
 Discharge Date: Not reported
 Issue Date: Not reported
 Incident Description: Not reported

203 **OAKLAND CITY HALL** **RCRA-SQG** **1000277317**
NW **#1 CITY HALL PLAZA** **LUST** **CAD980892004**
1/2-1 **OAKLAND, CA 94612** **Alameda County CS**
0.590 mi. **HIST CORTESE**
3114 ft. **Notify 65**
 CERS

Relative:
Higher

Actual: RCRA-SQG:
43 ft. Date form received by agency: 09/01/1996
 Facility name: OAKLAND CITY HALL
 Facility address: #1 CITY HALL PLAZA
 OAKLAND, CA 94612
 EPA ID: CAD980892004
 Contact: Not reported
 Contact address: Not reported
 Not reported
 Contact country: US
 Contact telephone: Not reported
 Contact email: Not reported
 EPA Region: 09
 Classification: Small Small Quantity Generator
 Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
 Owner/operator name: NOT REQUIRED
 Owner/operator address: NOT REQUIRED
 NOT REQUIRED, ME 99999
 Owner/operator country: Not reported
 Owner/operator telephone: 415-555-1212
 Owner/operator email: Not reported
 Owner/operator fax: Not reported
 Owner/operator extension: Not reported
 Legal status: County
 Owner/Operator Type: Operator
 Owner/Op start date: Not reported
 Owner/Op end date: Not reported

 Owner/operator name: CITY OF OAKLAND
 Owner/operator address: NOT REQUIRED
 NOT REQUIRED, ME 99999

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OAKLAND CITY HALL (Continued)

1000277317

Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: County
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 10/08/1985
Site name: OAKLAND CITY HALL
Classification: Large Quantity Generator

Violation Status: No violations found

LUST:

Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100986
Global Id: T0600100986
Latitude: 37.8064
Longitude: -122.2716
Status: Completed - Case Closed
Status Date: 02/21/1995
Case Worker: Not reported
RB Case Number: 01-1069
Local Agency: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000954
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:

Global Id: T0600100986
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OAKLAND CITY HALL (Continued)

1000277317

Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600100986
Action Type: Other
Date: 07/15/1989
Action: Leak Reported

Global Id: T0600100986
Action Type: REMEDIATION
Date: 09/09/9999
Action: Excavation

LUST:

Global Id: T0600100986
Status: Completed - Case Closed
Status Date: 02/21/1995

Global Id: T0600100986
Status: Open - Case Begin Date
Status Date: 07/15/1989

LUST REG 2:

Region: 2
Facility Id: 01-1069
Facility Status: Case Closed
Case Number: 3791
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Case Closed
Record Id: RO0000954
PE: 5602
Facility Status: Case Closed
Latitude: 37.80489597
Longitude: -122.27248881

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OAKLAND CITY HALL (Continued)

1000277317

Reg Id: 01-1069

NOTIFY 65:

Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Issue Date: Not reported
Incident Description: Not reported

CERS TANKS:

Site ID: 187724
CERS ID: T0600100986
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

**AR204
West
1/2-1
0.600 mi.
3168 ft.**

**PORT OF OAKLAND/CINEMA PROJECT
CLAY & EMBARCADERO
OAKLAND, CA 94706**

**ENVIROSTOR S101293676
VCP N/A
DEED
HIST CORTESE**

Site 2 of 2 in cluster AR

**Relative:
Lower
Actual:
13 ft.**

ENVIROSTOR:

Facility ID: 1730099
Status: Certified / Operation & Maintenance
Status Date: 11/18/1996
Site Code: 200480
Site Type: Voluntary Cleanup
Site Type Detailed: Voluntary Cleanup
Acres: 1
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Claude Jemison
Supervisor: Mark Piros
Division Branch: Cleanup Berkeley
Assembly: 18
Senate: 09
Special Program: Voluntary Cleanup Program
Restricted Use: YES
Site Mgmt Req: REM, ASP, DAY, ELD, HOS, LUC, EX, GW, NOWN, NUSE, NSUB, HS, SCH, FOOD, RES
Funding: Responsible Party
Latitude: 37.79601
Longitude: -122.2773

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORT OF OAKLAND/CINEMA PROJECT (Continued)

S101293676

APN: 001-0135-004-00
Past Use: MANUFACTURED GAS PLANT
Potential COC: Polynuclear aromatic hydrocarbons (PAHs)
Confirmed COC: Polynuclear aromatic hydrocarbons (PAHs)
Potential Description: SOIL
Alias Name: Not reported
Alias Type: Not reported

Completed Info:

Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

VCP:

Facility ID: 1730099
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: REM, ASP, DAY, ELD, HOS, LUC, EX, GW, NOWN, NUSE, NSUB, HS, SCH, FOOD, RES
Acres: 1
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Claude Jemison
Supervisor: Mark Piros
Division Branch: Cleanup Berkeley
Site Code: 200480
Assembly: 18
Senate: 09
Special Programs Code: Voluntary Cleanup Program
Status: Certified / Operation & Maintenance
Status Date: 11/18/1996
Restricted Use: YES
Funding: Responsible Party
Lat/Long: 37.79601 / -122.2773
APN: 001-0135-004-00
Past Use: MANUFACTURED GAS PLANT
Potential COC: 30019
Confirmed COC: 30019
Potential Description: SOIL
Alias Name: Not reported
Alias Type: Not reported

Completed Info:

Completed Area Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORT OF OAKLAND/CINEMA PROJECT (Continued)

S101293676

Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

DEED:

Envirostor ID: 1730099
Area: PROJECT WIDE
Sub Area: Not reported
Site Type: VOLUNTARY CLEANUP
Status: CERTIFIED / OPERATION & MAINTENANCE
Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): 10/15/1996
File Name: Envirostor Land Use Restrictions

HIST CORTESE:

Region: CORTESE
Facility County Code: 1
Reg By: CALSI
Reg Id: 01730099

205
West
1/2-1
0.636 mi.
3358 ft.

PG AND E GAS PLANT OAKLAND
FIRST AND WASHINGTON
OAKLAND, CA 94607

EDR MGP 1008407725
N/A

Relative:
Lower
Actual:
12 ft.

Manufactured Gas Plants:
No additional information available

206
ESE
1/2-1
0.655 mi.
3456 ft.

CLINTON COMMONS
720 EAST 11TH STREET
OAKLAND, CA 94606

ENVIROSTOR S110711858
VCP N/A
DEED

Relative:
Lower
Actual:
18 ft.

ENVIROSTOR:
Facility ID: 60001404
Status: Certified O&M - Land Use Restrictions Only
Status Date: 04/04/2013
Site Code: 201890
Site Type: Voluntary Cleanup

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CLINTON COMMONS (Continued)

S110711858

Site Type Detailed: Voluntary Cleanup
Acres: 0.69
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Claude Jemison
Supervisor: Mark Piros
Division Branch: Cleanup Berkeley
Assembly: 18
Senate: 09
Special Program: Not reported
Restricted Use: YES
Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 37.79266
Longitude: -122.2533
APN: 019 003301002, 19-33-10-2
Past Use: UNKNOWN
Potential COC: Lead Lead TPH-diesel
Confirmed COC: Lead Lead TPH-diesel
Potential Description: SOIL
Alias Name: 720 East 11th Street
Alias Type: Alternate Name
Alias Name: 019 003301002
Alias Type: APN
Alias Name: 19-33-10-2
Alias Type: APN
Alias Name: 201890
Alias Type: Project Code (Site Code)
Alias Name: 60001404
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 02/10/2017
Comments: DTSC provided notification to the Site owner that there has been a change in the assigned project manager.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 02/10/2017
Comments: Email to Resources Community Development providing notification of change in DTSC project manager assigned to site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/10/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 02/17/2011
Comments: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CLINTON COMMONS (Continued)

S110711858

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 02/28/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 08/14/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 12/20/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 04/04/2013
Comments: LUC (cap over soil) in place, except for annual cap inspections, no further action at site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Land Use Restriction Monitoring Report
Completed Date: 03/28/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 03/31/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/22/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/16/2015
Comments: Annual cost estimate for DTSC oversight.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/23/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CLINTON COMMONS (Continued)

S110711858

Completed Document Type: Annual Oversight Cost Estimate

Completed Date: 01/26/2018

Comments: Not reported

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Annual Oversight Cost Estimate

Completed Date: 10/25/2018

Comments: Not reported

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Correspondence

Completed Date: 10/13/2015

Comments: Letter informing respondents that a new DTSC project manager has been assigned.

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Preliminary Endangerment Assessment Report

Completed Date: 03/14/2011

Comments: Lead and TPH exist at the site above residential standards. The development of the site requires removal of 1500 cubic feet of soil. Once the site is regraded, verification samples will be collected and an addendum to this PEA will be submitted.

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Public Notice

Completed Date: 10/02/2012

Comments: Published 10/10/12

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Preliminary Endangerment Assessment Report

Completed Date: 09/25/2012

Comments: LUC required to restrict access to soil beneath the site. Annual inspections required.

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Removal Action Completion Report

Completed Date: 03/04/2013

Comments: Cap - foundation/parking garage installed over soil; some TPHd and lead remain in soil; LUC required.

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Monitoring Report

Completed Date: 01/02/2014

Comments: No subsurface activities have occurred. The cap remains protective.

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Land Use Restriction Monitoring Report

Completed Date: 01/07/2015

Comments: annual cap inspection, no activities disturbed the cap in the past

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CLINTON COMMONS (Continued)

S110711858

year and no maintenance is needed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 02/11/2016
Comments: DTSC letter approving 2016 inspection report of cap.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 07/05/2018
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 5 Year Review Reports
Completed Date: 07/05/2018
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/28/2017
Comments: Not reported

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: 5 Year Review Reports
Future Due Date: 2023
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

VCP:

Facility ID: 60001404
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 0.69
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Claude Jemison
Supervisor: Mark Piros
Division Branch: Cleanup Berkeley
Site Code: 201890
Assembly: 18
Senate: 09
Special Programs Code: Not reported
Status: Certified O&M - Land Use Restrictions Only
Status Date: 04/04/2013
Restricted Use: YES
Funding: Responsible Party

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CLINTON COMMONS (Continued)

S110711858

Lat/Long: 37.79266 / -122.2533
APN: 019 003301002, 19-33-10-2
Past Use: UNKNOWN
Potential COC: 30013, 30013, 30024
Confirmed COC: 30013,, ,30013,30024
Potential Description: SOIL
Alias Name: 720 East 11th Street
Alias Type: Alternate Name
Alias Name: 019 003301002
Alias Type: APN
Alias Name: 19-33-10-2
Alias Type: APN
Alias Name: 201890
Alias Type: Project Code (Site Code)
Alias Name: 60001404
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 02/10/2017
Comments: DTSC provided notification to the Site owner that there has been a change in the assigned project manager.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 02/10/2017
Comments: Email to Resources Community Development providing notification of change in DTSC project manager assigned to site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/10/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 02/17/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 02/28/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 08/14/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CLINTON COMMONS (Continued)

S110711858

Completed Document Type: Land Use Restriction

Completed Date: 12/20/2012

Comments: Not reported

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Certification

Completed Date: 04/04/2013

Comments: LUC (cap over soil) in place, except for annual cap inspections, no further action at site.

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: * Land Use Restriction Monitoring Report

Completed Date: 03/28/2013

Comments: Not reported

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Correspondence

Completed Date: 03/31/2013

Comments: Not reported

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Annual Oversight Cost Estimate

Completed Date: 09/22/2014

Comments: Not reported

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Annual Oversight Cost Estimate

Completed Date: 09/16/2015

Comments: Annual cost estimate for DTSC oversight.

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Annual Oversight Cost Estimate

Completed Date: 09/23/2016

Comments: Not reported

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Annual Oversight Cost Estimate

Completed Date: 01/26/2018

Comments: Not reported

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Annual Oversight Cost Estimate

Completed Date: 10/25/2018

Comments: Not reported

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Correspondence

Completed Date: 10/13/2015

Map ID
Direction
Distance
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MAP FINDINGS

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Database(s)

EDR ID Number
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CLINTON COMMONS (Continued)

S110711858

Comments: Letter informing respondents that a new DTSC project manager has been assigned.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 03/14/2011
Comments: Lead and TPH exist at the site above residential standards. The development of the site requires removal of 1500 cubic feet of soil. Once the site is regraded, verification samples will be collected and an addendum to this PEA will be submitted.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 10/02/2012
Comments: Published 10/10/12

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 09/25/2012
Comments: LUC required to restrict access to soil beneath the site. Annual inspections required.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 03/04/2013
Comments: Cap - foundation/parking garage installed over soil; some TPHd and lead remain in soil; LUC required.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/02/2014
Comments: No subsurface activities have occurred. The cap remains protective.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 01/07/2015
Comments: annual cap inspection, no activities disturbed the cap in the past year and no maintenance is needed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 02/11/2016
Comments: DTSC letter approving 2016 inspection report of cap.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 07/05/2018
Comments: Not reported

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EDR ID Number
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CLINTON COMMONS (Continued)

S110711858

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 5 Year Review Reports
Completed Date: 07/05/2018
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/28/2017
Comments: Not reported

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: 5 Year Review Reports
Future Due Date: 2023
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

DEED:

Envirostor ID: 60001404
Area: PROJECT WIDE
Sub Area: Not reported
Site Type: VOLUNTARY CLEANUP
Status: CERTIFIED O&M - LAND USE RESTRICTIONS ONLY
Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): 12/20/2012
File Name: Envirostor Land Use Restrictions

**207
SSE
1/2-1
0.676 mi.
3568 ft.**

**BROOKLYN BASIN
OAK STREET TO 9TH AVENUE
OAKLAND, CA 94606**

**ENVIROSTOR S117038744
VCP N/A**

**Relative:
Lower
Actual:
8 ft.**

ENVIROSTOR:
Facility ID: 70000109
Status: Active
Status Date: 05/01/2005
Site Code: 202005
Site Type: Voluntary Cleanup
Site Type Detailed: Voluntary Cleanup
Acres: 62
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Jovanne Villamater
Supervisor: Mark Piros
Division Branch: Cleanup Berkeley
Assembly: 18
Senate: 09
Special Program: CLRRRA Liability Immunity (AB 389)
Restricted Use: NO

Map ID
Direction
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Elevation

MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

BROOKLYN BASIN (Continued)

S117038744

Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 37.78792
Longitude: -122.2586
APN: 0000-0430-001-04, 0000-0460-003, 0000-0460-004, 0000-0465-002, 0000-0470-002
Past Use: ABOVE GROUND STORAGE TANKS, DRY DOCKS, LDF, MANUFACTURING - CHEMICALS, MANUFACTURING - LUMBER/WOOD PRODUCTS, METAL PLATING - OTHER, RECYCLING - SCRAP METAL, SHIPYARD - SHIP BUILDING/REPAIR, SHIPYARD - TERMINAL, UNDERGROUND STORAGE TANKS, UTILITY - ELECTRIC
Potential COC: Arsenic Benzene DDT Lead Mercury (elemental Methane Polynuclear aromatic hydrocarbons (PAHs Tetrachloroethylene (PCE TPH-diesel TPH-gas TPH-MOTOR OIL Trichloroethylene (TCE Vinyl chloride Chlorobenzene Copper and compounds 1,2-Dichloroethylene (cis Naphthalene Toluene Xylenes Zinc
Confirmed COC: Arsenic Benzene DDT Lead Mercury (elemental Methane Polynuclear aromatic hydrocarbons (PAHs Tetrachloroethylene (PCE TPH-diesel TPH-gas TPH-MOTOR OIL Trichloroethylene (TCE Vinyl chloride Chlorobenzene Copper and compounds 1,2-Dichloroethylene (cis Naphthalene Toluene Xylenes Zinc
Potential Description: OTH, SOIL, SV
Alias Name: Oak Street to 9th Avenue Site
Alias Type: Alternate Name
Alias Name: 0000-0430-001-04
Alias Type: APN
Alias Name: 0000-0460-003
Alias Type: APN
Alias Name: 0000-0460-004
Alias Type: APN
Alias Name: 0000-0465-002
Alias Type: APN
Alias Name: 0000-0470-002
Alias Type: APN
Alias Name: 110033612311
Alias Type: EPA (FRS #)
Alias Name: SL18328748
Alias Type: GeoTracker Global ID
Alias Name: SLT2O159263
Alias Type: GeoTracker Global ID
Alias Name: SLT2O160264
Alias Type: GeoTracker Global ID
Alias Name: T0600101816
Alias Type: GeoTracker Global ID
Alias Name: T0600102213
Alias Type: GeoTracker Global ID
Alias Name: T0600102267
Alias Type: GeoTracker Global ID
Alias Name: 201612
Alias Type: Project Code (Site Code)
Alias Name: 202005
Alias Type: Project Code (Site Code)
Alias Name: 70000109
Alias Type: Envirostor ID Number
Alias Name: 80001299
Alias Type: Envirostor ID Number
Completed Info:
Completed Area Name: PROJECT WIDE

Map ID
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EDR ID Number
EPA ID Number

BROOKLYN BASIN (Continued)

S117038744

Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/06/2017
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 08/25/2010
Comments: Annual cost estimate for DTSC oversight for the fiscal year 2010-11.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/13/2011
Comments: annual cost estimate for fiscal year 2011-12 finalized.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/30/2012
Comments: Annual DTSC oversight cost estimate mailed to project proponent.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 10/23/2008
Comments: DTSC annual oversight cost estimate to PRPs per HSC 25269.5.

Completed Area Name: Parcels A
Completed Sub Area Name: Not reported
Completed Document Type: Prospective Purchaser Agreement
Completed Date: 06/20/2017
Comments: This prospective Purchaser Agreement between DTSC and the City of Oakland for Parcel A.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 09/20/2017
Comments: DTSC Project Manager change notification letter

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 11/28/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Feasibility Study Workplan
Completed Date: 09/20/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOKLYN BASIN (Continued)

S117038744

Completed Date: 01/16/2007
Comments: Approved SAW

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: AB 389 Response Plan
Completed Date: 07/20/2010
Comments: Response Plan approved by DTSC. The Response Plan discusses the contamination in soil, soil gas, and groundwater at the Site, and identifies remedial measures to address this contamination.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 11/02/2009
Comments: Fact sheet for draft response plan finalized.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Participation Plan / Community Relations Plan
Completed Date: 08/26/2008
Comments: The purpose of the Public Participation Plan is to document community interest, views, and concerns related to environmental investigation and cleanup activities at the Site, and identify specific public participation activities that will facilitate community involvement in DTSC s decision-making process for the Site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 10/01/2007
Comments: RP has implemented the Workplan before DTSC approved the Workplan as final

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 05/16/2007
Comments: Fieldwork sampling completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Participation Plan / Community Relations Plan
Completed Date: 06/15/2007
Comments: Community survey/questionnaire mailed to site mailing list with 678 addresses

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 08/15/2008
Comments: Approved revised remediation goals letter that provides a complete list of soil, soil gas and groundwater remediation goals for the site cleanup.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

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Database(s)

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EPA ID Number

BROOKLYN BASIN (Continued)

S117038744

Completed Document Type: Remedial Investigation Report
Completed Date: 08/04/2009
Comments: Site Assessment Report for this area was approved. The Report discussed the vertical and horizontal extent of contamination in this area, and identified proposed cleanup measures for addressing the contamination based on future uses (e.g. residential; recreational, etc). The upcoming Response Plan for the Oak to Ninth Site will discuss cleanup measures in greater detail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/04/2009
Comments: Site Assessment Report for this area was approved. The Report discussed the vertical and horizontal extent of contamination in this area, and identified proposed cleanup measures for addressing the contamination based on future uses (e.g. residential; recreational, etc). The upcoming Response Plan for the Oak to Ninth Site will discuss cleanup measures in greater detail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/04/2009
Comments: Site Assessment Report for this area was approved. The Report discussed the vertical and horizontal extent of contamination in this area, and identified proposed cleanup measures for addressing the contamination based on future uses (e.g. residential; recreational, etc). The upcoming Response Plan for the Oak to Ninth Site will discuss cleanup measures in greater detail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/04/2009
Comments: Site Assessment Report for this area was approved. The Report discussed the vertical and horizontal extent of contamination in this area, and identified proposed cleanup measures for addressing the contamination based on future uses (e.g. residential; recreational, etc). The upcoming Response Plan for the Oak to Ninth Site will discuss cleanup measures in greater detail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/04/2009
Comments: Site Assessment Report for this area was approved. The Report discussed the vertical and horizontal extent of contamination in this area, and identified proposed cleanup measures for addressing the contamination based on future uses (e.g. residential; recreational, etc). The upcoming Response Plan for the Oak to Ninth Site will discuss cleanup measures in greater detail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/04/2009

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Elevation

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BROOKLYN BASIN (Continued)

S117038744

Comments: Site Assessment Report for this area was approved. The Report discussed the vertical and horizontal extent of contamination in this area, and identified proposed cleanup measures for addressing the contamination based on future uses (e.g. residential; recreational, etc). The upcoming Response Plan for the Oak to Ninth Site will discuss cleanup measures in greater detail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/04/2009
Comments:

Site Assessment Report for this area was approved. The Report discussed the vertical and horizontal extent of contamination in this area, and identified proposed cleanup measures for addressing the contamination based on future uses (e.g. residential; recreational, etc). The upcoming Response Plan for the Oak to Ninth Site will discuss cleanup measures in greater detail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/04/2009
Comments:

Site Assessment Report for this area was approved. The Report discussed the vertical and horizontal extent of contamination in this area, and identified proposed cleanup measures for addressing the contamination based on future uses (e.g. residential; recreational, etc). The upcoming Response Plan for the Oak to Ninth Site will discuss cleanup measures in greater detail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/04/2009
Comments:

Site Assessment Report for this area was approved. The Report discussed the vertical and horizontal extent of contamination in this area, and identified proposed cleanup measures for addressing the contamination based on future uses (e.g. residential; recreational, etc). The upcoming Response Plan for the Oak to Ninth Site will discuss cleanup measures in greater detail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/04/2009
Comments:

Site Assessment Report for this area was approved. The Report discussed the vertical and horizontal extent of contamination in this area, and identified proposed cleanup measures for addressing the contamination based on future uses (e.g. residential; recreational, etc). The upcoming Response Plan for the Oak to Ninth Site will discuss cleanup measures in greater detail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/04/2009
Comments:

Site Assessment Report for this area was approved. The Report discussed the vertical and horizontal extent of contamination in this

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BROOKLYN BASIN (Continued)

S117038744

area, and identified proposed cleanup measures for addressing the contamination based on future uses (e.g. residential; recreational, etc). The upcoming Response Plan for the Oak to Ninth Site will discuss cleanup measures in greater detail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/04/2009
Comments: Site Assessment Report for this area was approved. The Report discussed the vertical and horizontal extent of contamination in this area, and identified proposed cleanup measures for addressing the contamination based on future uses (e.g. residential; recreational, etc). The upcoming Response Plan for the Oak to Ninth Site will discuss cleanup measures in greater detail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 11/03/2009
Comments: Public Notice for Response Plan finalized

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 07/12/2010
Comments: The "All Appropriate Inquiries Report" was included as part of the California Land Reuse and Revitalization Act (CLRRRA) application submitted by Oakland Harbor Partners for the Site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 06/29/2007
Comments: Soil, soil gas, and groundwater data from the implementation of site assessment workplans I and II.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 12/10/2012
Comments: Interim remedial measures approved which include stormwater controls, groundwater monitoring, and removal of free product from existing site wells. Additionally an implementation plan for the 901 Embarcadero parcel will be submitted to DTSC in February 2013.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 12/15/2012
Comments: Groundwater monitoring of all near-shore wells was performed at the site to assess the current status of groundwater at the site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 04/22/2013

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BROOKLYN BASIN (Continued)

S117038744

Comments: Interim groundwater monitoring performed at the site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/31/2013
Comments: Interim groundwater monitoring report approved by DTSC. The groundwater data for the wells sampled was similar to historical sampling data.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 02/13/2013
Comments: Stormwater controls well implemented at the site by the Port of Oakland in the fall of 2012 in order to prevent contaminated runoff from leaving the site and entering the Bay.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/24/2013
Comments: Interim groundwater monitoring report approved by DTSC.

Completed Area Name: Parcels F and G
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 05/05/2014
Comments: Implementation Plan for active remediation of Parcels F&G approved by DTSC. The remediation is anticipated to occur in the summer of 2014.

Completed Area Name: Parcels T
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 08/14/2014
Comments: Implementation Plan for Parcels T2, T3, and T4 has been approved. These parcels will be redeveloped into roads on the Ninth Avenue Terminal.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Application
Completed Date: 03/24/2014
Comments: DTSC accepted the application for a Prospective Purchaser Agreement for Parcels F & G with the City of Oakland

Completed Area Name: Parcels A
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 03/10/2015
Comments: The remedial implementation plan for Parcel A has been approved by DTSC.

Completed Area Name: Parcel B
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 03/10/2015

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EPA ID Number

BROOKLYN BASIN (Continued)

S117038744

Comments: The remedial implementation plan for Parcel B has been approved by DTSC.

Completed Area Name: Phase I Area
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 01/30/2015
Comments: Soil remediation in the phase I area has been completed. Post-remediation soil gas sampling will be performed over the next few months.

Completed Area Name: Phase I Area
Completed Sub Area Name: Not reported
Completed Document Type: Work Notice
Completed Date: 06/27/2014
Comments: Work notice announcing the initiation of cleanup activities on Phase 1 of the Site was finalized and mailed out to the community.

Completed Area Name: Parcel TCWA
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 03/10/2015
Comments: The remedial implementation plan for the Chemical Warehouse parcel has been approved by DTSC.

Completed Area Name: Parcels F and G
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 07/07/2014
Comments: Notice for California Regulatory Notice Register regarding Prospective Purchaser Agreement.

Completed Area Name: Parcel C
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 03/10/2015
Comments: The remedial implementation plan for Parcel C has been approved by DTSC.

Completed Area Name: Parcels A3 and W
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 07/15/2015
Comments: DTSC has approved the implementation plan for these parcels. Soil gas sampling probes will be installed in these parcels and a small area of soil will be excavated.

Completed Area Name: Parcels T
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 06/16/2015
Comments: The pre-construction plan for Parcels T and TCWA has been approved. Streets, sidewalks, landscaping, and utilities will be constructed in these parcels.

Completed Area Name: Phase II Development Parcels
Completed Sub Area Name: Not reported

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EDR ID Number
EPA ID Number

BROOKLYN BASIN (Continued)

S117038744

Completed Document Type: Design/Implementation Workplan
Completed Date: 10/17/2016
Comments: DTSC has approved the implementation plan for remediation of the Phase II Development Parcels. These parcels are located on the southern portion of the Ninth Avenue Terminal, and will be developed into urban residences and streets.

Completed Area Name: Phase II Open Space Parcels
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 04/24/2017
Comments: DTSC has approved the implementation plan for the Phase II Open Space Parcels at the Brooklyn Basin site. The implementation plan discusses the cleanup that will occur on these parcels, and the measures to protect workers and the community during the cleanup.

Completed Area Name: Parcels F and G
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 02/16/2016
Comments: The Active Remediation Completion Report documents the excavation, transport, and disposal at off-site disposal facilities of approximately 17,000 tons of contaminated soil from these parcels. Excavations on these parcels were backfilled with clean soil. The Report also includes results of soil vapor sampling.

Completed Area Name: Phase I Area
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 08/04/2015
Comments: The Active Remediation Completion Report documents the excavation and off-site disposal at a permitted landfill of approximately 224 tons of contaminated soil from these parcels. The Report also includes soil vapor sampling results. These parcels are slated for development into multi-family residences.

Completed Area Name: Parcels T
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 07/27/2015
Comments: DTSC has approved this report. 11,482 tons of contaminated soil from these parcels was excavated and disposed offsite. An addendum to this completion report will prepared after groundwater monitoring and soil vapor wells are installed and sampled in these parcels. These parcels are located in the northern portion of the Phase 1 area, and will be developed into streets, sidewalks, and landscaping.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 04/14/2015
Comments: Updated remediation goals for the Brooklyn Basin site have been approved by DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Soils Management Plan

MAP FINDINGS

Site

Database(s)

BROOKLYN BASIN (Continued)

S117038744

Completed Date: 06/12/2015
 Comments: The project-wide soil management plan template for the Brooklyn Basin site has been approved by DTSC. The soil management plan will be used by parcel owners and developers during future construction and maintenance activities. Deviations from this template will require DTSC review and approval.

Completed Area Name: Parcels A3 and W
 Completed Sub Area Name: Not reported
 Completed Document Type: Design/Implementation Workplan
 Completed Date: 07/10/2015
 Comments: DTSC has approved this construction plan. A stormwater outfall and stormwater retention areas will be constructed on parcels A3 and W1.

Completed Area Name: Parcels T
 Completed Sub Area Name: Not reported
 Completed Document Type: Fieldwork
 Completed Date: 07/08/2016
 Comments: Soil vapor probes have been installed and sampled in the Phase 1 T parcels.

Completed Area Name: Parcel X
 Completed Sub Area Name: Not reported
 Completed Document Type: Soils Management Plan
 Completed Date: 04/25/2016
 Comments: DTSC has approved the City of Oakland's soil management plan for construction of the new Embarcadero Bridge. The SMP discusses groundwater and soil handling procedures during construction of the eastern abutment of the bridge, which is located within and adjacent to the northern portion of Parcel X.

Completed Area Name: Parcel X
 Completed Sub Area Name: Not reported
 Completed Document Type: Design/Implementation Workplan
 Completed Date: 04/21/2016
 Comments: DTSC has approved this interim remediation memo to address excavation areas in Parcel X that overlap with the Embarcadero Bridge replacement project.

Completed Area Name: Phase II Area
 Completed Sub Area Name: Not reported
 Completed Document Type: Fieldwork
 Completed Date: 03/01/2018
 Comments: Phase II remedial fieldwork was completed and is documented in the Phase II Development Active Remediation Completion Report.

Completed Area Name: Phase II Area
 Completed Sub Area Name: Not reported
 Completed Document Type: Work Notice
 Completed Date: 07/20/2017
 Comments: DTSC has prepared and mailed out a work notice announcing the start of Phase II cleanup activities at the site. Phase II cleanup activities will occur in the southern portion of the Ninth Avenue terminal.

Completed Area Name: Parcel B
 Completed Sub Area Name: Not reported

Map ID
Direction
Distance
Elevation

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Database(s)

EDR ID Number
EPA ID Number

BROOKLYN BASIN (Continued)

S117038744

Completed Document Type: Design/Implementation Workplan
Completed Date: 05/24/2017
Comments: DTSC determined that it does not have the authority to regulate methane only mitigation systems.

Completed Area Name: Parcels A
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 06/20/2017
Comments: 30-day comment period on the Prospective Purchaser Agreement between the City of Oakland and DTSC regarding Parcel A.

Completed Area Name: Parcel B
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 12/04/2017
Comments: The Pre-Construction Capping Plan for Parcel B provides details for capping materials to be used at Parcel B. Most of parcel will have concrete capping associated with the new building foundation. Other areas will be capped with concrete (areas with walkways not connected to the building foundation) and clean landscaping fill (landscaped area).

Completed Area Name: Parcel B
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 04/17/2017
Comments: DTSC has approved the foundation excavation plan for Parcel B. Approximately seven feet of soil will be excavated from this parcel, and backfilled with light-weight concrete.

Completed Area Name: Phase II Open Space Parcels
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 04/11/2018
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/08/2009
Comments: Annual Cost Estimate

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 07/12/2010
Comments: The Voluntary Cleanup Agreement between DTSC and Oakland Harbor Partners (OHP) was fully executed on July 12, 2010. This agreement covers the portion of the Oak to 9th Site that will be transferred to the City of Oakland and remediated and redeveloped into parks, open space, and public streets.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/03/2018

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOKLYN BASIN (Continued)

S117038744

Comments: DTSC annual oversight cost estimate for fiscal year 2018/2019

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 05/20/2011
Comments: Demand Letter #1

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 06/30/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 01/27/2012
Comments: Demand letter #1

Completed Area Name: Phase II Development Parcels
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 08/01/2018
Comments: The Active Remediation Completion Report documents excavation activities performed for the Phase II Development Parcels, as outlined in the Response Plan/Remedial Action Plan. The Report details excavation of impacted soil, disposal of excavated soil, and infill with clean material. The design and capping of the Phase II parcels and soil vapor issues are to be addressed in future plans and reports.

Completed Area Name: Phase II Area
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 12/08/2017
Comments: Memo summarizing excavation activities at Area 67 (Parcels D and E): Pentachlorophenol (PCP) and naphthalene were detected above remedial cleanup goals in sidewall samples. Excavation boundary was extended laterally in efforts to fully excavate impacted soils; however, contaminants above remedial goals still remained. Excavation was halted in order to devise a plan to delineate and excavate all impacted soils. Implementation plan will be submitted to DTSC for review and approval prior to field implementation.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: California Land Reuse and Revitalization Agreement
Completed Date: 07/12/2010
Comments: The California Land Reuse and Revitalization Act Agreement between DTSC and Oakland Harbor Partners (OHP) was fully executed on July 12, 2010. This agreement covers the portion of the Oak to 9th Site that will be acquired by OHP and remediated and redeveloped into residential units.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

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BROOKLYN BASIN (Continued)

S117038744

Completed Document Type: Correspondence
Completed Date: 08/31/2012
Comments: Letter from DTSC requiring that Oakland Harbor Partners and the Port of Oakland implement interim remedial measures at the Site. The letter also requires submittal to DTSC of the Phase I remedial design document by February 2013.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 07/20/2012
Comments: Demand letter #1

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consultative Service Agreement
Completed Date: 11/05/2009
Comments: Consultative services agreement fully executed. The term of this agreement is through 12/31/11

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Responsible Agency Review
Completed Date: 07/20/2010
Comments: The notice of determination (NOD), statement of findings, and responsible agency checklist for the Oak Street to Ninth Avenue Response Plan have been approved. The NOD states that implementation of the proposed Response Plan, as analyzed in the City of Oakland's Final Environmental Impact Report for the Oak to Ninth redevelopment, will not have a significant effect on the environment.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/02/2014
Comments: Annual cost estimate mailed out to proponent.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/09/2014
Comments: A memorandum outlining the environmental process for remediation of the Brooklyn Basin site has been finalized.

Completed Area Name: Parcels F and G
Completed Sub Area Name: Not reported
Completed Document Type: Prospective Purchaser Agreement
Completed Date: 07/07/2014
Comments: Final PPA with the City of Oakland for Parcels F & G. Notice of this document will be posted in the California Regulatory Register on July 18.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Pre-HARP Form
Completed Date: 07/07/2014
Comments: HARP form for remedial implementation activities has been approved.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOKLYN BASIN (Continued)

S117038744

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/30/2015
Comments: The annual cost estimate has been sent out to the proponent.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/30/2016
Comments: DTSC's annual oversight cost estimate was sent to Z-OHP.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consultative Service Agreement
Completed Date: 10/12/2005
Comments: Signed Agreement with Oakland Harbor Partners for site investigation.

Future Area Name: Phase II Open Space Parcels
Future Sub Area Name: Not reported
Future Document Type: Design/Implementation Workplan
Future Due Date: 2019
Schedule Area Name: Parcels A3 and W
Schedule Sub Area Name: Not reported
Schedule Document Type: Remedial Action Completion Report
Schedule Due Date: 01/15/2019
Schedule Revised Date: Not reported
Schedule Area Name: Parcels A3 and W
Schedule Sub Area Name: Not reported
Schedule Document Type: Design/Implementation Workplan
Schedule Due Date: 03/01/2019
Schedule Revised Date: Not reported
Schedule Area Name: Parcel C
Schedule Sub Area Name: Not reported
Schedule Document Type: Design/Implementation Workplan
Schedule Due Date: 12/28/2018
Schedule Revised Date: Not reported
Schedule Area Name: Phase II Open Space Parcels
Schedule Sub Area Name: Not reported
Schedule Document Type: Remedial Action Completion Report
Schedule Due Date: 04/13/2019
Schedule Revised Date: Not reported
Schedule Area Name: Parcels F and G
Schedule Sub Area Name: Not reported
Schedule Document Type: Prospective Purchaser Agreement
Schedule Due Date: 03/14/2019
Schedule Revised Date: Not reported

VCP:

Facility ID: 70000109
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 62
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP

Map ID
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Elevation

MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

BROOKLYN BASIN (Continued)

S117038744

Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Jovanne Villamater
Supervisor: Mark Piros
Division Branch: Cleanup Berkeley
Site Code: 202005
Assembly: 18
Senate: 09
Special Programs Code: CLRRRA Liability Immunity (AB 389)
Status: Active
Status Date: 05/01/2005
Restricted Use: NO
Funding: Responsible Party
Lat/Long: 37.78792 / -122.2586
APN: 0000-0430-001-04, 0000-0460-003, 0000-0460-004, 0000-0465-002,
0000-0470-002
Past Use: ABOVE GROUND STORAGE TANKS, DRY DOCKS, LDF, MANUFACTURING -
CHEMICALS, MANUFACTURING - LUMBER/WOOD PRODUCTS, METAL PLATING -
OTHER, RECYCLING - SCRAP METAL, SHIPYARD - SHIP BUILDING/REPAIR,
SHIPYARD - TERMINAL, UNDERGROUND STORAGE TANKS, UTILITY - ELECTRIC
Potential COC: 30001, 30003, 30008, 30013, 30014, 30015, 30019, 30022, 30024, 30025,
3002502, 30027, 30028, 30127, 30156, 30195, 30484, 30550, 30593, 30594
Not reported
Confirmed COC: 30001,30003,30008,30013,30014,30015,30019,30022,30024,30025,3002502,
30027,30028,30127,30156,30195,30484,30550,30593,30594
Potential Description: OTH, SOIL, SV
Alias Name: Oak Street to 9th Avenue Site
Alias Type: Alternate Name
Alias Name: 0000-0430-001-04
Alias Type: APN
Alias Name: 0000-0460-003
Alias Type: APN
Alias Name: 0000-0460-004
Alias Type: APN
Alias Name: 0000-0465-002
Alias Type: APN
Alias Name: 0000-0470-002
Alias Type: APN
Alias Name: 110033612311
Alias Type: EPA (FRS #)
Alias Name: SL18328748
Alias Type: GeoTracker Global ID
Alias Name: SLT2O159263
Alias Type: GeoTracker Global ID
Alias Name: SLT2O160264
Alias Type: GeoTracker Global ID
Alias Name: T0600101816
Alias Type: GeoTracker Global ID
Alias Name: T0600102213
Alias Type: GeoTracker Global ID
Alias Name: T0600102267
Alias Type: GeoTracker Global ID
Alias Name: 201612
Alias Type: Project Code (Site Code)
Alias Name: 202005
Alias Type: Project Code (Site Code)
Alias Name: 70000109
Alias Type: Envirostor ID Number

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOKLYN BASIN (Continued)

S117038744

Alias Name: 80001299
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/06/2017
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 08/25/2010
Comments: Annual cost estimate for DTSC oversight for the fiscal year 2010-11.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/13/2011
Comments: annual cost estimate for fiscal year 2011-12 finalized.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/30/2012
Comments: Annual DTSC oversight cost estimate mailed to project proponent.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 10/23/2008
Comments: DTSC annual oversight cost estimate to PRPs per HSC 25269.5.

Completed Area Name: Parcels A
Completed Sub Area Name: Not reported
Completed Document Type: Prospective Purchaser Agreement
Completed Date: 06/20/2017
Comments: This prospective Purchaser Agreement between DTSC and the City of Oakland for Parcel A.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 09/20/2017
Comments: DTSC Project Manager change notification letter

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 11/28/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Feasibility Study Workplan
Completed Date: 09/20/2007
Comments: Not reported

Map ID
Direction
Distance
Elevation

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EDR ID Number
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BROOKLYN BASIN (Continued)

S117038744

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 01/16/2007
Comments: Approved SAW

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: AB 389 Response Plan
Completed Date: 07/20/2010
Comments: Response Plan approved by DTSC. The Response Plan discusses the contamination in soil, soil gas, and groundwater at the Site, and identifies remedial measures to address this contamination.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 11/02/2009
Comments: Fact sheet for draft response plan finalized.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Participation Plan / Community Relations Plan
Completed Date: 08/26/2008
Comments: The purpose of the Public Participation Plan is to document community interest, views, and concerns related to environmental investigation and cleanup activities at the Site, and identify specific public participation activities that will facilitate community involvement in DTSC s decision-making process for the Site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 10/01/2007
Comments: RP has implemented the Workplan before DTSC approved the Workplan as final

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 05/16/2007
Comments: Fieldwork sampling completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Participation Plan / Community Relations Plan
Completed Date: 06/15/2007
Comments: Community survey/questionnaire mailed to site mailing list with 678 addresses

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 08/15/2008
Comments: Approved revised remediation goals letter that provides a complete list of soil, soil gas and groundwater remediation goals for the site cleanup.

Map ID
Direction
Distance
Elevation

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Site

Database(s)

EDR ID Number
EPA ID Number

BROOKLYN BASIN (Continued)

S117038744

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/04/2009
Comments: Site Assessment Report for this area was approved. The Report discussed the vertical and horizontal extent of contamination in this area, and identified proposed cleanup measures for addressing the contamination based on future uses (e.g. residential; recreational, etc). The upcoming Response Plan for the Oak to Ninth Site will discuss cleanup measures in greater detail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/04/2009
Comments: Site Assessment Report for this area was approved. The Report discussed the vertical and horizontal extent of contamination in this area, and identified proposed cleanup measures for addressing the contamination based on future uses (e.g. residential; recreational, etc). The upcoming Response Plan for the Oak to Ninth Site will discuss cleanup measures in greater detail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/04/2009
Comments: Site Assessment Report for this area was approved. The Report discussed the vertical and horizontal extent of contamination in this area, and identified proposed cleanup measures for addressing the contamination based on future uses (e.g. residential; recreational, etc). The upcoming Response Plan for the Oak to Ninth Site will discuss cleanup measures in greater detail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/04/2009
Comments: Site Assessment Report for this area was approved. The Report discussed the vertical and horizontal extent of contamination in this area, and identified proposed cleanup measures for addressing the contamination based on future uses (e.g. residential; recreational, etc). The upcoming Response Plan for the Oak to Ninth Site will discuss cleanup measures in greater detail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/04/2009
Comments: Site Assessment Report for this area was approved. The Report discussed the vertical and horizontal extent of contamination in this area, and identified proposed cleanup measures for addressing the contamination based on future uses (e.g. residential; recreational, etc). The upcoming Response Plan for the Oak to Ninth Site will discuss cleanup measures in greater detail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOKLYN BASIN (Continued)

S117038744

Completed Document Type: Remedial Investigation Report
Completed Date: 08/04/2009
Comments: Site Assessment Report for this area was approved. The Report discussed the vertical and horizontal extent of contamination in this area, and identified proposed cleanup measures for addressing the contamination based on future uses (e.g. residential; recreational, etc). The upcoming Response Plan for the Oak to Ninth Site will discuss cleanup measures in greater detail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/04/2009
Comments: Site Assessment Report for this area was approved. The Report discussed the vertical and horizontal extent of contamination in this area, and identified proposed cleanup measures for addressing the contamination based on future uses (e.g. residential; recreational, etc). The upcoming Response Plan for the Oak to Ninth Site will discuss cleanup measures in greater detail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/04/2009
Comments: Site Assessment Report for this area was approved. The Report discussed the vertical and horizontal extent of contamination in this area, and identified proposed cleanup measures for addressing the contamination based on future uses (e.g. residential; recreational, etc). The upcoming Response Plan for the Oak to Ninth Site will discuss cleanup measures in greater detail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/04/2009
Comments: Site Assessment Report for this area was approved. The Report discussed the vertical and horizontal extent of contamination in this area, and identified proposed cleanup measures for addressing the contamination based on future uses (e.g. residential; recreational, etc). The upcoming Response Plan for the Oak to Ninth Site will discuss cleanup measures in greater detail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/04/2009
Comments: Site Assessment Report for this area was approved. The Report discussed the vertical and horizontal extent of contamination in this area, and identified proposed cleanup measures for addressing the contamination based on future uses (e.g. residential; recreational, etc). The upcoming Response Plan for the Oak to Ninth Site will discuss cleanup measures in greater detail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/04/2009

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Elevation

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BROOKLYN BASIN (Continued)

S117038744

Comments: Site Assessment Report for this area was approved. The Report discussed the vertical and horizontal extent of contamination in this area, and identified proposed cleanup measures for addressing the contamination based on future uses (e.g. residential; recreational, etc). The upcoming Response Plan for the Oak to Ninth Site will discuss cleanup measures in greater detail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/04/2009
Comments: Site Assessment Report for this area was approved. The Report discussed the vertical and horizontal extent of contamination in this area, and identified proposed cleanup measures for addressing the contamination based on future uses (e.g. residential; recreational, etc). The upcoming Response Plan for the Oak to Ninth Site will discuss cleanup measures in greater detail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 11/03/2009
Comments: Public Notice for Response Plan finalized

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 07/12/2010
Comments: The "All Appropriate Inquiries Report" was included as part of the California Land Reuse and Revitalization Act (CLRRRA) application submitted by Oakland Harbor Partners for the Site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 06/29/2007
Comments: Soil, soil gas, and groundwater data from the implementation of site assessment workplans I and II.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 12/10/2012
Comments: Interim remedial measures approved which include stormwater controls, groundwater monitoring, and removal of free product from existing site wells. Additionally an implementation plan for the 901 Embarcadero parcel will be submitted to DTSC in February 2013.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 12/15/2012
Comments: Groundwater monitoring of all near-shore wells was performed at the site to assess the current status of groundwater at the site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

Map ID
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BROOKLYN BASIN (Continued)

S117038744

Completed Document Type: Fieldwork
Completed Date: 04/22/2013
Comments: Interim groundwater monitoring performed at the site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/31/2013
Comments: Interim groundwater monitoring report approved by DTSC. The groundwater data for the wells sampled was similar to historical sampling data.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 02/13/2013
Comments: Stormwater controls well implemented at the site by the Port of Oakland in the fall of 2012 in order to prevent contaminated runoff from leaving the site and entering the Bay.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/24/2013
Comments: Interim groundwater monitoring report approved by DTSC.

Completed Area Name: Parcels F and G
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 05/05/2014
Comments: Implementation Plan for active remediation of Parcels F&G approved by DTSC. The remediation is anticipated to occur in the summer of 2014.

Completed Area Name: Parcels T
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 08/14/2014
Comments: Implementation Plan for Parcels T2, T3, and T4 has been approved. These parcels will be redeveloped into roads on the Ninth Avenue Terminal.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Application
Completed Date: 03/24/2014
Comments: DTSC accepted the application for a Prospective Purchaser Agreement for Parcels F & G with the City of Oakland

Completed Area Name: Parcels A
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 03/10/2015
Comments: The remedial implementation plan for Parcel A has been approved by DTSC.

Completed Area Name: Parcel B
Completed Sub Area Name: Not reported

Map ID
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Site

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EDR ID Number
EPA ID Number

BROOKLYN BASIN (Continued)

S117038744

Completed Document Type: Design/Implementation Workplan
Completed Date: 03/10/2015
Comments: The remedial implementation plan for Parcel B has been approved by DTSC.

Completed Area Name: Phase I Area
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 01/30/2015
Comments: Soil remediation in the phase I area has been completed. Post-remediation soil gas sampling will be performed over the next few months.

Completed Area Name: Phase I Area
Completed Sub Area Name: Not reported
Completed Document Type: Work Notice
Completed Date: 06/27/2014
Comments: Work notice announcing the initiation of cleanup activities on Phase 1 of the Site was finalized and mailed out to the community.

Completed Area Name: Parcel TCWA
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 03/10/2015
Comments: The remedial implementation plan for the Chemical Warehouse parcel has been approved by DTSC.

Completed Area Name: Parcels F and G
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 07/07/2014
Comments: Notice for California Regulatory Notice Register regarding Prospective Purchaser Agreement.

Completed Area Name: Parcel C
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 03/10/2015
Comments: The remedial implementation plan for Parcel C has been approved by DTSC.

Completed Area Name: Parcels A3 and W
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 07/15/2015
Comments: DTSC has approved the implementation plan for these parcels. Soil gas sampling probes will be installed in these parcels and a small area of soil will be excavated.

Completed Area Name: Parcels T
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 06/16/2015
Comments: The pre-construction plan for Parcels T and TCWA has been approved. Streets, sidewalks, landscaping, and utilities will be constructed in these parcels.

MAP FINDINGS

Site

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BROOKLYN BASIN (Continued)

S117038744

Completed Area Name: Phase II Development Parcels
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 10/17/2016
Comments: DTSC has approved the implementation plan for remediation of the Phase II Development Parcels. These parcels are located on the southern portion of the Ninth Avenue Terminal, and will be developed into urban residences and streets.

Completed Area Name: Phase II Open Space Parcels
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 04/24/2017
Comments: DTSC has approved the implementation plan for the Phase II Open Space Parcels at the Brooklyn Basin site. The implementation plan discusses the cleanup that will occur on these parcels, and the measures to protect workers and the community during the cleanup.

Completed Area Name: Parcels F and G
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 02/16/2016
Comments: The Active Remediation Completion Report documents the excavation, transport, and disposal at off-site disposal facilities of approximately 17,000 tons of contaminated soil from these parcels. Excavations on these parcels were backfilled with clean soil. The Report also includes results of soil vapor sampling.

Completed Area Name: Phase I Area
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 08/04/2015
Comments: The Active Remediation Completion Report documents the excavation and off-site disposal at a permitted landfill of approximately 224 tons of contaminated soil from these parcels. The Report also includes soil vapor sampling results. These parcels are slated for development into multi-family residences.

Completed Area Name: Parcels T
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 07/27/2015
Comments: DTSC has approved this report. 11,482 tons of contaminated soil from these parcels was excavated and disposed offsite. An addendum to this completion report will prepared after groundwater monitoring and soil vapor wells are installed and sampled in these parcels. These parcels are located in the northern portion of the Phase 1 area, and will be developed into streets, sidewalks, and landscaping.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 04/14/2015
Comments: Updated remediation goals for the Brooklyn Basin site have been approved by DTSC.

Completed Area Name: PROJECT WIDE

Map ID
Direction
Distance
Elevation

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Site

Database(s)

EDR ID Number
EPA ID Number

BROOKLYN BASIN (Continued)

S117038744

Completed Sub Area Name: Not reported
Completed Document Type: Soils Management Plan
Completed Date: 06/12/2015
Comments: The project-wide soil management plan template for the Brooklyn Basin site has been approved by DTSC. The soil management plan will be used by parcel owners and developers during future construction and maintenance activities. Deviations from this template will require DTSC review and approval.

Completed Area Name: Parcels A3 and W
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 07/10/2015
Comments: DTSC has approved this construction plan. A stormwater outfall and stormwater retention areas will be constructed on parcels A3 and W1.

Completed Area Name: Parcels T
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 07/08/2016
Comments: Soil vapor probes have been installed and sampled in the Phase 1 T parcels.

Completed Area Name: Parcel X
Completed Sub Area Name: Not reported
Completed Document Type: Soils Management Plan
Completed Date: 04/25/2016
Comments: DTSC has approved the City of Oakland's soil management plan for construction of the new Embarcadero Bridge. The SMP discusses groundwater and soil handling procedures during construction of the eastern abutment of the bridge, which is located within and adjacent to the northern portion of Parcel X.

Completed Area Name: Parcel X
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 04/21/2016
Comments: DTSC has approved this interim remediation memo to address excavation areas in Parcel X that overlap with the Embarcadero Bridge replacement project.

Completed Area Name: Phase II Area
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 03/01/2018
Comments: Phase II remedial fieldwork was completed and is documented in the Phase II Development Active Remediation Completion Report.

Completed Area Name: Phase II Area
Completed Sub Area Name: Not reported
Completed Document Type: Work Notice
Completed Date: 07/20/2017
Comments: DTSC has prepared and mailed out a work notice announcing the start of Phase II cleanup activities at the site. Phase II cleanup activities will occur in the southern portion of the Ninth Avenue terminal.

Map ID
Direction
Distance
Elevation

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Site

Database(s)

EDR ID Number
EPA ID Number

BROOKLYN BASIN (Continued)

S117038744

Completed Area Name: Parcel B
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 05/24/2017
Comments: DTSC determined that it does not have the authority to regulate methane only mitigation systems.

Completed Area Name: Parcels A
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 06/20/2017
Comments: 30-day comment period on the Prospective Purchaser Agreement between the City of Oakland and DTSC regarding Parcel A.

Completed Area Name: Parcel B
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 12/04/2017
Comments: The Pre-Construction Capping Plan for Parcel B provides details for capping materials to be used at Parcel B. Most of parcel will have concrete capping associated with the new building foundation. Other areas will be capped with concrete (areas with walkways not connected to the building foundation) and clean landscaping fill (landscaped area).

Completed Area Name: Parcel B
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 04/17/2017
Comments: DTSC has approved the foundation excavation plan for Parcel B. Approximately seven feet of soil will be excavated from this parcel, and backfilled with light-weight concrete.

Completed Area Name: Phase II Open Space Parcels
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 04/11/2018
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/08/2009
Comments: Annual Cost Estimate

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 07/12/2010
Comments: The Voluntary Cleanup Agreement between DTSC and Oakland Harbor Partners (OHP) was fully executed on July 12, 2010. This agreement covers the portion of the Oak to 9th Site that will be transferred to the City of Oakland and remediated and redeveloped into parks, open space, and public streets.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOKLYN BASIN (Continued)

S117038744

Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/03/2018
Comments: DTSC annual oversight cost estimate for fiscal year 2018/2019

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 05/20/2011
Comments: Demand Letter #1

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 06/30/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 01/27/2012
Comments: Demand letter #1

Completed Area Name: Phase II Development Parcels
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 08/01/2018
Comments: The Active Remediation Completion Report documents excavation activities performed for the Phase II Development Parcels, as outlined in the Response Plan/Remedial Action Plan. The Report details excavation of impacted soil, disposal of excavated soil, and infill with clean material. The design and capping of the Phase II parcels and soil vapor issues are to be addressed in future plans and reports.

Completed Area Name: Phase II Area
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 12/08/2017
Comments: Memo summarizing excavation activities at Area 67 (Parcels D and E): Pentachlorophenol (PCP) and naphthalene were detected above remedial cleanup goals in sidewall samples. Excavation boundary was extended laterally in efforts to fully excavate impacted soils; however, contaminants above remedial goals still remained. Excavation was halted in order to devise a plan to delineate and excavate all impacted soils. Implementation plan will be submitted to DTSC for review and approval prior to field implementation.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: California Land Reuse and Revitalization Agreement
Completed Date: 07/12/2010
Comments: The California Land Reuse and Revitalization Act Agreement between DTSC and Oakland Harbor Partners (OHP) was fully executed on July 12, 2010. This agreement covers the portion of the Oak to 9th Site that will be acquired by OHP and remediated and redeveloped into residential units.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOKLYN BASIN (Continued)

S117038744

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 08/31/2012
Comments: Letter from DTSC requiring that Oakland Harbor Partners and the Port of Oakland implement interim remedial measures at the Site. The letter also requires submittal to DTSC of the Phase I remedial design document by February 2013.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 07/20/2012
Comments: Demand letter #1

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consultative Service Agreement
Completed Date: 11/05/2009
Comments: Consultative services agreement fully executed. The term of this agreement is through 12/31/11

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Responsible Agency Review
Completed Date: 07/20/2010
Comments: The notice of determination (NOD), statement of findings, and responsible agency checklist for the Oak Street to Ninth Avenue Response Plan have been approved. The NOD states that implementation of the proposed Response Plan, as analyzed in the City of Oakland's Final Environmental Impact Report for the Oak to Ninth redevelopment, will not have a significant effect on the environment.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/02/2014
Comments: Annual cost estimate mailed out to proponent.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/09/2014
Comments: A memorandum outlining the environmental process for remediation of the Brooklyn Basin site has been finalized.

Completed Area Name: Parcels F and G
Completed Sub Area Name: Not reported
Completed Document Type: Prospective Purchaser Agreement
Completed Date: 07/07/2014
Comments: Final PPA with the City of Oakland for Parcels F & G. Notice of this document will be posted in the California Regulatory Register on July 18.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Pre-HARP Form

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOKLYN BASIN (Continued)

S117038744

Completed Date: 07/07/2014
Comments: HARP form for remedial implementation activities has been approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/30/2015
Comments: The annual cost estimate has been sent out to the proponent.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/30/2016
Comments: DTSC's annual oversight cost estimate was sent to Z-OHP.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consultative Service Agreement
Completed Date: 10/12/2005
Comments: Signed Agreement with Oakland Harbor Partners for site investigation.

Future Area Name: Phase II Open Space Parcels
Future Sub Area Name: Not reported
Future Document Type: Design/Implementation Workplan
Future Due Date: 2019
Schedule Area Name: Parcels A3 and W
Schedule Sub Area Name: Not reported
Schedule Document Type: Remedial Action Completion Report
Schedule Due Date: 01/15/2019
Schedule Revised Date: Not reported
Schedule Area Name: Parcels A3 and W
Schedule Sub Area Name: Not reported
Schedule Document Type: Design/Implementation Workplan
Schedule Due Date: 03/01/2019
Schedule Revised Date: Not reported
Schedule Area Name: Parcel C
Schedule Sub Area Name: Not reported
Schedule Document Type: Design/Implementation Workplan
Schedule Due Date: 12/28/2018
Schedule Revised Date: Not reported
Schedule Area Name: Phase II Open Space Parcels
Schedule Sub Area Name: Not reported
Schedule Document Type: Remedial Action Completion Report
Schedule Due Date: 04/13/2019
Schedule Revised Date: Not reported
Schedule Area Name: Parcels F and G
Schedule Sub Area Name: Not reported
Schedule Document Type: Prospective Purchaser Agreement
Schedule Due Date: 03/14/2019
Schedule Revised Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AS208
SE
1/2-1
0.697 mi.
3679 ft.

PORT OF OAKLAND / CANNERY BLDG H-211
845 EMBARCADERO
OAKLAND, CA 94606

Site 1 of 2 in cluster AS

ENVIROSTOR
LUST
Alameda County CS
HIST UST
HWP
CERS

U001599139
N/A

Relative:
Lower

Actual:
9 ft.

ENVIROSTOR:

Facility ID: 80001299
Status: Refer: SMBRP
Status Date: 01/06/2011
Site Code: Not reported
Site Type: Corrective Action
Site Type Detailed: Corrective Action
Acres: 1.4
NPL: NO
Regulatory Agencies: HWMP, SMBRP, ALAMEDA COUNTY
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Mark Piros
Division Branch: Cleanup Berkeley
Assembly: 18
Senate: 09
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 37.78884
Longitude: -122.2568
APN: NONE SPECIFIED
Past Use: MANUFACTURING - METAL, METAL PLATING - CHROME, METAL PLATING - OTHER
Potential COC: Tetrachloroethylene (PCE TPH-diesel Cyanide (free
Confirmed COC: Tetrachloroethylene (PCE TPH-diesel Cyanide (free
Potential Description: OTH, SOIL
Alias Name: Central Ninth Avenue Terminal
Alias Type: Alternate Name
Alias Name: CAD000098806
Alias Type: EPA Identification Number
Alias Name: 70000109
Alias Type: Envirostor ID Number
Alias Name: 80001299
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 07/29/1982
Comments: withdrawal request

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 08/04/1982
Comments: Approval of withdrawal

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/13/1984

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORT OF OAKLAND / CANNERY BLDG H-211 (Continued)

U001599139

Comments: Variance Approval

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 03/28/1991
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 11/18/1980
Comments: 1980 Part A Application

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 12/16/1981
Comments: ISD

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 03/30/1984
Comments: Variance Application

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 05/18/1984
Comments: Operation Plan

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

LUST:

Lead Agency: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600102232
Global Id: T0600102232
Latitude: 37.8008918
Longitude: -122.2904672
Status: Completed - Case Closed
Status Date: 10/13/2005
Case Worker: Not reported
RB Case Number: Not reported
Local Agency: Not reported
File Location: DTSC
Local Case Number: 70000109
Potential Media Affect: Other Groundwater (uses other than drinking water)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORT OF OAKLAND / CANNERY BLDG H-211 (Continued)

U001599139

Potential Contaminants of Concern: Diesel
Site History: The cases below are all DTSC lead as part of the Ninth Ave Terminal (OAK STREET TO 9TH AVENUE (70000109)) residential redevelopment project for which DTSC is the lead agency. RO106 PORT OF OAKLAND / KEEP ON TRUCKING RO108 PORT OF OAKLAND / BLDG H-209 RO109 PORT OF OAKLAND / CANNERY BLDG H-211 RO110 PORT OF OAKLAND / MARINE TERMINALS CORPORATION RO423 PORT OF OAKLAND / PACIFIC DRY DOCK YARD 2 RO485 PORT OF OAKLAND / CARD LOCK BLDG H-204 RO2461 SEABREEZE YACHT CENTER RO2462 PRAXAIR INC RO2492 PORT OF OAKLAND / NINTH AVE TERMINAL RB
Case #: SLT2O160264

LUST:

Global Id: T0600102232
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not reported
Phone Number: Not reported

LUST:

Global Id: T0600102232
Action Type: Other
Date: 08/30/1996
Action: Leak Reported

Global Id: T0600102232
Action Type: REMEDIATION
Date: 09/09/9999
Action: Not reported

LUST:

Global Id: T0600102232
Status: Completed - Case Closed
Status Date: 10/13/2005

Global Id: T0600102232
Status: Open - Case Begin Date
Status Date: 08/30/1996

Alameda County CS:

Status: 11
Record Id: RO0000109
PE: 5602
Facility Status: Not reported
Latitude: 37.789076144
Longitude: -122.25613922

HIST UST:

File Number: Not reported
URL: Not reported
Region: STATE
Facility ID: 00000014488
Facility Type: Other

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORT OF OAKLAND / CANNERY BLDG H-211 (Continued)

U001599139

Other Type: FRAMING MANUFACTURER
Contact Name: RICHARD C. SCHNEIDER
Telephone: 4158399690
Owner Name: MIDLAND-ROSS CORPORATION
Owner Address: 20600 CHAGRIN BLVD.
Owner City,St,Zip: CLEVELAND, OH 44122
Total Tanks: 0002

Tank Num: 001
Container Num: NO. 1
Year Installed: 1972
Tank Capacity: 00019886
Tank Used for: PRODUCT
Type of Fuel: Not reported
Container Construction Thickness: 8
Leak Detection: None

Tank Num: 002
Container Num: NO. 2
Year Installed: 1972
Tank Capacity: 00011522
Tank Used for: PRODUCT
Type of Fuel: Not reported
Container Construction Thickness: 8
Leak Detection: None

HWP:

EPA Id: CAD000098806
Cleanup Status: PROTECTIVE FILER
Latitude: 37.78884
Longitude: -122.2568
Facility Type: Historical - Non-Operating
Facility Size: Not reported
Team: Not reported
Supervisor: Not reported
Site Code: Not reported
Assembly District: 18
Senate District: 09
Public Information Officer: Not reported
Public Information Officer: Not reported

Activities:

EPA Id: CAD000098806
Facility Type: Historical - Non-Operating
Unit Names: TANKSTR1
Event Description: New Operating Permit - FINAL PERMIT - WITHDRAWAL REQUEST ACKNOWLEDGED
Actual Date: 08/04/1982

EPA Id: CAD000098806
Facility Type: Historical - Non-Operating
Unit Names: TANKSTR1
Event Description: Protective Filer Status - PROTECTIVE FILER (APPROVED)
Actual Date: 08/04/1982

EPA Id: CAD000098806
Facility Type: Historical - Non-Operating
Unit Names: TANKSTR1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PORT OF OAKLAND / CANNERY BLDG H-211 (Continued)

U001599139

Event Description: New Operating Permit - ADMINISTRATIVE REVIEW APPROVED
Actual Date: 12/16/1981

EPA Id: CAD000098806
Facility Type: Historical - Non-Operating
Unit Names: TANKSTR1
Event Description: New Operating Permit - APPLICATION PART A RECEIVED
Actual Date: 06/30/1981

CERS TANKS:

Site ID: 206686
CERS ID: T0600102232
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Site ID: 211386
CERS ID: CAD000098806
CERS Description: Hazardous Waste

Affiliation:

Affiliation Type Desc: Facility Contact
Entity Name: NONDELIV. 11/94 SURVEY - P.H.
Entity Title: Not reported
Affiliation Address: 845 EMBARCADERO
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 946060000
Affiliation Phone: 4158399690

Affiliation Type Desc: Facility Owner
Entity Name: MIDLAND ROSS CORP/METAL FRAM
Entity Title: Not reported
Affiliation Address: 845 EMBARCADERO
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 946060000
Affiliation Phone: 4158399690

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

209
NNW
1/2-1
0.718 mi.
3789 ft.

OAKLAND DOCK & WAREHOUSE (J09CA1087)
OAKLAND, CA

ENVIROSTOR S107736945
N/A

Relative:
Lower
Actual:
28 ft.

ENVIROSTOR:
Facility ID: 80000535
Status: No Further Action
Status Date: 09/09/2014
Site Code: Not reported
Site Type: Military Evaluation
Site Type Detailed: FUDS
Acres: 52
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Carrie Tatoian-Cain
Supervisor: Ajit Vaidya
Division Branch: Cleanup Sacramento
Assembly: 18
Senate: 09
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: DERA
Latitude: 37.80805
Longitude: -122.2694
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CA99799F598100
Alias Type: Federal Facility ID
Alias Name: J09CA1087
Alias Type: INPR
Alias Name: 201706
Alias Type: Envirostor ID Number
Alias Name: 80000535
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: No Department of Defense Action Indicated (NDAI)
Completed Date: 09/09/2014
Comments: This determination is based on information in DTSC s and the Water Boards possession at this time concerning Department of Defense (DoD) activities on the sites listed above. DTSC and the Water Boards reserve the right to address any appropriate environmental or human health related issue, should additional information concerning the environmental condition of this site become available in the future.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OAKLAND DOCK & WAREHOUSE (J09CA1087) (Continued)

S107736945

Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

AS210
SE
1/2-1
0.732 mi.
3865 ft.

LIQUID CARBONIC
901 EMBARCADERO
OAKLAND, CA 94608
Site 2 of 2 in cluster AS

ENVIROSTOR 1000425122
SWEEPS UST N/A
HIST UST
CA FID UST
Notify 65
WDS
CIWQS

Relative:
Lower

Actual:
9 ft.

ENVIROSTOR:
Facility ID: 1280015
Status: Refer: Other Agency
Status Date: 03/14/1995
Site Code: Not reported
Site Type: Historical
Site Type Detailed: * Historical
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Referred - Not Assigned
Division Branch: Cleanup Berkeley
Assembly: 18
Senate: 09
Special Program: * CERC2
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 37.78871
Longitude: -122.2554
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: * OXYGENATED SOLVENTS * LIME SLUDGE
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: Not reported
Alias Type: Not reported

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LIQUID CARBONIC (Continued)

1000425122

SWEEPS UST:

Status: Not reported
Comp Number: 66379
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-066379-000001
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: CALICUM OXID
Number Of Tanks: 2

Status: Not reported
Comp Number: 66379
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-066379-000002
Tank Status: Not reported
Capacity: 8000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: DIESEL
Number Of Tanks: Not reported

HIST UST:

File Number: Not reported
URL: Not reported
Region: STATE
Facility ID: 00000000156
Facility Type: Other
Other Type: TRANSFILL
Contact Name: Not reported
Telephone: 4154514100
Owner Name: LIQUID CARBONIC CORP.
Owner Address: 135 S. LA SALLE ST.
Owner City,St,Zip: CHICAGO, IL 60603
Total Tanks: 0002

Tank Num: 001
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00008000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LIQUID CARBONIC (Continued)

1000425122

Leak Detection: Visual, Stock Inventor

Tank Num: 002
Container Num: 2
Year Installed: Not reported
Tank Capacity: 00002000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Visual, Stock Inventor

CA FID UST:

Facility ID: 01001030
Regulated By: UTKI
Regulated ID: 00066379
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4154514100
Mail To: Not reported
Mailing Address: 135 S LA SALLE ST
Mailing Address 2: Not reported
Mailing City,St,Zip: OAKLAND 94608
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

NOTIFY 65:

Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Issue Date: Not reported
Incident Description: Not reported

WDS:

Facility ID: San Francisco Bay 011003397
Facility Type: Not reported
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number: CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion: 2
Facility Telephone: Not reported
Facility Contact: Not reported
Agency Name: LIQUID CARBONIC SPECIALTY GAS
Agency Address: Not reported
Agency City,St,Zip: 0
Agency Contact: Not reported
Agency Telephone: Not reported
Agency Type: Not reported
SIC Code: 0

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LIQUID CARBONIC (Continued)

1000425122

SIC Code 2: Not reported
Primary Waste Type: Not reported
Primary Waste: Not reported
Waste Type2: Not reported
Waste2: Not reported
Primary Waste Type: Not reported
Secondary Waste: Not reported
Secondary Waste Type: Not reported
Design Flow: 0
Baseline Flow: 0
Reclamation: Not reported
POTW: Not reported
Treat To Water: Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity: Category C - Facilities having no waste treatment systems, such as cooling water dischargers or those who must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

CIWQS:

Agency: Liquid Carbonic
Agency Address: 810 Jorie Blvd, Oak Brook, IL 60523
Place/Project Type: Industrial - Industrial Gases
SIC/NAICS: 2813
Region: 2
Program: INDSTW
Regulatory Measure Status: Terminated
Regulatory Measure Type: Storm water industrial
Order Number: 2014-0057-DWQ
WDID: 2 011003397
NPDES Number: CAS000001
Adoption Date: Not reported
Effective Date: 04/03/1992
Termination Date: 12/28/2007
Expiration/Review Date: Not reported
Design Flow: Not reported
Major/Minor: Not reported
Complexity: Not reported
TTWQ: Not reported
Enforcement Actions within 5 years: 0
Violations within 5 years: 0
Latitude: 37.78912
Longitude: -122.25556

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

211
 ENE
 1/2-1
 0.793 mi.
 4188 ft.

YUEN'S EXXON SERVICE
1901 PARK BOULEVARD
OAKLAND, CA 92626

Notify 65 **S100179440**
 N/A

Relative: NOTIFY 65:
Lower Date Reported: Not reported
 Staff Initials: Not reported
Actual: Board File Number: Not reported
19 ft. Facility Type: Not reported
 Discharge Date: Not reported
 Issue Date: Not reported
 Incident Description: Not reported

212
 West
 1/2-1
 0.818 mi.
 4320 ft.

MERRITT TWO SITE
655 3RD STREET
OAKLAND, CA 94607

ENVIROSTOR **S112875990**
 VCP **N/A**
 DEED
 HAZNET

Relative: ENVIROSTOR:
Lower Facility ID: 60002149
Actual: Status: Certified O&M - Land Use Restrictions Only
13 ft. Status Date: 05/12/2016
 Site Code: 202032
 Site Type: Voluntary Cleanup
 Site Type Detailed: Voluntary Cleanup
 Acres: 1.38
 NPL: NO
 Regulatory Agencies: SMBRP
 Lead Agency: SMBRP
 Program Manager: Claude Jemison
 Supervisor: Mark Piros
 Division Branch: Cleanup Berkeley
 Assembly: 18
 Senate: 09
 Special Program: Voluntary Cleanup Program
 Restricted Use: YES
 Site Mgmt Req: NONE SPECIFIED
 Funding: Responsible Party
 Latitude: 37.79851
 Longitude: -122.2814
 APN: 001 011900101, 1-119-1-1
 Past Use: MANUFACTURED GAS PLANT
 Potential COC: Lead Polynuclear aromatic hydrocarbons (PAHs)
 Confirmed COC: Lead Polynuclear aromatic hydrocarbons (PAHs)
 Potential Description: SOIL
 Alias Name: 001 011900101
 Alias Type: APN
 Alias Name: 1-119-1-1
 Alias Type: APN
 Alias Name: 202032
 Alias Type: Project Code (Site Code)
 Alias Name: 60002149
 Alias Type: Envirostor ID Number

Completed Info:
 Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MERRITT TWO SITE (Continued)

S112875990

Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/13/2016
Comments: Estimate of DTSC costs for regulatory oversight for the fiscal year (July 1, 2016 to June 30, 2017).

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 12/28/2015
Comments: The Preliminary Endangerment Assessment (PEA) report documented site conditions related to historical industrial usage of the site which included a lumber mill, bottle washing operations, warehouse, garbage truck storage, and current usage as a storage facility. The report documented that surface soils contained elevated levels of polynuclear aromatic hydrocarbons (PAHs) which may have occurred via air deposition (from nearby historical manufactured gas plant operations) and the metal lead possibly related to historical residences or industrial operations. The report recommended placement of a Land Use Covenant (LUC) on the property to restrict future usage of the site to industrial usages. Other environmental issues were investigated from 1989-2015 which did not find significant contamination including: an asbestos manufacturing, an underground storage tank (UST), industrial piping, and former sumps.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Application
Completed Date: 10/17/2014
Comments: DTSC identified as Lead Agency

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 06/01/1995
Comments: Certificate of completion for removal and disposal of asbestos containing materials.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 04/21/1989
Comments: The report was prepared prior to DTSC's involvement with the site. The report documented soil sampling and/or inspection of drainage ditches, an underground vault, underground pipes, other areas with potential environmental concerns.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 03/13/1990
Comments: This report was prepared prior to DTSC's involvement with the site. The report is an abbreviated Environmental Site Assessment.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 01/28/2015

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MERRITT TWO SITE (Continued)

S112875990

Comments: The investigation was conducted prior to DTSC's involvement with the site. The report documented investigation of soils for metals and polynuclear aromatic hydrocarbons (PAHs).

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Phase 1

Completed Date: 01/05/1995

Comments: The assessment was conducted prior to DTSC's involvement with the site. The report recommended additional characterization of shallow soils for hydrocarbons, asbestos, creosote-related compounds, and lead.

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Site Characterization Report

Completed Date: 12/30/1994

Comments: The report was prepared prior to DTSC's involvement with the site. The report documented environmental conditions related to historical operations of environmental concern including a lumber yard, asbestos factory, and a fuel dispenser. Surface soil samples were collected for lead and asbestos analysis. Subsurface soil samples were collected in the area of the suspected former underground storage tank (UST).

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Site Characterization Report

Completed Date: 07/25/1995

Comments: The report was prepared prior to DTSC's involvement with the site. The report documented shallow soil testing results for hydrocarbons, polynuclear aromatic hydrocarbons (PAHs), asbestos and lead.

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Phase 1

Completed Date: 01/18/2005

Comments: The report was prepared prior to DTSC's involvement with the site. The report documented site conditions after construction of the SAF Keep Storage Facility in 1997.

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Phase 1

Completed Date: 10/15/2014

Comments: The report was prepared prior to DTSC's involvement with the site. The report documented site conditions after the SAF Keep Storage facility was constructed in 1997.

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Other Report

Completed Date: 06/05/2015

Comments: The report was prepared prior to DTSC's involvement with the site. The report documented asbestos containing materials associated with the site buildings.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MERRITT TWO SITE (Continued)

S112875990

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 03/10/2016
Comments: The Public Notice briefly described the approval of the Preliminary Endangerment Assessment (PEA) report and recommendation to restrict usage of the property with a Land Use Covenant (LUC). The Public Notice was published in a local newspaper.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 11/24/2015
Comments: The work plan describes procedures for investigation of a former underground storage tank (UST) at the site. The location of drilling is on the sidewalk adjacent to the site near a former fuel dispenser. The work plan describes the methods for sample collection and groundwater, soil, and a soil gas sample and fuel-related laboratory analysis.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 11/30/2015
Comments: Field work including collection of soil, groundwater, and soil gas samples was completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 12/23/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 01/12/2017
Comments: No disturbance of cap or changes in land use have occurred.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 02/14/2018
Comments: Merritt Two LP, the Site owner, submitted the annual compliance letter and an attached checklist to verify the Site was in compliance with the environmental restrictions of the Land Use Covenant during 2017.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 02/23/2017
Comments: Notification of a change in the DTSC project manager was provided to Merritt Partners LP, the site owner.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MERRITT TWO SITE (Continued)

S112875990

Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 03/23/2015
Comments: The Voluntary Cleanup Agreement (VCA) covers tasks for reviewing existing data, reviewing and commenting on a Preliminary Endangerment Assessment (PEA) report, and preparing a Land Use Covenant.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 04/20/2016
Comments: The Land Use Covenant restricts the parcel from sensitive usage. The site can only be used for industrial/commercial usages.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 05/12/2016
Comments: The Merritt Two site was investigated and slightly elevated levels of lead and polynuclear aromatic hydrocarbons (PAHs) were found in shallow soils (the contaminant concentrations are above established residential levels but acceptable for commercial/industrial levels) from historical industrial operations. Since the owner intends to continue commercial/industrial usage of the property, a Land Use Covenant was recorded with the County Recorder to restrict future usage to commercial/industrial purposes (and a copy was sent to the City of Oakland Planning Department for placement in the property file). On an annual basis the owner is required to certify that the site is in compliance with the usage restrictions.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/04/2017
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 08/31/2018
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 03/11/2016
Comments: Correspondence for the calendar 2015 period.

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: 5 Year Review Reports
Future Due Date: 2021
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MERRITT TWO SITE (Continued)

S112875990

VCP:

Facility ID: 60002149
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 1.38
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Claude Jemison
Supervisor: Mark Piros
Division Branch: Cleanup Berkeley
Site Code: 202032
Assembly: 18
Senate: 09
Special Programs Code: Voluntary Cleanup Program
Status: Certified O&M - Land Use Restrictions Only
Status Date: 05/12/2016
Restricted Use: YES
Funding: Responsible Party
Lat/Long: 37.79851 / -122.2814
APN: 001 011900101, 1-119-1-1
Past Use: MANUFACTURED GAS PLANT
Potential COC: 30013, 30019
Confirmed COC: 30013,30019
Potential Description: SOIL
Alias Name: 001 011900101
Alias Type: APN
Alias Name: 1-119-1-1
Alias Type: APN
Alias Name: 202032
Alias Type: Project Code (Site Code)
Alias Name: 60002149
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/13/2016
Comments: Estimate of DTSC costs for regulatory oversight for the fiscal year (July 1, 2016 to June 30, 2017).

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 12/28/2015
Comments: The Preliminary Endangerment Assessment (PEA) report documented site conditions related to historical industrial usage of the site which included a lumber mill, bottle washing operations, warehouse, garbage truck storage, and current usage as a storage facility. The report documented that surface soils contained elevated levels of polynuclear aromatic hydrocarbons (PAHs) which may have occurred via air deposition (from nearby historical manufactured gas plant operations) and the metal lead possibly related to historical residences or industrial operations. The report recommended placement

MAP FINDINGS

MERRITT TWO SITE (Continued)

S112875990

of a Land Use Covenant (LUC) on the property to restrict future usage of the site to industrial usages. Other environmental issues were investigated from 1989-2015 which did not find significant contamination including: an asbestos manufacturing, an underground storage tank (UST), industrial piping, and former sumps.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: Application
 Completed Date: 10/17/2014
 Comments: DTSC identified as Lead Agency

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: Other Report
 Completed Date: 06/01/1995
 Comments: Certificate of completion for removal and disposal of asbestos containing materials.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: Site Characterization Report
 Completed Date: 04/21/1989
 Comments: The report was prepared prior to DTSC's involvement with the site. The report documented soil sampling and/or inspection of drainage ditches, an underground vault, underground pipes, other areas with potential environmental concerns.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: Phase 1
 Completed Date: 03/13/1990
 Comments: This report was prepared prior to DTSC's involvement with the site. The report is an abbreviated Environmental Site Assessment.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: Site Characterization Report
 Completed Date: 01/28/2015
 Comments: The investigation was conducted prior to DTSC's involvement with the site. The report documented investigation of soils for metals and polynuclear aromatic hydrocarbons (PAHs).

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: Phase 1
 Completed Date: 01/05/1995
 Comments: The assessment was conducted prior to DTSC's involvement with the site. The report recommended additional characterization of shallow soils for hydrocarbons, asbestos, creosote-related compounds, and lead.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: Site Characterization Report
 Completed Date: 12/30/1994
 Comments: The report was prepared prior to DTSC's involvement with the site.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MERRITT TWO SITE (Continued)

S112875990

The report documented environmental conditions related to historical operations of environmental concern including a lumber yard, asbestos factory, and a fuel dispenser. Surface soil samples were collected for lead and asbestos analysis. Subsurface soil samples were collected in the area of the suspected former underground storage tank (UST).

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 07/25/1995
Comments:

The report was prepared prior to DTSC's involvement with the site. The report documented shallow soil testing results for hydrocarbons, polynuclear aromatic hydrocarbons (PAHs), asbestos and lead.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 01/18/2005
Comments:

The report was prepared prior to DTSC's involvement with the site. The report documented site conditions after construction of the SAF Keep Storage Facility in 1997.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 10/15/2014
Comments:

The report was prepared prior to DTSC's involvement with the site. The report documented site conditions after the SAF Keep Storage facility was constructed in 1997.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 06/05/2015
Comments:

The report was prepared prior to DTSC's involvement with the site. The report documented asbestos containing materials associated with the site buildings.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 03/10/2016
Comments:

The Public Notice briefly described the approval of the Preliminary Endangerment Assessment (PEA) report and recommendation to restrict usage of the property with a Land Use Covenant (LUC). The Public Notice was published in a local newspaper.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 11/24/2015
Comments:

The work plan describes procedures for investigation of a former underground storage tank (UST) at the site. The location of drilling is on the sidewalk adjacent to the site near a former fuel dispenser. The work plan describes the methods for sample collection and groundwater, soil, and a soil gas sample and fuel-related laboratory

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MERRITT TWO SITE (Continued)

S112875990

analysis.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 11/30/2015
Comments: Field work including collection of soil, groundwater, and soil gas samples was completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 12/23/2015
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 01/12/2017
Comments: No disturbance of cap or changes in land use have occurred.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 02/14/2018
Comments: Merritt Two LP, the Site owner, submitted the annual compliance letter and an attached checklist to verify the Site was in compliance with the environmental restrictions of the Land Use Covenant during 2017.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 02/23/2017
Comments: Notification of a change in the DTSC project manager was provided to Merritt Partners LP, the site owner.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 03/23/2015
Comments: The Voluntary Cleanup Agreement (VCA) covers tasks for reviewing existing data, reviewing and commenting on a Preliminary Endangerment Assessment (PEA) report, and preparing a Land Use Covenant.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 04/20/2016
Comments: The Land Use Covenant restricts the parcel from sensitive usage. The site can only be used for industrial/commercial usages.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 05/12/2016
Comments: The Merritt Two site was investigated and slightly elevated levels of

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MERRITT TWO SITE (Continued)

S112875990

lead and polynuclear aromatic hydrocarbons (PAHs) were found in shallow soils (the contaminant concentrations are above established residential levels but acceptable for commercial/industrial levels) from historical industrial operations. Since the owner intends to continue commercial/industrial usage of the property, a Land Use Covenant was recorded with the County Recorder to restrict future usage to commercial/industrial purposes (and a copy was sent to the City of Oakland Planning Department for placement in the property file). On an annual basis the owner is required to certify that the site is in compliance with the usage restrictions.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/04/2017
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 08/31/2018
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 03/11/2016
Comments: Correspondence for the calendar 2015 period.

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: 5 Year Review Reports
Future Due Date: 2021
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

DEED:

Envirostor ID: 60002149
Area: PROJECT WIDE
Sub Area: Not reported
Site Type: VOLUNTARY CLEANUP
Status: CERTIFIED O&M - LAND USE RESTRICTIONS ONLY
Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): 04/20/2016
File Name: Envirostor Land Use Restrictions

HAZNET:

Facility Name: LIFE LONG MED CARE
envid: S112875990
Year: 1997
GEPaid: CAC001227664
Contact: LIFE LONG MED CARE

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

MERRITT TWO SITE (Continued)

S112875990

Telephone: 5107046010
 Mailing Name: Not reported
 Mailing Address: PO BOX 11247
 Mailing City,St,Zip: BERKELEY, CA 947120000
 Gen County: Not reported
 TSD EPA ID: CAL000121946
 TSD County: Not reported
 Waste Category: Photochemicals/photoprocessing waste
 Disposal Method: Recycler
 Tons: .0208
 Cat Decode: Not reported
 Method Decode: Not reported
 Facility County: 1

213
 West
 1/2-1
 0.846 mi.
 4468 ft.
 Relative:
 Lower
 Actual:
 8 ft.

DYNEGY OAKLAND LLC
50 MARTIN LUTHER KING JR WAY
OAKLAND, CA 94607

ENVIROSTOR
LUST
Alameda County CS
AST
VCP
DEED
NPDES
CIWQS
CERS

S103177008
N/A

ENVIROSTOR:

Facility ID: 1490020
 Status: Certified / Operation & Maintenance
 Status Date: 07/18/2017
 Site Code: 201469
 Site Type: Voluntary Cleanup
 Site Type Detailed: Voluntary Cleanup
 Acres: 2.6
 NPL: NO
 Regulatory Agencies: SMBRP, ALAMEDA COUNTY
 Lead Agency: SMBRP
 Program Manager: Elizabeth Chung-Huynh
 Supervisor: Janet Naito
 Division Branch: Cleanup Berkeley
 Assembly: 18
 Senate: 09
 Special Program: Voluntary Cleanup Program
 Restricted Use: YES
 Site Mgmt Req: NONE SPECIFIED
 Funding: Responsible Party
 Latitude: 37.79659
 Longitude: -122.2812
 APN: 000-0410-007, 000-0410-008, 000O041000700, 000O041000800,
 018-0410-007, 018-0410-008
 Past Use: ELECTRIC GENERATION/SUBSTATION
 Potential COC: Lead Polynuclear aromatic hydrocarbons (PAHs TPH-diesel TPH-MOTOR
 OIL Cyanide (free
 Confirmed COC: Lead Polynuclear aromatic hydrocarbons (PAHs TPH-diesel Cyanide
 (free TPH-MOTOR OIL
 Potential Description: OTH, SOIL, SV
 Alias Name: Not reported
 Alias Type: Not reported

Completed Info:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DYNEGY OAKLAND LLC (Continued)

S103177008

Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

LUST:

Lead Agency: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100992
Global Id: T0600100992
Latitude: 37.796930746
Longitude: -122.281092786
Status: Completed - Case Closed
Status Date: 08/19/2015
Case Worker: Not reported
RB Case Number: 01-1075
Local Agency: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
File Location: Local Agency
Local Case Number: RO0000197
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Diesel
Site History: Not reported

LUST:

Global Id: T0600100992
Contact Type: Local Agency Caseworker
Contact Name: THOMAS PRICE
Organization Name: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
Address: 1515 TOLLHOUSE ROAD
City: CLOVIS
Email: thomas.price@dtsc.ca.gov
Phone Number: 5105403811

LUST:

Global Id: T0600100992
Action Type: Other
Date: 11/16/1990
Action: Leak Reported

Global Id: T0600100992
Action Type: ENFORCEMENT
Date: 07/10/2007
Action: * No Action

Global Id: T0600100992
Action Type: REMEDIATION

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DYNEGY OAKLAND LLC (Continued)

S103177008

Date: 11/14/1991
Action: Excavation

Global Id: T0600100992
Action Type: Other
Date: 11/16/1990
Action: Leak Discovery

Global Id: T0600100992
Action Type: ENFORCEMENT
Date: 06/27/2013
Action: Technical Correspondence / Assistance / Other

LUST:

Global Id: T0600100992
Status: Completed - Case Closed
Status Date: 08/19/2015

Global Id: T0600100992
Status: Open - Case Begin Date
Status Date: 11/16/1990

Global Id: T0600100992
Status: Open - Site Assessment
Status Date: 07/15/1991

Global Id: T0600100992
Status: Open - Site Assessment
Status Date: 01/15/1993

Global Id: T0600100992
Status: Open - Site Assessment
Status Date: 07/21/1993

LUST REG 2:

Region: 2
Facility Id: 01-1075
Facility Status: Preliminary site assessment underway
Case Number: 64
How Discovered: Subsurface Monitoring
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assessment Workplan Submitted: 8/31/1992
Preliminary Site Assessment Began: 1/2/1965
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Alameda County CS:

Status: Leak Confirmation
Record Id: RO0000197
PE: 5602

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DYNEGY OAKLAND LLC (Continued)

S103177008

Facility Status: Leak Confirmation
Latitude: 37.796636465
Longitude: -122.28171587

Status: 11
Record Id: RO0000197
PE: 5602
Facility Status: Not reported
Latitude: 37.796636465
Longitude: -122.28171587

Status: Preliminary Site Assessment Underway
Record Id: RO0000197
PE: 5602
Facility Status: Preliminary Site Assessment Underway
Latitude: 37.796636465
Longitude: -122.28171587

Status: Pollution Characterization
Record Id: RO0000197
PE: 5602
Facility Status: Pollution Charaterization
Latitude: 37.796636465
Longitude: -122.28171587

AST:

Certified Unified Program Agencies: Not reported
Owner: DYNEGY OAKLAND, LLC
Total Gallons: Not reported
CERSID: 10413271
Facility ID: 20-0555
Business Name: MOSS LANDING POWER PLANT
Phone: 5102516860
Fax: 5102516880
Mailing Address: PO BOX 690
Mailing Address City: MOSS LANDING
Mailing Address State: CA
Mailing Address Zip Code: Not reported
Operator Name: DYNEGY OAKLAND, LLC
Operator Phone: 5102516860
Owner Phone: 8316336700
Owner Mail Address: PO BOX 690
Owner State: CA
Owner Zip Code: 95039
Owner Country: United States
Property Owner Name: DYNEGY OAKLAND, LLC
Property Owner Phone: 8316336700
Property Owner Mailing Address: PO BOX 690
Property Owner City: MOSS LANDING
Property Owner Stat : CA
Property Owner Zip Code: 95039
Property Owner Country: United States
EPAID: CAT080011679

VCP:

Facility ID: 1490020

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DYNEGY OAKLAND LLC (Continued)

S103177008

Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 2.6
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP, ALAMEDA COUNTY
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Elizabeth Chung-Huynh
Supervisor: Janet Naito
Division Branch: Cleanup Berkeley
Site Code: 201469
Assembly: 18
Senate: 09
Special Programs Code: Voluntary Cleanup Program
Status: Certified / Operation & Maintenance
Status Date: 07/18/2017
Restricted Use: YES
Funding: Responsible Party
Lat/Long: 37.79659 / -122.2812
APN: 000-0410-007, 000-0410-008, 000O041000700, 000O041000800,
018-0410-007, 018-0410-008
Past Use: ELECTRIC GENERATION/SUBSTATION
Potential COC: 30013, 30019, 30024, 3002502, 30160
Confirmed COC: 30013,30019,30024,30160,3002502
Potential Description: OTH, SOIL, SV
Alias Name: Not reported
Alias Type: Not reported

Completed Info:

Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

DEED:

Envirostor ID: 1490020
Area: PROJECT WIDE
Sub Area: Not reported
Site Type: VOLUNTARY CLEANUP
Status: CERTIFIED / OPERATION & MAINTENANCE
Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): 03/30/2015
File Name: Envirostor Land Use Restrictions

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DYNEGY OAKLAND LLC (Continued)

S103177008

NPDES:

Facility Status: Not reported
NPDES Number: Not reported
Region: Not reported
Agency Number: Not reported
Regulatory Measure ID: Not reported
Place ID: Not reported
Order Number: Not reported
WDID: 2 011014342
Regulatory Measure Type: Industrial
Program Type: Not reported
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: Not reported
Expiration Date Of Regulatory Measure: Not reported
Discharge Address: Not reported
Discharge Name: Not reported
Discharge City: Not reported
Discharge State: Not reported
Discharge Zip: Not reported
Status: Terminated
Status Date: 08/03/2015
Operator Name: Dynegy Oakland LLC
Operator Address: PO Box 690
Operator City: Moss Landing
Operator State: California
Operator Zip: 95039

NPDES as of 03/2018:

NPDES Number: CAS000001
Status: Terminated
Agency Number: 0
Region: 2
Regulatory Measure ID: 181081
Order Number: 97-03-DWQ
Regulatory Measure Type: Enrollee
Place ID: Not reported
WDID: 2 011014342
Program Type: Industrial
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: 07/06/1998
Expiration Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: 06/30/2015
Discharge Name: Dynegy Oakland LLC
Discharge Address: PO Box 690
Discharge City: Moss Landing
Discharge State: California
Discharge Zip: 95039
Received Date: Not reported
Processed Date: Not reported
Status: Not reported
Status Date: Not reported
Place Size: Not reported
Place Size Unit: Not reported
Contact: Not reported
Contact Title: Not reported
Contact Phone: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DYNEGY OAKLAND LLC (Continued)

S103177008

Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commercial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	2
Regulatory Measure ID:	181081
Order Number:	Not reported
Regulatory Measure Type:	Industrial
Place ID:	Not reported
WDID:	2 011014342

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DYNEGY OAKLAND LLC (Continued)

S103177008

Program Type: Not reported
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: Not reported
Expiration Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: 06/30/2015
Discharge Name: Not reported
Discharge Address: Not reported
Discharge City: Not reported
Discharge State: Not reported
Discharge Zip: Not reported
Received Date: 05/09/2008
Processed Date: 07/06/1998
Status: Terminated
Status Date: 08/03/2015
Place Size: 2.33
Place Size Unit: Acres
Contact: Rex Lewis
Contact Title: Managing Director
Contact Phone: 831-633-6700
Contact Phone Ext: Not reported
Contact Email: pete.j.ziegler@dynergy.com
Operator Name: Dynergy Oakland LLC
Operator Address: PO Box 690
Operator City: Moss Landing
Operator State: California
Operator Zip: 95039
Operator Contact: Rex Lewis
Operator Contact Title: Not reported
Operator Contact Phone: 831-633-6700
Operator Contact Phone Ext: Not reported
Operator Contact Email: rex.lewis@dynergy.com
Operator Type: Private Business
Developer: Not reported
Developer Address: Not reported
Developer City: Not reported
Developer State: California
Developer Zip: Not reported
Developer Contact: Not reported
Developer Contact Title: Not reported
Constype Linear Utility Ind: Not reported
Emergency Phone: Not reported
Emergency Phone Ext: Not reported
Constype Above Ground Ind: Not reported
Constype Below Ground Ind: Not reported
Constype Cable Line Ind: Not reported
Constype Comm Line Ind: Not reported
Constype Commercial Ind: Not reported
Constype Electrical Line Ind: Not reported
Constype Gas Line Ind: Not reported
Constype Industrial Ind: Not reported
Constype Other Description: Not reported
Constype Other Ind: Not reported
Constype Recons Ind: Not reported
Constype Residential Ind: Not reported
Constype Transport Ind: Not reported
Constype Utility Description: Not reported
Constype Utility Ind: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DYNEGY OAKLAND LLC (Continued)

S103177008

Constype Water Sewer Ind: Not reported
Dir Discharge Uswater Ind: N
Receiving Water Name: Oakland Estuary
Certifier: Rex Lewis
Certifier Title: Managing Director
Certification Date: 28-JAN-15
Primary Sic: 4911-Electric Services
Secondary Sic: Not reported
Tertiary Sic: Not reported

CIWQS:

Agency: Dynegy Oakland LLC
Agency Address: PO Box 690, Moss Landing, CA 95039
Place/Project Type: Industrial - Electric Services
SIC/NAICS: 4911
Region: 2
Program: INDSTW
Regulatory Measure Status: Terminated
Regulatory Measure Type: Storm water industrial
Order Number: 2014-0057-DWQ
WDID: 2 01I014342
NPDES Number: CAS000001
Adoption Date: Not reported
Effective Date: 07/06/1998
Termination Date: 06/30/2015
Expiration/Review Date: Not reported
Design Flow: Not reported
Major/Minor: Not reported
Complexity: Not reported
TTWQ: Not reported
Enforcement Actions within 5 years: 0
Violations within 5 years: 0
Latitude: 37.79672
Longitude: -122.28188

CERS TANKS:

Site ID: 211910
CERS ID: T0600100992
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Local Agency Caseworker
Entity Name: THOMAS PRICE - DEPARTMENT OF TOXIC SUBSTANCES CONTROL
Entity Title: Not reported
Affiliation Address: 1515 TOLLHOUSE ROAD
Affiliation City: CLOVIS
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 5105403811

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

214
 West
 1/2-1
 0.863 mi.
 4559 ft.

E-D COAT INC
715 4TH STREET
OAKLAND, CA 94607

RESPONSE S120714344
ENVIROSTOR N/A
CERS

Relative:
Lower
Actual:
15 ft.

RESPONSE:
 Facility ID: 60002501
 Site Type: State Response
 Site Type Detail: State Response or NPL
 Acres: 0.4
 National Priorities List: NO
 Cleanup Oversight Agencies: SMBRP
 Lead Agency Description: DTSC - Site Cleanup Program
 Project Manager: Lynn Nakashima
 Supervisor: Janet Naito
 Division Branch: Cleanup Berkeley
 Site Code: 202138
 Site Mgmt. Req.: NONE SPECIFIED
 Assembly: , 18
 Senate: , 09
 Special Program Status: Not reported
 Status: Active
 Status Date: 04/21/2017
 Restricted Use: NO
 Funding: Responsible Party
 Latitude: 37.79973
 Longitude: -122.2820
 APN: 001 011500500, 001 011501200, 001 011501302, 001 011501309, 001 011501701, 001 011501802, 001 011502100, 001 011502200, 001 011502300, 001 011502400, 001 011502600, 001 011502800, 001 011502900, 001 011503400, 001 011503500, 001 011503600, 001 012102702
 Past Use: METAL PLATING - CHROME, METAL PLATING - OTHER
 Potential COC : Under Investigation
 Confirmed COC: Under Investigation
 Potential Description: UE
 Alias Name: 001 011500500
 Alias Type: APN
 Alias Name: 001 011501200
 Alias Type: APN
 Alias Name: 001 011501302
 Alias Type: APN
 Alias Name: 001 011501309
 Alias Type: APN
 Alias Name: 001 011501701
 Alias Type: APN
 Alias Name: 001 011501802
 Alias Type: APN
 Alias Name: 001 011502100
 Alias Type: APN
 Alias Name: 001 011502200
 Alias Type: APN
 Alias Name: 001 011502300
 Alias Type: APN
 Alias Name: 001 011502400
 Alias Type: APN
 Alias Name: 001 011502600
 Alias Type: APN
 Alias Name: 001 011502800

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

E-D COAT INC (Continued)

S120714344

Alias Type: APN
Alias Name: 001 011502900
Alias Type: APN
Alias Name: 001 011503400
Alias Type: APN
Alias Name: 001 011503500
Alias Type: APN
Alias Name: 001 011503600
Alias Type: APN
Alias Name: 001 012102702
Alias Type: APN
Alias Name: CAD009200031
Alias Type: EPA Identification Number
Alias Name: 110000483708
Alias Type: EPA (FRS #)
Alias Name: 202138
Alias Type: Project Code (Site Code)
Alias Name: 60002501
Alias Type: Envirostor ID Number
Alias Name: 71002276
Alias Type: Envirostor ID Number
Alias Name: CAL000367804
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Proposed Determination of non-compliance
Completed Date: 05/11/2017
Comments: Notice required cover tanks and sumps, characterize and remove contents of tanks at risk from failure, and provide name and credentials of qualified and independent 3rd party.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Notice
Completed Date: 09/25/2017
Comments: Letter notifying RPs that DTSC rejects the Revised Inventory and Workplan due to extensive deficiencies.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Imminent and/or Substantial Endangerment Order
Completed Date: 04/24/2017
Comments: Imminent or Substantial Endangerment Order issued on 4/24/2017 to three parties responsible for cleaning up a release of hazardous substances at the E-D Coat, Inc. site located at 715, 716, 721, 725, 726, 732 and 734 4th Street, 714 and 718 3rd Street, 703, 707, 713, 715 5th Street, 410, 414, and 418 Brush Street and 407 and 411 Castro Street in Oakland, California.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 06/12/1997
Comments: Site Screening conducted by DTSC staff under grant from U.S. EPA. Site Screening recommended referral to DTSC's Hazardous Waste Management Program (Tiered Permitting Program) for potential

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

E-D COAT INC (Continued)

S120714344

corrective action.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 01/08/2018
Comments: DTSC HSP report on October 26, 2017 wipe sampling report from interior areas of site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 09/01/2017
Comments: Revised inventory of materials at Site submitted by RP.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Notice
Completed Date: 08/11/2017
Comments: Letter from Reed Sato (Deputy Attorney General) notifying RP is not in compliance with Order.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Final Determination of Non-Compliance
Completed Date: 05/16/2017
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Proposed Determination of non-compliance
Completed Date: 06/05/2017
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Final Determination of Non-Compliance
Completed Date: 06/19/2017
Comments: Letters provided to RPs by Personal Service.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Post HARP Form
Completed Date: 05/10/2017
Comments: Post-HARP for 5/4/2017 site visit - Cleanup Program Only

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 04/28/2017
Comments: DTSC's response to L. Rossi's April 27, 2017 email approving extending the deadline to comply with section 5.1.1(a)(i) of the Site Order to noon on 5/4/2017. A site visit will be made to confirm compliance.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

E-D COAT INC (Continued)

S120714344

Completed Document Type: Access Agreement
Completed Date: 05/17/2017
Comments: Access agreement signed on 5/17/2017

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 02/27/2018
Comments: Letter comments on stormwater control measures and requests specific information within 10 business days be submitted to DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Pre-HARP Form
Completed Date: 04/19/2018
Comments: Pre-HARP for April Site Visit

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 07/12/2017
Comments: Letter requires Respondents to provide specific materials and site access.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Access Agreement
Completed Date: 08/16/2017
Comments: Access agreement signed on 8/16/2017.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:

Facility ID: 60002501
Status: Active
Status Date: 04/21/2017
Site Code: 202138
Site Type: State Response
Site Type Detailed: State Response or NPL
Acres: 0.4
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Lynn Nakashima
Supervisor: Janet Naito
Division Branch: Cleanup Berkeley
Assembly: , 18
Senate: , 09
Special Program: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

E-D COAT INC (Continued)

S120714344

Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 37.79973
Longitude: -122.2820
APN: 001 011500500, 001 011501200, 001 011501302, 001 011501309, 001
011501701, 001 011501802, 001 011502100, 001 011502200, 001
011502300, 001 011502400, 001 011502600, 001 011502800, 001
011502900, 001 011503400, 001 011503500, 001 011503600, 001 012102702

Past Use: METAL PLATING - CHROME, METAL PLATING - OTHER
Potential COC: Under Investigation
Confirmed COC: Under Investigation
Potential Description: UE

Alias Name: 001 011500500
Alias Type: APN
Alias Name: 001 011501200
Alias Type: APN
Alias Name: 001 011501302
Alias Type: APN
Alias Name: 001 011501309
Alias Type: APN
Alias Name: 001 011501701
Alias Type: APN
Alias Name: 001 011501802
Alias Type: APN
Alias Name: 001 011502100
Alias Type: APN
Alias Name: 001 011502200
Alias Type: APN
Alias Name: 001 011502300
Alias Type: APN
Alias Name: 001 011502400
Alias Type: APN
Alias Name: 001 011502600
Alias Type: APN
Alias Name: 001 011502800
Alias Type: APN
Alias Name: 001 011502900
Alias Type: APN
Alias Name: 001 011503400
Alias Type: APN
Alias Name: 001 011503500
Alias Type: APN
Alias Name: 001 011503600
Alias Type: APN
Alias Name: 001 012102702
Alias Type: APN
Alias Name: CAD009200031
Alias Type: EPA Identification Number
Alias Name: 110000483708
Alias Type: EPA (FRS #)
Alias Name: 202138
Alias Type: Project Code (Site Code)
Alias Name: 60002501
Alias Type: Envirostor ID Number
Alias Name: 71002276
Alias Type: Envirostor ID Number

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

E-D COAT INC (Continued)

S120714344

Alias Name: CAL000367804
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Proposed Determination of non-compliance
Completed Date: 05/11/2017
Comments: Notice required cover tanks and sumps, characterize and remove contents of tanks at risk from failure, and provide name and credentials of qualified and independent 3rd party.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Notice
Completed Date: 09/25/2017
Comments: Letter notifying RPs that DTSC rejects the Revised Inventory and Workplan due to extensive deficiencies.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Imminent and/or Substantial Endangerment Order
Completed Date: 04/24/2017
Comments: Imminent or Substantial Endangerment Order issued on 4/24/2017 to three parties responsible for cleaning up a release of hazardous substances at the E-D Coat, Inc. site located at 715, 716, 721, 725, 726, 732 and 734 4th Street, 714 and 718 3rd Street, 703, 707, 713, 715 5th Street, 410, 414, and 418 Brush Street and 407 and 411 Castro Street in Oakland, California.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 06/12/1997
Comments: Site Screening conducted by DTSC staff under grant from U.S. EPA. Site Screening recommended referral to DTSC's Hazardous Waste Management Program (Tiered Permitting Program) for potential corrective action.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 01/08/2018
Comments: DTSC HSP report on October 26, 2017 wipe sampling report from interior areas of site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 09/01/2017
Comments: Revised inventory of materials at Site submitted by RP.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Notice
Completed Date: 08/11/2017
Comments: Letter from Reed Sato (Deputy Attorney General) notifying RP is not in compliance with Order.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

E-D COAT INC (Continued)

S120714344

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Final Determination of Non-Compliance
Completed Date: 05/16/2017
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Proposed Determination of non-compliance
Completed Date: 06/05/2017
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Final Determination of Non-Compliance
Completed Date: 06/19/2017
Comments: Letters provided to RPs by Personal Service.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Post HARP Form
Completed Date: 05/10/2017
Comments: Post-HARP for 5/4/2017 site visit - Cleanup Program Only

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 04/28/2017
Comments: DTSC's response to L. Rossi's April 27, 2017 email approving extending the deadline to comply with section 5.1.1(a)(i) of the Site Order to noon on 5/4/2017. A site visit will be made to confirm compliance.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Access Agreement
Completed Date: 05/17/2017
Comments: Access agreement signed on 5/17/2017

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 02/27/2018
Comments: Letter comments on stormwater control measures and requests specific information within 10 business days be submitted to DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Pre-HARP Form
Completed Date: 04/19/2018
Comments: Pre-HARP for April Site Visit

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 07/12/2017
Comments: Letter requires Respondents to provide specific materials and site

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

E-D COAT INC (Continued)

S120714344

access.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: Access Agreement
 Completed Date: 08/16/2017
 Comments: Access agreement signed on 8/16/2017.

Future Area Name: Not reported
 Future Sub Area Name: Not reported
 Future Document Type: Not reported
 Future Due Date: Not reported
 Schedule Area Name: Not reported
 Schedule Sub Area Name: Not reported
 Schedule Document Type: Not reported
 Schedule Due Date: Not reported
 Schedule Revised Date: Not reported

CERS TANKS:

Site ID: 421492
 CERS ID: 60002501
 CERS Description: State Response

Affiliation:

Affiliation Type Desc: Lead Project Manager
 Entity Name: LYNN NAKASHIMA
 Entity Title: Not reported
 Affiliation Address: Not reported
 Affiliation City: BERKELEY
 Affiliation State: CA
 Affiliation Country: Not reported
 Affiliation Zip: Not reported
 Affiliation Phone: Not reported

Affiliation Type Desc: Supervisor
 Entity Name: JANET NAITO
 Entity Title: Not reported
 Affiliation Address: Not reported
 Affiliation City: Not reported
 Affiliation State: Not reported
 Affiliation Country: Not reported
 Affiliation Zip: Not reported
 Affiliation Phone: Not reported

215
 West
 1/2-1
 0.876 mi.
 4626 ft.

**HOWARD MARINE TERMINAL SITE
 EMBARCADERO WEST AND MARKET STREETS
 OAKLAND, CA 94604**

**RESPONSE S104735467
 ENVIROSTOR N/A
 HIST Cal-Sites
 DEED
 Cortese**

**Relative:
 Lower
 Actual:
 10 ft.**

RESPONSE:
 Facility ID: 1440006
 Site Type: State Response
 Site Type Detail: State Response or NPL
 Acres: 50
 National Priorities List: NO
 Cleanup Oversight Agencies: SMBRP

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HOWARD MARINE TERMINAL SITE (Continued)

S104735467

Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Elizabeth Chung-Huynh
Supervisor: Janet Naito
Division Branch: Cleanup Berkeley
Site Code: 202223
Site Mgmt. Req.: REM, ASP, DAY, HOS, LUC, MON, EX, GW, NOWN, NDAM, NUSE, NSUB, EXT, HS, SCH, COV, RES

Assembly: 18
Senate: 09
Special Program Status: Not reported
Status: Certified / Operation & Maintenance
Status Date: 11/04/2004
Restricted Use: YES
Funding: Responsible Party
Latitude: 37.79722
Longitude: -122.2825
APN: 0-405-1, 0-405-2, 0-405-3-1, 0-405-4, 0-410-1-5, 0-410-3, 0-410-6-1, 000O040500100, 000O040500200, 000O040500400, 000O041000105, 000O041000601

Past Use: MANUFACTURED GAS PLANT, UNDERGROUND STORAGE TANKS
Potential COC : Benzene Lead Polynuclear aromatic hydrocarbons (PAHs TPH-diesel TPH-MOTOR OIL Cyanide (free Ethylbenzene Toluene Xylenes

Confirmed COC: Toluene Polynuclear aromatic hydrocarbons (PAHs TPH-diesel Cyanide (free Ethylbenzene Benzene Lead TPH-MOTOR OIL Xylenes

Potential Description: OTH, SOIL
Alias Name: Not reported
Alias Type: Not reported

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:

Facility ID: 1440006
Status: Certified / Operation & Maintenance
Status Date: 11/04/2004
Site Code: 202223
Site Type: State Response
Site Type Detailed: State Response or NPL
Acres: 50
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Elizabeth Chung-Huynh

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HOWARD MARINE TERMINAL SITE (Continued)

S104735467

Supervisor: Janet Naito
Division Branch: Cleanup Berkeley
Assembly: 18
Senate: 09
Special Program: Not reported
Restricted Use: YES
Site Mgmt Req: REM, ASP, DAY, HOS, LUC, MON, EX, GW, NOWN, NDAM, NUSE, NSUB, EXT, HS, SCH, COV, RES
Funding: Responsible Party
Latitude: 37.79722
Longitude: -122.2825
APN: 0-405-1, 0-405-2, 0-405-3-1, 0-405-4, 0-410-1-5, 0-410-3, 0-410-6-1, 000O040500100, 000O040500200, 000O040500400, 000O041000105, 000O041000601
Past Use: MANUFACTURED GAS PLANT, UNDERGROUND STORAGE TANKS
Potential COC: Benzene Lead Polynuclear aromatic hydrocarbons (PAHs TPH-diesel TPH-MOTOR OIL Cyanide (free Ethylbenzene Toluene Xylenes
Confirmed COC: Toluene Polynuclear aromatic hydrocarbons (PAHs TPH-diesel Cyanide (free Ethylbenzene Benzene Lead TPH-MOTOR OIL Xylenes
Potential Description: OTH, SOIL
Alias Name: Not reported
Alias Type: Not reported
Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported
Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported
Calsite:
Region: BERKELEY
Facility ID: 01440006
Facility Type: RP
Type: RESPONSIBLE PARTY
Branch: NC
Branch Name: NORTH COAST
File Name: Not reported
State Senate District: 08312000
Status: CERTIFIED OPERATION AND MAINTENANCE, ALL PLANNED ACTIVITIES IMPLEMENTED, REMEDIATION CONTINUES
Status Name: CERTIFIED / OPERATION & MAINTENANCE
Lead Agency: DEPT OF TOXIC SUBSTANCES CONTROL
NPL: Not Listed
SIC Code: 44
SIC Name: WATER TRANSPORTATION
Access: Controlled

Map ID
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HOWARD MARINE TERMINAL SITE (Continued)

S104735467

Cortese: Not reported
Hazardous Ranking Score: Not reported
Date Site Hazard Ranked: Not reported
Groundwater Contamination: Confirmed
Staff Member Responsible for Site: TPARK
Supervisor Responsible for Site: Not reported
Region Water Control Board: SF
Region Water Control Board Name: SAN FRANCISCO BAY
Lat/Long Direction: Not reported
Lat/Long (dms): 0 0 0 / 0 0 0
Lat/long Method: Not reported
Lat/Long Description: Not reported
State Assembly District Code: 16
State Senate District Code: 09
Facility ID: 01440006
Activity: ORDER
Activity Name: I/SE, IORSE, FFA, FFSRA, VCA, EA
AWP Code: ISE
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 10172000
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 01440006
Activity: RA
Activity Name: REMOVAL ACTION
AWP Code: Not reported
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 11122003
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: N

Map ID
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
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HOWARD MARINE TERMINAL SITE (Continued)

S104735467

Activity Comments: PIPING WAS SEALED.
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 01440006
Activity: RAW
Activity Name: REMOVAL ACTION WORKPLAN
AWP Code: Not reported
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 02222002
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 01440006
Activity: CERT
Activity Name: CERTIFICATION
AWP Code: Not reported
Proposed Budget: 0
AWP Completion Date: 09302004
Revised Due Date: Not reported
Comments Date: 11042004
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 01440006
Activity: CEQA
Activity Name: CEQA INCLUDING NEGATIVE DECS
AWP Code: NOE

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
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HOWARD MARINE TERMINAL SITE (Continued)

S104735467

Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 02222002
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 01440006
Activity: DEED
Activity Name: DEED RESTRICTIONS
AWP Code: Not reported
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 03032003
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Alternate Address: EMBARCADERO WEST AND MARKET STREETS
Alternate City,St,Zip: OAKLAND, CA 94604
Background Info: Howard Terminal operated a large marine terminal for containerized cargo at this Site. From 1900 to 1930 a manufacturing gas plant occupied the Site. Site investigation found elevated levels of polynuclear aromatic hydrocarbons, semi and volatile organic compounds, metals, cyanides, and petroleum hydrocarbons. The entire site was covered with an asphalt concrete cap ranging in thickness from 4 to 30 inches.
Comments Date: 02222002
Comments: Approved RAW requiring a geophysical survey of the site and
Comments Date: 02222002
Comments: removal of any underground structures that may be found and

Map ID
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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

HOWARD MARINE TERMINAL SITE (Continued)

S104735467

Comments Date: 02222002
Comments: long-term groundwater monitoring and cap maintenance.
Comments Date: 03032003
Comments: Recorded Deed Restriction prohibiting sensitive uses including
Comments Date: 03032003
Comments: residential housing.
Comments Date: 09082004
Comments: Amended Deed Restriction.
Comments Date: 10172000
Comments: Issued Remedial Action Order.
Comments Date: 11042004
Comments: Certified Site.
Comments Date: 11122003
Comments: Completed RA. The final remedy required maintenance of the site
Comments Date: 11122003
Comments: cap and a long term groundwater monitoring program.
ID Name: CALSTARS CODE
ID Value: 201089
Alternate Name: HOWARD MARINE TERMINAL SITE
Alternate Name: Not reported
Special Programs Code: Not reported
Special Programs Name: Not reported

DEED:

Envirostor ID: 1440006
Area: PROJECT WIDE
Sub Area: Not reported
Site Type: STATE RESPONSE
Status: CERTIFIED / OPERATION & MAINTENANCE
Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): 03/03/2003
File Name: Envirostor Land Use Restrictions

Envirostor ID: 1440006
Area: PROJECT WIDE
Sub Area: Not reported
Site Type: STATE RESPONSE
Status: CERTIFIED / OPERATION & MAINTENANCE
Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): 09/08/2004
File Name: Envirostor Land Use Restrictions

CORTESE:

Region: CORTESE
Envirostor Id: 1440006
Site/Facility Type: STATE RESPONSE
Cleanup Status: CERTIFIED / OPERATION & MAINTENANCE - LAND USE RESTRICTIONS
Status Date: 11/04/2004
Site Code: 201089, 202223
Latitude: 37.797222
Longitude: -122.2825
Owner: Not reported
Enf Type: Not reported
Swat R: Not reported

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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

HOWARD MARINE TERMINAL SITE (Continued)

S104735467

Flag: envirostor
Order No: Not reported
Waste Discharge System No: Not reported
Effective Date: Not reported
Region 2: Not reported
WID Id: Not reported
Solid Waste Id No: Not reported
Waste Management Uit Name: Not reported
File Name: Haz Waste & Substances Sites

216
WNW
1/2-1
0.898 mi.
4744 ft.

FRANCIS PLATING OF OAKLAND INC
785 7TH ST
OAKLAND, CA 94607

SEMS 1000308458
CORRACTS CAD009206160
RCRA-TSDF
RCRA-SQG
ENVIROSTOR
CPS-SLIC
HIST UST
PRP
HAZNET
HWP
CERS

Relative:
Lower

Actual:
24 ft.

SEMS:

Site ID: 0903278
EPA ID: CAD009206160
Cong District: 08
FIPS Code: 06001
Latitude: 37.808333
Longitude: -122.288333
FF: N
NPL: Not on the NPL
Non NPL Status: Deferred to RCRA (Subtitle C)

SEMS Detail:

Region: 09
Site ID: 0903278
EPA ID: CAD009206160
Site Name: FRANCIS PLATING OF OAKLAND INC
NPL: N
FF: N
OU: 00
Action Code: RC
Action Name: RVL CRP
SEQ: 1
Start Date: 1992-11-18 05:00:00
Finish Date: Not reported
Qual: Not reported
Current Action Lead: EPA Perf

Region: 09
Site ID: 0903278
EPA ID: CAD009206160
Site Name: FRANCIS PLATING OF OAKLAND INC
NPL: N
FF: N
OU: 00
Action Code: RV
Action Name: RMVL

Map ID
Direction
Distance
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FRANCIS PLATING OF OAKLAND INC (Continued)

1000308458

SEQ: 1
Start Date: 1999-06-30 04:00:00
Finish Date: 11/3/1999 5:00:00 AM
Qual: S
Current Action Lead: EPA Perf

Region: 09
Site ID: 0903278
EPA ID: CAD009206160
Site Name: FRANCIS PLATING OF OAKLAND INC
NPL: N
FF: N
OU: 00
Action Code: RV
Action Name: RMVL
SEQ: 4
Start Date: 1998-12-16 05:00:00
Finish Date: 11/3/1999 5:00:00 AM
Qual: C
Current Action Lead: EPA Perf

Region: 09
Site ID: 0903278
EPA ID: CAD009206160
Site Name: FRANCIS PLATING OF OAKLAND INC
NPL: N
FF: N
OU: 00
Action Code: DS
Action Name: DISCVRY
SEQ: 1
Start Date: 1990-06-12 04:00:00
Finish Date: 6/12/1990 4:00:00 AM
Qual: Not reported
Current Action Lead: EPA Perf

Region: 09
Site ID: 0903278
EPA ID: CAD009206160
Site Name: FRANCIS PLATING OF OAKLAND INC
NPL: N
FF: N
OU: 00
Action Code: PA
Action Name: PA
SEQ: 1
Start Date: Not reported
Finish Date: 8/28/1990 4:00:00 AM
Qual: D
Current Action Lead: EPA Perf

CORRACTS:
EPA ID: CAD009206160
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 19900828

Map ID
Direction
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FRANCIS PLATING OF OAKLAND INC (Continued)

1000308458

Action: CA075LO - CA Prioritization, Facility or area was assigned a low corrective action priority
NAICS Code(s): 332813 332813
Electroplating, Plating, Polishing, Anodizing, and Coloring
Electroplating, Plating, Polishing, Anodizing, and Coloring
Original schedule date: Not reported
Schedule end date: Not reported

RCRA-TSDF:

Date form received by agency: 09/01/1996
Facility name: FRANCIS PLATING OF OAKLAND INC
Facility address: 785 7TH ST
OAKLAND, CA 94607
EPA ID: CAD009206160
Contact: Not reported
Contact address: Not reported
Not reported
Contact country: US
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09
Land type: Facility is not located on Indian land. Additional information is not known.
Classification: TSDF
Description: Handler is engaged in the treatment, storage or disposal of hazardous waste

Owner/Operator Summary:

Owner/operator name: FRANCIS PLATING OF OAKLAND, INC.
Owner/operator address: 785 SEVENTH STREET
CITY NOT REPORTED, CA 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-444-5535
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: FRANCIS PLATING OF OAKLAND, INC.
Owner/operator address: 785 SEVENTH STREET
OAKLAND, CA 94607
Owner/operator country: Not reported
Owner/operator telephone: 415-444-5535
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FRANCIS PLATING OF OAKLAND INC (Continued)

1000308458

Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 09/01/1996
Site name: FRANCIS PLATING OF OAKLAND INC
Classification: Small Quantity Generator

Date form received by agency: 08/15/1980
Site name: FRANCIS PLATING OF OAKLAND INC
Classification: Not a generator, verified

Corrective Action Summary:

Event date: 01/01/1990
Event: LEAD AGENCY DETERMINATION

Event date: 08/28/1990
Event: NCAPS RANKING/PRIORITY

Event date: 08/28/1990
Event: CA PRIORITIZATION-LOW CA PRIORITY

Event date: 08/28/1990
Event: PA OR CERCLA INSPECTION

Facility Has Received Notices of Violations:

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 04/28/1987
Date achieved compliance: 09/17/1987
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/13/1987
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:

Evaluation date: 11/17/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FRANCIS PLATING OF OAKLAND INC (Continued)

1000308458

Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/07/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/15/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 09/21/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: EPA

Evaluation date: 04/28/1987
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 09/17/1987
Evaluation lead agency: State

RCRA-SQG:

Date form received by agency: 09/01/1996
Facility name: FRANCIS PLATING OF OAKLAND INC
Facility address: 785 7TH ST
OAKLAND, CA 94607
EPA ID: CAD009206160
Contact: Not reported
Contact address: Not reported
Not reported
Contact country: US
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09
Land type: Facility is not located on Indian land. Additional information is not known.
Classification: TSDF
Description: Handler is engaged in the treatment, storage or disposal of hazardous waste

Owner/Operator Summary:

Owner/operator name: FRANCIS PLATING OF OAKLAND, INC.
Owner/operator address: 785 SEVENTH STREET
CITY NOT REPORTED, CA 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-444-5535
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FRANCIS PLATING OF OAKLAND INC (Continued)

1000308458

Owner/Op end date: Not reported

Owner/operator name: FRANCIS PLATING OF OAKLAND, INC.
Owner/operator address: 785 SEVENTH STREET
OAKLAND, CA 94607

Owner/operator country: Not reported
Owner/operator telephone: 415-444-5535
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 09/01/1996
Site name: FRANCIS PLATING OF OAKLAND INC
Classification: Small Quantity Generator

Date form received by agency: 08/15/1980
Site name: FRANCIS PLATING OF OAKLAND INC
Classification: Not a generator, verified

Corrective Action Summary:

Event date: 01/01/1990
Event: LEAD AGENCY DETERMINATION

Event date: 08/28/1990
Event: NCAPS RANKING/PRIORITY

Event date: 08/28/1990
Event: CA PRIORITIZATION-LOW CA PRIORITY

Event date: 08/28/1990
Event: PA OR CERCLA INSPECTION

Facility Has Received Notices of Violations:

Map ID
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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

FRANCIS PLATING OF OAKLAND INC (Continued)

1000308458

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 04/28/1987
Date achieved compliance: 09/17/1987
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/13/1987
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:

Evaluation date: 11/17/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/07/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/15/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 09/21/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: EPA

Evaluation date: 04/28/1987
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 09/17/1987
Evaluation lead agency: State

ENVIROSTOR:

Facility ID: 1330049
Status: No Further Action
Status Date: 06/12/2002
Site Code: 200799
Site Type: Evaluation
Site Type Detailed: Evaluation
Acres: 0.1
NPL: NO
Regulatory Agencies: SMBRP, US EPA, ALAMEDA COUNTY, CITY OF OAKLAND
Lead Agency: US EPA
Program Manager: Not reported

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FRANCIS PLATING OF OAKLAND INC (Continued)

1000308458

Supervisor: Karen Toth
Division Branch: Cleanup Berkeley
Assembly: 18
Senate: 09
Special Program: EPA - PASI
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 37.80226
Longitude: -122.2819
APN: 1-223-2-1
Past Use: METAL PLATING - CHROME, METAL PLATING - OTHER
Potential COC: Lead Cadmium and compounds Chromium III Chromium VI Cyanide
(hydrogen Nickel Zinc
Confirmed COC: 30108-NO 30152-NO 30153-NO 30161-NO 30407-NO 30013-NO 30594-NO
Potential Description: SOIL
Alias Name: Not reported
Alias Type: Not reported

Completed Info:

Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Facility ID: 80001620
Status: Refer: Local Agency
Status Date: 05/22/2006
Site Code: Not reported
Site Type: Corrective Action
Site Type Detailed: Corrective Action
Acres: 0
NPL: NO
Regulatory Agencies: RWQCB 2 - San Francisco Bay, ALAMEDA COUNTY
Lead Agency: ALAMEDA COUNTY
Program Manager: Not reported
Supervisor: Karen Toth
Division Branch: Cleanup Berkeley
Assembly: 18
Senate: 09
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 37.80228
Longitude: -122.2817
APN: 1-223-2-1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FRANCIS PLATING OF OAKLAND INC (Continued)

1000308458

Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: 1-223-2-1
Alias Type: APN
Alias Name: CAD009206160
Alias Type: EPA Identification Number
Alias Name: 110001184931
Alias Type: EPA (FRS #)
Alias Name: SL0600130797
Alias Type: GeoTracker Global ID
Alias Name: 80001620
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 08/28/1990
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

CPS-SLIC:

Region: STATE
Facility Status: **Open - Verification Monitoring**
Status Date: 05/17/2017
Global Id: T10000007028
Lead Agency: ALAMEDA COUNTY LOP
Lead Agency Case Number: RO0003174
Latitude: 37.80227
Longitude: -122.28173
Case Type: Cleanup Program Site
Case Worker: RS
Local Agency: ALAMEDA COUNTY LOP
RB Case Number: Not reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Potential Media Affected: Other Groundwater (uses other than drinking water), Soil, Soil Vapor
Potential Contaminants of Concern: Tetrachloroethylene (PCE), Trichloroethylene (TCE), Chromium VI
Site History: This case (RO0003174) is connected with Alameda County Department of Environmental Health Site Cleanup Case No. RO0002586 - Francis Plating Frog Pond (GeoTracker Global ID SL0600130797). The former plating facility operated from approximately 1957 to 1998. In 1998, the property was found to be abandoned with chemicals and equipment on site. As part of an emergency response action, the U.S. Environmental Protection Agency removed abandoned chemicals and equipment and excavated shallow soil in areas without asphalt or concrete coverings. The former plating facility site was separated

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FRANCIS PLATING OF OAKLAND INC (Continued)

1000308458

into two separate parcels in 2016 designated as APN 1-223-7 and 1-223-6. Case RO0003174 was opened in 2015 for APN 1-223-7. Additional investigation and remedial activities have been focused on APN 1-223-6 (RO0002586). Residual contamination at the site is covered by a cap consisting of the site building and asphalt and concrete paving.

[Click here to access the California GeoTracker records for this facility:](#)

HIST UST:

File Number: Not reported
URL: Not reported
Region: STATE
Facility ID: 00000047987
Facility Type: Other
Other Type: ELECTRO PLATING
Contact Name: WALLY FRANCIS
Telephone: 4154445535
Owner Name: FRANCIS PLATING
Owner Address: 785 SEVENTH ST.
Owner City,St,Zip: OAKLAND, CA 94607
Total Tanks: 0002

Tank Num: 001
Container Num: 01
Year Installed: 1968
Tank Capacity: 00015000
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: 6
Leak Detection: Visual

Tank Num: 002
Container Num: 02
Year Installed: 1955
Tank Capacity: 00010700
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: 6
Leak Detection: Visual

PRP:

PRP Name: FRANCIS PLATING CO INC.
KATHYRN FRANCIS
WALLACE FRANCIS

HAZNET:

Facility Name: FRANCIS PLATING OF OAKLAND INC
envid: 1000308458
Year: 1999
GEPaid: CAD009206160
Contact: SEAN MCDUGALL
Telephone: 9163680100
Mailing Name: Not reported
Mailing Address: 3774 BRADVIEW DR
Mailing City,St,Zip: SACRAMENTO, CA 958270000

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FRANCIS PLATING OF OAKLAND INC (Continued)

1000308458

Gen County: Not reported
TSD EPA ID: NVD980895338
TSD County: Not reported
Waste Category: Aqueous solution (2 < pH < 12.5) containing reactive anions ...
Disposal Method: Treatment, Tank
Tons: .1251
Cat Decode: Not reported
Method Decode: Not reported
Facility County: 1

envid: 1000308458
Year: 1999
GEPaid: CAD009206160
Contact: SEAN MCDOUGALL
Telephone: 9163680100
Mailing Name: Not reported
Mailing Address: 3774 BRADVIEW DR
Mailing City,St,Zip: SACRAMENTO, CA 958270000
Gen County: Not reported
TSD EPA ID: CAD980675276
TSD County: Not reported
Waste Category: Other inorganic solid waste
Disposal Method: Treatment, Tank
Tons: 173.6168
Cat Decode: Not reported
Method Decode: Not reported
Facility County: 1

envid: 1000308458
Year: 1999
GEPaid: CAD009206160
Contact: SEAN MCDOUGALL
Telephone: 9163680100
Mailing Name: Not reported
Mailing Address: 3774 BRADVIEW DR
Mailing City,St,Zip: SACRAMENTO, CA 958270000
Gen County: Not reported
TSD EPA ID: WAD991281767
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Treatment, Incineration
Tons: 2.6500
Cat Decode: Not reported
Method Decode: Not reported
Facility County: 1

envid: 1000308458
Year: 1999
GEPaid: CAD009206160
Contact: SEAN MCDOUGALL
Telephone: 9163680100
Mailing Name: Not reported
Mailing Address: 3774 BRADVIEW DR
Mailing City,St,Zip: SACRAMENTO, CA 958270000
Gen County: Not reported
TSD EPA ID: WAD991281767
TSD County: Not reported

Map ID
Direction
Distance
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FRANCIS PLATING OF OAKLAND INC (Continued)

1000308458

Waste Category: Unspecified solvent mixture
Disposal Method: Treatment, Incineration
Tons: 3.0441
Cat Decode: Not reported
Method Decode: Not reported
Facility County: 1

envid: 1000308458
Year: 1999
GEPaid: CAD009206160
Contact: SEAN MCDOUGALL
Telephone: 9163680100
Mailing Name: Not reported
Mailing Address: 3774 BRADVIEW DR
Mailing City, St, Zip: SACRAMENTO, CA 958270000
Gen County: Not reported
TSD EPA ID: WAD991281767
TSD County: Not reported
Waste Category: Not reported
Disposal Method: Not reported
Tons: 17.5140
Cat Decode: Not reported
Method Decode: Not reported
Facility County: 1

[Click this hyperlink](#) while viewing on your computer to access
46 additional CA_HAZNET: record(s) in the EDR Site Report.

HWP:

EPA Id: CAD009206160
Cleanup Status: PROTECTIVE FILER
Latitude: 37.80228
Longitude: -122.2817
Facility Type: Historical - Non-Operating
Facility Size: Not reported
Team: Not reported
Supervisor: Not reported
Site Code: Not reported
Assembly District: 18
Senate District: 09
Public Information Officer: Not reported
Public Information Officer: Not reported

Activities:

EPA Id: CAD009206160
Facility Type: Historical - Non-Operating
Unit Names: TANKSTR1, TANKTRT1
Event Description: Protective Filer Status - PROTECTIVE FILER (APPROVED)
Actual Date: 12/28/1988

EPA Id: CAD009206160
Facility Type: Historical - Non-Operating
Unit Names: TANKSTR1, TANKTRT1
Event Description: Protective Filer Status - PROTECTIVE FILER (RECEIVED)
Actual Date: 09/15/1986

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FRANCIS PLATING OF OAKLAND INC (Continued)

1000308458

Alias:

EPA Id: CAD009206160
Facility Type: Historical - Non-Operating
Alias Type: FRS
Alias: 110001184931

CERS TANKS:

Site ID: 277045
CERS ID: T10000007028
CERS Description: Cleanup Program Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Local Agency Caseworker
Entity Name: ROBERT SCHULTZ - ALAMEDA COUNTY LOP
Entity Title: Not reported
Affiliation Address: 1131 HARBOR BAY PARKWAY
Affiliation City: ALAMEDA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 5105676721

Site ID: 212591
CERS ID: CAD009206160
CERS Description: Hazardous Waste

Affiliation:

Affiliation Type Desc: Facility Contact
Entity Name: FRANCIS PLATING OF OAKLAND, IN
Entity Title: Not reported
Affiliation Address: INACT PER NONDEL 98VQ FINALNOTICE - CR
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 946070000
Affiliation Phone: 4154445535

Affiliation Type Desc: Facility Owner
Entity Name: SEAN MCDOUGALL
Entity Title: Not reported
Affiliation Address: 3774 BRADVIEW DR
Affiliation City: SACRAMENTO
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 958270000

MAP FINDINGS

Map ID
 Direction
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 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

FRANCIS PLATING OF OAKLAND INC (Continued)

1000308458

Affiliation Phone: 9163680100

217
 North
 1/2-1
 0.936 mi.
 4941 ft.

**CROWLEY MARITIME CORP.
 PAC. DRY DOCK YARDS 1&2
 OAKLAND, CA 92626**

**Notify 65 S100179670
 N/A**

Relative:
 Lower
 Actual:
 22 ft.

NOTIFY 65:
 Date Reported: Not reported
 Staff Initials: Not reported
 Board File Number: Not reported
 Facility Type: Not reported
 Discharge Date: Not reported
 Issue Date: Not reported
 Incident Description: Not reported

AT218
 WNW
 1/2-1
 0.944 mi.
 4982 ft.

**SAFETY-KLEEN CORP. 7-178-01
 404 MARKET ST
 OAKLAND, CA 94607**

**SWEEPS UST 1000224433
 HIST UST N/A
 CA FID UST
 Financial Assurance
 HWP
 CERS**

Site 1 of 3 in cluster AT

Relative:
 Lower
 Actual:
 15 ft.

SWEEPS UST:
 Status: Not reported
 Comp Number: 6278
 Number: Not reported
 Board Of Equalization: 44-027812
 Referral Date: Not reported
 Action Date: Not reported
 Created Date: Not reported
 Owner Tank Id: Not reported
 SWRCB Tank Id: 01-000-006278-000001
 Tank Status: Not reported
 Capacity: 6000
 Active Date: Not reported
 Tank Use: UNKNOWN
 STG: WASTE
 Content: Not reported
 Number Of Tanks: 3

Status: Not reported
 Comp Number: 6278
 Number: Not reported
 Board Of Equalization: 44-027812
 Referral Date: Not reported
 Action Date: Not reported
 Created Date: Not reported
 Owner Tank Id: Not reported
 SWRCB Tank Id: 01-000-006278-000002
 Tank Status: Not reported
 Capacity: 6000
 Active Date: Not reported
 Tank Use: UNKNOWN

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN CORP. 7-178-01 (Continued)

1000224433

STG: WASTE
Content: Not reported
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 6278
Number: Not reported
Board Of Equalization: 44-027812
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 01-000-006278-000003
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: UNKNOWN
STG: PRODUCT
Content: Not reported
Number Of Tanks: Not reported

Status: Active
Comp Number: 6278
Number: 1
Board Of Equalization: 44-027812
Referral Date: 01-07-94
Action Date: 05-03-94
Created Date: 02-29-88
Owner Tank Id: WASTE
SWRCB Tank Id: 01-000-006278-000004
Tank Status: A
Capacity: 12000
Active Date: 01-07-94
Tank Use: CHEMICAL
STG: W
Content: MINERAL SPIR
Number Of Tanks: 2

Status: Active
Comp Number: 6278
Number: 1
Board Of Equalization: 44-027812
Referral Date: 01-07-94
Action Date: 05-03-94
Created Date: 02-29-88
Owner Tank Id: PRODUCT
SWRCB Tank Id: 01-000-006278-000005
Tank Status: A
Capacity: 12000
Active Date: 01-07-94
Tank Use: CHEMICAL
STG: P
Content: MINERAL SPIR
Number Of Tanks: Not reported

HIST UST:

File Number: 000362E6

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN CORP. 7-178-01 (Continued)

1000224433

URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/000362E6.pdf>
Region: STATE
Facility ID: 00000006278
Facility Type: Other
Other Type: PARTS WASHER SERVICE
Contact Name: STEVE NEVES
Telephone: 3126978460
Owner Name: SAFETY-KLEEN CORP.
Owner Address: 655 BIG TIMBER ROAD
Owner City,St,Zip: ELGIN, IL 60120
Total Tanks: 0003

Tank Num: 001
Container Num: 01
Year Installed: 1970
Tank Capacity: 00006000
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: .25
Leak Detection: Visual, Stock Inventor

Tank Num: 002
Container Num: 02
Year Installed: 1970
Tank Capacity: 00006000
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: .25
Leak Detection: Visual, Stock Inventor

Tank Num: 003
Container Num: 03
Year Installed: 1971
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Container Construction Thickness: .25
Leak Detection: Visual, Stock Inventor

Click here for Geo Tracker PDF:

CA FID UST:

Facility ID: 01002099
Regulated By: UTKNI
Regulated ID: 00006278
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 3126978460
Mail To: Not reported
Mailing Address: 655 BIG TIMBER RD
Mailing Address 2: Not reported
Mailing City,St,Zip: OAKLAND 94607
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN CORP. 7-178-01 (Continued)

1000224433

Comments: Not reported
Status: Inactive

CA Financial Assurance 1:

EPA ID Number: CAD053044053
Sudden Amount1: \$2,000,000.00
Non Sudden Amount1: Not reported
Closure Mechanism: Not reported
Closure Amount: Not reported
Post Closure Mechanism: Not reported
Post Closure Amount: Not reported
Corrective Action Mechanism: Ins
Corrective Action Amount: \$280,265.00
Sudden Mechanism Type: Ins
Sudden Mechanism Amount: \$1,000,000.00
Non Sudden Mechanism Type: Not reported
Non Sudden Mechanism Amount: Not reported
O and M Mechanism Type: Not reported
O and M Amount: Not reported
Closure Mechanism Date of Mechanism: Not reported
Closure Mechanism Renewal Date: Not reported
Closure Mechanism Provider: Not reported
Postclosure Mechanism Date of Mechanism: Not reported
Postclosure Mechanism Renewal Date: Not reported
Postclosure Mechanism Provider: Not reported
O and M Mechanism Date of Mechanism: Not reported
O and M Mechanism Renewal Date: Not reported
O and M Mechanism Provider: Not reported
Corrective Action Mechanism Date of Mechanism: 2018-11-17 00:00:00
Corrective Action Mechanism Renewal Date: Not reported
Corrective Action Mechanism Provider: Indian Harbor Insurance Company
Sudden Mechanism Date of Mechanism: 2018-11-01 00:00:00
Sudden Mechanism Renewal Date: Not reported
Sudden Mechanism Provider: Indian Harbor Ins. Co.
Non-Sudden Mechanism Date of Mechanism: Not reported
Non-Sudden Mechanism Renewal Date: Not reported
Non-Sudden Mechanism Provider: Not reported
Date Entered into EnviroStor: 2016-11-21 00:00:00
Authorization Type: Cleanup
Comments: Not reported

HWP:

EPA Id: CAD053044053
Cleanup Status: CLOSED
Latitude: 37.80070
Longitude: -122.2831
Facility Type: Historical - Non-Operating
Facility Size: Not reported
Team: Not reported
Supervisor: Not reported
Site Code: 200191
Assembly District: 18
Senate District: 09
Public Information Officer: Not reported
Public Information Officer: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN CORP. 7-178-01 (Continued)

1000224433

Activities:

EPA Id:	CAD053044053
Facility Type:	Historical - Non-Operating
Unit Names:	Not reported
Event Description:	Renewal - Historical - PUBLIC COMMENT (BEGIN)
Actual Date:	02/24/1995
EPA Id:	CAD053044053
Facility Type:	Historical - Non-Operating
Unit Names:	CONTAIN1 (GPRA Unit)
Event Description:	New Operating Permit - FINAL PERMIT
Actual Date:	02/05/1992
EPA Id:	CAD053044053
Facility Type:	Historical - Non-Operating
Unit Names:	CONTAIN1 (GPRA Unit)
Event Description:	New Operating Permit - APPLICATION PART A RECEIVED
Actual Date:	12/18/1980
EPA Id:	CAD053044053
Facility Type:	Historical - Non-Operating
Unit Names:	CONTAIN1 (GPRA Unit)
Event Description:	New Operating Permit - APPLICATION PART B RECEIVED
Actual Date:	10/01/1988
EPA Id:	CAD053044053
Facility Type:	Historical - Non-Operating
Unit Names:	Not reported
Event Description:	Renewal - Historical - TECHNICAL COMPLETE LETTER
Actual Date:	06/30/2005
EPA Id:	CAD053044053
Facility Type:	Historical - Non-Operating
Unit Names:	CONTAIN1 (GPRA Unit)
Event Description:	New Operating Permit - PUBLIC COMMENT (BEGIN)
Actual Date:	07/19/1991
EPA Id:	CAD053044053
Facility Type:	Historical - Non-Operating
Unit Names:	Not reported
Event Description:	Renewal - Historical - APPLICATION PART B RECEIVED
Actual Date:	02/20/1998
EPA Id:	CAD053044053
Facility Type:	Historical - Non-Operating
Unit Names:	CONTAIN1 (GPRA Unit)
Event Description:	New Operating Permit - FINAL PERMIT (EFFECTIVE)
Actual Date:	03/09/1992
EPA Id:	CAD053044053
Facility Type:	Historical - Non-Operating
Unit Names:	CONTAIN1 (GPRA Unit)
Event Description:	New Operating Permit - TECHNICAL COMPLETE LETTER
Actual Date:	07/19/1991
EPA Id:	CAD053044053
Facility Type:	Historical - Non-Operating

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN CORP. 7-178-01 (Continued)

1000224433

Unit Names: CONTAIN1 (GPRA Unit)
Event Description: New Operating Permit - CALL-IN LETTER ISSUED
Actual Date: 02/09/1983

Closure:
EPA Id: CAD053044053
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1 (GPRA Unit), CONTAIN2 (GPRA Unit), TANKSTR1 (GPRA Unit),
TANKTRT1 (GPRA Unit)
Event Description: Closure Final - RECEIVE CLOSURE CERTIFICATION
Actual Date: 08/17/2007

EPA Id: CAD053044053
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1 (GPRA Unit), CONTAIN2 (GPRA Unit), TANKSTR1 (GPRA Unit),
TANKTRT1 (GPRA Unit)
Event Description: Closure Final - ISSUE CLOSURE VERIFICATION
Actual Date: 10/26/2007

Alias:
EPA Id: CAD053044053
Facility Type: Historical - Non-Operating
Alias Type: FRS
Alias: 110002334046

EPA Id: CAD053044053
Facility Type: Historical - Non-Operating
Alias Type: Project Code (Site Code)
Alias: 200191

CERS TANKS:
Site ID: 217941
CERS ID: CAD053044053
CERS Description: Hazardous Waste

Evaluation:
Eval General Type: Information Request
Eval Date: 02-08-2007
Violations Found: No
Eval Type: DTSC Financial Records Review
Eval Notes: Financial Records Review - Treatment, Storage and Disposal
Eval Division: Department of Toxic Substances Control
Eval Program: DTSC_ENF
Eval Source: ENVSTORHAZ

Eval General Type: Compliance Followup Inspection
Eval Date: 04-22-2004
Violations Found: No
Eval Type: DTSC Follow-up Inspection
Eval Notes: Follow-up Inspection - Treatment, Storage and Disposal
Eval Division: Department of Toxic Substances Control
Eval Program: DTSC_ENF
Eval Source: ENVSTORHAZ

Eval General Type: Compliance Evaluation Inspection

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN CORP. 7-178-01 (Continued)

1000224433

Eval Date: 06-27-2005
Violations Found: Yes
Eval Type: DTSC Compliance Evaluation Inspection
Eval Notes: Compliance Evaluation Inspection - Treatment, Storage and Disposal
Return To Compliance: 2005-06-28 00:00:00
Eval Division: Department of Toxic Substances Control
Eval Program: DTSC_ENF
Eval Source: ENVSTORHAZ

Eval General Type: Information Request
Eval Date: 06-30-2003
Violations Found: No
Eval Type: DTSC Financial Records Review
Eval Notes: Financial Records Review - Treatment, Storage and Disposal
Eval Division: Department of Toxic Substances Control
Eval Program: DTSC_ENF
Eval Source: ENVSTORHAZ

Eval General Type: Information Request
Eval Date: 10-29-2002
Violations Found: No
Eval Type: DTSC Financial Records Review
Eval Notes: Financial Records Review - Treatment, Storage and Disposal
Eval Division: Department of Toxic Substances Control
Eval Program: DTSC_ENF
Eval Source: ENVSTORHAZ

Eval General Type: Compliance Followup Inspection
Eval Date: 03-22-2002
Violations Found: Yes
Eval Type: DTSC Follow-up Inspection
Eval Notes: Follow-up Inspection - Treatment, Storage and Disposal Return To
Compliance: 2003-04-07 00:00:00
Eval Division: Department of Toxic Substances Control
Eval Program: DTSC_ENF
Eval Source: ENVSTORHAZ

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-29-2002
Violations Found: Yes
Eval Type: DTSC Compliance Evaluation Inspection
Eval Notes: Compliance Evaluation Inspection - Treatment, Storage and Disposal
Return To Compliance: 2004-01-09 00:00:00
Eval Division: Department of Toxic Substances Control
Eval Program: DTSC_ENF
Eval Source: ENVSTORHAZ

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-23-2007
Violations Found: Yes
Eval Type: DTSC Compliance Evaluation Inspection
Eval Notes: Compliance Evaluation Inspection - Treatment, Storage and Disposal
Return To Compliance: 2007-01-24 00:00:00
Eval Division: Department of Toxic Substances Control
Eval Program: DTSC_ENF
Eval Source: ENVSTORHAZ

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN CORP. 7-178-01 (Continued)

1000224433

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-20-2000
Violations Found: Yes
Eval Type: DTSC Compliance Evaluation Inspection
Eval Notes: Compliance Evaluation Inspection - Treatment, Storage and Disposal
Return To Compliance: 2003-04-07 00:00:00
Eval Division: Department of Toxic Substances Control
Eval Program: DTSC_ENF
Eval Source: ENVSTORHAZ

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-28-2000
Violations Found: No
Eval Type: DTSC Compliance Evaluation Inspection
Eval Notes: Compliance Evaluation Inspection - Transporter
Eval Division: Department of Toxic Substances Control
Eval Program: DTSC_ENF
Eval Source: ENVSTORHAZ

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-18-2003
Violations Found: No
Eval Type: DTSC Compliance Evaluation Inspection
Eval Notes: Compliance Evaluation Inspection - Treatment, Storage and Disposal
Eval Division: Department of Toxic Substances Control
Eval Program: DTSC_ENF
Eval Source: ENVSTORHAZ

Enforcement Action:
Site ID: 217941
Site Name: SAFETY-KLEEN
Site Address: 400 MARKET ST
Site City: OAKLAND
Site Zip: 946070000
Enf Action Date: 04-07-2003
Enf Action Type: Federal Consent Order with Enforcement and Settlement
Enf Action Description: Federal Consent Order with Enforcement and Settlement
Enf Action Notes: Not reported
Enf Action Division: Department of Toxic Substances Control
Enf Action Program: DTSC_ENF
Enf Action Source: ENVSTORHAZ

Affiliation:
Affiliation Type Desc: Facility Contact
Entity Name: Ruben Martinez
Entity Title: Not reported
Affiliation Address: 400 MARKET ST
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 946070000
Affiliation Phone: 6264010106

Affiliation Type Desc: Facility Owner
Entity Name: SAFETY KLEEN SYSTEMS INC
Entity Title: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

SAFETY-KLEEN CORP. 7-178-01 (Continued)

1000224433

Affiliation Address: 5400 LEGACY DR CLUSTER 2 BLDG 3CLUSTER II BLDG 3
 Affiliation City: PLANO
 Affiliation State: TX
 Affiliation Country: Not reported
 Affiliation Zip: 750240000
 Affiliation Phone: 9722652310

AT219
WNW
1/2-1
0.944 mi.
4982 ft.

SAFETYKLEEN SER CTR
400 MARKET ST
OAKLAND, CA 94607
Site 2 of 3 in cluster AT

ENVIROSTOR **1001407764**
DEED **N/A**
CHMIRS
WDS
CERS

Relative:
Lower
Actual:
15 ft.

ENVIROSTOR:
 Facility ID: 80001412
 Status: Active
 Status Date: 01/01/2008
 Site Code: 200191
 Site Type: Corrective Action
 Site Type Detailed: Corrective Action
 Acres: 0.6
 NPL: NO
 Regulatory Agencies: SMBRP
 Lead Agency: WM
 Program Manager: Janet Naito
 Supervisor: Janet Naito
 Division Branch: Cleanup Berkeley
 Assembly: 18
 Senate: 09
 Special Program: Not reported
 Restricted Use: YES
 Site Mgmt Req: NONE SPECIFIED
 Funding: Not reported
 Latitude: 37.80070
 Longitude: -122.2831
 APN: 001 011300102, 001 011300202
 Past Use: HAZARDOUS WASTE STORAGE - TANKS/CONTAINERS
 Potential COC: Under Investigation Benzene Tetrachloroethylene (PCE
 1,1,1-Trichloroethane (TCA Trichloroethylene (TCE Vinyl chloride
 Chlorobenzene Chloroform 1,2-Dichlorobenzene 1,4-Dichlorobenzene
 Dichlorodifluoromethane 1,1-Dichloroethane 1,2-Dichloroethane (EDC
 1,1-Dichloroethylene 1,2-Dichloroethylene (cis 1,2-Dichloroethylene
 (trans 1,2-Dichloropropane Ethylbenzene Toluene
 Trichlorofluoromethane Xylenes
 Confirmed COC: Trichlorofluoromethane Tetrachloroethylene (PCE
 1,1,1-Trichloroethane (TCA 1,2-Dichlorobenzene 1,1-Dichloroethane
 1,2-Dichloroethane (EDC 1,2-Dichloroethylene (cis
 1,2-Dichloroethylene (trans 1,2-Dichloropropane Toluene
 1,4-Dichlorobenzene Trichloroethylene (TCE Chloroform
 1,1-Dichloroethylene Vinyl chloride
 Potential Description: OTH, SOIL
 Alias Name: Safety Kleen
 Alias Type: Alternate Name
 Alias Name: 001 011300102
 Alias Type: APN
 Alias Name: 001 011300202
 Alias Type: APN

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Alias Name: CAD053044053
Alias Type: EPA Identification Number
Alias Name: 110002334046
Alias Type: EPA (FRS #)
Alias Name: T0600191488
Alias Type: GeoTracker Global ID
Alias Name: 200191
Alias Type: Project Code (Site Code)
Alias Name: 80001412
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/09/2017
Comments: Annual Oversight Cost Estimate letter with enclosures (Activity Schedule and Cost Estimate) of DTSC oversight for 2017/2018 Fiscal Year.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 01/31/2017
Comments: Operation and Maintenance Agreement (OMA), Consultant Project Team Designation Notification. Per Sections 16 and 17 of the OMA (Project Managers/Proponent s Consultant and Contractor), Safety Kleen Systems, Inc. (S-K) is notifying DTSC of its consultant project team for this site. Resumes detailing their experience and qualifications are included as Attachment A. Brian Culnan, P.G, Senior Remediation Manager, will continue to be the S-K Project Manager for this site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Interim Measures Questionnaire
Completed Date: 06/16/1993
Comments: STABILIZATION MEASURES EVALUATION - FACILITY NOT AMENABLE TO STABILIZATION.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Historical Operating Permit Authority
Completed Date: 03/15/1992
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Historical Operating Permit Authority
Completed Date: 03/05/1992
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Agreement
Completed Date: 09/21/2009
Comments: Received signed consent agreement.

Completed Area Name: PROJECT WIDE

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Completed Sub Area Name: Not reported
Completed Document Type: RCRA Facility Assessment Report
Completed Date: 06/01/1993
Comments: Per the 4/6/2000 CMS workplan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: RCRA Facility Assessment Report
Completed Date: 09/27/1990
Comments: RFA Completed - September 27, 1990

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 05/09/2018
Comments: TriHydro letter notifying DTSC of its intent to conduct sub-slab depressurization (SSD) system sampling and operation and maintenance (O&M) activities on May 23, 2018 in accordance with the 1/19/2017 O&M Agreement, 2/5/2016 O&M/MNA Plans, and land use covenant.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 03/22/2017
Comments: Trihydro Corporation (Trihydro), on behalf of Safety-Kleen Systems, Inc. (S-K), conducted sub-slab depressurization (SSD) system sampling and operation and maintenance (O&M) activities at the former S-K Service Center in Oakland, California on March 22, 2017. The event included evaluating that SSD system fans are operating properly, collection of system readings, and collection of a vapor sample from SSD system point SP-2 for laboratory analysis of volatile organic compounds by Method TO-15. Per the Agreement between S-K and DTSC, S-K intends to submit a report summarizing quarterly 2017 SSD system sampling and O&M activities on or before January 31, 2018.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 01/25/2017
Comments: Sub-Slab Depressurization System 2017 Annual Operation Summary (Report); January 23, 2018. During 2017, The Sub-Slab Depressurization (SSD) system was monitored by a qualified environmental professional on a quarterly basis in accordance with the Permit. During quarterly O&M activities, the system was inspected to verify fans were running and providing vacuum as designed. The SSD system remained operable throughout 2017 with no repairs required. Current Permits are included as Attachment A. Analytical laboratory reports for samples collected during 2017 are included as Attachment B. Field notes for the quarterly events are included as Attachment C. Calibration information for the anemometer is included as Attachment D. Safety-Kleen (S-K) intends to conduct quarterly SSD system and O&M and sampling activities in 2018. Per the O&M Agreement, S-K will notify DTSC in writing a minimum of seven days before conducting O&M and sampling activities. S-K intends to submit a report summarizing SSD system O&M and sampling procedures and analytical results to DTSC on or before January 31, 2019.

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Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 07/30/2018
Comments: Report documents well abandonment activities conducted pursuant to the 2/19/2016 Sub-Slab Depressurization System O&M Plan and Monitored Natural Attenuation Plan and overseen by the Alameda County Public Works Agency. The work was performed under the responsible charge of a registered geologist.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 10/16/2017
Comments: Per the requirements of the LUC, S-K performed an onsite LUC compliance inspection on May 3, 2017. The attached Inspection Form (Attachment A) documents site conditions observed during the inspection. During the inspection, the site was observed to be in compliance with the requirements of the LUC. The drilling activity noted on the attached Inspection Form was being performed to abandon groundwater and soil vapor monitoring wells pursuant to DTSC approval.
Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 08/16/2017
Comments: Sub-Slab Depressurization System monitoring event per Operations & Maintenance Plan. Next event is tentatively scheduled for November 2017.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 11/15/2017
Comments: The O&M and Sampling event included evaluating proper operation of Sub-Slab Depressurization System (SSDS) fans, collection of system readings, and collection of a vapor sample from SSDS point SP-2 for laboratory analysis of volatile organic compounds by Method TO-15. Per the O&M Agreement, Safety-Kleen intends to submit a report summarizing quarterly 2017 SSDS sampling and O&M activities on or before January 31, 2018.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 03/14/2018
Comments: SSDS Sampling/O&M fieldwork completed on March 14, 2018. Report to be submitted within 60 days.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 05/09/2018
Comments: Not reported

Completed Area Name: PROJECT WIDE

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Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 12/06/2018
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 03/28/2018
Comments: Notification of Change in DTSC Project Manager as of April 2, 2018.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: RFI Report
Completed Date: 05/20/1996
Comments: RCRA FACILITY INVESTIGATION (RFI) REPORT, March 27, 1996. The focus of the RFI activities was to define the presence and extent of potential impacts associated with SWMUs (Solid Waste Management Units) and AOC (Area of Concern) and on collecting data to evaluate potential corrective measures. Safety-Kleen believes that the site characterization activities which have been completed adequately assess the subsurface in the vicinity of SWMU No. 2, SWMU No. 3, and AOC No. 1. Investigation of SWMU No. 1 will be conducted as part of facility closure or partial closure activity. Safety-Kleen does not propose to conduct additional site characterization work at this time. Safety-Kleen requests that the soil vapor extraction (SVE) system be considered the final interim corrective measure. The operation of the SVE system and the product recovery system is continuing Safety-Kleen will not initiate groundwater extraction and treatment at this time due to the encroaching VOC plume. Groundwater extraction will only be considered when mitigation of the upgradient source the VOCs has been performed by the responsible parties.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: RFI Workplan
Completed Date: 02/23/1996
Comments: RCRA FACILITY INVESTIGATION (RFI) WORKPLAN, February 1, 1996. The RFI Work Plan summarizes site characterization work conducted at the Site through February 1996 for the Area of Concern (AOC) and Solid Waste Management Units (SWMUs) identified in the RCRA Facility Assessment (RFA) Report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Workplan
Completed Date: 12/15/2009
Comments: The RA Work Plan is approved, but additional characterization may be necessary. RFI Report was under review at the time of the RA Work Plan approval.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 09/30/2009
Comments: Review complete - no letter sent w/

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SAFETYKLEEN SER CTR (Continued)

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Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/26/2011
Comments: Annual Oversight Cost Estimate letter with enclosures (Activity Schedule and Cost Estimate) of DTSC oversight for 2011/2012 Fiscal Year.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 10/17/2017
Comments: Pursuant to the September 21, 2009 Corrective Action Consent Agreement (CACA), the Department of Toxic Substances Control (DTSC) issues this RCRA Corrective Action Completion Determination for the Safety-Kleen Systems, Incorporated (S-K) property located at 400 Market Street, Oakland, Alameda County, California 94607 (Site). S-K is the owner of the Site. On October 17, 2017, DTSC issued a Cleanup Complete (CC) determination that Cleanup Complete - Controls Required Long Term Stewardship has been achieved. The facility was completely characterized and assessed with respect to all media onsite and offsite (if applicable), and not all media met cleanup requirements. Noncompliant media were remediated so that no further operation of engineered remedies is required for industrial land use. Nevertheless, some amount of hazardous waste still remains beneath the facility and limited periodic examination and care are required to continue into the long-term future to ensure that certain installed engineered barriers, covers, caps, fences, signage, etc. and certain active and/or passive remedies, e.g., SSDS and MNA, remain efficacious. A No Further Action Determination is not applicable.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedy Selection and Statement of Basis
Completed Date: 09/25/2015
Comments: The selected remedy for the site includes monitored natural attenuation for ground water and a sub-slab depressurization system for soil gas beneath the building.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Groundwater Migration Controlled
Completed Date: 06/30/2015
Comments: DTSC determined that migration of contaminated groundwater has stabilized and that groundwater monitoring will be conducted to confirm that the groundwater plume is naturally attenuating.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Ready for Anticipated Use
Completed Date: 05/04/2018
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report

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Completed Date: 11/06/2018
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 03/15/2016
Comments: Sub-slab depressurization (SSD) system sampling and operation and maintenance (O&M) activities, performed in accordance with the Sub-Slab Depressurization System Operation and Maintenance Plan and Monitored Natural Attenuation Plan, including verifying SSD system fans are operating properly, collection of system readings, and collection of a vapor sample from SSD system point SP-2 for laboratory analysis of volatile organic compounds by Method TO-15.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 06/22/2016
Comments: Sub-slab depressurization (SSD) system sampling and operation and maintenance (O&M) activities, performed in accordance with the Sub-Slab Depressurization System Operation and Maintenance Plan and Monitored Natural Attenuation Plan, including verifying SSD system fans are operating properly, collection of system readings, and collection of a vapor sample from SSD system point SP-2 for laboratory analysis of volatile organic compounds by Method TO-15.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 09/14/2016
Comments: Sub-slab depressurization (SSD) system sampling and operation and maintenance (O&M) activities, performed in accordance with the Sub-Slab Depressurization System Operation and Maintenance Plan and Monitored Natural Attenuation Plan, including verifying SSD system fans are operating properly, collection of system readings, and collection of a vapor sample from SSD system point SP-2 for laboratory analysis of volatile organic compounds by Method TO-15.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 03/14/2018
Comments: Soil vapor wells abandonment fieldwork completed on March 14, 2018. Report to be submitted within 60 days.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 10/26/2007
Comments: Facility Closure Certification Acknowledgment. This letter is to inform Safety-Kleen Systems, Inc. that DTSC now considers the Hazardous Waste Management Unites (HWMUs) at the facility closed and acknowledges the Closure Certification submitted on August 20, 2007.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

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Completed Document Type: *Correspondence - Received
Completed Date: 10/23/2009
Comments: The Initial Response required by the CACA included notification of Project Coordinator and summary of qualifications of contractors and consultants. The Response was accepted and a requested alternate schedule for progress report submittals was approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/23/2010
Comments: Review complete - Letter sent requesting repair or replacement of upgradient well and repair of wells compromised by roots.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: RFI Workplan
Completed Date: 06/29/2011
Comments: RCRA FACILITY INVESTIGATION (RFI) WORK PLAN, May 20, 2011. This RFI Work Plan proposes further activities to characterize groundwater impacts on the upgradient portion of the Site and proposes a soil gas survey for the purpose of conducting a future human health risk assessment. According to DTSC's February 2010 correspondence, when Site characterization is deemed complete, S-K will continue with previously proposed risk assessment activities, with formal approval by the DTSC. S-K proposes installing and sampling twelve soil vapor wells near the former service center to estimate potential vapor intrusion impacts and additional groundwater investigation activities to further characterize impacts in the upgradient portion of the Site. Proposed groundwater investigation and soil gas survey activities are further discussed in Sections 5.4.4 and 5.4.5 respectively.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Soils Management Plan
Completed Date: 03/23/2010
Comments: Review Complete - The Soil Management Plan and Health and Safety Plan were submitted by Safety-Kleen but not requested by DTSC. DTSC made comments on both documents in the event future excavations occur on the site. The plans do not apply to any specific project on the site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 05/03/2010
Comments: Notification of upcoming groundwater sampling. No DTSC response required.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 05/03/2010
Comments: Quarterly Progress Report submitted. No DTSC comments required.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

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Completed Document Type: Monitoring Report
Completed Date: 05/19/2011
Comments: Quarterly Progress Report (October through December 2010). This report summarizes activities conducted as part of the RFI/CMS at the Site and presents the procedures and results of the November 2010 semiannual groundwater monitoring event. The semiannual groundwater monitoring event was conducted at the S-K Service Center located in Oakland, California on November 15, 2010. The monitoring event included gauging fluid levels in the nine facility monitoring wells, and collecting and submitting groundwater quality samples for analysis of VOCs and TPH-MS from monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-8, and MW-11.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/12/2011
Comments: Quarterly Progress Report (April through June 2011). The report presents the results of the most recent groundwater monitoring event conducted in May 2011. The semiannual groundwater monitoring event included collection of groundwater measurements and samples from wells (MW-1 through MW-5, MW-8, and MW-11). Fluid levels were gauged in each of the wells at the facility, and groundwater samples were analyzed for volatile organic constituents (VOCs) and total petroleum hydrocarbons reported as mineral spirits (TPH-MS).

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: RFI Report
Completed Date: 09/28/2012
Comments: Final Revised RCRA Facility Investigation Report. Elevated PCE concentrations in soil gas near office. TPH-MS & TPH-D concentrations elevated in GW near former USTs. RP to install new GW monitoring well in this area & conduct in-door air sampling. New RFI Workplan addendum & report to follow, prior to CMS which will include any needed remedy, O&M, and LUC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 01/13/2011
Comments: Summary of actions taken in prior quarter.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 07/30/2010
Comments: Quarterly Summary Report submitted. No DTSC comments.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 11/04/2011
Comments: RFI Fieldwork (Quarterly GW Monitoring).

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

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Completed Document Type: Risk Assessment Report
Completed Date: 09/04/2012
Comments: Revised Risk Assessment Report. The conservative RA performed for the site indicated potential site-related risks and hazards above target levels for some chemicals in soil, groundwater, and soil vapor. Specifically, elevated risk and hazard estimates for onsite receptors were associated with benzo(a)pyrene in soil, TPHms in groundwater, and 1,2,4-trimethylbenzene, benzene, and ethylbenzene in soil vapor. 1,4-Dichlorobenzene and PCE in soil vapor also contributed, but to a lesser extent, to the elevated risk estimates. Offsite risks that were considered to be potentially site-related were mainly due to 1,2-DCA, PCE, and 1,1-DCA in groundwater. Each of the exposure scenarios associated with these elevated risks and hazards is further discussed within the Report. Target concentrations for chemicals in onsite groundwater and soil vapor were developed to assist with future site monitoring and management decisions. Based on recent comments from DTSC (2012b) for another S-K site in California, single chemical values, rather than multiple chemical adjusted values, were calculated. Target concentrations were determined by identifying the concentrations of each chemical in groundwater or soil vapor that would result in a risk estimate of 10⁻⁶ or a hazard quotient of 1 (whichever was lower). These values could be used to determine when operation of the SSD system, or continuation of long-term monitoring, is no longer necessary, or to assist with remedial or mitigation efforts in the event of a future land use change. Target groundwater and soil vapor concentrations are shown in Table 26, and summarized within the Report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 08/17/2007
Comments: FACILITY CLOSURE CERTIFICATION REPORT. Closure Certification Statement. The following hazardous waste management units (HWMUs) at the facility were closed in general accordance with the approved closure plan: One 12,000-gallon underground tank used for the storage of spent mineral spirits, Two drum washer units within the return/fill station (1,432-gallon capacity), Two container storage areas (8,254-gallon capacity).

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 10/24/2006
Comments: FACILITY CLOSURE WORKPLAN, September 21, 2006. Resource Conservation Recovery Act (RCRA) closure activities are anticipated to occur in 2006. Closure of this facility will include decontamination of the hazardous waste management units (HWMUs). The maximum waste inventory at the facility is 21,754 gallons based on the HWMUs capacities: Tank Storage: One nominal 12,000-gallon double-walled UST (underground storage tank) used to store spent parts washer solvent. Return/Fill Shelter: Two drum washer units and the Return/Fill Shelter (maximum of 1,500 gallons of sediment). Container Storage: Two container storage areas with a total waste storage capacity of 8,254 gallons.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

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Completed Document Type: Corrective Measures Study Workplan
Completed Date: 04/06/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Corrective Measures Study Workplan Addendum
Completed Date: 11/27/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 05/02/2011
Comments: Summary report for Jan-March 2011. RP submitted draft reports during this period.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Work Notice
Completed Date: 10/10/2011
Comments: WN hand-delivered by RP contractor 10/12/11.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 01/16/2012
Comments: GW monitoring for RFI (2nd Event). Second consecutive quarter of groundwater monitoring activities the week of January 16, 2012.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 10/20/2011
Comments: Quarterly Progress Report (July through September 2011). Per DTSC's formal request and in accordance with the CACA, Safety-Kleen Systems, Inc. (S-K) submitted an RFI Work Plan and two additional revised work plans between April 9, 2010 and May 20, 2011. S-K provided an additional RFI Work Plan Addendum to DTSC on July 8, 2011. DTSC issued formal approval of the RFI Work Plan in a letter dated July 12, 2011. Pursuant to previous notifications, S-K is scheduled to commence the additional RFI field activities the week of October 24, 2011. S-K will report the findings of the RFI in general accordance with the project schedule presented in the DYSC-approved RFI Work Plan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 01/25/2012
Comments: Quarterly Progress Report (October through December 2011). Safety-Kleen Systems, Inc. (S-K) initiated RFI field activities the week of October 24, 2011 and completed the second consecutive quarter of groundwater monitoring activities the week of January 16, 2012.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

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Completed Document Type: Other Report
Completed Date: 04/24/2012
Comments: Quarterly Progress Report (January through March 2012). Safety-Kleen Systems, Inc. (S-K) initiated RFI field activities the week of October 24, 2011 and completed field activities on January 30, 2012. Per previous agreements with DTSC, an RFI Report and a Risk Assessment Report were submitted on March 13, 2012 and April 13, 2012, respectively.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 07/30/2012
Comments: Quarterly Progress Report (April through June 2012). Per DTSC's formal requests and in accordance with the CACA, Safety-Kleen Systems, Inc. (S-K) submitted an RFI Work Plan and two additional revised work plans between April 9, 2010 and May 20, 2011. S-K provided an additional RFI Work Plan Addendum to DTSC on July 8, 2011. DTSC issued formal approval of the RFI Work Plan in a letter dated July 12, 2011. S-K initiated RFI field activities the week of October 24, 2011 and completed field activities on January 30, 2012. Per previous agreements with DTSC, an RFI Report and a Risk Assessment Report were submitted on March 13, 2012 and April 13, 2012, respectively. S-K provided responses to DTSC comments, for both the RFI and risk assessment, in submittals dated June 15, 2012.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Corrective Measures Study Workplan
Completed Date: 04/14/2014
Comments: Final Revised Corrective Measures Study Work Plan. Groundwater monitoring to evaluate the effectiveness of monitored natural attenuation will be conducted.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: RFI Workplan Addendum
Completed Date: 01/28/2013
Comments: add 1 well & conduct indoor air monitoring

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: RFI Report
Completed Date: 08/20/2013
Comments: Revised RFI Report Addendum. The RFI Addendum field investigation was conducted pursuant to the December 2012 RFI Work Plan Addendum. Additional groundwater data at the facility has been further characterized and an indoor air investigation was completed to further evaluate the effectiveness of the SSD system. PCE and TCE, the two primary constituents of concern identified during 2011/2012 soil gas sampling, were not detected in the March 2013 indoor air samples. Acrolein, benzene, and carbon tetrachloride were detected in indoor air above RSLs, but at similar concentrations to background. Chloroform was detected in three indoor air samples above the residential RSL but below the industrial RSL. Chloroform is commonly detected in indoor air and often attributed to use of water from chlorine treated water systems. Ethylbenzene was detected above the

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residential RSL, but also below the industrial RSL in all samples. Potential indoor air sources of ethylbenzene include paint, paint thinner, wood office furniture, scented candles, and gasoline. Information provided in the September 2012 RFI Report indicated the current SSD system met industry standard pressure differential benchmarks within the building. Evaluation of the March 2013 indoor air data further supports the SSD system is effective in mitigating potential vapor intrusion attributable to soil gas impacts beneath the building. March 2013 groundwater data was generally consistent with historical results. It should be noted that the March 2013 TPH-MS concentration in the sample collected from well MW-14 (2.11 mg/L) was lower than the October 2011 grab groundwater sample concentration (7.66 mg/L) collected in the same vicinity. However, the March 2013 concentration still exceeds the target level of 1.0 mg/L identified in the Revised Risk Assessment Report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 10/29/2012
Comments: Quarterly Progress Report (July through September 2012). Per DTSC's formal requests and in accordance with the CACA, Safety-Kleen Systems, Inc. (S-K) submitted a Final Revised RFI Report on September 17, 2012. DTSC formally approved the Report in a memorandum dated September 28, 2012. In accordance with DTSC's request in the September 2012 memorandum, S-K intends to submit an RFI Work Plan Addendum for installing an additional groundwater monitoring well and conducting indoor air monitoring no later than November 2, 2012.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Work Notice
Completed Date: 02/13/2013
Comments: The work will begin February 25, 2013 between 7:30 A.M. and 5:30 P.M. This work will take approximately three to five days to complete. Work activities will include the following: Two vehicles and approximately two staff to collect samples; Drilling equipment; and The use of portable pump equipment to extract water samples. There should be no significant disruption of traffic, dust, or other nuisances associated with this work. This work will be done according to a Work Plan which has been reviewed and approved by DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 02/06/2013
Comments: Quarterly Progress Report (October through December 2012). Safety-Kleen Systems, Inc. (S-K) submitted an RFI Work Plan Addendum and a Revised RFI Work Plan Addendum for installing an additional groundwater monitoring well and conducting indoor air monitoring on November 2, 2013 and December 26, 2012, respectively. S-K received formal DTSC approval of the December 2012 Revised Work Plan in a memorandum dated January 28, 2013. S-K anticipates working with DTSC to finalize RFI field scheduling during the January through March 2013 quarter.

Completed Area Name: PROJECT WIDE

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Direction
Distance
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SAFETYKLEEN SER CTR (Continued)

1001407764

Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 04/02/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 04/16/2013
Comments: Quarterly Progress Report (January through March 2013). Safety-Kleen Systems, Inc. (S-K) received formal DTSC approval of the December 2012 Revised Work Plan in a memorandum dated January 28, 2013. S-K finalized the additional RFI field activities (additional groundwater monitoring and indoor air sampling) during the week of March 25, 2013, and anticipates submitting a RFI Report Addendum within 45 days receipt of complete and accurate laboratory data.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 06/17/2015
Comments: Public Notice for CMS to be run in the Oakland Tribune on June 25, 2015

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 07/30/2013
Comments: Quarterly Progress Report (April through June 2013). Safety-Kleen Systems, Inc. (S-K) submitted the RFI Report Addendum to DTSC on June 24, 2013, and received DTSC comments on July 29, 2013. S-K intends to resubmit the RFI Report Addendum on or before August 12, 2013.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Corrective Measures Study Report
Completed Date: 09/25/2015
Comments: The selected remedy for the site includes monitored natural attenuation for ground water and a sub-slab depressurization system for soil gas beneath the building.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 04/15/2014
Comments: Fieldwork per CMS Workplan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 06/17/2015
Comments: Fact Sheet for CMS to be mailed to mailing list by June 22

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 01/31/2014

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EPA ID Number

SAFETYKLEEN SER CTR (Continued)

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Comments: Quarterly Progress Report (October through December 2013). Safety-Kleen Systems, Inc. (S-K) submitted a Corrective Measures Study Work Plan to DTSC on October 22, 2013 and received DTSC comments in a December 17, 2013 memorandum. S-K anticipates submitting a Revised Corrective Measures Study Work Plan to DTSC on or before February 17, 2014.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 07/09/2014
Comments: Fieldwork per CMS Workplan. Occurred the weeks of April 14 and July 7, 2014.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 07/10/2014
Comments: Quarterly Progress Report (April through June 2014). Per the approved CMS Work Plan, Safety-Kleen Systems, Inc. (S-K) performed a groundwater sampling event the week of April 14, 2014, and implemented the second consecutive quarterly event the week of July 7, 2014. As documented in the June 27, 2014 Field Activity Notification Letter, S-K intends to submit a summary of the data collected during the April and July 2014 monitoring events, on or before September 1, 2014, to the DTSC. The submittal will contain recommendations to whether two additional consecutive quarterly groundwater monitoring events are needed as part of the CMS.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 02/16/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Order
Completed Date: 02/18/2011
Comments: CONSENT ORDER, executed 2/8/2011, between DTSC and Safety-Kleen Systems, Inc.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Human Exposure Controlled
Completed Date: 07/03/2012
Comments: Documentation of Environmental Indicator Determination, RCRA Corrective Action, Environmental Indicator (EI) RCRIS code (CA725), Current Human Exposures Under Control. "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in RA Report, current human exposures are expected to be under control at the Safety-Kleen Site under current and reasonably expected conditions (400 Market Street, Oakland, CA, CAD053044053).

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report

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Completed Date: 09/18/2014
 Comments: Corrective Measures Study Update. Per the April 2014 DTSC-approved CMS Work Plan, Safety-Kleen Systems, Inc. (S-K) and DTSC agreed to evaluate data from a minimum of two consecutive quarterly groundwater monitoring events in April 2014 and July 2014. Pending results of the April and July 2014 monitoring events, S-K and DTSC would determine if two additional quarterly events are appropriate to evaluate monitored natural attenuation (MNA) as a remedial strategy for the site. The purpose of this letter report is to present the data collected during the April 2014 and July 2014 CMS quarterly groundwater monitoring events, and reach concurrence with DTSC on a path forward in finalizing submittal of the CMS Report. S-K believes that data presented in this letter report shows ample and appropriate evidence that MNA is a strong remedial option and would prefer to move forward with submittal of the CMS Report. If DTSC agrees that two additional quarterly MNA events are not necessary to complete the CMS, S-K intends to submit the CMS Report within 30 days of receiving formal DTSC concurrence. In the event that DTSC prefers additional information for evaluating MNA, the CMS will progress in general accordance with the timeline in the approved CMS Work Plan (two additional quarterly monitoring events and submittal of the CMS Report on or before March 31, 2015). DTSC approves the Update and agrees that no further monitoring for MNA evaluation is necessary.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: Other Report
 Completed Date: 10/15/2014
 Comments: Quarterly Progress Report (July through September 2014). Per the approved CMS Work Plan, Safety-Kleen Systems, Inc. (S-K) performed two consecutive quarterly groundwater-sampling events the weeks of April 14, 2014, and July 7, 2014. S-K submitted an August 29, 2014, letter style CMS Update Report to DTSC, documenting results of April and July 2014 field activities, and a recommendation that the two additional consecutive quarters of groundwater sampling were not necessary to move forward with the CMS report. DTSC approved the CMS Update Report in a letter dated September 18, 2014, and requested that S-K provide a formal CMS Report. S-K intends to submit the CMS Report to DTSC on or before October 17, 2014.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: Other Report
 Completed Date: 01/16/2014
 Comments: Quarterly Progress Report (October through December 2014). Safety-Kleen Systems, Inc. (S-K) submitted the CMS Report to DTSC on October 15, 2014. DTSC provided comments on the CMS report in an email dated December 2, 2014, and S-K submitted a revised electronic version of the CMS report on December 24, 2014. S-K anticipates receiving DTSC approval and/or comments on the revised December 2014 CMS report during the January through March 2015 reporting period.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: Community Profile
 Completed Date: 06/23/2015
 Comments: Not reported

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SAFETYKLEEN SER CTR (Continued)

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Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: Other Report
 Completed Date: 05/08/2015
 Comments: Report documents activities which occurred in the last quarter.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: Other Report
 Completed Date: 08/20/2015
 Comments: Quarterly Progress report, no DTSC comments

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: Operations and Maintenance Plan
 Completed Date: 02/23/2016
 Comments: Sub-Slab Depressurization System Operation and Maintenance Plan and Monitored Natural Attenuation Plan (Plan), dated February 19, 2016, for Former Safety-Kleen Systems, Inc. (S-K) Service Center, located at 400 Market Street, Oakland, California. Plan approved by DTSC letter, dated February 23, 2016. Plan documents an operation and maintenance (O&M) plan for the existing sub-slab depressurization system (SSDS) and contains planned activities for long-term monitored natural attenuation (MNA) for groundwater at the site. Plan Appendices include the SSDS Technical Memorandum, Bay Area Air Quality Management District Authority to Operate Permit, SSDS Standard Operating Procedure, and Revised Standardized Sampling and Analysis Plan. The active SSDS reduces the potential for vapor intrusion by creating a negative pressure differential that reverses the direction of airflow inside a structure (i.e. intrusion to extrusion) and dilutes the indoor air with additional ambient air. A figure showing the SSDS layout is provided as Figure 3. A Technical Memorandum describing the SSDS design and installation, along with further information, is included as Appendix A. A field log will be kept to document maintenance, repairs, and replacements performed on the SSDS. A schedule for planned O&M visits and quarterly sampling is presented in Table 1. Field readings and laboratory data are evaluated every quarter to confirm emission rates are within BAAQMD Permit limits. Field readings and data are kept available and on file per current BAAQMD Permit conditions. S-K will submit a summary of field readings and results to the DTSC on an annual basis. Quarterly laboratory data, field readings, and equipment replacement information will be submitted to DTSC on or before the last day of January of each calendar year. Natural attenuation involves the breakdown of constituents of concern (COCs) by microbial degradation processes. MNA includes monitoring the groundwater conditions that indicate natural attenuation is occurring. As part of the approved remedy for the site, S-K will evaluate attainment of cleanup levels in groundwater by conducting routine groundwater monitoring at the site once every five years, with an estimated time frame of fifteen years (4 events total over estimated 15 years). Consistent with the Corrective Measures Study (CMS), S-K will gauge and sample monitoring wells MW-1, MW-2R, MW-3, MW-4, MW-8R, MW-11R, and MW-14, during each monitoring event. Groundwater samples will be submitted for VOCs, TPH-MS, and TPH-D. S-K will implement the first MNA event within 60 days of DTSC approval of this document, with the following three events occurring approximately every five years. S-K will evaluate

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and compare groundwater data to the corrective action objectives (CAOs) defined by the CMS. S-K will submit groundwater-sampling reports to the DTSC, for each event, within 60 days receipt of complete and accurate laboratory data. A proposed schedule for groundwater sampling is presented in Table 2. S-K proposes to abandon monitoring wells MW-5, MW-6 and MW-12 because they are no longer included in the monitoring plan. Additionally, S-K proposes to plug and abandon soil gas wells SVW-1, SVW-2, SVW-3, SVW-6, SVW-7, SVW-8, and SVW-9 as they were utilized for the previous RFI activities. S-K will leave soil gas wells SVW-4, SVW-5, SVW-10, SVW-11, and SVW-12 in place in the event future soil gas sampling on the perimeter of the building is warranted. A figure showing proposed abandonment locations is provided as Figure 4.

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Fieldwork

Completed Date: 05/03/2017

Comments: On April 19, 2017, Safety-Kleen Systems, Inc. (S-K) obtained all necessary permits from the City of Oakland for well abandonment activities approved in the February 2016 Sub-Slab Depressurization System Operation and Maintenance Plan and Monitored Natural Attenuation Plan. S-K performed well abandonment activities on May 2 and 3, 2017, per the April 24, 2017 Monitoring Well Abandonment Field Activity Notification letter submitted to DTSC. S-K plans to submit a brief letter-style report, documenting well abandonment, within 60 days of completion of activities (July 2, 2017). DTSC provided field oversight of the fieldwork activities on May 2/3, 2017.

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Fieldwork

Completed Date: 07/01/2016

Comments: The monitoring event included water level measurements and/or sampling of groundwater monitoring wells MW-1, MW-2R, MW-3, MW-4, MW-8R, MW-11R, and MW-14. Groundwater samples were analyzed for volatile organic compounds (VOCs) by EPA Method 8260B and total petroleum hydrocarbons reported as mineral spirits and diesel (TPH-MS and TPH-D) by EPA Method 8015.

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Removal Action Completion Report

Completed Date: 07/07/2017

Comments: Monitoring Well Abandonment Activity Summary, dated June 29, 2017, documents the removal and abandonment of three groundwater monitoring wells (MW-5, MW-6, and MW-12) and four soil vapor monitoring wells (SVW-6, SVW-7, SVW-8, and SVW-9) at the site. Note, three soil vapor monitoring wells (SVW-1, SVW-2, and SVW-3) designated for abandonment were inaccessible during May 2017 field activities due to a homeless encampment (Figure 2). S-K intends to conduct a quarterly sub-slab depressurization system sampling and operation/maintenance event in August 2017. S-K will evaluate potential accessibility of soil vapor wells SVW-1, SVW-2, and SVW-3 for future abandonment during quarterly site visits.

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Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 12/02/2016
Comments: Safety-Kleen Systems, Inc. conducted groundwater monitoring in June 2016 to further evaluate monitored natural attenuation (MNA) in groundwater as part of the DTSC-approved remedy. The groundwater monitoring (GWM) report summarizes procedures and results of the June 2016 groundwater monitoring event. The June 2016 GWM data are generally consistent with information provided in previous reports. Anaerobic biodegradation of contaminants of concern at the Site is ongoing, as concentrations continue to decrease from historical levels. Per the DTSC-approved MNA Work Plan, the next groundwater monitoring event for the Site is scheduled for June 2021.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 12/07/2016
Comments: Sub-slab depressurization (SSD) system sampling and operation and maintenance (O&M) activities, performed in accordance with the Sub-Slab Depressurization System Operation and Maintenance Plan and Monitored Natural Attenuation Plan, including verifying SSD system fans are operating properly, collection of system readings, and collection of a vapor sample from SSD system point SP-2 for laboratory analysis of volatile organic compounds by Method TO-15.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 05/05/2017
Comments: Revised Sub-Slab Depressurization System 2016 Annual Operation Summary (Report), May 4, 2017. The Sub-Slab Depressurization (SSD) system was monitored and sampled by a qualified environmental professional in 2016 on a quarterly basis in accordance with the Permit. During quarterly O&M activities, the system was inspected to verify fans were running and providing vacuum as designed. Safety-Kleen Systems, Inc. (S-K) observed that the fan attached to riser SP-1 was inoperable during the June 22, 2016, quarterly O&M event. A new fan was installed to the same riser on June 28, 2016. The former fan attached to riser SP-1 was operational during the March 2016 quarterly event; therefore, it is estimated that fan SP-1 was nonoperational for a maximum period of 3.5 months, during which time all other SSD fans operated continuously. A manual that includes product specifications for the replacement RadonAway HS5000 high suction fan is included as Attachment B. S-K performed quarterly sampling of the SSD system according to the procedures outlined in the February 2016 Plan. S-K collected air flow readings from each exhaust stack on the roof of the building using a VelociCalc anemometer. Vapor samples were collected from exhaust stack SP-2 on a quarterly basis in 2016. Analytical laboratory reports for samples collected during 2016 are included as Attachment C. Field notes for the quarterly events are included as Attachment D. Calibration information for the anemometer is included as Attachment E. A summary of individual effluent VOC concentrations detected in each sample is included as Table 1. Air flow readings and magnehelic gauge readings are included as Table 2. Calculated VOC removal rates, in pounds per day (lbs/day), are included as Table 3. Because the SSD emission

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stacks extract commingled vapor beneath the slab, the maximum concentration of individual and total VOCs was used to conservatively calculate daily VOC removal rates for comparison to Permit limits. The mass removal rates for the 2016 operation period, ranged from 0.00017 to 0.00174 lbs/day and were well within Permit conditions of 10 lbs/day. In a letter dated May 5, 2017, DTSC approved the Report and provided the following comment and requirement for future monitoring/sampling and reporting: The Report Attachment E, TSI Model 8360 VelociCalc Calibration Certificate, states, Calibrations are valid for one year. However, the DTSC-approved Sub-Slab Depressurization System Operation and Maintenance Plan and Monitored Natural Attenuation Plan (Plan), dated February 19, 2016, states, All instruments will be calibrated according to manufacturer s specifications prior to use. (2-1) The TSI Model 8360 VelociCalc or other anemometer (air velocity meter), used for measuring and recording air velocity through the sub-slab depressurization system extraction pipes, must be calibrated prior to each monitoring and sampling event scheduled quarterly in March, June, September, and December.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/29/2016
Comments: Annual Oversight Cost Estimate letter with enclosures (Activity Schedule and Cost Estimate) of DTSC oversight for 2016/2017 Fiscal Year.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 11/10/2014
Comments: also indicates no more quarterly letter reports required.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/10/2013
Comments: Annual Oversight Cost Estimate letter with enclosures (Activity Schedule and Cost Estimate) of DTSC oversight for 2013/2014 Fiscal Year.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 09/29/2015
Comments: CEQA-NOE Final/Signed/Filed with State Clearinghouse

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedy Construction Complete
Completed Date: 09/28/2015
Comments: Remedy Construction Complete Milestone: US EPA Region 9 GPR Measure Signature Page, RCRA Corrective Action Assessment of CA550, Basis for Approval, and Figures. Remedy Construction Complete determination for remedial activities overseen by DTSC. YES, Remedy Construction Completed (Site-wide) - ALL Final remedy decisions and ALL remedy

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construction necessary for protection of human health and the environment made for ALL portions of the site, completely installed, and operating according to specifications stated in the remedy decision documents or approved work plans.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 01/20/2017
Comments: Land Use Covenant and Agreement - Environmental Restrictions, recorded with Alameda County on January 20, 2017. This Land Use Covenant and Agreement ("Covenant") is made by and between Safety-Kleen Systems, Incorporated (the "Covenantor"), the successor in interest to the owner of record located at 400 Market Street, Oakland, in the County of Alameda County, State of California (the "Property"), and the Department of Toxic Substances Control (the "Department"). The Property that is subject to this Covenant, totaling approximately 0.6 acres, is more particularly described in the attached Exhibit A, Legal Description, and depicted in Exhibit B, Assessor's Map. The Property is located in the area now generally bounded by 5th Street on the north, 4th Street on the south, Brush Street on the east, and Market Street on the west. The Property is also identified as County of Alameda, Assessor Parcel Numbers 001-0113-001-02 and 001-0113-002-02. This Property has been investigated and/or remediated under the Department's oversight. The Department approved a Corrective Measures Study (CMS), dated April 2, 2015, and an Operations and Maintenance Plan and Monitored Natural Attenuation Plan, dated February 19, 2016, in accordance with Health and Safety Code, division 20, chapter 6.5. The remediation activities conducted at the Property include installation and continued operation and maintenance of the sub-slab depressurization system, monitored natural attenuation for groundwater, and land use restrictions. As part of the DTSC-approved remedy at the Site, the sub-slab depressurization system layout and a monitoring well location diagram showing the location(s) of the installed remedy are attached as Exhibit C and Exhibit D.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/21/2012
Comments: Annual Oversight Cost Estimate letter with enclosures (Cost Estimate and Activity Schedule) of DTSC oversight for 2012/2013 Fiscal Year.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/22/2014
Comments: Annual Oversight Cost Estimate letter with enclosures (Cost Estimate and Activity Schedule) of DTSC oversight for 2014/2015 Fiscal Year.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/27/2014
Comments: Field Activity Notification Schedule. Second consecutive quarterly Corrective Measures Study (CMS) groundwater monitoring event at wells

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MW-1 through MW-4, MW-8R, MW-11R, and MW-14 on July 9 and 10, 2014.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/23/2015
Comments: Annual Oversight Cost Estimate letter with enclosures (Activity Schedule and Cost Estimate) of DTSC oversight for 2015/2016 Fiscal Year.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 08/26/2015
Comments: Notification of change in DTSC Project Manager as of August 18, 2015.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operation & Maintenance Order/Agreement
Completed Date: 01/19/2017
Comments: Effective January 19, 2017, the California Department of Toxic Substances Control (DTSC) and Safety-Kleen Systems, Incorporated (Proponent) enter into this Operation and Maintenance Agreement (Agreement) for the site located at 400 Market Street, Oakland, Alameda County, California 94607 (Site). A DTSC-approved remedy has been installed at the Site for the remediation of soil gas and groundwater. The remedy consists of continued operation and maintenance of the sub-slab depressurization system and soil vapor and groundwater monitoring wells for monitored natural attenuation of groundwater. Proponent shall fully implement the DTSC-approved Operation and Maintenance Plan dated February 19, 2016 or any successor O&M Plan as later approved by DTSC, including any requirements for inspections, monitoring, reporting and record keeping.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Pre-HARP Form
Completed Date: 05/02/2017
Comments: Pre-HARP for Site Visits on 5/2/2017 and 5/3/2017.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 11/24/2015
Comments: DTSC letter dated November 24, 2015, requesting submittal of a draft Operations & Maintenance Plan (O&M Plan) for selected remedy by January 1, 2016. Selected remedy includes sub-slab depressurization system for soil gas beneath the building and monitored natural attenuation for groundwater.

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Report
Future Due Date: 2027
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported

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Future Document Type: Operations and Maintenance Report
Future Due Date: 2032
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Report
Future Due Date: 2019
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Report
Future Due Date: 2020
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Report
Future Due Date: 2021
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Report
Future Due Date: 2022
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Ready for Anticipated Use
Schedule Due Date: 07/08/2018
Schedule Revised Date: Not reported

DEED:

Envirostor ID: 80001412
Area: PROJECT WIDE
Sub Area: Not reported
Site Type: CORRECTIVE ACTION
Status: ACTIVE
Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): 01/20/2017
File Name: Envirostor Land Use Restrictions

CHMIRS:

OES Incident Number: 5-3944
OES notification: 07/01/2005
OES Date: Not reported
OES Time: Not reported
Date Completed: Not reported
Property Use: Not reported
Agency Id Number: Not reported
Agency Incident Number: Not reported
Time Notified: Not reported
Time Completed: Not reported
Surrounding Area: Not reported
Estimated Temperature: Not reported
Property Management: Not reported
More Than Two Substances Involved?: Not reported
Resp Agncy Personel # Of Decontaminated: Not reported
Responding Agency Personel # Of Injuries: Not reported
Responding Agency Personel # Of Fatalities: Not reported
Others Number Of Decontaminated: Not reported
Others Number Of Injuries: Not reported
Others Number Of Fatalities: Not reported

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Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2005
Agency:	Safety Clean
Incident Date:	7/1/200512:00:00 AM
Admin Agency:	City of Oakland Fire Department
Amount:	Not reported
Contained:	Yes
Site Type:	Merchant/Business
E Date:	Not reported
Substance:	Lithium Batteries
Gallons:	16
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	10
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Per caller a drum of lithium batteries exploded. Fire Dept responded. 10 Personnel from the facility were evacuated for about 20 minutes. All person have returned to the work place. Operation are back to normal operations.

WDS:

Facility ID:	San Francisco Bay 011002051
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and

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repairing, oil production, storage and disposal operations, water pumping.

Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.

NPDES Number: CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board

Subregion: 2

Facility Telephone: 5108327942

Facility Contact: HEATHER COLLINS

Agency Name: SAFETYKLEEN CORP

Agency Address: 400 Market St

Agency City,St,Zip: Oakland 946073034

Agency Contact: HEATHER COLLINS

Agency Telephone: 7075842317

Agency Type: Private

SIC Code: 0

SIC Code 2: Not reported

Primary Waste Type: Not reported

Primary Waste: Not reported

Waste Type2: Not reported

Waste2: Not reported

Primary Waste Type: Not reported

Secondary Waste: Not reported

Secondary Waste Type: Not reported

Design Flow: 0

Baseline Flow: 0

Reclamation: Not reported

POTW: Not reported

Treat To Water: Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.

Complexity: Category C - Facilities having no waste treatment systems, such as cooling water dischargers or those who must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

CERS TANKS:

Site ID: 342444

CERS ID: 80001412

CERS Description: Corrective Action

Affiliation:

Affiliation Type Desc: Supervisor

Entity Name: JANET NAITO

Entity Title: Not reported

Affiliation Address: Not reported

Affiliation City: Not reported

Affiliation State: Not reported

Affiliation Country: Not reported

Affiliation Zip: Not reported

Affiliation Phone: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETYKLEEN SER CTR (Continued)

1001407764

Affiliation Type Desc: Lead Project Manager
Entity Name: JANET NAITO
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: BERKELEY
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

AT220 WNW
1/2-1
0.944 mi.
4982 ft.

SAFETY-KLEEN SYSTEMS, INC
400 MARKET STREET
OAKLAND, CA 94607

Site 3 of 3 in cluster AT

Relative:
Lower

Actual:
15 ft.

SEMS 1015730631
CORRACTS CAD053044053
RCRA-TSDF
RCRA-LQG
US INST CONTROL
2020 COR ACTION
LEAD SMELTERS
FINDS
ECHO

SEMS:
Site ID: 0905732
EPA ID: CAD053044053
Cong District: Not reported
FIPS Code: 06001
Latitude: 37.804456
Longitude: -122.271356
FF: N
NPL: Not on the NPL
Non NPL Status: Other Cleanup Activity: State-Lead Cleanup

SEMS Detail:
Region: 09
Site ID: 0905732
EPA ID: CAD053044053
Site Name: ROBERTS TIRES
NPL: N
FF: N
OU: 00
Action Code: DS
Action Name: DISCVRY
SEQ: 1
Start Date: 2000-11-29 05:00:00
Finish Date: 11/29/2000 5:00:00 AM
Qual: Not reported
Current Action Lead: EPA Perf

Region: 09
Site ID: 0905732
EPA ID: CAD053044053
Site Name: ROBERTS TIRES
NPL: N
FF: N
OU: 00
Action Code: PA
Action Name: PA
SEQ: 1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Start Date: 2001-01-01 05:00:00
Finish Date: 5/30/2001 4:00:00 AM
Qual: H
Current Action Lead: St Perf

CORRACTS:

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20171115
Action: CA180 - RFI Supplemental Implementation Begun
NAICS Code(s): 562112
Hazardous Waste Collection

Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20171017
Action: CA999RM - Corrective Action Process Terminated, Remedial Activities Completed

NAICS Code(s): 562112
Hazardous Waste Collection

Original schedule date: 20171003
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20170816
Action: CA180 - RFI Supplemental Implementation Begun
NAICS Code(s): 562112
Hazardous Waste Collection

Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20170503
Action: CA180 - RFI Supplemental Implementation Begun
NAICS Code(s): 562112
Hazardous Waste Collection

Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20170322
Action: CA180 - RFI Supplemental Implementation Begun
NAICS Code(s): 562112
Hazardous Waste Collection

Original schedule date: 20170331
Schedule end date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20170120
Action: CA772PR
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: 20170123
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20161207
Action: CA180 - RFI Supplemental Implementation Begun
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: 20161231
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20160914
Action: CA180 - RFI Supplemental Implementation Begun
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: 20160930
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20160701
Action: CA180 - RFI Supplemental Implementation Begun
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: 20160708
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20160622
Action: CA180 - RFI Supplemental Implementation Begun
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: 20160630
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20160315
Action: CA180 - RFI Supplemental Implementation Begun
NAICS Code(s): 562112
Hazardous Waste Collection

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Original schedule date: 20160331
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20150928
Action: CA550RC
NAICS Code(s): 562112
Hazardous Waste Collection

Original schedule date: 20150930
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20150925
Action: CA350 - CMS Approved
NAICS Code(s): 562112
Hazardous Waste Collection

Original schedule date: 20150825
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20150630
Action: CA750YE - Migration of Contaminated Groundwater under Control, Yes,
Migration of Contaminated Groundwater Under Control has been verified
NAICS Code(s): 562112
Hazardous Waste Collection

Original schedule date: 20150626
Schedule end date: 20150630

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20150617
Action: CA380 - Date For Public Notice On Proposed Remedy
NAICS Code(s): 562112
Hazardous Waste Collection

Original schedule date: 20150621
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20141015
Action: CA340 - CMS Report Received
NAICS Code(s): 562112
Hazardous Waste Collection

Original schedule date: 20141017
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Actual Date: 20140709
Action: CA180 - RFI Supplemental Implementation Begun
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: 20140720
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20140415
Action: CA180 - RFI Supplemental Implementation Begun
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: 20140425
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20140414
Action: CA300 - CMS Workplan Approved
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: 20140411
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20131217
Action: CA270 - CMS Workplan Modification Requested By Agency
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: 20131211
Schedule end date: 20131216

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20131022
Action: CA260 - CMS Workplan Received
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: 20131021
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20130820
Action: CA200 - RFI Approved
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: 20130901
Schedule end date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20130625
Action: CA190 - RFI Report Received
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: 20130301
Schedule end date: 20130624

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20130402
Action: CA180 - RFI Supplemental Implementation Begun
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: 20130327
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20130128
Action: CA170 - RFI Supplemental Information Deemed Satisfactory
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: 20130115
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20121105
Action: CA160 - RFI Supplemental Information Received
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: 20121001
Schedule end date: 20121105

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20120928
Action: CA200 - RFI Approved
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: 20121017
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20120703
Action: CA725YE - Current Human Exposures Under Control, Yes, Current Human Exposures Under Control has been verified
NAICS Code(s): 562112

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Hazardous Waste Collection
Original schedule date: 20120729
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20120316
Action: CA190 - RFI Report Received
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: 20111215
Schedule end date: 20120316

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20120116
Action: CA180 - RFI Supplemental Implementation Begun
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20111104
Action: CA180 - RFI Supplemental Implementation Begun
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: 20111109
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20110629
Action: CA150 - RFI Workplan Approved
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: 20110622
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20100614
Action: CA120 - RFI Workplan Modification Requested By Agency
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: 20100608
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Actual Date: 20100614
Action: CA140 - RFI Workplan Notice Of Deficiency Issued
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: 20100608
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20100409
Action: CA110 - RFI Workplan Received
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: 20100412
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20100216
Action: CA200 - RFI Approved
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20090921
Action: CA190 - RFI Report Received
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20000406
Action: CA300 - CMS Workplan Approved
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: 20000506
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 20000406
Action: CA260 - CMS Workplan Received
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: Not reported
Schedule end date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 19960520
Action: CA200 - RFI Approved
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 19960223
Action: CA150 - RFI Workplan Approved
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 19960201
Action: CA110 - RFI Workplan Received
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 19960101
Action: CA100 - RFI Imposition
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 19930618
Action: CA075LO - CA Prioritization, Facility or area was assigned a low corrective action priority
NAICS Code(s): 562112
Hazardous Waste Collection
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 19930616
Action: CA225NR - Stabilization Measures Evaluation, This facility is, not amenable to stabilization activity at the, present time for reasons

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

other than (1) it appears to be technically, infeasible or inappropriate (NF) or (2) there is a lack of technical, information (IN). Reasons for this conclusion may be the status of, closure at the facility, the degree of risk, timing considerations, the status of corrective action work at the facility, or other, administrative considerations

NAICS Code(s): 562112
Hazardous Waste Collection

Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 19920329
Action: CA250 - CMS Imposition
NAICS Code(s): 562112
Hazardous Waste Collection

Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 19920329
Action: CA100 - RFI Imposition
NAICS Code(s): 562112
Hazardous Waste Collection

Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 19900927
Action: CA050 - RFA Completed
NAICS Code(s): 562112
Hazardous Waste Collection

Original schedule date: 19900927
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 19900927
Action: CA050RF - RFA Completed, Assessment was an RFA
NAICS Code(s): 562112
Hazardous Waste Collection

Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD053044053
EPA Region: 9
Area Name: ENTIRE FACILITY
Actual Date: 19900927
Action: CA070YE - RFA Determination Of Need For An RFI, RFI is Necessary
NAICS Code(s): 562112

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Hazardous Waste Collection

Original schedule date: 19900927

Schedule end date: Not reported

RCRA-TSDF:

Date form received by agency: 03/13/2008

Facility name: SAFETY-KLEEN SYSTEMS INC

Facility address: 400 MARKET STREET
OAKLAND, CA 94607

EPA ID: CAD053044053

Mailing address: 1502 E VILLA STREET
2ND FLOOR EHS
ELGIN, IL 60120

Contact: WILLIAM COLEMAN

Contact address: Not reported

Not reported

Contact country: US

Contact telephone: 209-545-1011

Contact email: WILLIAM.COLEMAN@SAFETY-KLEEN.COM

EPA Region: 09

Land type: Private

Classification: TSDF

Description: Handler is engaged in the treatment, storage or disposal of hazardous waste

Classification: Large Quantity Generator

Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name: SAFETY-KLEEN SYSTEMS INC

Owner/operator address: 5400 LEGACY DRIVE
PLANO, TX 75024

Owner/operator country: US

Owner/operator telephone: Not reported

Owner/operator email: Not reported

Owner/operator fax: Not reported

Owner/operator extension: Not reported

Legal status: Private

Owner/Operator Type: Owner

Owner/Op start date: 04/18/1990

Owner/Op end date: Not reported

Owner/operator name: SAFETY-KLEEN SYSTEMS INC

Owner/operator address: Not reported

Not reported

Owner/operator country: US

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 04/18/1990
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: Yes
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: Yes

- . Waste code: D001
- . Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKEY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

- . Waste code: D004
- . Waste name: ARSENIC

- . Waste code: D005
- . Waste name: BARIUM

- . Waste code: D006
- . Waste name: CADMIUM

- . Waste code: D007
- . Waste name: CHROMIUM

- . Waste code: D008
- . Waste name: LEAD

- . Waste code: D009
- . Waste name: MERCURY

- . Waste code: D010
- . Waste name: SELENIUM

- . Waste code: D011

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

- . Waste name: SILVER
- . Waste code: D018
- . Waste name: BENZENE
- . Waste code: D019
- . Waste name: CARBON TETRACHLORIDE
- . Waste code: D021
- . Waste name: CHLOROBENZENE
- . Waste code: D022
- . Waste name: CHLOROFORM
- . Waste code: D023
- . Waste name: O-CRESOL
- . Waste code: D024
- . Waste name: M-CRESOL
- . Waste code: D025
- . Waste name: P-CRESOL
- . Waste code: D026
- . Waste name: CRESOL
- . Waste code: D027
- . Waste name: 1,4-DICHLOROBENZENE
- . Waste code: D028
- . Waste name: 1,2-DICHLOROETHANE
- . Waste code: D029
- . Waste name: 1,1-DICHLOROETHYLENE
- . Waste code: D030
- . Waste name: 2,4-DINITROTOLUENE
- . Waste code: D032
- . Waste name: HEXACHLOROBENZENE
- . Waste code: D033
- . Waste name: HEXACHLOROBUTADIENE
- . Waste code: D034
- . Waste name: HEXACHLOROETHANE
- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE
- . Waste code: D036
- . Waste name: NITROBENZENE
- . Waste code: D037
- . Waste name: PENTRACHLOROPHENOL
- . Waste code: D038

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

- . Waste name: PYRIDINE
 - . Waste code: D039
 - . Waste name: TETRACHLOROETHYLENE
 - . Waste code: D040
 - . Waste name: TRICHLOROETHYLENE
 - . Waste code: D041
 - . Waste name: 2,4,5-TRICHLOROPHENOL
 - . Waste code: D042
 - . Waste name: 2,4,6-TRICHLOROPHENOL
 - . Waste code: D043
 - . Waste name: VINYL CHLORIDE
 - . Waste code: F002
 - . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
 - . Waste code: F003
 - . Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
 - . Waste code: F005
 - . Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
- Historical Generators:
Date form received by agency: 03/20/2006
Site name: SAFETY-KLEEN SYSTEMS, INC.
Classification: Large Quantity Generator
- . Waste code: D001
 - . Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKEY-MARTENS

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SAFETY-KLEEN SYSTEMS, INC (Continued)

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CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

- . Waste code: D003
- . Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

- . Waste code: D004
- . Waste name: ARSENIC

- . Waste code: D005
- . Waste name: BARIUM

- . Waste code: D006
- . Waste name: CADMIUM

- . Waste code: D007
- . Waste name: CHROMIUM

- . Waste code: D008
- . Waste name: LEAD

- . Waste code: D009
- . Waste name: MERCURY

- . Waste code: D010
- . Waste name: SELENIUM

- . Waste code: D011
- . Waste name: SILVER

- . Waste code: D018
- . Waste name: BENZENE

- . Waste code: D019
- . Waste name: CARBON TETRACHLORIDE

- . Waste code: D021
- . Waste name: CHLOROBENZENE

- . Waste code: D022
- . Waste name: CHLOROFORM

- . Waste code: D023
- . Waste name: O-CRESOL

- . Waste code: D024
- . Waste name: M-CRESOL

- . Waste code: D025
- . Waste name: P-CRESOL

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- . Waste code: D026
- . Waste name: CRESOL

- . Waste code: D027
- . Waste name: 1,4-DICHLOROBENZENE

- . Waste code: D028
- . Waste name: 1,2-DICHLOROETHANE

- . Waste code: D029
- . Waste name: 1,1-DICHLOROETHYLENE

- . Waste code: D030
- . Waste name: 2,4-DINITROTOLUENE

- . Waste code: D032
- . Waste name: HEXACHLOROBENZENE

- . Waste code: D033
- . Waste name: HEXACHLOROBUTADIENE

- . Waste code: D034
- . Waste name: HEXACHLOROETHANE

- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE

- . Waste code: D036
- . Waste name: NITROBENZENE

- . Waste code: D037
- . Waste name: PENTRACHLOROPHENOL

- . Waste code: D038
- . Waste name: PYRIDINE

- . Waste code: D039
- . Waste name: TETRACHLOROETHYLENE

- . Waste code: D040
- . Waste name: TRICHLOROETHYLENE

- . Waste code: D041
- . Waste name: 2,4,5-TRICHLOROPHENOL

- . Waste code: D042
- . Waste name: 2,4,6-TRICHLOROPHENOL

- . Waste code: D043
- . Waste name: VINYL CHLORIDE

- . Waste code: F002
- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING,

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BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 03/29/2004

Site name: SAFETY-KLEEN SYSTEMS INC

Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKEY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D011
. Waste name: SILVER

. Waste code: D018
. Waste name: BENZENE

. Waste code: D022
. Waste name: CHLOROFORM

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SAFETY-KLEEN SYSTEMS, INC (Continued)

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- . Waste code: D027
- . Waste name: 1,4-DICHLOROBENZENE

- . Waste code: D028
- . Waste name: 1,2-DICHLOROETHANE

- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE

- . Waste code: D039
- . Waste name: TETRACHLOROETHYLENE

- . Waste code: D040
- . Waste name: TRICHLOROETHYLENE

- . Waste code: F001
- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F002
- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F003
- . Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F005
- . Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

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Date form received by agency: 03/28/2002

Site name: SAFETY-KLEEN SYSTEMS, INC.

Classification: Large Quantity Generator

Date form received by agency: 10/12/2000

Site name: SAFETY-KLEEN SYSTEMS, INC.--OAKLAND

Classification: Large Quantity Generator

Date form received by agency: 03/04/1999

Site name: SAFETY-KLEEN CORP - OAKLAND, CA

Classification: Large Quantity Generator

Date form received by agency: 09/01/1996

Site name: SAFETY KLEEN CORP 7 178 01

Classification: Small Quantity Generator

Date form received by agency: 04/04/1996

Site name: SAFETY KLEEN CORP

Classification: Large Quantity Generator

Date form received by agency: 03/25/1994

Site name: SAFETY-KLEEN CORP

Classification: Large Quantity Generator

Date form received by agency: 03/31/1992

Site name: SAFETY-KLEEN CORP (7-178-01)

Classification: Small Quantity Generator

Date form received by agency: 04/12/1990

Site name: SAFETY-KLEEN CORP (7-178-01)

Classification: Large Quantity Generator

Date form received by agency: 08/18/1980

Site name: SAFETY KLEEN CORP 7 178 01

Classification: Not a generator, verified

Corrective Action Summary:

Event date: 09/27/1990

Event: RFA COMPLETED

Event date: 09/27/1990

Event: RFA COMPLETED-ASSESSMENT WAS A RFA

Event date: 09/27/1990

Event: DETERMINATION OF NEED FOR AN INVESTIGATION-INVESTIGATION IS NECESSARY

Event date: 03/29/1992

Event: INVESTIGATION IMPOSITION

Event date: 03/29/1992

Event: CMS IMPOSITION

Event date: 06/16/1993

Event: STABILIZATION MEASURES EVALUATION-FACILITY NOT AMENABLE TO STABILIZATION

Event date: 06/18/1993

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Event:	CA PRIORITIZATION-LOW CA PRIORITY
Event date:	01/01/1996
Event:	INVESTIGATION IMPOSITION
Event date:	02/01/1996
Event:	INVESTIGATION WORKPLAN RECEIVED
Event date:	02/23/1996
Event:	INVESTIGATION WORKPLAN APPROVED
Event date:	05/20/1996
Event:	INVESTIGATION COMPLETE
Event date:	04/06/2000
Event:	CMS WORKPLAN APPROVED
Event date:	04/06/2000
Event:	CMS WORKPLAN RECEIVED
Event date:	09/21/2009
Event:	INVESTIGATION REPORT RECEIVED
Event date:	02/16/2010
Event:	INVESTIGATION COMPLETE
Event date:	04/09/2010
Event:	INVESTIGATION WORKPLAN RECEIVED
Event date:	06/14/2010
Event:	INVESTIGATION WORKPLAN MODIFICATION REQ BY AGENCY
Event date:	06/14/2010
Event:	INVESTIGATION WORKPLAN NOTICE OF DEFICIENCY ISSUED
Event date:	06/29/2011
Event:	INVESTIGATION WORKPLAN APPROVED
Event date:	11/04/2011
Event:	INVESTIGATION IMPLEMENTATION BEGUN
Event date:	01/16/2012
Event:	INVESTIGATION IMPLEMENTATION BEGUN
Event date:	03/16/2012
Event:	INVESTIGATION REPORT RECEIVED
Event date:	07/03/2012
Event:	HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE
Event date:	09/28/2012
Event:	INVESTIGATION COMPLETE
Event date:	11/05/2012
Event:	INVESTIGATION SUPPLEMENTAL INFORMATION RECEIVED

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SAFETY-KLEEN SYSTEMS, INC (Continued)

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Event date:	01/28/2013
Event:	INVESTIGATION SUPPLEMENTAL INFO DEEMED SATISFACT
Event date:	04/02/2013
Event:	INVESTIGATION IMPLEMENTATION BEGUN
Event date:	06/25/2013
Event:	INVESTIGATION REPORT RECEIVED
Event date:	08/20/2013
Event:	INVESTIGATION COMPLETE
Event date:	10/22/2013
Event:	CMS WORKPLAN RECEIVED
Event date:	12/17/2013
Event:	CMS WORKPLAN MODIFICATION REQ BY AGENCY
Event date:	04/14/2014
Event:	CMS WORKPLAN APPROVED
Event date:	04/15/2014
Event:	INVESTIGATION IMPLEMENTATION BEGUN
Event date:	07/09/2014
Event:	INVESTIGATION IMPLEMENTATION BEGUN
Event date:	10/15/2014
Event:	CMS REPORT RECEIVED
Event date:	06/17/2015
Event:	DATE FOR PUBLIC NOTICE ON PROPOSED REMEDY
Event date:	06/30/2015
Event:	RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE
Event date:	09/25/2015
Event:	CMS COMPLETE
Event date:	09/28/2015
Event:	REMEDY CONSTRUCTION-REMEDY CONSTRUCTED
Event date:	03/15/2016
Event:	INVESTIGATION IMPLEMENTATION BEGUN
Event date:	06/22/2016
Event:	INVESTIGATION IMPLEMENTATION BEGUN
Event date:	07/01/2016
Event:	INVESTIGATION IMPLEMENTATION BEGUN
Event date:	09/14/2016
Event:	INVESTIGATION IMPLEMENTATION BEGUN
Event date:	12/07/2016
Event:	INVESTIGATION IMPLEMENTATION BEGUN

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SAFETY-KLEEN SYSTEMS, INC (Continued)

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Event date: 01/20/2017
Event: INSTITUTIONAL CONTROLS ESTABLISHED-PROPRIETARY CONTROL

Event date: 03/22/2017
Event: INVESTIGATION IMPLEMENTATION BEGUN

Event date: 05/03/2017
Event: INVESTIGATION IMPLEMENTATION BEGUN

Event date: 08/16/2017
Event: INVESTIGATION IMPLEMENTATION BEGUN

Event date: 10/17/2017
Event: CA PROCESS IS TERMINATED-REMEDIAL ACTIVITIES COMPLETE

Event date: 11/15/2017
Event: INVESTIGATION IMPLEMENTATION BEGUN

Facility Has Received Notices of Violations:

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 01/23/2007
Date achieved compliance: 01/24/2007
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/23/2007
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Transporters - General
Date violation determined: 06/27/2005
Date achieved compliance: 06/28/2005
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/28/2005
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Transporters - Manifest and Recordkeeping
Date violation determined: 06/27/2005
Date achieved compliance: 06/28/2005
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/28/2005
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State

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Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Contingency Plan and Emergency Procedures
Date violation determined: 10/29/2002
Date achieved compliance: 01/09/2004
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/24/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General Facility Standards
Date violation determined: 10/29/2002
Date achieved compliance: 01/09/2004
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/24/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Container Use and Management
Date violation determined: 03/22/2002
Date achieved compliance: 04/07/2003
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/22/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General Facility Standards
Date violation determined: 03/22/2002
Date achieved compliance: 04/07/2003
Violation lead agency: State
Enforcement action: SINGLE SITE CA/FO
Enforcement action date: 04/07/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported

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Final penalty amount: 190400
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Transporters - Manifest and Recordkeeping
Date violation determined: 03/22/2002
Date achieved compliance: 04/07/2003
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/22/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General Facility Standards
Date violation determined: 03/22/2002
Date achieved compliance: 04/07/2003
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/22/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Transporters - Manifest and Recordkeeping
Date violation determined: 03/22/2002
Date achieved compliance: 04/07/2003
Violation lead agency: State
Enforcement action: SINGLE SITE CA/FO
Enforcement action date: 04/07/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 190400
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Manifest/Records/Reporting
Date violation determined: 03/22/2002
Date achieved compliance: 04/07/2003
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/22/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported

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Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Manifest/Records/Reporting
Date violation determined: 12/20/2000
Date achieved compliance: 04/07/2003
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 12/21/2000
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Manifest/Records/Reporting
Date violation determined: 12/20/2000
Date achieved compliance: 04/07/2003
Violation lead agency: State
Enforcement action: SINGLE SITE CA/FO
Enforcement action date: 04/07/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 190400
Paid penalty amount: Not reported

Regulation violated: F - 264.10-18.B
Area of violation: TSD - General
Date violation determined: 09/16/1998
Date achieved compliance: 11/19/1999
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/16/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 07/14/1994
Date achieved compliance: 08/31/1994
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

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Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 06/28/1994
Date achieved compliance: 07/14/1994
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 06/24/1994
Date achieved compliance: 06/28/1994
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 05/18/1994
Date achieved compliance: 06/24/1994
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 05/12/1994
Date achieved compliance: 05/18/1994
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A

Map ID
Direction
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Elevation

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Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Area of violation: Generators - General
Date violation determined: 04/26/1994
Date achieved compliance: 04/27/1994
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 11/15/1993
Date achieved compliance: 11/16/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 09/16/1993
Date achieved compliance: 11/15/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 08/16/1993
Date achieved compliance: 09/16/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General

Map ID
Direction
Distance
Elevation

MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Date violation determined: 08/11/1993
Date achieved compliance: 08/16/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 08/02/1993
Date achieved compliance: 08/11/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.30-34.C
Area of violation: Generators - General
Date violation determined: 07/27/1993
Date achieved compliance: 10/22/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/13/1993
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.40-43.D
Area of violation: Generators - General
Date violation determined: 07/19/1993
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/13/1993
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.40-43.D
Area of violation: Generators - General
Date violation determined: 07/19/1993

Map ID
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Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/19/1993
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 06/24/1993
Date achieved compliance: 07/27/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 06/16/1993
Date achieved compliance: 06/21/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 05/17/1993
Date achieved compliance: 06/07/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 05/11/1993
Date achieved compliance: 05/17/1993

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EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 03/09/1993
Date achieved compliance: 03/24/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 02/24/1993
Date achieved compliance: 03/09/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 11/03/1992
Date achieved compliance: 12/10/1992
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 10/08/1992
Date achieved compliance: 11/03/1992
Violation lead agency: State

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EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 03/27/1992
Date achieved compliance: 04/23/1992
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 03/24/1992
Date achieved compliance: 03/27/1992
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 03/19/1992
Date achieved compliance: 03/24/1992
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 09/26/1991
Date achieved compliance: 10/07/1991
Violation lead agency: EPA
Enforcement action: Not reported

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Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 06/19/1991
Date achieved compliance: 10/07/1991
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 03/29/1991
Date achieved compliance: 05/02/1991
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 03/28/1991
Date achieved compliance: 03/29/1991
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 03/26/1991
Date achieved compliance: 03/28/1991
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported

Map ID
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Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 03/21/1991
Date achieved compliance: 03/26/1991
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 03/14/1991
Date achieved compliance: 03/21/1991
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 02/26/1991
Date achieved compliance: 03/14/1991
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 02/25/1991
Date achieved compliance: 02/26/1991
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported

Map ID
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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 02/20/1991
Date achieved compliance: 02/25/1991
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 02/19/1991
Date achieved compliance: 02/20/1991
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 02/14/1991
Date achieved compliance: 02/19/1991
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 01/23/1991
Date achieved compliance: 01/31/1991
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported

Map ID
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Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 01/17/1991
Date achieved compliance: 01/23/1991
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.110-120.G
Area of violation: TSD - Closure/Post-Closure
Date violation determined: 10/02/1990
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/20/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.110-120.G
Area of violation: TSD - Closure/Post-Closure
Date violation determined: 10/02/1990
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR IMMINENT AND SUBSTANTIAL ENDANGERMENT
Enforcement action date: 04/30/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 10/02/1990
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR IMMINENT AND SUBSTANTIAL ENDANGERMENT
Enforcement action date: 04/30/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State

Map ID
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Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.70-77.E
Area of violation: TSD - General
Date violation determined: 10/02/1990
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR IMMINENT AND SUBSTANTIAL ENDANGERMENT
Enforcement action date: 04/30/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 10/02/1990
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 10/02/1990
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/20/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.70-77.E
Area of violation: TSD - General
Date violation determined: 10/02/1990
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported

Map ID
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Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.110-120.G
Area of violation: TSD - Closure/Post-Closure
Date violation determined: 10/02/1990
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.70-77.E
Area of violation: TSD - General
Date violation determined: 10/02/1990
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/20/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 08/22/1990
Date achieved compliance: 10/02/1990
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 05/16/1990
Date achieved compliance: 06/05/1990
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported

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EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 02/27/1990
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/08/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 02/27/1990
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 02/27/1990
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR IMMINENT AND SUBSTANTIAL ENDANGERMENT
Enforcement action date: 04/30/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 02/23/1990
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Map ID
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EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Regulation violated: FR - 268.7
Area of violation: LDR - General
Date violation determined: 02/17/1989
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR IMMINENT AND SUBSTANTIAL ENDANGERMENT
Enforcement action date: 05/10/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.110-120.G
Area of violation: TSD - Closure/Post-Closure
Date violation determined: 02/17/1989
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/27/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 02/17/1989
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/27/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 268 ALL
Area of violation: LDR - General
Date violation determined: 02/17/1989
Date achieved compliance: 09/26/1991
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR IMMINENT AND SUBSTANTIAL ENDANGERMENT
Enforcement action date: 05/10/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 268 ALL

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Area of violation: LDR - General
Date violation determined: 02/17/1989
Date achieved compliance: 09/26/1991
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/27/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 268.7
Area of violation: LDR - General
Date violation determined: 02/17/1989
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/27/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.110-120.G
Area of violation: TSD - Closure/Post-Closure
Date violation determined: 02/17/1989
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR IMMINENT AND SUBSTANTIAL ENDANGERMENT
Enforcement action date: 05/10/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 02/17/1989
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR IMMINENT AND SUBSTANTIAL ENDANGERMENT
Enforcement action date: 05/10/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Date violation determined: 08/23/1988
Date achieved compliance: 11/15/1988
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 08/23/1988
Date achieved compliance: 11/15/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 11/30/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 07/06/1988
Date achieved compliance: 11/15/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/26/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 05/19/1988
Date achieved compliance: 07/02/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/26/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 02/08/2007
Evaluation: FINANCIAL RECORD REVIEW

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/23/2007
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 01/24/2007
Evaluation lead agency: State

Evaluation date: 06/27/2005
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Transporters - General
Date achieved compliance: 06/28/2005
Evaluation lead agency: State

Evaluation date: 06/27/2005
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Transporters - Manifest and Recordkeeping
Date achieved compliance: 06/28/2005
Evaluation lead agency: State

Evaluation date: 04/22/2004
Evaluation: FOLLOW-UP INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/30/2003
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/18/2003
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/07/2003
Evaluation: NOT A SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/29/2002
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General Facility Standards
Date achieved compliance: 01/09/2004
Evaluation lead agency: State

Evaluation date: 10/29/2002
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Contingency Plan and Emergency Procedures
Date achieved compliance: 01/09/2004
Evaluation lead agency: State

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Evaluation date: 10/29/2002
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/22/2002
Evaluation: FOLLOW-UP INSPECTION
Area of violation: Transporters - Manifest and Recordkeeping
Date achieved compliance: 04/07/2003
Evaluation lead agency: State

Evaluation date: 03/22/2002
Evaluation: FOLLOW-UP INSPECTION
Area of violation: TSD - Manifest/Records/Reporting
Date achieved compliance: 04/07/2003
Evaluation lead agency: State

Evaluation date: 03/22/2002
Evaluation: FOLLOW-UP INSPECTION
Area of violation: TSD - Container Use and Management
Date achieved compliance: 04/07/2003
Evaluation lead agency: State

Evaluation date: 03/22/2002
Evaluation: FOLLOW-UP INSPECTION
Area of violation: TSD - General Facility Standards
Date achieved compliance: 04/07/2003
Evaluation lead agency: State

Evaluation date: 12/20/2000
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Manifest/Records/Reporting
Date achieved compliance: 04/07/2003
Evaluation lead agency: State

Evaluation date: 12/20/2000
Evaluation: SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 02/28/2000
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/16/1998
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 11/19/1999
Evaluation lead agency: State

Evaluation date: 10/22/1997
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/18/1996
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/18/1996
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/27/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 10/20/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 09/14/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 08/31/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 07/14/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 08/31/1994
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 06/28/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 07/14/1994
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 06/24/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 06/28/1994
Evaluation lead agency: State Contractor/Grantee

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Evaluation date: 05/18/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 06/24/1994
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 05/12/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 05/18/1994
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 04/27/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 04/26/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 04/27/1994
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 04/06/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/24/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/28/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/17/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/02/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 01/26/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 01/24/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 11/16/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 11/15/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 11/16/1993
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 09/16/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 11/15/1993
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 08/16/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 09/16/1993
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 08/11/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 08/16/1993
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 08/02/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 08/11/1993
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 07/30/1993
Evaluation: NOT A SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/27/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 10/22/1993
Evaluation lead agency: State

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Evaluation date: 06/24/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 07/27/1993
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 06/21/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 06/16/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 06/21/1993
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 06/07/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 05/17/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 06/07/1993
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 05/11/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 05/17/1993
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 04/07/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/26/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/24/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/09/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Date achieved compliance: 03/24/1993
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/24/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 03/09/1993
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/10/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 01/13/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 12/10/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 11/03/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 12/10/1992
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 10/08/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 11/03/1992
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 09/24/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 07/30/1993
Evaluation lead agency: State

Evaluation date: 05/22/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 05/20/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Evaluation date: 05/12/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 04/23/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/27/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 04/23/1992
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/24/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 03/27/1992
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/19/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 03/24/1992
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/24/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 01/23/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 10/07/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 09/26/1991
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 10/07/1991
Evaluation lead agency: EPA

Evaluation date: 06/19/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Date achieved compliance: 10/07/1991
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 05/29/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 05/02/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/29/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 05/02/1991
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/28/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 03/29/1991
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/26/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 03/28/1991
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/21/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 03/26/1991
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/14/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 03/21/1991
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/26/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 03/14/1991
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/25/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 02/26/1991
Evaluation lead agency: State Contractor/Grantee

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Evaluation date: 02/20/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 02/25/1991
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/19/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 02/20/1991
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/14/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 02/19/1991
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/05/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 01/31/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 01/23/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 01/31/1991
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 01/17/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 01/23/1991
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 10/02/1990
Evaluation: SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/02/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Closure/Post-Closure
Date achieved compliance: 07/30/1993
Evaluation lead agency: State

Evaluation date: 10/02/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Date achieved compliance: 07/30/1993
Evaluation lead agency: State

Evaluation date: 08/22/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 10/02/1990
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 08/15/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 07/03/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 06/05/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 05/16/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 06/05/1990
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/27/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 07/30/1993
Evaluation lead agency: State

Evaluation date: 02/23/1990
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 07/30/1993
Evaluation lead agency: State

Evaluation date: 02/17/1989
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: LDR - General
Date achieved compliance: 09/26/1991
Evaluation lead agency: State

Evaluation date: 02/17/1989
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: LDR - General
Date achieved compliance: 07/30/1993
Evaluation lead agency: State

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SAFETY-KLEEN SYSTEMS, INC (Continued)

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Evaluation date: 02/17/1989
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 07/30/1993
Evaluation lead agency: State

Evaluation date: 02/17/1989
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Closure/Post-Closure
Date achieved compliance: 07/30/1993
Evaluation lead agency: State

Evaluation date: 02/03/1989
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/23/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 11/15/1988
Evaluation lead agency: State

Evaluation date: 07/06/1988
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 11/15/1988
Evaluation lead agency: State

Evaluation date: 05/19/1988
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 07/02/1988
Evaluation lead agency: State

RCRA-LQG:

Date form received by agency: 03/13/2008
Facility name: SAFETY-KLEEN SYSTEMS INC
Facility address: 400 MARKET STREET
OAKLAND, CA 94607
EPA ID: CAD053044053
Mailing address: 1502 E VILLA STREET
2ND FLOOR EHS
ELGIN, IL 60120
Contact: WILLIAM COLEMAN
Contact address: Not reported
Not reported
Contact country: US
Contact telephone: 209-545-1011
Contact email: WILLIAM.COLEMAN@SAFETY-KLEEN.COM
EPA Region: 09
Land type: Private
Classification: TSDF
Description: Handler is engaged in the treatment, storage or disposal of hazardous waste
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any

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SAFETY-KLEEN SYSTEMS, INC (Continued)

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calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name: SAFETY-KLEEN SYSTEMS INC
Owner/operator address: 5400 LEGACY DRIVE
PLANO, TX 75024
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 04/18/1990
Owner/Op end date: Not reported

Owner/operator name: SAFETY-KLEEN SYSTEMS INC
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 04/18/1990
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: Yes
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: Yes

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SAFETY-KLEEN SYSTEMS, INC (Continued)

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- . Waste code: D001
- . Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKEY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

- . Waste code: D004
- . Waste name: ARSENIC

- . Waste code: D005
- . Waste name: BARIUM

- . Waste code: D006
- . Waste name: CADMIUM

- . Waste code: D007
- . Waste name: CHROMIUM

- . Waste code: D008
- . Waste name: LEAD

- . Waste code: D009
- . Waste name: MERCURY

- . Waste code: D010
- . Waste name: SELENIUM

- . Waste code: D011
- . Waste name: SILVER

- . Waste code: D018
- . Waste name: BENZENE

- . Waste code: D019
- . Waste name: CARBON TETRACHLORIDE

- . Waste code: D021
- . Waste name: CHLOROBENZENE

- . Waste code: D022
- . Waste name: CHLOROFORM

- . Waste code: D023
- . Waste name: O-CRESOL

- . Waste code: D024
- . Waste name: M-CRESOL

- . Waste code: D025
- . Waste name: P-CRESOL

- . Waste code: D026
- . Waste name: CRESOL

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SAFETY-KLEEN SYSTEMS, INC (Continued)

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- . Waste code: D027
- . Waste name: 1,4-DICHLOROBENZENE

- . Waste code: D028
- . Waste name: 1,2-DICHLOROETHANE

- . Waste code: D029
- . Waste name: 1,1-DICHLOROETHYLENE

- . Waste code: D030
- . Waste name: 2,4-DINITROTOLUENE

- . Waste code: D032
- . Waste name: HEXACHLOROBENZENE

- . Waste code: D033
- . Waste name: HEXACHLOROBUTADIENE

- . Waste code: D034
- . Waste name: HEXACHLOROETHANE

- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE

- . Waste code: D036
- . Waste name: NITROBENZENE

- . Waste code: D037
- . Waste name: PENTRACHLOROPHENOL

- . Waste code: D038
- . Waste name: PYRIDINE

- . Waste code: D039
- . Waste name: TETRACHLOROETHYLENE

- . Waste code: D040
- . Waste name: TRICHLOROETHYLENE

- . Waste code: D041
- . Waste name: 2,4,5-TRICHLOROPHENOL

- . Waste code: D042
- . Waste name: 2,4,6-TRICHLOROPHENOL

- . Waste code: D043
- . Waste name: VINYL CHLORIDE

- . Waste code: F002
- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND

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SAFETY-KLEEN SYSTEMS, INC (Continued)

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SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Historical Generators:

Date form received by agency: 03/20/2006
Site name: SAFETY-KLEEN SYSTEMS, INC.
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKEY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

. Waste code: D003
. Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008

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SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

- . Waste name: LEAD
- . Waste code: D009
- . Waste name: MERCURY
- . Waste code: D010
- . Waste name: SELENIUM
- . Waste code: D011
- . Waste name: SILVER
- . Waste code: D018
- . Waste name: BENZENE
- . Waste code: D019
- . Waste name: CARBON TETRACHLORIDE
- . Waste code: D021
- . Waste name: CHLOROBENZENE
- . Waste code: D022
- . Waste name: CHLOROFORM
- . Waste code: D023
- . Waste name: O-CRESOL
- . Waste code: D024
- . Waste name: M-CRESOL
- . Waste code: D025
- . Waste name: P-CRESOL
- . Waste code: D026
- . Waste name: CRESOL
- . Waste code: D027
- . Waste name: 1,4-DICHLOROBENZENE
- . Waste code: D028
- . Waste name: 1,2-DICHLOROETHANE
- . Waste code: D029
- . Waste name: 1,1-DICHLOROETHYLENE
- . Waste code: D030
- . Waste name: 2,4-DINITROTOLUENE
- . Waste code: D032
- . Waste name: HEXACHLOROBENZENE
- . Waste code: D033
- . Waste name: HEXACHLOROBUTADIENE
- . Waste code: D034
- . Waste name: HEXACHLOROETHANE
- . Waste code: D035

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SAFETY-KLEEN SYSTEMS, INC (Continued)

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- . Waste name: METHYL ETHYL KETONE
- . Waste code: D036
- . Waste name: NITROBENZENE
- . Waste code: D037
- . Waste name: PENTRACHLOROPHENOL
- . Waste code: D038
- . Waste name: PYRIDINE
- . Waste code: D039
- . Waste name: TETRACHLOROETHYLENE
- . Waste code: D040
- . Waste name: TRICHLOROETHYLENE
- . Waste code: D041
- . Waste name: 2,4,5-TRICHLOROPHENOL
- . Waste code: D042
- . Waste name: 2,4,6-TRICHLOROPHENOL
- . Waste code: D043
- . Waste name: VINYL CHLORIDE
- . Waste code: F002
- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
- . Waste code: F003
- . Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
- . Waste code: F005
- . Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

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SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Date form received by agency: 03/29/2004

Site name: SAFETY-KLEEN SYSTEMS INC

Classification: Large Quantity Generator

. Waste code: D001

. Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKEY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

. Waste code: D006

. Waste name: CADMIUM

. Waste code: D007

. Waste name: CHROMIUM

. Waste code: D008

. Waste name: LEAD

. Waste code: D011

. Waste name: SILVER

. Waste code: D018

. Waste name: BENZENE

. Waste code: D022

. Waste name: CHLOROFORM

. Waste code: D027

. Waste name: 1,4-DICHLOROBENZENE

. Waste code: D028

. Waste name: 1,2-DICHLOROETHANE

. Waste code: D035

. Waste name: METHYL ETHYL KETONE

. Waste code: D039

. Waste name: TETRACHLOROETHYLENE

. Waste code: D040

. Waste name: TRICHLOROETHYLENE

. Waste code: F001

. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002

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Database(s)

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SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F003
- . Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F005
- . Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 03/28/2002

Site name: SAFETY-KLEEN SYSTEMS, INC.
Classification: Large Quantity Generator

Date form received by agency: 10/12/2000

Site name: SAFETY-KLEEN SYSTEMS, INC.--OAKLAND
Classification: Large Quantity Generator

Date form received by agency: 03/04/1999

Site name: SAFETY-KLEEN CORP - OAKLAND, CA
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996

Site name: SAFETY KLEEN CORP 7 178 01
Classification: Small Quantity Generator

Date form received by agency: 04/04/1996

Site name: SAFETY KLEEN CORP
Classification: Large Quantity Generator

Date form received by agency: 03/25/1994

Site name: SAFETY-KLEEN CORP
Classification: Large Quantity Generator

Date form received by agency: 03/31/1992

Site name: SAFETY-KLEEN CORP (7-178-01)

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SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Classification: Small Quantity Generator

Date form received by agency: 04/12/1990

Site name: SAFETY-KLEEN CORP (7-178-01)

Classification: Large Quantity Generator

Date form received by agency: 08/18/1980

Site name: SAFETY KLEEN CORP 7 178 01

Classification: Not a generator, verified

Corrective Action Summary:

Event date: 09/27/1990

Event: RFA COMPLETED

Event date: 09/27/1990

Event: RFA COMPLETED-ASSESSMENT WAS A RFA

Event date: 09/27/1990

Event: DETERMINATION OF NEED FOR AN INVESTIGATION-INVESTIGATION IS NECESSARY

Event date: 03/29/1992

Event: INVESTIGATION IMPOSITION

Event date: 03/29/1992

Event: CMS IMPOSITION

Event date: 06/16/1993

Event: STABILIZATION MEASURES EVALUATION-FACILITY NOT AMENABLE TO STABILIZATION

Event date: 06/18/1993

Event: CA PRIORITIZATION-LOW CA PRIORITY

Event date: 01/01/1996

Event: INVESTIGATION IMPOSITION

Event date: 02/01/1996

Event: INVESTIGATION WORKPLAN RECEIVED

Event date: 02/23/1996

Event: INVESTIGATION WORKPLAN APPROVED

Event date: 05/20/1996

Event: INVESTIGATION COMPLETE

Event date: 04/06/2000

Event: CMS WORKPLAN APPROVED

Event date: 04/06/2000

Event: CMS WORKPLAN RECEIVED

Event date: 09/21/2009

Event: INVESTIGATION REPORT RECEIVED

Event date: 02/16/2010

Event: INVESTIGATION COMPLETE

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SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Event date:	04/09/2010
Event:	INVESTIGATION WORKPLAN RECEIVED
Event date:	06/14/2010
Event:	INVESTIGATION WORKPLAN MODIFICATION REQ BY AGENCY
Event date:	06/14/2010
Event:	INVESTIGATION WORKPLAN NOTICE OF DEFICIENCY ISSUED
Event date:	06/29/2011
Event:	INVESTIGATION WORKPLAN APPROVED
Event date:	11/04/2011
Event:	INVESTIGATION IMPLEMENTATION BEGUN
Event date:	01/16/2012
Event:	INVESTIGATION IMPLEMENTATION BEGUN
Event date:	03/16/2012
Event:	INVESTIGATION REPORT RECEIVED
Event date:	07/03/2012
Event:	HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE
Event date:	09/28/2012
Event:	INVESTIGATION COMPLETE
Event date:	11/05/2012
Event:	INVESTIGATION SUPPLEMENTAL INFORMATION RECEIVED
Event date:	01/28/2013
Event:	INVESTIGATION SUPPLEMENTAL INFO DEEMED SATISFACT
Event date:	04/02/2013
Event:	INVESTIGATION IMPLEMENTATION BEGUN
Event date:	06/25/2013
Event:	INVESTIGATION REPORT RECEIVED
Event date:	08/20/2013
Event:	INVESTIGATION COMPLETE
Event date:	10/22/2013
Event:	CMS WORKPLAN RECEIVED
Event date:	12/17/2013
Event:	CMS WORKPLAN MODIFICATION REQ BY AGENCY
Event date:	04/14/2014
Event:	CMS WORKPLAN APPROVED
Event date:	04/15/2014
Event:	INVESTIGATION IMPLEMENTATION BEGUN
Event date:	07/09/2014
Event:	INVESTIGATION IMPLEMENTATION BEGUN

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SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Event date:	10/15/2014
Event:	CMS REPORT RECEIVED
Event date:	06/17/2015
Event:	DATE FOR PUBLIC NOTICE ON PROPOSED REMEDY
Event date:	06/30/2015
Event:	RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE
Event date:	09/25/2015
Event:	CMS COMPLETE
Event date:	09/28/2015
Event:	REMEDY CONSTRUCTION-REMEDY CONSTRUCTED
Event date:	03/15/2016
Event:	INVESTIGATION IMPLEMENTATION BEGUN
Event date:	06/22/2016
Event:	INVESTIGATION IMPLEMENTATION BEGUN
Event date:	07/01/2016
Event:	INVESTIGATION IMPLEMENTATION BEGUN
Event date:	09/14/2016
Event:	INVESTIGATION IMPLEMENTATION BEGUN
Event date:	12/07/2016
Event:	INVESTIGATION IMPLEMENTATION BEGUN
Event date:	01/20/2017
Event:	INSTITUTIONAL CONTROLS ESTABLISHED-PROPRIETARY CONTROL
Event date:	03/22/2017
Event:	INVESTIGATION IMPLEMENTATION BEGUN
Event date:	05/03/2017
Event:	INVESTIGATION IMPLEMENTATION BEGUN
Event date:	08/16/2017
Event:	INVESTIGATION IMPLEMENTATION BEGUN
Event date:	10/17/2017
Event:	CA PROCESS IS TERMINATED-REMEDIAL ACTIVITIES COMPLETE
Event date:	11/15/2017
Event:	INVESTIGATION IMPLEMENTATION BEGUN

Facility Has Received Notices of Violations:

Regulation violated:	Not reported
Area of violation:	TSD - General
Date violation determined:	01/23/2007
Date achieved compliance:	01/24/2007
Violation lead agency:	State
Enforcement action:	WRITTEN INFORMAL
Enforcement action date:	01/23/2007
Enf. disposition status:	Not reported

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Transporters - General
Date violation determined: 06/27/2005
Date achieved compliance: 06/28/2005
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/28/2005
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Transporters - Manifest and Recordkeeping
Date violation determined: 06/27/2005
Date achieved compliance: 06/28/2005
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/28/2005
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Contingency Plan and Emergency Procedures
Date violation determined: 10/29/2002
Date achieved compliance: 01/09/2004
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/24/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General Facility Standards
Date violation determined: 10/29/2002
Date achieved compliance: 01/09/2004
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/24/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported

Map ID
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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Container Use and Management
Date violation determined: 03/22/2002
Date achieved compliance: 04/07/2003
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/22/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General Facility Standards
Date violation determined: 03/22/2002
Date achieved compliance: 04/07/2003
Violation lead agency: State
Enforcement action: SINGLE SITE CA/FO
Enforcement action date: 04/07/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 190400
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Transporters - Manifest and Recordkeeping
Date violation determined: 03/22/2002
Date achieved compliance: 04/07/2003
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/22/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General Facility Standards
Date violation determined: 03/22/2002
Date achieved compliance: 04/07/2003
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/22/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State

Map ID
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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Transporters - Manifest and Recordkeeping
Date violation determined: 03/22/2002
Date achieved compliance: 04/07/2003
Violation lead agency: State
Enforcement action: SINGLE SITE CA/FO
Enforcement action date: 04/07/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 190400
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Manifest/Records/Reporting
Date violation determined: 03/22/2002
Date achieved compliance: 04/07/2003
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/22/2002
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Manifest/Records/Reporting
Date violation determined: 12/20/2000
Date achieved compliance: 04/07/2003
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 12/21/2000
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Manifest/Records/Reporting
Date violation determined: 12/20/2000
Date achieved compliance: 04/07/2003
Violation lead agency: State
Enforcement action: SINGLE SITE CA/FO
Enforcement action date: 04/07/2003
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported

Map ID
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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Final penalty amount: 190400
Paid penalty amount: Not reported

Regulation violated: F - 264.10-18.B
Area of violation: TSD - General
Date violation determined: 09/16/1998
Date achieved compliance: 11/19/1999
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/16/1998
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 07/14/1994
Date achieved compliance: 08/31/1994
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 06/28/1994
Date achieved compliance: 07/14/1994
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 06/24/1994
Date achieved compliance: 06/28/1994
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported

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Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 05/18/1994
Date achieved compliance: 06/24/1994
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 05/12/1994
Date achieved compliance: 05/18/1994
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 04/26/1994
Date achieved compliance: 04/27/1994
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 11/15/1993
Date achieved compliance: 11/16/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 09/16/1993
Date achieved compliance: 11/15/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 08/16/1993
Date achieved compliance: 09/16/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 08/11/1993
Date achieved compliance: 08/16/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 08/02/1993
Date achieved compliance: 08/11/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.30-34.C

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Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Area of violation: Generators - General
Date violation determined: 07/27/1993
Date achieved compliance: 10/22/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/13/1993
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.40-43.D
Area of violation: Generators - General
Date violation determined: 07/19/1993
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/13/1993
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.40-43.D
Area of violation: Generators - General
Date violation determined: 07/19/1993
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/19/1993
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 06/24/1993
Date achieved compliance: 07/27/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General

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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Date violation determined: 06/16/1993
Date achieved compliance: 06/21/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 05/17/1993
Date achieved compliance: 06/07/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 05/11/1993
Date achieved compliance: 05/17/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 03/09/1993
Date achieved compliance: 03/24/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 02/24/1993

Map ID
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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Date achieved compliance: 03/09/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 11/03/1992
Date achieved compliance: 12/10/1992
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 10/08/1992
Date achieved compliance: 11/03/1992
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 03/27/1992
Date achieved compliance: 04/23/1992
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 03/24/1992
Date achieved compliance: 03/27/1992

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Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 03/19/1992
Date achieved compliance: 03/24/1992
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 09/26/1991
Date achieved compliance: 10/07/1991
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 06/19/1991
Date achieved compliance: 10/07/1991
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 03/29/1991
Date achieved compliance: 05/02/1991
Violation lead agency: State

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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 03/28/1991
Date achieved compliance: 03/29/1991
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 03/26/1991
Date achieved compliance: 03/28/1991
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 03/21/1991
Date achieved compliance: 03/26/1991
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 03/14/1991
Date achieved compliance: 03/21/1991
Violation lead agency: State
Enforcement action: Not reported

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MAP FINDINGS

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Database(s)

EDR ID Number
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SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 02/26/1991
Date achieved compliance: 03/14/1991
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 02/25/1991
Date achieved compliance: 02/26/1991
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 02/20/1991
Date achieved compliance: 02/25/1991
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 02/19/1991
Date achieved compliance: 02/20/1991
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported

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EDR ID Number
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SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 02/14/1991
Date achieved compliance: 02/19/1991
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 01/23/1991
Date achieved compliance: 01/31/1991
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 01/17/1991
Date achieved compliance: 01/23/1991
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.110-120.G
Area of violation: TSD - Closure/Post-Closure
Date violation determined: 10/02/1990
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/20/1991
Enf. disposition status: Not reported

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EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.110-120.G
Area of violation: TSD - Closure/Post-Closure
Date violation determined: 10/02/1990
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR IMMINENT AND SUBSTANTIAL ENDANGERMENT
Enforcement action date: 04/30/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 10/02/1990
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR IMMINENT AND SUBSTANTIAL ENDANGERMENT
Enforcement action date: 04/30/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.70-77.E
Area of violation: TSD - General
Date violation determined: 10/02/1990
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR IMMINENT AND SUBSTANTIAL ENDANGERMENT
Enforcement action date: 04/30/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 10/02/1990
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 10/02/1990
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/20/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.70-77.E
Area of violation: TSD - General
Date violation determined: 10/02/1990
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.110-120.G
Area of violation: TSD - Closure/Post-Closure
Date violation determined: 10/02/1990
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.70-77.E
Area of violation: TSD - General
Date violation determined: 10/02/1990
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/20/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 08/22/1990
Date achieved compliance: 10/02/1990
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 05/16/1990
Date achieved compliance: 06/05/1990
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 02/27/1990
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/08/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 02/27/1990
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 02/27/1990
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR IMMINENT AND SUBSTANTIAL ENDANGERMENT
Enforcement action date: 04/30/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 02/23/1990
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 268.7
Area of violation: LDR - General
Date violation determined: 02/17/1989
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR IMMINENT AND SUBSTANTIAL ENDANGERMENT
Enforcement action date: 05/10/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.110-120.G
Area of violation: TSD - Closure/Post-Closure
Date violation determined: 02/17/1989
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/27/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 02/17/1989
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/27/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 268 ALL
Area of violation: LDR - General
Date violation determined: 02/17/1989
Date achieved compliance: 09/26/1991
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR IMMINENT AND SUBSTANTIAL ENDANGERMENT
Enforcement action date: 05/10/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 268 ALL
Area of violation: LDR - General
Date violation determined: 02/17/1989
Date achieved compliance: 09/26/1991
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/27/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 268.7
Area of violation: LDR - General
Date violation determined: 02/17/1989
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/27/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Regulation violated: FR - 264.110-120.G
Area of violation: TSD - Closure/Post-Closure
Date violation determined: 02/17/1989
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR IMMINENT AND SUBSTANTIAL ENDANGERMENT
Enforcement action date: 05/10/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 02/17/1989
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR IMMINENT AND SUBSTANTIAL ENDANGERMENT
Enforcement action date: 05/10/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 08/23/1988
Date achieved compliance: 11/15/1988
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 08/23/1988
Date achieved compliance: 11/15/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 11/30/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.140-150.H

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Area of violation: TSD - Financial Requirements
Date violation determined: 07/06/1988
Date achieved compliance: 11/15/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/26/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 05/19/1988
Date achieved compliance: 07/02/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/26/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 02/08/2007
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/23/2007
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 01/24/2007
Evaluation lead agency: State

Evaluation date: 06/27/2005
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Transporters - General
Date achieved compliance: 06/28/2005
Evaluation lead agency: State

Evaluation date: 06/27/2005
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Transporters - Manifest and Recordkeeping
Date achieved compliance: 06/28/2005
Evaluation lead agency: State

Evaluation date: 04/22/2004
Evaluation: FOLLOW-UP INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Evaluation date: 06/30/2003
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/18/2003
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/07/2003
Evaluation: NOT A SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/29/2002
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General Facility Standards
Date achieved compliance: 01/09/2004
Evaluation lead agency: State

Evaluation date: 10/29/2002
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Contingency Plan and Emergency Procedures
Date achieved compliance: 01/09/2004
Evaluation lead agency: State

Evaluation date: 10/29/2002
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/22/2002
Evaluation: FOLLOW-UP INSPECTION
Area of violation: Transporters - Manifest and Recordkeeping
Date achieved compliance: 04/07/2003
Evaluation lead agency: State

Evaluation date: 03/22/2002
Evaluation: FOLLOW-UP INSPECTION
Area of violation: TSD - Manifest/Records/Reporting
Date achieved compliance: 04/07/2003
Evaluation lead agency: State

Evaluation date: 03/22/2002
Evaluation: FOLLOW-UP INSPECTION
Area of violation: TSD - Container Use and Management
Date achieved compliance: 04/07/2003
Evaluation lead agency: State

Evaluation date: 03/22/2002
Evaluation: FOLLOW-UP INSPECTION
Area of violation: TSD - General Facility Standards

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Date achieved compliance: 04/07/2003
Evaluation lead agency: State

Evaluation date: 12/20/2000
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Manifest/Records/Reporting
Date achieved compliance: 04/07/2003
Evaluation lead agency: State

Evaluation date: 12/20/2000
Evaluation: SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 02/28/2000
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/16/1998
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 11/19/1999
Evaluation lead agency: State

Evaluation date: 10/22/1997
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/18/1996
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/18/1996
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/27/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 10/20/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Evaluation date: 09/14/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 08/31/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 07/14/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 08/31/1994
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 06/28/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 07/14/1994
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 06/24/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 06/28/1994
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 05/18/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 06/24/1994
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 05/12/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 05/18/1994
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 04/27/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 04/26/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 04/27/1994
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 04/06/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported

Map ID
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/24/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/28/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/17/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/02/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 01/26/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 01/24/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 11/16/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 11/15/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 11/16/1993
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 09/16/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 11/15/1993
Evaluation lead agency: State Contractor/Grantee

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Evaluation date: 08/16/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 09/16/1993
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 08/11/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 08/16/1993
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 08/02/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 08/11/1993
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 07/30/1993
Evaluation: NOT A SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/27/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 10/22/1993
Evaluation lead agency: State

Evaluation date: 06/24/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 07/27/1993
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 06/21/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 06/16/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 06/21/1993
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 06/07/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 05/17/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Date achieved compliance: 06/07/1993
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 05/11/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 05/17/1993
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 04/07/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/26/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/24/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/09/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 03/24/1993
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/24/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 03/09/1993
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/10/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 01/13/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 12/10/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Evaluation date: 11/03/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 12/10/1992
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 10/08/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 11/03/1992
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 09/24/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 07/30/1993
Evaluation lead agency: State

Evaluation date: 05/22/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 05/20/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 05/12/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 04/23/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/27/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 04/23/1992
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/24/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 03/27/1992
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/19/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Date achieved compliance: 03/24/1992
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/24/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 01/23/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 10/07/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 09/26/1991
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 10/07/1991
Evaluation lead agency: EPA

Evaluation date: 06/19/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 10/07/1991
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 05/29/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 05/02/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/29/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 05/02/1991
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/28/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 03/29/1991
Evaluation lead agency: State Contractor/Grantee

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Evaluation date: 03/26/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 03/28/1991
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/21/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 03/26/1991
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 03/14/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 03/21/1991
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/26/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 03/14/1991
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/25/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 02/26/1991
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/20/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 02/25/1991
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/19/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 02/20/1991
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/14/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 02/19/1991
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/05/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 01/31/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 01/23/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 01/31/1991
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 01/17/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 01/23/1991
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 10/02/1990
Evaluation: SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/02/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Closure/Post-Closure
Date achieved compliance: 07/30/1993
Evaluation lead agency: State

Evaluation date: 10/02/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 07/30/1993
Evaluation lead agency: State

Evaluation date: 08/22/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 10/02/1990
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 08/15/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 07/03/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 06/05/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Evaluation date: 05/16/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 06/05/1990
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/27/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 07/30/1993
Evaluation lead agency: State

Evaluation date: 02/23/1990
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 07/30/1993
Evaluation lead agency: State

Evaluation date: 02/17/1989
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: LDR - General
Date achieved compliance: 09/26/1991
Evaluation lead agency: State

Evaluation date: 02/17/1989
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: LDR - General
Date achieved compliance: 07/30/1993
Evaluation lead agency: State

Evaluation date: 02/17/1989
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 07/30/1993
Evaluation lead agency: State

Evaluation date: 02/17/1989
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Closure/Post-Closure
Date achieved compliance: 07/30/1993
Evaluation lead agency: State

Evaluation date: 02/03/1989
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/23/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 11/15/1988
Evaluation lead agency: State

Evaluation date: 07/06/1988
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

Date achieved compliance: 11/15/1988
Evaluation lead agency: State

Evaluation date: 05/19/1988
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 07/02/1988
Evaluation lead agency: State

US INST CONTROL:

EPA ID: CAD053044053
Site ID: Not reported
Name: SAFETY-KLEEN SYSTEMS INC
Action Name: Not reported
Address: 400 MARKET STREET
OAKLAND, CA 94607
EPA Region: 9
County: ALAMEDA
Event Code: CA772PR
Inst. Control: Not reported
Actual Date: 01/20/2017
Comple. Date: 01/01/1900
Operable Unit: Not reported
Contaminated Media : Not reported
Contact Name : WILLIAM COLEMAN
Contact Phone and Ext :209-545-1011
Event Code Description: INSTITUTIONAL CONTROLS ESTABLISHED-PROPRIETARY CONTROL

2020 COR ACTION:

EPA ID: CAD053044053
Region: 9
Action: Remedy Construction

Lead Smelter Sites:

Site ID: 905732
Facility Region Id: 9
Latitude: Not reported
Longitude: Not reported
CoC Ind: Not reported
Contaminant Name: Not reported
FF Ind: N
NAI: N
Non-Primary Site-Sub Type: Batteries/scrap metals/secondary smelting/precious metal recovery (Recycling);Chemicals/chemical waste (e.g., solvent recovery) (Recycling);Ground water plume site with no identifiable source (Other);Waste/used oil (Recycling)
NPL: Not on the NPL
Primary Site-Sub Type: Contaminated sediment site with no identifiable source (Other)
Special Initiative: Not reported

FINDS:

Registry ID: 110002334046

Environmental Interest/Information System
AIR EMISSIONS CLASSIFICATION UNKNOWN

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

SAFETY-KLEEN SYSTEMS, INC (Continued)

1015730631

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1015730631
 Registry ID: 110002334046
 DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110002334046>

221
 SW
 1/2-1
 0.955 mi.
 5044 ft.

TARGET PARCEL
2700 5TH STREET
ALAMEDA, CA 94501

ENVIROSTOR **S118494509**
VCP **N/A**
EMI

Relative:
Lower
Actual:
13 ft.

ENVIROSTOR:
 Facility ID: 60002299
 Status: Active
 Status Date: 07/01/2014
 Site Code: 202006
 Site Type: Voluntary Cleanup
 Site Type Detailed: Voluntary Cleanup
 Acres: 10.3
 NPL: NO
 Regulatory Agencies: SMBRP
 Lead Agency: SMBRP
 Program Manager: Henry Wong
 Supervisor: Daniel Murphy
 Division Branch: Cleanup Berkeley
 Assembly: , 18
 Senate: , 09
 Special Program: Not reported
 Restricted Use: NO
 Site Mgmt Req: NONE SPECIFIED
 Funding: Responsible Party
 Latitude: 37.78832
 Longitude: -122.2789
 APN: NONE SPECIFIED
 Past Use: HAZARDOUS WASTE STORAGE - TANKS/CONTAINERS, UNKNOWN, TRANSPORTATION - WAREHOUSING
 Potential COC: Lead Polychlorinated biphenyls (PCBs Polynuclear aromatic hydrocarbons (PAHs)
 Confirmed COC: Lead Polychlorinated biphenyls (PCBs Polynuclear aromatic

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TARGET PARCEL (Continued)

S118494509

Potential Description: hydrocarbons (PAHs)
SOIL
Alias Name: 202006
Alias Type: Project Code (Site Code)
Alias Name: 60002299
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 05/06/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 09/28/2017
Comments: The Report documents operation and maintenance activities performed during the 2016 calendar year.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 03/27/2018
Comments: The Report documents inspection and operation & maintenance activities performed during the 2017 calendar year.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 01/19/2017
Comments: The Report summarizes the installation of a new plumbing in the optical department inside Target Store T2829 pursuant to the June 26, 2014 Operation and Maintenance Plan. The new plumbing was installed directly under the floor slab with soil disturbance down to 55 inches below ground surface. Approximately 1.14 cubic yards of soil, characterized as a non-hazardous waste, were transported to an off-site permitted landfill for disposal.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 04/18/2018
Comments: The Report summarizes the installation of new plumbing at a beverage area within the Target store in October and November 2017. Target contained waste soil from trench excavation in one 55-gallon drum and transported the drum to a permitted landfill for disposal.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Health & Safety Plan
Completed Date: 07/13/2018
Comments: The Site Health and Safety Plan is no longer required since placement of a pylon sign will not involve ground intrusion activity.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TARGET PARCEL (Continued)

S118494509

Completed Document Type: Technical Workplan
Completed Date: 07/13/2018
Comments: The Work Plan is no longer required since placement of a pylon sign will not involve ground intrusion activity.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/30/2016
Comments: The cost estimate is for the fiscal year 2016/2017 which starts July 1, 2016 and ends June 30, 2017.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/24/2017
Comments: Annual DTSC oversight cost estimate.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/26/2018
Comments: The Report documents inspection and operation & maintenance activities performed during the 2017 calendar year.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Operations and Maintenance Report
Schedule Due Date: 05/17/2019
Schedule Revised Date: Not reported

VCP:

Facility ID: 60002299
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 10.3
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Henry Wong
Supervisor: Daniel Murphy
Division Branch: Cleanup Berkeley
Site Code: 202006
Assembly: , 18
Senate: , 09
Special Programs Code: Not reported
Status: Active
Status Date: 07/01/2014
Restricted Use: NO
Funding: Responsible Party
Lat/Long: 37.78832 / -122.2789

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TARGET PARCEL (Continued)

S118494509

APN: NONE SPECIFIED
Past Use: HAZARDOUS WASTE STORAGE - TANKS/CONTAINERS, UNKNOWN, TRANSPORTATION - WAREHOUSING
Potential COC: 30013, 30018, 30019
Confirmed COC: 30013,30018,30019
Potential Description: SOIL
Alias Name: 202006
Alias Type: Project Code (Site Code)
Alias Name: 60002299
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 05/06/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 09/28/2017
Comments: The Report documents operation and maintenance activities performed during the 2016 calendar year.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 03/27/2018
Comments: The Report documents inspection and operation & maintenance activities performed during the 2017 calendar year.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 01/19/2017
Comments: The Report summarizes the installation of a new plumbing in the optical department inside Target Store T2829 pursuant to the June 26, 2014 Operation and Maintenance Plan. The new plumbing was installed directly under the floor slab with soil disturbance down to 55 inches below ground surface. Approximately 1.14 cubic yards of soil, characterized as a non-hazardous waste, were transported to an off-site permitted landfill for disposal.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 04/18/2018
Comments: The Report summarizes the installation of new plumbing at a beverage area within the Target store in October and November 2017. Target contained waste soil from trench excavation in one 55-gallon drum and transported the drum to a permitted landfill for disposal.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Health & Safety Plan
Completed Date: 07/13/2018
Comments: The Site Health and Safety Plan is no longer required since placement

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TARGET PARCEL (Continued)

S118494509

of a pylon sign will not involve ground intrusion activity.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 07/13/2018
Comments: The Work Plan is no longer required since placement of a pylon sign will not involve ground intrusion activity.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/30/2016
Comments: The cost estimate is for the fiscal year 2016/2017 which starts July 1, 2016 and ends June 30, 2017.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/24/2017
Comments: Annual DTSC oversight cost estimate.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/26/2018
Comments: The Report documents inspection and operation & maintenance activities performed during the 2017 calendar year.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Operations and Maintenance Report
Schedule Due Date: 05/17/2019
Schedule Revised Date: Not reported

EMI:

Year: 2014
County Code: 1
Air Basin: SF
Facility ID: 21790
Air District Name: BA
SIC Code: 5311
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.009726615
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0.00022017
NOX - Oxides of Nitrogen Tons/Yr: 1.2125e-005
SOX - Oxides of Sulphur Tons/Yr: 4.0197e-005
Particulate Matter Tons/Yr: 0.000168523
Part. Matter 10 Micrometers and Smllr Tons/Yr:0.000168523

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

TARGET PARCEL (Continued)

S118494509

Year: 2015
 County Code: 1
 Air Basin: SF
 Facility ID: 21790
 Air District Name: BA
 SIC Code: 5311
 Air District Name: BAY AREA AQMD
 Community Health Air Pollution Info System: Not reported
 Consolidated Emission Reporting Rule: Not reported
 Total Organic Hydrocarbon Gases Tons/Yr: 0.009726615
 Reactive Organic Gases Tons/Yr: 0.000623232
 Carbon Monoxide Emissions Tons/Yr: 0.00022017
 NOX - Oxides of Nitrogen Tons/Yr: 1.2125e-005
 SOX - Oxides of Sulphur Tons/Yr: 4.0197e-005
 Particulate Matter Tons/Yr: 0.000168523
 Part. Matter 10 Micrometers and Smlr Tons/Yr:0.000168523

Year: 2016
 County Code: 1
 Air Basin: SF
 Facility ID: 21790
 Air District Name: BA
 SIC Code: 5311
 Air District Name: BAY AREA AQMD
 Community Health Air Pollution Info System: Not reported
 Consolidated Emission Reporting Rule: Not reported
 Total Organic Hydrocarbon Gases Tons/Yr: 0.002972255
 Reactive Organic Gases Tons/Yr: 0.0002767169405
 Carbon Monoxide Emissions Tons/Yr: 6.7262e-005
 NOX - Oxides of Nitrogen Tons/Yr: 3.504e-006
 SOX - Oxides of Sulphur Tons/Yr: 2.316e-006
 Particulate Matter Tons/Yr: 4.0757e-005
 Part. Matter 10 Micrometers and Smlr Tons/Yr:4.0757e-005

222
 NNW
 1/2-1
 0.960 mi.
 5068 ft.

SERVICE STATION
2225 TELEGRAPH AVENUE
OAKLAND, CA 92626

Notify 65 S100178955
N/A

Relative:
Lower
Actual:
23 ft.

NOTIFY 65:
 Date Reported: Not reported
 Staff Initials: Not reported
 Board File Number: Not reported
 Facility Type: Not reported
 Discharge Date: Not reported
 Issue Date: Not reported
 Incident Description: Not reported

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

223
SE
 1/2-1
 0.980 mi.
 5175 ft.

CROWLEY MARITIME CORPORATION
PAC. DRY DOCKS, YARDS 1&2
OAKLAND, CA 92626

Notify 65 **S100179669**
 N/A

Relative: NOTIFY 65:
Lower Date Reported: Not reported
 Staff Initials: Not reported
Actual: Board File Number: Not reported
0 ft. Facility Type: Not reported
 Discharge Date: Not reported
 Issue Date: Not reported
 Incident Description: Not reported

224
NNE
 1/2-1
 0.988 mi.
 5219 ft.

LAWLER APARTMENTS
431 LEE STREET
OAKLAND, CA 92626

Notify 65 **S100179333**
 N/A

Relative: NOTIFY 65:
Higher Date Reported: Not reported
 Staff Initials: Not reported
Actual: Board File Number: Not reported
41 ft. Facility Type: Not reported
 Discharge Date: Not reported
 Issue Date: Not reported
 Incident Description: Not reported

Count: 9 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
ALAMEDA	S122495069	SYMMETRY AT ALAMEDA LANDING	MITCHELL AVENUE AND DILLER STR	94501	ENVIROSTOR, VCP
ALAMEDA	S122495072	CADENCE AND LINEAR AT ALAMEDA LAND	MITCHELL AVENUE AND FIFTH STRE	94501	ENVIROSTOR, VCP
ALAMEDA	1015732860	ALAMEDA CITY BUREAU OF ELEC PCB SU	2004 WEBSTER ST AT ATLANTIC	94501	SEMS-ARCHIVE, RCRA-SQG, PADS
OAKLAND	S118421406	5TH ST AND MAGNOLIA ST REDEVELOPME	0 5TH STREET AND MAGNOLIA ST	94607	Alameda County CS
OAKLAND	1016424066	LAKE MERRITT FLOOD CONTROL PUMP ST	7TH AT 8TH AVE	94606	FINDS
OAKLAND	S103881512	UPTOWN THEATER DISTRICT	BORDERED BY 20TH ST SAN PABLO		CPS-SLIC
OAKLAND	1003879399	54 EMBARCADERO	FALLON ST & EMBARCADERO DR	94606	SEMS-ARCHIVE
OAKLAND	S104539364	SOUTHERN PACIFIC TRANS CO	UNKNOWN 5TH AVE & KIRKHAM	94607	LUST, HIST CORTESE
OAKLAND	S106162033	OAKLAND REDEVELOPMENT AGENCY	UNKNOWN 11TH ST & WEBSTER ST	94606	CPS-SLIC

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 03/11/2019	Source: EPA
Date Data Arrived at EDR: 03/14/2019	Telephone: N/A
Date Made Active in Reports: 04/01/2019	Last EDR Contact: 04/05/2019
Number of Days to Update: 18	Next Scheduled EDR Contact: 07/15/2019
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 03/11/2019	Source: EPA
Date Data Arrived at EDR: 03/14/2019	Telephone: N/A
Date Made Active in Reports: 04/01/2019	Last EDR Contact: 04/05/2019
Number of Days to Update: 18	Next Scheduled EDR Contact: 07/15/2019
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/14/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 18

Source: EPA
Telephone: N/A
Last EDR Contact: 04/05/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 92

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 04/05/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/06/2019
Date Data Arrived at EDR: 02/15/2019
Date Made Active in Reports: 03/15/2019
Number of Days to Update: 28

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/14/2019
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 02/06/2019	Source: EPA
Date Data Arrived at EDR: 02/15/2019	Telephone: 800-424-9346
Date Made Active in Reports: 03/15/2019	Last EDR Contact: 03/14/2019
Number of Days to Update: 28	Next Scheduled EDR Contact: 04/29/2019
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/01/2018	Source: EPA
Date Data Arrived at EDR: 03/28/2018	Telephone: 800-424-9346
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 03/27/2019
Number of Days to Update: 86	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/28/2018	Telephone: (415) 495-8895
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 03/27/2019
Number of Days to Update: 86	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/28/2018	Telephone: (415) 495-8895
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 03/27/2019
Number of Days to Update: 86	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/28/2018	Telephone: (415) 495-8895
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 03/27/2019
Number of Days to Update: 86	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/28/2018	Telephone: (415) 495-8895
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 03/27/2019
Number of Days to Update: 86	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 10/17/2018	Source: Department of the Navy
Date Data Arrived at EDR: 10/25/2018	Telephone: 843-820-7326
Date Made Active in Reports: 12/07/2018	Last EDR Contact: 02/07/2019
Number of Days to Update: 43	Next Scheduled EDR Contact: 05/27/2019
	Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 01/31/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/04/2019	Telephone: 703-603-0695
Date Made Active in Reports: 03/08/2019	Last EDR Contact: 02/04/2019
Number of Days to Update: 32	Next Scheduled EDR Contact: 06/10/2019
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 01/31/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/04/2019	Telephone: 703-603-0695
Date Made Active in Reports: 03/08/2019	Last EDR Contact: 02/04/2019
Number of Days to Update: 32	Next Scheduled EDR Contact: 06/10/2019
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 02/04/2019

Date Data Arrived at EDR: 02/08/2019

Date Made Active in Reports: 03/08/2019

Number of Days to Update: 28

Source: National Response Center, United States Coast Guard

Telephone: 202-267-2180

Last EDR Contact: 03/26/2019

Next Scheduled EDR Contact: 07/08/2019

Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 01/28/2019

Date Data Arrived at EDR: 01/29/2019

Date Made Active in Reports: 03/05/2019

Number of Days to Update: 35

Source: Department of Toxic Substances Control

Telephone: 916-323-3400

Last EDR Contact: 01/29/2019

Next Scheduled EDR Contact: 05/11/2019

Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 01/28/2019

Date Data Arrived at EDR: 01/29/2019

Date Made Active in Reports: 03/05/2019

Number of Days to Update: 35

Source: Department of Toxic Substances Control

Telephone: 916-323-3400

Last EDR Contact: 01/29/2019

Next Scheduled EDR Contact: 05/11/2019

Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 02/11/2019

Date Data Arrived at EDR: 02/12/2019

Date Made Active in Reports: 03/05/2019

Number of Days to Update: 21

Source: Department of Resources Recycling and Recovery

Telephone: 916-341-6320

Last EDR Contact: 02/12/2019

Next Scheduled EDR Contact: 05/27/2019

Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001	Source: California Regional Water Quality Control Board North Coast (1)
Date Data Arrived at EDR: 02/28/2001	Telephone: 707-570-3769
Date Made Active in Reports: 03/29/2001	Last EDR Contact: 08/01/2011
Number of Days to Update: 29	Next Scheduled EDR Contact: 11/14/2011
	Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004	Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Date Data Arrived at EDR: 02/26/2004	Telephone: 760-776-8943
Date Made Active in Reports: 03/24/2004	Last EDR Contact: 08/01/2011
Number of Days to Update: 27	Next Scheduled EDR Contact: 11/14/2011
	Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005	Source: California Regional Water Quality Control Board Santa Ana Region (8)
Date Data Arrived at EDR: 02/15/2005	Telephone: 909-782-4496
Date Made Active in Reports: 03/28/2005	Last EDR Contact: 08/15/2011
Number of Days to Update: 41	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: Varies

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005	Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Date Data Arrived at EDR: 06/07/2005	Telephone: 760-241-7365
Date Made Active in Reports: 06/29/2005	Last EDR Contact: 09/12/2011
Number of Days to Update: 22	Next Scheduled EDR Contact: 12/26/2011
	Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003	Source: California Regional Water Quality Control Board Lahontan Region (6)
Date Data Arrived at EDR: 09/10/2003	Telephone: 530-542-5572
Date Made Active in Reports: 10/07/2003	Last EDR Contact: 09/12/2011
Number of Days to Update: 27	Next Scheduled EDR Contact: 12/26/2011
	Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008	Source: California Regional Water Quality Control Board Central Valley Region (5)
Date Data Arrived at EDR: 07/22/2008	Telephone: 916-464-4834
Date Made Active in Reports: 07/31/2008	Last EDR Contact: 07/01/2011
Number of Days to Update: 9	Next Scheduled EDR Contact: 10/17/2011
	Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 12/11/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Quarterly

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/10/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/25/2018	Source: EPA Region 8
Date Data Arrived at EDR: 05/18/2018	Telephone: 303-312-6271
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 03/07/2019
Number of Days to Update: 63	Next Scheduled EDR Contact: 05/06/2019
	Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/24/2018	Source: EPA Region 7
Date Data Arrived at EDR: 05/18/2018	Telephone: 913-551-7003
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 03/07/2019
Number of Days to Update: 63	Next Scheduled EDR Contact: 05/06/2019
	Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/01/2018	Source: EPA Region 6
Date Data Arrived at EDR: 05/18/2018	Telephone: 214-665-6597
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 03/07/2019
Number of Days to Update: 63	Next Scheduled EDR Contact: 05/06/2019
	Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/08/2018	Source: EPA Region 4
Date Data Arrived at EDR: 05/18/2018	Telephone: 404-562-8677
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 03/05/2019
Number of Days to Update: 63	Next Scheduled EDR Contact: 05/06/2019
	Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/13/2018	Source: EPA Region 1
Date Data Arrived at EDR: 05/18/2018	Telephone: 617-918-1313
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 03/07/2019
Number of Days to Update: 63	Next Scheduled EDR Contact: 05/06/2019
	Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/12/2018	Source: EPA, Region 5
Date Data Arrived at EDR: 05/18/2018	Telephone: 312-886-7439
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 03/07/2019
Number of Days to Update: 63	Next Scheduled EDR Contact: 05/06/2019
	Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)

Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/10/2018	Source: State Water Resources Control Board
Date Data Arrived at EDR: 12/11/2018	Telephone: 866-480-1028
Date Made Active in Reports: 01/15/2019	Last EDR Contact: 12/12/2018
Number of Days to Update: 35	Next Scheduled EDR Contact: 03/25/2019
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SLIC REG 6L: SLIC Sites

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017
Date Data Arrived at EDR: 05/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 136

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 04/12/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Varies

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases

UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/13/2019
Date Made Active in Reports: 04/03/2019
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 03/13/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Varies

MILITARY UST SITES: Military UST Sites (GEOTRACKER)

Military ust sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 12/11/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities

A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/10/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 04/25/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 03/07/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/24/2018	Source: EPA Region 7
Date Data Arrived at EDR: 05/18/2018	Telephone: 913-551-7003
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 03/07/2019
Number of Days to Update: 63	Next Scheduled EDR Contact: 05/06/2019
	Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/01/2018	Source: EPA Region 6
Date Data Arrived at EDR: 05/18/2018	Telephone: 214-665-7591
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 03/07/2019
Number of Days to Update: 63	Next Scheduled EDR Contact: 05/06/2019
	Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/13/2018	Source: EPA, Region 1
Date Data Arrived at EDR: 05/18/2018	Telephone: 617-918-1313
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 03/07/2019
Number of Days to Update: 63	Next Scheduled EDR Contact: 05/06/2019
	Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/08/2018	Source: EPA Region 4
Date Data Arrived at EDR: 05/18/2018	Telephone: 404-562-9424
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 03/05/2019
Number of Days to Update: 63	Next Scheduled EDR Contact: 05/06/2019
	Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/12/2018	Source: EPA Region 5
Date Data Arrived at EDR: 05/18/2018	Telephone: 312-886-6136
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 03/07/2019
Number of Days to Update: 63	Next Scheduled EDR Contact: 05/06/2019
	Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 09/29/2015	Telephone: 617-918-1102
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 03/25/2019
Number of Days to Update: 142	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 01/28/2019
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 35

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/29/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Quarterly

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfields Sites Listing

A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 12/20/2018
Date Data Arrived at EDR: 12/21/2018
Date Made Active in Reports: 02/28/2019
Number of Days to Update: 69

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 03/26/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/17/2018
Date Data Arrived at EDR: 12/18/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 24

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/19/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 01/28/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/12/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 34

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/13/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 02/09/2019
Date Data Arrived at EDR: 02/12/2019
Date Made Active in Reports: 03/27/2019
Number of Days to Update: 43

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 03/26/2019
Next Scheduled EDR Contact: 05/27/2019
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 01/29/2019
Next Scheduled EDR Contact: 05/13/2019
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Services, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 02/01/2019
Next Scheduled EDR Contact: 05/13/2019
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 09/21/2018	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 09/21/2018	Telephone: 202-307-1000
Date Made Active in Reports: 11/09/2018	Last EDR Contact: 02/21/2019
Number of Days to Update: 49	Next Scheduled EDR Contact: 06/10/2019
	Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005	Source: Department of Toxic Substance Control
Date Data Arrived at EDR: 08/03/2006	Telephone: 916-323-3400
Date Made Active in Reports: 08/24/2006	Last EDR Contact: 02/23/2009
Number of Days to Update: 21	Next Scheduled EDR Contact: 05/25/2009
	Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 01/28/2019	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 01/29/2019	Telephone: 916-323-3400
Date Made Active in Reports: 03/05/2019	Last EDR Contact: 01/29/2019
Number of Days to Update: 35	Next Scheduled EDR Contact: 05/11/2019
	Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2017	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 06/12/2018	Telephone: 916-255-6504
Date Made Active in Reports: 08/06/2018	Last EDR Contact: 04/08/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: Varies

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 10/22/2018	Source: CalEPA
Date Data Arrived at EDR: 10/23/2018	Telephone: 916-323-2514
Date Made Active in Reports: 11/30/2018	Last EDR Contact: 04/11/2019
Number of Days to Update: 38	Next Scheduled EDR Contact: 05/06/2019
	Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/21/2018
Date Data Arrived at EDR: 09/21/2018
Date Made Active in Reports: 11/09/2018
Number of Days to Update: 49

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 02/21/2019
Date Data Arrived at EDR: 02/22/2019
Date Made Active in Reports: 04/15/2019
Number of Days to Update: 52

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/11/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 12/04/2018
Date Data Arrived at EDR: 12/06/2018
Date Made Active in Reports: 12/14/2018
Number of Days to Update: 8

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing Aboveground storage tank sites

Date of Government Version: 09/11/2018	Source: San Francisco County Department of Public Health
Date Data Arrived at EDR: 09/12/2018	Telephone: 415-252-3896
Date Made Active in Reports: 10/11/2018	Last EDR Contact: 01/31/2019
Number of Days to Update: 29	Next Scheduled EDR Contact: 05/20/2019
	Data Release Frequency: Varies

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 09/05/1995	Telephone: 916-341-5851
Date Made Active in Reports: 09/29/1995	Last EDR Contact: 12/28/1998
Number of Days to Update: 24	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

CERS TANKS: California Environmental Reporting System (CERS) Tanks

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 10/22/2018	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 10/23/2018	Telephone: 916-323-2514
Date Made Active in Reports: 11/30/2018	Last EDR Contact: 04/11/2019
Number of Days to Update: 38	Next Scheduled EDR Contact: 05/06/2019
	Data Release Frequency: Quarterly

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 02/28/2019	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 03/01/2019	Telephone: 916-323-3400
Date Made Active in Reports: 04/02/2019	Last EDR Contact: 02/27/2019
Number of Days to Update: 32	Next Scheduled EDR Contact: 06/17/2019
	Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 03/11/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/14/2019	Telephone: 202-564-6023
Date Made Active in Reports: 03/21/2019	Last EDR Contact: 03/14/2019
Number of Days to Update: 7	Next Scheduled EDR Contact: 05/06/2019
	Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 03/04/2019	Source: DTSC and SWRCB
Date Data Arrived at EDR: 03/05/2019	Telephone: 916-323-3400
Date Made Active in Reports: 04/01/2019	Last EDR Contact: 03/05/2019
Number of Days to Update: 27	Next Scheduled EDR Contact: 06/17/2019
	Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 02/08/2019	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 02/08/2019	Telephone: 202-366-4555
Date Made Active in Reports: 03/21/2019	Last EDR Contact: 03/26/2019
Number of Days to Update: 41	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 10/24/2018	Source: Office of Emergency Services
Date Data Arrived at EDR: 01/24/2019	Telephone: 916-845-8400
Date Made Active in Reports: 03/05/2019	Last EDR Contact: 01/24/2019
Number of Days to Update: 40	Next Scheduled EDR Contact: 05/06/2019
	Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/10/2018	Source: State Water Quality Control Board
Date Data Arrived at EDR: 12/11/2018	Telephone: 866-480-1028
Date Made Active in Reports: 01/15/2019	Last EDR Contact: 12/12/2018
Number of Days to Update: 35	Next Scheduled EDR Contact: 03/25/2019
	Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/10/2018	Source: State Water Resources Control Board
Date Data Arrived at EDR: 12/11/2018	Telephone: 866-480-1028
Date Made Active in Reports: 01/15/2019	Last EDR Contact: 12/12/2018
Number of Days to Update: 35	Next Scheduled EDR Contact: 03/25/2019
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012	Source: FirstSearch
Date Data Arrived at EDR: 01/03/2013	Telephone: N/A
Date Made Active in Reports: 02/22/2013	Last EDR Contact: 01/03/2013
Number of Days to Update: 50	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/28/2018	Telephone: (415) 495-8895
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 03/27/2019
Number of Days to Update: 86	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 07/08/2015	Telephone: 202-528-4285
Date Made Active in Reports: 10/13/2015	Last EDR Contact: 04/03/2019
Number of Days to Update: 97	Next Scheduled EDR Contact: 06/03/2019
	Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 04/12/2019
Number of Days to Update: 62	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005	Source: U.S. Geological Survey
Date Data Arrived at EDR: 02/06/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 04/12/2019
Number of Days to Update: 339	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/01/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/03/2017	Telephone: 615-532-8599
Date Made Active in Reports: 04/07/2017	Last EDR Contact: 02/15/2019
Number of Days to Update: 63	Next Scheduled EDR Contact: 05/27/2019
	Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 01/31/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/04/2019	Telephone: 202-566-1917
Date Made Active in Reports: 03/08/2019	Last EDR Contact: 03/26/2019
Number of Days to Update: 32	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2014	Telephone: 617-520-3000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 02/08/2019
Number of Days to Update: 88	Next Scheduled EDR Contact: 05/20/2019
	Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/08/2018	Telephone: 703-308-4044
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 02/08/2019
Number of Days to Update: 73	Next Scheduled EDR Contact: 05/20/2019
	Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016	Source: EPA
Date Data Arrived at EDR: 06/21/2017	Telephone: 202-260-5521
Date Made Active in Reports: 01/05/2018	Last EDR Contact: 03/22/2019
Number of Days to Update: 198	Next Scheduled EDR Contact: 07/01/2019
	Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 01/10/2018
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 2

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/20/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 03/25/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/14/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 18

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 03/14/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 02/01/2019
Date Data Arrived at EDR: 02/14/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 35

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/22/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 08/13/2018	Source: EPA
Date Data Arrived at EDR: 10/04/2018	Telephone: 202-564-6023
Date Made Active in Reports: 11/09/2018	Last EDR Contact: 03/14/2019
Number of Days to Update: 36	Next Scheduled EDR Contact: 05/20/2019
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 09/14/2018	Source: EPA
Date Data Arrived at EDR: 10/11/2018	Telephone: 202-566-0500
Date Made Active in Reports: 12/07/2018	Last EDR Contact: 04/10/2019
Number of Days to Update: 57	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/23/2016	Telephone: 202-564-2501
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 04/08/2019
Number of Days to Update: 79	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 09/08/2016	Telephone: 301-415-7169
Date Made Active in Reports: 10/21/2016	Last EDR Contact: 01/22/2019
Number of Days to Update: 43	Next Scheduled EDR Contact: 05/06/2019
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 08/07/2009	Telephone: 202-586-8719
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 03/07/2019
Number of Days to Update: 76	Next Scheduled EDR Contact: 06/17/2019
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/10/2014	Telephone: N/A
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 03/05/2019
Number of Days to Update: 40	Next Scheduled EDR Contact: 06/17/2019
	Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/30/2017	Telephone: 202-566-0517
Date Made Active in Reports: 12/15/2017	Last EDR Contact: 01/25/2019
Number of Days to Update: 15	Next Scheduled EDR Contact: 05/06/2019
	Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 01/02/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/03/2019	Telephone: 202-343-9775
Date Made Active in Reports: 03/15/2019	Last EDR Contact: 04/02/2019
Number of Days to Update: 71	Next Scheduled EDR Contact: 07/15/2019
	Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 12/03/2018
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 51

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 01/29/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 02/11/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 38

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 04/05/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/11/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/22/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 03/11/2019
Date Data Arrived at EDR: 03/14/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 04/05/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 11/27/2018
Date Data Arrived at EDR: 02/27/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 33

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/05/2005	Source: USGS
Date Data Arrived at EDR: 02/29/2008	Telephone: 703-648-7709
Date Made Active in Reports: 04/18/2008	Last EDR Contact: 03/01/2019
Number of Days to Update: 49	Next Scheduled EDR Contact: 06/10/2019
	Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011	Source: USGS
Date Data Arrived at EDR: 06/08/2011	Telephone: 703-648-7709
Date Made Active in Reports: 09/13/2011	Last EDR Contact: 03/01/2019
Number of Days to Update: 97	Next Scheduled EDR Contact: 06/10/2019
	Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/10/2018	Source: Department of Interior
Date Data Arrived at EDR: 09/11/2018	Telephone: 202-208-2609
Date Made Active in Reports: 09/14/2018	Last EDR Contact: 03/21/2019
Number of Days to Update: 3	Next Scheduled EDR Contact: 06/24/2019
	Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/15/2019	Source: EPA
Date Data Arrived at EDR: 03/05/2019	Telephone: (415) 947-8000
Date Made Active in Reports: 03/15/2019	Last EDR Contact: 03/05/2019
Number of Days to Update: 10	Next Scheduled EDR Contact: 06/17/2019
	Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017	Source: Department of Defense
Date Data Arrived at EDR: 01/17/2019	Telephone: 703-704-1564
Date Made Active in Reports: 04/01/2019	Last EDR Contact: 04/15/2019
Number of Days to Update: 74	Next Scheduled EDR Contact: 07/29/2019
	Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/26/2018	Telephone: 202-564-0527
Date Made Active in Reports: 10/05/2018	Last EDR Contact: 03/01/2019
Number of Days to Update: 71	Next Scheduled EDR Contact: 06/10/2019
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 03/03/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/05/2019	Telephone: 202-564-2280
Date Made Active in Reports: 04/01/2019	Last EDR Contact: 04/09/2019
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/19/2019	Source: EPA
Date Data Arrived at EDR: 02/21/2019	Telephone: 800-385-6164
Date Made Active in Reports: 04/01/2019	Last EDR Contact: 02/21/2019
Number of Days to Update: 39	Next Scheduled EDR Contact: 06/03/2019
	Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989	Source: Department of Health Services
Date Data Arrived at EDR: 07/27/1994	Telephone: 916-255-2118
Date Made Active in Reports: 08/02/1994	Last EDR Contact: 05/31/1994
Number of Days to Update: 6	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 12/20/2018	Source: CAL EPA/Office of Emergency Information
Date Data Arrived at EDR: 12/21/2018	Telephone: 916-323-3400
Date Made Active in Reports: 02/28/2019	Last EDR Contact: 03/26/2019
Number of Days to Update: 69	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing

list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 01/23/2019	Source: Livermore-Pleasanton Fire Department
Date Data Arrived at EDR: 02/26/2019	Telephone: 925-454-2361
Date Made Active in Reports: 04/01/2019	Last EDR Contact: 02/26/2019
Number of Days to Update: 34	Next Scheduled EDR Contact: 05/27/2019
	Data Release Frequency: Varies

CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

Date of Government Version: 09/11/2018	Source: San Francisco County Department of Environmental Health
Date Data Arrived at EDR: 09/12/2018	Telephone: 415-252-3896
Date Made Active in Reports: 09/19/2018	Last EDR Contact: 01/31/2019
Number of Days to Update: 7	Next Scheduled EDR Contact: 05/20/2019
	Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the Antelope Valley Air Quality Management District.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/27/2019
Date Data Arrived at EDR: 02/28/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 32

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 12/13/2018
Date Data Arrived at EDR: 01/17/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 47

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Annually

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 03/19/2019
Date Data Arrived at EDR: 03/22/2019
Date Made Active in Reports: 04/09/2019
Number of Days to Update: 18

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 03/22/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Varies

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/20/2018
Date Made Active in Reports: 08/06/2018
Number of Days to Update: 47

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 03/22/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 11/01/2018
Date Data Arrived at EDR: 11/02/2018
Date Made Active in Reports: 12/13/2018
Number of Days to Update: 41

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 01/10/2019
Date Data Arrived at EDR: 01/23/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 41

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/15/2019
Date Data Arrived at EDR: 02/19/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 14

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 02/11/2019
Next Scheduled EDR Contact: 05/27/2019
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 10/10/2018
Date Made Active in Reports: 11/16/2018
Number of Days to Update: 37

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 04/09/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 02/19/2019
Date Data Arrived at EDR: 02/20/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 13

Source: Department of Toxic Substances Control
Telephone: 877-786-9427
Last EDR Contact: 02/20/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 02/19/2019
Date Data Arrived at EDR: 02/20/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 13

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/20/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/07/2019
Date Data Arrived at EDR: 01/08/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 56

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 04/09/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 12/10/2018	Source: Department of Conservation
Date Data Arrived at EDR: 12/12/2018	Telephone: 916-322-1080
Date Made Active in Reports: 01/15/2019	Last EDR Contact: 12/12/2018
Number of Days to Update: 34	Next Scheduled EDR Contact: 03/25/2019
	Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 02/20/2019	Source: Department of Public Health
Date Data Arrived at EDR: 03/05/2019	Telephone: 916-558-1784
Date Made Active in Reports: 04/02/2019	Last EDR Contact: 03/05/2019
Number of Days to Update: 28	Next Scheduled EDR Contact: 06/17/2019
	Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 02/11/2019	Source: State Water Resources Control Board
Date Data Arrived at EDR: 02/12/2019	Telephone: 916-445-9379
Date Made Active in Reports: 03/07/2019	Last EDR Contact: 02/12/2019
Number of Days to Update: 23	Next Scheduled EDR Contact: 05/27/2019
	Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing

A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 03/04/2019	Source: Department of Pesticide Regulation
Date Data Arrived at EDR: 03/05/2019	Telephone: 916-445-4038
Date Made Active in Reports: 04/05/2019	Last EDR Contact: 03/05/2019
Number of Days to Update: 31	Next Scheduled EDR Contact: 06/17/2019
	Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 12/10/2018	Source: Department of Conservation
Date Data Arrived at EDR: 12/12/2018	Telephone: 916-323-3836
Date Made Active in Reports: 01/15/2019	Last EDR Contact: 03/13/2019
Number of Days to Update: 34	Next Scheduled EDR Contact: 06/24/2019
	Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 09/19/2018	Source: State Water Resources Control Board
Date Data Arrived at EDR: 09/20/2018	Telephone: 916-445-3846
Date Made Active in Reports: 10/19/2018	Last EDR Contact: 03/18/2019
Number of Days to Update: 29	Next Scheduled EDR Contact: 07/01/2019
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 04/27/2018	Source: Department of Conservation
Date Data Arrived at EDR: 06/13/2018	Telephone: 916-445-2408
Date Made Active in Reports: 07/17/2018	Last EDR Contact: 03/13/2019
Number of Days to Update: 34	Next Scheduled EDR Contact: 06/24/2019
	Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)

Underground control injection sites

Date of Government Version: 12/10/2018	Source: State Water Resource Control Board
Date Data Arrived at EDR: 12/11/2018	Telephone: 866-480-1028
Date Made Active in Reports: 01/15/2019	Last EDR Contact: 12/12/2018
Number of Days to Update: 35	Next Scheduled EDR Contact: 03/25/2019
	Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 05/08/2018	Source: RWQCB, Central Valley Region
Date Data Arrived at EDR: 07/11/2018	Telephone: 559-445-5577
Date Made Active in Reports: 09/13/2018	Last EDR Contact: 04/12/2019
Number of Days to Update: 64	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007	Source: State Water Resources Control Board
Date Data Arrived at EDR: 06/20/2007	Telephone: 916-341-5227
Date Made Active in Reports: 06/29/2007	Last EDR Contact: 02/13/2019
Number of Days to Update: 9	Next Scheduled EDR Contact: 06/03/2019
	Data Release Frequency: Quarterly

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)

Military privatized sites

Date of Government Version: 12/10/2018	Source: State Water Resources Control Board
Date Data Arrived at EDR: 12/11/2018	Telephone: 866-480-1028
Date Made Active in Reports: 01/15/2019	Last EDR Contact: 12/12/2018
Number of Days to Update: 35	Next Scheduled EDR Contact: 03/25/2019
	Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)

Projects sites

Date of Government Version: 12/10/2018	Source: State Water Resources Control Board
Date Data Arrived at EDR: 12/11/2018	Telephone: 866-480-1028
Date Made Active in Reports: 01/15/2019	Last EDR Contact: 12/12/2018
Number of Days to Update: 35	Next Scheduled EDR Contact: 03/25/2019
	Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing

In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/12/2018
Date Made Active in Reports: 01/18/2019
Number of Days to Update: 37

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 03/13/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 03/05/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 04/02/2019
Number of Days to Update: 28

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 10/22/2018
Date Data Arrived at EDR: 10/23/2018
Date Made Active in Reports: 11/30/2018
Number of Days to Update: 38

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 04/11/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 03/25/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)

Produced water ponds sites

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)

Sampling point - public sites

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)

Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 03/25/2019
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A	Source: Department of Resources Recycling and Recovery
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 01/13/2014	Last EDR Contact: 06/01/2012
Number of Days to Update: 196	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A	Source: State Water Resources Control Board
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 12/30/2013	Last EDR Contact: 06/01/2012
Number of Days to Update: 182	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019	Source: Alameda County Environmental Health Services
Date Data Arrived at EDR: 01/11/2019	Telephone: 510-567-6700
Date Made Active in Reports: 03/05/2019	Last EDR Contact: 04/08/2019
Number of Days to Update: 53	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 01/07/2019	Source: Alameda County Environmental Health Services
Date Data Arrived at EDR: 01/08/2019	Telephone: 510-567-6700
Date Made Active in Reports: 03/08/2019	Last EDR Contact: 04/08/2019
Number of Days to Update: 59	Next Scheduled EDR Contact: 04/24/2047
	Data Release Frequency: Semi-Annually

AMADOR COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA AMADOR: CUPA Facility List Cupa Facility List

Date of Government Version: 01/07/2019
Date Data Arrived at EDR: 01/08/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 58

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 04/08/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing Cupa Facility Listing

Date of Government Version: 01/24/2019
Date Data Arrived at EDR: 01/25/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 39

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 03/25/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List Cupa facility list.

Date of Government Version: 02/27/2019
Date Data Arrived at EDR: 02/28/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 32

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 02/14/2019
Date Data Arrived at EDR: 02/19/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 17

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 01/28/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA DEL NORTE: CUPA Facility List Cupa Facility list

Date of Government Version: 01/16/2019
Date Data Arrived at EDR: 02/05/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 28

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 01/28/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List CUPA facility list.

Date of Government Version: 02/27/2019
Date Data Arrived at EDR: 02/28/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 32

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 01/28/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 10/16/2018
Date Data Arrived at EDR: 10/18/2018
Date Made Active in Reports: 11/14/2018
Number of Days to Update: 27

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 03/29/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List CUPA facility list.

Date of Government Version: 12/11/2018
Date Data Arrived at EDR: 12/13/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 33

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 11/19/2018
Next Scheduled EDR Contact: 03/04/2019
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA IMPERIAL: CUPA Facility List Cupa facility list.

Date of Government Version: 01/18/2019
Date Data Arrived at EDR: 01/23/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 41

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 29

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

KERN COUNTY:

UST KERN: Underground Storage Tank Sites & Tank Listing Kern County Sites and Tanks Listing.

Date of Government Version: 01/28/2019
Date Data Arrived at EDR: 02/07/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 29

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 02/14/2019
Date Data Arrived at EDR: 02/19/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 14

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List Cupa facility list

Date of Government Version: 02/08/2019
Date Data Arrived at EDR: 02/12/2019
Date Made Active in Reports: 03/12/2019
Number of Days to Update: 28

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 04/15/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Varies

LASSEN COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA LASSEN: CUPA Facility List Cupa facility list

Date of Government Version: 01/17/2019
Date Data Arrived at EDR: 01/18/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 46

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 12/19/2018
Date Data Arrived at EDR: 01/10/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 56

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 04/08/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 01/14/2019
Date Data Arrived at EDR: 01/15/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 51

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/15/2019
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 01/15/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 51

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 04/15/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/30/2019
Date Data Arrived at EDR: 02/01/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 34

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 02/01/2019
Next Scheduled EDR Contact: 04/29/2019
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST EL SEGUNDO: City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017	Source: City of El Segundo Fire Department
Date Data Arrived at EDR: 04/19/2017	Telephone: 310-524-2236
Date Made Active in Reports: 05/10/2017	Last EDR Contact: 04/15/2019
Number of Days to Update: 21	Next Scheduled EDR Contact: 07/29/2019
	Data Release Frequency: Semi-Annually

UST LONG BEACH: City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/09/2017	Source: City of Long Beach Fire Department
Date Data Arrived at EDR: 03/10/2017	Telephone: 562-570-2563
Date Made Active in Reports: 05/03/2017	Last EDR Contact: 01/17/2019
Number of Days to Update: 54	Next Scheduled EDR Contact: 05/06/2019
	Data Release Frequency: Annually

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 10/02/2018	Source: City of Torrance Fire Department
Date Data Arrived at EDR: 10/05/2018	Telephone: 310-618-2973
Date Made Active in Reports: 11/02/2018	Last EDR Contact: 01/17/2019
Number of Days to Update: 28	Next Scheduled EDR Contact: 05/06/2019
	Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 02/20/2019	Source: Madera County Environmental Health
Date Data Arrived at EDR: 02/22/2019	Telephone: 559-675-7823
Date Made Active in Reports: 03/07/2019	Last EDR Contact: 02/15/2019
Number of Days to Update: 13	Next Scheduled EDR Contact: 06/03/2019
	Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018	Source: Public Works Department Waste Management
Date Data Arrived at EDR: 10/04/2018	Telephone: 415-473-6647
Date Made Active in Reports: 11/02/2018	Last EDR Contact: 03/29/2019
Number of Days to Update: 29	Next Scheduled EDR Contact: 07/15/2019
	Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/29/2018
Date Data Arrived at EDR: 08/31/2018
Date Made Active in Reports: 09/19/2018
Number of Days to Update: 19

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 02/21/2019
Date Data Arrived at EDR: 02/26/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 34

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 02/05/2019
Date Data Arrived at EDR: 02/07/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 26

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 04/01/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination

A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites

Underground storage tank sites located in Napa county.

Date of Government Version: 02/21/2019
Date Data Arrived at EDR: 02/22/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 14

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 01/25/2019
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 35

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 01/28/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Varies

ORANGE COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 01/02/2019	Source: Health Care Agency
Date Data Arrived at EDR: 02/07/2019	Telephone: 714-834-3446
Date Made Active in Reports: 03/05/2019	Last EDR Contact: 02/04/2019
Number of Days to Update: 26	Next Scheduled EDR Contact: 05/20/2019
	Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 01/02/2019	Source: Health Care Agency
Date Data Arrived at EDR: 02/08/2019	Telephone: 714-834-3446
Date Made Active in Reports: 03/06/2019	Last EDR Contact: 02/04/2019
Number of Days to Update: 26	Next Scheduled EDR Contact: 05/20/2019
	Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 01/02/2019	Source: Health Care Agency
Date Data Arrived at EDR: 02/05/2019	Telephone: 714-834-3446
Date Made Active in Reports: 03/08/2019	Last EDR Contact: 02/05/2019
Number of Days to Update: 31	Next Scheduled EDR Contact: 05/20/2019
	Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 02/28/2019	Source: Placer County Health and Human Services
Date Data Arrived at EDR: 03/01/2019	Telephone: 530-745-2363
Date Made Active in Reports: 04/12/2019	Last EDR Contact: 02/27/2019
Number of Days to Update: 42	Next Scheduled EDR Contact: 06/17/2019
	Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 01/14/2019	Source: Plumas County Environmental Health
Date Data Arrived at EDR: 01/18/2019	Telephone: 530-283-6355
Date Made Active in Reports: 03/05/2019	Last EDR Contact: 01/17/2019
Number of Days to Update: 46	Next Scheduled EDR Contact: 05/06/2019
	Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 01/29/2019	Source: Department of Environmental Health
Date Data Arrived at EDR: 01/31/2019	Telephone: 951-358-5055
Date Made Active in Reports: 03/06/2019	Last EDR Contact: 03/18/2019
Number of Days to Update: 34	Next Scheduled EDR Contact: 07/01/2019
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST RIVERSIDE: Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 01/29/2019
Date Data Arrived at EDR: 01/31/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 36

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 11/07/2018
Date Data Arrived at EDR: 01/04/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 60

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/02/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 11/07/2018
Date Data Arrived at EDR: 12/28/2018
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 67

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/02/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List

Cupa facility list

Date of Government Version: 11/15/2018
Date Data Arrived at EDR: 11/16/2018
Date Made Active in Reports: 12/13/2018
Number of Days to Update: 27

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 02/27/2019
Date Data Arrived at EDR: 02/28/2019
Date Made Active in Reports: 04/02/2019
Number of Days to Update: 33

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 02/19/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 03/04/2019
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 04/02/2019
Number of Days to Update: 28

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 03/05/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 04/18/2018
Date Data Arrived at EDR: 04/24/2018
Date Made Active in Reports: 06/19/2018
Number of Days to Update: 56

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 10/22/2018
Date Data Arrived at EDR: 10/23/2018
Date Made Active in Reports: 11/30/2018
Number of Days to Update: 38

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 03/06/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

SAN DIEGO CO. SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

LUST SAN FRANCISCO: Local Oversight Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Quarterly

UST SAN FRANCISCO: Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/05/2018
Date Data Arrived at EDR: 11/06/2018
Date Made Active in Reports: 12/14/2018
Number of Days to Update: 38

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 07/01/2019
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List Cupa Facility List.

Date of Government Version: 02/13/2019
Date Data Arrived at EDR: 02/15/2019
Date Made Active in Reports: 03/14/2019
Number of Days to Update: 27

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 12/03/2018
Date Data Arrived at EDR: 12/12/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 34

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/13/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 12/13/2018
Date Data Arrived at EDR: 12/18/2018
Date Made Active in Reports: 01/23/2019
Number of Days to Update: 36

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/25/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing

CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

SANTA CLARA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA SANTA CLARA: Cupa Facility List Cupa facility list

Date of Government Version: 02/13/2019
Date Data Arrived at EDR: 02/19/2019
Date Made Active in Reports: 03/06/2019
Number of Days to Update: 15

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 02/21/2019
Next Scheduled EDR Contact: 06/10/2019
Data Release Frequency: Annually

SAN JOSE HAZMAT: Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 01/30/2019
Date Data Arrived at EDR: 02/01/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 34

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 02/13/2019
Next Scheduled EDR Contact: 06/03/2019
Data Release Frequency: Varies

SOLANO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST SOLANO: Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 11/29/2018
Date Data Arrived at EDR: 12/04/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 38

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 03/05/2019
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 04/03/2019
Number of Days to Update: 27

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List

Cupa Facility list

Date of Government Version: 12/21/2018
Date Data Arrived at EDR: 12/27/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 19

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 03/25/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/08/2019
Date Data Arrived at EDR: 01/10/2019
Date Made Active in Reports: 03/06/2019
Number of Days to Update: 55

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 04/08/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List

Cupa facility list

Date of Government Version: 12/11/2018
Date Data Arrived at EDR: 12/13/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 33

Source: Stanislaus County Department of Environmental Protection
Telephone: 209-525-6751
Last EDR Contact: 04/15/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 02/28/2019
Date Data Arrived at EDR: 03/01/2019
Date Made Active in Reports: 04/03/2019
Number of Days to Update: 33

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 02/27/2019
Next Scheduled EDR Contact: 06/17/2019
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA TEHAMA: CUPA Facility List Cupa facilities

Date of Government Version: 12/13/2018
Date Data Arrived at EDR: 12/18/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 28

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List Cupa facility list

Date of Government Version: 01/18/2019
Date Data Arrived at EDR: 01/23/2019
Date Made Active in Reports: 03/06/2019
Number of Days to Update: 42

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 01/17/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List Cupa program facilities

Date of Government Version: 12/26/2018
Date Data Arrived at EDR: 12/27/2018
Date Made Active in Reports: 01/15/2019
Number of Days to Update: 19

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 01/31/2019
Next Scheduled EDR Contact: 05/20/2019
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Division of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 03/18/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 12/26/2018
Date Data Arrived at EDR: 01/24/2019
Date Made Active in Reports: 02/28/2019
Number of Days to Update: 35

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 01/22/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/29/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Annually

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/07/2019
Next Scheduled EDR Contact: 05/27/2019
Data Release Frequency: Quarterly

MED WASTE VENTURA: Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 12/26/2018
Date Data Arrived at EDR: 01/24/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 42

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 01/22/2019
Next Scheduled EDR Contact: 05/06/2019
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 02/26/2019
Date Data Arrived at EDR: 03/13/2019
Date Made Active in Reports: 04/03/2019
Number of Days to Update: 21

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/13/2019
Next Scheduled EDR Contact: 06/24/2019
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 12/26/2018
Date Data Arrived at EDR: 01/03/2019
Date Made Active in Reports: 01/16/2019
Number of Days to Update: 13

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 03/29/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List

CUPA facility listing for Yuba County.

Date of Government Version: 02/08/2019
Date Data Arrived at EDR: 02/12/2019
Date Made Active in Reports: 03/06/2019
Number of Days to Update: 22

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 01/28/2019
Next Scheduled EDR Contact: 05/11/2019
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 02/11/2019	Source: Department of Energy & Environmental Protection
Date Data Arrived at EDR: 02/12/2019	Telephone: 860-424-3375
Date Made Active in Reports: 03/04/2019	Last EDR Contact: 02/12/2019
Number of Days to Update: 20	Next Scheduled EDR Contact: 05/27/2019
	Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017	Source: Department of Environmental Protection
Date Data Arrived at EDR: 07/13/2018	Telephone: N/A
Date Made Active in Reports: 08/01/2018	Last EDR Contact: 04/10/2019
Number of Days to Update: 19	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 01/30/2019	Telephone: 518-402-8651
Date Made Active in Reports: 02/14/2019	Last EDR Contact: 01/30/2019
Number of Days to Update: 15	Next Scheduled EDR Contact: 05/11/2019
	Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017	Source: Department of Environmental Protection
Date Data Arrived at EDR: 10/23/2018	Telephone: 717-783-8990
Date Made Active in Reports: 11/27/2018	Last EDR Contact: 04/15/2019
Number of Days to Update: 35	Next Scheduled EDR Contact: 07/29/2019
	Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2017	Source: Department of Environmental Management
Date Data Arrived at EDR: 02/23/2018	Telephone: 401-222-2797
Date Made Active in Reports: 04/09/2018	Last EDR Contact: 02/19/2019
Number of Days to Update: 45	Next Scheduled EDR Contact: 06/03/2019
	Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017	Source: Department of Natural Resources
Date Data Arrived at EDR: 06/15/2018	Telephone: N/A
Date Made Active in Reports: 07/09/2018	Last EDR Contact: 03/11/2019
Number of Days to Update: 24	Next Scheduled EDR Contact: 06/24/2019
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Oil/Gas Pipelines

Source: PennWell Corporation
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health
Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities

Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: Department of Fish and Wildlife
Telephone: 916-445-0411

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK[®] - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

LAKE MERRITT BART DEVELOPMENT
800 MADISON STREET
OAKLAND, CA 94607

TARGET PROPERTY COORDINATES

Latitude (North): 37.797513 - 37° 47' 51.05"
Longitude (West): 122.265828 - 122° 15' 56.98"
Universal Transverse Mercator: Zone 10
UTM X (Meters): 564637.2
UTM Y (Meters): 4183397.8
Elevation: 33 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map: 5641112 OAKLAND WEST, CA
Version Date: 2012

East Map: 5641110 OAKLAND EAST, CA
Version Date: 2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

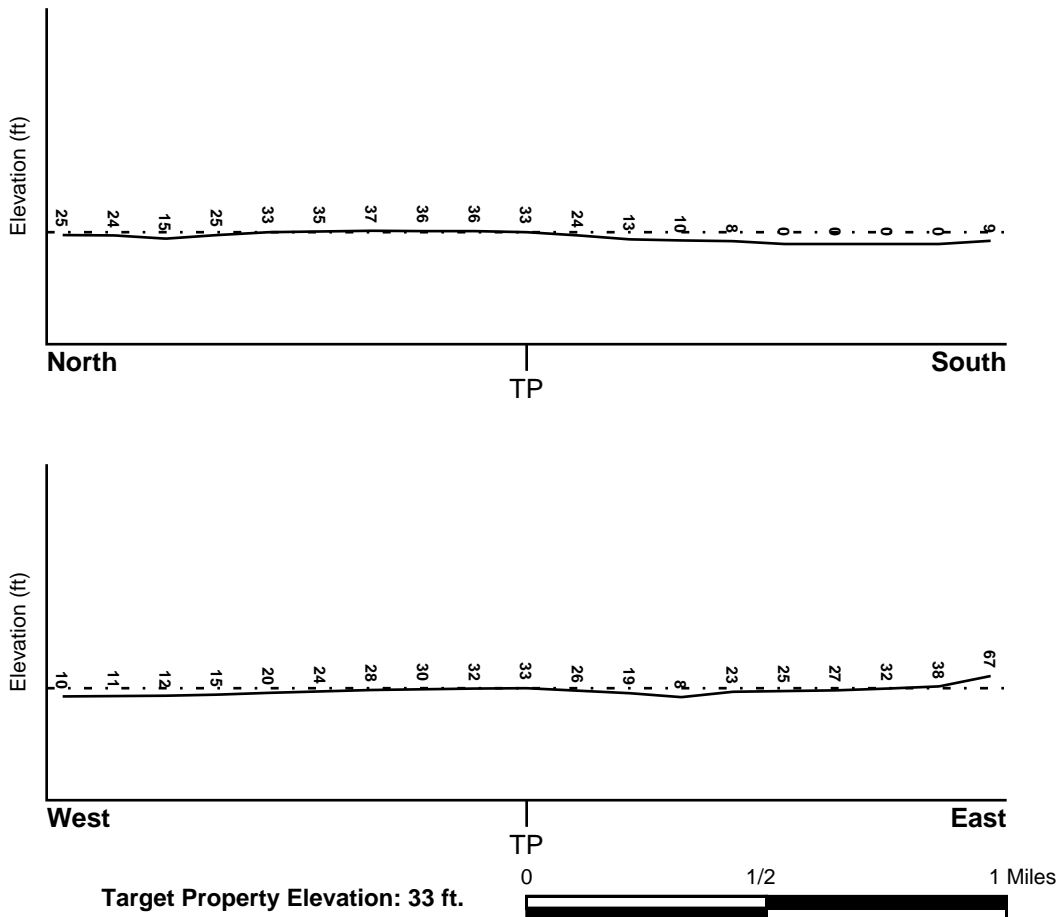
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SSE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
06001C0067G	FEMA FIRM Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
06001C0066G	FEMA FIRM Flood data
06001C0086G	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
OAKLAND WEST	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Location Relative to TP:	1/2 - 1 Mile SW
Site Name:	Naval Supply Center, Alameda Annex & Facility
Site EPA ID Number:	CA1170090012
Groundwater Flow Direction:	Southeast
Measured Depth to Water:	5 feet.
Hydraulic Connection:	Information is not available about the hydraulic connection between aquifer(s) underlying the site.
Sole Source Aquifer:	No information about a sole source aquifer is available
Data Quality:	Information based on site-specific subsurface investigations is documented in the CERCLIS investigation report(s)

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
1	0 - 1/8 Mile East	NW
2	1/8 - 1/4 Mile SW	Not Reported
A3	1/8 - 1/4 Mile WNW	N
A4	1/8 - 1/4 Mile WNW	Varies
5	1/4 - 1/2 Mile SSW	SE
B6	1/4 - 1/2 Mile North	N
B7	1/4 - 1/2 Mile North	W
C8	1/4 - 1/2 Mile WNW	Varies
C9	1/4 - 1/2 Mile WNW	NW
C10	1/4 - 1/2 Mile WNW	NW
11	1/4 - 1/2 Mile North	W
D12	1/4 - 1/2 Mile NNW	NE
D13	1/4 - 1/2 Mile NNW	NE
14	1/4 - 1/2 Mile West	SW
E15	1/4 - 1/2 Mile SE	SE
E16	1/2 - 1 Mile SE	SW
F17	1/2 - 1 Mile ESE	N
F18	1/2 - 1 Mile ESE	N
F19	1/2 - 1 Mile ESE	N
G20	1/2 - 1 Mile North	E
G21	1/2 - 1 Mile North	NE
22	1/2 - 1 Mile SE	NW
H23	1/2 - 1 Mile NNW	N, S
H24	1/2 - 1 Mile NNW	SW
H25	1/2 - 1 Mile NNW	SW
I26	1/2 - 1 Mile North	NE
I27	1/2 - 1 Mile North	NE
I28	1/2 - 1 Mile North	NE, E, SE
J29	1/2 - 1 Mile ENE	E
J30	1/2 - 1 Mile ENE	E
31	1/2 - 1 Mile NW	S
32	1/2 - 1 Mile North	NNE,SE,S,SW
33	1/2 - 1 Mile West	SE
34	1/2 - 1 Mile NW	E
35	1/2 - 1 Mile SE	E
36	1/2 - 1 Mile North	E
K37	1/2 - 1 Mile SW	N
K38	1/2 - 1 Mile SW	Varies
K39	1/2 - 1 Mile SW	N, E
L40	1/2 - 1 Mile ENE	SW,W,Varies
L41	1/2 - 1 Mile ENE	SW,W,Varies
L42	1/2 - 1 Mile ENE	SW,W,Varies
K43	1/2 - 1 Mile SW	Varies
M44	1/2 - 1 Mile North	SE
M45	1/2 - 1 Mile North	SW
M46	1/2 - 1 Mile North	E, W
N47	1/2 - 1 Mile NNE	N,W,Varies
N48	1/2 - 1 Mile NNE	N
49	1/2 - 1 Mile NNE	SW
1G	1/2 - 1 Mile North	SE
2G	1/2 - 1 Mile North	SW
3G	1/2 - 1 Mile North	E, W
4G	1/2 - 1 Mile NNE	N,W,Varies
5G	1/2 - 1 Mile NNE	N
6G	1/2 - 1 Mile NNE	SW
7G	1/2 - 1 Mile North	E

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
8G	1/2 - 1 Mile North	NNE,SE,S,SW
9G	1/2 - 1 Mile North	NE
10G	1/2 - 1 Mile North	NE
11G	1/2 - 1 Mile North	NE, E, SE
12G	1/2 - 1 Mile NNW	SW
13G	1/2 - 1 Mile NNW	SW
14G	1/2 - 1 Mile NW	E
15G	1/2 - 1 Mile NNW	N, S
16G	1/2 - 1 Mile North	E
17G	1/2 - 1 Mile North	NE
18G	1/2 - 1 Mile NW	S
19G	1/4 - 1/2 Mile NNW	NE
20G	1/4 - 1/2 Mile NNW	NE
21G	1/4 - 1/2 Mile North	W
22G	1/4 - 1/2 Mile North	N
23G	1/4 - 1/2 Mile North	W
24G	1/2 - 1 Mile ENE	E
25G	1/2 - 1 Mile ENE	E
26G	1/2 - 1 Mile ENE	SW,W,Varies
27G	1/2 - 1 Mile ENE	SW,W,Varies
28G	1/2 - 1 Mile ENE	SW,W,Varies
29G	1/4 - 1/2 Mile WNW	Varies
30G	1/8 - 1/4 Mile WNW	Varies
31G	1/4 - 1/2 Mile WNW	NW
32G	1/4 - 1/2 Mile WNW	NW
33G	1/8 - 1/4 Mile WNW	N
34G	0 - 1/8 Mile East	NW
35G	1/4 - 1/2 Mile West	SW
36G	1/8 - 1/4 Mile SW	Not Reported
37G	1/2 - 1 Mile West	SE
38G	1/2 - 1 Mile ESE	N
39G	1/2 - 1 Mile ESE	N
40G	1/2 - 1 Mile ESE	N
41G	1/4 - 1/2 Mile SSW	SE
42G	1/2 - 1 Mile SE	NW
43G	1/4 - 1/2 Mile SE	SE
44G	1/2 - 1 Mile SE	SW
45G	1/2 - 1 Mile SE	E
46G	1/2 - 1 Mile SW	Varies
47G	1/2 - 1 Mile SW	N, E
48G	1/2 - 1 Mile SW	N
49G	1/2 - 1 Mile SW	Varies

For additional site information, refer to Physical Setting Source Map Findings.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

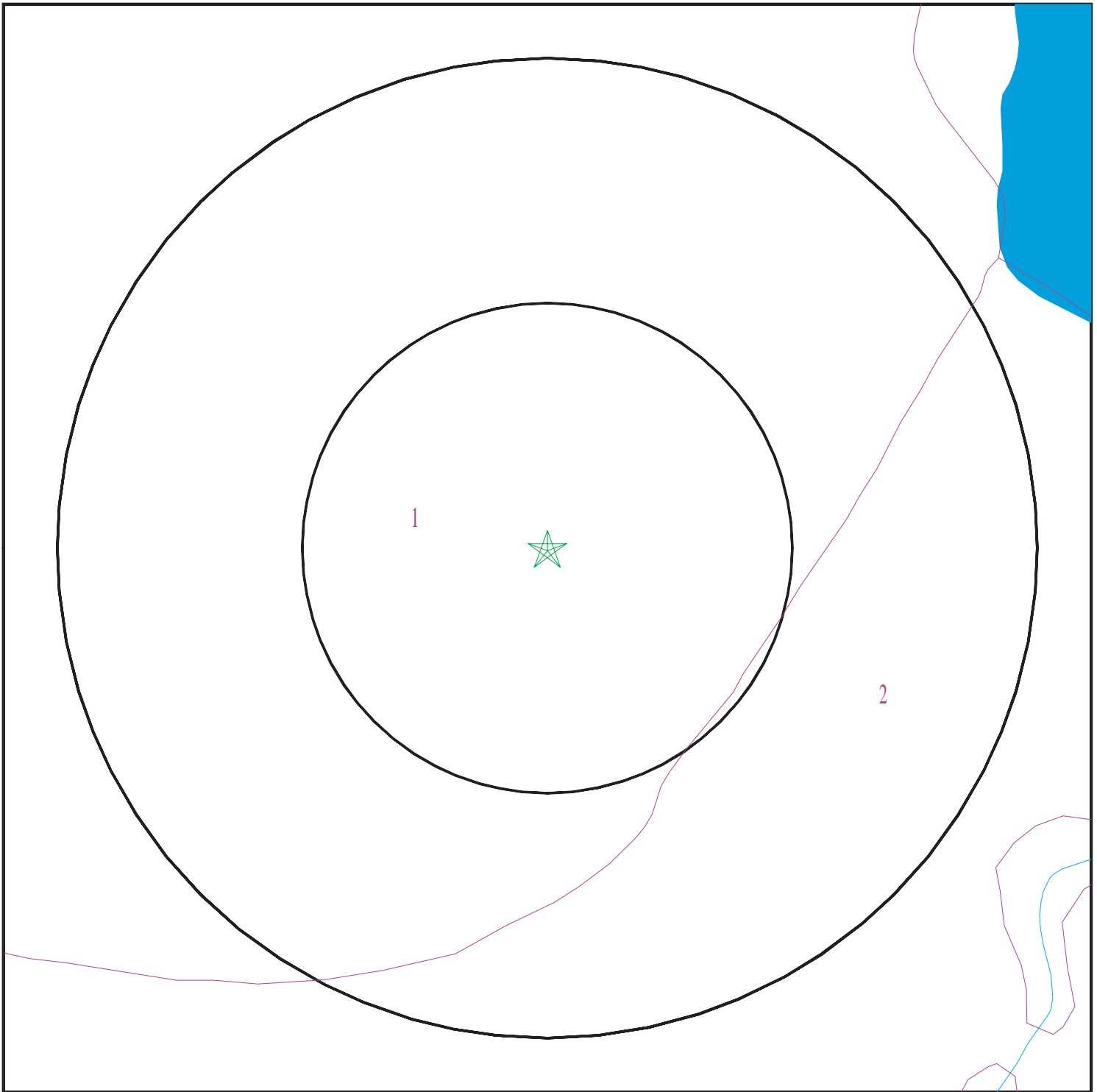
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q (<i>decoded above as Era, System & Series</i>)

GEOLOGIC AGE IDENTIFICATION

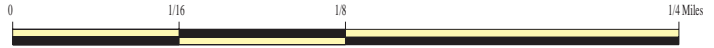
Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 5623421.2s



- ★ Target Property
- ∩ SSURGO Soil
- ∩ Water



SITE NAME: Lake Merritt BART Development
ADDRESS: 800 Madison Street
Oakland CA 94607
LAT/LONG: 37.797513 / 122.265828

CLIENT: Langan
CONTACT: Wendy Kwong
INQUIRY #: 5623421.2s
DATE: April 16, 2019 7:44 pm

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Urban land

Soil Surface Texture:
Hydrologic Group: Not reported

Soil Drainage Class:
Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 2

Soil Component Name: Urban land

Soil Surface Texture:
Hydrologic Group: Not reported

Soil Drainage Class:
Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

PHYSICAL SETTING SOURCE MAP - 5623421.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- 0 1/4 1/2 1 Miles
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells



SITE NAME: Lake Merritt BART Development
 ADDRESS: 800 Madison Street
 Oakland CA 94607
 LAT/LONG: 37.797513 / 122.265828

CLIENT: Langan
 CONTACT: Wendy Kwong
 INQUIRY #: 5623421.2s
 DATE: April 16, 2019 7:44 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
1 East 0 - 1/8 Mile Lower	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-0880 NW Not Reported Not Reported 8 01/01/1996	AQUIFLOW	65392
2 SW 1/8 - 1/4 Mile Lower	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-2300 Not Reported Not Reported Not Reported 2-3 10/23/1996	AQUIFLOW	55761
A3 WNW 1/8 - 1/4 Mile Higher	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-1244 N Not Reported Not Reported Not Reported 12/20/1994	AQUIFLOW	64075
A4 WNW 1/8 - 1/4 Mile Higher	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-0582 Varies Not Reported Not Reported 18 02/05/1996	AQUIFLOW	64079
5 SSW 1/4 - 1/2 Mile Lower	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-1151 SE Not Reported Not Reported 5-16 04/13/1997	AQUIFLOW	63663
B6 North 1/4 - 1/2 Mile Higher	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-0055 N Not Reported Not Reported 3 03/03/1989	AQUIFLOW	55915
B7 North 1/4 - 1/2 Mile Higher	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-0055 W Not Reported Not Reported 6 08/26/1996	AQUIFLOW	55914

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID	Direction	Distance	Elevation	Database	EDR ID Number
C8					
WNW	Site ID:	01-1611		AQUIFLOW	51534
1/4 - 1/2 Mile	Groundwater Flow:	Varies			
Higher	Shallow Water Depth:	Not Reported			
	Deep Water Depth:	Not Reported			
	Average Water Depth:	156			
	Date:	09/19/1997			
C9					
WNW	Site ID:	01-2307		AQUIFLOW	51869
1/4 - 1/2 Mile	Groundwater Flow:	NW			
Higher	Shallow Water Depth:	Not Reported			
	Deep Water Depth:	Not Reported			
	Average Water Depth:	7.50			
	Date:	09/23/1994			
C10					
WNW	Site ID:	01-2307		AQUIFLOW	51870
1/4 - 1/2 Mile	Groundwater Flow:	NW			
Higher	Shallow Water Depth:	Not Reported			
	Deep Water Depth:	Not Reported			
	Average Water Depth:	12 ft			
	Date:	03/15/1995			
11					
North	Site ID:	01-2039		AQUIFLOW	64077
1/4 - 1/2 Mile	Groundwater Flow:	W			
Higher	Shallow Water Depth:	Not Reported			
	Deep Water Depth:	Not Reported			
	Average Water Depth:	Not Reported			
	Date:	11/15/1991			
D12					
NNW	Site ID:	01-0355		AQUIFLOW	52380
1/4 - 1/2 Mile	Groundwater Flow:	NE			
Higher	Shallow Water Depth:	2.5			
	Deep Water Depth:	9.5			
	Average Water Depth:	Not Reported			
	Date:	12/05/1990			
D13					
NNW	Site ID:	01-0355		AQUIFLOW	52381
1/4 - 1/2 Mile	Groundwater Flow:	NE			
Higher	Shallow Water Depth:	9.5			
	Deep Water Depth:	20.5			
	Average Water Depth:	Not Reported			
	Date:	08/10/1999			
14					
West	Site ID:	01-0421		AQUIFLOW	63810
1/4 - 1/2 Mile	Groundwater Flow:	SW			
Lower	Shallow Water Depth:	Not Reported			
	Deep Water Depth:	Not Reported			
	Average Water Depth:	7			
	Date:	10/28/1996			

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
E15 SE 1/4 - 1/2 Mile Lower	Site ID:	01-1066	AQUIFLOW	67424
	Groundwater Flow:	SE		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	Not Reported		
Date:	09/20/1988			
E16 SE 1/2 - 1 Mile Lower	Site ID:	01-1194	AQUIFLOW	63891
	Groundwater Flow:	SW		
	Shallow Water Depth:	4.5		
	Deep Water Depth:	5.5		
	Average Water Depth:	Not Reported		
Date:	12/09/1991			
F17 ESE 1/2 - 1 Mile Lower	Site ID:	01-2323	AQUIFLOW	55754
	Groundwater Flow:	N		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	20		
Date:	07/17/1996			
F18 ESE 1/2 - 1 Mile Lower	Site ID:	01-2323	AQUIFLOW	55755
	Groundwater Flow:	N		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	20		
Date:	07/17/1996			
F19 ESE 1/2 - 1 Mile Lower	Site ID:	01-2323	AQUIFLOW	55756
	Groundwater Flow:	N		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	20		
Date:	07/17/1996			
G20 North 1/2 - 1 Mile Higher	Site ID:	01-0331	AQUIFLOW	52389
	Groundwater Flow:	E		
	Shallow Water Depth:	16.00		
	Deep Water Depth:	20.17		
	Average Water Depth:	Not Reported		
Date:	06/10/1999			
G21 North 1/2 - 1 Mile Higher	Site ID:	01-0331	AQUIFLOW	52390
	Groundwater Flow:	NE		
	Shallow Water Depth:	3.0		
	Deep Water Depth:	13.0		
	Average Water Depth:	Not Reported		
Date:	01/27/1988			

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
22 SE 1/2 - 1 Mile Lower	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-0464 NW 12.25 19.47 Not Reported 11/12/1993	AQUIFLOW	65454
H23 NNW 1/2 - 1 Mile Higher	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-1921 N, S Not Reported Not Reported 11 05/26/1994	AQUIFLOW	55882
H24 NNW 1/2 - 1 Mile Higher	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-1705 SW 5.6 8.5 Not Reported 01/28/1991	AQUIFLOW	55892
H25 NNW 1/2 - 1 Mile Higher	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-1705 SW Not Reported Not Reported 8.5 04/02/1996	AQUIFLOW	55893
I26 North 1/2 - 1 Mile Higher	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-0151 NE Not Reported Not Reported 2 08/23/1995	AQUIFLOW	55931
I27 North 1/2 - 1 Mile Higher	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-0151 NE Not Reported Not Reported 15 06/28/1995	AQUIFLOW	55930
I28 North 1/2 - 1 Mile Higher	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-0151 NE, E, SE 0.041 0.007 Not Reported 06/29/1998	AQUIFLOW	55932

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
J29 ENE 1/2 - 1 Mile Lower	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-1074 E Not Reported Not Reported 15 03/08/1995	AQUIFLOW	55833
J30 ENE 1/2 - 1 Mile Lower	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-1074 E Not Reported Not Reported 20 01/01/1993	AQUIFLOW	55832
31 NW 1/2 - 1 Mile Higher	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-0233 S Not Reported Not Reported 10 09/02/1987	AQUIFLOW	55975
32 North 1/2 - 1 Mile Lower	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-1168 NNE,SE,S,SW 4.3 9.0 Not Reported 03/06/1991	AQUIFLOW	55829
33 West 1/2 - 1 Mile Lower	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-1793 SE 5.00 5.30 Not Reported 03/12/1997	AQUIFLOW	55831
34 NW 1/2 - 1 Mile Higher	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-2232 E Not Reported Not Reported 120 01/07/1987	AQUIFLOW	51544
35 SE 1/2 - 1 Mile Lower	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-0225 E Not Reported Not Reported Not Reported 09/20/1991	AQUIFLOW	51908

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
36 North 1/2 - 1 Mile Lower	Site ID:	01-4011	AQUIFLOW	63635
	Groundwater Flow:	E		
	Shallow Water Depth:	4		
	Deep Water Depth:	8		
	Average Water Depth:	Not Reported		
	Date:	03/18/1993		
K37 SW 1/2 - 1 Mile Lower	Site ID:	01-1760	AQUIFLOW	67877
	Groundwater Flow:	N		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	10		
	Date:	12/05/1988		
K38 SW 1/2 - 1 Mile Lower	Site ID:	01-2225	AQUIFLOW	52497
	Groundwater Flow:	Varies		
	Shallow Water Depth:	4.0		
	Deep Water Depth:	5.0		
	Average Water Depth:	Not Reported		
	Date:	03/27/1997		
K39 SW 1/2 - 1 Mile Lower	Site ID:	01-2225	AQUIFLOW	64623
	Groundwater Flow:	N, E		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	5		
	Date:	03/27/1997		
L40 ENE 1/2 - 1 Mile Lower	Site ID:	01-1692	AQUIFLOW	55818
	Groundwater Flow:	SW,W,Varies		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	7-22		
	Date:	05/1990		
L41 ENE 1/2 - 1 Mile Lower	Site ID:	01-1692	AQUIFLOW	55819
	Groundwater Flow:	SW,W,Varies		
	Shallow Water Depth:	1.66		
	Deep Water Depth:	4.92		
	Average Water Depth:	Not Reported		
	Date:	10/30/1995		
L42 ENE 1/2 - 1 Mile Lower	Site ID:	01-1692	AQUIFLOW	55820
	Groundwater Flow:	SW,W,Varies		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	3-20		
	Date:	07/29/1994		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
K43 SW 1/2 - 1 Mile Lower	Site ID:	01-2225	AQUIFLOW	52496
	Groundwater Flow:	Varies		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	2		
Date:	12/05/1996			
M44 North 1/2 - 1 Mile Lower	Site ID:	01-0875	AQUIFLOW	55889
	Groundwater Flow:	SE		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	Not Reported		
Date:	11/09/1988			
M45 North 1/2 - 1 Mile Lower	Site ID:	01-0875	AQUIFLOW	55890
	Groundwater Flow:	SW		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	13		
Date:	02/15/1989			
M46 North 1/2 - 1 Mile Lower	Site ID:	01-0875	AQUIFLOW	55891
	Groundwater Flow:	E, W		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	Not Reported		
Date:	10/07/1992			
N47 NNE 1/2 - 1 Mile Lower	Site ID:	01-0341	AQUIFLOW	55836
	Groundwater Flow:	N,W,Varies		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	20		
Date:	09/14/1989			
N48 NNE 1/2 - 1 Mile Lower	Site ID:	01-0341	AQUIFLOW	55837
	Groundwater Flow:	N		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	Not Reported		
Date:	08/17/1988			
49 NNE 1/2 - 1 Mile Higher	Site ID:	01-1360	AQUIFLOW	63687
	Groundwater Flow:	SW		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	5		
Date:	11/17/1994			

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
1G North 1/2 - 1 Mile Lower	Site ID:	01-0875	AQUIFLOW	55889
	Groundwater Flow:	SE		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	Not Reported		
Date:	11/09/1988			
2G North 1/2 - 1 Mile Lower	Site ID:	01-0875	AQUIFLOW	55890
	Groundwater Flow:	SW		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	13		
Date:	02/15/1989			
3G North 1/2 - 1 Mile Lower	Site ID:	01-0875	AQUIFLOW	55891
	Groundwater Flow:	E, W		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	Not Reported		
Date:	10/07/1992			
4G NNE 1/2 - 1 Mile Lower	Site ID:	01-0341	AQUIFLOW	55836
	Groundwater Flow:	N,W,Varies		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	20		
Date:	09/14/1989			
5G NNE 1/2 - 1 Mile Lower	Site ID:	01-0341	AQUIFLOW	55837
	Groundwater Flow:	N		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	Not Reported		
Date:	08/17/1988			
6G NNE 1/2 - 1 Mile Lower	Site ID:	01-1360	AQUIFLOW	63687
	Groundwater Flow:	SW		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	5		
Date:	11/17/1994			
7G North 1/2 - 1 Mile Lower	Site ID:	01-4011	AQUIFLOW	63635
	Groundwater Flow:	E		
	Shallow Water Depth:	4		
	Deep Water Depth:	8		
	Average Water Depth:	Not Reported		
Date:	03/18/1993			

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
8G North 1/2 - 1 Mile Lower	Site ID:	01-1168	AQUIFLOW	55829
	Groundwater Flow:	NNE,SE,S,SW		
	Shallow Water Depth:	4.3		
	Deep Water Depth:	9.0		
	Average Water Depth:	Not Reported		
Date:	03/06/1991			
9G North 1/2 - 1 Mile Lower	Site ID:	01-0151	AQUIFLOW	55931
	Groundwater Flow:	NE		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	2		
Date:	08/23/1995			
10G North 1/2 - 1 Mile Lower	Site ID:	01-0151	AQUIFLOW	55930
	Groundwater Flow:	NE		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	15		
Date:	06/28/1995			
11G North 1/2 - 1 Mile Lower	Site ID:	01-0151	AQUIFLOW	55932
	Groundwater Flow:	NE, E, SE		
	Shallow Water Depth:	0.041		
	Deep Water Depth:	0.007		
	Average Water Depth:	Not Reported		
Date:	06/29/1998			
12G NNW 1/2 - 1 Mile Lower	Site ID:	01-1705	AQUIFLOW	55892
	Groundwater Flow:	SW		
	Shallow Water Depth:	5.6		
	Deep Water Depth:	8.5		
	Average Water Depth:	Not Reported		
Date:	01/28/1991			
13G NNW 1/2 - 1 Mile Lower	Site ID:	01-1705	AQUIFLOW	55893
	Groundwater Flow:	SW		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	8.5		
Date:	04/02/1996			
14G NW 1/2 - 1 Mile Lower	Site ID:	01-2232	AQUIFLOW	51544
	Groundwater Flow:	E		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	120		
Date:	01/07/1987			

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
15G NNW 1/2 - 1 Mile Lower	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-1921 N, S Not Reported Not Reported 11 05/26/1994	AQUIFLOW	55882
16G North 1/2 - 1 Mile Lower	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-0331 E 16.00 20.17 Not Reported 06/10/1999	AQUIFLOW	52389
17G North 1/2 - 1 Mile Lower	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-0331 NE 3.0 13.0 Not Reported 01/27/1988	AQUIFLOW	52390
18G NW 1/2 - 1 Mile Lower	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-0233 S Not Reported Not Reported 10 09/02/1987	AQUIFLOW	55975
19G NNW 1/4 - 1/2 Mile Lower	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-0355 NE 2.5 9.5 Not Reported 12/05/1990	AQUIFLOW	52380
20G NNW 1/4 - 1/2 Mile Lower	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-0355 NE 9.5 20.5 Not Reported 08/10/1999	AQUIFLOW	52381
21G North 1/4 - 1/2 Mile Lower	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-2039 W Not Reported Not Reported Not Reported 11/15/1991	AQUIFLOW	64077

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
22G North 1/4 - 1/2 Mile Lower	Site ID:	01-0055	AQUIFLOW	55915
	Groundwater Flow:	N		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	3		
Date:	03/03/1989			
23G North 1/4 - 1/2 Mile Lower	Site ID:	01-0055	AQUIFLOW	55914
	Groundwater Flow:	W		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	6		
Date:	08/26/1996			
24G ENE 1/2 - 1 Mile Lower	Site ID:	01-1074	AQUIFLOW	55833
	Groundwater Flow:	E		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	15		
Date:	03/08/1995			
25G ENE 1/2 - 1 Mile Lower	Site ID:	01-1074	AQUIFLOW	55832
	Groundwater Flow:	E		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	20		
Date:	01/01/1993			
26G ENE 1/2 - 1 Mile Lower	Site ID:	01-1692	AQUIFLOW	55818
	Groundwater Flow:	SW,W,Varies		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	7-22		
Date:	05/1990			
27G ENE 1/2 - 1 Mile Lower	Site ID:	01-1692	AQUIFLOW	55819
	Groundwater Flow:	SW,W,Varies		
	Shallow Water Depth:	1.66		
	Deep Water Depth:	4.92		
	Average Water Depth:	Not Reported		
Date:	10/30/1995			
28G ENE 1/2 - 1 Mile Lower	Site ID:	01-1692	AQUIFLOW	55820
	Groundwater Flow:	SW,W,Varies		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	3-20		
Date:	07/29/1994			

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID	Direction	Distance	Elevation	Database	EDR ID Number
29G					
WNW	Site ID:	01-1611		AQUIFLOW	51534
1/4 - 1/2 Mile	Groundwater Flow:	Varies			
Lower	Shallow Water Depth:	Not Reported			
	Deep Water Depth:	Not Reported			
	Average Water Depth:	156			
	Date:	09/19/1997			
<hr/>					
30G					
WNW	Site ID:	01-0582		AQUIFLOW	64079
1/8 - 1/4 Mile	Groundwater Flow:	Varies			
Lower	Shallow Water Depth:	Not Reported			
	Deep Water Depth:	Not Reported			
	Average Water Depth:	18			
	Date:	02/05/1996			
<hr/>					
31G					
WNW	Site ID:	01-2307		AQUIFLOW	51869
1/4 - 1/2 Mile	Groundwater Flow:	NW			
Lower	Shallow Water Depth:	Not Reported			
	Deep Water Depth:	Not Reported			
	Average Water Depth:	7.50			
	Date:	09/23/1994			
<hr/>					
32G					
WNW	Site ID:	01-2307		AQUIFLOW	51870
1/4 - 1/2 Mile	Groundwater Flow:	NW			
Lower	Shallow Water Depth:	Not Reported			
	Deep Water Depth:	Not Reported			
	Average Water Depth:	12 ft			
	Date:	03/15/1995			
<hr/>					
33G					
WNW	Site ID:	01-1244		AQUIFLOW	64075
1/8 - 1/4 Mile	Groundwater Flow:	N			
Lower	Shallow Water Depth:	Not Reported			
	Deep Water Depth:	Not Reported			
	Average Water Depth:	Not Reported			
	Date:	12/20/1994			
<hr/>					
34G					
East	Site ID:	01-0880		AQUIFLOW	65392
0 - 1/8 Mile	Groundwater Flow:	NW			
Lower	Shallow Water Depth:	Not Reported			
	Deep Water Depth:	Not Reported			
	Average Water Depth:	8			
	Date:	01/01/1996			
<hr/>					
35G					
West	Site ID:	01-0421		AQUIFLOW	63810
1/4 - 1/2 Mile	Groundwater Flow:	SW			
Lower	Shallow Water Depth:	Not Reported			
	Deep Water Depth:	Not Reported			
	Average Water Depth:	7			
	Date:	10/28/1996			

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
36G SW 1/8 - 1/4 Mile Lower	Site ID:	01-2300	AQUIFLOW	55761
	Groundwater Flow:	Not Reported		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	2-3		
Date:	10/23/1996			
37G West 1/2 - 1 Mile Lower	Site ID:	01-1793	AQUIFLOW	55831
	Groundwater Flow:	SE		
	Shallow Water Depth:	5.00		
	Deep Water Depth:	5.30		
	Average Water Depth:	Not Reported		
Date:	03/12/1997			
38G ESE 1/2 - 1 Mile Lower	Site ID:	01-2323	AQUIFLOW	55754
	Groundwater Flow:	N		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	20		
Date:	07/17/1996			
39G ESE 1/2 - 1 Mile Lower	Site ID:	01-2323	AQUIFLOW	55755
	Groundwater Flow:	N		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	20		
Date:	07/17/1996			
40G ESE 1/2 - 1 Mile Lower	Site ID:	01-2323	AQUIFLOW	55756
	Groundwater Flow:	N		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	20		
Date:	07/17/1996			
41G SSW 1/4 - 1/2 Mile Lower	Site ID:	01-1151	AQUIFLOW	63663
	Groundwater Flow:	SE		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	5-16		
Date:	04/13/1997			
42G SE 1/2 - 1 Mile Lower	Site ID:	01-0464	AQUIFLOW	65454
	Groundwater Flow:	NW		
	Shallow Water Depth:	12.25		
	Deep Water Depth:	19.47		
	Average Water Depth:	Not Reported		
Date:	11/12/1993			

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
43G SE 1/4 - 1/2 Mile Lower	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-1066 SE Not Reported Not Reported Not Reported 09/20/1988	AQUIFLOW	67424
44G SE 1/2 - 1 Mile Lower	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-1194 SW 4.5 5.5 Not Reported 12/09/1991	AQUIFLOW	63891
45G SE 1/2 - 1 Mile Lower	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-0225 E Not Reported Not Reported Not Reported 09/20/1991	AQUIFLOW	51908
46G SW 1/2 - 1 Mile Lower	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-2225 Varies 4.0 5.0 Not Reported 03/27/1997	AQUIFLOW	52497
47G SW 1/2 - 1 Mile Lower	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-2225 N, E Not Reported Not Reported 5 03/27/1997	AQUIFLOW	64623
48G SW 1/2 - 1 Mile Lower	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-1760 N Not Reported Not Reported 10 12/05/1988	AQUIFLOW	67877
49G SW 1/2 - 1 Mile Lower	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	01-2225 Varies Not Reported Not Reported 2 12/05/1996	AQUIFLOW	52496

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
94607	3	0

Federal EPA Radon Zone for ALAMEDA County: 2

- Note: Zone 1 indoor average level > 4 pCi/L.
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for ALAMEDA COUNTY, CA

Number of sites tested: 49

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.776 pCi/L	100%	0%	0%
Living Area - 2nd Floor	-0.400 pCi/L	100%	0%	0%
Basement	1.338 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: Department of Fish and Wildlife

Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database

Source: Department of Water Resources

Telephone: 916-651-9648

California Drinking Water Quality Database

Source: Department of Public Health

Telephone: 916-324-2319

The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations

Source: Department of Conservation

Telephone: 916-323-1779

Oil and Gas well locations in the state.

California Earthquake Fault Lines

Source: California Division of Mines and Geology

The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon

Source: Department of Public Health

Telephone: 916-210-8558

Radon Database for California

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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Lake Merritt BART Development

800 Madison Street

Oakland, CA 94607

Inquiry Number: 5623421.2s

May 17, 2019

EDR Vapor Encroachment Screen

Prepared using EDR's Vapor Encroachment Worksheet

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Record Sources and Currency	GR-1

Thank you for your business.
 Please contact EDR at 1-800-352-0050
 with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by EDR. The report was designed to assist parties seeking to meet the search requirements of the ASTM Standard Practice for Assessment of Vapor Encroachment into Structures on Property Involved in Real Estate Transactions (E 2600).

STANDARD ENVIRONMENTAL RECORDS	Default Area of Concern (Miles)*	property	1/10	> 1/10
Federal NPL site list	1.0	0	0	0
Federal Delisted NPL site list	1.0	0	0	0
Federal CERCLIS list	0.5	0	0	0
Federal CERCLIS NFRAP site list	0.5	0	0	0
Federal RCRA CORRACTS facilities list	1.0	0	0	0
Federal RCRA non-CORRACTS TSD facilities list	0.5	0	0	0
Federal RCRA generators list	0.25	0	0	1
Federal institutional controls / engineering controls registries	0.5	0	0	0
Federal ERNS list	0.001	0	0	-
State- and tribal - equivalent NPL	1.0	0	0	0
State- and tribal - equivalent CERCLIS	1.0	0	0	2
State and tribal landfill and/or solid waste disposal site lists	0.5	0	0	0
State and tribal leaking storage tank lists	0.5	0	2	14
State and tribal registered storage tank lists	0.25	0	0	0
State and tribal institutional control / engineering control registries	not searched	-	-	-
State and tribal voluntary cleanup sites	0.5	0	0	1
State and tribal Brownfields sites	0.5	0	0	0

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists	0.5	0	0	0
Local Lists of Landfill / Solid Waste Disposal Sites	0.5	0	0	0
Local Lists of Hazardous waste / Contaminated Sites	1.0	0	1	1
Local Lists of Registered Storage Tanks	0.25	0	3	7
Local Land Records	0.5	0	0	0
Records of Emergency Release Reports	0.5	0	1	0
Other Ascertainable Records	1.0	6	4	15

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records	1.0	0	20	0
Exclusive Recovered Govt. Archives	0.001	0	0	-

EXECUTIVE SUMMARY

EDR RECOVERED GOVERNMENT ARCHIVES

EDR Exclusive Records	1.0	0	20	0
Exclusive Recovered Govt. Archives	0.001	0	0	-

*The Default Area of Concern may be adjusted by the environmental professional using experience and professional judgement. Each category may include several databases, and each database may have a different distance. A list of individual databases is provided at the back of this report.

EXECUTIVE SUMMARY

TARGET PROPERTY INFORMATION

ADDRESS

LAKE MERRITT BART DEVELOPMENT
800 MADISON STREET
OAKLAND, CA 94607

COORDINATES

Latitude (North): 37.797513 - 37° 47' 51.043396"
Longitude (West): 122.265828 - 122° 15' 56.991577"
Elevation: 33 ft. above sea level

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records.

<u>Site</u>	<u>Database(s)</u>
BART LAKE MERRITT SUBSTATION (LMA) 800 MADISON ST OAKLAND, CA 94607	CERS
BART/LAKE MERRITT STATION 800 MADISON STREET OAKLAND, CA 946040000	HAZNET GEPaid: CAL000015956
BART/LAKE MERRITT STATION 800 MADISON ST OAKLAND, CA 94607	FINDS Registry ID:: 110070443480 ECHO Registry ID: 110070443480
BART LAKE MERRITT SUBSTATION (LMA) 800 MADISON ST OAKLAND, CA 94607	FINDS Registry ID:: 110011660274 Registry ID:: 110058256417
BAY AREA RAPID TRANSIT 800 MADISON ST OAKLAND, CA 94607	FTTS HIST FTTS
BART BAYFAIR STATION 800 MADISON STREET OAKLAND, CA 946070000	HAZNET GEPaid: CAL000015923

EXECUTIVE SUMMARY

SEARCH RESULTS

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

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PORT OF OAKLAND / CARD LOCK BLDG H- CERS: CERS Alameda County CS: Alameda County CS LUST: LUST HIST CORTESE: HIST CORTESE	79 8TH AVE	<1/10 SE	◆ C23	27
LANEY COLLEGE CERS: CERS CIWQS: CIWQS Alameda County CS: Alameda County CS LUST: LUST HIST CORTESE: HIST CORTESE HIST UST: HIST UST	900 FALLON ST	<1/10 E	◆ B27	34
VIC'S AUTOMOTIVE SERVICE LUST: LUST Alameda County CS: Alameda County CS HIST CORTESE: HIST CORTESE	245 8TH	1/10 - 1/3 WNW	▲ J32	64
CITY OF OAKLAND FIRE STATION #12 CERS: CERS Alameda County CS: Alameda County CS LUST: LUST HIST CORTESE: HIST CORTESE	822 ALICE ST	1/10 - 1/3 WNW	▲ J33	75
AQUA SCIENCE ENGINEERS, INC (A CERS: CERS SWEEPS UST: SWEEPS UST EMI: EMI LUST: LUST Alameda County CS: Alameda County CS HIST CORTESE: HIST CORTESE	250 8TH STREET	1/10 - 1/3 WNW	▲ J34	77
OAKLAND AUTOMATIC SALES CERS: CERS Alameda County CS: Alameda County CS CPS-SLIC: CPS-SLIC	719 ALICE ST	1/10 - 1/3 W	▲ J35	91
PORT OF OAKLAND / BLDG H-209 CERS: CERS LUST: LUST Alameda County CS: Alameda County CS HIST CORTESE: HIST CORTESE	271 8TH AVENUE	1/10 - 1/3 WNW	▲ P36	92
UNOCAL #0752 CERS: CERS SWEEPS UST: SWEEPS UST LUST: LUST HIST CORTESE: HIST CORTESE HIST UST: HIST UST	800 HARRISON	1/10 - 1/3 WNW	▲ P37	94
UNION OIL SS0752	800 HARRISON ST	1/10 - 1/3 WNW	▲ P38	103

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Alameda County CS: Alameda County CS HIST UST: HIST UST HAZNET: HAZNET				
KIN SHELL SWEEPS UST: SWEEPS UST LUST: LUST Alameda County CS: Alameda County CS CA FID UST: CA FID UST HIST CORTESE: HIST CORTESE	726 HARRISON ST	1/10 - 1/3 WNW	▲ P40	127
GIN'S ARCO SERVICE SWEEPS UST: SWEEPS UST CERS: CERS Alameda County CS: Alameda County CS LUST: LUST CA FID UST: CA FID UST HIST CORTESE: HIST CORTESE	706 HARRISON ST	1/10 - 1/3 W	◆ P41	137
PORT OF OAKLAND, FORMER SEABREEZE CAFE RCRA-LQG: RCRA-LQG CERS: CERS CPS-SLIC: CPS-SLIC	280 6TH AVE	1/10 - 1/3 W	◆ S42	149
BAYPORTE VILLAGE (ACORN II APARTMENTS) CERS: CERS Alameda County CS: Alameda County CS CPS-SLIC: CPS-SLIC	0 8TH ST & MARKET	1/10 - 1/3 WNW	▲ U43	153
JAL-VUE WINDOW CORPORATION CERS: CERS SWEEPS UST: SWEEPS UST LUST: LUST CA FID UST: CA FID UST HIST CORTESE: HIST CORTESE HIST UST: HIST UST	295 6TH AVE	1/10 - 1/3 W	◆ S44	154
OAKLAND UNIFIED SCHOOL DISTRICT - HARPER BLDG CERS: CERS LUST: LUST	314 10TH STREET	1/10 - 1/3 NW	▲ 45	157
ASIAN HEALTH SERVICES ENVIROSTOR: ENVIROSTOR	814 WEBSTER STREET	1/10 - 1/3 WNW	▲ U46	158
301 12TH STREET FUTURE DEVELOPMENT VCP: VCP ENVIROSTOR: ENVIROSTOR	301 12TH STREET	1/10 - 1/3 NNW	▲ 47	159
SALVATION ARMY LUST: LUST Alameda County CS: Alameda County CS	601 WEBSTER ST	1/10 - 1/3 W	◆ 48	169
<u>ADDITIONAL ENVIRONMENTAL RECORDS</u>				
<u>Name</u>	<u>Address</u>	<u>Dist/Dir</u>	<u>Map ID</u>	<u>Page</u>
ALAMEDA NAVAL AIR STATION (CLOSED) DOD: DOD	Not Reported	1/2 - 1 WSW	Region	13

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BART LAKE MERRITT SUBSTATION (LMA) CERS: CERS	800 MADISON ST	Property	▲ A1	13
BART/LAKE MERRITT STATION HAZNET: HAZNET	800 MADISON STREET	Property	▲ A2	16
BART/LAKE MERRITT STATION FINDS: FINDS ECHO: ECHO	800 MADISON ST	Property	▲ A3	18
BART LAKE MERRITT SUBSTATION (LMA) FINDS: FINDS	800 MADISON ST	Property	▲ A4	19
BAY AREA RAPID TRANSIT FTTS: FTTS HIST FTTS: HIST FTTS	800 MADISON ST	Property	▲ A5	19
BART BAYFAIR STATION HAZNET: HAZNET	800 MADISON STREET	Property	▲ A6	20
SNAIL STREET AND BAY STREET MP 11.9 CHMIRS: CHMIRS	SNAIL STREET AND BAY STREET MP 11.9	<1/10 ESE	◆ B10	22
PORT OF OAKLAND / CARD LOCK BLDG H- CERS: CERS Alameda County CS: Alameda County CS LUST: LUST HIST CORTESE: HIST CORTESE	79 8TH AVE	<1/10 SE	◆ C23	27
BART METRO CENTER CERS: CERS CERS TANKS: CERS TANKS	101 8TH ST	<1/10 S	◆ A24	28
LANEY COLLEGE CERS: CERS CIWQS: CIWQS Alameda County CS: Alameda County CS LUST: LUST HIST CORTESE: HIST CORTESE HIST UST: HIST UST	900 FALLON ST	<1/10 E	◆ B27	34
LANEY COLLEGE CERS: CERS SWEEPS UST: SWEEPS UST CA FID UST: CA FID UST HIST UST: HIST UST CERS HAZ WASTE: CERS HAZ WASTE	900 FALLON ST	<1/10 E	◆ B28	37
VIC'S AUTOMOTIVE SERVICE LUST: LUST Alameda County CS: Alameda County CS HIST CORTESE: HIST CORTESE	245 8TH	1/10 - 1/3 WNW	▲ J32	64

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CITY OF OAKLAND FIRE STATION #12 CERS: CERS Alameda County CS: Alameda County CS LUST: LUST HIST CORTESE: HIST CORTESE	822 ALICE ST	1/10 - 1/3 WNW	▲ J33	75
AQUA SCIENCE ENGINEERS, INC (A) CERS: CERS SWEEPS UST: SWEEPS UST EMI: EMI LUST: LUST Alameda County CS: Alameda County CS HIST CORTESE: HIST CORTESE	250 8TH STREET	1/10 - 1/3 WNW	▲ J34	77
OAKLAND AUTOMATIC SALES CERS: CERS Alameda County CS: Alameda County CS CPS-SLIC: CPS-SLIC	719 ALICE ST	1/10 - 1/3 W	▲ J35	91
PORT OF OAKLAND / BLDG H-209 CERS: CERS LUST: LUST Alameda County CS: Alameda County CS HIST CORTESE: HIST CORTESE	271 8TH AVENUE	1/10 - 1/3 WNW	▲ P36	92
UNOCAL #0752 CERS: CERS SWEEPS UST: SWEEPS UST LUST: LUST HIST CORTESE: HIST CORTESE HIST UST: HIST UST	800 HARRISON	1/10 - 1/3 WNW	▲ P37	94
UNION OIL SS0752 Alameda County CS: Alameda County CS HIST UST: HIST UST HAZNET: HAZNET	800 HARRISON ST	1/10 - 1/3 WNW	▲ P38	103
UNION 76 CERS: CERS CERS TANKS: CERS TANKS CERS HAZ WASTE: CERS HAZ WASTE	800 HARRISON ST	1/10 - 1/3 WNW	▲ P39	105
KIN SHELL SWEEPS UST: SWEEPS UST LUST: LUST Alameda County CS: Alameda County CS CA FID UST: CA FID UST HIST CORTESE: HIST CORTESE	726 HARRISON ST	1/10 - 1/3 WNW	▲ P40	127
GIN'S ARCO SERVICE SWEEPS UST: SWEEPS UST CERS: CERS Alameda County CS: Alameda County CS LUST: LUST CA FID UST: CA FID UST HIST CORTESE: HIST CORTESE	706 HARRISON ST	1/10 - 1/3 W	◆ P41	137
PORT OF OAKLAND, FORMER SEABREEZE CAFE	280 6TH AVE	1/10 - 1/3 W	◆ S42	149

EXECUTIVE SUMMARY

<u>Name</u>	<u>Address</u>	<u>Dist/Dir</u>	<u>Map ID</u>	<u>Page</u>
RCRA-LQG: RCRA-LQG CERS: CERS CPS-SLIC: CPS-SLIC				
BAYPORTE VILLAGE (ACORN II APARTMENTS) CERS: CERS Alameda County CS: Alameda County CS CPS-SLIC: CPS-SLIC	0 8TH ST & MARKET	1/10 - 1/3 WNW	▲ U43	153
JAL-VUE WINDOW CORPORATION CERS: CERS SWEEPS UST: SWEEPS UST LUST: LUST CA FID UST: CA FID UST HIST CORTESE: HIST CORTESE HIST UST: HIST UST	295 6TH AVE	1/10 - 1/3 W	◆ S44	154
OAKLAND UNIFIED SCHOOL DISTRICT - HARPER BLDG CERS: CERS LUST: LUST	314 10TH STREET	1/10 - 1/3 NW	▲ 45	157

EDR HIGH RISK HISTORICAL RECORDS

<u>Name</u>	<u>Address</u>	<u>Dist/Dir</u>	<u>Map ID</u>	<u>Page</u>
HOPKINS SERVICE STATION EDR Hist Auto: EDR Hist Auto	13 9TH AVE	<1/10 ESE	◆ B7	21
ZELLERS R K EDR Hist Auto: EDR Hist Auto	35 9TH AVE	<1/10 ESE	◆ B8	21
STANDARD OIL CO OF CALIFORNIA SERVICE STATIONS EDR Hist Auto: EDR Hist Auto	17 9TH ST	<1/10 ESE	◆ B9	22
JERMARK G H EDR Hist Auto: EDR Hist Auto	27 9TH AVE	<1/10 ESE	◆ B11	24
PACIFIC SERVICE STATIONS INC EDR Hist Auto: EDR Hist Auto	55 9TH AVE	<1/10 ESE	◆ B12	24
RICHFIELD OIL CO EDR Hist Auto: EDR Hist Auto	39 9TH ST	<1/10 ESE	◆ B13	24
HYDE B G EDR Hist Auto: EDR Hist Auto	47 9TH ST	<1/10 ESE	◆ B14	24
HINES R F EDR Hist Auto: EDR Hist Auto	59 9TH ST	<1/10 ESE	◆ B15	25
LUDLOW A B EDR Hist Auto: EDR Hist Auto	66 9TH ST	<1/10 E	◆ B16	25

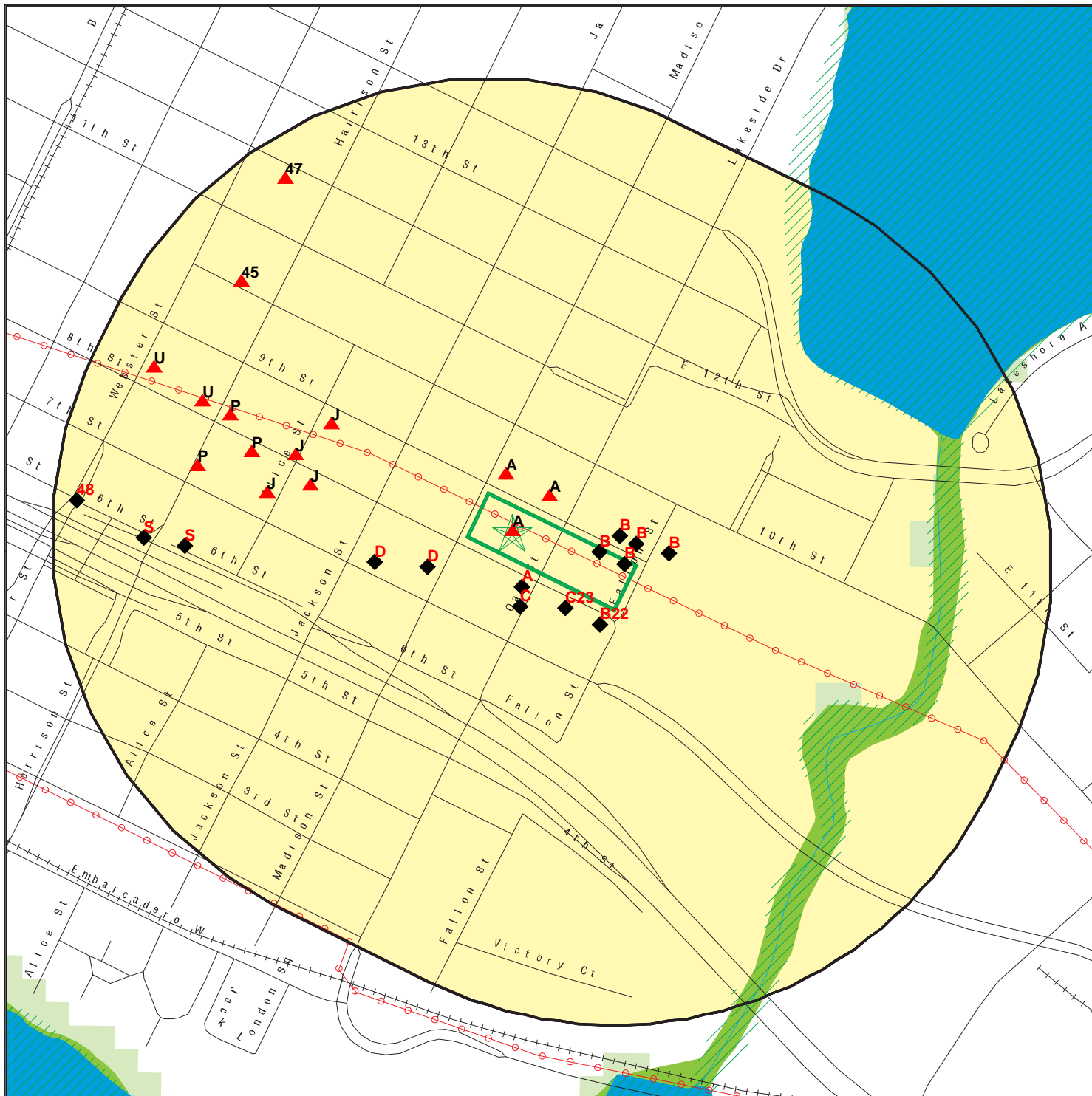
EXECUTIVE SUMMARY

<u>Name</u>	<u>Address</u>	<u>Dist/Dir</u>	<u>Map ID</u>	<u>Page</u>
BAIRD BROS EDR Hist Auto: EDR Hist Auto	58 9TH ST	<1/10 E	◆ B17	25
CAUGHLIN N C EDR Hist Auto: EDR Hist Auto	24 9TH AVE	<1/10 E	◆ B18	25
LOW DON EDR Hist Auto: EDR Hist Auto	36 9TH AVE	<1/10 E	◆ B19	26
SHAW & GARLAND EDR Hist Auto: EDR Hist Auto	38 9TH ST	<1/10 E	◆ B20	26
DOWNTOWN SERVICE STATION EDR Hist Auto: EDR Hist Auto	12 9TH ST	<1/10 E	◆ B21	26
ABBOTT H G EDR Hist Auto: EDR Hist Auto	43 8TH ST	<1/10 SE	◆ B22	27
ARNEY ERNEST EDR Hist Auto: EDR Hist Auto	100 9TH AVE	<1/10 NE	▲ A25	34
NO D LAY DRY CLEANERS EDR Hist Cleaner: EDR Hist Cleaner	148 9TH ST	<1/10 N	▲ A26	34
TANI MOTO EDR Hist Cleaner: EDR Hist Cleaner	709 OAK ST	<1/10 S	◆ C29	63
CANTON GARAGE EDR Hist Auto: EDR Hist Auto	715 MADISON ST	<1/10 WSW	◆ D30	63
ACE AUTO REPAIR EDR Hist Auto: EDR Hist Auto	186 7TH ST	<1/10 WSW	◆ D31	63

EDR RECOVERED GOVERNMENT ARCHIVES

<u>Name</u>	<u>Address</u>	<u>Dist/Dir</u>	<u>Map ID</u>	<u>Page</u>
Not Reported				

PRIMARY MAP - 5623421.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

0 300 1/3 Miles

Indian Reservations BIA

Areas of Concern

Power transmission lines

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

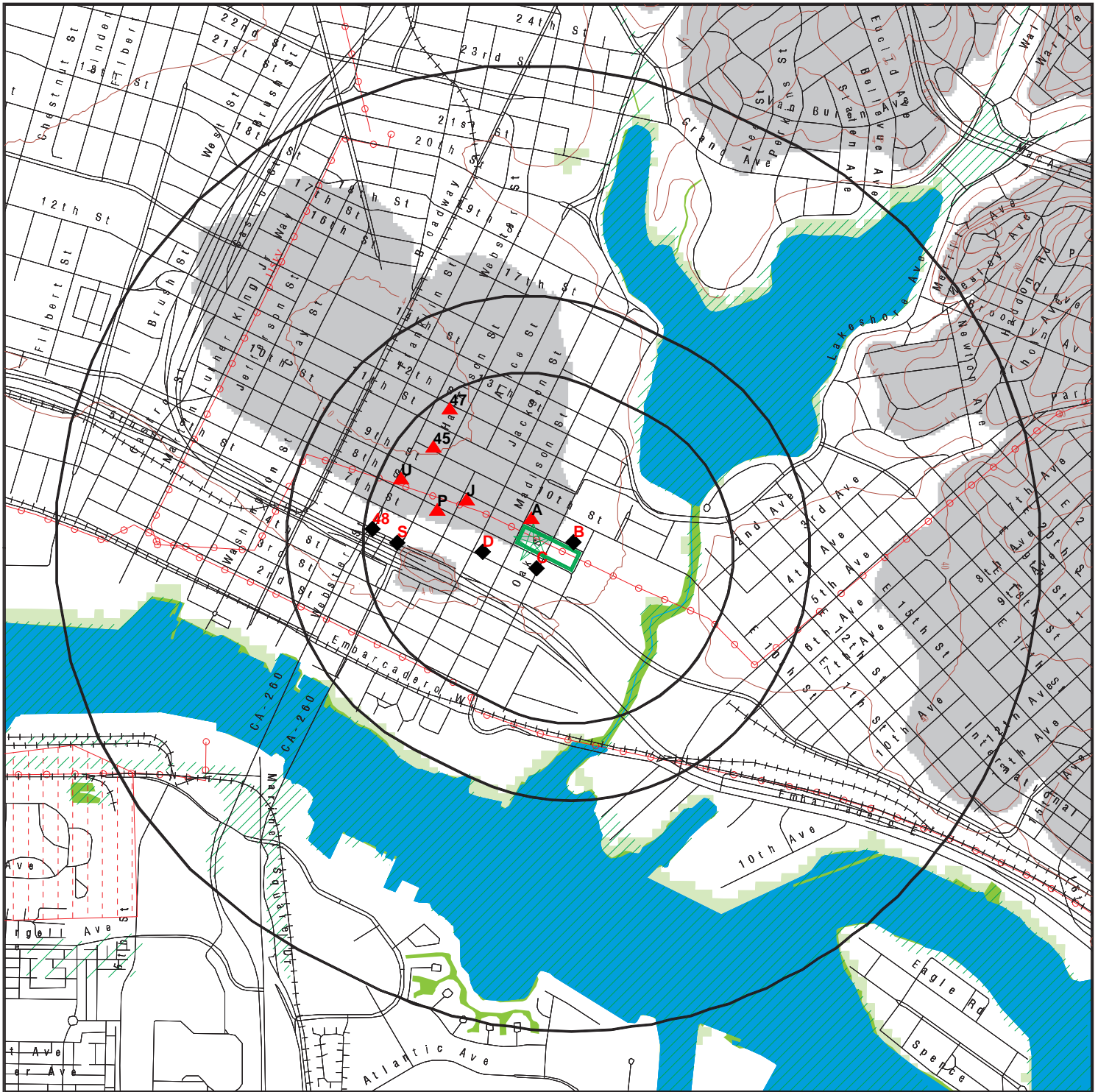
















This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Lake Merritt BART Development
 ADDRESS: 800 Madison Street
 Oakland CA 94607
 LAT/LONG: 37.797513 / 122.265828

CLIENT: Langan
 CONTACT: Wendy Kwong
 INQUIRY #: 5623421.2s
 DATE: April 16, 2019 7:42 pm

SECONDARY MAP - 5623421.2S



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  National Priority List Sites
-  Dept. Defense Sites
-  Indian Reservations BIA
-  Power transmission lines
-  100-year flood zone
-  500-year flood zone
-  National Wetland Inventory
-  State Wetlands
-  Upgradient Area
-  Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Lake Merritt BART Development
 ADDRESS: 800 Madison Street
 Oakland CA 94607
 LAT/LONG: 37.797513 / 122.265828

CLIENT: Langan
 CONTACT: Wendy Kwong
 INQUIRY #: 5623421.2s
 DATE: April 16, 2019 7:41 pm

MAP FINDINGS

LEGEND

FACILITY NAME FACILITY ADDRESS, CITY, ST, ZIP		EDR SITE ID NUMBER
◆ MAP ID#	Direction Distance Range (Distance feet / miles)	ASTM 2600 Record Sources found in this report. Each database searched has been assigned to one or more categories. For detailed information about categorization, see the section of the report Records Searched and Currency.
	Relative Elevation Feet Above Sea Level	
Worksheet:		
Comments: Comments may be added on the online Vapor Encroachment Worksheet.		

DATABASE ACRONYM: Applicable categories (A hoverbox with database description).

ALAMEDA NAVAL AIR STATION (CLOSED) Not Reported, , CA,		CUSA136129
Region	WSW 1/2 - 1 (5117 ft. / 0.969 mi.)	Other Ascertainable Records

Worksheet:

Impact on Target Property: VEC does not exist

DOD: Other Ascertainable Records

Feature 1: Navy DOD
 Feature 2: Not Reported
 Feature 3: Not Reported
 URL: Not Reported
 Name 1: Alameda Naval Air Station (Closed)
 Name 2: Not Reported
 Name 3: Not Reported
 State: CA
 DOD Site: Yes
 Tile name: CAALAMEDA

BART LAKE MERRITT SUBSTATION (LMA) 800 MADISON ST, OAKLAND, CA, 94607		S121795044
▲ A1	Target Property	Other Ascertainable Records
	33 ft. Above Sea Level	

Worksheet:

Impact on Target Property: VEC does not exist

CERS TANKS: Other Ascertainable Records

Site ID: 97447

MAP FINDINGS

BART LAKE MERRITT SUBSTATION (LMA), 800 MADISON ST, OAKLAND, CA 94607 (Continued)

CERS ID: 10343530
CERS Description: Chemical Storage Facilities

Violations:

Site ID: 97447
Site Name: BART Lake Merritt Substation (LMA)
Violation Date: 05-01-2017
Citation: HSC 6.95 25507 - California Health and Safety Code, Chapter 6.95, Section(s) 25507
Violation Description: Failure to adequately establish and implement a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Returned to compliance on 08/11/2017. OBSERVATION: Fire extinguisher with expired date of February 2017 observed in transformer room. Emergency equipment (such as fire extinguishers, spill prevention and alarm equipment) shall be tested and maintained as necessary (e.g. fire extinguishers assessed annually). CORRECTIVE ACTION: Maintain emergency equipment such as fire extinguishers as necessary; ensure fire extinguisher is serviced and is current. Provide written and/or photo documentation of corrective action within 30 days.
Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Evaluation:

Eval General Type: Compliance Evaluation Inspection
Eval Date: 05-01-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Routine hazardous materials business plan (HMBP) inspection of BART Lake Merritt Substation (LMA) located at 800 Madison St, Oakland CA 94607. ACDEH Inspectors Kevin Hom and Antoinette Stetzenmeyer conducted the inspection. Facility walk through conducted with Aaron Meeks, Safety Specialist, and Jonathan Rossen, Manager of Employee/Patron Safety. Email inspection reports to: ameeks@bart.gov; jrossen@bart.gov. Facility inventory confirmed on site. CERTIFICATION OF RETURN TO COMPLIANCE: I certify that the violation(s) noted in this HMBP inspection report have been corrected at BART Lake Merritt Substation (LMA) located at 800 Madison St, Oakland, CA 94607. I have personally examined any documentation attached to the certification to establish that the violations have been corrected. PRINT: _____
SIGN: _____
TITLE: _____ [Truncated]
Eval Division: Alameda County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Coordinates:

Site ID: 97447
Facility Name: BART Lake Merritt Substation (LMA)
Env Int Type Code: HMBP
Program ID: 10343530
Coord Name: Not Reported
Ref Point Type Desc: Unknown
Latitude: 37.797512
Longitude: -122.265831

Affiliation:

Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not Reported

MAP FINDINGS

BART LAKE MERRITT SUBSTATION (LMA), 800 MADISON ST, OAKLAND, CA 94607 (Continued)

Affiliation Address: 1131 Harbor Parkway, Suite 240
 Affiliation City: Alameda
 Affiliation State: CA
 Affiliation Country: Not Reported
 Affiliation Zip: 94502-6577
 Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Environmental Contact

Entity Name: Aaron Meeks
 Entity Title: Not Reported
 Affiliation Address: P.O. Box 12688 M/S LKS-18
 Affiliation City: Oakland
 Affiliation State: CA
 Affiliation Country: Not Reported
 Affiliation Zip: 94604-2688
 Affiliation Phone: (510) 464-7126

Affiliation Type Desc: Legal Owner

Entity Name: S. F. Bay Area Rapid Transit District
 Entity Title: Not Reported
 Affiliation Address: P.O. Box 12688 M/S LKS-18
 Affiliation City: Oakland
 Affiliation State: CA
 Affiliation Country: United States
 Affiliation Zip: 94604-2688
 Affiliation Phone: (510) 464-7659

Affiliation Type Desc: Identification Signer

Entity Name: Aaron Meeks
 Entity Title: Safety Specialist
 Affiliation Address: Not Reported
 Affiliation City: Not Reported
 Affiliation State: Not Reported
 Affiliation Country: Not Reported
 Affiliation Zip: Not Reported
 Affiliation Phone: Not Reported

Affiliation Type Desc: Property Owner

Entity Name: S. F. Bay Area Rapid Transit District
 Entity Title: Not Reported
 Affiliation Address: P.O. Box 12688 M/S LKS-18
 Affiliation City: Oakland
 Affiliation State: CA
 Affiliation Country: United States
 Affiliation Zip: 94604-2688
 Affiliation Phone: (510) 464-7659

Affiliation Type Desc: Document Preparer

Entity Name: Aaron Meeks
 Entity Title: Not Reported
 Affiliation Address: Not Reported
 Affiliation City: Not Reported

MAP FINDINGS

BART LAKE MERRITT SUBSTATION (LMA), 800 MADISON ST, OAKLAND, CA 94607 (Continued)

Affiliation State: Not Reported
 Affiliation Country: Not Reported
 Affiliation Zip: Not Reported
 Affiliation Phone: Not Reported

 Affiliation Type Desc: Facility Mailing Address
 Entity Name: Mailing Address
 Entity Title: Not Reported
 Affiliation Address: P.O. Box 12688 M/S LKS-18
 Affiliation City: Oakland
 Affiliation State: CA
 Affiliation Country: Not Reported
 Affiliation Zip: 94604-2688
 Affiliation Phone: Not Reported

 Affiliation Type Desc: Operator
 Entity Name: BART Power and Mechanical Maintenance
 Entity Title: Not Reported
 Affiliation Address: Not Reported
 Affiliation City: Not Reported
 Affiliation State: Not Reported
 Affiliation Country: Not Reported
 Affiliation Zip: Not Reported
 Affiliation Phone: (510) 464-6640

 Affiliation Type Desc: Parent Corporation
 Entity Name: BART
 Entity Title: Not Reported
 Affiliation Address: Not Reported
 Affiliation City: Not Reported
 Affiliation State: Not Reported
 Affiliation Country: Not Reported
 Affiliation Zip: Not Reported
 Affiliation Phone: Not Reported

BART/LAKE MERRITT STATION 800 MADISON STREET, OAKLAND, CA, 946040000			S113027183
▲ A2	Target Property <hr style="border: 0; border-top: 1px solid black;"/> <div style="text-align: center;">33 ft. Above Sea Level</div>	Other Ascertainable Records	

Worksheet:

Impact on Target Property: VEC does not exist

HAZNET: Other Ascertainable Records

Facility Name: BART/LAKE MERRITT STATION
 envid: S113027183
 Year: 2016
 GEPAID: CAL000015956
 Contact: GARY JENSEN

MAP FINDINGS

BART/LAKE MERRITT STATION, 800 MADISON STREET, OAKLAND, CA 946040000 (Continued)

Telephone:	5104647659
Mailing Name:	Not Reported
Mailing Address:	PO BOX 12688
Mailing City,St,Zip:	OAKLAND, CA 946042688
Gen County:	Alameda
TSD EPA ID:	TXD982560294
TSD County:	99
Waste Category:	Liquids with pH <= 2
Disposal Method:	Incineration--Thermal Destruction Other Than Use As A Fuel
Tons:	0.31275
Cat Decode:	Not Reported
Method Decode:	Not Reported
Facility County:	Alameda
envid:	S113027183
Year:	2016
GEPaid:	CAL000015956
Contact:	GARY JENSEN
Telephone:	5104647659
Mailing Name:	Not Reported
Mailing Address:	PO BOX 12688
Mailing City,St,Zip:	OAKLAND, CA 946042688
Gen County:	Alameda
TSD EPA ID:	TXD982560294
TSD County:	99
Waste Category:	Off-specification, aged or surplus organics
Disposal Method:	Incineration--Thermal Destruction Other Than Use As A Fuel
Tons:	0.072
Cat Decode:	Not Reported
Method Decode:	Not Reported
Facility County:	Alameda
envid:	S113027183
Year:	2016
GEPaid:	CAL000015956
Contact:	GARY JENSEN
Telephone:	5104647659
Mailing Name:	Not Reported
Mailing Address:	PO BOX 12688
Mailing City,St,Zip:	OAKLAND, CA 946042688
Gen County:	Alameda
TSD EPA ID:	TXD982560294
TSD County:	99
Waste Category:	Off-specification, aged or surplus organics
Disposal Method:	Incineration--Thermal Destruction Other Than Use As A Fuel
Tons:	0.072
Cat Decode:	Not Reported
Method Decode:	Not Reported
Facility County:	Alameda
envid:	S113027183

MAP FINDINGS

BART/LAKE MERRITT STATION, 800 MADISON STREET, OAKLAND, CA 946040000 (Continued)

Year: 2016
 GEPAID: CAL000015956
 Contact: GARY JENSEN
 Telephone: 5104647659
 Mailing Name: Not Reported
 Mailing Address: PO BOX 12688
 Mailing City,St,Zip: OAKLAND, CA 946042688
 Gen County: Alameda
 TSD EPA ID: TXD982560294
 TSD County: 99
 Waste Category: Alkaline solution without metals pH >= 12.5
 Disposal Method: Incineration--Thermal Destruction Other Than Use As A Fuel
 Tons: 0.10425
 Cat Decode: Not Reported
 Method Decode: Not Reported
 Facility County: Alameda

envid: S113027183
 Year: 2016
 GEPAID: CAL000015956
 Contact: GARY JENSEN
 Telephone: 5104647659
 Mailing Name: Not Reported
 Mailing Address: PO BOX 12688
 Mailing City,St,Zip: OAKLAND, CA 946042688
 Gen County: Alameda
 TSD EPA ID: TXD982560294
 TSD County: 99
 Waste Category: Alkaline solution without metals pH >= 12.5
 Disposal Method: Incineration--Thermal Destruction Other Than Use As A Fuel
 Tons: 0.10425
 Cat Decode: Not Reported
 Method Decode: Not Reported
 Facility County: Alameda

The Click here to access 253 additional CA_HAZNET: record(s) in the EDR Site Report. database contains <http://www.edrnet.com/srf2/FinalSiteReport.aspx?ID=2d2tdZ1GtQ8UZ22OG013Qe7cU9842y7XOE6soAAJ3K2sdU1Etj7tZ91uGJ5WQf2hU47U2d2XODAxoo2Cdl2wtj18ZR6HGV7EQO3QU74o2D5AO.3aoH2y3w0yeU3ecBty9o2Tdb2Wtt1PZkTOGs2JQ42mUW4K2X1cOz3Kof8j3k2lej9wcl4w9b1> additional records for this site. Please contact your EDR Account Executive for more information.

BART/LAKE MERRITT STATION 800 MADISON ST, OAKLAND, CA, 94607		1024655092
▲ A3	Target Property	Other Ascertainable Records
	33 ft. Above Sea Level	

Worksheet:

Impact on Target Property: VEC does not exist

FINDS: Other Ascertainable Records

Registry ID: 110070443480

MAP FINDINGS

BART/LAKE MERRITT STATION, 800 MADISON ST, OAKLAND, CA 94607 (Continued)

Environmental Interest/Information System:

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

The Click here to access additional FINDS: detail in the EDR Site Report. database contains <http://www.edrnet.com/srf2/FinalSiteReport.aspx?ID=2d2tdZ1GtQ8UZ22OG013Qe7cU9842y7XOE6soAAJ3K2sdU1Etj7tZ91uGJ5WQf2hU47U2d2XODAxoo2Cdl2wtj18ZR6HGV7EQO3QU74o2D5AO.3aoH2y3w0yeU3ecBty9o2Tdb2Wtt1PZk2OGs1JQ43mUW5K2X7cOz6Kofj3k1lejAwcl3w9b1> additional records for this site. Please contact your EDR Account Executive for more information.

ECHO: Other Ascertainable Records

Envid: 1024655092
 Registry ID: 110070443480
 DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110070443480>

BART LAKE MERRITT SUBSTATION (LMA) 800 MADISON ST, OAKLAND, CA, 94607		1016293757
▲ A4	Target Property	Other Ascertainable Records
	33 ft. Above Sea Level	

Worksheet:

Impact on Target Property: VEC does not exist

FINDS: Other Ascertainable Records

Registry ID: 110058256417

Environmental Interest/Information System:

STATE MASTER

Registry ID: 110011660274

Environmental Interest/Information System:

NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

The Click here to access additional FINDS: detail in the EDR Site Report. database contains <http://www.edrnet.com/srf2/FinalSiteReport.aspx?ID=2d2tdZ1GtQ8UZ22OG013Qe7cU9842y7XOE6soAAJ3K2sdU1Etj7tZ91uGJ5WQf2hU47U2d2XODAxoo2Cdl2wtj18ZR6HGV7EQO3QU74o2D5AO.3aoH2y3w0yeU3ecBty9o2Tdb2Wtt1PZk2OGs1JQ42mUW7K2X3cOzAKof4j3k8lej6wcl8w9b1> additional records for this site. Please contact your EDR Account Executive for more information.

BAY AREA RAPID TRANSIT 800 MADISON ST, OAKLAND, CA, 94607		1004442316
▲ A5	Target Property	Other Ascertainable Records
	33 ft. Above Sea Level	

Worksheet:

Impact on Target Property: VEC does not exist

MAP FINDINGS

BAY AREA RAPID TRANSIT, 800 MADISON ST, OAKLAND, CA 94607 (Continued)

FTTS INSP: Other Ascertainable Records

Inspection Number: 1988021804947 1
 Region: 09
 Inspection Date: 02/18/88
 Inspector: CZAJKOWSKI
 Violation occurred: Yes
 Investigation Type: Section 6 PCB Federal Conducted
 Investigation Reason: Neutral Scheme, Region
 Legislation Code: TSCA
 Facility Function: User

HIST FTTS INSP: Other Ascertainable Records

Inspection Number: 1988021804947 1
 Region: 09
 Inspection Date: Not Reported
 Inspector: CZAJKOWSKI
 Violation occurred: Yes
 Investigation Type: Section 6 PCB Federal Conducted
 Investigation Reason: Neutral Scheme, Region
 Legislation Code: TSCA
 Facility Function: User

BART BAYFAIR STATION 800 MADISON STREET, OAKLAND, CA, 946070000			S113027161
▲ A6	Target Property <hr style="border: 0; border-top: 1px solid black;"/> 33 ft. Above Sea Level	Other Ascertainable Records	

Worksheet:

Impact on Target Property: VEC does not exist

HAZNET: Other Ascertainable Records

Facility Name: BART BAYFAIR STATION
 envid: S113027161
 Year: 1999
 GEPAID: CAL000015923
 Contact: SAN FRANCISCO BAY AREA RTD
 Telephone: 5104646000
 Mailing Name: Not Reported
 Mailing Address: 1330 BROADWAY STE 1702
 Mailing City,St,Zip: OAKLAND, CA 946122516
 Gen County: Not Reported
 TSD EPA ID: CAD000088252
 TSD County: Not Reported
 Waste Category: Off-specification, aged or surplus organics
 Disposal Method: Transfer Station

MAP FINDINGS

BART BAYFAIR STATION, 800 MADISON STREET, OAKLAND, CA 946070000 (Continued)

Tons: .0208
 Cat Decode: Not Reported
 Method Decode: Not Reported
 Facility County: 1

 envid: S113027161
 Year: 1999
 GEPAID: CAL000015923
 Contact: SAN FRANCISCO BAY AREA RTD
 Telephone: 5104646000
 Mailing Name: Not Reported
 Mailing Address: 1330 BROADWAY STE 1702
 Mailing City,St,Zip: OAKLAND, CA 946122516
 Gen County: Not Reported
 TSD EPA ID: CAD028409019
 TSD County: Not Reported
 Waste Category: Other organic solids
 Disposal Method: Transfer Station
 Tons: .0045
 Cat Decode: Not Reported
 Method Decode: Not Reported
 Facility County: 1

HOPKINS SERVICE STATION 13 9TH AVE, OAKLAND, CA,			1009012074
◆ B7	ESE <1/10	(0 ft. / 0 mi.)	EDR Exclusive Records
	6 ft. Lower Elevation	27 ft. Above Sea Level	

Worksheet:

Impact on Target Property: VEC does not exist

EDR Hist Auto: EDR Exclusive Records

Year: Name: / Type:
 1925: HOPKINS SERVICE STATION / AUTOMOBILE SERVICE STATIONS
 1928: MERRITT CO / GASOLINE AND OIL SERVICE STATIONS

ZELLERS R K 35 9TH AVE, OAKLAND, CA,			1009012119
◆ B8	ESE <1/10	(0 ft. / 0 mi.)	EDR Exclusive Records
	4 ft. Lower Elevation	29 ft. Above Sea Level	

Worksheet:

Impact on Target Property: VEC does not exist

EDR Hist Auto: EDR Exclusive Records

Year: Name: / Type:

MAP FINDINGS

ZELLERS R K, 35 9TH AVE, OAKLAND, CA (Continued)

1925: ZELLERS R K / AUTOMOBILE SERVICE STATIONS
 1925: KEY SERVICE STATION / AUTOMOBILE SERVICE STATIONS
 1928: BROOKDALE SERVICE STATION / AUTOMOBILE REPAIRING AND SERVICE STATIONS

STANDARD OIL CO OF CALIFORNIA SERVICE STATIONS 17 9TH ST, OAKLAND, CA,		1009014469
◆ B9	ESE <1/10 (0 ft. / 0 mi.)	EDR Exclusive Records
	6 ft. Lower Elevation 27 ft. Above Sea Level	

Worksheet:

Impact on Target Property: VEC does not exist

EDR Hist Auto: EDR Exclusive Records

Year: Name: / Type:
 1928: STANDARD OIL CO OF CALIFORNIA S / GASOLINE AND OIL SERVICE STATIONS

SNAIL STREET AND BAY STREET MP 11.9 SNAIL STREET AND BAY STREET MP 11.9, OAKLAND, CA,		S105669071
◆ B10	ESE <1/10 (0 ft. / 0 mi.)	Records of Emergency Release Reports
	6 ft. Lower Elevation 27 ft. Above Sea Level	

Worksheet:

Impact on Target Property: VEC does not exist

CHMIRS: Records of Emergency Release Reports

OES Incident Number: 0-0620
 OES notification: 02/10/2000
 OES Date: Not Reported
 OES Time: Not Reported
 Date Completed: Not Reported
 Property Use: Not Reported
 Agency Id Number: Not Reported
 Agency Incident Number: Not Reported
 Time Notified: Not Reported
 Time Completed: Not Reported
 Surrounding Area: Not Reported
 Estimated Temperature: Not Reported
 Property Management: Not Reported
 More Than Two Substances Involved?: Not Reported
 Resp Agency Personel # Of Decontaminated: Not Reported
 Responding Agency Personel # Of Injuries: Not Reported
 Responding Agency Personel # Of Fatalities: Not Reported
 Others Number Of Decontaminated: Not Reported

MAP FINDINGS

SNAIL STREET AND BAY STREET MP 11.9, SNAIL STREET AND BAY STREET MP 11.9, OAKLAND, CA (Continued)

Others Number Of Injuries:	Not Reported
Others Number Of Fatalities:	Not Reported
Vehicle Make/year:	Not Reported
Vehicle License Number:	Not Reported
Vehicle State:	Not Reported
Vehicle Id Number:	Not Reported
CA DOT PUC/ICC Number:	Not Reported
Company Name:	Not Reported
Reporting Officer Name/ID:	Not Reported
Report Date:	Not Reported
Facility Telephone:	Not Reported
Waterway Involved:	Not Reported
Waterway:	Not Reported
Spill Site:	Not Reported
Cleanup By:	none
Containment:	Not Reported
What Happened:	Not Reported
Type:	Not Reported
Measure:	Not Reported
Other:	Not Reported
Date/Time:	Not Reported
Year:	2000
Agency:	Union Pacific RR
Incident Date:	2/10/200012:00:00 AM
Admin Agency:	City of Oakland Fire Department
Amount:	Not Reported
Contained:	Unknown
Site Type:	Rail Road
E Date:	Not Reported
Substance:	none
Gallons:	0.000000
Unknown:	0
Substance #2:	Not Reported
Substance #3:	Not Reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not Reported
#2 Pipeline:	Not Reported
#3 Pipeline:	Not Reported
#1 Vessel >= 300 Tons:	Not Reported
#2 Vessel >= 300 Tons:	Not Reported
#3 Vessel >= 300 Tons:	Not Reported
Evacs:	Not Reported
Injuries:	Not Reported
Fatals:	Not Reported
Comments:	Not Reported
Description:	AMTRAC #8301 passenger car derailed, collided with empty railcar #DTTC-73352 in rail yard.

MAP FINDINGS

JERMARK G H 27 9TH AVE, OAKLAND, CA,			1009014617
◆ B11	ESE <1/10	(0 ft. / 0 mi.)	EDR Exclusive Records
	5 ft. Lower Elevation	28 ft. Above Sea Level	

Worksheet:

Impact on Target Property: VEC does not exist

EDR Hist Auto: EDR Exclusive Records

Year: Name: / Type:
1933: JERMARK G H / GASOLINE AND OIL SERVICE STATIONS

PACIFIC SERVICE STATIONS INC 55 9TH AVE, OAKLAND, CA,			1009012642
◆ B12	ESE <1/10	(0 ft. / 0 mi.)	EDR Exclusive Records
	3 ft. Lower Elevation	30 ft. Above Sea Level	

Worksheet:

Impact on Target Property: VEC does not exist

EDR Hist Auto: EDR Exclusive Records

Year: Name: / Type:
1933: PACIFIC SERVICE STATIONS INC / GASOLINE AND OIL SERVICE STATIONS

RICHFIELD OIL CO 39 9TH ST, OAKLAND, CA,			1009014358
◆ B13	ESE <1/10	(0 ft. / 0 mi.)	EDR Exclusive Records
	4 ft. Lower Elevation	29 ft. Above Sea Level	

Worksheet:

Impact on Target Property: VEC does not exist

EDR Hist Auto: EDR Exclusive Records

Year: Name: / Type:
1933: RICHFIELD OIL CO / GASOLINE AND OIL SERVICE STATIONS

HYDE B G 47 9TH ST, OAKLAND, CA,			1009015778
◆ B14	ESE <1/10	(0 ft. / 0 mi.)	EDR Exclusive Records
	4 ft. Lower Elevation	29 ft. Above Sea Level	

Worksheet:

MAP FINDINGS

Impact on Target Property: VEC does not exist

EDR Hist Auto: EDR Exclusive Records

Year: 1928: Name: / Type: HYDE B G / GASOLINE AND OIL SERVICE STATIONS

HINES R F 59 9TH ST, OAKLAND, CA,			1009014607
◆ B15	ESE <1/10	(0 ft. / 0 mi.)	EDR Exclusive Records
	2 ft. Lower Elevation	31 ft. Above Sea Level	

Worksheet:

Impact on Target Property: VEC does not exist

EDR Hist Auto: EDR Exclusive Records

Year: 1933: Name: / Type: HINES R F / GASOLINE AND OIL SERVICE STATIONS

LUDLOW A B 66 9TH ST, OAKLAND, CA,			1009015784
◆ B16	E <1/10	(81 ft. / 0.015 mi.)	EDR Exclusive Records
	4 ft. Lower Elevation	29 ft. Above Sea Level	

Worksheet:

EDR Hist Auto: EDR Exclusive Records

Year: 1928: Name: / Type: LUDLOW A B / GASOLINE AND OIL SERVICE STATIONS

BAIRD BROS 58 9TH ST, OAKLAND, CA,			1009014285
◆ B17	E <1/10	(81 ft. / 0.015 mi.)	EDR Exclusive Records
	5 ft. Lower Elevation	28 ft. Above Sea Level	

Worksheet:

EDR Hist Auto: EDR Exclusive Records

Year: 1925: Name: / Type: BAIRD BROS / AUTOMOBILE SERVICE STATIONS

CAUGHLIN N C 24 9TH AVE, OAKLAND, CA,			1009011203
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MAP FINDINGS

◆ B18	E <1/10	(81 ft. / 0.015 mi.)	EDR Exclusive Records
	6 ft. Lower Elevation	27 ft. Above Sea Level	

Worksheet:

EDR Hist Auto: EDR Exclusive Records

Year: Name: / Type:
 1928: CAUGHLIN N C / GASOLINE AND OIL SERVICE STATIONS

LOW DON 36 9TH AVE, OAKLAND, CA,			1009015783
◆ B19	E <1/10	(81 ft. / 0.015 mi.)	EDR Exclusive Records
	6 ft. Lower Elevation	27 ft. Above Sea Level	

Worksheet:

EDR Hist Auto: EDR Exclusive Records

Year: Name: / Type:
 1928: LOW DON / GASOLINE AND OIL SERVICE STATIONS

SHAW & GARLAND 38 9TH ST, OAKLAND, CA,			1009015870
◆ B20	E <1/10	(81 ft. / 0.015 mi.)	EDR Exclusive Records
	6 ft. Lower Elevation	27 ft. Above Sea Level	

Worksheet:

EDR Hist Auto: EDR Exclusive Records

Year: Name: / Type:
 1928: SHAW & GARLAND / GASOLINE AND OIL SERVICE STATIONS

DOWNTOWN SERVICE STATION 12 9TH ST, OAKLAND, CA,			1009012221
◆ B21	E <1/10	(82 ft. / 0.015 mi.)	EDR Exclusive Records
	7 ft. Lower Elevation	26 ft. Above Sea Level	

Worksheet:

EDR Hist Auto: EDR Exclusive Records

Year: Name: / Type:
 1925: FRUITVALE AV SERVICE STATION / AUTOMOBILE SERVICE STATIONS
 1928: DOWNTOWN SERVICE STATION / GASOLINE AND OIL SERVICE STATIONS

MAP FINDINGS

ABBOTT H G 43 8TH ST, OAKLAND, CA,			1009014791
◆ B22	SE <1/10	(83 ft. / 0.016 mi.)	EDR Exclusive Records
	7 ft. Lower Elevation	26 ft. Above Sea Level	

Worksheet:

Impact on Target Property: VEC does not exist

EDR Hist Auto: EDR Exclusive Records

Year: Name: / Type:
1943: ABBOTT H G / GASOLINE AND OIL SERVICE STATIONS

PORT OF OAKLAND / CARD LOCK BLDG H- 79 8TH AVE, OAKLAND, CA, 94606			S103890669
◆ C23	SE <1/10	(86 ft. / 0.016 mi.)	State and tribal leaking storage tank lists Other Ascertainable Records
	4 ft. Lower Elevation	29 ft. Above Sea Level	

Worksheet:

Impact on Target Property: VEC does not exist

LUST: State and tribal leaking storage tank lists

Lead Agency: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600102210
Global Id: T0600102210
Latitude: 37.7875387382053
Longitude: -122.259893417358
Status: Completed - Case Closed
Status Date: 10/13/2005
Case Worker: Not Reported
RB Case Number: Not Reported
Local Agency: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
File Location: DTSC
Local Case Number: 70000109
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: The cases below are all DTSC lead as part of the Ninth Ave Terminal (OAK STREET TO 9TH AVENUE (70000109)) residential redevelopment project for which DTSC is the lead agency. RO106 PORT OF OAKLAND / KEEP ON TRUCKING RO108 PORT OF OAKLAND / BLDG H-209 RO109 PORT OF OAKLAND / CANNERY BLDG H-211 RO110 PORT OF OAKLAND / MARINE TERMINALS CORPORATION RO423 PORT OF OAKLAND / PACIFIC DRY DOCK YARD 2 RO485 PORT OF OAKLAND / CARD LOCK BLDG H-204 RO2461 SEABREEZE YACHT CENTER RO2462 PRAXAIR INC RO2492 PORT OF OAKLAND / NINTH AVE TERMINAL RB

MAP FINDINGS

PORT OF OAKLAND / CARD LOCK BLDG H-, 79 8TH AVE, OAKLAND, CA 94606 (Continued)

Case #: SLT2O160264

LUST:

Global Id: T0600102210
Action Type: Other
Date: 02/05/1997
Action: Leak Reported

Global Id: T0600102210
Action Type: REMEDIATION
Date: 09/09/9999
Action: Not Reported

Global Id: T0600102210
Action Type: Other
Date: 02/05/1997
Action: Leak Discovery

LUST:

Global Id: T0600102210
Status: Completed - Case Closed
Status Date: 10/13/2005

Global Id: T0600102210
Status: Open - Case Begin Date
Status Date: 02/05/1997

Alameda County CS: State and tribal leaking storage tank lists

Status: 11
Record Id: RO0000485
PE: 5602
Facility Status: Not Reported
Latitude: Not Reported
Longitude: Not Reported

HIST CORTESE: Other Ascertainable Records

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-2400

CERS TANKS: Other Ascertainable Records

Site ID: 188320
CERS ID: T0600102210
CERS Description: Leaking Underground Storage Tank Cleanup Site

BART METRO CENTER
101 8TH ST, OAKLAND, CA, 94607

S121738927

MAP FINDINGS

◆ A24	S <1/10	(88 ft. / 0.017 mi.)	Local Lists of Registered Storage Tanks Other Ascertainable Records
	3 ft. Lower Elevation	30 ft. Above Sea Level	

Worksheet:

Impact on Target Property: VEC does not exist

CERS TANKS: Local Lists of Registered Storage Tanks

Site ID: 11054
 CERS ID: 10415170
 CERS Description: Aboveground Petroleum Storage

Evaluation:

Eval General Type: Compliance Evaluation Inspection
 Eval Date: 05-24-2016
 Violations Found: No
 Eval Type: Routine done by local agency
 Eval Notes: Onsite to conduct the Aboveground Petroleum Storage Act Inspection at BART Metro Center - 101 8th Street, Oakland, CA 94607. Met with Principal Engineer, Gary Jensen. Reviewed SPCC Plan onsite.
 Eval Division: Alameda County Environmental Health
 Eval Program: APSA
 Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
 Eval Date: 05-24-2016
 Violations Found: No
 Eval Type: Routine done by local agency
 Eval Notes: Onsite to conduct the Hazardous Materials Business Plan Inspection at BART Metro Center - 101 8th Street, Oakland, CA 94607. Met with Principal Engineer, Gary Jensen. Facility's most recent HMBP submittal was on 2/19/2016. Facility has a room of Lead Acid Batteries that we were unable to access. Will verify when inspecting Lake Meritt BART station in the future. Facility has a 4,000 gallon aboveground diesel convault tank that is backup power for BART's operating system at the Metro Center. The tank and underground piping are monitoring with an INCON monitoring system that was recently tested by TEC Accutite on 5/12/2016.
 Eval Division: Alameda County Environmental Health
 Eval Program: HMRRP
 Eval Source: CERS

Coordinates:

Site ID: 11054
 Facility Name: BART Metro Center
 Env Int Type Code: APSA
 Program ID: 10415170
 Coord Name: Not Reported
 Ref Point Type Desc: Unknown
 Latitude: 37.796961
 Longitude: -122.265651

Affiliation:

Affiliation Type Desc: CUPA District
 Entity Name: Alameda County Env Health
 Entity Title: Not Reported
 Affiliation Address: 1131 Harbor Parkway, Suite 240

MAP FINDINGS

BART METRO CENTER, 101 8TH ST, OAKLAND, CA 94607 (Continued)

Affiliation City:	Alameda
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94502-6577
Affiliation Phone:	(510) 567-6700
Affiliation Type Desc:	Environmental Contact
Entity Name:	Aaron Meeks
Entity Title:	Not Reported
Affiliation Address:	P.O. Box 12688 M/S LKS-18
Affiliation City:	Oakland
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94604-2688
Affiliation Phone:	(510) 464-7126
Affiliation Type Desc:	Identification Signer
Entity Name:	Aaron Meeks
Entity Title:	Safety Specialist
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	BART
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not Reported
Affiliation Address:	P.O. Box 12688 M/S LKS-18
Affiliation City:	Oakland
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94604-2688
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Legal Owner
Entity Name:	S.F. Bay Area Rapid Transit District
Entity Title:	Not Reported
Affiliation Address:	P.O. Box 12688 M/S LKS-18
Affiliation City:	Oakland
Affiliation State:	CA

MAP FINDINGS

BART METRO CENTER, 101 8TH ST, OAKLAND, CA 94607 (Continued)

Affiliation Country: United States
 Affiliation Zip: 94604-2688
 Affiliation Phone: (510) 464-7659

Affiliation Type Desc: Document Preparer
 Entity Name: Aaron Meeks
 Entity Title: Not Reported
 Affiliation Address: Not Reported
 Affiliation City: Not Reported
 Affiliation State: Not Reported
 Affiliation Country: Not Reported
 Affiliation Zip: Not Reported
 Affiliation Phone: Not Reported

Affiliation Type Desc: Operator
 Entity Name: BART Non-Revenue Vehicle Maintenance
 Entity Title: Not Reported
 Affiliation Address: Not Reported
 Affiliation City: Not Reported
 Affiliation State: Not Reported
 Affiliation Country: Not Reported
 Affiliation Zip: Not Reported
 Affiliation Phone: (510) 464-6654

Affiliation Type Desc: Property Owner
 Entity Name: S.F. Bay Area Rapid Transit District
 Entity Title: Not Reported
 Affiliation Address: P.O. Box 12688 M/S LKS-18
 Affiliation City: Oakland
 Affiliation State: CA
 Affiliation Country: United States
 Affiliation Zip: 94604-2688
 Affiliation Phone: (510) 464-7659

CERS TANKS: Other Ascertainable Records

Site ID: 11054
 CERS ID: 10415170
 CERS Description: Chemical Storage Facilities

Evaluation:

Eval General Type: Compliance Evaluation Inspection
 Eval Date: 05-24-2016
 Violations Found: No
 Eval Type: Routine done by local agency
 Eval Notes: Onsite to conduct the Aboveground Petroleum Storage Act Inspection at BART Metro Center - 101 8th Street, Oakland, CA 94607. Met with Principal Engineer, Gary Jensen. Reviewed SPCC Plan onsite.
 Eval Division: Alameda County Environmental Health
 Eval Program: APSA
 Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection

MAP FINDINGS

BART METRO CENTER, 101 8TH ST, OAKLAND, CA 94607 (Continued)

Eval Date: 05-24-2016
 Violations Found: No
 Eval Type: Routine done by local agency
 Eval Notes: Onsite to conduct the Hazardous Materials Business Plan Inspection at BART Metro Center - 101 8th Street, Oakland, CA 94607. Met with Principal Engineer, Gary Jensen. Facility's most recent HMBP submittal was on 2/19/2016. Facility has a room of Lead Acid Batteries that we were unable to access. Will verify when inspecting Lake Meritt BART station in the future. Facility has a 4,000 gallon aboveground diesel convault tank that is backup power for BART's operating system at the Metro Center. The tank and underground piping are monitoring with an INCON monitoring system that was recently tested by TEC Accutite on 5/12/2016.
 Eval Division: Alameda County Environmental Health
 Eval Program: HMRRP
 Eval Source: CERS

Coordinates:

Site ID: 11054
 Facility Name: BART Metro Center
 Env Int Type Code: APSA
 Program ID: 10415170
 Coord Name: Not Reported
 Ref Point Type Desc: Unknown
 Latitude: 37.796961
 Longitude: -122.265651

Affiliation:

Affiliation Type Desc: CUPA District
 Entity Name: Alameda County Env Health
 Entity Title: Not Reported
 Affiliation Address: 1131 Harbor Parkway, Suite 240
 Affiliation City: Alameda
 Affiliation State: CA
 Affiliation Country: Not Reported
 Affiliation Zip: 94502-6577
 Affiliation Phone: (510) 567-6700

 Affiliation Type Desc: Environmental Contact
 Entity Name: Aaron Meeks
 Entity Title: Not Reported
 Affiliation Address: P.O. Box 12688 M/S LKS-18
 Affiliation City: Oakland
 Affiliation State: CA
 Affiliation Country: Not Reported
 Affiliation Zip: 94604-2688
 Affiliation Phone: (510) 464-7126

 Affiliation Type Desc: Identification Signer
 Entity Name: Aaron Meeks
 Entity Title: Safety Specialist
 Affiliation Address: Not Reported
 Affiliation City: Not Reported
 Affiliation State: Not Reported
 Affiliation Country: Not Reported

MAP FINDINGS

BART METRO CENTER, 101 8TH ST, OAKLAND, CA 94607 (Continued)

Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	BART
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not Reported
Affiliation Address:	P.O. Box 12688 M/S LKS-18
Affiliation City:	Oakland
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94604-2688
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Legal Owner
Entity Name:	S.F. Bay Area Rapid Transit District
Entity Title:	Not Reported
Affiliation Address:	P.O. Box 12688 M/S LKS-18
Affiliation City:	Oakland
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94604-2688
Affiliation Phone:	(510) 464-7659
Affiliation Type Desc:	Document Preparer
Entity Name:	Aaron Meeks
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Operator
Entity Name:	BART Non-Revenue Vehicle Maintenance
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	(510) 464-6654

MAP FINDINGS

BART METRO CENTER, 101 8TH ST, OAKLAND, CA 94607 (Continued)

Affiliation Type Desc: Property Owner
 Entity Name: S.F. Bay Area Rapid Transit District
 Entity Title: Not Reported
 Affiliation Address: P.O. Box 12688 M/S LKS-18
 Affiliation City: Oakland
 Affiliation State: CA
 Affiliation Country: United States
 Affiliation Zip: 94604-2688
 Affiliation Phone: (510) 464-7659

ARNEY ERNEST 100 9TH AVE, OAKLAND, CA, 1009012602		
▲ A25	NE <1/10 (98 ft. / 0.018 mi.)	EDR Exclusive Records
	1 ft. Higher Elevation 34 ft. Above Sea Level	

Worksheet:

EDR Hist Auto: EDR Exclusive Records

Year: 1933: Name: / Type: ARNEY ERNEST / GASOLINE AND OIL SERVICE STATIONS

NO D LAY DRY CLEANERS 148 9TH ST, OAKLAND, CA, 94607 1009141559		
▲ A26	N <1/10 (99 ft. / 0.019 mi.)	EDR Exclusive Records
	2 ft. Higher Elevation 35 ft. Above Sea Level	

Worksheet:

Impact on Target Property: VEC Exists

EDR Hist Cleaner: EDR Exclusive Records

Year: 1967: Name: / Type: NO O-LAY CLEANERS / CLEANERS AND DYERS
 1992: NO D LAY DRY CLEANERS / Drycleaning Plants, Except Rugs
 1993: NO D LAY DRY CLEANERS / Drycleaning Plants, Except Rugs

LANEY COLLEGE 900 FALLON ST, OAKLAND, CA, 94606 U001599128		
◆ B27	E <1/10 (147 ft. / 0.028 mi.)	State and tribal leaking storage tank lists Local Lists of Registered Storage Tanks Other Ascertainable Records
	10 ft. Lower Elevation 23 ft. Above Sea Level	

Worksheet:

LUST: State and tribal leaking storage tank lists

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100813
Global Id: T0600100813
Latitude: 37.79716
Longitude: -122.263817
Status: Completed - Case Closed
Status Date: 10/25/1995
Case Worker: Not Reported
RB Case Number: 01-0880
Local Agency: Not Reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000719
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Diesel
Site History: Not Reported

LUST:

Global Id: T0600100813
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not Reported
Phone Number: Not Reported

LUST:

Global Id: T0600100813
Action Type: Other
Date: 02/08/1989
Action: Leak Reported
Global Id: T0600100813
Action Type: REMEDIATION
Date: 09/09/9999
Action: Not Reported

LUST:

Global Id: T0600100813
Status: Completed - Case Closed
Status Date: 10/25/1995
Global Id: T0600100813
Status: Open - Case Begin Date
Status Date: 02/08/1989

Alameda County CS: State and tribal leaking storage tank lists

Status: Case Closed

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Record Id: RO0000719
PE: 5602
Facility Status: Case Closed
Latitude: 37.797115972
Longitude: -122.2636827

HIST UST: Local Lists of Registered Storage Tanks

File Number: Not Reported
URL: Not Reported
Region: STATE
Facility ID: 00000024318
Facility Type: Other
Other Type: COMMUNITY COLLEGE
Contact Name: Not Reported
Telephone: 4154667336
Owner Name: PERALTA COMMUNITY COLLEGE DIST
Owner Address: 333 EAST 8TH STREET
Owner City,St,Zip: OAKLAND, CA 94606
Total Tanks: 0003

Tank Num: 001
Container Num: L-1
Year Installed: 1973
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not Reported
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: L-2
Year Installed: 1973
Tank Capacity: 00000563
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not Reported
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: L-3
Year Installed: Not Reported
Tank Capacity: 00004000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not Reported
Leak Detection: Stock Inventor

HIST CORTESE: Other Ascertainable Records

Region: CORTESE
Facility County Code: 1

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Reg By: LTNKA
Reg Id: 01-0880

CIWQS: Other Ascertainable Records

Agency: Peralta Community College District
Agency Address: 333 E 8th St, Oakland, CA 94606
Place/Project Type: Construction - Other: Parking Baseball Field & Field House, Utility: Sewer, Water, Storm Drain
SIC/NAICS: Not Reported
Region: 2
Program: CONSTW
Regulatory Measure Status: Terminated
Regulatory Measure Type: Storm water construction
Order Number: 2009-0009-DWQ
WDID: 2 01C357192
NPDES Number: CAS000002
Adoption Date: Not Reported
Effective Date: 01/21/2010
Termination Date: 12/17/2012
Expiration/Review Date: Not Reported
Design Flow: Not Reported
Major/Minor: Not Reported
Complexity: Not Reported
TTWQ: Not Reported
Enforcement Actions within 5 years: 1
Violations within 5 years: 0
Latitude: Not Reported
Longitude: Not Reported

CERS TANKS: Other Ascertainable Records

Site ID: 239688
CERS ID: T0600100813
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not Reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not Reported
Affiliation Zip: Not Reported
Affiliation Phone: Not Reported

LANEY COLLEGE
900 FALLON ST, OAKLAND, CA, 94606

S101624343

MAP FINDINGS

◆ B28	E <1/10	(147 ft. / 0.028 mi.)	Local Lists of Hazardous waste / Contaminated Sites
	10 ft. Lower Elevation	23 ft. Above Sea Level	Local Lists of Registered Storage Tanks Other Ascertainable Records

Worksheet:

CERS HAZ WASTE: Local Lists of Hazardous waste / Contaminated Sites

Site ID: 43406
 CERS ID: 10004047
 CERS Description: Hazardous Waste Generator

Violations:

Site ID: 43406
 Site Name: Laney College
 Violation Date: 11-15-2017
 Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
 Violation Description: Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
 Violation Notes: OBSERVATION: Hazardous waste labels missing, incorrect, or missing accumulation start dates, physical state, and chemical properties, facility name and address for the following containers: 1. Hazardous waste containers in the chemistry laboratory- provide accumulation start dates and the contents of the waste stream in percentages 2. 55 gallon drum of waste coolant in machine shop- provide hazardous waste label with all required information 3. 5 gallon bucket of solvent waste in machine shop-provide hazardous waste label with all required information 4. 30 gallon container of waste mineral spirits in art building- provide accumulation start date and name and address of Laney College All hazardous waste containers shall be marked with the following information: 1) the words Hazardous Waste ; 2) name and address of generator; 3) hazardous properties; 4) physical state; 5) composition (contents); 6) accumulation start date. CORRECTIVE ACTION: Immediately label [Truncated]

Violation Division: Alameda County Environmental Health
 Violation Program: HW
 Violation Source: CERS

Site ID: 43406
 Site Name: Laney College
 Violation Date: 11-15-2017
 Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
 Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
 Violation Notes: OBSERVATIONS: Laney College failed to adequately complete an electronic submission of the HMBP. See Violations #4, #5, #6, #7 and #11. CORRECTIVE ACTIONS: See the Corrective Actions listed in Violations #4, #5, #6, #7 and #11.

Violation Division: Alameda County Environmental Health
 Violation Program: HMRRP
 Violation Source: CERS

Site ID: 43406
 Site Name: Laney College
 Violation Date: 11-15-2017
 Citation: 22 CCR 18 66268.7(a) - California Code of Regulations, Title 22, Chapter 18, Section(s) 66268.7(a)
 Violation Description: Failure to determine if the waste has to be treated before it can be land disposed and retain the documentation at least three years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal.
 Violation Notes: OBSERVATION: Copies of the land disposal restriction (LDR) were not available for review. Facility failed to determine if the waste is restricted from land disposal. CORRECTIVE ACTION: The generator shall make a determination of all hazardous wastes if the waste is restricted from land disposal. Submit a copy of LDR Notification or documentation showing that the hazardous waste is not subject to land disposal restriction to the inspector within 30 days.

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Violation Division: Alameda County Environmental Health
 Violation Program: HW
 Violation Source: CERS
 Site ID: 43406
 Site Name: Laney College
 Violation Date: 04-14-2017
 Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
 Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
 Violation Notes: Not Reported
 Violation Division: Alameda County Environmental Health
 Violation Program: HMRRP
 Violation Source: CERS
 Site ID: 43406
 Site Name: Laney College
 Violation Date: 11-15-2017
 Citation: 22 CCR 23 66273.35 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.35
 Violation Description: Failure to accumulate universal waste for one year or less and to demonstrate the length of time that the universal waste has been accumulated from the date it became a waste or was received.
 Violation Notes: OBSERVATION: Universal Waste Handler failed to properly accumulate waste within one year and/or demonstrated accumulation time. Observed no shipping documents or invoices that demonstrate that universal waste are properly disposed of. Royl Roberts states that all universal waste is picked up by North State Environmental. Invoices and shipping documents of universal waste pick up were not available. CORRECTIVE ACTION: Universal Waste Handler shall properly process accumulated waste within one year and/or demonstrated accumulation time. Submit copies of shipping documents or invoices for the disposal of universal waste for the last three years to ACDEH inspector within 30 days.
 Violation Division: Alameda County Environmental Health
 Violation Program: HW
 Violation Source: CERS
 Site ID: 43406
 Site Name: Laney College
 Violation Date: 11-15-2017
 Citation: 40 CFR 1 265.171 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.171
 Violation Description: Failure to accumulate hazardous waste in a container that is in good condition.
 Violation Notes: OBSERVATION: Observed hazardous waste containers in photography lab with incorrect lids that are not tight fitting. Generator must accumulate hazardous waste in containers that are in good condition with tight fitting lids that minimizes release. CORRECTIVE ACTION: Provide the correct tight fitting lid for the hazardous waste container. Submit proof of correction to inspector within 30 days.
 Violation Division: Alameda County Environmental Health
 Violation Program: HW
 Violation Source: CERS
 Site ID: 43406
 Site Name: Laney College
 Violation Date: 11-15-2017
 Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
 Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Violation Notes: OBSERVATIONS: The chemical inventory in CERS needs to be updated. Only chemicals meeting the reporting threshold of 55 gallons for liquids, 500 pounds for solids and 200 cubic feet for compressed gases need to be reported in CERS. Also include any extremely hazardous substances if they are equal to or greater than the federal threshold planning quantity (TPQ) listed in Appendix A, Part 355, Title 40 of the Code of Federal Regulations. CORRECTIVE ACTIONS: The following items need to be addressed in the chemical inventory in CERS: Laney Tower: diesel update the Largest Container size to 500 gallons, Maximum Daily Amount should also be 500 gallons. Pool: Add two 60 gallon tanks of sodium hypochlorite. Add hypochlorite solution (observed 128 one gallon containers). Add carbon dioxide (observed 25 cylinders). Update sodium chloride Largest Container size to 50 pounds and Maximum Daily Amount to at least 500 pounds. Chemistry Lab A237 Add carbon dioxide [Truncated]

Violation Division: Alameda County Environmental Health

Violation Program: HMRRP

Violation Source: CERS

Site ID: 43406

Site Name: Laney College

Violation Date: 11-15-2017

Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit a site map with all required content.

Violation Notes: OBSERVATION: The annotated site maps that were submitted to CERS are not adequate for the size of this campus. CORRECTIVE ACTION: Submit to CERS an overall site map showing the locations of all of the buildings on campus. Submit to CERS a separate site map for each location that stores or handles hazardous materials or hazardous waste to CERS. At a minimum they should include all of the following on each map: north orientation, loading areas, internal roads, adjacent streets, storm and sewer drains, access and exit points, emergency shutoffs, evacuation staging areas, hazardous materials/waste handling and storage areas and emergency response procedures. Site maps are required for Laney Tower, the chemistry laboratories, pool storage area, boiler rooms, machine shop, welding shop and cage, art building and the community garden.

Violation Division: Alameda County Environmental Health

Violation Program: HMRRP

Violation Source: CERS

Site ID: 43406

Site Name: Laney College

Violation Date: 11-15-2017

Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.

Violation Notes: OBSERVATION: The facility has uploaded "Laney College Emergency Operations Plan" dated 9/20/12 and "Emergency Procedures" booklet that is located in each building on campus. Neither document fully addresses the requirements of Health and Safety Code 25505(a)(3). CORRECTIVE ACTION: Complete the "Consolidated Emergency Response/Contingency Plan" template that is available in CERS in order to supplement the other two documents already submitted to CERS.

Violation Division: Alameda County Environmental Health

Violation Program: HMRRP

Violation Source: CERS

Site ID: 43406

Site Name: Laney College

Violation Date: 11-15-2017

Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)

Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.

Violation Notes: OBSERVATION: No training on hazardous materials handling or emergency response procedures has taken place. No training documentation was found for any past trainings that may have occurred. CORRECTIVE ACTION: Train all employees on hazardous materials handling, emergency response procedures and the Consolidated Emergency Response/Contingency Plan. Document this training and provide a syllabus and sign in sheet. Training must occur annually.

Violation Division: Alameda County Environmental Health

Violation Program: HMRRP

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Violation Source: CERS

Site ID: 43406

Site Name: Laney College

Violation Date: 11-15-2017

Citation: HSC 6.5 25189.5(a),25201(a) - California Health and Safety Code, Chapter 6.5, Section(s) 25189.5(a),25201(a)

Violation Description: Failure to dispose of hazardous waste at a facility which has a permit from DTSC or disposing of hazardous waste at any point which is not authorized according to HSC 6.5.

Violation Notes: OBSERVATION: Copies of hazardous waste disposal records for the disposal of silver waste from photo processing solutions and spent rinse water were not found on site. Hazardous waste generators shall retain copies of all manifests signed off by the disposal facility on site for three years and have them readily available for review. CORRECTIVE ACTION: The Facility shall maintain copies of the manifests for any transport of a hazardous waste for off-site transfer, treatment, storage or disposal going forward for three years. Locate and submit copies of manifests for photography waste for the last three years.

Violation Division: Alameda County Environmental Health

Violation Program: HW

Violation Source: CERS

Site ID: 43406

Site Name: Laney College

Violation Date: 11-15-2017

Citation: 22 CCR 12 66262.11 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.11

Violation Description: Failure to determine if wastes generated are hazardous waste by using generator knowledge or applying testing method.

Violation Notes: OBSERVATION: No waste analysis was available for the following: 1. Saw dust waste used to clean up spills in machine shop is currently discarded in trash. 2. Fine metal shavings located in welding area and machine shop. Shavings are currently being recycled. 3. Waste clay, clay dust, and wash water from ceramics class in art building. 4. Containers that previously held hazardous materials or waste in the chemistry laboratory. Observed crusty glassware discarded in trash. These wastes are being disposed of as non-hazardous waste. A generator shall make a hazardous waste determination and keep a record of any test results, waste analyses, or other determinations made in accordance with hazardous waste regulations for at least three years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal. CORRECTIVE ACTION: 1. Manage and dispose of saw dust clean up waste as a hazardous waste. 2. Conduct a waste analysis for the [Truncated]

Violation Division: Alameda County Environmental Health

Violation Program: HW

Violation Source: CERS

Site ID: 43406

Site Name: Laney College

Violation Date: 11-15-2017

Citation: HSC 6.95 25507 - California Health and Safety Code, Chapter 6.95, Section(s) 25507

Violation Description: Failure to adequately establish and implement a business plan when storing/handling a hazardous material at or above reportable quantities.

Violation Notes: Laney College failed to establish and adequately implement a Hazardous Materials Business Plan by the following observations: OBSERVATIONS FOR LANEY TOWER: The 500 gallon diesel tank for the generator does not have the contents listed on the tank. CORRECTIVE ACTIONS: Label this tank as diesel . Submit a photo of the correction. OBSERVATIONS FOR CHEMISTRY LABS A235-A277: Many containers of hazardous waste stored in the chemical hoods were found open. According to the lab manager, they are left open to vent. Most hazardous waste containers were not properly labeled with the required information and were stored piled on one another. Acetylene cylinder in A277 was not properly secured. CORRECTIVE ACTIONS: Keep all hazardous waste containers closed except when in use. Hazardous waste cannot be left open to vent . Properly store all containers of hazardous waste so that each container can be inspected weekly for spillage or leaks. Properly secure all compressed [Truncated]

Violation Division: Alameda County Environmental Health

Violation Program: HMRRP

Violation Source: CERS

Site ID: 43406

Site Name: Laney College

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Violation Date: 11-15-2017
 Citation: 40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
 Violation Description: Failure to meet the following container management requirements: (a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.
 Violation Notes: OBSERVATION: Observed the following open hazardous waste containers: 1) Numerous open containers in chemistry laboratory hazardous waste storage area 2) Open container of used oil in boiler room 3) Open 5 gallon container of solvent waste in machine shop All hazardous waste containers shall be closed at all times except when adding or removing wastes. CORRECTIVE ACTION: Immediately close these containers and ensure all hazardous waste containers are closed when not adding or removing wastes. Submit photo documentation of corrective action to inspector within 30 days.
 Violation Division: Alameda County Environmental Health
 Violation Program: HW
 Violation Source: CERS
 Site ID: 43406
 Site Name: Laney College
 Violation Date: 11-15-2017
 Citation: 22 CCR 12 66262.23(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.23(a)
 Violation Description: Failure to properly complete the Uniform Hazardous Waste Manifest.
 Violation Notes: OBSERVATION: Copies of hazardous waste disposal records for the disposal of silver waste from photo processing solutions and spent rinse water were not found on site. Hazardous waste generators shall retain copies of all manifests signed off by the disposal facility on site for three years and have them readily available for review. CORRECTIVE ACTION: The Facility shall maintain copies of the manifests for any transport of a hazardous waste for off-site transfer, treatment, storage or disposal going forward for three years. Locate and submit copies of manifests for photography waste for the last three years.
 Violation Division: Alameda County Environmental Health
 Violation Program: HW
 Violation Source: CERS
 Site ID: 43406
 Site Name: Laney College
 Violation Date: 11-15-2017
 Citation: 40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174
 Violation Description: Failure to inspect hazardous waste storage areas at least weekly and look for leaking and deteriorating containers.
 Violation Notes: OBSERVATION: The Owner/Operator failed to conduct weekly inspections of all hazardous waste containers as demonstrated by observing: missing or incorrect hazardous waste labels (missing accumulation start dates, generator name and address, chemical and physical properties, and contents), open hazardous waste containers, spills not immediately cleaned up, and storing containers in a manner that prevents weekly inspection of each containers in all hazardous storage areas. CORRECTIVE ACTION: Conduct weekly inspections and ensure hazardous waste labels are provided and are legible and filled out properly, providing all required information including accumulation start dates, and cleaning up spills immediately. Submit proof of corrective actions to inspector within 30 days.
 Violation Division: Alameda County Environmental Health
 Violation Program: HW
 Violation Source: CERS
 Site ID: 43406
 Site Name: Laney College
 Violation Date: 11-15-2017
 Citation: HSC 6.95 25508.1(a)-(f) - California Health and Safety Code, Chapter 6.95, Section(s) 25508.1(a)-(f)
 Violation Description: Failure to electronically update business plan within 30 days of any one of the following events: A 100 percent or more increase in the quantity of a previously disclosed material. Any handling of a previously undisclosed hazardous materials at or above reportable quantities. A change of business address, business ownership, or business name. A substantial change in the handler's operations that requires modification to any portion of the business plan.

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Violation Notes: OBSERVATIONS: The HMBP inventory is not accurate and was not updated within 30 days of change of inventory. See Violation #4 for details on this violation. CORRECTIVE ACTIONS: Correct Violation #4. Update CERS anytime the chemical inventory increases by 100% per item.

Violation Division: Alameda County Environmental Health

Violation Program: HMRRP

Violation Source: CERS

Site ID: 43406

Site Name: Laney College

Violation Date: 09-26-2016

Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.

Violation Notes: Not Reported

Violation Division: Alameda County Environmental Health

Violation Program: HMRRP

Violation Source: CERS

Site ID: 43406

Site Name: Laney College

Violation Date: 11-15-2017

Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)

Violation Description: Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.

Violation Notes: OBSERVATION: The Owner/Operator failed to properly train personnel who handle hazardous waste as demonstrated by: 1) open hazardous waste containers in all hazardous waste storage areas that includes the chemistry laboratory, photography lab, boiler room, machine shop, welding area, and art building. 2) missing, incomplete, or incorrect hazardous waste labeling on numerous hazardous waste containers located in the chemistry laboratory, photography lab, boiler room, machine shop, welding area, and art building. 3) accumulation of spills from chemicals in secondary containment bins in chemistry laboratory hoods 4) incorrect lids being used for hazardous waste containers in photography lab 5) saw dust being used to clean up spills in machine shop improperly disposed of by being discarded in trash 6) improper storage of universal waste (fluorescent lamps, ballasts, and batteries stored in unlabeled open containers that did not minimize breakage or release to the [Truncated]

Violation Division: Alameda County Environmental Health

Violation Program: HW

Violation Source: CERS

Site ID: 43406

Site Name: Laney College

Violation Date: 11-15-2017

Citation: 40 CFR 1 265.31 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.31

Violation Description: Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

Violation Notes: OBSERVATION: 1.Observed spills in secondary containments located in chemistry laboratory hazardous waste storage area. 2.Observed spills under equipment in machine shop. 3.Observed fire extinguishers throughout facility that were last assessed and certified on 6/21/2016. Facilities shall be maintained and operated to minimize the possibility of a fire, explosion, or release of hazardous waste to air, soil, or surface water which could threaten human health or the environment. CORRECTIVE ACTION: 1. Immediately clean up spills listed in above observations and manage according to Title 22 hazardous waste regulations. 2. Re-certify fire extinguisher and ensure it is assessed and certified annually. Submit photo/written documentation of corrective actions to inspector within 30 days.

Violation Division: Alameda County Environmental Health

Violation Program: HW

Violation Source: CERS

Site ID: 43406

Site Name: Laney College

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Violation Date: 11-15-2017
 Citation: 22 CCR 23 66273.31(a) - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.31(a)
 Violation Description: Failure of the universal waste handler to transfer universal waste to the appropriate destination facility.
 Violation Notes: OBSERVATION: Observed no shipping documents or invoices that demonstrate that universal waste are properly disposed of. Royl Roberts states that all universal waste is picked up by North State Environmental. Invoices and shipping documents of universal waste pick up were not available. CORRECTIVE ACTION: Documentation records of disposal of any universal wastes must be maintained in accordance with Title 22. Submit copies of shipping documents or invoices for the disposal of universal waste for the last three years to ACDEH inspector within 30 days.

Violation Division: Alameda County Environmental Health
 Violation Program: HW
 Violation Source: CERS

Site ID: 43406
 Site Name: Laney College
 Violation Date: 11-15-2017
 Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2
 Violation Description: Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.
 Violation Notes: OBSERVATIONS: The HMBP is not adequate or complete. See Violations #4, #5, #6, #7 and #8. CORRECTIVE ACTIONS: Complete Corrective Actions for the above listed violations. Ensure that the HMBP is reviewed annually for accuracy.

Violation Division: Alameda County Environmental Health
 Violation Program: HMRRP
 Violation Source: CERS

Site ID: 43406
 Site Name: Laney College
 Violation Date: 11-15-2017
 Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
 Violation Description: Failure to complete and electronically submit the Business Activities Page and/or Business Owner Operator Identification Page.
 Violation Notes: OBSERVATIONS: On the Business Activities Form in CERS, it currently states that Laney College does not generate Hazardous Waste. CORRECTIVE ACTIONS: Update the Business Activities Form in CERS to show "YES" for "Is your facility a Hazardous Waste Generator".

Violation Division: Alameda County Environmental Health
 Violation Program: HMRRP
 Violation Source: CERS

Site ID: 43406
 Site Name: Laney College
 Violation Date: 11-15-2017
 Citation: 40 CFR 1 262.34(d)(5)(ii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(ii)
 Violation Description: Failure to post the following information next to the telephone: (A) The name and telephone number of the emergency coordinator; (B) Location of fire extinguishers and spill control material, and, if present, fire alarm; and (C) The telephone number of the fire department, unless the facility has a direct alarm.
 Violation Notes: OBSERVATION: Generator failed to post, next to the telephone, emergency information containing the location of emergency equipment, contact names and numbers located in hazardous waste storage areas. CORRECTIVE ACTION: Owner/Operator shall immediately post, next to the telephone, emergency information that contains the name and telephone number of the emergency coordinator, location of fire extinguishers and spill control material, and telephone number of the fire department in each hazardous waste storage area. Submit photo documentation of corrective action to inspector within 30 days.

Violation Division: Alameda County Environmental Health
 Violation Program: HW
 Violation Source: CERS

Site ID: 43406

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Site Name: Laney College
 Violation Date: 12-07-2016
 Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
 Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
 Violation Notes: Not Reported
 Violation Division: Alameda County Environmental Health
 Violation Program: HMRRP
 Violation Source: CERS
 Site ID: 43406
 Site Name: Laney College
 Violation Date: 11-15-2017
 Citation: 22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)
 Violation Description: Failure to keep a copy of each properly signed manifest for at least three years from the date the waste was accepted by the initial transporter. The manifest signed at the time the waste was accepted for transport shall be kept until receiving a signed copy from the designated facility which received the waste.
 Violation Notes: OBSERVATION: Copies of the signed copy of manifests from the designated facility were not available on site. Hazardous waste generators shall retain copies of all manifests signed off by the disposal facility on site for three years and have them readily available for review. CORRECTIVE ACTION: Immediately locate a copy of all manifests that have been signed from the designated facility for the last three years, maintain them on site, and submit copies to inspector within 30 days.
 Violation Division: Alameda County Environmental Health
 Violation Program: HW
 Violation Source: CERS
 Site ID: 43406
 Site Name: Laney College
 Violation Date: 11-15-2017
 Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
 Violation Description: Failure to establish and electronically submit an adequate training program in safety procedures in the event of a release or threatened release of a hazardous material.
 Violation Notes: OBSERVATIONS: No employee training program on hazardous materials handling or emergency response procedures has been submitted to CERS. A fire drill report from 4/7/16 was submitted to CERS as the employee training program. CORRECTIVE ACTIONS: Complete section "I Employee Training" in the "Consolidated Emergency Response/Contingency Plan" and submit it to CERS.
 Violation Division: Alameda County Environmental Health
 Violation Program: HMRRP
 Violation Source: CERS
 Site ID: 43406
 Site Name: Laney College
 Violation Date: 11-15-2017
 Citation: HSC 6.5 25163(a) - California Health and Safety Code, Chapter 6.5, Section(s) 25163(a)
 Violation Description: Failure to use a DTSC registered hazardous waste transporter to transport hazardous waste or transporting hazardous waste without being a DTSC registered hazardous waste transporter.
 Violation Notes: OBSERVATION: Copies of hazardous waste disposal records for the disposal of silver waste from photo processing solutions and spent rinse water were not found on site. Hazardous waste generators shall retain copies of all manifests signed off by the disposal facility on site for three years and have them readily available for review. CORRECTIVE ACTION: The Facility shall maintain copies of the manifests for any transport of a hazardous waste for off-site transfer, treatment, storage or disposal going forward for three years. Locate and submit copies of manifests for photography waste for the last three years.
 Violation Division: Alameda County Environmental Health
 Violation Program: HW
 Violation Source: CERS
 Site ID: 43406
 Site Name: Laney College

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Violation Date: 11-15-2017
 Citation: 40 CFR 1 265.33 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.33
 Violation Description: Failure to test and maintain as necessary all facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment to assure its proper operation in time of emergency.
 Violation Notes: OBSERVATION: Observed fire extinguishers throughout facility that were last assessed and certified on 6/21/2016. Facilities shall be test and maintain all required safety equipment at facility in accordance with Title 22. CORRECTIVE ACTION: 1. Re-certify fire extinguisher and ensure it is assessed and certified annually. Submit a receipt of service as proof of corrective action to ACDEH inspector within 30 days.
 Violation Division: Alameda County Environmental Health
 Violation Program: HW
 Violation Source: CERS
 Site ID: 43406
 Site Name: Laney College
 Violation Date: 11-15-2017
 Citation: 49 CFR 1 172.201(e) - U.S. Code of Federal Regulations, Title 49, Chapter 1, Section(s) 172.201(e)
 Violation Description: Failure of the universal waste handler to transfer universal waste to another universal waste handler, or appropriate destination facility. Failure to package, label, mark and placard shipments and prepare shipping papers for any universal waste that meets the hazardous materials definition in accordance with DOT 49 CFR parts 171-180.
 Violation Notes: OBSERVATION: Copies of universal waste shipping records for the disposal of fluorescent lamps and ballasts, lamps, and batteries were not available for review. Hazardous waste generators shall retain shipping papers for all universal waste being shipped to another universal waste handler, destination facility, or foreign facility and have them readily available for review. CORRECTIVE ACTION: Immediately locate a copy of all shipping papers for universal waste for the last three years, maintain them on site, and submit copies to inspector within 30 days.
 Violation Division: Alameda County Environmental Health
 Violation Program: HW
 Violation Source: CERS

Evaluation:

Eval General Type: Compliance Evaluation Inspection
 Eval Date: 11-15-2017
 Violations Found: Yes
 Eval Type: Routine done by local agency
 Eval Notes: Routine hazardous waste generator (HWG) inspection of Laney College at 900 Fallon Street Oakland CA 94607. Met with Royle Roberts, Risk and Safety Program Manager, who granted consent to perform inspection. Alameda County Department of Environmental Health (ACDEH) to provide inspection report by email to: rroberts@peralta.edu. Laney College is a community college that offers classes in art, welding, machinery, chemistry, biology, and other disciplines. Facility wastes streams include: 1) oily coolant from machine shop and boiler room 2) metal fines from machine shop and welding 3) photographic waste from photography lab 4) laboratory waste 5) universal waste and 6) waste from art building. Facility has five to six employees handling hazardous waste. All violations noted in this Hazardous Waste Generator Inspection Report are to be corrected within 30 days and proof of those corrections submitted to ACDEH in the same time frame.
 Eval Division: Alameda County Environmental Health
 Eval Program: HW
 Eval Source: CERS
 Eval General Type: Compliance Evaluation Inspection
 Eval Date: 11-15-2017
 Violations Found: Yes
 Eval Type: Routine done by local agency
 Eval Notes: On site with Royle L. Roberts, Risk & Safety Programs Manager to conduct a Hazardous Materials Business Plan and Hazardous Waste Generator inspections. Ensure that the 500 gallon diesel tank in the Laney Tower has emergency vents that can move freely in case of venting. All violations noted in this Hazardous Materials Business Plan (HMBP) inspection report are to be corrected within 30 days and proof of those corrections submitted to ACDEH in the same time frame.

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Eval Division:	Alameda County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	12-07-2016
Violations Found:	Yes
Eval Type:	Other, not routine, done by local agency
Eval Notes:	HMBP FINAL NOV LETTER/TRACKING VIOLATION
Eval Division:	Alameda County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	04-14-2017
Violations Found:	Yes
Eval Type:	Other, not routine, done by local agency
Eval Notes:	HMBP NOV LETTER/ADD VIOLATION
Eval Division:	Alameda County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS
Eval General Type:	Other/Unknown
Eval Date:	09-26-2016
Violations Found:	Yes
Eval Type:	Other, not routine, done by local agency
Eval Notes:	HMBP NOV LETTER
Eval Division:	Alameda County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Enforcement Action:

Site ID:	43406
Site Name:	Laney College
Site Address:	900 FALLON ST
Site City:	OAKLAND
Site Zip:	94607
Enf Action Date:	09-27-2016
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not Reported
Enf Action Division:	Alameda County Environmental Health
Enf Action Program:	HMRRP
Enf Action Source:	CERS

Coordinates:

Site ID:	43406
Facility Name:	Laney College
Env Int Type Code:	HMBP
Program ID:	10004047

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Coord Name: Not Reported
 Ref Point Type Desc: Unknown
 Latitude: 37.796146
 Longitude: -122.261337

Affiliation:

Affiliation Type Desc: CUPA District
 Entity Name: Alameda County Env Health
 Entity Title: Not Reported
 Affiliation Address: 1131 Harbor Parkway, Suite 240
 Affiliation City: Alameda
 Affiliation State: CA
 Affiliation Country: Not Reported
 Affiliation Zip: 94502-6577
 Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Document Preparer
 Entity Name: Royl L. Roberts
 Entity Title: Not Reported
 Affiliation Address: Not Reported
 Affiliation City: Not Reported
 Affiliation State: Not Reported
 Affiliation Country: Not Reported
 Affiliation Zip: Not Reported
 Affiliation Phone: Not Reported

Affiliation Type Desc: Facility Mailing Address
 Entity Name: Mailing Address
 Entity Title: Not Reported
 Affiliation Address: 900 Fallon St
 Affiliation City: Oakland
 Affiliation State: CA
 Affiliation Country: Not Reported
 Affiliation Zip: 94607
 Affiliation Phone: Not Reported

Affiliation Type Desc: Parent Corporation
 Entity Name: Laney College
 Entity Title: Not Reported
 Affiliation Address: Not Reported
 Affiliation City: Not Reported
 Affiliation State: Not Reported
 Affiliation Country: Not Reported
 Affiliation Zip: Not Reported
 Affiliation Phone: Not Reported

Affiliation Type Desc: Environmental Contact
 Entity Name: Royl L. Roberts
 Entity Title: Not Reported
 Affiliation Address: 333 E. Eighth Street
 Affiliation City: Oakland

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Affiliation State: CA
 Affiliation Country: Not Reported
 Affiliation Zip: 94606
 Affiliation Phone: (510) 466-7264

 Affiliation Type Desc: Legal Owner
 Entity Name: Peralta Community College District
 Entity Title: Not Reported
 Affiliation Address: 333 E. 8th Street
 Affiliation City: Oakland
 Affiliation State: CA
 Affiliation Country: United States
 Affiliation Zip: 94606
 Affiliation Phone: (510) 466-7200

 Affiliation Type Desc: Identification Signer
 Entity Name: Royl L. Roberts
 Entity Title: Risk & Safety Programs Manager
 Affiliation Address: Not Reported
 Affiliation City: Not Reported
 Affiliation State: Not Reported
 Affiliation Country: Not Reported
 Affiliation Zip: Not Reported
 Affiliation Phone: Not Reported

 Affiliation Type Desc: Operator
 Entity Name: Laney College
 Entity Title: Not Reported
 Affiliation Address: Not Reported
 Affiliation City: Not Reported
 Affiliation State: Not Reported
 Affiliation Country: Not Reported
 Affiliation Zip: Not Reported
 Affiliation Phone: (510) 834-5740

SWEEPS UST: Local Lists of Registered Storage Tanks

Status: Active
 Comp Number: 24318
 Number: 4
 Board Of Equalization: 44-000289
 Referral Date: 07-01-85
 Action Date: Not Reported
 Created Date: 02-29-88
 Owner Tank Id: L-1
 SWRCB Tank Id: 01-000-024318-000001
 Tank Status: A
 Capacity: 10000
 Active Date: 07-01-85
 Tank Use: M.V. FUEL
 STG: P

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Content:	DIESEL
Number Of Tanks:	3
Status:	Active
Comp Number:	24318
Number:	4
Board Of Equalization:	44-000289
Referral Date:	07-01-85
Action Date:	Not Reported
Created Date:	02-29-88
Owner Tank Id:	L-2
SWRCB Tank Id:	01-000-024318-000002
Tank Status:	A
Capacity:	563
Active Date:	07-01-85
Tank Use:	M.V. FUEL
STG:	P
Content:	DIESEL
Number Of Tanks:	Not Reported
Status:	Active
Comp Number:	24318
Number:	4
Board Of Equalization:	44-000289
Referral Date:	07-01-85
Action Date:	Not Reported
Created Date:	02-29-88
Owner Tank Id:	L-3
SWRCB Tank Id:	01-000-024318-000003
Tank Status:	A
Capacity:	4000
Active Date:	07-01-85
Tank Use:	M.V. FUEL
STG:	P
Content:	DIESEL
Number Of Tanks:	Not Reported

HIST UST: Local Lists of Registered Storage Tanks

File Number:	00036234
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00036234.pdf
Region:	Not Reported
Facility ID:	Not Reported
Facility Type:	Not Reported
Other Type:	Not Reported
Contact Name:	Not Reported
Telephone:	Not Reported
Owner Name:	Not Reported
Owner Address:	Not Reported
Owner City,St,Zip:	Not Reported
Total Tanks:	Not Reported

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Tank Num: Not Reported
Container Num: Not Reported
Year Installed: Not Reported
Tank Capacity: Not Reported
Tank Used for: Not Reported
Type of Fuel: Not Reported
Container Construction Thickness: Not Reported
Leak Detection: Not Reported

Click here for Geo Tracker PDF: http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_CA_HISTUST_PDF&img_id=00036234

CA FID UST: Local Lists of Registered Storage Tanks

Facility ID: 01002640
Regulated By: UTNKA
Regulated ID: 00024318
Cortese Code: Not Reported
SIC Code: Not Reported
Facility Phone: 4154667336
Mail To: Not Reported
Mailing Address: 900 FALLON ST
Mailing Address 2: Not Reported
Mailing City,St,Zip: OAKLAND 94606
Contact: Not Reported
Contact Phone: Not Reported
DUNs Number: Not Reported
NPDES Number: Not Reported
EPA ID: Not Reported
Comments: Not Reported
Status: Active

CERS TANKS: Other Ascertainable Records

Site ID: 43406
CERS ID: 10004047
CERS Description: Chemical Storage Facilities

Violations:

Site ID: 43406
Site Name: Laney College
Violation Date: 11-15-2017
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: OBSERVATION: Hazardous waste labels missing, incorrect, or missing accumulation start dates, physical state, and chemical properties, facility name and address for the following containers: 1. Hazardous waste containers in the chemistry laboratory- provide accumulation start dates and the contents of the waste stream in percentages 2. 55 gallon drum of waste coolant in machine shop- provide hazardous waste label with all required information 3. 5 gallon bucket of solvent waste in machine shop-provide hazardous waste label with all required information 4. 30 gallon container of waste mineral spirits in art building-provide accumulation start date and name and address of Laney College All hazardous waste containers shall be marked with the following information: 1) the words Hazardous Waste ; 2) name and address of generator; 3) hazardous properties; 4) physical state; 5) composition (contents); 6) accumulation start date. CORRECTIVE ACTION: Immediately label [Truncated]

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Violation Division: Alameda County Environmental Health
 Violation Program: HW
 Violation Source: CERS
 Site ID: 43406
 Site Name: Laney College
 Violation Date: 11-15-2017
 Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
 Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
 Violation Notes: OBSERVATIONS: Laney College failed to adequately complete an electronic submission of the HMBP. See Violations #4, #5, #6, #7 and #11. CORRECTIVE ACTIONS: See the Corrective Actions listed in Violations #4, #5, #6, #7 and #11.

Violation Division: Alameda County Environmental Health
 Violation Program: HMRRP
 Violation Source: CERS
 Site ID: 43406
 Site Name: Laney College
 Violation Date: 11-15-2017
 Citation: 22 CCR 18 66268.7(a) - California Code of Regulations, Title 22, Chapter 18, Section(s) 66268.7(a)
 Violation Description: Failure to determine if the waste has to be treated before it can be land disposed and retain the documentation at least three years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal.
 Violation Notes: OBSERVATION: Copies of the land disposal restriction (LDR) were not available for review. Facility failed to determine if the waste is restricted from land disposal. CORRECTIVE ACTION: The generator shall make a determination of all hazardous wastes if the waste is restricted from land disposal. Submit a copy of LDR Notification or documentation showing that the hazardous waste is not subject to land disposal restriction to the inspector within 30 days.

Violation Division: Alameda County Environmental Health
 Violation Program: HW
 Violation Source: CERS
 Site ID: 43406
 Site Name: Laney College
 Violation Date: 04-14-2017
 Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
 Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
 Violation Notes: Not Reported

Violation Division: Alameda County Environmental Health
 Violation Program: HMRRP
 Violation Source: CERS
 Site ID: 43406
 Site Name: Laney College
 Violation Date: 11-15-2017
 Citation: 22 CCR 23 66273.35 - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.35
 Violation Description: Failure to accumulate universal waste for one year or less and to demonstrate the length of time that the universal waste has been accumulated from the date it became a waste or was received.
 Violation Notes: OBSERVATION: Universal Waste Handler failed to properly accumulate waste within one year and/or demonstrated accumulation time. Observed no shipping documents or invoices that demonstrate that universal waste are properly disposed of. Royl Roberts states that all universal waste is picked up by North State Environmental. Invoices and shipping documents of universal waste pick up were not available. CORRECTIVE ACTION: Universal Waste Handler shall properly process accumulated waste within one year and/or demonstrated accumulation time. Submit copies of shipping documents or invoices for the disposal of universal waste for the last three years to ACDEH inspector within 30 days.

Violation Division: Alameda County Environmental Health

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Violation Program:	HW
Violation Source:	CERS
Site ID:	43406
Site Name:	Laney College
Violation Date:	11-15-2017
Citation:	40 CFR 1 265.171 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.171
Violation Description:	Failure to accumulate hazardous waste in a container that is in good condition.
Violation Notes:	OBSERVATION: Observed hazardous waste containers in photography lab with incorrect lids that are not tight fitting. Generator must accumulate hazardous waste in containers that are in good condition with tight fitting lids that minimizes release. CORRECTIVE ACTION: Provide the correct tight fitting lid for the hazardous waste container. Submit proof of correction to inspector within 30 days.
Violation Division:	Alameda County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	43406
Site Name:	Laney College
Violation Date:	11-15-2017
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes:	OBSERVATIONS: The chemical inventory in CERS needs to be updated. Only chemicals meeting the reporting threshold of 55 gallons for liquids, 500 pounds for solids and 200 cubic feet for compressed gases need to be reported in CERS. Also include any extremely hazardous substances if they are equal to or greater than the federal threshold planning quantity (TPQ) listed in Appendix A, Part 355, Title 40 of the Code of Federal Regulations. CORRECTIVE ACTIONS: The following items need to be addressed in the chemical inventory in CERS: Laney Tower: diesel update the Largest Container size to 500 gallons, Maximum Daily Amount should also be 500 gallons. Pool: Add two 60 gallon tanks of sodium hypochlorite. Add hypochlorite solution (observed 128 one gallon containers). Add carbon dioxide (observed 25 cylinders). Update sodium chloride Largest Container size to 50 pounds and Maximum Daily Amount to at least 500 pounds. Chemistry Lab A237 Add carbon dioxide [Truncated]
Violation Division:	Alameda County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	43406
Site Name:	Laney College
Violation Date:	11-15-2017
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit a site map with all required content.
Violation Notes:	OBSERVATION: The annotated site maps that were submitted to CERS are not adequate for the size of this campus. CORRECTIVE ACTION: Submit to CERS an overall site map showing the locations of all of the buildings on campus. Submit to CERS a separate site map for each location that stores or handles hazardous materials or hazardous waste to CERS. At a minimum they should include all of the following on each map: north orientation, loading areas, internal roads, adjacent streets, storm and sewer drains, access and exit points, emergency shutoffs, evacuation staging areas, hazardous materials/waste handling and storage areas and emergency response procedures. Site maps are required for Laney Tower, the chemistry laboratories, pool storage area, boiler rooms, machine shop, welding shop and cage, art building and the community garden.
Violation Division:	Alameda County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	43406
Site Name:	Laney College
Violation Date:	11-15-2017
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Violation Description: Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.

Violation Notes: OBSERVATION: The facility has uploaded "Laney College Emergency Operations Plan" dated 9/20/12 and "Emergency Procedures" booklet that is located in each building on campus. Neither document fully addresses the requirements of Health and Safety Code 25505(a)(3). CORRECTIVE ACTION: Complete the "Consolidated Emergency Response/Contingency Plan" template that is available in CERS in order to supplement the other two documents already submitted to CERS.

Violation Division: Alameda County Environmental Health

Violation Program: HMRRP

Violation Source: CERS

Site ID: 43406

Site Name: Laney College

Violation Date: 11-15-2017

Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)

Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.

Violation Notes: OBSERVATION: No training on hazardous materials handling or emergency response procedures has taken place. No training documentation was found for any past trainings that may have occurred. CORRECTIVE ACTION: Train all employees on hazardous materials handling, emergency response procedures and the Consolidated Emergency Response/Contingency Plan. Document this training and provide a syllabus and sign in sheet. Training must occur annually.

Violation Division: Alameda County Environmental Health

Violation Program: HMRRP

Violation Source: CERS

Site ID: 43406

Site Name: Laney College

Violation Date: 11-15-2017

Citation: HSC 6.5 25189.5(a),25201(a) - California Health and Safety Code, Chapter 6.5, Section(s) 25189.5(a),25201(a)

Violation Description: Failure to dispose of hazardous waste at a facility which has a permit from DTSC or disposing of hazardous waste at any point which is not authorized according to HSC 6.5.

Violation Notes: OBSERVATION: Copies of hazardous waste disposal records for the disposal of silver waste from photo processing solutions and spent rinse water were not found on site. Hazardous waste generators shall retain copies of all manifests signed off by the disposal facility on site for three years and have them readily available for review. CORRECTIVE ACTION: The Facility shall maintain copies of the manifests for any transport of a hazardous waste for off-site transfer, treatment, storage or disposal going forward for three years. Locate and submit copies of manifests for photography waste for the last three years.

Violation Division: Alameda County Environmental Health

Violation Program: HW

Violation Source: CERS

Site ID: 43406

Site Name: Laney College

Violation Date: 11-15-2017

Citation: 22 CCR 12 66262.11 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.11

Violation Description: Failure to determine if wastes generated are hazardous waste by using generator knowledge or applying testing method.

Violation Notes: OBSERVATION: No waste analysis was available for the following: 1. Saw dust waste used to clean up spills in machine shop is currently discarded in trash. 2. Fine metal shavings located in welding area and machine shop. Shavings are currently being recycled. 3. Waste clay, clay dust, and wash water from ceramics class in art building. 4. Containers that previously held hazardous materials or waste in the chemistry laboratory. Observed crusty glassware discarded in trash. These wastes are being disposed of as non-hazardous waste. A generator shall make a hazardous waste determination and keep a record of any test results, waste analyses, or other determinations made in accordance with hazardous waste regulations for at least three years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal. CORRECTIVE ACTION: 1. Manage and dispose of saw dust clean up waste as a hazardous waste. 2. Conduct a waste analysis for the [Truncated]

Violation Division: Alameda County Environmental Health

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Violation Program: HW
 Violation Source: CERS
 Site ID: 43406
 Site Name: Laney College
 Violation Date: 11-15-2017
 Citation: HSC 6.95 25507 - California Health and Safety Code, Chapter 6.95, Section(s) 25507
 Violation Description: Failure to adequately establish and implement a business plan when storing/handling a hazardous material at or above reportable quantities.
 Violation Notes: Laney College failed to establish and adequately implement a Hazardous Materials Business Plan by the following observations: OBSERVATIONS FOR LANEY TOWER: The 500 gallon diesel tank for the generator does not have the contents listed on the tank. CORRECTIVE ACTIONS: Label this tank as diesel . Submit a photo of the correction. OBSERVATIONS FOR CHEMISTRY LABS A235-A277: Many containers of hazardous waste stored in the chemical hoods were found open. According to the lab manager, they are left open to vent. Most hazardous waste containers were not properly labeled with the required information and were stored piled on one another. Acetylene cylinder in A277 was not properly secured. CORRECTIVE ACTIONS: Keep all hazardous waste containers closed except when in use. Hazardous waste cannot be left open to vent . Properly store all containers of hazardous waste so that each container can be inspected weekly for spillage or leaks. Properly secure all compressed [Truncated]

Violation Division: Alameda County Environmental Health
 Violation Program: HMRRP
 Violation Source: CERS
 Site ID: 43406
 Site Name: Laney College
 Violation Date: 11-15-2017
 Citation: 40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
 Violation Description: Failure to meet the following container management requirements: (a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.
 Violation Notes: OBSERVATION: Observed the following open hazardous waste containers: 1) Numerous open containers in chemistry laboratory hazardous waste storage area 2) Open container of used oil in boiler room 3) Open 5 gallon container of solvent waste in machine shop All hazardous waste containers shall be closed at all times except when adding or removing wastes. CORRECTIVE ACTION: Immediately close these containers and ensure all hazardous waste containers are closed when not adding or removing wastes. Submit photo documentation of corrective action to inspector within 30 days.

Violation Division: Alameda County Environmental Health
 Violation Program: HW
 Violation Source: CERS
 Site ID: 43406
 Site Name: Laney College
 Violation Date: 11-15-2017
 Citation: 22 CCR 12 66262.23(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.23(a)
 Violation Description: Failure to properly complete the Uniform Hazardous Waste Manifest.
 Violation Notes: OBSERVATION: Copies of hazardous waste disposal records for the disposal of silver waste from photo processing solutions and spent rinse water were not found on site. Hazardous waste generators shall retain copies of all manifests signed off by the disposal facility on site for three years and have them readily available for review. CORRECTIVE ACTION: The Facility shall maintain copies of the manifests for any transport of a hazardous waste for off-site transfer, treatment, storage or disposal going forward for three years. Locate and submit copies of manifests for photography waste for the last three years.

Violation Division: Alameda County Environmental Health
 Violation Program: HW
 Violation Source: CERS
 Site ID: 43406
 Site Name: Laney College
 Violation Date: 11-15-2017
 Citation: 40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Violation Description: Failure to inspect hazardous waste storage areas at least weekly and look for leaking and deteriorating containers.

Violation Notes: OBSERVATION: The Owner/Operator failed to conduct weekly inspections of all hazardous waste containers as demonstrated by observing: missing or incorrect hazardous waste labels (missing accumulation start dates, generator name and address, chemical and physical properties, and contents), open hazardous waste containers, spills not immediately cleaned up, and storing containers in a manner that prevents weekly inspection of each container in all hazardous storage areas. CORRECTIVE ACTION: Conduct weekly inspections and ensure hazardous waste labels are provided and are legible and filled out properly, providing all required information including accumulation start dates, and cleaning up spills immediately. Submit proof of corrective actions to inspector within 30 days.

Violation Division: Alameda County Environmental Health

Violation Program: HW

Violation Source: CERS

Site ID: 43406

Site Name: Laney College

Violation Date: 11-15-2017

Citation: HSC 6.95 25508.1(a)-(f) - California Health and Safety Code, Chapter 6.95, Section(s) 25508.1(a)-(f)

Violation Description: Failure to electronically update business plan within 30 days of any one of the following events: A 100 percent or more increase in the quantity of a previously disclosed material. Any handling of a previously undisclosed hazardous materials at or above reportable quantities. A change of business address, business ownership, or business name. A substantial change in the handler's operations that requires modification to any portion of the business plan.

Violation Notes: OBSERVATIONS: The HMBP inventory is not accurate and was not updated within 30 days of change of inventory. See Violation #4 for details on this violation. CORRECTIVE ACTIONS: Correct Violation #4. Update CERS anytime the chemical inventory increases by 100% per item.

Violation Division: Alameda County Environmental Health

Violation Program: HMRRP

Violation Source: CERS

Site ID: 43406

Site Name: Laney College

Violation Date: 09-26-2016

Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.

Violation Notes: Not Reported

Violation Division: Alameda County Environmental Health

Violation Program: HMRRP

Violation Source: CERS

Site ID: 43406

Site Name: Laney College

Violation Date: 11-15-2017

Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)

Violation Description: Failure to ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.

Violation Notes: OBSERVATION: The Owner/Operator failed to properly train personnel who handle hazardous waste as demonstrated by: 1) open hazardous waste containers in all hazardous waste storage areas that includes the chemistry laboratory, photography lab, boiler room, machine shop, welding area, and art building. 2) missing, incomplete, or incorrect hazardous waste labeling on numerous hazardous waste containers located in the chemistry laboratory, photography lab, boiler room, machine shop, welding area, and art building. 3) accumulation of spills from chemicals in secondary containment bins in chemistry laboratory hoods 4) incorrect lids being used for hazardous waste containers in photography lab 5) saw dust being used to clean up spills in machine shop improperly disposed of by being discarded in trash 6) improper storage of universal waste (fluorescent lamps, ballasts, and batteries stored in unlabeled open containers that did not minimize breakage or release to the [Truncated])

Violation Division: Alameda County Environmental Health

Violation Program: HW

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Violation Source: CERS

Site ID: 43406

Site Name: Laney College

Violation Date: 11-15-2017

Citation: 40 CFR 1 265.31 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.31

Violation Description: Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

Violation Notes: OBSERVATION: 1.Observed spills in secondary containments located in chemistry laboratory hazardous waste storage area. 2.Observed spills under equipment in machine shop. 3.Observed fire extinguishers throughout facility that were last assessed and certified on 6/21/2016. Facilities shall be maintained and operated to minimize the possibility of a fire, explosion, or release of hazardous waste to air, soil, or surface water which could threaten human health or the environment. CORRECTIVE ACTION: 1. Immediately clean up spills listed in above observations and manage according to Title 22 hazardous waste regulations. 2. Re-certify fire extinguisher and ensure it is assessed and certified annually. Submit photo/written documentation of corrective actions to inspector within 30 days.

Violation Division: Alameda County Environmental Health

Violation Program: HW

Violation Source: CERS

Site ID: 43406

Site Name: Laney College

Violation Date: 11-15-2017

Citation: 22 CCR 23 66273.31(a) - California Code of Regulations, Title 22, Chapter 23, Section(s) 66273.31(a)

Violation Description: Failure of the universal waste handler to transfer universal waste to the appropriate destination facility.

Violation Notes: OBSERVATION: Observed no shipping documents or invoices that demonstrate that universal waste are properly disposed of. Royl Roberts states that all universal waste is picked up by North State Environmental. Invoices and shipping documents of universal waste pick up were not available. CORRECTIVE ACTION: Documentation records of disposal of any universal wastes must be maintained in accordance with Title 22. Submit copies of shipping documents or invoices for the disposal of universal waste for the last three years to ACDEH inspector within 30 days.

Violation Division: Alameda County Environmental Health

Violation Program: HW

Violation Source: CERS

Site ID: 43406

Site Name: Laney College

Violation Date: 11-15-2017

Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2

Violation Description: Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.

Violation Notes: OBSERVATIONS: The HMBP is not adequate or complete. See Violations #4, #5, #6, #7 and #8. CORRECTIVE ACTIONS: Complete Corrective Actions for the above listed violations. Ensure that the HMBP is reviewed annually for accuracy.

Violation Division: Alameda County Environmental Health

Violation Program: HMRRP

Violation Source: CERS

Site ID: 43406

Site Name: Laney College

Violation Date: 11-15-2017

Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit the Business Activities Page and/or Business Owner Operator Identification Page.

Violation Notes: OBSERVATIONS: On the Business Activities Form in CERS, it currently states that Laney College does not generate Hazardous Waste. CORRECTIVE ACTIONS: Update the Business Activities Form in CERS to show "YES" for "Is your facility a Hazardous Waste Generator".

Violation Division: Alameda County Environmental Health

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Violation Program: HMRRP
 Violation Source: CERS
 Site ID: 43406
 Site Name: Laney College
 Violation Date: 11-15-2017
 Citation: 40 CFR 1 262.34(d)(5)(ii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(ii)
 Violation Description: Failure to post the following information next to the telephone: (A) The name and telephone number of the emergency coordinator; (B) Location of fire extinguishers and spill control material, and, if present, fire alarm; and (C) The telephone number of the fire department, unless the facility has a direct alarm.
 Violation Notes: OBSERVATION: Generator failed to post, next to the telephone, emergency information containing the location of emergency equipment, contact names and numbers located in hazardous waste storage areas. CORRECTIVE ACTION: Owner/Operator shall immediately post, next to the telephone, emergency information that contains the name and telephone number of the emergency coordinator, location of fire extinguishers and spill control material, and telephone number of the fire department in each hazardous waste storage area. Submit photo documentation of corrective action to inspector within 30 days.

Violation Division: Alameda County Environmental Health
 Violation Program: HW
 Violation Source: CERS
 Site ID: 43406
 Site Name: Laney College
 Violation Date: 12-07-2016
 Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
 Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
 Violation Notes: Not Reported
 Violation Division: Alameda County Environmental Health
 Violation Program: HMRRP
 Violation Source: CERS
 Site ID: 43406
 Site Name: Laney College
 Violation Date: 11-15-2017
 Citation: 22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)
 Violation Description: Failure to keep a copy of each properly signed manifest for at least three years from the date the waste was accepted by the initial transporter. The manifest signed at the time the waste was accepted for transport shall be kept until receiving a signed copy from the designated facility which received the waste.
 Violation Notes: OBSERVATION: Copies of the signed copy of manifests from the designated facility were not available on site. Hazardous waste generators shall retain copies of all manifests signed off by the disposal facility on site for three years and have them readily available for review. CORRECTIVE ACTION: Immediately locate a copy of all manifests that have been signed from the designated facility for the last three years, maintain them on site, and submit copies to inspector within 30 days.

Violation Division: Alameda County Environmental Health
 Violation Program: HW
 Violation Source: CERS
 Site ID: 43406
 Site Name: Laney College
 Violation Date: 11-15-2017
 Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
 Violation Description: Failure to establish and electronically submit an adequate training program in safety procedures in the event of a release or threatened release of a hazardous material.
 Violation Notes: OBSERVATIONS: No employee training program on hazardous materials handling or emergency response procedures has been submitted to CERS. A fire drill report from 4/7/16 was submitted to CERS as the employee training program. CORRECTIVE ACTIONS: Complete section "I Employee Training" in the "Consolidated Emergency Response/Contingency Plan" and submit it to CERS.

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Violation Division:	Alameda County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	43406
Site Name:	Laney College
Violation Date:	11-15-2017
Citation:	HSC 6.5 25163(a) - California Health and Safety Code, Chapter 6.5, Section(s) 25163(a)
Violation Description:	Failure to use a DTSC registered hazardous waste transporter to transport hazardous waste or transporting hazardous waste without being a DTSC registered hazardous waste transporter.
Violation Notes:	OBSERVATION: Copies of hazardous waste disposal records for the disposal of silver waste from photo processing solutions and spent rinse water were not found on site. Hazardous waste generators shall retain copies of all manifests signed off by the disposal facility on site for three years and have them readily available for review. CORRECTIVE ACTION: The Facility shall maintain copies of the manifests for any transport of a hazardous waste for off-site transfer, treatment, storage or disposal going forward for three years. Locate and submit copies of manifests for photography waste for the last three years.
Violation Division:	Alameda County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	43406
Site Name:	Laney College
Violation Date:	11-15-2017
Citation:	40 CFR 1 265.33 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.33
Violation Description:	Failure to test and maintain as necessary all facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment to assure its proper operation in time of emergency.
Violation Notes:	OBSERVATION: Observed fire extinguishers throughout facility that were last assessed and certified on 6/21/2016. Facilities shall be test and maintain all required safety equipment at facility in accordance with Title 22. CORRECTIVE ACTION: 1. Re-certify fire extinguisher and ensure it is assessed and certified annually. Submit a receipt of service as proof of corrective action to ACDEH inspector within 30 days.
Violation Division:	Alameda County Environmental Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	43406
Site Name:	Laney College
Violation Date:	11-15-2017
Citation:	49 CFR 1 172.201(e) - U.S. Code of Federal Regulations, Title 49, Chapter 1, Section(s) 172.201(e)
Violation Description:	Failure of the universal waste handler to transfer universal waste to another universal waste handler, or appropriate destination facility. Failure to package, label, mark and placard shipments and prepare shipping papers for any universal waste that meets the hazardous materials definition in accordance with DOT 49 CFR parts 171-180.
Violation Notes:	OBSERVATION: Copies of universal waste shipping records for the disposal of fluorescent lamps and ballasts, lamps, and batteries were not available for review. Hazardous waste generators shall retain shipping papers for all universal waste being shipped to another universal waste handler, destination facility, or foreign facility and have them readily available for review. CORRECTIVE ACTION: Immediately locate a copy of all shipping papers for universal waste for the last three years, maintain them on site, and submit copies to inspector within 30 days.
Violation Division:	Alameda County Environmental Health
Violation Program:	HW
Violation Source:	CERS

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	11-15-2017
Violations Found:	Yes

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Eval Type: Routine done by local agency
 Eval Notes: Routine hazardous waste generator (HWG) inspection of Laney College at 900 Fallon Street Oakland CA 94607. Met with Royl Roberts, Risk and Safety Program Manager, who granted consent to perform inspection. Alameda County Department of Environmental Health (ACDEH) to provide inspection report by email to: rroberts@peralta.edu. Laney College is a community college that offers classes in art, welding, machinery, chemistry, biology, and other disciplines. Facility wastes streams include: 1) oily coolant from machine shop and boiler room 2) metal fines from machine shop and welding 3) photographic waste from photography lab 4) laboratory waste 5) universal waste and 6) waste from art building. Facility has five to six employees handling hazardous waste. All violations noted in this Hazardous Waste Generator Inspection Report are to be corrected within 30 days and proof of those corrections submitted to ACDEH in the same time frame.

Eval Division: Alameda County Environmental Health
 Eval Program: HW
 Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
 Eval Date: 11-15-2017
 Violations Found: Yes
 Eval Type: Routine done by local agency
 Eval Notes: On site with Royl L. Roberts, Risk & Safety Programs Manager to conduct a Hazardous Materials Business Plan and Hazardous Waste Generator inspections. Ensure that the 500 gallon diesel tank in the Laney Tower has emergency vents that can move freely in case of venting. All violations noted in this Hazardous Materials Business Plan (HMBP) inspection report are to be corrected within 30 days and proof of those corrections submitted to ACDEH in the same time frame.

Eval Division: Alameda County Environmental Health
 Eval Program: HMRRP
 Eval Source: CERS

Eval General Type: Other/Unknown
 Eval Date: 12-07-2016
 Violations Found: Yes
 Eval Type: Other, not routine, done by local agency
 Eval Notes: HMBP FINAL NOV LETTER/TRACKING VIOLATION
 Eval Division: Alameda County Environmental Health
 Eval Program: HMRRP
 Eval Source: CERS

Eval General Type: Other/Unknown
 Eval Date: 04-14-2017
 Violations Found: Yes
 Eval Type: Other, not routine, done by local agency
 Eval Notes: HMBP NOV LETTER/ADD VIOLATION
 Eval Division: Alameda County Environmental Health
 Eval Program: HMRRP
 Eval Source: CERS

Eval General Type: Other/Unknown
 Eval Date: 09-26-2016
 Violations Found: Yes
 Eval Type: Other, not routine, done by local agency
 Eval Notes: HMBP NOV LETTER
 Eval Division: Alameda County Environmental Health
 Eval Program: HMRRP
 Eval Source: CERS

Enforcement Action:

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Site ID: 43406
Site Name: Laney College
Site Address: 900 FALLON ST
Site City: OAKLAND
Site Zip: 94607
Enf Action Date: 09-27-2016
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not Reported
Enf Action Division: Alameda County Environmental Health
Enf Action Program: HMRRP
Enf Action Source: CERS

Coordinates:

Site ID: 43406
Facility Name: Laney College
Env Int Type Code: HMBP
Program ID: 10004047
Coord Name: Not Reported
Ref Point Type Desc: Unknown
Latitude: 37.796146
Longitude: -122.261337

Affiliation:

Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not Reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not Reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Document Preparer
Entity Name: Royl L. Roberts
Entity Title: Not Reported
Affiliation Address: Not Reported
Affiliation City: Not Reported
Affiliation State: Not Reported
Affiliation Country: Not Reported
Affiliation Zip: Not Reported
Affiliation Phone: Not Reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not Reported
Affiliation Address: 900 Fallon St
Affiliation City: Oakland
Affiliation State: CA

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Affiliation Country:	Not Reported
Affiliation Zip:	94607
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	Laney College
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	Royl L. Roberts
Entity Title:	Not Reported
Affiliation Address:	333 E. Eighth Street
Affiliation City:	Oakland
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94606
Affiliation Phone:	(510) 466-7264
Affiliation Type Desc:	Legal Owner
Entity Name:	Peralta Community College District
Entity Title:	Not Reported
Affiliation Address:	333 E. 8th Street
Affiliation City:	Oakland
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94606
Affiliation Phone:	(510) 466-7200
Affiliation Type Desc:	Identification Signer
Entity Name:	Royl L. Roberts
Entity Title:	Risk & Safety Programs Manager
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Operator
Entity Name:	Laney College
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported

MAP FINDINGS

LANEY COLLEGE, 900 FALLON ST, OAKLAND, CA 94606 (Continued)

Affiliation Phone: (510) 834-5740

TANI MOTO 709 OAK ST, OAKLAND, CA,			1009141889
◆ C29	S <1/10	(166 ft. / 0.031 mi.)	EDR Exclusive Records
	5 ft. Lower Elevation	28 ft. Above Sea Level	

Worksheet:

Impact on Target Property: VEC Exists

Groundwater Flow Gradient:

Hydrogeologically: YES

Crossgradient: YES

EDR Hist Cleaner: EDR Exclusive Records

Year: 1933: Name: / Type: TANI MOTO / CLOTHES PRESSERS AND CLEANERS

CANTON GARAGE 715 MADISON ST, OAKLAND, CA,			1009013040
◆ D30	WSW <1/10	(213 ft. / 0.04 mi.)	EDR Exclusive Records
	3 ft. Lower Elevation	30 ft. Above Sea Level	

Worksheet:

Impact on Target Property: VEC does not exist

EDR Hist Auto: EDR Exclusive Records

Year: 1967: Name: / Type: CANTON GARAGE / AUTOMOBILE REPAIRING

ACE AUTO REPAIR 186 7TH ST, OAKLAND, CA,			1009013173
◆ D31	WSW <1/10	(408 ft. / 0.077 mi.)	EDR Exclusive Records
	3 ft. Lower Elevation	30 ft. Above Sea Level	

Worksheet:

Impact on Target Property: VEC does not exist

EDR Hist Auto: EDR Exclusive Records

Year: 1933: Name: / Type: BILL S GARAGE / AUTOMOBILE REPAIRING
1967: ACE AUTO REPAIR / AUTOMOBILE REPAIRING

MAP FINDINGS

ACE AUTO REPAIR, 186 7TH ST, OAKLAND, CA (Continued)

1979:	ACE AUTO REPAIR / General Automotive Repair Shops
1980:	ACE AUTO REPAIR / General Automotive Repair Shops
1982:	ACE AUTO REPAIR / General Automotive Repair Shops
1983:	ACE AUTO REPAIR / General Automotive Repair Shops
1985:	BUZZ FGN CARBUERATOR REBUILDNG / Automotive Repair Shops, NEC
1986:	BUZZ FGN CARBUERATOR REBUILDNG / Automotive Repair Shops, NEC
1987:	BUZZ FGN CARBUERATOR REBUILDNG / Automotive Repair Shops, NEC
1988:	BUZZ FGN CARBUERATOR REBUILDNG / Automotive Repair Shops, NEC
1989:	IU MIEN AUTO BODY REPAIR / General Automotive Repair Shops
1989:	BUZZ FGN CRBUERATOR REBUILDING / Powertrain Components Repair Services
1990:	BUZZ FGN CRBUERATOR REBUILDING / Powertrain Components Repair Services
1991:	IU MIEN AUTO BODY REPAIR / General Automotive Repair Shops
1992:	IU MIEN AUTO BODY REPAIR / General Automotive Repair Shops
1992:	TRUST AUTOWORK / General Automotive Repair Shops
1993:	TRUST AUTOWORK / General Automotive Repair Shops
1993:	IU MIEN AUTO BODY REPAIR / General Automotive Repair Shops
1994:	TRUST AUTOWORK / General Automotive Repair Shops
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2009:	TRUST AUTOWORK / General Automotive Repair Shops
2010:	TRUST AUTOWORK / General Automotive Repair Shops
2011:	TRUST AUTOWORK / General Automotive Repair Shops
2012:	TRUST AUTOWORK / General Automotive Repair Shops
2013:	TRUST AUTOWORK / General Automotive Repair Shops
2014:	TRUST AUTOWORK / General Automotive Repair Shops

VIC'S AUTOMOTIVE SERVICE 245 8TH, OAKLAND, CA, 94607		S102657129
▲ J32	WNW 1/10 - 1/3 (697 ft. / 0.132 mi.)	State and tribal leaking storage tank lists Other Ascertainable Records
	1 ft. Higher Elevation 34 ft. Above Sea Level	

Worksheet:

Impact on Target Property: VEC does not exist

LUST: State and tribal leaking storage tank lists

MAP FINDINGS

VIC'S AUTOMOTIVE SERVICE, 245 8TH, OAKLAND, CA 94607 (Continued)

Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101143
Global Id: T0600101143
Latitude: 37.7980687488044
Longitude: -122.268948554993
Status: Completed - Case Closed
Status Date: 10/22/2013
Case Worker: Not Reported
RB Case Number: 01-1244
Local Agency: Not Reported
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000202
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History:

The site is currently occupied by Vics Auto, an automotive repair facility equipped with one 13,000-gallon underground storage tank (UST). Surrounding land use is mixed commercial and residential. Soils in the vicinity of the site are mostly fine to medium sand, with varying silt and clay content. On June 17, 1993, four 1,000-gallon gasoline USTs and one 250-gallon waste oil UST were removed from the site. No groundwater was encountered during excavation activities. The tank conditions were slightly rusted, with two visible holes noted in the waste oil tank. Soil samples collected from the gasoline UST pit and waste oil UST pit contained up to 24 parts per million (ppm) Total Petroleum Hydrocarbons as gasoline (TPHg) and 2,100 ppm Total Oil and Grease (TOG), respectively. The waste oil tank pit was over-excavated and re-sampled. The over-excavation soil sample contained 3.9 ppm TPHg. On August 23, 1994, the two remaining 6,000-gallon gasoline tanks were removed from the site. The UST located in the northern corner of the site was replaced with a 13,000-gallon gasoline UST. Fourteen soil samples were collected from the tank pits and soil stockpiles. The soil samples collected from beneath the southern-most tank contained the greatest petroleum hydrocarbon concentrations of 160 ppm TPHg and 0.82 ppm benzene. The two tank pits were subsequently over-excavated to approximately 19 feet below ground surface (bgs). Heavily contaminated groundwater and soils were encountered. Confirmation soil samples collected after over-excavation contained up to 3,900 ppm TPHg and 6.1 ppm benzene. On July 14, 1995, two soil borings were advanced and completed as groundwater monitoring wells (MW-1 and

MAP FINDINGS

VIC'S AUTOMOTIVE SERVICE, 245 8TH, OAKLAND, CA 94607 (Continued)

MW-2). Soil samples were collected from each boring at approximately five-foot intervals. Well MW-1 was not sampled for groundwater because free product was observed in the well at a thickness of 2.22 feet. Groundwater depth at the site was measured to be 17.21 feet bgs. The soil samples contained up to 390 ppm TPHg and 0.3 ppm benzene. The groundwater sample from MW-2 contained 68,000 parts per billion (ppb) TPHg and 480 ppb benzene. On August 8, 1996, three soil borings (SB-1 through SB-3) were advanced to depths ranging between 24 and 25 feet bgs. Soil samples were collected from each boring at 24 feet bgs, with an additional sample collected from boring SB-1 at 18 feet bgs. Grab groundwater samples were also collected from each boring. The soil sample collected from boring SB-1 at 18 feet bgs contained the greatest contamination of 9,100 ppm TPHg, 57 ppm benzene, and 47 ppm MTBE. The grab groundwater samples contained concentrations of up to 140,000 ppb TPHg, 19,000 ppb benzene, and 27,000 ppb MTBE. Manual bailing and pumping of Light Non-Aqueous Phase Liquid (LNAPL) from well MW-1 occurred intermittently from 1997 to 1998. On May 25, 2001, two soil borings were advanced and converted to monitoring wells MW-3 and MW-4. Soil samples were collected from each boring at 15 and 20 feet bgs. The completed wells were sampled during the next monitoring event on June 29, 2001. Soil samples collected from the borings did not contain petroleum hydrocarbons or fuel oxygenates at concentrations above reporting limits. Groundwater from wells MW-3 and MW-4 contained up to 550 ppb TPHg. Groundwater from well MW-2 collected during the same monitoring event contained 69,000 ppb TPHg, 7,200 ppb benzene, and 4,400 ppb MTBE. Due to the continued presence of free product, a LNAPL recovery system was installed in well MW-1 in July 2001. Well MW-1 is located within the backfill of the southern-most gasoline UST. The LNAPL recovery system operated between 2001 and 2003. On April 2 and 3, 2003, fourteen soil borings (SB-4 through SB-17) were advanced both on-site and off-site. Soil samples were collected from the borings at depths ranging between 11 and 18 feet bgs. Grab groundwater samples were collected from each boring and soil vapor samples were collected from five of the borings. The soil samples collected from boring SB-7 at 18 feet bgs and SB-11 at 16 feet bgs contained the highest TPHg concentrations of 4,900 ppm and 2,700 ppm, respectively. Borings SB-7

MAP FINDINGS

VIC'S AUTOMOTIVE SERVICE, 245 8TH, OAKLAND, CA 94607 (Continued)

and SB-11 are located southwest of the former UST locations. Similarly, groundwater samples collected southwest of the former UST locations contained the highest TPHg concentrations. TPHg and benzene were detected in grab groundwater samples at concentrations up to 310,000 ppb and 45,000 ppb, respectively. Soil vapor samples did not contain petroleum hydrocarbons at concentrations above reporting limits. On January 11, 19, and 20, 2005, six extraction/monitoring wells (MW-5 through MW-7 and MW-10 through MW-12) were installed both on-site and off-site, with the intent of utilizing a High Vacuum Dual-Phase Extraction (HVDPE) system in the near future. At least one soil sample was selected for analysis from each well. Groundwater samples were collected from newly completed and previously constructed wells (MW-1 through MW-4) on February 3, 2005. The soil samples contained up to 3,200 ppm TPHg, 35 ppm benzene, and 8.5 ppm MTBE. Results of the groundwater samples were similar to previous investigations with the high petroleum hydrocarbon concentrations detected south of the former UST locations. From July 11 to July 27, 2005, a 15-day HVDPE event was conducted in five of the extraction/monitoring wells. During the event, an estimated 10,600 pounds of hydrocarbons were removed in the vapor phase. Following this event, preparations were made to implement a fixed HVDPE system at the site. Startup of the HVDPE system began on June 26, 2007. On July 13, 2006, eight soil borings were advanced throughout the site and off-site in the downgradient direction. Four of the borings were converted to permanent, nested soil gas probes (GP-1 through GP-4). Soil samples and soil gas samples were collected from the gas probes at depths of five and ten feet bgs. The soil samples contained up to 1.6 ppm TPHg, with no concentrations of MTBE above reporting limits. The soil gas samples contained up to 705 micrograms per cubic meter (a%g/m³) TPHg and 6.1 a%g/m³ benzene. On March 18, 2008, wells MW-8, MW-9, and MW-13 were installed to delineate the petroleum hydrocarbon plume in groundwater. Soil samples were collected from the new wells at depths of 15 and 20 feet bgs and contained up to 1.5 ppm TPHG, 0.37 ppm benzene, and 0.089 ppm MTBE. Between August 21 and 22, 2008, soil gas probes GP-3 and GP-4 were decommissioned due to property development. Horizontal HVDPE conveyance piping laterals were installed on wells MW-10 through MW-12 to continue remediation. On

MAP FINDINGS

VIC'S AUTOMOTIVE SERVICE, 245 8TH, OAKLAND, CA 94607 (Continued)

July 28, 2009, three monitoring wells (MW-14 through MW-16) were installed off-site to delineate the downgradient extent of the petroleum hydrocarbon plume in groundwater. Soil samples were collected from each of the monitoring well borings at depths ranging between 16 and 25 feet bgs. Groundwater samples were collected from the new wells during the next monitoring event on August 21, 2009. Results of the monitoring event incorporating the newly established wells indicated that the petroleum hydrocarbon plume extended laterally from the former UST location to approximately 7th Street. On March 17, 2010, four soil borings (SB-16 through SB-19) were advanced as part of a source zone delineation study. Soil samples were collected from the borings at approximately two or three foot intervals at depths ranging between 15 and 25 feet bgs. The highest concentrations of TPHg and benzene in soil were detected in soil samples collected below the water table at a depth of 20 feet bgs. Soil samples from borings SB-19, SB-16, and SB-17 contained TPHg at concentrations up to 7,500 ppm, 4,300 ppm, and 2,100 ppm, respectively. Benzene concentrations in soil were highest in borings SB-19 and SB-17 at concentrations of 100 ppm and 87 ppm, respectively (both samples collected at a depth of 20 feet bgs). Groundwater was first encountered in the borings at approximately 19.5 feet bgs with the exception of borings SB-16 and SB-19, where groundwater was encountered at approximately 25 and 21 feet bgs, respectively. One grab groundwater sample collected from boring SB-18 contained 230 ppb TPHg and 3.2 ppb benzene. On June 30 and July 1, 2010, four air sparge wells (AS-1 through AS-4) were installed within the source zone to a total depth of 30 feet bgs. A pilot test for HVDPE with air sparging was conducted between August and October 2010. Results indicated that air sparging in conjunction with the HVDPE system increased the effectiveness of petroleum hydrocarbon mass removal by increasing the off-gas vapor concentrations. High Vacuum Dual Phase Extraction (HVDPE) remediation was conducted at the site from June 2007 to June 2011 in both on-site and off-site wells. The remediation system removed an estimated total of 5,663 gallons of Total Petroleum Hydrocarbons as gasoline (TPHg). A soil vapor sampling event was conducted on October 16, 2012. Five new soil gas probes (GP-5 through GP-9) were installed and sampled along with the remaining two

MAP FINDINGS

VIC'S AUTOMOTIVE SERVICE, 245 8TH, OAKLAND, CA 94607 (Continued)

existing soil gas probes (GP-1 and GP-2) on October 31, 2012. TPHg was detected in soil vapor from vapor probe GP-1 at a concentration of 2,700 a%/m³. TPHg was not detected at concentrations above reporting limits in the remaining eight soil vapor samples. Benzene was not detected in soil vapor depth at concentrations above reporting limits in any of the nine soil vapor samples collected. Groundwater monitoring began at the site on June 29, 2001 and was conducted quarterly until the most recent groundwater monitoring event on May 5, 2012. The depth to groundwater in site monitoring wells has ranged between 12.61 to 20.44 feet bgs. Soil vapor was also monitored on a quarterly schedule from August 2006 to August 2008. Results of soil, groundwater, and soil vapor investigations indicate that a plume of petroleum hydrocarbons extended from the former southern-most UST location a distance of approximately 200 feet southwest (downgradient) of the site. HVDPE and air sparging remediation has reduced the concentrations of TPHg in groundwater from the highest detection of 310,000 ppb in 2003 to a maximum concentration of 250 ppb during the most recent groundwater monitoring event in May 2012. Benzene has also been reduced from a maximum of 52,000 ppb in February 2005 to a maximum concentration of 250 ppb during the most recent groundwater monitoring event in May 2012. Groundwater monitoring data indicate that the plume of petroleum hydrocarbons is stable or shrinking in extent. Based on evidence from recent investigations, the residual soil, groundwater, and soil vapor contamination from the former USTs does not appear to pose a threat to public or environmental health. Therefore, no further action is required for the site.

LUST:

Global Id: T0600101143
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not Reported
Phone Number: Not Reported

LUST:

Global Id: T0600101143

MAP FINDINGS

VIC'S AUTOMOTIVE SERVICE, 245 8TH, OAKLAND, CA 94607 (Continued)

Action Type:	Other
Date:	06/18/1993
Action:	Leak Reported
Global Id:	T0600101143
Action Type:	RESPONSE
Date:	06/17/2003
Action:	Soil and Water Investigation Report
Global Id:	T0600101143
Action Type:	RESPONSE
Date:	07/29/1993
Action:	Tank Removal Report / UST Sampling Report
Global Id:	T0600101143
Action Type:	RESPONSE
Date:	10/23/1995
Action:	Well Installation Report
Global Id:	T0600101143
Action Type:	RESPONSE
Date:	03/25/2005
Action:	Well Installation Report
Global Id:	T0600101143
Action Type:	RESPONSE
Date:	11/28/1994
Action:	CAP/RAP - Final Remediation / Design Plan
Global Id:	T0600101143
Action Type:	RESPONSE
Date:	09/19/1996
Action:	Soil and Water Investigation Report
Global Id:	T0600101143
Action Type:	RESPONSE
Date:	09/29/2006
Action:	Soil Vapor Intrusion Investigation Report
Global Id:	T0600101143
Action Type:	RESPONSE
Date:	07/31/2001
Action:	Well Installation Report
Global Id:	T0600101143
Action Type:	RESPONSE
Date:	05/28/2008
Action:	Well Destruction Report
Global Id:	T0600101143
Action Type:	RESPONSE
Date:	08/03/1993
Action:	Tank Removal Report / UST Sampling Report
Global Id:	T0600101143

MAP FINDINGS

VIC'S AUTOMOTIVE SERVICE, 245 8TH, OAKLAND, CA 94607 (Continued)

Action Type:	RESPONSE
Date:	06/01/2010
Action:	Clean Up Fund - 5-Year Review Summary
Global Id:	T0600101143
Action Type:	RESPONSE
Date:	05/18/1993
Action:	Correspondence
Global Id:	T0600101143
Action Type:	RESPONSE
Date:	05/24/2006
Action:	Interim Remedial Action Plan
Global Id:	T0600101143
Action Type:	RESPONSE
Date:	01/13/2013
Action:	Soil Vapor Intrusion Investigation Report
Global Id:	T0600101143
Action Type:	RESPONSE
Date:	01/07/2014
Action:	Well Destruction Report - Regulator Responded
Global Id:	T0600101143
Action Type:	ENFORCEMENT
Date:	10/03/2008
Action:	Staff Letter - #20081003
Global Id:	T0600101143
Action Type:	RESPONSE
Date:	02/20/2013
Action:	Correspondence
Global Id:	T0600101143
Action Type:	ENFORCEMENT
Date:	07/24/2009
Action:	Staff Letter - #20090724
Global Id:	T0600101143
Action Type:	ENFORCEMENT
Date:	12/03/2009
Action:	Staff Letter - #20091203
Global Id:	T0600101143
Action Type:	ENFORCEMENT
Date:	12/04/2009
Action:	Staff Letter - #20091204
Global Id:	T0600101143
Action Type:	ENFORCEMENT
Date:	02/22/2010
Action:	Staff Letter - #20100222
Global Id:	T0600101143

MAP FINDINGS

VIC'S AUTOMOTIVE SERVICE, 245 8TH, OAKLAND, CA 94607 (Continued)

Action Type:	ENFORCEMENT
Date:	02/13/2013
Action:	Staff Letter - #20130213
Global Id:	T0600101143
Action Type:	ENFORCEMENT
Date:	05/24/2010
Action:	Staff Letter - #20100524
Global Id:	T0600101143
Action Type:	ENFORCEMENT
Date:	05/04/2011
Action:	Meeting - #20110504
Global Id:	T0600101143
Action Type:	ENFORCEMENT
Date:	05/04/2011
Action:	File review - #20110504
Global Id:	T0600101143
Action Type:	ENFORCEMENT
Date:	04/02/2012
Action:	File review - #20120402
Global Id:	T0600101143
Action Type:	ENFORCEMENT
Date:	04/02/2012
Action:	Staff Letter - #20120402
Global Id:	T0600101143
Action Type:	ENFORCEMENT
Date:	09/10/2012
Action:	Staff Letter - #20120910
Global Id:	T0600101143
Action Type:	ENFORCEMENT
Date:	02/11/2013
Action:	File Review - Closure - #20130211
Global Id:	T0600101143
Action Type:	ENFORCEMENT
Date:	02/13/2013
Action:	Notification - Fee Title Owners Notice - #20130213
Global Id:	T0600101143
Action Type:	ENFORCEMENT
Date:	04/30/2013
Action:	Staff Letter - #20130430
Global Id:	T0600101143
Action Type:	ENFORCEMENT
Date:	10/22/2013
Action:	Closure/No Further Action Letter - #20131022
Global Id:	T0600101143

MAP FINDINGS

VIC'S AUTOMOTIVE SERVICE, 245 8TH, OAKLAND, CA 94607 (Continued)

Action Type: ENFORCEMENT
 Date: 05/26/2006
 Action: Staff Letter - #20060526

Global Id: T0600101143
 Action Type: RESPONSE
 Date: 05/13/2010
 Action: Interim Remedial Action Plan

Global Id: T0600101143
 Action Type: REMEDIATION
 Date: 06/15/2007
 Action: In Situ Physical/Chemical Treatment (other than SVE)

Global Id: T0600101143
 Action Type: ENFORCEMENT
 Date: 10/14/2013
 Action: Notice to Comply - #20131014

Global Id: T0600101143
 Action Type: ENFORCEMENT
 Date: 02/27/2013
 Action: Notification - Public Notice of Case Closure - #20130227

Global Id: T0600101143
 Action Type: RESPONSE
 Date: 09/30/2010
 Action: Pilot Study/ Treatability Report

Global Id: T0600101143
 Action Type: Other
 Date: 06/18/1993
 Action: Leak Discovery

Global Id: T0600101143
 Action Type: RESPONSE
 Date: 09/15/2010
 Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0600101143
 Action Type: ENFORCEMENT
 Date: 12/24/2007
 Action: * NEL - #20071224

Global Id: T0600101143
 Action Type: RESPONSE
 Date: 06/06/2012
 Action: Soil Vapor Intrusion Investigation Workplan - Regulator Responded

LUST:

Global Id: T0600101143
 Status: Completed - Case Closed
 Status Date: 10/22/2013

MAP FINDINGS

VIC'S AUTOMOTIVE SERVICE, 245 8TH, OAKLAND, CA 94607 (Continued)

Global Id:	T0600101143
Status:	Open - Case Begin Date
Status Date:	06/18/1993
Global Id:	T0600101143
Status:	Open - Eligible for Closure
Status Date:	04/04/2013
Global Id:	T0600101143
Status:	Open - Remediation
Status Date:	06/15/2007
Global Id:	T0600101143
Status:	Open - Site Assessment
Status Date:	06/18/1993
Global Id:	T0600101143
Status:	Open - Site Assessment
Status Date:	10/18/1993
Global Id:	T0600101143
Status:	Open - Site Assessment
Status Date:	07/14/1995
Global Id:	T0600101143
Status:	Open - Verification Monitoring
Status Date:	09/10/2012

Alameda County CS: State and tribal leaking storage tank lists

Status:	Leak Confirmation
Record Id:	RO0000202
PE:	5602
Facility Status:	Leak Confirmation
Latitude:	37.798155625
Longitude:	-122.26894388
Status:	Preliminary Site Assessment Underway
Record Id:	RO0000202
PE:	5602
Facility Status:	Preliminary Site Assessment Underway
Latitude:	37.798155625
Longitude:	-122.26894388
Status:	Pollution Characterization
Record Id:	RO0000202
PE:	5602
Facility Status:	Pollution Characterization
Latitude:	37.798155625
Longitude:	-122.26894388
Status:	Remedial Action Underway
Record Id:	RO0000202
PE:	5602

MAP FINDINGS

VIC'S AUTOMOTIVE SERVICE, 245 8TH, OAKLAND, CA 94607 (Continued)

Facility Status: Remedial Action Underway
 Latitude: 37.798155625
 Longitude: -122.26894388
 Status: Case Closed
 Record Id: RO0000202
 PE: 5602
 Facility Status: Case Closed
 Latitude: 37.798155625
 Longitude: -122.26894388

HIST CORTESE: Other Ascertainable Records

Region: CORTESE
 Facility County Code: 1
 Reg By: LTNKA
 Reg Id: 01-1244

CITY OF OAKLAND FIRE STATION #12 822 ALICE ST, OAKLAND, CA, 94607		U003713310
▲ J33	WNW 1/10 - 1/3 (724 ft. / 0.137 mi.)	State and tribal leaking storage tank lists Other Ascertainable Records
	3 ft. Higher Elevation 36 ft. Above Sea Level	

Worksheet:

Impact on Target Property: VEC does not exist

LUST: State and tribal leaking storage tank lists

Lead Agency: ALAMEDA COUNTY LOP
 Case Type: LUST Cleanup Site
 Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100576
 Global Id: T0600100576
 Latitude: 37.798722
 Longitude: -122.268401
 Status: Completed - Case Closed
 Status Date: 06/09/1995
 Case Worker: Not Reported
 RB Case Number: 01-0626
 Local Agency: Not Reported
 File Location: All Files are on GeoTracker or in the Local Agency Database
 Local Case Number: RO0001139
 Potential Media Affect: Soil
 Potential Contaminants of Concern: Waste Oil / Motor / Hydraulic / Lubricating
 Site History: Not Reported

LUST:

Global Id: T0600100576
 Contact Type: Regional Board Caseworker
 Contact Name: Regional Water Board
 Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)

MAP FINDINGS

CITY OF OAKLAND FIRE STATION #12, 822 ALICE ST, OAKLAND, CA 94607 (Continued)

Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not Reported
Phone Number: Not Reported

LUST:

Global Id: T0600100576
Action Type: Other
Date: 04/14/1989
Action: Leak Reported

LUST:

Global Id: T0600100576
Status: Completed - Case Closed
Status Date: 06/09/1995
Global Id: T0600100576
Status: Open - Case Begin Date
Status Date: 04/14/1989

Alameda County CS: State and tribal leaking storage tank lists

Status: Case Closed
Record Id: RO0001139
PE: 5602
Facility Status: Case Closed
Latitude: 37.798432837
Longitude: -122.26873721

HIST CORTESE: Other Ascertainable Records

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-0626

CERS TANKS: Other Ascertainable Records

Site ID: 230735
CERS ID: T0600100576
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not Reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA
Affiliation Country: Not Reported

MAP FINDINGS

CITY OF OAKLAND FIRE STATION #12, 822 ALICE ST, OAKLAND, CA 94607 (Continued)

Affiliation Zip: Not Reported
 Affiliation Phone: Not Reported

AQUA SCIENCE ENGINEERS, INC (A 250 8TH STREET, OAKLAND, CA, 94607		S101580030
▲ J34	WNW 1/10 - 1/3 (802 ft. / 0.152 mi.)	State and tribal leaking storage tank lists
	2 ft. Higher Elevation 35 ft. Above Sea Level	Local Lists of Registered Storage Tanks Other Ascertainable Records

Worksheet:

Impact on Target Property: VEC does not exist

LUST: State and tribal leaking storage tank lists

Lead Agency: ALAMEDA COUNTY LOP
 Case Type: LUST Cleanup Site
 Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100535
 Global Id: T0600100535
 Latitude: 37.7985604517513
 Longitude: -122.269098758698
 Status: Open - Verification Monitoring
 Status Date: 04/30/2015
 Case Worker: JES
 RB Case Number: 01-0582
 Local Agency: ALAMEDA COUNTY LOP
 File Location: All Files are on GeoTracker or in the Local Agency Database
 Local Case Number: RO0000479
 Potential Media Affect: Other Groundwater (uses other than drinking water)
 Potential Contaminants of Concern: Gasoline
 Site History: A gasoline service station formerly occupied the site. Ten USTs were removed in May 1992. Soil overexcavation was conducted between December 1992 and March 1993. Various site investigation activities have been conducted since 1995. Several remedial actions have taken place since 1999. A remedial system consisting of a soil vapor extraction and ozone sparging system was installed at the site in early 2011. The systems operated at the site until April 2015 when they were shut down to monitor for potential rebound. Quarterly groundwater monitoring is ongoing to evaluate potential rebound of groundwater concentrations while the remedial systems are not operating. A soil vapor sampling work plan has been requested by ACEH to evaluate the effectiveness of the remediation.

LUST:

Global Id: T0600100535
 Contact Type: Local Agency Caseworker
 Contact Name: JONATHAN E. SANDERS

MAP FINDINGS

AQUA SCIENCE ENGINEERS, INC (A, 250 8TH STREET, OAKLAND, CA 94607 (Continued))

Organization Name: ALAMEDA COUNTY LOP
Address: 1131 Harbor Bay Pkwy
City: ALAMEDA
Email: jonathan.sanders@acgov.org
Phone Number: 5105676791

Global Id: T0600100535
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not Reported
Phone Number: Not Reported

LUST:

Global Id: T0600100535
Action Type: Other
Date: 05/07/1992
Action: Leak Reported

Global Id: T0600100535
Action Type: RESPONSE
Date: 09/30/2004
Action: Corrective Action Plan / Remedial Action Plan - Addendum

Global Id: T0600100535
Action Type: RESPONSE
Date: 11/30/2007
Action: Interim Remedial Action Report

Global Id: T0600100535
Action Type: RESPONSE
Date: 08/26/2002
Action: Soil and Water Investigation Report

Global Id: T0600100535
Action Type: RESPONSE
Date: 08/01/2006
Action: Soil and Water Investigation Report

Global Id: T0600100535
Action Type: RESPONSE
Date: 06/26/2007
Action: Soil and Water Investigation Report

Global Id: T0600100535
Action Type: RESPONSE
Date: 02/22/2000
Action: Well Installation Report

Global Id: T0600100535
Action Type: RESPONSE

MAP FINDINGS

AQUA SCIENCE ENGINEERS, INC (A, 250 8TH STREET, OAKLAND, CA 94607 (Continued))

Date: 08/04/2006
 Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0600100535
 Action Type: RESPONSE
 Date: 02/13/2013
 Action: Remedial Progress Report

Global Id: T0600100535
 Action Type: RESPONSE
 Date: 03/28/2012
 Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0600100535
 Action Type: RESPONSE
 Date: 03/28/2012
 Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0600100535
 Action Type: RESPONSE
 Date: 02/17/1995
 Action: Soil and Water Investigation Report

Global Id: T0600100535
 Action Type: RESPONSE
 Date: 03/17/1999
 Action: Remedial Progress Report

Global Id: T0600100535
 Action Type: RESPONSE
 Date: 11/08/2000
 Action: Remedial Progress Report

Global Id: T0600100535
 Action Type: RESPONSE
 Date: 02/22/2007
 Action: Interim Remedial Action Report

Global Id: T0600100535
 Action Type: RESPONSE
 Date: 06/05/1997
 Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0600100535
 Action Type: RESPONSE
 Date: 06/01/1992
 Action: Tank Removal Report / UST Sampling Report

Global Id: T0600100535
 Action Type: RESPONSE
 Date: 06/02/1992
 Action: Correspondence

Global Id: T0600100535
 Action Type: RESPONSE

MAP FINDINGS

AQUA SCIENCE ENGINEERS, INC (A, 250 8TH STREET, OAKLAND, CA 94607 (Continued))

Date:	06/08/1993
Action:	Final Remedial Action Report / Corrective Action Report
Global Id:	T0600100535
Action Type:	RESPONSE
Date:	02/10/1993
Action:	Other Report / Document
Global Id:	T0600100535
Action Type:	RESPONSE
Date:	02/11/1993
Action:	Other Report / Document
Global Id:	T0600100535
Action Type:	RESPONSE
Date:	04/03/2016
Action:	Monitoring Report - Semi-Annually
Global Id:	T0600100535
Action Type:	RESPONSE
Date:	09/28/2018
Action:	Correspondence
Global Id:	T0600100535
Action Type:	RESPONSE
Date:	07/30/2013
Action:	Remedial Progress Report - Regulator Responded
Global Id:	T0600100535
Action Type:	RESPONSE
Date:	02/28/2014
Action:	Remedial Progress Report - Regulator Responded
Global Id:	T0600100535
Action Type:	RESPONSE
Date:	09/23/2013
Action:	Remedial Progress Report - Regulator Responded
Global Id:	T0600100535
Action Type:	ENFORCEMENT
Date:	10/23/2008
Action:	Staff Letter - #20081023
Global Id:	T0600100535
Action Type:	ENFORCEMENT
Date:	01/21/2016
Action:	Staff Letter
Global Id:	T0600100535
Action Type:	RESPONSE
Date:	08/30/2014
Action:	Remedial Progress Report - Regulator Responded
Global Id:	T0600100535
Action Type:	ENFORCEMENT

MAP FINDINGS

AQUA SCIENCE ENGINEERS, INC (A, 250 8TH STREET, OAKLAND, CA 94607 (Continued))

Date:	01/03/2017
Action:	Email Correspondence - #20170103
Global Id:	T0600100535
Action Type:	ENFORCEMENT
Date:	12/28/2016
Action:	Staff Letter - #20161228
Global Id:	T0600100535
Action Type:	ENFORCEMENT
Date:	09/14/2016
Action:	Staff Letter - #20160914
Global Id:	T0600100535
Action Type:	RESPONSE
Date:	03/21/2016
Action:	Soil Vapor Intrusion Investigation Workplan - Regulator Responded
Global Id:	T0600100535
Action Type:	ENFORCEMENT
Date:	07/23/2009
Action:	Staff Letter - #20090723
Global Id:	T0600100535
Action Type:	ENFORCEMENT
Date:	08/17/2016
Action:	Meeting - #20160817
Global Id:	T0600100535
Action Type:	ENFORCEMENT
Date:	02/09/2017
Action:	Meeting - #20170209
Global Id:	T0600100535
Action Type:	ENFORCEMENT
Date:	07/22/2016
Action:	Email Correspondence
Global Id:	T0600100535
Action Type:	RESPONSE
Date:	03/02/2015
Action:	Remedial Progress Report
Global Id:	T0600100535
Action Type:	REMEDICATION
Date:	10/01/2004
Action:	In Situ Physical/Chemical Treatment (other than SVE)
Global Id:	T0600100535
Action Type:	REMEDICATION
Date:	11/01/1992
Action:	Excavation
Global Id:	T0600100535
Action Type:	ENFORCEMENT

MAP FINDINGS

AQUA SCIENCE ENGINEERS, INC (A, 250 8TH STREET, OAKLAND, CA 94607 (Continued))

Date: 05/04/2010
 Action: Staff Letter - #20100504

Global Id: T0600100535
 Action Type: ENFORCEMENT
 Date: 04/18/2011
 Action: Staff Letter - #20110418

Global Id: T0600100535
 Action Type: ENFORCEMENT
 Date: 10/25/2010
 Action: Staff Letter - #20101025

Global Id: T0600100535
 Action Type: ENFORCEMENT
 Date: 09/20/2010
 Action: Staff Letter - #20100920

Global Id: T0600100535
 Action Type: ENFORCEMENT
 Date: 09/27/2011
 Action: Staff Letter - #20110927

Global Id: T0600100535
 Action Type: ENFORCEMENT
 Date: 09/20/2010
 Action: Notification - Public Notice of ROD/RAP/CAP - #20100920

Global Id: T0600100535
 Action Type: ENFORCEMENT
 Date: 04/09/2012
 Action: Staff Letter - #20120409

Global Id: T0600100535
 Action Type: ENFORCEMENT
 Date: 03/25/2013
 Action: Staff Letter - #20130325

Global Id: T0600100535
 Action Type: ENFORCEMENT
 Date: 08/18/2006
 Action: Staff Letter - #20060818

Global Id: T0600100535
 Action Type: ENFORCEMENT
 Date: 08/06/2013
 Action: Staff Letter - #20130806

Global Id: T0600100535
 Action Type: ENFORCEMENT
 Date: 08/26/2013
 Action: Staff Letter - #20130826

Global Id: T0600100535
 Action Type: ENFORCEMENT

MAP FINDINGS

AQUA SCIENCE ENGINEERS, INC (A, 250 8TH STREET, OAKLAND, CA 94607 (Continued))

Date: 08/22/2012
 Action: Staff Letter - #20120822

Global Id: T0600100535
 Action Type: ENFORCEMENT
 Date: 06/28/2018
 Action: Staff Letter

Global Id: T0600100535
 Action Type: ENFORCEMENT
 Date: 04/24/2012
 Action: Technical Correspondence / Assistance / Other - #20120424

Global Id: T0600100535
 Action Type: ENFORCEMENT
 Date: 04/16/2014
 Action: Staff Letter - #20140416

Global Id: T0600100535
 Action Type: ENFORCEMENT
 Date: 09/08/2014
 Action: Staff Letter - #20140908

Global Id: T0600100535
 Action Type: RESPONSE
 Date: 07/13/2010
 Action: Pilot Study / Treatability Workplan

Global Id: T0600100535
 Action Type: ENFORCEMENT
 Date: 05/02/2017
 Action: Email Correspondence

Global Id: T0600100535
 Action Type: REMEDIATION
 Date: 02/01/2011
 Action: Soil Vapor Extraction (SVE)

Global Id: T0600100535
 Action Type: REMEDIATION
 Date: 02/01/2011
 Action: In Situ Physical/Chemical Treatment (other than SVE)

Global Id: T0600100535
 Action Type: Other
 Date: 05/07/1992
 Action: Leak Discovery

Global Id: T0600100535
 Action Type: RESPONSE
 Date: 03/18/2010
 Action: Remedial Progress Report

Global Id: T0600100535
 Action Type: RESPONSE

MAP FINDINGS

AQUA SCIENCE ENGINEERS, INC (A, 250 8TH STREET, OAKLAND, CA 94607 (Continued))

Date: 03/10/2009
 Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0600100535
 Action Type: RESPONSE
 Date: 06/11/2009
 Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0600100535
 Action Type: RESPONSE
 Date: 07/13/2010
 Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0600100535
 Action Type: RESPONSE
 Date: 07/12/2011
 Action: Remedial Progress Report

Global Id: T0600100535
 Action Type: RESPONSE
 Date: 10/12/2016
 Action: Other Report / Document

Global Id: T0600100535
 Action Type: RESPONSE
 Date: 05/15/2012
 Action: Interim Remedial Action Report

LUST:

Global Id: T0600100535
 Status: Open - Case Begin Date
 Status Date: 05/07/1992

Global Id: T0600100535
 Status: Open - Remediation
 Status Date: 11/30/2007

Global Id: T0600100535
 Status: Open - Site Assessment
 Status Date: 05/07/1992

Global Id: T0600100535
 Status: Open - Site Assessment
 Status Date: 06/08/1992

Global Id: T0600100535
 Status: Open - Site Assessment
 Status Date: 01/30/1995

Global Id: T0600100535
 Status: Open - Site Assessment
 Status Date: 09/08/1999

Global Id: T0600100535
 Status: Open - Verification Monitoring

MAP FINDINGS

AQUA SCIENCE ENGINEERS, INC (A, 250 8TH STREET, OAKLAND, CA 94607 (Continued)

Status Date: 04/30/2015

Alameda County CS: State and tribal leaking storage tank lists

Status: Leak Confirmation
Record Id: RO0000479
PE: 5602
Facility Status: Leak Confirmation
Latitude: 37.798466508
Longitude: -122.26895504

Status: Preliminary Site Assessment Workplan Submitted
Record Id: RO0000479
PE: 5602
Facility Status: Preliminary Site Assessment Workplan Submitted
Latitude: 37.798466508
Longitude: -122.26895504

Status: Preliminary Site Assessment Underway
Record Id: RO0000479
PE: 5602
Facility Status: Preliminary Site Assessment Underway
Latitude: 37.798466508
Longitude: -122.26895504

Status: Pollution Characterization
Record Id: RO0000479
PE: 5602
Facility Status: Pollution Characterization
Latitude: 37.798466508
Longitude: -122.26895504

Status: Remediation Plan
Record Id: RO0000479
PE: 5602
Facility Status: Remediation Plan
Latitude: 37.798466508
Longitude: -122.26895504

SWEEPS UST: Local Lists of Registered Storage Tanks

Status: Not Reported
Comp Number: 51110
Number: Not Reported
Board Of Equalization: 44-034216
Referral Date: Not Reported
Action Date: Not Reported
Created Date: Not Reported
Owner Tank Id: Not Reported
SWRCB Tank Id: 01-000-051110-000001
Tank Status: Not Reported
Capacity: 2000

MAP FINDINGS

AQUA SCIENCE ENGINEERS, INC (A, 250 8TH STREET, OAKLAND, CA 94607 (Continued)

Active Date:	Not Reported
Tank Use:	M.V.FUEL
STG:	PRODUCT
Content:	DIESEL
Number Of Tanks:	10
Status:	Not Reported
Comp Number:	51110
Number:	Not Reported
Board Of Equalization:	44-034216
Referral Date:	Not Reported
Action Date:	Not Reported
Created Date:	Not Reported
Owner Tank Id:	Not Reported
SWRCB Tank Id:	01-000-051110-000002
Tank Status:	Not Reported
Capacity:	2000
Active Date:	Not Reported
Tank Use:	M.V.FUEL
STG:	PRODUCT
Content:	LEADED
Number Of Tanks:	Not Reported
Status:	Not Reported
Comp Number:	51110
Number:	Not Reported
Board Of Equalization:	44-034216
Referral Date:	Not Reported
Action Date:	Not Reported
Created Date:	Not Reported
Owner Tank Id:	Not Reported
SWRCB Tank Id:	01-000-051110-000003
Tank Status:	Not Reported
Capacity:	2000
Active Date:	Not Reported
Tank Use:	M.V.FUEL
STG:	PRODUCT
Content:	LEADED
Number Of Tanks:	Not Reported
Status:	Not Reported
Comp Number:	51110
Number:	Not Reported
Board Of Equalization:	44-034216
Referral Date:	Not Reported
Action Date:	Not Reported
Created Date:	Not Reported
Owner Tank Id:	Not Reported
SWRCB Tank Id:	01-000-051110-000004
Tank Status:	Not Reported
Capacity:	2000

MAP FINDINGS

AQUA SCIENCE ENGINEERS, INC (A, 250 8TH STREET, OAKLAND, CA 94607 (Continued))

Active Date:	Not Reported
Tank Use:	M.V.FUEL
STG:	PRODUCT
Content:	LEADED
Number Of Tanks:	Not Reported
Status:	Not Reported
Comp Number:	51110
Number:	Not Reported
Board Of Equalization:	44-034216
Referral Date:	Not Reported
Action Date:	Not Reported
Created Date:	Not Reported
Owner Tank Id:	Not Reported
SWRCB Tank Id:	01-000-051110-000005
Tank Status:	Not Reported
Capacity:	10000
Active Date:	Not Reported
Tank Use:	M.V.FUEL
STG:	PRODUCT
Content:	LEADED
Number Of Tanks:	Not Reported
Status:	Not Reported
Comp Number:	51110
Number:	Not Reported
Board Of Equalization:	44-034216
Referral Date:	Not Reported
Action Date:	Not Reported
Created Date:	Not Reported
Owner Tank Id:	Not Reported
SWRCB Tank Id:	01-000-051110-000006
Tank Status:	Not Reported
Capacity:	5000
Active Date:	Not Reported
Tank Use:	M.V.FUEL
STG:	PRODUCT
Content:	DIESEL
Number Of Tanks:	Not Reported
Status:	Not Reported
Comp Number:	51110
Number:	Not Reported
Board Of Equalization:	44-034216
Referral Date:	Not Reported
Action Date:	Not Reported
Created Date:	Not Reported
Owner Tank Id:	Not Reported
SWRCB Tank Id:	01-000-051110-000007
Tank Status:	Not Reported
Capacity:	250

MAP FINDINGS

AQUA SCIENCE ENGINEERS, INC (A, 250 8TH STREET, OAKLAND, CA 94607 (Continued)

Active Date:	Not Reported
Tank Use:	OIL
STG:	WASTE
Content:	WASTE OIL
Number Of Tanks:	Not Reported
Status:	Not Reported
Comp Number:	51110
Number:	Not Reported
Board Of Equalization:	44-034216
Referral Date:	Not Reported
Action Date:	Not Reported
Created Date:	Not Reported
Owner Tank Id:	Not Reported
SWRCB Tank Id:	01-000-051110-000008
Tank Status:	Not Reported
Capacity:	500
Active Date:	Not Reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	LEADED
Number Of Tanks:	Not Reported
Status:	Not Reported
Comp Number:	51110
Number:	Not Reported
Board Of Equalization:	44-034216
Referral Date:	Not Reported
Action Date:	Not Reported
Created Date:	Not Reported
Owner Tank Id:	Not Reported
SWRCB Tank Id:	01-000-051110-000009
Tank Status:	Not Reported
Capacity:	500
Active Date:	Not Reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	LEADED
Number Of Tanks:	Not Reported
Status:	Not Reported
Comp Number:	51110
Number:	Not Reported
Board Of Equalization:	44-034216
Referral Date:	Not Reported
Action Date:	Not Reported
Created Date:	Not Reported
Owner Tank Id:	Not Reported
SWRCB Tank Id:	01-000-051110-000010
Tank Status:	Not Reported
Capacity:	500

MAP FINDINGS

AQUA SCIENCE ENGINEERS, INC (A, 250 8TH STREET, OAKLAND, CA 94607 (Continued)

Active Date: Not Reported
 Tank Use: M.V. FUEL
 STG: PRODUCT
 Content: LEADED
 Number Of Tanks: Not Reported

EMI: Other Ascertainable Records

Year: 2011
 County Code: 1
 Air Basin: SF
 Facility ID: 18100
 Air District Name: BA
 SIC Code: 4953
 Air District Name: BAY AREA AQMD
 Community Health Air Pollution Info System: Not Reported
 Consolidated Emission Reporting Rule: Not Reported
 Total Organic Hydrocarbon Gases Tons/Yr: 0.006
 Reactive Organic Gases Tons/Yr: 0.0041916
 Carbon Monoxide Emissions Tons/Yr: 0
 NOX - Oxides of Nitrogen Tons/Yr: 0
 SOX - Oxides of Sulphur Tons/Yr: 0
 Particulate Matter Tons/Yr: 0
 Part. Matter 10 Micrometers and Smllr Tons/Yr: 0

Year: 2012
 County Code: 1
 Air Basin: SF
 Facility ID: 18100
 Air District Name: BA
 SIC Code: 4953
 Air District Name: BAY AREA AQMD
 Community Health Air Pollution Info System: Not Reported
 Consolidated Emission Reporting Rule: Not Reported
 Total Organic Hydrocarbon Gases Tons/Yr: 0.006
 Reactive Organic Gases Tons/Yr: 0.0041916
 Carbon Monoxide Emissions Tons/Yr: 0
 NOX - Oxides of Nitrogen Tons/Yr: 0
 SOX - Oxides of Sulphur Tons/Yr: 0
 Particulate Matter Tons/Yr: 0
 Part. Matter 10 Micrometers and Smllr Tons/Yr: 0

Year: 2013
 County Code: 1
 Air Basin: SF
 Facility ID: 18100

MAP FINDINGS

AQUA SCIENCE ENGINEERS, INC (A, 250 8TH STREET, OAKLAND, CA 94607 (Continued)

Air District Name:	BA
SIC Code:	4953
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.006
Reactive Organic Gases Tons/Yr:	0.0041916
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0
Year:	2014
County Code:	1
Air Basin:	SF
Facility ID:	18100
Air District Name:	BA
SIC Code:	4953
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.006046482
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0
Year:	2015
County Code:	1
Air Basin:	SF
Facility ID:	18100
Air District Name:	BA
SIC Code:	4953
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.006046482
Reactive Organic Gases Tons/Yr:	0.006046482
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0

MAP FINDINGS

AQUA SCIENCE ENGINEERS, INC (A, 250 8TH STREET, OAKLAND, CA 94607 (Continued))

Particulate Matter Tons/Yr: 0
 Part. Matter 10 Micrometers and Smllr 0
 Tons/Yr:

HIST CORTESE: Other Ascertainable Records

Region: CORTESE
 Facility County Code: 1
 Reg By: LTNKA
 Reg Id: 01-0582

CERS TANKS: Other Ascertainable Records

Site ID: 244222
 CERS ID: T0600100535
 CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Local Agency Caseworker
 Entity Name: JONATHAN E. SANDERS - ALAMEDA COUNTY LOP
 Entity Title: Not Reported
 Affiliation Address: 1131 Harbor Bay Pkwy
 Affiliation City: ALAMEDA
 Affiliation State: CA
 Affiliation Country: Not Reported
 Affiliation Zip: Not Reported
 Affiliation Phone: 5105676791

Affiliation Type Desc: Regional Board Caseworker
 Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
 Entity Title: Not Reported
 Affiliation Address: 1515 CLAY ST SUITE 1400
 Affiliation City: OAKLAND
 Affiliation State: CA
 Affiliation Country: Not Reported
 Affiliation Zip: Not Reported
 Affiliation Phone: Not Reported

OAKLAND AUTOMATIC SALES 719 ALICE ST, OAKLAND, CA, 94607			S108246031
▲ J35	W 1/10 - 1/3	(866 ft. / 0.164 mi.)	State and tribal leaking storage tank lists Other Ascertainable Records
	Equal Elevation	33 ft. Above Sea Level	

Worksheet:

Impact on Target Property: VEC does not exist

CPS-SLIC: State and tribal leaking storage tank lists

Region: STATE
Facility Status: Completed - Case Closed

MAP FINDINGS

OAKLAND AUTOMATIC SALES, 719 ALICE ST, OAKLAND, CA 94607 (Continued)

Status Date: 10/27/1995
 Global Id: T06019702686
 Lead Agency: ALAMEDA COUNTY LOP
 Lead Agency Case Number: RO0002838
 Latitude: 37.798104
 Longitude: -122.269465
 Case Type: Cleanup Program Site
 Case Worker: Not Reported
 Local Agency: Not Reported
 RB Case Number: 01S0438
 File Location: All Files are on GeoTracker or in the Local Agency Database
 Potential Media Affected: Under Investigation
 Potential Contaminants of Concern: Not Reported
 Site History: Not Reported
 Click here to access the California GeoTracker records for this facility: http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_CA_SLIC_ST&global_id=T06019702686

Alameda County CS: State and tribal leaking storage tank lists

Status: Case Closed
 Record Id: RO0002838
 PE: 5502
 Facility Status: Case Closed
 Latitude: 37.797835929
 Longitude: -122.26949651

CERS TANKS: Other Ascertainable Records

Site ID: 242696
 CERS ID: T06019702686
 CERS Description: Cleanup Program Site

PORT OF OAKLAND / BLDG H-209 271 8TH AVENUE, OAKLAND, CA, 94606			S103723094
▲ P36	WNW 1/10 - 1/3	(979 ft. / 0.185 mi.)	State and tribal leaking storage tank lists Other Ascertainable Records
	1 ft. Higher Elevation	34 ft. Above Sea Level	

Worksheet:

Impact on Target Property: VEC does not exist

LUST: State and tribal leaking storage tank lists

Lead Agency: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
 Case Type: LUST Cleanup Site
 Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600102211
 Global Id: T0600102211
 Latitude: 37.7985218
 Longitude: -122.2695617
 Status: Completed - Case Closed
 Status Date: 10/13/2005

MAP FINDINGS

PORT OF OAKLAND / BLDG H-209, 271 8TH AVENUE, OAKLAND, CA 94606 (Continued)

Case Worker: Not Reported
RB Case Number: Not Reported
Local Agency: Not Reported
File Location: DTSC
Local Case Number: 70000109
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Diesel
Site History: The cases below are all DTSC lead as part of the Ninth Ave Terminal (OAK STREET TO 9TH AVENUE (70000109)) residential redevelopment project for which DTSC is the lead agency. RO106 PORT OF OAKLAND / KEEP ON TRUCKING RO108 PORT OF OAKLAND / BLDG H-209 RO109 PORT OF OAKLAND / CANNERY BLDG H-211 RO110 PORT OF OAKLAND / MARINE TERMINALS CORPORATION RO423 PORT OF OAKLAND / PACIFIC DRY DOCK YARD 2 RO485 PORT OF OAKLAND / CARD LOCK BLDG H-204 RO2461 SEABREEZE YACHT CENTER RO2462 PRAXAIR INC RO2492 PORT OF OAKLAND / NINTH AVE TERMINAL RB
Case #: SLT2O160264

LUST:

Global Id: T0600102211
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not Reported
Phone Number: Not Reported

LUST:

Global Id: T0600102211
Action Type: Other
Date: 06/03/1996
Action: Leak Reported

Global Id: T0600102211
Action Type: REMEDIATION
Date: 09/09/9999
Action: Not Reported

Global Id: T0600102211
Action Type: RESPONSE
Date: 03/17/1997
Action: Correspondence

LUST:

Global Id: T0600102211
Status: Completed - Case Closed
Status Date: 10/13/2005

MAP FINDINGS

PORT OF OAKLAND / BLDG H-209, 271 8TH AVENUE, OAKLAND, CA 94606 (Continued)

Global Id: T0600102211
 Status: Open - Case Begin Date
 Status Date: 06/03/1996

Alameda County CS: State and tribal leaking storage tank lists

Status: 11
 Record Id: RO0000108
 PE: 5602
 Facility Status: Not Reported
 Latitude: 37.788981611
 Longitude: -122.25859084

HIST CORTESE: Other Ascertainable Records

Region: CORTESE
 Facility County Code: 1
 Reg By: LTNKA
 Reg Id: 01-2401

CERS TANKS: Other Ascertainable Records

Site ID: 218586
 CERS ID: T0600102211
 CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
 Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
 Entity Title: Not Reported
 Affiliation Address: 1515 CLAY ST SUITE 1400
 Affiliation City: OAKLAND
 Affiliation State: CA
 Affiliation Country: Not Reported
 Affiliation Zip: Not Reported
 Affiliation Phone: Not Reported

UNOCAL #0752 800 HARRISON, OAKLAND, CA, 94607			1000167097
▲ P37	WNW 1/10 - 1/3	(1125 ft. / 0.213 mi.)	State and tribal leaking storage tank lists
	3 ft. Higher Elevation	36 ft. Above Sea Level	Local Lists of Registered Storage Tanks Other Ascertainable Records

Worksheet:

Impact on Target Property: VEC does not exist

LUST: State and tribal leaking storage tank lists

Lead Agency: ALAMEDA COUNTY LOP
 Case Type: LUST Cleanup Site

MAP FINDINGS

UNOCAL #0752, 800 HARRISON, OAKLAND, CA 94607 (Continued)

Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101486
Global Id: T0600101486
Latitude: 37.798989492
Longitude: -122.269965472
Status: Open - Remediation
Status Date: 07/15/2014
Case Worker: JES
RB Case Number: 01-1611
Local Agency: ALAMEDA COUNTY LOP
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000231
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Three UST were removed in 1990 and significantly elevated concentrations of petroleum hydrocarbons were detected in soil during the UST removal. A program of groundwater monitoring was implemented in 1991 and dissolved phase contamination is migrating offsite and impacting the downgradient sites located at 726 and 706 Harrison Street. Soil and groundwater sampling completed in 2007 detected elevated levels of MTBE in the deeper water bearing zone at 48 feet bgs. This site is part of a commingled plume and remedial action is proposed to remove residual mass beneath the sites. A pilot test of multi-phase extraction and air sparging/soil vapor extraction was conducted in 2013. Based on the results of the pilot test, remediation of 706 and 726 Harrison Street is planned to begin in 2014 using air sparging and soil vapor extraction. A Remedial Action Plan that describes the planned remediation was approved in July 2014 following a public comment period on the Remedial Action Plan.

LUST:

Global Id: T0600101486
Contact Type: Local Agency Caseworker
Contact Name: JONATHAN E. SANDERS
Organization Name: ALAMEDA COUNTY LOP
Address: 1131 Harbor Bay Pkwy
City: ALAMEDA
Email: jonathan.sanders@acgov.org
Phone Number: 5105676791

Global Id: T0600101486
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not Reported

MAP FINDINGS

UNOCAL #0752, 800 HARRISON, OAKLAND, CA 94607 (Continued)

Phone Number: Not Reported

LUST:

Global Id:	T0600101486
Action Type:	ENFORCEMENT
Date:	03/08/2017
Action:	Email Correspondence - #20170308
Global Id:	T0600101486
Action Type:	ENFORCEMENT
Date:	08/30/2016
Action:	Meeting - #20160830
Global Id:	T0600101486
Action Type:	Other
Date:	11/12/1990
Action:	Leak Reported
Global Id:	T0600101486
Action Type:	RESPONSE
Date:	10/23/2012
Action:	CAP/RAP - Feasibility Study Report
Global Id:	T0600101486
Action Type:	RESPONSE
Date:	11/15/2018
Action:	Remedial Progress Report
Global Id:	T0600101486
Action Type:	RESPONSE
Date:	02/19/2013
Action:	Pilot Study / Treatability Workplan - Regulator Responded
Global Id:	T0600101486
Action Type:	RESPONSE
Date:	04/24/2013
Action:	Corrective Action Plan / Remedial Action Plan - Addendum - Regulator Responded
Global Id:	T0600101486
Action Type:	RESPONSE
Date:	10/09/2013
Action:	Pilot Study/ Treatability Report - Regulator Responded
Global Id:	T0600101486
Action Type:	RESPONSE
Date:	11/15/2018
Action:	CAP/RAP - Other Report
Global Id:	T0600101486
Action Type:	RESPONSE
Date:	12/02/2016
Action:	Other Report / Document
Global Id:	T0600101486

MAP FINDINGS

UNOCAL #0752, 800 HARRISON, OAKLAND, CA 94607 (Continued)

Action Type:	RESPONSE
Date:	04/18/2014
Action:	Corrective Action Plan / Remedial Action Plan - Regulator Responded
Global Id:	T0600101486
Action Type:	RESPONSE
Date:	09/19/2014
Action:	Corrective Action Plan / Remedial Action Plan - Addendum - Regulator Responded
Global Id:	T0600101486
Action Type:	RESPONSE
Date:	07/01/2014
Action:	Corrective Action Plan / Remedial Action Plan - Addendum - Regulator Responded
Global Id:	T0600101486
Action Type:	ENFORCEMENT
Date:	06/12/2009
Action:	Staff Letter - #20090612
Global Id:	T0600101486
Action Type:	RESPONSE
Date:	12/16/2016
Action:	Monitoring Report - Semi-Annually
Global Id:	T0600101486
Action Type:	RESPONSE
Date:	11/15/2018
Action:	Remedial Progress Report
Global Id:	T0600101486
Action Type:	RESPONSE
Date:	12/02/2016
Action:	Corrective Action Plan / Remedial Action Plan - Addendum - Regulator Responded
Global Id:	T0600101486
Action Type:	RESPONSE
Date:	05/14/2018
Action:	Correspondence - Regulator Responded
Global Id:	T0600101486
Action Type:	ENFORCEMENT
Date:	07/24/2009
Action:	Staff Letter - #20090724
Global Id:	T0600101486
Action Type:	ENFORCEMENT
Date:	11/16/2009
Action:	File review
Global Id:	T0600101486
Action Type:	ENFORCEMENT
Date:	08/03/2016
Action:	Email Correspondence
Global Id:	T0600101486

MAP FINDINGS

UNOCAL #0752, 800 HARRISON, OAKLAND, CA 94607 (Continued)

Action Type:	ENFORCEMENT
Date:	11/03/2016
Action:	Staff Letter - #20161103
Global Id:	T0600101486
Action Type:	ENFORCEMENT
Date:	04/25/2011
Action:	Staff Letter - #20110425
Global Id:	T0600101486
Action Type:	ENFORCEMENT
Date:	01/04/2011
Action:	Staff Letter - #20110104
Global Id:	T0600101486
Action Type:	ENFORCEMENT
Date:	10/20/2011
Action:	Staff Letter - #20111020
Global Id:	T0600101486
Action Type:	ENFORCEMENT
Date:	05/13/2013
Action:	Staff Letter - #20130513
Global Id:	T0600101486
Action Type:	ENFORCEMENT
Date:	07/09/2012
Action:	Staff Letter - #20120709
Global Id:	T0600101486
Action Type:	ENFORCEMENT
Date:	12/10/2012
Action:	Staff Letter - #20121210
Global Id:	T0600101486
Action Type:	ENFORCEMENT
Date:	03/11/2013
Action:	Staff Letter - #20130311
Global Id:	T0600101486
Action Type:	REMEDIATION
Date:	12/26/1990
Action:	Excavation
Global Id:	T0600101486
Action Type:	ENFORCEMENT
Date:	12/02/2013
Action:	Staff Letter - #20131202
Global Id:	T0600101486
Action Type:	ENFORCEMENT
Date:	03/11/2015
Action:	Staff Letter - #20150311
Global Id:	T0600101486

MAP FINDINGS

UNOCAL #0752, 800 HARRISON, OAKLAND, CA 94607 (Continued)

Action Type:	ENFORCEMENT
Date:	07/14/2014
Action:	Staff Letter - #20140714
Global Id:	T0600101486
Action Type:	ENFORCEMENT
Date:	05/13/2014
Action:	Staff Letter - #20130513
Global Id:	T0600101486
Action Type:	RESPONSE
Date:	09/30/2009
Action:	CAP/RAP - Feasibility Study Report
Global Id:	T0600101486
Action Type:	RESPONSE
Date:	11/15/2018
Action:	Remedial Progress Report
Global Id:	T0600101486
Action Type:	REMEDIATION
Date:	08/01/1995
Action:	Soil Vapor Extraction (SVE)
Global Id:	T0600101486
Action Type:	ENFORCEMENT
Date:	05/21/2018
Action:	Staff Letter
Global Id:	T0600101486
Action Type:	REMEDIATION
Date:	08/21/1995
Action:	Soil Vapor Extraction (SVE)
Global Id:	T0600101486
Action Type:	Other
Date:	11/12/1990
Action:	Leak Discovery
Global Id:	T0600101486
Action Type:	RESPONSE
Date:	03/31/2011
Action:	Soil and Water Investigation Workplan
Global Id:	T0600101486
Action Type:	RESPONSE
Date:	04/15/2015
Action:	Monitoring Report - Semi-Annually
Global Id:	T0600101486
Action Type:	RESPONSE
Date:	11/15/2018
Action:	Remedial Progress Report
Global Id:	T0600101486

MAP FINDINGS

UNOCAL #0752, 800 HARRISON, OAKLAND, CA 94607 (Continued)

Action Type: ENFORCEMENT
 Date: 05/13/2014
 Action: Notification - Public Notice of ROD/RAP/CAP - #20140513

Global Id: T0600101486
 Action Type: RESPONSE
 Date: 08/30/2011
 Action: Soil and Water Investigation Report

Global Id: T0600101486
 Action Type: ENFORCEMENT
 Date: 08/16/2007
 Action: * No Action - #20071608

Global Id: T0600101486
 Action Type: RESPONSE
 Date: 03/20/2012
 Action: Site Assessment Report

LUST:

Global Id: T0600101486
 Status: Open - Assessment & Interim Remedial Action
 Status Date: 12/10/2012

Global Id: T0600101486
 Status: Open - Case Begin Date
 Status Date: 11/12/1990

Global Id: T0600101486
 Status: Open - Remediation
 Status Date: 07/15/2014

Global Id: T0600101486
 Status: Open - Site Assessment
 Status Date: 11/26/1990

Global Id: T0600101486
 Status: Open - Site Assessment
 Status Date: 02/01/1991

Global Id: T0600101486
 Status: Open - Site Assessment
 Status Date: 07/05/1991

Global Id: T0600101486
 Status: Open - Site Assessment
 Status Date: 09/23/1992

SWEEPS UST: Local Lists of Registered Storage Tanks

Status: Active
 Comp Number: 31763
 Number: 2
 Board Of Equalization: 44-000051

MAP FINDINGS

UNOCAL #0752, 800 HARRISON, OAKLAND, CA 94607 (Continued)

Referral Date:	11-18-92
Action Date:	04-14-93
Created Date:	02-29-88
Owner Tank Id:	752-RU-1
SWRCB Tank Id:	01-000-031763-000001
Tank Status:	A
Capacity:	12000
Active Date:	11-18-92
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	3
Status:	Active
Comp Number:	31763
Number:	2
Board Of Equalization:	44-000051
Referral Date:	11-18-92
Action Date:	04-14-93
Created Date:	02-29-88
Owner Tank Id:	752-SU-1
SWRCB Tank Id:	01-000-031763-000002
Tank Status:	A
Capacity:	12000
Active Date:	11-18-92
Tank Use:	M.V. FUEL
STG:	P
Content:	PRM UNLEADED
Number Of Tanks:	Not Reported
Status:	Active
Comp Number:	31763
Number:	2
Board Of Equalization:	44-000051
Referral Date:	11-18-92
Action Date:	04-14-93
Created Date:	02-29-88
Owner Tank Id:	752-WO-1
SWRCB Tank Id:	01-000-031763-000003
Tank Status:	A
Capacity:	520
Active Date:	11-18-92
Tank Use:	OIL
STG:	W
Content:	WASTE OIL
Number Of Tanks:	Not Reported

HIST UST: Local Lists of Registered Storage Tanks

File Number:	00036474
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00036474.pdf

MAP FINDINGS

UNOCAL #0752, 800 HARRISON, OAKLAND, CA 94607 (Continued)

Region: STATE
Facility ID: 00000031763
Facility Type: Gas Station
Other Type: Not Reported
Contact Name: CHESTER C. U. LAU
Telephone: 4158327838
Owner Name: UNION OIL CO.
Owner Address: 1 CALIFORNIA ST. SUITE 2700
Owner City,St,Zip: SAN FRANCISCO, CA 94111
Total Tanks: 0003

Tank Num: 001
Container Num: 0752-1-1
Year Installed: 1967
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not Reported
Leak Detection: Stock Inventor, 10

Tank Num: 002
Container Num: 0752-2-1
Year Installed: 1967
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Container Construction Thickness: Not Reported
Leak Detection: Stock Inventor, 10

Tank Num: 003
Container Num: 0752-4-1
Year Installed: Not Reported
Tank Capacity: 00000280
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Container Construction Thickness: Not Reported
Leak Detection: Stock Inventor

Click here for Geo Tracker PDF: http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_CA_HISTUST_PDF&img_id=00036474

HIST CORTESE: Other Ascertainable Records

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-1611

CERS TANKS: Other Ascertainable Records

Site ID: 246175
CERS ID: T0600101486
CERS Description: Leaking Underground Storage Tank Cleanup Site

MAP FINDINGS

UNOCAL #0752, 800 HARRISON, OAKLAND, CA 94607 (Continued)

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
 Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
 Entity Title: Not Reported
 Affiliation Address: 1515 CLAY ST SUITE 1400
 Affiliation City: OAKLAND
 Affiliation State: CA
 Affiliation Country: Not Reported
 Affiliation Zip: Not Reported
 Affiliation Phone: Not Reported

Affiliation Type Desc: Local Agency Caseworker
 Entity Name: JONATHAN E. SANDERS - ALAMEDA COUNTY LOP
 Entity Title: Not Reported
 Affiliation Address: 1131 Harbor Bay Pkwy
 Affiliation City: ALAMEDA
 Affiliation State: CA
 Affiliation Country: Not Reported
 Affiliation Zip: Not Reported
 Affiliation Phone: 5105676791

UNION OIL SS0752 800 HARRISON ST, OAKLAND, CA, 94607		U001599230
▲ P38	WNW 1/10 - 1/3 (1125 ft. / 0.213 mi.)	State and tribal leaking storage tank lists Local Lists of Registered Storage Tanks Other Ascertainable Records
	3 ft. Higher Elevation 36 ft. Above Sea Level	

Worksheet:

Impact on Target Property: VEC does not exist

Alameda County CS: State and tribal leaking storage tank lists

Status: Leak Confirmation
 Record Id: RO0000231
 PE: 5602
 Facility Status: Leak Confirmation
 Latitude: 37.798750081
 Longitude: -122.27001085

Status: Preliminary Site Assessment Workplan Submitted
 Record Id: RO0000231
 PE: 5602
 Facility Status: Preliminary Site Assessment Workplan Submitted
 Latitude: 37.798750081
 Longitude: -122.27001085

Status: Preliminary Site Assessment Underway
 Record Id: RO0000231
 PE: 5602
 Facility Status: Preliminary Site Assessment Underway

MAP FINDINGS

UNION OIL SS0752, 800 HARRISON ST, OAKLAND, CA 94607 (Continued)

Latitude: 37.798750081
Longitude: -122.27001085
Status: Pollution Characterization
Record Id: RO0000231
PE: 5602
Facility Status: Pollution Characterization
Latitude: 37.798750081
Longitude: -122.27001085

HIST UST: Local Lists of Registered Storage Tanks

File Number: 00036469
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00036469.pdf>
Region: STATE
Facility ID: 00000058996
Facility Type: Gas Station
Other Type: Not Reported
Contact Name: CHESTER C. U. LAU
Telephone: 4158327838
Owner Name: UNION OIL CO.
Owner Address: 1 CALIFORNIA ST., SUITE 2700
Owner City,St,Zip: SAN FRANCISCO, CA 94111
Total Tanks: 0001
Tank Num: 001
Container Num: 1
Year Installed: 1967
Tank Capacity: 00000000
Tank Used for: WASTE
Type of Fuel: Not Reported
Container Construction Thickness: 6
Leak Detection: Visual
Click here for Geo Tracker PDF: http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_CA_HISTUST_PDF&img_id=00036469

HAZNET: Other Ascertainable Records

Facility Name: FORMER UNOCAL 351646
envid: U001599230
Year: 2017
GEPaid: CAC002925835
Contact: CHEVRON EMC WASTE DESK
Telephone: 8773866044
Mailing Name: Not Reported
Mailing Address: PO BOX 6004
Mailing City,St,Zip: SAN RAMON, CA 94583
Gen County: Alameda
TSD EPA ID: CAT000646117
TSD County: Kings
Waste Category: Contaminated soil from site clean-up
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)

MAP FINDINGS

UNION OIL SS0752, 800 HARRISON ST, OAKLAND, CA 94607 (Continued)

Tons: 126.9
 Cat Decode: Contaminated soil from site clean-up
 Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/OR Stabilization)
 Facility County: Alameda

UNION 76 800 HARRISON ST, OAKLAND, CA, 94607		S121750648
▲ P39	WNW 1/10 - 1/3 (1125 ft. / 0.213 mi.)	Local Lists of Hazardous waste / Contaminated Sites
	3 ft. Higher Elevation 36 ft. Above Sea Level	Local Lists of Registered Storage Tanks Other Ascertainable Records

Worksheet:

Impact on Target Property: VEC does not exist

CERS HAZ WASTE: Local Lists of Hazardous waste / Contaminated Sites

Site ID: 18619
 CERS ID: 10495918
 CERS Description: Hazardous Waste Generator

Violations:

Site ID: 18619
 Site Name: Union 76
 Violation Date: 05-21-2018
 Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2
 Violation Description: Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.
 Violation Notes: Returned to compliance on 06/08/2018.
 Violation Division: Alameda County Environmental Health
 Violation Program: HMRRP
 Violation Source: CERS

Site ID: 18619
 Site Name: Union 76
 Violation Date: 03-25-2016
 Citation: HSC 6.7 25292(e) - California Health and Safety Code, Chapter 6.7, Section(s) 25292(e)
 Violation Description: Failure to maintain secondary containment, as evidenced by failure of secondary containment testing.
 Violation Notes: Returned to compliance on 07/05/2016. OBSERVATION: 87 Regular product piping interstitial failed secondary containment testing at dispenser 5/6. CORRECTIVE ACTION: Repair/replace the failed component and re-test. Submit the test results to ACDEH within 30 days of completion of testing. Check with Rob Weston if a ACDEH modification permit is required.
 Violation Division: Alameda County Environmental Health
 Violation Program: UST
 Violation Source: CERS

Site ID: 18619
 Site Name: Union 76
 Violation Date: 03-23-2017
 Citation: 23 CCR 16 2636(f)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(2)
 Violation Description: Failure of the line leak detector (LLD) monitoring pressurized piping to meet one or more of the following requirements: Monitor at least hourly. Be capable of detecting a release of 3.0 gallons per hour at 10 p.s.i.g. Restrict or shut off the flow of product through the piping when a leak is detected.

MAP FINDINGS

UNION 76, 800 HARRISON ST, OAKLAND, CA 94607 (Continued)

Violation Notes: Returned to compliance on 03/23/2017. OBSERVATION: Regular MLLD failed to detect a 3 gph leak at 10 psi. CORRECTIVE ACTION: The VMI MLLD was adjusted and was able to detect a 3 gph leak at 10 psi. CORRECTED AT THE TIME OF INSPECTION.

Violation Division: Alameda County Environmental Health
 Violation Program: UST
 Violation Source: CERS

Site ID: 18619
 Site Name: Union 76
 Violation Date: 03-22-2018
 Citation: 23 CCR 16 2641(j) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2641(j)
 Violation Description: Failure of the leak detection equipment to be installed, calibrated, operated, and/or maintained properly.

Violation Notes: Returned to compliance on 03/22/2018. OBSERVATION: The Bravo box float and chain in the UDC # 7-8 sump failed to stop the flow of product at the dispenser when tested. All monitoring equipment shall be maintained to activate an audible and visual alarm or stop the flow of product at the dispenser when it detects a leak. CORRECTED ON SITE: The service technician adjusted the chain(s) and verified functionality. This was corrected on site.

Violation Division: Alameda County Environmental Health
 Violation Program: UST
 Violation Source: CERS

Site ID: 18619
 Site Name: Union 76
 Violation Date: 03-22-2018
 Citation: HSC 6.75 25299.30-25299.34 - California Health and Safety Code, Chapter 6.75, Section(s) 25299.30-25299.34
 Violation Description: Failure to submit and maintain complete and current Certification of Financial Responsibility or other mechanism of financial assurance.

Violation Notes: Returned to compliance on 06/08/2018. OBSERVATION: Current financial responsibility documents have not been submitted to the CUPA. The Chief Financial Officer document is dated 3-6-17. Current financial responsibility documents are required to be submitted annually. CORRECTIVE ACTION: Upload the required information into CERS and submit for review by the CUPA. Submit within 30 days.

Violation Division: Alameda County Environmental Health
 Violation Program: UST
 Violation Source: CERS

Site ID: 18619
 Site Name: Union 76
 Violation Date: 03-23-2017
 Citation: HSC 6.7 29291(b) - California Health and Safety Code, Chapter 6.7, Section(s) 29291(b)
 Violation Description: Failure of the UST system to be designed and constructed with a monitoring system capable of detecting the entry of the hazardous substance into the secondary containment.

Violation Notes: Returned to compliance on 03/23/2017. OBSERVATION: UDC 3/4 Premium float and chain failed functional test. Float responded to water but the shear valve assembly was not triggered. Lead seal on chain was interfering with the trigger mechanism. CORRECTIVE ACTION: Service tech re-positioned lead seal and re-tested. Passed. CORRECTED AT THE TIME OF INSPECTION.

Violation Division: Alameda County Environmental Health
 Violation Program: UST
 Violation Source: CERS

Site ID: 18619
 Site Name: Union 76
 Violation Date: 03-22-2018
 Citation: 23 CCR 16 2636(f)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(2)
 Violation Description: Failure of the functional line leak detector (LLD) monitoring pressurized piping to meet one or more of the following requirements: Monitored at least hourly with the capability of detecting a release of 3.0 gallons per hour leak at 10 p.s.i.g. and restrict or shut off the flow of product through the piping when a leak is detected.

MAP FINDINGS

UNION 76, 800 HARRISON ST, OAKLAND, CA 94607 (Continued)

Violation Notes: Returned to compliance on 03/22/2018. OBSERVATION: The Regular Unleaded (Tank ID # 1-87) line leak detector failed to detect a leak when tested. All line leak detectors shall be capable of detecting a 3-gallon per hour leak at 10 psi. CORRECTED ON SITE: The service technician adjusted the leak detector, retested it, and it passed. This was corrected on site.

Violation Division: Alameda County Environmental Health
 Violation Program: UST
 Violation Source: CERS

Site ID: 18619
 Site Name: Union 76
 Violation Date: 03-25-2016
 Citation: 23 CCR 16 2666 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2666
 Violation Description: Failure to maintain entry fitting such that it properly seals to the containment.

Violation Notes: Returned to compliance on 07/11/2016. OBSERVATION: 87 Regular product piping interstitial failed secondary containment testing at dispenser 5/6. CORRECTIVE ACTION: Repair/replace the failed component and re-test. Submit the test results to ACDEH within 30 days of completion of testing. Check with Rob Weston if a ACDEH modification permit is required.

Violation Division: Alameda County Environmental Health
 Violation Program: UST
 Violation Source: CERS

Site ID: 18619
 Site Name: Union 76
 Violation Date: 03-25-2016
 Citation: 23 CCR 16 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(1)
 Violation Description: Failure of the double wall pressurized piping in the under dispenser containment to be continuously monitored by a method that either shuts down the flow of product to the dispenser or activates an audible/visual alarm when a leak is detected.

Violation Notes: Returned to compliance on 03/25/2016. OBSERVATION: Float and chain monitoring devices failed at dispensers 3/4, 5/6, and 7/8. CORRECTIVE ACTION: Chains were adjusted and re-tested. Passed. Corrected at time of inspection.

Violation Division: Alameda County Environmental Health
 Violation Program: UST
 Violation Source: CERS

Site ID: 18619
 Site Name: Union 76
 Violation Date: 03-23-2017
 Citation: 23 CCR 16 2712 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712
 Violation Description: Failure to comply with any of the applicable requirements of the permit issued for the operation of the UST system.

Violation Notes: Returned to compliance on 03/23/2017. OBSERVATION: Daily monitoring panel inspection not being documented. Daily inspection of the monitoring panel is a condition of the ACDEH Underground Storage Tank Operating Permit. CORRECTIVE ACTION: A daily monitoring panel inspection checklist was left with the operator. The inspection was explained to the operator. CORRECTED AT THE TIME OF INSPECTION

Violation Division: Alameda County Environmental Health
 Violation Program: UST
 Violation Source: CERS

Site ID: 18619
 Site Name: Union 76
 Violation Date: 03-25-2016
 Citation: 23 CCR 16 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(1)
 Violation Description: Failure of the double wall pressurized piping in the turbine sump to be continuously monitored with a system that activates an audible and visual alarm or restricts or stops flow at dispenser when a leak is detected.

MAP FINDINGS

UNION 76, 800 HARRISON ST, OAKLAND, CA 94607 (Continued)

Violation Notes: Returned to compliance on 03/25/2016. OBSERVATION: Liquid sensor in 87 Regular sump failed functional test. CORRECTIVE ACTION: 87 Regular turbine/pipe sump liquid sensor replaced and re-tested. Passed. Corrected at time of inspection.

Violation Division: Alameda County Environmental Health
 Violation Program: UST
 Violation Source: CERS

Site ID: 18619
 Site Name: Union 76
 Violation Date: 03-22-2018
 Citation: 23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)
 Violation Description: Failure to have current UST Monitoring Plan available on site.
 Violation Notes: Returned to compliance on 06/06/2018. OBSERVATION: An approved copy of the monitoring plan was not found on site. The UST Monitoring Site Plan that is part of the UST Monitoring Plan does not have the Bravo box float and chains that monitor the UDC's. A copy of this plan shall be retained on site at all times. CORRECTIVE ACTION: Immediately locate and retain a copy on site.

Violation Division: Alameda County Environmental Health
 Violation Program: UST
 Violation Source: CERS

Site ID: 18619
 Site Name: Union 76
 Violation Date: 03-25-2016
 Citation: HSC 6.7 25291 - California Health and Safety Code, Chapter 6.7, Section(s) 25291
 Violation Description: Failure to maintain under-dispenser containment, sumps, and/or other secondary containment in good condition and/or free of debris/liquid.
 Violation Notes: Returned to compliance on 07/05/2016. OBSERVATION: 87 Regular product piping interstitial failed secondary containment testing at dispenser 5/6. CORRECTIVE ACTION: Repair/replace the failed component and re-test. Submit the test results to ACDEH within 30 days of completion of testing. Check with Rob Weston if a ACDEH modification permit is required.

Violation Division: Alameda County Environmental Health
 Violation Program: UST
 Violation Source: CERS

Evaluation:

Eval General Type: Compliance Evaluation Inspection
 Eval Date: 03-22-2018
 Violations Found: Yes
 Eval Type: Routine done by local agency
 Eval Notes: ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH (ACDEH) ON SITE FOR ANNUAL MONITORING CERTIFICATION AND ROUTINE INSPECTION. THE SERVICE TECHNICIAN WAS NIK ZAGOROV OF ECO-CHECK COMPLIANCE WHO POSSESSES THE CALIFORNIA UST ICC CERTIFICATION THAT EXPIRES 5-8-19, THE VMI CERTIFICATION THAT EXPIRES 12-26-20 AND THE VEEDER ROOT CERTIFICATION THAT EXPIRES 12-8-18. ALL VIOLATIONS NOTED IN THE INSPECTION REPORT SHALL BE CORRECTED BY APRIL 21, 2018 AND ANY VERIFICATION DOCUMENTATION SUBMITTED WITHIN THE SAME TIME FRAME.

Eval Division: Alameda County Environmental Health
 Eval Program: UST
 Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
 Eval Date: 03-25-2016
 Violations Found: No
 Eval Type: Routine done by local agency

MAP FINDINGS

UNION 76, 800 HARRISON ST, OAKLAND, CA 94607 (Continued)

Eval Notes: Chinatown 76 800 Harrison St Oakland, CA 94607 (415) 724-6951 EPA ID Number CAL000175934 Initial Hazardous Waste Generator (HWG) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on March 25, 2016. Consent to inspect was given by and the completed inspection report was reviewed with Sraven Redy Vinjamun, cashier. Waste streams may include: drained used fuel filters and hoses, contaminated absorbent, contaminated water. No hazardous waste available for inspection. There is an auto smog/repair shop at the same address.

Eval Division: Alameda County Environmental Health
 Eval Program: HW
 Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
 Eval Date: 03-25-2016
 Violations Found: Yes
 Eval Type: Routine done by local agency

Eval Notes: Chinatown 76 800 Harrison St Oakland, CA 94607 (415) 724-6951 Initial Underground Storage Tank (UST) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on March 25, 2016. Nik Zagorov is the service technician conducting the monitoring equipment certification and spill container testing. Consent to inspect was given by and the completed inspection report was reviewed with Sraven Redy Vinjamun, cashier. There are two 12,000 gallon double walled steel underground storage tank (One Regular Unleaded and one Premium Unleaded gasoline).

Eval Division: Alameda County Environmental Health
 Eval Program: UST
 Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
 Eval Date: 03-23-2017
 Violations Found: Yes
 Eval Type: Routine done by local agency

Eval Notes: Chinatown 76 800 Harrison St Oakland, CA 94607 Underground Storage Tank (UST) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on March 23, 2017. Nik Zagorov is the service technician conducting the monitoring equipment certification and spill container testing. Consent to inspect was given by and the completed inspection report was reviewed with Farukh Cho, manager. OBSERVATION: Unable to locate UST Operating Permit. Action: I will review with ACDEH to determine status of UST Operating Permit. A current valid UST Operating Permit will be issued by ACDEH upon return to compliance. Submit the annual monitoring equipment certification and spill container test results to ACDEH within 30-days of completion of testing.

Eval Division: Alameda County Environmental Health
 Eval Program: UST
 Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
 Eval Date: 03-25-2016
 Violations Found: No
 Eval Type: Routine done by local agency

Eval Notes: Chinatown 76 800 Harrison St Oakland, CA 94607 (415) 724-6951 CERS ID10495918 Initial Hazardous Material Business Plan (HMBP) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on March 25, 2016. Consent to inspect was given by and the completed inspection report was reviewed with Sraven Redy Vinjamun, cashier. There are two 12,000 gallon double walled steel/fiberglass underground storage tank (One Regular Unleaded and one Premium Unleaded gasoline).

Eval Division: Alameda County Environmental Health
 Eval Program: HMRRP
 Eval Source: CERS

Eval General Type: Other/Unknown
 Eval Date: 05-21-2018
 Violations Found: Yes
 Eval Type: Other, not routine, done by local agency
 Eval Notes: GENERATE NIV NOV LTR/ADDING VIOLATION IN EC
 Eval Division: Alameda County Environmental Health

MAP FINDINGS

UNION 76, 800 HARRISON ST, OAKLAND, CA 94607 (Continued)

Eval Program: HMRRP
Eval Source: CERS

Coordinates:

Site ID: 18619
Facility Name: Union 76
Env Int Type Code: HWG
Program ID: 10495918
Coord Name: Not Reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.798950
Longitude: -122.269780

Affiliation:

Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not Reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not Reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Document Preparer
Entity Name: Nik Zagorov
Entity Title: Not Reported
Affiliation Address: Not Reported
Affiliation City: Not Reported
Affiliation State: Not Reported
Affiliation Country: Not Reported
Affiliation Zip: Not Reported
Affiliation Phone: Not Reported

Affiliation Type Desc: UST Permit Applicant
Entity Name: Rab Ilyas
Entity Title: CEO
Affiliation Address: Not Reported
Affiliation City: Not Reported
Affiliation State: Not Reported
Affiliation Country: Not Reported
Affiliation Zip: Not Reported
Affiliation Phone: (415) 724-6951

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not Reported
Affiliation Address: 800 Harrison St
Affiliation City: Oakland
Affiliation State: CA

MAP FINDINGS

UNION 76, 800 HARRISON ST, OAKLAND, CA 94607 (Continued)

Affiliation Country:	Not Reported
Affiliation Zip:	94607
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	Rab Ilyas
Entity Title:	Not Reported
Affiliation Address:	800 Harrison St
Affiliation City:	Oakland
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94607
Affiliation Phone:	(415) 724-6951
Affiliation Type Desc:	Identification Signer
Entity Name:	Rab Ilyas
Entity Title:	CEO
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Legal Owner
Entity Name:	Almasoon, Inc.
Entity Title:	Not Reported
Affiliation Address:	800 Harrison St
Affiliation City:	Oakland
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94607
Affiliation Phone:	(510) 893-2356
Affiliation Type Desc:	UST Property Owner Name
Entity Name:	Muhammad Usman
Entity Title:	Not Reported
Affiliation Address:	1555 Thomas Avenue
Affiliation City:	San Francisco
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94124
Affiliation Phone:	(415) 822-6900
Affiliation Type Desc:	UST Tank Owner
Entity Name:	Almasoon, Inc.
Entity Title:	Not Reported
Affiliation Address:	800 Harrison Street
Affiliation City:	Oakland
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94607

MAP FINDINGS

UNION 76, 800 HARRISON ST, OAKLAND, CA 94607 (Continued)

Affiliation Phone: (510) 893-2356
 Affiliation Type Desc: Operator
 Entity Name: Almasoon, Inc.
 Entity Title: Not Reported
 Affiliation Address: Not Reported
 Affiliation City: Not Reported
 Affiliation State: Not Reported
 Affiliation Country: Not Reported
 Affiliation Zip: Not Reported
 Affiliation Phone: (510) 893-2356

Affiliation Type Desc: Parent Corporation
 Entity Name: Chinatown 76
 Entity Title: Not Reported
 Affiliation Address: Not Reported
 Affiliation City: Not Reported
 Affiliation State: Not Reported
 Affiliation Country: Not Reported
 Affiliation Zip: Not Reported
 Affiliation Phone: Not Reported

Affiliation Type Desc: Property Owner
 Entity Name: Usman Mohammad
 Entity Title: Not Reported
 Affiliation Address: 1555 Thomas Avenue
 Affiliation City: San Francisco
 Affiliation State: CA
 Affiliation Country: United States
 Affiliation Zip: 94124
 Affiliation Phone: (415) 822-6900

Affiliation Type Desc: UST Tank Operator
 Entity Name: Almasoon, Inc.
 Entity Title: Not Reported
 Affiliation Address: 800 Harrison Street
 Affiliation City: Oakland
 Affiliation State: CA
 Affiliation Country: United States
 Affiliation Zip: 94607
 Affiliation Phone: (510) 893-2356

CERS TANKS: Local Lists of Registered Storage Tanks

Site ID: 18619
 CERS ID: 10495918
 CERS Description: Underground Storage Tank

Violations:

Site ID: 18619
 Site Name: Union 76
 Violation Date: 05-21-2018

MAP FINDINGS

UNION 76, 800 HARRISON ST, OAKLAND, CA 94607 (Continued)

Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2
 Violation Description: Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.
 Violation Notes: Returned to compliance on 06/08/2018.
 Violation Division: Alameda County Environmental Health
 Violation Program: HMRRP
 Violation Source: CERS

Site ID: 18619
 Site Name: Union 76
 Violation Date: 03-25-2016

Citation: HSC 6.7 25292(e) - California Health and Safety Code, Chapter 6.7, Section(s) 25292(e)
 Violation Description: Failure to maintain secondary containment, as evidenced by failure of secondary containment testing.
 Violation Notes: Returned to compliance on 07/05/2016. OBSERVATION: 87 Regular product piping interstitial failed secondary containment testing at dispenser 5/6. CORRECTIVE ACTION: Repair/replace the failed component and re-test. Submit the test results to ACDEH within 30 days of completion of testing. Check with Rob Weston if a ACDEH modification permit is required.
 Violation Division: Alameda County Environmental Health
 Violation Program: UST
 Violation Source: CERS

Site ID: 18619
 Site Name: Union 76
 Violation Date: 03-23-2017

Citation: 23 CCR 16 2636(f)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(2)
 Violation Description: Failure of the line leak detector (LLD) monitoring pressurized piping to meet one or more of the following requirements: Monitor at least hourly. Be capable of detecting a release of 3.0 gallons per hour at 10 p.s.i.g. Restrict or shut off the flow of product through the piping when a leak is detected.
 Violation Notes: Returned to compliance on 03/23/2017. OBSERVATION: Regular MLLD failed to detect a 3 gph leak at 10 psi. CORRECTIVE ACTION: The VMI MLLD was adjusted and was able to detect a 3 gph leak at 10 psi. CORRECTED AT THE TIME OF INSPECTION.
 Violation Division: Alameda County Environmental Health
 Violation Program: UST
 Violation Source: CERS

Site ID: 18619
 Site Name: Union 76
 Violation Date: 03-22-2018

Citation: 23 CCR 16 2641(j) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2641(j)
 Violation Description: Failure of the leak detection equipment to be installed, calibrated, operated, and/or maintained properly.
 Violation Notes: Returned to compliance on 03/22/2018. OBSERVATION: The Bravo box float and chain in the UDC # 7-8 sump failed to stop the flow of product at the dispenser when tested. All monitoring equipment shall be maintained to activate an audible and visual alarm or stop the flow of product at the dispenser when it detects a leak. CORRECTED ON SITE: The service technician adjusted the chain(s) and verified functionality. This was corrected on site.
 Violation Division: Alameda County Environmental Health
 Violation Program: UST
 Violation Source: CERS

Site ID: 18619
 Site Name: Union 76
 Violation Date: 03-22-2018

Citation: HSC 6.75 25299.30-25299.34 - California Health and Safety Code, Chapter 6.75, Section(s) 25299.30-25299.34
 Violation Description: Failure to submit and maintain complete and current Certification of Financial Responsibility or other mechanism of financial assurance.

MAP FINDINGS

UNION 76, 800 HARRISON ST, OAKLAND, CA 94607 (Continued)

Violation Notes: Returned to compliance on 06/08/2018. OBSERVATION: Current financial responsibility documents have not been submitted to the CUPA. The Chief Financial Officer document is dated 3-6-17. Current financial responsibility documents are required to be submitted annually. CORRECTIVE ACTION: Upload the required information into CERS and submit for review by the CUPA. Submit within 30 days.

Violation Division: Alameda County Environmental Health
 Violation Program: UST
 Violation Source: CERS

Site ID: 18619
 Site Name: Union 76
 Violation Date: 03-23-2017
 Citation: HSC 6.7 29291(b) - California Health and Safety Code, Chapter 6.7, Section(s) 29291(b)
 Violation Description: Failure of the UST system to be designed and constructed with a monitoring system capable of detecting the entry of the hazardous substance into the secondary containment.

Violation Notes: Returned to compliance on 03/23/2017. OBSERVATION: UDC 3/4 Premium float and chain failed functional test. Float responded to water but the shear valve assembly was not triggered. Lead seal on chain was interfering with the trigger mechanism. CORRECTIVE ACTION: Service tech re-positioned lead seal and re-tested. Passed. CORRECTED AT THE TIME OF INSPECTION.

Violation Division: Alameda County Environmental Health
 Violation Program: UST
 Violation Source: CERS

Site ID: 18619
 Site Name: Union 76
 Violation Date: 03-22-2018
 Citation: 23 CCR 16 2636(f)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(2)
 Violation Description: Failure of the functional line leak detector (LLD) monitoring pressurized piping to meet one or more of the following requirements: Monitored at least hourly with the capability of detecting a release of 3.0 gallons per hour leak at 10 p.s.i.g. and restrict or shut off the flow of product through the piping when a leak is detected.

Violation Notes: Returned to compliance on 03/22/2018. OBSERVATION: The Regular Unleaded (Tank ID # 1-87) line leak detector failed to detect a leak when tested. All line leak detectors shall be capable of detecting a 3-gallon per hour leak at 10 psi. CORRECTED ON SITE: The service technician adjusted the leak detector, retested it, and it passed. This was corrected on site.

Violation Division: Alameda County Environmental Health
 Violation Program: UST
 Violation Source: CERS

Site ID: 18619
 Site Name: Union 76
 Violation Date: 03-25-2016
 Citation: 23 CCR 16 2666 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2666
 Violation Description: Failure to maintain entry fitting such that it properly seals to the containment.

Violation Notes: Returned to compliance on 07/11/2016. OBSERVATION: 87 Regular product piping interstitial failed secondary containment testing at dispenser 5/6. CORRECTIVE ACTION: Repair/replace the failed component and re-test. Submit the test results to ACDEH within 30 days of completion of testing. Check with Rob Weston if a ACDEH modification permit is required.

Violation Division: Alameda County Environmental Health
 Violation Program: UST
 Violation Source: CERS

Site ID: 18619
 Site Name: Union 76
 Violation Date: 03-25-2016
 Citation: 23 CCR 16 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(1)
 Violation Description: Failure of the double wall pressurized piping in the under dispenser containment to be continuously monitored by a method that either shuts down the flow of product to the dispenser or activates an audible/visual alarm when a leak is detected.

MAP FINDINGS

UNION 76, 800 HARRISON ST, OAKLAND, CA 94607 (Continued)

Violation Notes: Returned to compliance on 03/25/2016. OBSERVATION: Float and chain monitoring devices failed at dispensers 3/4, 5/6, and 7/8. CORRECTIVE ACTION: Chains were adjusted and re-tested. Passed. Corrected at time of inspection.

Violation Division: Alameda County Environmental Health
 Violation Program: UST
 Violation Source: CERS

Site ID: 18619
 Site Name: Union 76
 Violation Date: 03-23-2017
 Citation: 23 CCR 16 2712 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712
 Violation Description: Failure to comply with any of the applicable requirements of the permit issued for the operation of the UST system.

Violation Notes: Returned to compliance on 03/23/2017. OBSERVATION: Daily monitoring panel inspection not being documented. Daily inspection of the monitoring panel is a condition of the ACDEH Underground Storage Tank Operating Permit. CORRECTIVE ACTION: A daily monitoring panel inspection checklist was left with the operator. The inspection was explained to the operator. CORRECTED AT THE TIME OF INSPECTION

Violation Division: Alameda County Environmental Health
 Violation Program: UST
 Violation Source: CERS

Site ID: 18619
 Site Name: Union 76
 Violation Date: 03-25-2016
 Citation: 23 CCR 16 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(1)
 Violation Description: Failure of the double wall pressurized piping in the turbine sump to be continuously monitored with a system that activates an audible and visual alarm or restricts or stops flow at dispenser when a leak is detected.

Violation Notes: Returned to compliance on 03/25/2016. OBSERVATION: Liquid sensor in 87 Regular sump failed functional test. CORRECTIVE ACTION: 87 Regular turbine/pipe sump liquid sensor replaced and re-tested. Passed. Corrected at time of inspection.

Violation Division: Alameda County Environmental Health
 Violation Program: UST
 Violation Source: CERS

Site ID: 18619
 Site Name: Union 76
 Violation Date: 03-22-2018
 Citation: 23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)
 Violation Description: Failure to have current UST Monitoring Plan available on site.

Violation Notes: Returned to compliance on 06/06/2018. OBSERVATION: An approved copy of the monitoring plan was not found on site. The UST Monitoring Site Plan that is part of the UST Monitoring Plan does not have the Bravo box float and chains that monitor the UDC's. A copy of this plan shall be retained on site at all times. CORRECTIVE ACTION: Immediately locate and retain a copy on site.

Violation Division: Alameda County Environmental Health
 Violation Program: UST
 Violation Source: CERS

Site ID: 18619
 Site Name: Union 76
 Violation Date: 03-25-2016
 Citation: HSC 6.7 25291 - California Health and Safety Code, Chapter 6.7, Section(s) 25291
 Violation Description: Failure to maintain under-dispenser containment, sumps, and/or other secondary containment in good condition and/or free of debris/liquid.

MAP FINDINGS

UNION 76, 800 HARRISON ST, OAKLAND, CA 94607 (Continued)

Violation Notes: Returned to compliance on 07/05/2016. OBSERVATION: 87 Regular product piping interstitial failed secondary containment testing at dispenser 5/6. CORRECTIVE ACTION: Repair/replace the failed component and re-test. Submit the test results to ACDEH within 30 days of completion of testing. Check with Rob Weston if a ACDEH modification permit is required.

Violation Division: Alameda County Environmental Health

Violation Program: UST

Violation Source: CERS

Evaluation:

Eval General Type: Compliance Evaluation Inspection

Eval Date: 03-22-2018

Violations Found: Yes

Eval Type: Routine done by local agency

Eval Notes: ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH (ACDEH) ON SITE FOR ANNUAL MONITORING CERTIFICATION AND ROUTINE INSPECTION. THE SERVICE TECHNICIAN WAS NIK ZAGOROV OF ECO-CHECK COMPLIANCE WHO POSSESSES THE CALIFORNIA UST ICC CERTIFICATION THAT EXPIRES 5-8-19, THE VMI CERTIFICATION THAT EXPIRES 12-26-20 AND THE VEEDER ROOT CERTIFICATION THAT EXPIRES 12-8-18. ALL VIOLATIONS NOTED IN THE INSPECTION REPORT SHALL BE CORRECTED BY APRIL 21, 2018 AND ANY VERIFICATION DOCUMENTATION SUBMITTED WITHIN THE SAME TIME FRAME.

Eval Division: Alameda County Environmental Health

Eval Program: UST

Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection

Eval Date: 03-25-2016

Violations Found: No

Eval Type: Routine done by local agency

Eval Notes: Chinatown 76 800 Harrison St Oakland, CA 94607 (415) 724-6951 EPA ID Number CAL000175934 Initial Hazardous Waste Generator (HWG) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on March 25, 2016. Consent to inspect was given by and the completed inspection report was reviewed with Sraven Redy Vinjamun, cashier. Waste streams may include: drained used fuel filters and hoses, contaminated absorbent, contaminated water. No hazardous waste available for inspection. There is an auto smog/repair shop at the same address.

Eval Division: Alameda County Environmental Health

Eval Program: HW

Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection

Eval Date: 03-25-2016

Violations Found: Yes

Eval Type: Routine done by local agency

Eval Notes: Chinatown 76 800 Harrison St Oakland, CA 94607 (415) 724-6951 Initial Underground Storage Tank (UST) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on March 25, 2016. Nik Zagorov is the service technician conducting the monitoring equipment certification and spill container testing. Consent to inspect was given by and the completed inspection report was reviewed with Sraven Redy Vinjamun, cashier. There are two 12,000 gallon double walled steel underground storage tank (One Regular Unleaded and one Premium Unleaded gasoline).

Eval Division: Alameda County Environmental Health

Eval Program: UST

Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection

Eval Date: 03-23-2017

Violations Found: Yes

Eval Type: Routine done by local agency

MAP FINDINGS

UNION 76, 800 HARRISON ST, OAKLAND, CA 94607 (Continued)

Eval Notes: Chinatown 76 800 Harrison St Oakland, CA 94607 Underground Storage Tank (UST) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on March 23, 2017. Nik Zagorov is the service technician conducting the monitoring equipment certification and spill container testing. Consent to inspect was given by and the completed inspection report was reviewed with Farukh Cho, manager. OBSERVATION: Unable to locate UST Operating Permit. Action: I will review with ACDEH to determine status of UST Operating Permit. A current valid UST Operating Permit will be issued by ACDEH upon return to compliance. Submit the annual monitoring equipment certification and spill container test results to ACDEH within 30-days of completion of testing.

Eval Division: Alameda County Environmental Health
 Eval Program: UST
 Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
 Eval Date: 03-25-2016
 Violations Found: No
 Eval Type: Routine done by local agency

Eval Notes: Chinatown 76 800 Harrison St Oakland, CA 94607 (415) 724-6951 CERS ID10495918 Initial Hazardous Material Business Plan (HMBP) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on March 25, 2016. Consent to inspect was given by and the completed inspection report was reviewed with Sraven Redy Vinjamun, cashier. There are two 12,000 gallon double walled steel/fiberglass underground storage tank (One Regular Unleaded and one Premium Unleaded gasoline).

Eval Division: Alameda County Environmental Health
 Eval Program: HMRRP
 Eval Source: CERS

Eval General Type: Other/Unknown
 Eval Date: 05-21-2018
 Violations Found: Yes
 Eval Type: Other, not routine, done by local agency

Eval Notes: GENERATE NIV NOV LTR/ADDING VIOLATION IN EC
 Eval Division: Alameda County Environmental Health
 Eval Program: HMRRP
 Eval Source: CERS

Coordinates:

Site ID: 18619
 Facility Name: Union 76
 Env Int Type Code: HWG
 Program ID: 10495918
 Coord Name: Not Reported
 Ref Point Type Desc: Center of a facility or station.
 Latitude: 37.798950
 Longitude: -122.269780

Affiliation:

Affiliation Type Desc: CUPA District
 Entity Name: Alameda County Env Health
 Entity Title: Not Reported
 Affiliation Address: 1131 Harbor Parkway, Suite 240
 Affiliation City: Alameda
 Affiliation State: CA
 Affiliation Country: Not Reported
 Affiliation Zip: 94502-6577
 Affiliation Phone: (510) 567-6700

MAP FINDINGS

UNION 76, 800 HARRISON ST, OAKLAND, CA 94607 (Continued)

Affiliation Type Desc:	Document Preparer
Entity Name:	Nik Zagorov
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	UST Permit Applicant
Entity Name:	Rab Ilyas
Entity Title:	CEO
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	(415) 724-6951
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not Reported
Affiliation Address:	800 Harrison St
Affiliation City:	Oakland
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94607
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	Rab Ilyas
Entity Title:	Not Reported
Affiliation Address:	800 Harrison St
Affiliation City:	Oakland
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94607
Affiliation Phone:	(415) 724-6951
Affiliation Type Desc:	Identification Signer
Entity Name:	Rab Ilyas
Entity Title:	CEO
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Legal Owner
Entity Name:	Almasoon, Inc.

MAP FINDINGS

UNION 76, 800 HARRISON ST, OAKLAND, CA 94607 (Continued)

Entity Title:	Not Reported
Affiliation Address:	800 Harrison St
Affiliation City:	Oakland
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94607
Affiliation Phone:	(510) 893-2356
Affiliation Type Desc:	UST Property Owner Name
Entity Name:	Muhammad Usman
Entity Title:	Not Reported
Affiliation Address:	1555 Thomas Avenue
Affiliation City:	San Francisco
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94124
Affiliation Phone:	(415) 822-6900
Affiliation Type Desc:	UST Tank Owner
Entity Name:	Almasoon, Inc.
Entity Title:	Not Reported
Affiliation Address:	800 Harrison Street
Affiliation City:	Oakland
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94607
Affiliation Phone:	(510) 893-2356
Affiliation Type Desc:	Operator
Entity Name:	Almasoon, Inc.
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	(510) 893-2356
Affiliation Type Desc:	Parent Corporation
Entity Name:	Chinatown 76
Entity Title:	Not Reported
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Property Owner
Entity Name:	Usman Mohammad
Entity Title:	Not Reported
Affiliation Address:	1555 Thomas Avenue

MAP FINDINGS

UNION 76, 800 HARRISON ST, OAKLAND, CA 94607 (Continued)

Affiliation City: San Francisco
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94124
Affiliation Phone: (415) 822-6900

Affiliation Type Desc: UST Tank Operator
Entity Name: Almasoon, Inc.
Entity Title: Not Reported
Affiliation Address: 800 Harrison Street
Affiliation City: Oakland
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94607
Affiliation Phone: (510) 893-2356

CERS TANKS: Other Ascertainable Records

Site ID: 18619
CERS ID: 10495918
CERS Description: Chemical Storage Facilities

Violations:

Site ID: 18619
Site Name: Union 76
Violation Date: 05-21-2018
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2
Violation Description: Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.
Violation Notes: Returned to compliance on 06/08/2018.
Violation Division: Alameda County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-25-2016
Citation: HSC 6.7 25292(e) - California Health and Safety Code, Chapter 6.7, Section(s) 25292(e)
Violation Description: Failure to maintain secondary containment, as evidenced by failure of secondary containment testing.
Violation Notes: Returned to compliance on 07/05/2016. OBSERVATION: 87 Regular product piping interstitial failed secondary containment testing at dispenser 5/6. CORRECTIVE ACTION: Repair/replace the failed component and re-test. Submit the test results to ACDEH within 30 days of completion of testing. Check with Rob Weston if a ACDEH modification permit is required.
Violation Division: Alameda County Environmental Health
Violation Program: UST
Violation Source: CERS

Site ID: 18619
Site Name: Union 76
Violation Date: 03-23-2017
Citation: 23 CCR 16 2636(f)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(2)

MAP FINDINGS

UNION 76, 800 HARRISON ST, OAKLAND, CA 94607 (Continued)

Violation Description: Failure of the line leak detector (LLD) monitoring pressurized piping to meet one or more of the following requirements: Monitor at least hourly. Be capable of detecting a release of 3.0 gallons per hour at 10 p.s.i.g. Restrict or shut off the flow of product through the piping when a leak is detected.

Violation Notes: Returned to compliance on 03/23/2017. OBSERVATION: Regular MLLD failed to detect a 3 gph leak at 10 psi. CORRECTIVE ACTION: The VMI MLLD was adjusted and was able to detect a 3 gph leak at 10 psi. CORRECTED AT THE TIME OF INSPECTION.

Violation Division: Alameda County Environmental Health

Violation Program: UST

Violation Source: CERS

Site ID: 18619

Site Name: Union 76

Violation Date: 03-22-2018

Citation: 23 CCR 16 2641(j) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2641(j)

Violation Description: Failure of the leak detection equipment to be installed, calibrated, operated, and/or maintained properly.

Violation Notes: Returned to compliance on 03/22/2018. OBSERVATION: The Bravo box float and chain in the UDC # 7-8 sump failed to stop the flow of product at the dispenser when tested. All monitoring equipment shall be maintained to activate an audible and visual alarm or stop the flow of product at the dispenser when it detects a leak. CORRECTED ON SITE: The service technician adjusted the chain(s) and verified functionality. This was corrected on site.

Violation Division: Alameda County Environmental Health

Violation Program: UST

Violation Source: CERS

Site ID: 18619

Site Name: Union 76

Violation Date: 03-22-2018

Citation: HSC 6.75 25299.30-25299.34 - California Health and Safety Code, Chapter 6.75, Section(s) 25299.30-25299.34

Violation Description: Failure to submit and maintain complete and current Certification of Financial Responsibility or other mechanism of financial assurance.

Violation Notes: Returned to compliance on 06/08/2018. OBSERVATION: Current financial responsibility documents have not been submitted to the CUPA. The Chief Financial Officer document is dated 3-6-17. Current financial responsibility documents are required to be submitted annually. CORRECTIVE ACTION: Upload the required information into CERS and submit for review by the CUPA. Submit within 30 days.

Violation Division: Alameda County Environmental Health

Violation Program: UST

Violation Source: CERS

Site ID: 18619

Site Name: Union 76

Violation Date: 03-23-2017

Citation: HSC 6.7 29291(b) - California Health and Safety Code, Chapter 6.7, Section(s) 29291(b)

Violation Description: Failure of the UST system to be designed and constructed with a monitoring system capable of detecting the entry of the hazardous substance into the secondary containment.

Violation Notes: Returned to compliance on 03/23/2017. OBSERVATION: UDC 3/4 Premium float and chain failed functional test. Float responded to water but the shear valve assembly was not triggered. Lead seal on chain was interfering with the trigger mechanism. CORRECTIVE ACTION: Service tech re-positioned lead seal and re-tested. Passed. CORRECTED AT THE TIME OF INSPECTION.

Violation Division: Alameda County Environmental Health

Violation Program: UST

Violation Source: CERS

Site ID: 18619

Site Name: Union 76

Violation Date: 03-22-2018

Citation: 23 CCR 16 2636(f)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(2)

MAP FINDINGS

UNION 76, 800 HARRISON ST, OAKLAND, CA 94607 (Continued)

Violation Description: Failure of the functional line leak detector (LLD) monitoring pressurized piping to meet one or more of the following requirements: Monitored at least hourly with the capability of detecting a release of 3.0 gallons per hour leak at 10 p.s.i.g. and restrict or shut off the flow of product through the piping when a leak is detected.

Violation Notes: Returned to compliance on 03/22/2018. OBSERVATION: The Regular Unleaded (Tank ID # 1-87) line leak detector failed to detect a leak when tested. All line leak detectors shall be capable of detecting a 3-gallon per hour leak at 10 psi. CORRECTED ON SITE: The service technician adjusted the leak detector, retested it, and it passed. This was corrected on site.

Violation Division: Alameda County Environmental Health

Violation Program: UST

Violation Source: CERS

Site ID: 18619

Site Name: Union 76

Violation Date: 03-25-2016

Citation: 23 CCR 16 2666 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2666

Violation Description: Failure to maintain entry fitting such that it properly seals to the containment.

Violation Notes: Returned to compliance on 07/11/2016. OBSERVATION: 87 Regular product piping interstitial failed secondary containment testing at dispenser 5/6. CORRECTIVE ACTION: Repair/replace the failed component and re-test. Submit the test results to ACDEH within 30 days of completion of testing. Check with Rob Weston if a ACDEH modification permit is required.

Violation Division: Alameda County Environmental Health

Violation Program: UST

Violation Source: CERS

Site ID: 18619

Site Name: Union 76

Violation Date: 03-25-2016

Citation: 23 CCR 16 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(1)

Violation Description: Failure of the double wall pressurized piping in the under dispenser containment to be continuously monitored by a method that either shuts down the flow of product to the dispenser or activates an audible/visual alarm when a leak is detected.

Violation Notes: Returned to compliance on 03/25/2016. OBSERVATION: Float and chain monitoring devices failed at dispensers 3/4, 5/6, and 7/8. CORRECTIVE ACTION: Chains were adjusted and re-tested. Passed. Corrected at time of inspection.

Violation Division: Alameda County Environmental Health

Violation Program: UST

Violation Source: CERS

Site ID: 18619

Site Name: Union 76

Violation Date: 03-23-2017

Citation: 23 CCR 16 2712 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712

Violation Description: Failure to comply with any of the applicable requirements of the permit issued for the operation of the UST system.

Violation Notes: Returned to compliance on 03/23/2017. OBSERVATION: Daily monitoring panel inspection not being documented. Daily inspection of the monitoring panel is a condition of the ACDEH Underground Storage Tank Operating Permit. CORRECTIVE ACTION: A daily monitoring panel inspection checklist was left with the operator. The inspection was explained to the operator. CORRECTED AT THE TIME OF INSPECTION

Violation Division: Alameda County Environmental Health

Violation Program: UST

Violation Source: CERS

Site ID: 18619

Site Name: Union 76

Violation Date: 03-25-2016

Citation: 23 CCR 16 2636(f)(1) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(1)

MAP FINDINGS

UNION 76, 800 HARRISON ST, OAKLAND, CA 94607 (Continued)

Violation Description: Failure of the double wall pressurized piping in the turbine sump to be continuously monitored with a system that activates an audible and visual alarm or restricts or stops flow at dispenser when a leak is detected.

Violation Notes: Returned to compliance on 03/25/2016. OBSERVATION: Liquid sensor in 87 Regular sump failed functional test. CORRECTIVE ACTION: 87 Regular turbine/pipe sump liquid sensor replaced and re-tested. Passed. Corrected at time of inspection.

Violation Division: Alameda County Environmental Health

Violation Program: UST

Violation Source: CERS

Site ID: 18619

Site Name: Union 76

Violation Date: 03-22-2018

Citation: 23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)

Violation Description: Failure to have current UST Monitoring Plan available on site.

Violation Notes: Returned to compliance on 06/06/2018. OBSERVATION: An approved copy of the monitoring plan was not found on site. The UST Monitoring Site Plan that is part of the UST Monitoring Plan does not have the Bravo box float and chains that monitor the UDC's. A copy of this plan shall be retained on site at all times. CORRECTIVE ACTION: Immediately locate and retain a copy on site.

Violation Division: Alameda County Environmental Health

Violation Program: UST

Violation Source: CERS

Site ID: 18619

Site Name: Union 76

Violation Date: 03-25-2016

Citation: HSC 6.7 25291 - California Health and Safety Code, Chapter 6.7, Section(s) 25291

Violation Description: Failure to maintain under-dispenser containment, sumps, and/or other secondary containment in good condition and/or free of debris/liquid.

Violation Notes: Returned to compliance on 07/05/2016. OBSERVATION: 87 Regular product piping interstitial failed secondary containment testing at dispenser 5/6. CORRECTIVE ACTION: Repair/replace the failed component and re-test. Submit the test results to ACDEH within 30 days of completion of testing. Check with Rob Weston if a ACDEH modification permit is required.

Violation Division: Alameda County Environmental Health

Violation Program: UST

Violation Source: CERS

Evaluation:

Eval General Type: Compliance Evaluation Inspection

Eval Date: 03-22-2018

Violations Found: Yes

Eval Type: Routine done by local agency

Eval Notes: ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH (ACDEH) ON SITE FOR ANNUAL MONITORING CERTIFICATION AND ROUTINE INSPECTION. THE SERVICE TECHNICIAN WAS NIK ZAGOROV OF ECO-CHECK COMPLIANCE WHO POSSESSES THE CALIFORNIA UST ICC CERTIFICATION THAT EXPIRES 5-8-19, THE VMI CERTIFICATION THAT EXPIRES 12-26-20 AND THE VEEDER ROOT CERTIFICATION THAT EXPIRES 12-8-18. ALL VIOLATIONS NOTED IN THE INSPECTION REPORT SHALL BE CORRECTED BY APRIL 21, 2018 AND ANY VERIFICATION DOCUMENTATION SUBMITTED WITHIN THE SAME TIME FRAME.

Eval Division: Alameda County Environmental Health

Eval Program: UST

Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection

Eval Date: 03-25-2016

Violations Found: No

Eval Type: Routine done by local agency

MAP FINDINGS

UNION 76, 800 HARRISON ST, OAKLAND, CA 94607 (Continued)

Eval Notes: Chinatown 76 800 Harrison St Oakland, CA 94607 (415) 724-6951 EPA ID Number CAL000175934 Initial Hazardous Waste Generator (HWG) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on March 25, 2016. Consent to inspect was given by and the completed inspection report was reviewed with Sraven Redy Vinjamun, cashier. Waste streams may include: drained used fuel filters and hoses, contaminated absorbent, contaminated water. No hazardous waste available for inspection. There is an auto smog/repair shop at the same address.

Eval Division: Alameda County Environmental Health
 Eval Program: HW
 Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
 Eval Date: 03-25-2016
 Violations Found: Yes
 Eval Type: Routine done by local agency

Eval Notes: Chinatown 76 800 Harrison St Oakland, CA 94607 (415) 724-6951 Initial Underground Storage Tank (UST) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on March 25, 2016. Nik Zagorov is the service technician conducting the monitoring equipment certification and spill container testing. Consent to inspect was given by and the completed inspection report was reviewed with Sraven Redy Vinjamun, cashier. There are two 12,000 gallon double walled steel underground storage tank (One Regular Unleaded and one Premium Unleaded gasoline).

Eval Division: Alameda County Environmental Health
 Eval Program: UST
 Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
 Eval Date: 03-23-2017
 Violations Found: Yes
 Eval Type: Routine done by local agency

Eval Notes: Chinatown 76 800 Harrison St Oakland, CA 94607 Underground Storage Tank (UST) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on March 23, 2017. Nik Zagorov is the service technician conducting the monitoring equipment certification and spill container testing. Consent to inspect was given by and the completed inspection report was reviewed with Farukh Cho, manager. OBSERVATION: Unable to locate UST Operating Permit. Action: I will review with ACDEH to determine status of UST Operating Permit. A current valid UST Operating Permit will be issued by ACDEH upon return to compliance. Submit the annual monitoring equipment certification and spill container test results to ACDEH within 30-days of completion of testing.

Eval Division: Alameda County Environmental Health
 Eval Program: UST
 Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
 Eval Date: 03-25-2016
 Violations Found: No
 Eval Type: Routine done by local agency

Eval Notes: Chinatown 76 800 Harrison St Oakland, CA 94607 (415) 724-6951 CERS ID10495918 Initial Hazardous Material Business Plan (HMBP) inspection conducted by Alameda County Department of Environmental Health (ACDEH) on March 25, 2016. Consent to inspect was given by and the completed inspection report was reviewed with Sraven Redy Vinjamun, cashier. There are two 12,000 gallon double walled steel/fiberglass underground storage tank (One Regular Unleaded and one Premium Unleaded gasoline).

Eval Division: Alameda County Environmental Health
 Eval Program: HMRRP
 Eval Source: CERS

Eval General Type: Other/Unknown
 Eval Date: 05-21-2018
 Violations Found: Yes
 Eval Type: Other, not routine, done by local agency
 Eval Notes: GENERATE NIV NOV LTR/ADDING VIOLATION IN EC
 Eval Division: Alameda County Environmental Health

MAP FINDINGS

UNION 76, 800 HARRISON ST, OAKLAND, CA 94607 (Continued)

Eval Program: HMRRP
Eval Source: CERS

Coordinates:

Site ID: 18619
Facility Name: Union 76
Env Int Type Code: HWG
Program ID: 10495918
Coord Name: Not Reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 37.798950
Longitude: -122.269780

Affiliation:

Affiliation Type Desc: CUPA District
Entity Name: Alameda County Env Health
Entity Title: Not Reported
Affiliation Address: 1131 Harbor Parkway, Suite 240
Affiliation City: Alameda
Affiliation State: CA
Affiliation Country: Not Reported
Affiliation Zip: 94502-6577
Affiliation Phone: (510) 567-6700

Affiliation Type Desc: Document Preparer
Entity Name: Nik Zagorov
Entity Title: Not Reported
Affiliation Address: Not Reported
Affiliation City: Not Reported
Affiliation State: Not Reported
Affiliation Country: Not Reported
Affiliation Zip: Not Reported
Affiliation Phone: Not Reported

Affiliation Type Desc: UST Permit Applicant
Entity Name: Rab Ilyas
Entity Title: CEO
Affiliation Address: Not Reported
Affiliation City: Not Reported
Affiliation State: Not Reported
Affiliation Country: Not Reported
Affiliation Zip: Not Reported
Affiliation Phone: (415) 724-6951

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not Reported
Affiliation Address: 800 Harrison St
Affiliation City: Oakland
Affiliation State: CA

MAP FINDINGS

UNION 76, 800 HARRISON ST, OAKLAND, CA 94607 (Continued)

Affiliation Country:	Not Reported
Affiliation Zip:	94607
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Environmental Contact
Entity Name:	Rab Ilyas
Entity Title:	Not Reported
Affiliation Address:	800 Harrison St
Affiliation City:	Oakland
Affiliation State:	CA
Affiliation Country:	Not Reported
Affiliation Zip:	94607
Affiliation Phone:	(415) 724-6951
Affiliation Type Desc:	Identification Signer
Entity Name:	Rab Ilyas
Entity Title:	CEO
Affiliation Address:	Not Reported
Affiliation City:	Not Reported
Affiliation State:	Not Reported
Affiliation Country:	Not Reported
Affiliation Zip:	Not Reported
Affiliation Phone:	Not Reported
Affiliation Type Desc:	Legal Owner
Entity Name:	Almasoon, Inc.
Entity Title:	Not Reported
Affiliation Address:	800 Harrison St
Affiliation City:	Oakland
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94607
Affiliation Phone:	(510) 893-2356
Affiliation Type Desc:	UST Property Owner Name
Entity Name:	Muhammad Usman
Entity Title:	Not Reported
Affiliation Address:	1555 Thomas Avenue
Affiliation City:	San Francisco
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94124
Affiliation Phone:	(415) 822-6900
Affiliation Type Desc:	UST Tank Owner
Entity Name:	Almasoon, Inc.
Entity Title:	Not Reported
Affiliation Address:	800 Harrison Street
Affiliation City:	Oakland
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	94607

MAP FINDINGS

UNION 76, 800 HARRISON ST, OAKLAND, CA 94607 (Continued)

Affiliation Phone: (510) 893-2356
 Affiliation Type Desc: Operator
 Entity Name: Almasoon, Inc.
 Entity Title: Not Reported
 Affiliation Address: Not Reported
 Affiliation City: Not Reported
 Affiliation State: Not Reported
 Affiliation Country: Not Reported
 Affiliation Zip: Not Reported
 Affiliation Phone: (510) 893-2356

Affiliation Type Desc: Parent Corporation
 Entity Name: Chinatown 76
 Entity Title: Not Reported
 Affiliation Address: Not Reported
 Affiliation City: Not Reported
 Affiliation State: Not Reported
 Affiliation Country: Not Reported
 Affiliation Zip: Not Reported
 Affiliation Phone: Not Reported

Affiliation Type Desc: Property Owner
 Entity Name: Usman Mohammad
 Entity Title: Not Reported
 Affiliation Address: 1555 Thomas Avenue
 Affiliation City: San Francisco
 Affiliation State: CA
 Affiliation Country: United States
 Affiliation Zip: 94124
 Affiliation Phone: (415) 822-6900

Affiliation Type Desc: UST Tank Operator
 Entity Name: Almasoon, Inc.
 Entity Title: Not Reported
 Affiliation Address: 800 Harrison Street
 Affiliation City: Oakland
 Affiliation State: CA
 Affiliation Country: United States
 Affiliation Zip: 94607
 Affiliation Phone: (510) 893-2356

KIN SHELL 726 HARRISON ST, OAKLAND, CA, 94607			S101580397
▲ P40	WNW 1/10 - 1/3	(1179 ft. / 0.223 mi.)	State and tribal leaking storage tank lists Local Lists of Registered Storage Tanks Other Ascertainable Records
	Equal Elevation	33 ft. Above Sea Level	

Worksheet:

Impact on Target Property: VEC does not exist

MAP FINDINGS

KIN SHELL, 726 HARRISON ST, OAKLAND, CA 94607 (Continued)

LUST: State and tribal leaking storage tank lists

Lead Agency: ALAMEDA COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600102122
Global Id: T0600102122
Latitude: 37.7984332875099
Longitude: -122.270128726959
Status: Open - Remediation
Status Date: 07/14/2014
Case Worker: JES
RB Case Number: 01-2307
Local Agency: ALAMEDA COUNTY LOP
File Location: All Files are on GeoTracker or in the Local Agency Database
Local Case Number: RO0000321
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Three UST were removed in 1990 and significantly elevated concentrations of petroleum hydrocarbons were detected in soil during the UST removal. A program of groundwater monitoring was implemented in 1991 and dissolved phase contamination is migrating offsite and impacting the downgradient sites located at 726 and 706 Harrison Street. Soil and groundwater sampling completed in 2007 detected elevated levels of MTBE in the deeper water bearing zone at 48 feet bgs. This site is part of a commingled plume and remedial action is proposed to remove residual mass beneath the sites. A pilot test of multi-phase extraction and air sparging/soil vapor extraction was conducted in 2013. Based on the results of the pilot test, remediation of 706 and 726 Harrison Street is planned to begin in 2014 using air sparging and soil vapor extraction. A Remedial Action Plan that describes the planned remediation was approved in July 2014 following a public comment period on the Remedial Action Plan.

LUST:

Global Id: T0600102122
Contact Type: Local Agency Caseworker
Contact Name: JONATHAN E. SANDERS
Organization Name: ALAMEDA COUNTY LOP
Address: 1131 Harbor Bay Pkwy
City: ALAMEDA
Email: jonathan.sanders@acgov.org
Phone Number: 5105676791

Global Id: T0600102122
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board

MAP FINDINGS

KIN SHELL, 726 HARRISON ST, OAKLAND, CA 94607 (Continued)

Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not Reported
Phone Number: Not Reported

LUST:

Global Id: T0600102122
Action Type: Other
Date: 10/06/1995
Action: Leak Reported

Global Id: T0600102122
Action Type: RESPONSE
Date: 10/23/2012
Action: CAP/RAP - Feasibility Study Report

Global Id: T0600102122
Action Type: RESPONSE
Date: 01/08/1999
Action: Soil and Water Investigation Report

Global Id: T0600102122
Action Type: RESPONSE
Date: 10/08/1986
Action: Correspondence

Global Id: T0600102122
Action Type: RESPONSE
Date: 10/07/2005
Action: Correspondence

Global Id: T0600102122
Action Type: RESPONSE
Date: 03/21/1996
Action: Interim Remedial Action Report

Global Id: T0600102122
Action Type: RESPONSE
Date: 05/11/2012
Action: Soil and Water Investigation Report

Global Id: T0600102122
Action Type: RESPONSE
Date: 12/21/2001
Action: Soil and Water Investigation Report

Global Id: T0600102122
Action Type: RESPONSE
Date: 07/31/1997
Action: Soil and Water Investigation Report

Global Id: T0600102122
Action Type: RESPONSE

MAP FINDINGS

KIN SHELL, 726 HARRISON ST, OAKLAND, CA 94607 (Continued)

Date: 10/08/1995
 Action: Tank Removal Report / UST Sampling Report

Global Id: T0600102122
 Action Type: RESPONSE
 Date: 04/24/2013
 Action: Corrective Action Plan / Remedial Action Plan - Addendum - Regulator Responded

Global Id: T0600102122
 Action Type: RESPONSE
 Date: 04/19/2013
 Action: Pilot Study / Treatability Workplan - Regulator Responded

Global Id: T0600102122
 Action Type: RESPONSE
 Date: 10/09/2013
 Action: Pilot Study/ Treatability Report - Regulator Responded

Global Id: T0600102122
 Action Type: RESPONSE
 Date: 02/19/2013
 Action: Pilot Study / Treatability Workplan

Global Id: T0600102122
 Action Type: RESPONSE
 Date: 04/15/2015
 Action: Monitoring Report - Semi-Annually

Global Id: T0600102122
 Action Type: RESPONSE
 Date: 04/18/2014
 Action: Corrective Action Plan / Remedial Action Plan - Regulator Responded

Global Id: T0600102122
 Action Type: RESPONSE
 Date: 04/18/2014
 Action: Corrective Action Plan / Remedial Action Plan - Regulator Responded

Global Id: T0600102122
 Action Type: RESPONSE
 Date: 10/15/2014
 Action: Other Workplan - Regulator Responded

Global Id: T0600102122
 Action Type: RESPONSE
 Date: 07/01/2014
 Action: Corrective Action Plan / Remedial Action Plan - Addendum - Regulator Responded

Global Id: T0600102122
 Action Type: RESPONSE
 Date: 02/10/2015
 Action: Other Workplan - Regulator Responded

Global Id: T0600102122
 Action Type: ENFORCEMENT

MAP FINDINGS

KIN SHELL, 726 HARRISON ST, OAKLAND, CA 94607 (Continued)

Date:	06/12/2009
Action:	Staff Letter - #20090612
Global Id:	T0600102122
Action Type:	ENFORCEMENT
Date:	08/03/2016
Action:	Email Correspondence
Global Id:	T0600102122
Action Type:	ENFORCEMENT
Date:	07/24/2009
Action:	Staff Letter - #20090724
Global Id:	T0600102122
Action Type:	ENFORCEMENT
Date:	11/18/2009
Action:	File review
Global Id:	T0600102122
Action Type:	ENFORCEMENT
Date:	01/04/2011
Action:	Staff Letter - #20110104
Global Id:	T0600102122
Action Type:	ENFORCEMENT
Date:	04/25/2011
Action:	Staff Letter - #20110425
Global Id:	T0600102122
Action Type:	ENFORCEMENT
Date:	10/20/2011
Action:	Staff Letter - #20111020
Global Id:	T0600102122
Action Type:	ENFORCEMENT
Date:	12/10/2012
Action:	Staff Letter - #20121210
Global Id:	T0600102122
Action Type:	ENFORCEMENT
Date:	07/09/2012
Action:	Staff Letter - #20120709
Global Id:	T0600102122
Action Type:	ENFORCEMENT
Date:	03/11/2013
Action:	Staff Letter - #20130311
Global Id:	T0600102122
Action Type:	ENFORCEMENT
Date:	05/21/2018
Action:	Staff Letter
Global Id:	T0600102122
Action Type:	RESPONSE

MAP FINDINGS

KIN SHELL, 726 HARRISON ST, OAKLAND, CA 94607 (Continued)

Date:	09/30/2009
Action:	CAP/RAP - Feasibility Study Report
Global Id:	T0600102122
Action Type:	REMEDIATION
Date:	12/13/1995
Action:	Excavation
Global Id:	T0600102122
Action Type:	ENFORCEMENT
Date:	12/02/2013
Action:	Staff Letter - #20131202
Global Id:	T0600102122
Action Type:	ENFORCEMENT
Date:	03/11/2015
Action:	Staff Letter - #20150311
Global Id:	T0600102122
Action Type:	ENFORCEMENT
Date:	07/14/2014
Action:	Staff Letter - #20140714
Global Id:	T0600102122
Action Type:	RESPONSE
Date:	11/15/2018
Action:	Remedial Progress Report
Global Id:	T0600102122
Action Type:	RESPONSE
Date:	11/15/2018
Action:	CAP/RAP - Other Report
Global Id:	T0600102122
Action Type:	REMEDIATION
Date:	09/01/2001
Action:	Soil Vapor Extraction (SVE)
Global Id:	T0600102122
Action Type:	RESPONSE
Date:	03/31/2011
Action:	Soil and Water Investigation Workplan
Global Id:	T0600102122
Action Type:	RESPONSE
Date:	12/29/2010
Action:	Clean Up Fund - 5-Year Review Summary
Global Id:	T0600102122
Action Type:	RESPONSE
Date:	11/15/2018
Action:	Remedial Progress Report
Global Id:	T0600102122
Action Type:	RESPONSE

MAP FINDINGS

KIN SHELL, 726 HARRISON ST, OAKLAND, CA 94607 (Continued)

Date: 05/14/2018
 Action: Correspondence

Global Id: T0600102122
 Action Type: ENFORCEMENT
 Date: 05/13/2014
 Action: Staff Letter - #20140513

Global Id: T0600102122
 Action Type: ENFORCEMENT
 Date: 05/13/2014
 Action: Notification - Public Notice of ROD/RAP/CAP - #20140513

Global Id: T0600102122
 Action Type: Other
 Date: 10/06/1995
 Action: Leak Discovery

Global Id: T0600102122
 Action Type: RESPONSE
 Date: 08/30/2011
 Action: Soil and Water Investigation Report

Global Id: T0600102122
 Action Type: RESPONSE
 Date: 11/15/2018
 Action: Remedial Progress Report

Global Id: T0600102122
 Action Type: ENFORCEMENT
 Date: 08/23/2007
 Action: * No Action - #20072308

Global Id: T0600102122
 Action Type: Other
 Date: 10/06/1995
 Action: Leak Stopped

Global Id: T0600102122
 Action Type: RESPONSE
 Date: 03/20/2012
 Action: Site Assessment Report

Global Id: T0600102122
 Action Type: RESPONSE
 Date: 08/30/2011
 Action: Soil and Water Investigation Report

Global Id: T0600102122
 Action Type: RESPONSE
 Date: 11/04/2011
 Action: Soil and Water Investigation Workplan - Addendum

Global Id: T0600102122
 Action Type: RESPONSE

MAP FINDINGS

KIN SHELL, 726 HARRISON ST, OAKLAND, CA 94607 (Continued)

Date: 12/01/2011
Action: Clean Up Fund - 5-Year Review Summary

LUST:

Global Id: T0600102122
Status: Open - Assessment & Interim Remedial Action
Status Date: 12/10/2012

Global Id: T0600102122
Status: Open - Case Begin Date
Status Date: 10/06/1995

Global Id: T0600102122
Status: Open - Remediation
Status Date: 12/21/2001

Global Id: T0600102122
Status: Open - Remediation
Status Date: 07/14/2014

Global Id: T0600102122
Status: Open - Site Assessment
Status Date: 10/06/1995

Global Id: T0600102122
Status: Open - Site Assessment
Status Date: 11/23/1998

Global Id: T0600102122
Status: Open - Site Assessment
Status Date: 01/08/1999

Global Id: T0600102122
Status: Open - Site Assessment
Status Date: 12/11/2007

Global Id: T0600102122
Status: Open - Site Assessment
Status Date: 11/18/2009

Alameda County CS: State and tribal leaking storage tank lists

Status: Leak Confirmation
Record Id: RO0000321
PE: 5602
Facility Status: Leak Confirmation
Latitude: 37.79823142
Longitude: -122.27033088

Status: Preliminary Site Assessment Workplan Submitted
Record Id: RO0000321
PE: 5602
Facility Status: Preliminary Site Assessment Workplan Submitted
Latitude: 37.79823142

MAP FINDINGS

KIN SHELL, 726 HARRISON ST, OAKLAND, CA 94607 (Continued)

Longitude: -122.27033088
 Status: Preliminary Site Assessment Underway
 Record Id: RO0000321
 PE: 5602
 Facility Status: Preliminary Site Assessment Underway
 Latitude: 37.79823142
 Longitude: -122.27033088
 Status: Remediation Plan
 Record Id: RO0000321
 PE: 5602
 Facility Status: Remediation Plan
 Latitude: 37.79823142
 Longitude: -122.27033088

SWEEPS UST: Local Lists of Registered Storage Tanks

Status: Active
 Comp Number: 59146
 Number: 2
 Board Of Equalization: 44-000588
 Referral Date: 03-13-91
 Action Date: 03-13-91
 Created Date: 02-29-88
 Owner Tank Id: 2
 SWRCB Tank Id: 01-000-059146-000001
 Tank Status: A
 Capacity: 5000
 Active Date: 03-13-91
 Tank Use: M.V. FUEL
 STG: P
 Content: REG UNLEADED
 Number Of Tanks: 5
 Status: Active
 Comp Number: 59146
 Number: 2
 Board Of Equalization: 44-000588
 Referral Date: 03-13-91
 Action Date: 03-13-91
 Created Date: 02-29-88
 Owner Tank Id: 1
 SWRCB Tank Id: 01-000-059146-000002
 Tank Status: A
 Capacity: 5000
 Active Date: 03-13-91
 Tank Use: M.V. FUEL
 STG: P
 Content: REG UNLEADED
 Number Of Tanks: Not Reported

MAP FINDINGS

KIN SHELL, 726 HARRISON ST, OAKLAND, CA 94607 (Continued)

Status:	Active
Comp Number:	59146
Number:	2
Board Of Equalization:	44-000588
Referral Date:	03-13-91
Action Date:	03-13-91
Created Date:	02-29-88
Owner Tank Id:	5
SWRCB Tank Id:	01-000-059146-000003
Tank Status:	A
Capacity:	1000
Active Date:	03-13-91
Tank Use:	OIL
STG:	W
Content:	WASTE OIL
Number Of Tanks:	Not Reported
Status:	Active
Comp Number:	59146
Number:	2
Board Of Equalization:	44-000588
Referral Date:	03-13-91
Action Date:	03-13-91
Created Date:	02-29-88
Owner Tank Id:	3
SWRCB Tank Id:	01-000-059146-000004
Tank Status:	A
Capacity:	8000
Active Date:	03-13-91
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not Reported
Status:	Active
Comp Number:	59146
Number:	2
Board Of Equalization:	44-000588
Referral Date:	03-13-91
Action Date:	03-13-91
Created Date:	02-29-88
Owner Tank Id:	4
SWRCB Tank Id:	01-000-059146-000005
Tank Status:	A
Capacity:	5000
Active Date:	03-13-91
Tank Use:	M.V. FUEL
STG:	P
Content:	LEADED
Number Of Tanks:	Not Reported

MAP FINDINGS

KIN SHELL, 726 HARRISON ST, OAKLAND, CA 94607 (Continued)

CA FID UST: Local Lists of Registered Storage Tanks

Facility ID: 01002773
 Regulated By: UTNKA
 Regulated ID: 00059146
 Cortese Code: Not Reported
 SIC Code: Not Reported
 Facility Phone: 4154446583
 Mail To: Not Reported
 Mailing Address: 726 HARRISON ST
 Mailing Address 2: Not Reported
 Mailing City,St,Zip: OAKLAND 94607
 Contact: Not Reported
 Contact Phone: Not Reported
 DUNs Number: Not Reported
 NPDES Number: Not Reported
 EPA ID: Not Reported
 Comments: Not Reported
 Status: Active

HIST CORTESE: Other Ascertainable Records

Region: CORTESE
 Facility County Code: 1
 Reg By: LTNKA
 Reg Id: 01-2307

GIN'S ARCO SERVICE 706 HARRISON ST, OAKLAND, CA, 94607			S101624367
◆ P41	W 1/10 - 1/3	(1192 ft. / 0.226 mi.)	State and tribal leaking storage tank lists Local Lists of Registered Storage Tanks Other Ascertainable Records
	1 ft. Lower Elevation	32 ft. Above Sea Level	

Worksheet:

Impact on Target Property: VEC does not exist

LUST: State and tribal leaking storage tank lists

Lead Agency: ALAMEDA COUNTY LOP
 Case Type: LUST Cleanup Site
 Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100985
 Global Id: T0600100985
 Latitude: 37.7981959136734
 Longitude: -122.270396947861
 Status: Open - Remediation
 Status Date: 07/14/2014
 Case Worker: JES
 RB Case Number: NA
 Local Agency: ALAMEDA COUNTY LOP
 File Location: All Files are on GeoTracker or in the Local Agency Database

MAP FINDINGS

GIN'S ARCO SERVICE, 706 HARRISON ST, OAKLAND, CA 94607 (Continued)

Local Case Number: RO0000484
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Benzene, Gasoline
Site History: In February 1991 six USTs were removed and confirmation soil sampling detected elevated levels of hydrocarbon contamination beneath the site. Additional site characterization completed from 1993 through 1995 detected significantly elevated levels of TPHg and benzene in soil and groundwater. This site is part of a commingled plume and remedial action is proposed to remove residual mass beneath the sites. A pilot test of multi-phase extraction and air sparging/soil vapor extraction was conducted in 2013. Based on the results of the pilot test, remediation of 706 and 726 Harrison Street is planned to begin in 2014 using air sparging and soil vapor extraction. A Remedial Action Plan that describes the planned remediation was approved in July 2014 following a public comment period on the Remedial Action Plan.

LUST:

Global Id: T0600100985
Contact Type: Local Agency Caseworker
Contact Name: JONATHAN E. SANDERS
Organization Name: ALAMEDA COUNTY LOP
Address: 1131 Harbor Bay Pkwy
City: ALAMEDA
Email: jonathan.sanders@acgov.org
Phone Number: 5105676791

Global Id: T0600100985
Contact Type: Regional Board Caseworker
Contact Name: Regional Water Board
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
Address: 1515 CLAY ST SUITE 1400
City: OAKLAND
Email: Not Reported
Phone Number: Not Reported

LUST:

Global Id: T0600100985
Action Type: Other
Date: 01/17/1991
Action: Leak Reported

Global Id: T0600100985
Action Type: RESPONSE
Date: 10/23/2012
Action: CAP/RAP - Feasibility Study Report

MAP FINDINGS

GIN'S ARCO SERVICE, 706 HARRISON ST, OAKLAND, CA 94607 (Continued)

Global Id:	T0600100985
Action Type:	RESPONSE
Date:	03/10/1995
Action:	Soil and Water Investigation Report
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	11/04/2011
Action:	Other Workplan
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	04/22/1991
Action:	Preliminary Site Assessment Workplan
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	02/07/1991
Action:	Other Report / Document
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	01/13/1993
Action:	Well Installation Workplan
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	06/27/1990
Action:	Correspondence
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	01/25/1994
Action:	Other Report / Document
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	12/09/1992
Action:	Other Report / Document
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	12/12/1991
Action:	Preliminary Site Assessment Report
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	01/29/1993
Action:	Preliminary Site Assessment Report
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	10/11/2000
Action:	Remedial Progress Report

MAP FINDINGS

GIN'S ARCO SERVICE, 706 HARRISON ST, OAKLAND, CA 94607 (Continued)

Global Id:	T0600100985
Action Type:	RESPONSE
Date:	05/11/2012
Action:	Site Assessment Report
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	04/12/1994
Action:	Corrective Action Plan / Remedial Action Plan
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	09/15/1994
Action:	Remedial Progress Report
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	08/30/2011
Action:	Site Assessment Report
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	06/01/1991
Action:	Preliminary Site Assessment Workplan
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	07/19/1993
Action:	Other Report / Document
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	08/29/1995
Action:	CAP/RAP - Other Report
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	07/07/1994
Action:	Remedial Progress Report
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	09/20/1993
Action:	Well Installation Report
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	08/15/1994
Action:	Soil and Water Investigation Workplan
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	06/01/1994
Action:	CAP/RAP - Feasibility Study Report

MAP FINDINGS

GIN'S ARCO SERVICE, 706 HARRISON ST, OAKLAND, CA 94607 (Continued)

Global Id:	T0600100985
Action Type:	RESPONSE
Date:	06/07/1993
Action:	Well Installation Workplan
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	02/17/1994
Action:	Corrective Action Plan / Remedial Action Plan
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	05/19/1994
Action:	Corrective Action Plan / Remedial Action Plan
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	06/02/1994
Action:	Soil and Water Investigation Workplan
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	02/18/2004
Action:	Other Report / Document
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	11/15/2018
Action:	Remedial Progress Report
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	04/19/2013
Action:	Pilot Study / Treatability Workplan - Regulator Responded
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	10/09/2013
Action:	Pilot Study/ Treatability Report - Regulator Responded
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	02/19/2013
Action:	Pilot Study / Treatability Workplan
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	04/15/2015
Action:	Monitoring Report - Semi-Annually
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	04/18/2014
Action:	Corrective Action Plan / Remedial Action Plan - Regulator Responded

MAP FINDINGS

GIN'S ARCO SERVICE, 706 HARRISON ST, OAKLAND, CA 94607 (Continued)

Global Id: T0600100985
 Action Type: RESPONSE
 Date: 07/01/2014
 Action: Corrective Action Plan / Remedial Action Plan - Addendum - Regulator Responded

Global Id: T0600100985
 Action Type: RESPONSE
 Date: 04/18/2014
 Action: Corrective Action Plan / Remedial Action Plan - Regulator Responded

Global Id: T0600100985
 Action Type: RESPONSE
 Date: 07/01/2014
 Action: Corrective Action Plan / Remedial Action Plan - Addendum - Regulator Responded

Global Id: T0600100985
 Action Type: RESPONSE
 Date: 10/15/2014
 Action: Other Workplan - Regulator Responded

Global Id: T0600100985
 Action Type: RESPONSE
 Date: 02/10/2015
 Action: Other Workplan - Regulator Responded

Global Id: T0600100985
 Action Type: ENFORCEMENT
 Date: 06/12/2009
 Action: Staff Letter - #20090612

Global Id: T0600100985
 Action Type: ENFORCEMENT
 Date: 07/24/2009
 Action: Staff Letter

Global Id: T0600100985
 Action Type: ENFORCEMENT
 Date: 08/03/2016
 Action: Email Correspondence

Global Id: T0600100985
 Action Type: ENFORCEMENT
 Date: 11/18/2009
 Action: File review

Global Id: T0600100985
 Action Type: ENFORCEMENT
 Date: 03/11/2013
 Action: Staff Letter - #20130311

Global Id: T0600100985
 Action Type: ENFORCEMENT
 Date: 10/20/2011
 Action: Staff Letter - #20111020

MAP FINDINGS

GIN'S ARCO SERVICE, 706 HARRISON ST, OAKLAND, CA 94607 (Continued)

Global Id:	T0600100985
Action Type:	ENFORCEMENT
Date:	04/25/2011
Action:	Staff Letter - #20110425
Global Id:	T0600100985
Action Type:	ENFORCEMENT
Date:	01/04/2011
Action:	Staff Letter - #20110104
Global Id:	T0600100985
Action Type:	ENFORCEMENT
Date:	12/10/2012
Action:	Staff Letter - #20121210
Global Id:	T0600100985
Action Type:	ENFORCEMENT
Date:	07/09/2012
Action:	Staff Letter - #20120709
Global Id:	T0600100985
Action Type:	ENFORCEMENT
Date:	12/11/1989
Action:	Staff Letter
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	09/05/2007
Action:	Soil and Water Investigation Workplan
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	11/15/2018
Action:	Remedial Progress Report
Global Id:	T0600100985
Action Type:	REMEDICATION
Date:	01/17/1991
Action:	Excavation
Global Id:	T0600100985
Action Type:	ENFORCEMENT
Date:	05/13/2013
Action:	Staff Letter - #20130513
Global Id:	T0600100985
Action Type:	ENFORCEMENT
Date:	12/02/2013
Action:	Staff Letter - #20131202
Global Id:	T0600100985
Action Type:	ENFORCEMENT
Date:	03/11/2015
Action:	Staff Letter - #20150311

MAP FINDINGS

GIN'S ARCO SERVICE, 706 HARRISON ST, OAKLAND, CA 94607 (Continued)

Global Id:	T0600100985
Action Type:	ENFORCEMENT
Date:	07/14/2014
Action:	Staff Letter - #20140714
Global Id:	T0600100985
Action Type:	ENFORCEMENT
Date:	05/13/2014
Action:	Staff Letter - #20140513
Global Id:	T0600100985
Action Type:	ENFORCEMENT
Date:	05/21/2018
Action:	Staff Letter
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	09/30/2009
Action:	Conceptual Site Model
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	11/15/2018
Action:	Remedial Progress Report
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	05/14/2018
Action:	Correspondence
Global Id:	T0600100985
Action Type:	REMEDIATION
Date:	05/01/1998
Action:	Soil Vapor Extraction (SVE)
Global Id:	T0600100985
Action Type:	REMEDIATION
Date:	04/01/1994
Action:	Soil Vapor Extraction (SVE)
Global Id:	T0600100985
Action Type:	Other
Date:	01/17/1991
Action:	Leak Discovery
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	12/01/2010
Action:	Clean Up Fund - 5-Year Review Summary
Global Id:	T0600100985
Action Type:	RESPONSE
Date:	12/29/2010
Action:	Clean Up Fund - 5-Year Review Summary

MAP FINDINGS

GIN'S ARCO SERVICE, 706 HARRISON ST, OAKLAND, CA 94607 (Continued)

Global Id: T0600100985
 Action Type: RESPONSE
 Date: 03/31/2011
 Action: Soil and Water Investigation Workplan

Global Id: T0600100985
 Action Type: RESPONSE
 Date: 11/15/2018
 Action: CAP/RAP - Other Report

Global Id: T0600100985
 Action Type: ENFORCEMENT
 Date: 05/13/2014
 Action: Notification - Public Notice of ROD/RAP/CAP - #20140513

Global Id: T0600100985
 Action Type: RESPONSE
 Date: 08/30/2011
 Action: Soil and Water Investigation Report

Global Id: T0600100985
 Action Type: ENFORCEMENT
 Date: 07/30/2007
 Action: * Historical Enforcement - #20073007

Global Id: T0600100985
 Action Type: RESPONSE
 Date: 03/20/2012
 Action: Site Assessment Report

Global Id: T0600100985
 Action Type: RESPONSE
 Date: 12/01/2011
 Action: Clean Up Fund - 5-Year Review Summary

LUST:

Global Id: T0600100985
 Status: Open - Assessment & Interim Remedial Action
 Status Date: 12/10/2012

Global Id: T0600100985
 Status: Open - Case Begin Date
 Status Date: 01/17/1991

Global Id: T0600100985
 Status: Open - Remediation
 Status Date: 02/15/1993

Global Id: T0600100985
 Status: Open - Remediation
 Status Date: 07/14/2014

Global Id: T0600100985
 Status: Open - Site Assessment

MAP FINDINGS

GIN'S ARCO SERVICE, 706 HARRISON ST, OAKLAND, CA 94607 (Continued)

Status Date: 01/17/1991
 Global Id: T0600100985
 Status: Open - Site Assessment
 Status Date: 07/15/1993
 Global Id: T0600100985
 Status: Open - Site Assessment
 Status Date: 10/05/2007

Alameda County CS: State and tribal leaking storage tank lists

Status: Leak Confirmation
 Record Id: RO0000484
 PE: 5602
 Facility Status: Leak Confirmation
 Latitude: 37.798098146
 Longitude: -122.27041225
 Status: Preliminary Site Assessment Underway
 Record Id: RO0000484
 PE: 5602
 Facility Status: Preliminary Site Assessment Underway
 Latitude: 37.798098146
 Longitude: -122.27041225
 Status: Pollution Characterization
 Record Id: RO0000484
 PE: 5602
 Facility Status: Pollution Characterization
 Latitude: 37.798098146
 Longitude: -122.27041225
 Status: Remedial Action Underway
 Record Id: RO0000484
 PE: 5602
 Facility Status: Remedial Action Underway
 Latitude: 37.798098146
 Longitude: -122.27041225

SWEEPS UST: Local Lists of Registered Storage Tanks

Status: Not Reported
 Comp Number: 61568
 Number: Not Reported
 Board Of Equalization: 44-000632
 Referral Date: Not Reported
 Action Date: Not Reported
 Created Date: Not Reported
 Owner Tank Id: Not Reported
 SWRCB Tank Id: 01-000-061568-000001
 Tank Status: Not Reported
 Capacity: 2667

MAP FINDINGS

GIN'S ARCO SERVICE, 706 HARRISON ST, OAKLAND, CA 94607 (Continued)

Active Date:	Not Reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	6
Status:	Not Reported
Comp Number:	61568
Number:	Not Reported
Board Of Equalization:	44-000632
Referral Date:	Not Reported
Action Date:	Not Reported
Created Date:	Not Reported
Owner Tank Id:	Not Reported
SWRCB Tank Id:	01-000-061568-000002
Tank Status:	Not Reported
Capacity:	2667
Active Date:	Not Reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not Reported
Status:	Not Reported
Comp Number:	61568
Number:	Not Reported
Board Of Equalization:	44-000632
Referral Date:	Not Reported
Action Date:	Not Reported
Created Date:	Not Reported
Owner Tank Id:	Not Reported
SWRCB Tank Id:	01-000-061568-000003
Tank Status:	Not Reported
Capacity:	2667
Active Date:	Not Reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	LEADED
Number Of Tanks:	Not Reported
Status:	Not Reported
Comp Number:	61568
Number:	Not Reported
Board Of Equalization:	44-000632
Referral Date:	Not Reported
Action Date:	Not Reported
Created Date:	Not Reported
Owner Tank Id:	Not Reported
SWRCB Tank Id:	01-000-061568-000004
Tank Status:	Not Reported
Capacity:	2667

MAP FINDINGS

GIN'S ARCO SERVICE, 706 HARRISON ST, OAKLAND, CA 94607 (Continued)

Active Date:	Not Reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	LEADED
Number Of Tanks:	Not Reported
Status:	Not Reported
Comp Number:	61568
Number:	Not Reported
Board Of Equalization:	44-000632
Referral Date:	Not Reported
Action Date:	Not Reported
Created Date:	Not Reported
Owner Tank Id:	Not Reported
SWRCB Tank Id:	01-000-061568-000005
Tank Status:	Not Reported
Capacity:	2667
Active Date:	Not Reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not Reported
Status:	Not Reported
Comp Number:	61568
Number:	Not Reported
Board Of Equalization:	44-000632
Referral Date:	Not Reported
Action Date:	Not Reported
Created Date:	Not Reported
Owner Tank Id:	Not Reported
SWRCB Tank Id:	01-000-061568-000006
Tank Status:	Not Reported
Capacity:	2667
Active Date:	Not Reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not Reported

CA FID UST: Local Lists of Registered Storage Tanks

Facility ID:	01001180
Regulated By:	UTNKI
Regulated ID:	00061568
Cortese Code:	Not Reported
SIC Code:	Not Reported
Facility Phone:	4154442997
Mail To:	Not Reported
Mailing Address:	706 HARRISON ST
Mailing Address 2:	Not Reported

MAP FINDINGS

GIN'S ARCO SERVICE, 706 HARRISON ST, OAKLAND, CA 94607 (Continued)

Mailing City,St,Zip: OAKLAND 94607
 Contact: Not Reported
 Contact Phone: Not Reported
 DUNs Number: Not Reported
 NPDES Number: Not Reported
 EPA ID: Not Reported
 Comments: Not Reported
 Status: Inactive

HIST CORTESE: Other Ascertainable Records

Region: CORTESE
 Facility County Code: 1
 Reg By: LTNKA
 Reg Id: 01-1068

CERS TANKS: Other Ascertainable Records

Site ID: 235747
 CERS ID: T0600100985
 CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
 Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
 Entity Title: Not Reported
 Affiliation Address: 1515 CLAY ST SUITE 1400
 Affiliation City: OAKLAND
 Affiliation State: CA
 Affiliation Country: Not Reported
 Affiliation Zip: Not Reported
 Affiliation Phone: Not Reported

Affiliation Type Desc: Local Agency Caseworker
 Entity Name: JONATHAN E. SANDERS - ALAMEDA COUNTY LOP
 Entity Title: Not Reported
 Affiliation Address: 1131 Harbor Bay Pkwy
 Affiliation City: ALAMEDA
 Affiliation State: CA
 Affiliation Country: Not Reported
 Affiliation Zip: Not Reported
 Affiliation Phone: 5105676791

PORT OF OAKLAND, FORMER SEABREEZE CAFE 280 6TH AVE, OAKLAND, CA, 94606			1000393266
◆ S42	W 1/10 - 1/3	(1197 ft. / 0.227 mi.)	Federal RCRA generators list State and tribal leaking storage tank lists Other Ascertainable Records
	2 ft. Lower Elevation	31 ft. Above Sea Level	

Worksheet:

MAP FINDINGS

Impact on Target Property: VEC does not exist

RCRA-LQG: Federal RCRA generators list

Date form received by agency: 02/25/2008
Facility name: PORT OF OAKLAND, FORMER SEABREEZE CAFE
Facility address: 280 6TH AVE
OAKLAND, CA 94606
EPA ID: CAD982401127
Mailing address: 530 WATER STREET
OAKLAND, CA 94607
Contact: JEFFREY L RUBIN
Contact address: Not Reported
Contact country: US
Contact telephone: 510-627-1134
Contact email: JRUBIN@PORTOAKLAND.COM
EPA Region: 09
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name: PORT OF OAKLAND
Owner/operator address: Not Reported
Owner/operator country: US
Owner/operator telephone: Not Reported
Owner/operator email: Not Reported
Owner/operator fax: Not Reported
Owner/operator extension: Not Reported
Legal status: Municipal
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1927
Owner/Op end date: Not Reported
Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not Reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not Reported
Owner/operator fax: Not Reported
Owner/operator extension: Not Reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not Reported
Owner/Op end date: Not Reported

MAP FINDINGS

PORT OF OAKLAND, FORMER SEABREEZE CAFE, 280 6TH AVE, OAKLAND, CA 94606 (Continued)

Owner/operator name: SEABREEZE YACHT CENTER INC
 Owner/operator address: NOT REQUIRED
 NOT REQUIRED, ME 99999
 Owner/operator country: Not Reported
 Owner/operator telephone: 415-555-1212
 Owner/operator email: Not Reported
 Owner/operator fax: Not Reported
 Owner/operator extension: Not Reported
 Legal status: Private
 Owner/Operator Type: Owner
 Owner/Op start date: Not Reported
 Owner/Op end date: Not Reported

Owner/operator name: PORT OF OAKLAND
 Owner/operator address: 530 WATER STREET
 OAKLAND, CA 94607

Owner/operator country: US
 Owner/operator telephone: Not Reported
 Owner/operator email: Not Reported
 Owner/operator fax: Not Reported
 Owner/operator extension: Not Reported
 Legal status: Municipal
 Owner/Operator Type: Owner
 Owner/Op start date: 01/01/1927
 Owner/Op end date: Not Reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
 Mixed waste (haz. and radioactive): No
 Recycler of hazardous waste: No
 Transporter of hazardous waste: No
 Treater, storer or disposer of HW: No
 Underground injection activity: No
 On-site burner exemption: No
 Furnace exemption: No
 Used oil fuel burner: No
 Used oil processor: No
 User oil refiner: No
 Used oil fuel marketer to burner: No
 Used oil Specification marketer: No
 Used oil transfer facility: No
 Used oil transporter: No

. Waste code: D001

. Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKEY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

MAP FINDINGS

PORT OF OAKLAND, FORMER SEABREEZE CAFE, 280 6TH AVE, OAKLAND, CA 94606 (Continued)

. Waste code: D003
. Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

Historical Generators:

Date form received by agency: 09/01/1996
Site name: SEABREEZE YACHT CENTER
Classification: Small Quantity Generator

Date form received by agency: 07/12/1990
Site name: SEABREEZE YACHT CENTER
Classification: Large Quantity Generator

Violation Status: No violations found

CPS-SLIC: State and tribal leaking storage tank lists

Region: STATE
Facility Status: **Open - Remediation**
Status Date: 03/01/2003
Global Id: SL18328748
Lead Agency: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
Lead Agency Case Number: 70000109
Latitude: 37.796927
Longitude: -122.268674
Case Type: Cleanup Program Site
Case Worker: Not Reported
Local Agency: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
RB Case Number: SL18328748
File Location: Not Reported
Potential Media Affected: Not Reported
Potential Contaminants of Concern: Not Reported
Site History: Case incorporated into DTSC's Oak St. to 9th Ave. project, Oakland (Envirostor ID 70000109)

Click here to access the California GeoTracker records for this facility: http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_CA_SLIC_ST&global_id=SL18328748

CERS TANKS: Other Ascertainable Records

Site ID: 204753
CERS ID: SL18328748
CERS Description: Cleanup Program Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not Reported
Affiliation Address: 1515 CLAY ST SUITE 1400
Affiliation City: OAKLAND
Affiliation State: CA

MAP FINDINGS

PORT OF OAKLAND, FORMER SEABREEZE CAFE, 280 6TH AVE, OAKLAND, CA 94606 (Continued)

Affiliation Country: Not Reported
 Affiliation Zip: Not Reported
 Affiliation Phone: Not Reported
 Affiliation Type Desc: Local Agency Caseworker
 Entity Name: Homayune Atiqee - DEPARTMENT OF TOXIC SUBSTANCES CONTROL
 Entity Title: Not Reported
 Affiliation Address: 700 HEINZ AVENUE
 Affiliation City: BERKELEY
 Affiliation State: CA
 Affiliation Country: Not Reported
 Affiliation Zip: Not Reported
 Affiliation Phone: Not Reported

BAYPORTE VILLAGE (ACORN II APARTMENTS) 0 8TH ST & MARKET, OAKLAND, CA, 94607		S109926666
▲ U43	WNW 1/10 - 1/3 (1257 ft. / 0.238 mi.)	State and tribal leaking storage tank lists Other Ascertainable Records
	3 ft. Higher Elevation 36 ft. Above Sea Level	

Worksheet:

Impact on Target Property: VEC does not exist

CPS-SLIC: State and tribal leaking storage tank lists

Region: STATE
Facility Status: **Completed - Case Closed**
 Status Date: 07/21/1998
 Global Id: T06019791750
 Lead Agency: ALAMEDA COUNTY LOP
 Lead Agency Case Number: RO0002710
 Latitude: 37.798999
 Longitude: -122.2704
 Case Type: Cleanup Program Site
 Case Worker: Not Reported
 Local Agency: Not Reported
 RB Case Number: NA
 File Location: All Files are on GeoTracker or in the Local Agency Database
 Potential Media Affected: Soil
 Potential Contaminants of Concern: Not Reported
 Site History: Not Reported
 Click here to access the California GeoTracker records for this facility: http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_CA_SLIC_ST&global_id=T06019791750

Alameda County CS: State and tribal leaking storage tank lists

Status: Case Closed
 Record Id: RO0002710
 PE: 5502
 Facility Status: Case Closed
 Latitude: 37.799018529

MAP FINDINGS

BAYPORTE VILLAGE (ACORN II APARTMENTS), 0 8TH ST & MARKET, OAKLAND, CA 94607 (Continued)

Longitude: -122.27036874

CERS TANKS: Other Ascertainable Records

Site ID: 210514
 CERS ID: T06019791750
 CERS Description: Cleanup Program Site

JAL-VUE WINDOW CORPORATION 295 6TH AVE, OAKLAND, CA, 94607		S101580218
◆ S44	W 1/10 - 1/3 (1370 ft. / 0.259 mi.)	State and tribal leaking storage tank lists
	3 ft. Lower Elevation 30 ft. Above Sea Level	Local Lists of Registered Storage Tanks Other Ascertainable Records

Worksheet:

LUST: State and tribal leaking storage tank lists

Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)
 Case Type: LUST Cleanup Site
 Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100587
 Global Id: T0600100587
 Latitude: 37.7966897
 Longitude: -122.2695549
 Status: Completed - Case Closed
 Status Date: 01/22/1993
 Case Worker: UUU
 RB Case Number: 01-0637
 Local Agency: Not Reported
 File Location: Not Reported
 Local Case Number: 01-0637
 Potential Media Affect: Soil
 Potential Contaminants of Concern: Diesel
 Site History: Not Reported

LUST:

Global Id: T0600100587
 Contact Type: Regional Board Caseworker
 Contact Name: Regional Water Board
 Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)
 Address: 1515 CLAY ST SUITE 1400
 City: OAKLAND
 Email: Not Reported
 Phone Number: Not Reported

LUST:

Global Id: T0600100587
 Action Type: Other
 Date: 01/22/1993
 Action: Leak Reported

MAP FINDINGS

JAL-VUE WINDOW CORPORATION, 295 6TH AVE, OAKLAND, CA 94607 (Continued)

Global Id: T0600100587
Action Type: Other
Date: 01/01/1991
Action: Leak Discovery

Global Id: T0600100587
Action Type: Other
Date: 01/01/1991
Action: Leak Stopped

LUST:

Global Id: T0600100587
Status: Completed - Case Closed
Status Date: 01/22/1993

Global Id: T0600100587
Status: Open - Case Begin Date
Status Date: 01/01/1991

SWEEPS UST: Local Lists of Registered Storage Tanks

Status: Active
Comp Number: 58420
Number: 1
Board Of Equalization: Not Reported
Referral Date: 03-04-91
Action Date: 03-04-91
Created Date: 02-29-88
Owner Tank Id: HF01
SWRCB Tank Id: 01-000-058420-000001
Tank Status: A
Capacity: 1000
Active Date: 03-04-91
Tank Use: EMPTY
STG: P
Content: LEADED GASOL
Number Of Tanks: 1

HIST UST: Local Lists of Registered Storage Tanks

File Number: 00036252
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00036252.pdf>
Region: Not Reported
Facility ID: Not Reported
Facility Type: Not Reported
Other Type: Not Reported
Contact Name: Not Reported
Telephone: Not Reported
Owner Name: Not Reported
Owner Address: Not Reported

MAP FINDINGS

JAL-VUE WINDOW CORPORATION, 295 6TH AVE, OAKLAND, CA 94607 (Continued)

Owner City,St,Zip: Not Reported
Total Tanks: Not Reported
Tank Num: Not Reported
Container Num: Not Reported
Year Installed: Not Reported
Tank Capacity: Not Reported
Tank Used for: Not Reported
Type of Fuel: Not Reported
Container Construction Thickness: Not Reported
Leak Detection: Not Reported
Click here for Geo Tracker PDF: http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_CA_HISTUST_PDF&img_id=00036252

CA FID UST: Local Lists of Registered Storage Tanks

Facility ID: 01002032
Regulated By: UTNKA
Regulated ID: 00058420
Cortese Code: Not Reported
SIC Code: Not Reported
Facility Phone: 4158342535
Mail To: Not Reported
Mailing Address: 530 WATER ST
Mailing Address 2: Not Reported
Mailing City,St,Zip: OAKLAND 94607
Contact: Not Reported
Contact Phone: Not Reported
DUNs Number: Not Reported
NPDES Number: Not Reported
EPA ID: Not Reported
Comments: Not Reported
Status: Active

HIST CORTESE: Other Ascertainable Records

Region: CORTESE
Facility County Code: 1
Reg By: LTNKA
Reg Id: 01-0637

CERS TANKS: Other Ascertainable Records

Site ID: 188095
CERS ID: T0600100587
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: Regional Water Board - SAN FRANCISCO BAY RWQCB (REGION 2)
Entity Title: Not Reported
Affiliation Address: 1515 CLAY ST SUITE 1400

MAP FINDINGS

JAL-VUE WINDOW CORPORATION, 295 6TH AVE, OAKLAND, CA 94607 (Continued)

Affiliation City: OAKLAND
 Affiliation State: CA
 Affiliation Country: Not Reported
 Affiliation Zip: Not Reported
 Affiliation Phone: Not Reported

OAKLAND UNIFIED SCHOOL DISTRICT - HARPER BLDG 314 10TH STREET, OAKLAND, CA, 94606		S108245815
▲ 45	NW 1/10 - 1/3 (1374 ft. / 0.26 mi.)	State and tribal leaking storage tank lists Other Ascertainable Records
	7 ft. Higher Elevation 40 ft. Above Sea Level	

Worksheet:

LUST: State and tribal leaking storage tank lists

Lead Agency: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
 Case Type: LUST Cleanup Site
 Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T06019710391
 Global Id: T06019710391
 Latitude: 37.7946436926523
 Longitude: -122.257554531097
 Status: Open - Site Assessment
 Status Date: 10/28/2010
 Case Worker: Not Reported
 RB Case Number: NA
 Local Agency: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
 File Location: All Files are on GeoTracker or in the Local Agency Database
 Local Case Number: RO0002856
 Potential Media Affect: Other Groundwater (uses other than drinking water)
 Potential Contaminants of Concern: Polychlorinated biphenyls (PCBs), Other Insecticides / Pesticide / Fumigants / Herbicides, Other Metal, Diesel, MTBE / TBA / Other Fuel Oxygenates, Gasoline, Heating Oil / Fuel Oil, Waste Oil / Motor / Hydraulic / Lubricating, Polynuclear aromatic hydrocarbons (PAHs)
 Site History: Not Reported

LUST:

Global Id: T06019710391
 Action Type: Other
 Date: 11/09/2004
 Action: Leak Reported
 Global Id: T06019710391
 Action Type: ENFORCEMENT
 Date: 07/03/2008
 Action: Staff Letter - #20080703
 Global Id: T06019710391
 Action Type: ENFORCEMENT
 Date: 07/24/2009
 Action: Staff Letter - #20090724
 Global Id: T06019710391

MAP FINDINGS

OAKLAND UNIFIED SCHOOL DISTRICT - HARPER BLDG, 314 10TH STREET, OAKLAND, CA 94606 (Continued)

Action Type: ENFORCEMENT
 Date: 07/24/2009
 Action: Staff Letter - #20090724
 Global Id: T06019710391
 Action Type: Other
 Date: 08/28/1992
 Action: Leak Discovery

LUST:

Global Id: T06019710391
 Status: Open - Case Begin Date
 Status Date: 08/28/1992
 Global Id: T06019710391
 Status: Open - Site Assessment
 Status Date: 05/19/1993
 Global Id: T06019710391
 Status: Open - Site Assessment
 Status Date: 10/28/2010

CERS TANKS: Other Ascertainable Records

Site ID: 249183
 CERS ID: T06019710391
 CERS Description: Leaking Underground Storage Tank Cleanup Site

ASIAN HEALTH SERVICES 814 WEBSTER STREET, OAKLAND, CA, 94607			S118756496
▲ U46	WNW 1/10 - 1/3	(1504 ft. / 0.285 mi.)	State- and tribal - equivalent CERCLIS
	4 ft. Higher Elevation	37 ft. Above Sea Level	

Worksheet:

ENVIROSTOR: State- and tribal - equivalent CERCLIS

Facility ID: 1800002
 Status: No Action Required
 Status Date: 07/27/1995
 Site Code: 200630
 Site Type: Calmortgage
 Site Type Detailed: Calmortgage
 Acres: 0
 NPL: NO
 Regulatory Agencies: SMBRP
 Lead Agency: SMBRP
 Program Manager: Sandra Karinen
 Supervisor: William Beckman
 Division Branch: Cleanup Sacramento

MAP FINDINGS

ASIAN HEALTH SERVICES, 814 WEBSTER STREET, OAKLAND, CA 94607 (Continued)

Assembly: 18
 Senate: 09
 Special Program: Not Reported
 Restricted Use: NO
 Site Mgmt Req: NONE SPECIFIED
 Funding: CalMortgage
 Latitude: 37.79888
 Longitude: -122.2722
 APN: NONE SPECIFIED
 Past Use: NONE
 Potential COC: NONE SPECIFIED No Contaminants found
 Confirmed COC: No Contaminants found
 Potential Description: NMA
 Alias Name: Not Reported
 Alias Type: Not Reported

Completed Info:

Completed Area Name: Not Reported
 Completed Sub Area Name: Not Reported
 Completed Document Type: Not Reported
 Completed Date: Not Reported
 Comments: Not Reported
 Future Area Name: Not Reported
 Future Sub Area Name: Not Reported
 Future Document Type: Not Reported
 Future Due Date: Not Reported
 Schedule Area Name: Not Reported
 Schedule Sub Area Name: Not Reported
 Schedule Document Type: Not Reported
 Schedule Due Date: Not Reported
 Schedule Revised Date: Not Reported

301 12TH STREET FUTURE DEVELOPMENT 301 12TH STREET, OAKLAND, CA, 94607			S118757314
▲ 47	NNW 1/10 - 1/3	(1582 ft. / 0.3 mi.)	State- and tribal - equivalent CERCLIS State and tribal voluntary cleanup sites
	8 ft. Higher Elevation	41 ft. Above Sea Level	

Worksheet:

ENVIROSTOR: State- and tribal - equivalent CERCLIS

Facility ID: 60002362
 Status: Active
 Status Date: 05/24/2016
 Site Code: 202101
 Site Type: Voluntary Cleanup
 Site Type Detailed: Voluntary Cleanup
 Acres: 1.37

MAP FINDINGS

301 12TH STREET FUTURE DEVELOPMENT, 301 12TH STREET, OAKLAND, CA 94607 (Continued)

NPL: NO
 Regulatory Agencies: SMBRP
 Lead Agency: SMBRP
 Program Manager: Harold (Bud) Duke
 Supervisor: Jose Salcedo
 Division Branch: Northern California Schools & Santa Susana
 Assembly: , 18
 Senate: , 09
 Special Program: Voluntary Cleanup Program
 Restricted Use: NO
 Site Mgmt Req: NONE SPECIFIED
 Funding: Responsible Party
 Latitude: 37.80139
 Longitude: -122.2692
 APN: 002 006300600, 2-63-6
 Past Use: UNDERGROUND STORAGE TANKS, VEHICLE MAINTENANCE
 Potential COC: Under Investigation Benzene Lead Tetrachloroethylene (PCE Toxaphene TPH-diesel TPH-gas Trichloroethylene (TCE Vinyl chloride
 Confirmed COC: Benzene Lead Tetrachloroethylene (PCE 30023-NO 30024-NO TPH-gas Trichloroethylene (TCE Vinyl chloride Under Investigation
 Potential Description: IA, OTH, SOIL, SV, UE
 Alias Name: 002 006300600
 Alias Type: APN
 Alias Name: 2-63-6
 Alias Type: APN
 Alias Name: 202097
 Alias Type: Project Code (Site Code)
 Alias Name: 202101
 Alias Type: Project Code (Site Code)
 Alias Name: 60002362
 Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Technical Workplan
 Completed Date: 06/23/2016
 Comments: DTSC approval of the Indoor Air Sampling Work Plan
 Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Fact Sheets
 Completed Date: 09/12/2016
 Comments: DTSC provided electronic copies of a fact sheet to be distributed by AMethod Public Schools to the students and staff of the Oakland Charter High School. The fact sheet was produced in English and translated into Cantonese and Spanish.
 Completed Area Name: PROJECT WIDE

MAP FINDINGS

301 12TH STREET FUTURE DEVELOPMENT, 301 12TH STREET, OAKLAND, CA 94607 (Continued)

Completed Sub Area Name: Not Reported
 Completed Document Type: Technical Workplan
 Completed Date: 06/23/2016
 Comments: DTSC issued its conditional approval of the 6/22/2016 Indoor Air Sampling Work Plan developed by Terraphase.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Site Characterization Report
 Completed Date: 04/20/2017
 Comments: DTSC issued its approval of the Groundwater Investigation Report and Well Installation Work Plan.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Community Profile
 Completed Date: 12/14/2017
 Comments: DTSC completed preparation of the Community Profile for the Response Plan.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: AB 389 Response Plan
 Completed Date: 10/18/2017
 Comments: DTSC issued a letter approving the Response Plan.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Other Report
 Completed Date: 02/02/2017
 Comments: DTSC issued a letter approving the Report of Findings: Indoor-Air Sampling Results July 28, 2016 through September 18, 2016.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Operations and Maintenance Plan
 Completed Date: 11/28/2016
 Comments: DTSC issued a letter approving the revised OM&M Plan as final.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Other Report
 Completed Date: 04/07/2017
 Comments: DTSC provided conditional approval of the document entitled Indoor-Air Sampling Results, Fourth Quarter 2016.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Fact Sheets
 Completed Date: 05/11/2017
 Comments: DTSC provided to AMethod the May 2017 Fact Sheet (in english, Spanish

MAP FINDINGS

301 12TH STREET FUTURE DEVELOPMENT, 301 12TH STREET, OAKLAND, CA 94607 (Continued)

and chinese) via email.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Other Report
 Completed Date: 05/09/2017
 Comments: DTSC issued its conditional approval of the First Quarter 2017 Indoor-Air Sampling Report.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Pilot Study/Treatability Workplan
 Completed Date: 07/20/2017
 Comments: DTSC issued a letter approving the ZVI Pilot Test Work Plan via email and poste.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Public Notice
 Completed Date: 08/11/2017
 Comments: Issued public notices for the draft Response Plan to the Alameda Times Star, the La Opinion De la Bahia and the Sing Tao Daily. Papers are to publish notices on 8/18/2017.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Work Notice
 Completed Date: 11/17/2017
 Comments: DTSC issued the work notices (English, Spanish and Chinese versions) for the Response Action field work to commence the week of November 27, 2017 with the pre-demo investigation soil, soil gas and groundwater sampling.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Fact Sheets
 Completed Date: 08/14/2017
 Comments: DTSC prepared a Community Update (aka Fact Sheet) for the Response Plan in English, Spanish and Chinese and mailed the update to occupants within a 1/4-mile radius of the project site.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Technical Workplan
 Completed Date: 11/15/2017
 Comments: DTSC approved the Pre-demolition Investigation Work Plan. Field activities are scheduled to be conducted the week of November 27, 2017.

MAP FINDINGS

301 12TH STREET FUTURE DEVELOPMENT, 301 12TH STREET, OAKLAND, CA 94607 (Continued)

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Fieldwork
 Completed Date: 11/27/2017
 Comments: DTSC traveled to site and oversaw the drilling of soil boring and the collection of soil and groundwater samples as part of the Pre-demolition Investigation fieldwork.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Other Report
 Completed Date: 02/15/2018
 Comments: DTSC issued a letter approving the 1/17/2018 PES Environmental ZVI Pilot Test Report and Preliminary Design.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Fieldwork
 Completed Date: 02/21/2018
 Comments: DTSC observed field investigation activities.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Technical Report
 Completed Date: 04/05/2018
 Comments: DTSC issued a letter approving the Revised Final ZVI Design report.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Fieldwork
 Completed Date: 03/26/2018
 Comments: DTSC's project manager (Harold D.) and engineering support (Li W.) conducted site visit to oversee ZVI injection activities associated with the approved response plan.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Other Report
 Completed Date: 08/17/2018
 Comments: DTSC issued an email indicating it has no concerns or recommendations regarding the proposed shoring plans with respect to the remedial activities. However, DTSC in a later transmittal provide comments/recommendations pertaining to geotechnical issues.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Technical Report
 Completed Date: 06/25/2018
 Comments: DTSC approved the PES Environmental Response to Comments and the Pre-Construction Soil Profiling Report.

MAP FINDINGS

301 12TH STREET FUTURE DEVELOPMENT, 301 12TH STREET, OAKLAND, CA 94607 (Continued)

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not Reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	05/03/2018
Comments:	Not Reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not Reported
Completed Document Type:	CEQA - Initial Study/ Environmental Impact Report
Completed Date:	08/14/2017
Comments:	DTSC signed the Addendum to the Final EIR for the Lake Merritt Area Plan which addresses DTSC's response plan.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not Reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	10/18/2017
Comments:	CLRRRA Agreement executed.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not Reported
Completed Document Type:	Voluntary Cleanup Agreement
Completed Date:	03/30/2017
Comments:	Signed Voluntary Cleanup Agreement between DTSC and the sellers.
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not Reported
Future Document Type:	5 Year Review Reports
Future Due Date:	2025
Schedule Area Name:	Not Reported
Schedule Sub Area Name:	Not Reported
Schedule Document Type:	Not Reported
Schedule Due Date:	Not Reported
Schedule Revised Date:	Not Reported

VCP: State and tribal voluntary cleanup sites

Facility ID:	60002362
Site Type:	Voluntary Cleanup
Site Type Detail:	Voluntary Cleanup
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	1.37
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Harold (Bud) Duke
Supervisor:	Jose Salcedo
Division Branch:	Northern California Schools & Santa Susana
Site Code:	202101
Assembly:	, 18
Senate:	, 09

MAP FINDINGS

301 12TH STREET FUTURE DEVELOPMENT, 301 12TH STREET, OAKLAND, CA 94607 (Continued)

Special Programs Code: Voluntary Cleanup Program
 Status: Active
 Status Date: 05/24/2016
 Restricted Use: NO
 Funding: Responsible Party
 Lat/Long: 37.80139 / -122.2692
 APN: 002 006300600, 2-63-6
 Past Use: UNDERGROUND STORAGE TANKS, VEHICLE MAINTENANCE
 Potential COC: 31001, 30003, 30013, 30022, 30023, 30024, 30025, 30027, 30028
 Confirmed COC: 30003,30013,30022,30023-NO,30024-NO,30025,30027,30028,31001
 Potential Description: IA, OTH, SOIL, SV, UE
 Alias Name: 002 006300600
 Alias Type: APN
 Alias Name: 2-63-6
 Alias Type: APN
 Alias Name: 202097
 Alias Type: Project Code (Site Code)
 Alias Name: 202101
 Alias Type: Project Code (Site Code)
 Alias Name: 60002362
 Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Technical Workplan
 Completed Date: 06/23/2016
 Comments: DTSC approval of the Indoor Air Sampling Work Plan

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Fact Sheets
 Completed Date: 09/12/2016
 Comments: DTSC provided electronic copies of a fact sheet to be distributed by AMethod Public Schools to the students and staff of the Oakland Charter High School. The fact sheet was produced in English and translated into Cantonese and Spanish.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Technical Workplan
 Completed Date: 06/23/2016
 Comments: DTSC issued its conditional approval of the 6/22/2016 Indoor Air Sampling Work Plan developed by Terraphase.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Site Characterization Report
 Completed Date: 04/20/2017
 Comments: DTSC issued its approval of the Groundwater Investigation Report and

MAP FINDINGS

301 12TH STREET FUTURE DEVELOPMENT, 301 12TH STREET, OAKLAND, CA 94607 (Continued)

Well Installation Work Plan.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Community Profile
 Completed Date: 12/14/2017
 Comments: DTSC completed preparation of the Community Profile for the Response Plan.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: AB 389 Response Plan
 Completed Date: 10/18/2017
 Comments: DTSC issued a letter approving the Response Plan.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Other Report
 Completed Date: 02/02/2017
 Comments: DTSC issued a letter approving the Report of Findings: Indoor-Air Sampling Results July 28, 2016 through September 18, 2016.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Operations and Maintenance Plan
 Completed Date: 11/28/2016
 Comments: DTSC issued a letter approving the revised OM&M Plan as final.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Other Report
 Completed Date: 04/07/2017
 Comments: DTSC provided conditional approval of the document entitled Indoor-Air Sampling Results, Fourth Quarter 2016.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Fact Sheets
 Completed Date: 05/11/2017
 Comments: DTSC provided to AMethod the May 2017 Fact Sheet (in english, Spanish and chinese) via email.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Other Report
 Completed Date: 05/09/2017
 Comments: DTSC issued its conditional approval of the First Quarter 2017 Indoor-Air Sampling Report.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Pilot Study/Treatability Workplan

MAP FINDINGS

301 12TH STREET FUTURE DEVELOPMENT, 301 12TH STREET, OAKLAND, CA 94607 (Continued)

Completed Date: 07/20/2017
 Comments: DTSC issued a letter approving the ZVI Pilot Test Work Plan via email and poste.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Public Notice
 Completed Date: 08/11/2017
 Comments: Issued public notices for the draft Response Plan to the Alameda Times Star, the La Opinion De la Bahia and the Sing Tao Daily. Papers are to publish notices on 8/18/2017.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Work Notice
 Completed Date: 11/17/2017
 Comments: DTSC issued the work notices (English, Spanish and Chinese versions) for the Response Action field work to commence the week of November 27, 2017 with the pre-demo investigation soil, soil gas and groundwater sampling.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Fact Sheets
 Completed Date: 08/14/2017
 Comments: DTSC prepared a Community Update (aka Fact Sheet) for the Response Plan in English, Spanish and Chinese and mailed the update to occupants within a 1/4-mile radius of the project site.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Technical Workplan
 Completed Date: 11/15/2017
 Comments: DTSC approved the Pre-demolition Investigation Work Plan. Field activities are scheduled to be conducted the week of November 27, 2017.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Fieldwork
 Completed Date: 11/27/2017
 Comments: DTSC traveled to site and oversaw the drilling of soil boring and the collection of soil and groundwater samples as part of the Pre-demolition Investigation fieldwork.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Other Report
 Completed Date: 02/15/2018

MAP FINDINGS

301 12TH STREET FUTURE DEVELOPMENT, 301 12TH STREET, OAKLAND, CA 94607 (Continued)

Comments: DTSC issued a letter approving the 1/17/2018 PES Environmental ZVI Pilot Test Report and Preliminary Design.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Fieldwork
 Completed Date: 02/21/2018
 Comments: DTSC observed field investigation activities.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Technical Report
 Completed Date: 04/05/2018
 Comments: DTSC issued a letter approving the Revised Final ZVI Design report.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Fieldwork
 Completed Date: 03/26/2018
 Comments: DTSC's project manager (Harold D.) and engineering support (Li W.) conducted site visit to oversee ZVI injection activities associated with the approved response plan.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Other Report
 Completed Date: 08/17/2018
 Comments: DTSC issued an email indicating it has no concerns or recommendations regarding the proposed shoring plans with respect to the remedial activities. However, DTSC in a later transmittal provide comments/recommendations pertaining to geotechnical issues.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Technical Report
 Completed Date: 06/25/2018
 Comments: DTSC approved the PES Environmental Response to Comments and the Pre-Construction Soil Profiling Report.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: California Land Reuse and Revitalization Agreement
 Completed Date: 05/03/2018
 Comments: Not Reported

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: CEQA - Initial Study/ Environmental Impact Report
 Completed Date: 08/14/2017
 Comments: DTSC signed the Addendum to the Final EIR for the Lake Merritt Area Plan which addresses DTSC's response plan.

MAP FINDINGS

301 12TH STREET FUTURE DEVELOPMENT, 301 12TH STREET, OAKLAND, CA 94607 (Continued)

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: California Land Reuse and Revitalization Agreement
 Completed Date: 10/18/2017
 Comments: CLRRRA Agreement executed.

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not Reported
 Completed Document Type: Voluntary Cleanup Agreement
 Completed Date: 03/30/2017
 Comments: Signed Voluntary Cleanup Agreement between DTSC and the sellers.

Future Area Name: PROJECT WIDE
 Future Sub Area Name: Not Reported
 Future Document Type: 5 Year Review Reports
 Future Due Date: 2025
 Schedule Area Name: Not Reported
 Schedule Sub Area Name: Not Reported
 Schedule Document Type: Not Reported
 Schedule Due Date: Not Reported
 Schedule Revised Date: Not Reported

SALVATION ARMY 601 WEBSTER ST, OAKLAND, CA, 94607		U003713877
◆ 48	W 1/10 - 1/3 (1661 ft. / 0.315 mi.)	State and tribal leaking storage tank lists
	4 ft. Lower Elevation 29 ft. Above Sea Level	

Worksheet:

LUST: State and tribal leaking storage tank lists

Lead Agency: ALAMEDA COUNTY LOP
 Case Type: LUST Cleanup Site
 Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000003428
 Global Id: T10000003428
 Latitude: 37.7988274959459
 Longitude: -122.272872626781
 Status: Open - Site Assessment
 Status Date: 12/09/2011
 Case Worker: KEN
 RB Case Number: Not Reported
 Local Agency: ALAMEDA COUNTY LOP
 File Location: All Files are on GeoTracker or in the Local Agency Database
 Local Case Number: RO0003084
 Potential Media Affect: Other Groundwater (uses other than drinking water), Soil, Under Investigation
 Potential Contaminants of Concern: Benzene, Diesel, Ethylbenzene, Gasoline, MTBE / TBA / Other Fuel Oxygenates, Naphthalene, Toluene, Waste Oil / Motor / Hydraulic / Lubricating, Xylene
 Site History: Not all historic documents for the fuel leak case may be available on GeoTracker. A more complete historic case file for this site is

MAP FINDINGS

SALVATION ARMY, 601 WEBSTER ST, OAKLAND, CA 94607 (Continued)

located on the Alameda County Environmental Health (ACEH) website at <https://ehgis.acgov.org/dehpublic/dehpublic.jsp>. Site is developed as a warehouse and distribution center for The Salvation Army (TSA) and is in the initial characterization phase of investigation. In November 2010, two USTs, a 10,000-gallon diesel and an 8,000-gallon gasoline tank, were removed. Discolored soil and obvious petroleum odor was noted in the pit excavation. Samples recovered from the tank pit were reported to include up to 17,000 milligrams per kilogram (mg/kg) total petroleum hydrocarbons as gasoline (TPHg) and 300 mg/kg benzene. Diesel and MTBE were not detected at the site. The 10,000-gallon diesel and an 8,000-gallon gasoline USTs are second generation tanks. Previous USTs were removed circa 2000. A strong odor emanated from the tank pit, so it was left open to aerate prior to the installation of the second generation USTs. No record of tank condition or sampling was found for the first generation tanks in the files. Initial soil and groundwater investigation performed in January 2014 with the advance of 7 soil bores- three in the former tank pit with 4 bores forming a transect along the SSW side of the pit. No soil samples were collected within 10 feet of the ground surface. Maximum soil concentrations within the pit were near the northwest corner (SB7 @ 20) with TPHg: 8,900 mg/kg, total petroleum hydrocarbons as diesel (TPHd): 41 mg/kg, benzene, toluene, ethylbenzene, and xylenes (collectively BTEX): 64, 260, 170, & 610 mg/kg, & 12 mg/kg methyl tertiary butyl ether (MTBE). Maximum soil concentrations along transect were located in a western bore (SB3 @ 20) at TPHg: 9,400 mg/kg, TPHd: 120 mg/kg, BTEX: 110, 380, 240, & 890 mg/kg, & <2.0 mg/kg MTBE. Maximum grab groundwater (GGW) concentrations within the pit were reported for SB1 with TPHg: 210,000 micrograms per liter (ug/L) (x8015), BTEX (x8015): 35,000, 47,000, 3,000, & 16,000 ug/L, respectively, & 240 ug/L (x8260) MTBE; and maximum GGW concentrations along transect were reported for SB4, the western most soil bore, at TPHg: 280,000 ug/L (x8015), BTEX (x8015): 35,000, 30,000, 3,900, & 20,000 ug/L & 5,300 ug/L (x8260) MTBE. Note: no water was recovered in SB3. Three on-site and one off-site wells installed for GW investigation. Skimmers operational in two wells and sheen consistently reported in two of the 3 on-site wells & intermittent in other well. Most recent event- conducted 1Q18

MAP FINDINGS

SALVATION ARMY, 601 WEBSTER ST, OAKLAND, CA 94607 (Continued)

reported 2 inches of FP in MW-3 skimmer. Passive soil gas survey performed for down gradient plume delineation- report over due, but may have been delayed due to weather-related issues.

LUST:

Global Id:	T10000003428
Contact Type:	Local Agency Caseworker
Contact Name:	KEITH NOWELL
Organization Name:	ALAMEDA COUNTY LOP
Address:	1131 Harbor Bay Parkway
City:	ALAMEDA
Email:	keith.nowell@acgov.org
Phone Number:	5105676764
Global Id:	T10000003428
Contact Type:	Regional Board Caseworker
Contact Name:	Regional Water Board
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST SUITE 1400
City:	OAKLAND
Email:	Not Reported
Phone Number:	Not Reported

LUST:

Global Id:	T10000003428
Action Type:	ENFORCEMENT
Date:	10/26/2016
Action:	Staff Letter - #20161026
Global Id:	T10000003428
Action Type:	ENFORCEMENT
Date:	05/24/2016
Action:	Verbal Communication - #5/24/2016
Global Id:	T10000003428
Action Type:	Other
Date:	11/23/2010
Action:	Leak Stopped
Global Id:	T10000003428
Action Type:	RESPONSE
Date:	06/04/2012
Action:	Electronic Reporting Submittal Due
Global Id:	T10000003428
Action Type:	RESPONSE
Date:	05/18/2018
Action:	Site Assessment Report
Global Id:	T10000003428
Action Type:	ENFORCEMENT

MAP FINDINGS

SALVATION ARMY, 601 WEBSTER ST, OAKLAND, CA 94607 (Continued)

Date: 04/14/2016
 Action: Email Correspondence - #20160414

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 10/28/2017
 Action: Monitoring Report - Quarterly

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 05/20/2014
 Action: Correspondence - Regulator Responded

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 02/07/2015
 Action: Soil and Water Investigation Workplan - Regulator Responded

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 10/02/2015
 Action: Email Correspondence - Regulator Responded

Global Id: T10000003428
 Action Type: ENFORCEMENT
 Date: 05/04/2016
 Action: Meeting - #20160504

Global Id: T10000003428
 Action Type: ENFORCEMENT
 Date: 09/25/2015
 Action: Staff Letter - #20150925

Global Id: T10000003428
 Action Type: Other
 Date: 09/16/2011
 Action: Leak Reported

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 07/01/2013
 Action: Electronic Reporting Submittal Due

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 08/30/2013
 Action: Conceptual Site Model

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 07/28/2017
 Action: Monitoring Report - Quarterly

Global Id: T10000003428
 Action Type: RESPONSE

MAP FINDINGS

SALVATION ARMY, 601 WEBSTER ST, OAKLAND, CA 94607 (Continued)

Date: 04/22/2016
 Action: Soil and Water Investigation Workplan - Regulator Responded

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 10/03/2017
 Action: Site Investigation Workplan - Regulator Responded

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 08/15/2017
 Action: Soil and Water Investigation Workplan - Regulator Responded

Global Id: T10000003428
 Action Type: ENFORCEMENT
 Date: 08/03/2016
 Action: Staff Letter - #20160803

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 02/14/2014
 Action: Soil and Water Investigation Report

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 01/08/2014
 Action: Correspondence

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 01/17/2014
 Action: Correspondence

Global Id: T10000003428
 Action Type: ENFORCEMENT
 Date: 05/18/2012
 Action: Staff Letter - #20120518

Global Id: T10000003428
 Action Type: ENFORCEMENT
 Date: 06/15/2017
 Action: Staff Letter - #20170615

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 09/24/2015
 Action: Email Correspondence

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 11/18/2015
 Action: Soil and Water Investigation Report

Global Id: T10000003428
 Action Type: RESPONSE

MAP FINDINGS

SALVATION ARMY, 601 WEBSTER ST, OAKLAND, CA 94607 (Continued)

Date: 08/14/2014
 Action: Soil and Water Investigation Workplan

Global Id: T10000003428
 Action Type: ENFORCEMENT
 Date: 05/31/2013
 Action: Staff Letter - #20130531

Global Id: T10000003428
 Action Type: ENFORCEMENT
 Date: 11/26/2012
 Action: Technical Correspondence / Assistance / Other - #20121126

Global Id: T10000003428
 Action Type: ENFORCEMENT
 Date: 01/08/2014
 Action: Staff Letter - #20140108

Global Id: T10000003428
 Action Type: ENFORCEMENT
 Date: 07/14/2014
 Action: Email Correspondence - #20140714

Global Id: T10000003428
 Action Type: ENFORCEMENT
 Date: 07/29/2014
 Action: Technical Correspondence / Assistance / Other - #20140729

Global Id: T10000003428
 Action Type: ENFORCEMENT
 Date: 12/24/2014
 Action: Staff Letter - #20141224

Global Id: T10000003428
 Action Type: ENFORCEMENT
 Date: 04/04/2014
 Action: Staff Letter - #20140404

Global Id: T10000003428
 Action Type: ENFORCEMENT
 Date: 07/02/2014
 Action: Staff Letter - #20140702

Global Id: T10000003428
 Action Type: ENFORCEMENT
 Date: 05/13/2014
 Action: Staff Letter - #20140513

Global Id: T10000003428
 Action Type: ENFORCEMENT
 Date: 06/01/2015
 Action: Staff Letter - #20150601

Global Id: T10000003428
 Action Type: ENFORCEMENT

MAP FINDINGS

SALVATION ARMY, 601 WEBSTER ST, OAKLAND, CA 94607 (Continued)

Date: 05/21/2018
 Action: Staff Letter - #20180521

Global Id: T10000003428
 Action Type: ENFORCEMENT
 Date: 10/24/2017
 Action: Staff Letter - #20171024

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 08/15/2014
 Action: Soil and Water Investigation Workplan

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 08/28/2015
 Action: Email Correspondence

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 04/28/2017
 Action: Monitoring Report - Quarterly

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 08/06/2018
 Action: Email Correspondence

Global Id: T10000003428
 Action Type: ENFORCEMENT
 Date: 01/30/2018
 Action: Staff Letter - #20180130

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 11/15/2014
 Action: Soil and Water Investigation Report

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 12/31/2014
 Action: Corrective Action Plan / Remedial Action Plan

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 06/29/2017
 Action: Electronic Reporting Submittal Due

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 01/12/2018
 Action: Email Correspondence

Global Id: T10000003428
 Action Type: ENFORCEMENT

MAP FINDINGS

SALVATION ARMY, 601 WEBSTER ST, OAKLAND, CA 94607 (Continued)

Date: 10/14/2014
 Action: Staff Letter - #20141014

Global Id: T10000003428
 Action Type: Other
 Date: 11/23/2010
 Action: Leak Discovery

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 09/25/2015
 Action: Email Correspondence

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 11/27/2017
 Action: Electronic Reporting Submittal Due

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 11/27/2017
 Action: Email Correspondence

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 09/24/2016
 Action: Monitoring Report - Quarterly

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 01/22/2017
 Action: Monitoring Report - Quarterly

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 11/01/2016
 Action: Soil Vapor Intrusion Investigation Report

Global Id: T10000003428
 Action Type: RESPONSE
 Date: 06/04/2012
 Action: Soil and Water Investigation Workplan - Addendum - Regulator Responded

LUST:

Global Id: T10000003428
 Status: Open - Case Begin Date
 Status Date: 12/09/2011

Global Id: T10000003428
 Status: Open - Site Assessment
 Status Date: 12/09/2011

Alameda County CS: State and tribal leaking storage tank lists

MAP FINDINGS

SALVATION ARMY, 601 WEBSTER ST, OAKLAND, CA 94607 (Continued)

Status: Leak Confirmation
Record Id: RO0003084
PE: 5602
Facility Status: Leak Confirmation
Latitude: Not Reported
Longitude: Not Reported

Status: Pollution Characterization
Record Id: RO0003084
PE: 5602
Facility Status: Pollution Characterization
Latitude: Not Reported
Longitude: Not Reported

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
ENVIRONMENTAL RECORDS						
Federal NPL site list						
US	NPL	National Priority List	EPA	03/11/2019	03/14/2019	04/01/2019
US	Proposed NPL	Proposed National Priority List Sites	EPA	03/11/2019	03/14/2019	04/01/2019
US	NPL LIENS	Federal Superfund Liens	EPA	10/15/1991	02/02/1994	03/30/1994
Federal CERCLIS list						
US	SEMS	Superfund Enterprise Management System	EPA	02/06/2019	02/15/2019	03/15/2019
Federal RCRA CORRACTS facilities list						
US	CORRACTS	Corrective Action Report	EPA	03/01/2018	03/28/2018	06/22/2018
Federal RCRA TSD facilities list						
US	RCRA-TSDF	RCRA - Treatment, Storage and Disposal	Environmental Protection Agency	03/01/2018	03/28/2018	06/22/2018
Federal RCRA generators list						
US	RCRA-LQG	RCRA - Large Quantity Generators	Environmental Protection Agency	03/01/2018	03/28/2018	06/22/2018
US	RCRA-SQG	RCRA - Small Quantity Generators	Environmental Protection Agency	03/01/2018	03/28/2018	06/22/2018
US	RCRA-CESQG	RCRA - Conditionally Exempt Small Quantity Generators	Environmental Protection Agency	03/01/2018	03/28/2018	06/22/2018
Federal institutional controls / engineering controls registries						
US	LUCIS	Land Use Control Information System	Department of the Navy	10/17/2018	10/25/2018	12/07/2018
US	US ENG CONTROLS	Engineering Controls Sites List	Environmental Protection Agency	01/31/2019	02/04/2019	03/08/2019
US	US INST CONTROL	Sites with Institutional Controls	Environmental Protection Agency	01/31/2019	02/04/2019	03/08/2019
Federal ERNS list						
US	ERNS	Emergency Response Notification System	National Response Center, United States Coast	02/04/2019	02/08/2019	03/08/2019
State and tribal - equivalent NPL						
CA	RESPONSE	State Response Sites	Department of Toxic Substances Control	01/28/2019	01/29/2019	03/05/2019
State and tribal - equivalent CERCLIS						
CA	ENVIROSTOR	EnviroStor Database	Department of Toxic Substances Control	01/28/2019	01/29/2019	03/05/2019
State and tribal landfill / solid waste disposal						
CA	SWF/LF (SWIS)	Solid Waste Information System	Department of Resources Recycling and Recover	02/11/2019	02/12/2019	03/05/2019
State and tribal leaking storage tank lists						
CA	LUST REG 1	Active Toxic Site Investigation	California Regional Water Quality Control Boa	02/01/2001	02/28/2001	03/29/2001
CA	LUST REG 9	Leaking Underground Storage Tank Report	California Regional Water Quality Control Boa	03/01/2001	04/23/2001	05/21/2001
CA	LUST	Leaking Underground Fuel Tank Report (GEOTRACKER)	State Water Resources Control Board	12/10/2018	12/11/2018	01/15/2019
CA	LUST REG 8	Leaking Underground Storage Tanks	California Regional Water Quality Control Boa	02/14/2005	02/15/2005	03/28/2005
CA	LUST REG 6L	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Boa	09/09/2003	09/10/2003	10/07/2003
CA	LUST REG 5	Leaking Underground Storage Tank Database	California Regional Water Quality Control Boa	07/01/2008	07/22/2008	07/31/2008
CA	LUST REG 7	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Boa	02/26/2004	02/26/2004	03/24/2004

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
CA	LUST REG 2	Fuel Leak List	California Regional Water Quality Control Boa	09/30/2004	10/20/2004	11/19/2004
CA	LUST REG 3	Leaking Underground Storage Tank Database	California Regional Water Quality Control Boa	05/19/2003	05/19/2003	06/02/2003
CA	LUST REG 4	Underground Storage Tank Leak List	California Regional Water Quality Control Boa	09/07/2004	09/07/2004	10/12/2004
CA	LUST REG 6V	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Boa	06/07/2005	06/07/2005	06/29/2005
US	INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land	EPA Region 10	04/12/2018	05/18/2018	07/20/2018
US	INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land	Environmental Protection Agency	04/10/2018	05/18/2018	07/20/2018
US	INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land	EPA Region 8	04/25/2018	05/18/2018	07/20/2018
US	INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land	EPA Region 7	04/24/2018	05/18/2018	07/20/2018
US	INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land	EPA Region 6	04/01/2018	05/18/2018	07/20/2018
US	INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land	EPA Region 4	05/08/2018	05/18/2018	07/20/2018
US	INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land	EPA Region 1	04/13/2018	05/18/2018	07/20/2018
US	INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land	EPA, Region 5	04/12/2018	05/18/2018	07/20/2018
CA	CPS-SLIC	Statewide SLIC Cases (GEOTRACKER)	State Water Resources Control Board	12/10/2018	12/11/2018	01/15/2019
CA	SLIC REG 1	Active Toxic Site Investigations	California Regional Water Quality Control Boa	04/03/2003	04/07/2003	04/25/2003
CA	SLIC REG 2	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board San Fran	09/30/2004	10/20/2004	11/19/2004
CA	SLIC REG 3	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Regional Water Quality Control Boa	05/18/2006	05/18/2006	06/15/2006
CA	SLIC REG 4	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Region Water Quality Control Board Los Angele	11/17/2004	11/18/2004	01/04/2005
CA	SLIC REG 5	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board Central	04/01/2005	04/05/2005	04/21/2005
CA	SLIC REG 6V	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board, Victorv	05/24/2005	05/25/2005	06/16/2005
CA	SLIC REG 6L	SLIC Sites	California Regional Water Quality Control Boa	09/07/2004	09/07/2004	10/12/2004
CA	SLIC REG 7	SLIC List	California Regional Quality Control Board, Co	11/24/2004	11/29/2004	01/04/2005
CA	SLIC REG 8	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Region Water Quality Control Board	04/03/2008	04/03/2008	04/14/2008
CA	SLIC REG 9	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Regional Water Quality Control Boa	09/10/2007	09/11/2007	09/28/2007
State and tribal registered storage tank lists						
CA	UST	Active UST Facilities	SWRCB	12/10/2018	12/11/2018	01/15/2019
CA	UST CLOSURE	Proposed Closure of Underground Storage Tank (UST) Cases	State Water Resources Control Board	03/11/2019	03/13/2019	04/03/2019
CA	MILITARY UST SITES	Military UST Sites (GEOTRACKER)	State Water Resources Control Board	12/10/2018	12/11/2018	01/15/2019
CA	UST MENDOCINO	Mendocino County UST Database	Department of Public Health	12/04/2018	12/06/2018	12/14/2018
CA	AST	Aboveground Petroleum Storage Tank Facilities	California Environmental Protection Agency	07/06/2016	07/12/2016	09/19/2016
US	INDIAN UST R6	Underground Storage Tanks on Indian Land	EPA Region 6	04/01/2018	05/18/2018	07/20/2018
US	INDIAN UST R7	Underground Storage Tanks on Indian Land	EPA Region 7	04/24/2018	05/18/2018	07/20/2018
US	INDIAN UST R8	Underground Storage Tanks on Indian Land	EPA Region 8	04/25/2018	05/18/2018	07/20/2018
US	INDIAN UST R9	Underground Storage Tanks on Indian Land	EPA Region 9	04/10/2018	05/18/2018	07/20/2018
US	INDIAN UST R1	Underground Storage Tanks on Indian Land	EPA, Region 1	04/13/2018	05/18/2018	07/20/2018
US	INDIAN UST R4	Underground Storage Tanks on Indian Land	EPA Region 4	05/08/2018	05/18/2018	07/20/2018
US	INDIAN UST R5	Underground Storage Tanks on Indian Land	EPA Region 5	04/12/2018	05/18/2018	07/20/2018
US	INDIAN UST R10	Underground Storage Tanks on Indian Land	EPA Region 10	04/12/2018	05/18/2018	07/20/2018
US	FEMA UST	Underground Storage Tank Listing	FEMA	05/15/2017	05/30/2017	10/13/2017

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
State and tribal voluntary cleanup sites						
CA	VCP	Voluntary Cleanup Program Properties	Department of Toxic Substances Control	01/28/2019	01/29/2019	03/05/2019
US	INDIAN VCP R7	Voluntary Cleanup Priority Listing	EPA, Region 7	03/20/2008	04/22/2008	05/19/2008
US	INDIAN VCP R1	Voluntary Cleanup Priority Listing	EPA, Region 1	07/27/2015	09/29/2015	02/18/2016
State and tribal Brownfields sites						
CA	BROWNFIELDS	Considered Brownfields Sites Listing	State Water Resources Control Board	12/20/2018	12/21/2018	02/28/2019
Other Records						
US	CONSENT	Superfund (CERCLA) Consent Decrees	Department of Justice, Consent Decree Library	12/31/2018	02/11/2019	03/21/2019
US	ROD	Records Of Decision	EPA	03/11/2019	03/14/2019	04/01/2019
US	LIENS 2	CERCLA Lien Information	Environmental Protection Agency	03/11/2019	03/14/2019	03/21/2019
CA	HIST CAL-SITES	Calsites Database	Department of Toxic Substance Control	08/08/2005	08/03/2006	08/24/2006
US	DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations	EPA, Region 9	01/12/2009	05/07/2009	09/21/2009
CA	SWRCY	Recycler Database	Department of Conservation	12/10/2018	12/12/2018	01/15/2019
CA	CA FID UST	Facility Inventory Database	California Environmental Protection Agency	10/31/1994	09/05/1995	09/29/1995
CA	HIST UST	Hazardous Substance Storage Container Database	State Water Resources Control Board	10/15/1990	01/25/1991	02/12/1991
CA	SAN FRANCISCO AST	Aboveground Storage Tank Site Listing	San Francisco County Department of Public Hea	09/11/2018	09/12/2018	10/11/2018
CA	SWEEPS UST	SWEEPS UST Listing	State Water Resources Control Board	06/01/1994	07/07/2005	08/11/2005
US	EPA WATCH LIST	EPA WATCH LIST	Environmental Protection Agency	08/30/2013	03/21/2014	06/17/2014
US	US FIN ASSUR	Financial Assurance Information	Environmental Protection Agency	01/31/2019	02/04/2019	03/08/2019
US	PCB TRANSFORMER	PCB Transformer Registration Database	Environmental Protection Agency	05/24/2017	11/30/2017	12/15/2017
US	US AIRS (AFS)	Aerometric Information Retrieval System Facility Subsystem (	EPA	10/12/2016	10/26/2016	02/03/2017
US	COAL ASH DOE	Steam-Electric Plant Operation Data	Department of Energy	12/31/2005	08/07/2009	10/22/2009
US	COAL ASH EPA	Coal Combustion Residues Surface Impoundments List	Environmental Protection Agency	07/01/2014	09/10/2014	10/20/2014
US	SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing	Environmental Protection Agency	01/01/2017	02/03/2017	04/07/2017
US	FUSRAP	Formerly Utilized Sites Remedial Action Program	Department of Energy	08/08/2017	09/11/2018	09/14/2018
US	LEAD SMELTER 2	Lead Smelter Sites	American Journal of Public Health	04/05/2001	10/27/2010	12/02/2010
US	2020 COR ACTION	2020 Corrective Action Program List	Environmental Protection Agency	09/30/2017	05/08/2018	07/20/2018
US	LEAD SMELTER 1	Lead Smelter Sites	Environmental Protection Agency	03/11/2019	03/14/2019	03/21/2019
US	US AIRS MINOR	Air Facility System Data	EPA	10/12/2016	10/26/2016	02/03/2017
US	US HIST CDL	National Clandestine Laboratory Register	Drug Enforcement Administration	09/21/2018	09/21/2018	11/09/2018
US	Delisted NPL	National Priority List Deletions	EPA	03/11/2019	03/14/2019	04/01/2019
US	SEMS-ARCHIVE	Superfund Enterprise Management System Archive	EPA	02/06/2019	02/15/2019	03/15/2019
US	RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated	Environmental Protection Agency	03/01/2018	03/28/2018	06/22/2018
US	HMIRS	Hazardous Materials Information Reporting System	U.S. Department of Transportation	02/08/2019	02/08/2019	03/21/2019
US	DOT OPS	Incident and Accident Data	Department of Transportation, Office of Pipeli	12/03/2018	01/29/2019	03/21/2019
US	US CDL	Clandestine Drug Labs	Drug Enforcement Administration	09/21/2018	09/21/2018	11/09/2018
US	US BROWNFIELDS	A Listing of Brownfields Sites	Environmental Protection Agency	12/17/2018	12/18/2018	01/11/2019
US	DOD	Department of Defense Sites	USGS	12/31/2005	11/10/2006	01/11/2007
US	FEDLAND	Federal and Indian Lands	U.S. Geological Survey	12/31/2005	02/06/2006	01/11/2007
US	FUDS	Formerly Used Defense Sites	U.S. Army Corps of Engineers	01/31/2015	07/08/2015	10/13/2015
US	UMTRA	Uranium Mill Tailings Sites	Department of Energy	06/23/2017	10/11/2017	11/03/2017
US	ODI	Open Dump Inventory	Environmental Protection Agency	06/30/1985	08/09/2004	09/17/2004
US	US MINES	Mines Master Index File	Department of Labor, Mine Safety and Health A	11/27/2018	02/27/2019	04/01/2019
US	US MINES 2	Ferrous and Nonferrous Metal Mines Database Listing	USGS	12/05/2005	02/29/2008	04/18/2008

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	US MINES 3	Active Mines & Mineral Plants Database Listing	USGS	04/14/2011	06/08/2011	09/13/2011
US	PRP	Potentially Responsible Parties	EPA	08/13/2018	10/04/2018	11/09/2018
US	TRIS	Toxic Chemical Release Inventory System	EPA	12/31/2016	01/10/2018	01/12/2018
US	TSCA	Toxic Substances Control Act	EPA	12/31/2016	06/21/2017	01/05/2018
US	FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA/Office of Prevention, Pesticides and Toxi	04/09/2009	04/16/2009	05/11/2009
US	FTTS INSP	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA	04/09/2009	04/16/2009	05/11/2009
US	HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HIST FTTS INSP	FIFRA/TSCA Tracking System Inspection & Enforcement Case Lis	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	SSTS	Section 7 Tracking Systems	EPA	12/31/2009	12/10/2010	02/25/2011
US	ICIS	Integrated Compliance Information System	Environmental Protection Agency	11/18/2016	11/23/2016	02/10/2017
US	PADS	PCB Activity Database System	EPA	09/14/2018	10/11/2018	12/07/2018
US	MLTS	Material Licensing Tracking System	Nuclear Regulatory Commission	08/30/2016	09/08/2016	10/21/2016
US	RADINFO	Radiation Information Database	Environmental Protection Agency	01/02/2019	01/03/2019	03/15/2019
US	FINDS	Facility Index System/Facility Registry System	EPA	02/15/2019	03/05/2019	03/15/2019
US	RAATS	RCRA Administrative Action Tracking System	EPA	04/17/1995	07/03/1995	08/07/1995
US	RMP	Risk Management Plans	Environmental Protection Agency	02/01/2019	02/14/2019	03/21/2019
US	BRS	Biennial Reporting System	EPA/NTIS	12/31/2015	02/22/2017	09/28/2017
US	PWS	Public Water System Data	EPA	12/17/2013	01/09/2014	10/15/2014
US	INDIAN RESERV	Indian Reservations	USGS	12/31/2014	07/14/2015	01/10/2017
US	INDIAN ODI	Report on the Status of Open Dumps on Indian Lands	Environmental Protection Agency	12/31/1998	12/03/2007	01/24/2008
CA	CA BOND EXP. PLAN	Bond Expenditure Plan	Department of Health Services	01/01/1989	07/27/1994	08/02/1994
CA	CDL	Clandestine Drug Labs	Department of Toxic Substances Control	12/31/2017	06/12/2018	08/06/2018
CA	CHMIRS	California Hazardous Material Incident Report System	Office of Emergency Services	10/24/2018	01/24/2019	03/05/2019
CA	CORTESE	"Cortese" Hazardous Waste & Substances Sites List	CAL EPA/Office of Emergency Information	12/20/2018	12/21/2018	02/28/2019
CA	CUPA LIVERMORE-PLEASANTON	CUPA Facility Listing	Livermore-Pleasanton Fire Department	01/23/2019	02/26/2019	04/01/2019
CA	CUPA SAN FRANCISCO CO	CUPA Facility Listing	San Francisco County Department of Environmen	09/11/2018	09/12/2018	09/19/2018
CA	DEED	Deed Restriction Listing	DTSC and SWRCB	03/04/2019	03/05/2019	04/01/2019
CA	DRYCLEAN AVAQMD	Antelope Valley Air Quality Management District Drycleaner L	Antelope Valley Air Quality Management Distri	02/27/2019	02/28/2019	04/01/2019
CA	DRYCLEANERS	Cleaner Facilities	Department of Toxic Substance Control	12/13/2018	01/17/2019	03/05/2019
CA	DRYCLEAN SOUTH COAST	South Coast Air Quality Management District Drycleaner Listi	South Coast Air Quality Management District	03/19/2019	03/22/2019	04/09/2019
CA	EMI	Emissions Inventory Data	California Air Resources Board	12/31/2017	06/20/2018	08/06/2018
CA	ENF	Enforcement Action Listing	State Water Resoruces Control Board	11/01/2018	11/02/2018	12/13/2018
CA	Financial Assurance 1	Financial Assurance Information Listing	Department of Toxic Substances Control	01/10/2019	01/23/2019	03/05/2019
CA	Financial Assurance 2	Financial Assurance Information Listing	California Integrated Waste Management Board	02/15/2019	02/19/2019	03/05/2019
CA	HAULERS	Registered Waste Tire Haulers Listing	Integrated Waste Management Board	02/09/2019	02/12/2019	03/27/2019
CA	HAZNET	Facility and Manifest Data	California Environmental Protection Agency	12/31/2017	10/10/2018	11/16/2018
CA	HIST CORTESE	Hazardous Waste & Substance Site List	Department of Toxic Substances Control	04/01/2001	01/22/2009	04/08/2009
CA	HWP	EnviroStor Permitted Facilities Listing	Department of Toxic Substances Control	02/19/2019	02/20/2019	03/05/2019
CA	HWT	Registered Hazardous Waste Transporter Database	Department of Toxic Substances Control	01/07/2019	01/08/2019	03/05/2019
CA	ICE	ICE	Department of Toxic Substances Control	02/19/2019	02/20/2019	03/05/2019
CA	LDS	Land Disposal Sites Listing (GEOTRACKER)	State Water Quality Control Board	12/10/2018	12/11/2018	01/15/2019
CA	LIENS	Environmental Liens Listing	Department of Toxic Substances Control	02/28/2019	03/01/2019	04/02/2019
CA	MCS	Military Cleanup Sites Listing (GEOTRACKER)	State Water Resources Control Board	12/10/2018	12/11/2018	01/15/2019
CA	MINES	Mines Site Location Listing	Department of Conservation	12/10/2018	12/12/2018	01/15/2019
CA	MWMP	Medical Waste Management Program Listing	Department of Public Health	02/20/2019	03/05/2019	04/02/2019
CA	NPDES	NPDES Permits Listing	State Water Resources Control Board	02/11/2019	02/12/2019	03/07/2019
CA	PEST LIC	Pesticide Regulation Licenses Listing	Department of Pesticide Regulation	03/04/2019	03/05/2019	04/05/2019

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
CA	PROC	Certified Processors Database	Department of Conservation	12/10/2018	12/12/2018	01/15/2019
CA	NOTIFY 65	Proposition 65 Records	State Water Resources Control Board	09/19/2018	09/20/2018	10/19/2018
CA	SCH	School Property Evaluation Program	Department of Toxic Substances Control	01/28/2019	01/29/2019	03/05/2019
CA	SPILLS 90	SPILLS90 data from FirstSearch	FirstSearch	06/06/2012	01/03/2013	02/22/2013
CA	TOXIC PITS	Toxic Pits Cleanup Act Sites	State Water Resources Control Board	07/01/1995	08/30/1995	09/26/1995
CA	UIC	UIC Listing	Department of Conservation	04/27/2018	06/13/2018	07/17/2018
CA	WASTEWATER PITS	Oil Wastewater Pits Listing	RWQCB, Central Valley Region	05/08/2018	07/11/2018	09/13/2018
CA	WDS	Waste Discharge System	State Water Resources Control Board	06/19/2007	06/20/2007	06/29/2007
CA	WIP	Well Investigation Program Case List	Los Angeles Water Quality Control Board	07/03/2009	07/21/2009	08/03/2009
CA	WMUDS/SWAT	Waste Management Unit Database	State Water Resources Control Board	04/01/2000	04/10/2000	05/10/2000
CA	OTHER OIL GAS	Other Oil & Gas Projects Sites (GEOTRACKER)	State Water Resources Control Board	12/10/2018	12/11/2018	01/15/2019
CA	WELL STIM PROJ	Well Stimulation Project (GEOTRACKER)	State Water Resources Control Board	12/10/2018	12/11/2018	01/15/2019
CA	PFAS	PFAS Contamination Site Location Listing	State Water Resources Control Board	02/21/2019	02/22/2019	04/15/2019
US	ECHO	Enforcement & Compliance History Information	Environmental Protection Agency	03/03/2019	03/05/2019	04/01/2019
CA	CIWQS	California Integrated Water Quality System	State Water Resources Control Board	03/05/2019	03/05/2019	04/02/2019
CA	UIC GEO	Underground Injection Control Sites (GEOTRACKER)	State Water Resource Control Board	12/10/2018	12/11/2018	01/15/2019
US	DOCKET HWC	Hazardous Waste Compliance Docket Listing	Environmental Protection Agency	05/31/2018	07/26/2018	10/05/2018
US	FUELS PROGRAM	EPA Fuels Program Registered Listing	EPA	02/19/2019	02/21/2019	04/01/2019
CA	WDR	Waste Discharge Requirements Listing	State Water Resources Control Board	12/10/2018	12/12/2018	01/18/2019
CA	NON-CASE INFO	Non-Case Information Sites (GEOTRACKER)	State Water Resources Control Board	12/10/2018	12/11/2018	01/15/2019
US	UXO	Unexploded Ordnance Sites	Department of Defense	12/31/2017	01/17/2019	04/01/2019
US	ABANDONED MINES	Abandoned Mines	Department of Interior	09/10/2018	09/11/2018	09/14/2018
CA	PROJECT	Project Sites (GEOTRACKER)	State Water Resources Control Board	12/10/2018	12/11/2018	01/15/2019
CA	MILITARY PRIV SITES	Military Privatized Sites (GEOTRACKER)	State Water Resources Control Board	12/10/2018	12/11/2018	01/15/2019
CA	CERS	CalEPA Regulated Site Portal Data	California Environmental Protection Agency	10/22/2018	10/23/2018	11/30/2018
CA	CERS HAZ WASTE	CERS HAZ WASTE	CalEPA	10/22/2018	10/23/2018	11/30/2018
CA	CERS TANKS	California Environmental Reporting System (CERS) Tanks	California Environmental Protection Agency	10/22/2018	10/23/2018	11/30/2018
CA	PROD WATER PONDS	Produced Water Ponds Sites (GEOTRACKER)	State Water Resources Control Board	12/10/2018	12/11/2018	01/15/2019
US	IHS OPEN DUMPS	Open Dumps on Indian Land	Department of Health & Human Services, Indian	04/01/2014	08/06/2014	01/29/2015
CA	SAMPLING POINT	Sampling Point ? Public Sites (GEOTRACKER)	State Water Resources Control Board	12/10/2018	12/11/2018	01/15/2019

HISTORICAL USE RECORDS

US	EDR MGP	EDR Proprietary Manufactured Gas Plants	EDR, Inc.			
US	EDR Hist Auto	EDR Exclusive Historical Auto Stations	EDR, Inc.			
US	EDR Hist Cleaner	EDR Exclusive Historical Cleaners	EDR, Inc.			
CA	RGA LF	Recovered Government Archive Solid Waste Facilities List	Department of Resources Recycling and Recover		07/01/2013	01/13/2014
CA	RGA LUST	Recovered Government Archive Leaking Underground Storage Tan	State Water Resources Control Board		07/01/2013	12/30/2013

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
COUNTY RECORDS						
CA	CS ALAMEDA	Contaminated Sites	Alameda County Environmental Health Services	01/09/2019	01/11/2019	03/05/2019
CA	UST ALAMEDA	Underground Tanks	Alameda County Environmental Health Services	01/07/2019	01/08/2019	03/08/2019
CA	CUPA AMADOR	CUPA Facility List	Amador County Environmental Health	01/07/2019	01/08/2019	03/07/2019
CA	CUPA BUTTE	CUPA Facility Listing	Public Health Department	04/21/2017	04/25/2017	08/09/2017
CA	CUPA CALVERAS	CUPA Facility Listing	Calveras County Environmental Health	01/24/2019	01/25/2019	03/05/2019
CA	CUPA COLUSA	CUPA Facility List	Health & Human Services	02/27/2019	02/28/2019	04/01/2019
CA	SL CONTRA COSTA	Site List	Contra Costa Health Services Department	02/14/2019	02/19/2019	03/08/2019
CA	CUPA DEL NORTE	CUPA Facility List	Del Norte County Environmental Health Divisio	01/16/2019	02/05/2019	03/05/2019
CA	CUPA EL DORADO	CUPA Facility List	El Dorado County Environmental Management Dep	02/27/2019	02/28/2019	04/01/2019
CA	CUPA FRESNO	CUPA Resources List	Dept. of Community Health	10/16/2018	10/18/2018	11/14/2018
CA	CUPA GLENN	CUPA Facility List	Glenn County Air Pollution Control District	01/22/2018	01/24/2018	03/14/2018
CA	CUPA HUMBOLDT	CUPA Facility List	Humboldt County Environmental Health	12/11/2018	12/13/2018	01/15/2019
CA	CUPA IMPERIAL	CUPA Facility List	San Diego Border Field Office	01/18/2019	01/23/2019	03/05/2019
CA	CUPA INYO	CUPA Facility List	Inyo County Environmental Health Services	04/02/2018	04/03/2018	06/14/2018
CA	UST KERN	Underground Storage Tank Sites & Tank Listing	Kern County Environment Health Services Depar	01/28/2019	02/07/2019	03/08/2019
CA	CUPA KINGS	CUPA Facility List	Kings County Department of Public Health	02/14/2019	02/19/2019	03/05/2019
CA	CUPA LAKE	CUPA Facility List	Lake County Environmental Health	02/08/2019	02/12/2019	03/12/2019
CA	CUPA LASSEN	CUPA Facility List	Lassen County Environmental Health	01/17/2019	01/18/2019	03/05/2019
CA	AOCONCERN	Key Areas of Concerns in Los Angeles County		03/30/2009	03/31/2009	10/23/2009
CA	HMS LOS ANGELES	HMS: Street Number List	Department of Public Works	12/19/2018	01/10/2019	03/07/2019
CA	LF LOS ANGELES	List of Solid Waste Facilities	La County Department of Public Works	01/14/2019	01/15/2019	03/07/2019
CA	LF LOS ANGELES CITY	City of Los Angeles Landfills	Engineering & Construction Division	01/01/2019	01/15/2019	03/07/2019
CA	SITE MIT LOS ANGELES	Site Mitigation List	Community Health Services	01/30/2019	02/01/2019	03/07/2019
CA	UST EL SEGUNDO	City of El Segundo Underground Storage Tank	City of El Segundo Fire Department	01/21/2017	04/19/2017	05/10/2017
CA	UST LONG BEACH	City of Long Beach Underground Storage Tank	City of Long Beach Fire Department	03/09/2017	03/10/2017	05/03/2017
CA	UST TORRANCE	City of Torrance Underground Storage Tank	City of Torrance Fire Department	10/02/2018	10/05/2018	11/02/2018
CA	CUPA MADERA	CUPA Facility List	Madera County Environmental Health	02/20/2019	02/22/2019	03/07/2019
CA	UST MARIN	Underground Storage Tank Sites	Public Works Department Waste Management	09/26/2018	10/04/2018	11/02/2018
CA	CUPA MERCED	CUPA Facility List	Merced County Environmental Health	08/29/2018	08/31/2018	09/19/2018
CA	CUPA MONO	CUPA Facility List	Mono County Health Department	02/21/2019	02/26/2019	04/01/2019
CA	CUPA MONTEREY	CUPA Facility Listing	Monterey County Health Department	02/05/2019	02/07/2019	03/05/2019
CA	LUST NAPA	Sites With Reported Contamination	Napa County Department of Environmental Manag	01/09/2017	01/11/2017	03/02/2017
CA	UST NAPA	Closed and Operating Underground Storage Tank Sites	Napa County Department of Environmental Manag	02/21/2019	02/22/2019	03/08/2019
CA	CUPA NEVADA	CUPA Facility List	Community Development Agency	01/25/2019	01/29/2019	03/05/2019
CA	IND_SITE ORANGE	List of Industrial Site Cleanups	Health Care Agency	01/02/2019	02/07/2019	03/05/2019
CA	LUST ORANGE	List of Underground Storage Tank Cleanups	Health Care Agency	01/02/2019	02/08/2019	03/06/2019
CA	UST ORANGE	List of Underground Storage Tank Facilities	Health Care Agency	01/02/2019	02/05/2019	03/08/2019
CA	MS PLACER	Master List of Facilities	Placer County Health and Human Services	02/28/2019	03/01/2019	04/12/2019
CA	CUPA PLUMAS	CUPA Facility List	Plumas County Environmental Health	01/14/2019	01/18/2019	03/05/2019
CA	LUST RIVERSIDE	Listing of Underground Tank Cleanup Sites	Department of Environmental Health	01/29/2019	01/31/2019	03/06/2019
CA	UST RIVERSIDE	Underground Storage Tank Tank List	Department of Environmental Health	01/29/2019	01/31/2019	03/08/2019
CA	CS SACRAMENTO	Toxic Site Clean-Up List	Sacramento County Environmental Management	11/07/2018	01/04/2019	03/05/2019
CA	ML SACRAMENTO	Master Hazardous Materials Facility List	Sacramento County Environmental Management	11/07/2018	12/28/2018	03/05/2019
CA	CUPA SAN BENITO	CUPA Facility List	San Benito County Environmental Health	11/15/2018	11/16/2018	12/13/2018
CA	PERMITS SAN BERNARDINO	Hazardous Material Permits	San Bernardino County Fire Department Hazardo	02/27/2019	02/28/2019	04/02/2019

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
CA	HMMD SAN DIEGO	Hazardous Materials Management Division Database	Hazardous Materials Management Division	03/04/2019	03/05/2019	04/02/2019
CA	LF SAN DIEGO	Solid Waste Facilities	Department of Health Services	04/18/2018	04/24/2018	06/19/2018
CA	SAN DIEGO CO LOP	Local Oversight Program Listing	Department of Environmental Health	10/22/2018	10/23/2018	11/30/2018
CA	SAN DIEGO CO. SAM	Environmental Case Listing	San Diego County Department of Environmental	03/23/2010	06/15/2010	07/09/2010
CA	LUST SAN FRANCISCO	Local Oversight Facilities	Department Of Public Health San Francisco Cou	09/19/2008	09/19/2008	09/29/2008
CA	UST SAN FRANCISCO	Underground Storage Tank Information	Department of Public Health	11/05/2018	11/06/2018	12/14/2018
CA	UST SAN JOAQUIN	San Joaquin Co. UST	Environmental Health Department	06/22/2018	06/26/2018	07/11/2018
CA	CUPA SAN LUIS OBISPO	CUPA Facility List	San Luis Obispo County Public Health Departme	02/13/2019	02/15/2019	03/14/2019
CA	BI SAN MATEO	Business Inventory	San Mateo County Environmental Health Service	12/03/2018	12/12/2018	01/15/2019
CA	LUST SAN MATEO	Fuel Leak List	San Mateo County Environmental Health Service	12/13/2018	12/18/2018	01/23/2019
CA	CUPA SANTA BARBARA	CUPA Facility Listing	Santa Barbara County Public Health Department	09/08/2011	09/09/2011	10/07/2011
CA	CUPA SANTA CLARA	Cupa Facility List	Department of Environmental Health	02/13/2019	02/19/2019	03/06/2019
CA	HIST LUST SANTA CLARA	HIST LUST - Fuel Leak Site Activity Report	Santa Clara Valley Water District	03/29/2005	03/30/2005	04/21/2005
CA	LUST SANTA CLARA	LOP Listing	Department of Environmental Health	03/03/2014	03/05/2014	03/18/2014
CA	SAN JOSE HAZMAT	Hazardous Material Facilities	City of San Jose Fire Department	01/30/2019	02/01/2019	03/07/2019
CA	CUPA SANTA CRUZ	CUPA Facility List	Santa Cruz County Environmental Health	01/21/2017	02/22/2017	05/23/2017
CA	CUPA SHASTA	CUPA Facility List	Shasta County Department of Resource Managem	06/15/2017	06/19/2017	08/09/2017
CA	LUST SOLANO	Leaking Underground Storage Tanks	Solano County Department of Environmental Man	11/29/2018	12/04/2018	01/11/2019
CA	UST SOLANO	Underground Storage Tanks	Solano County Department of Environmental Man	03/05/2019	03/07/2019	04/03/2019
CA	CUPA SONOMA	Cupa Facility List	County of Sonoma Fire & Emergency Services De	12/21/2018	12/27/2018	01/15/2019
CA	LUST SONOMA	Leaking Underground Storage Tank Sites	Department of Health Services	01/08/2019	01/10/2019	03/06/2019
CA	CUPA STANISLAUS	CUPA Facility List	Stanislaus County Department of Ennvironmenta	12/11/2018	12/13/2018	01/15/2019
CA	UST SUTTER	Underground Storage Tanks	Sutter County Environmental Health Services	02/28/2019	03/01/2019	04/03/2019
CA	CUPA TEHAMA	CUPA Facility List	Tehama County Department of Environmental Hea	12/13/2018	12/18/2018	01/15/2019
CA	CUPA TRINITY	CUPA Facility List	Department of Toxic Substances Control	01/18/2019	01/23/2019	03/06/2019
CA	CUPA TULARE	CUPA Facility List	Tulare County Environmental Health Services D	12/26/2018	12/27/2018	01/15/2019
CA	CUPA TUOLUMNE	CUPA Facility List	Divison of Environmental Health	04/23/2018	04/25/2018	06/25/2018
CA	BWT VENTURA	Business Plan, Hazardous Waste Producers, and Operating Unde	Ventura County Environmental Health Division	12/26/2018	01/24/2019	02/28/2019
CA	LF VENTURA	Inventory of Illegal Abandoned and Inactive Sites	Environmental Health Division	12/01/2011	12/01/2011	01/19/2012
CA	LUST VENTURA	Listing of Underground Tank Cleanup Sites	Environmental Health Division	05/29/2008	06/24/2008	07/31/2008
CA	MED WASTE VENTURA	Medical Waste Program List	Ventura County Resource Management Agency	12/26/2018	01/24/2019	03/07/2019
CA	UST VENTURA	Underground Tank Closed Sites List	Environmental Health Division	02/26/2019	03/13/2019	04/03/2019
CA	UST YOLO	Underground Storage Tank Comprehensive Facility Report	Yolo County Department of Health	12/26/2018	01/03/2019	01/16/2019
CA	CUPA YUBA	CUPA Facility List	Yuba County Environmental Health Department	02/08/2019	02/12/2019	03/06/2019

STREET AND ADDRESS INFORMATION

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Inspection Report



DEPARTMENT OF ENVIRONMENTAL HEALTH
 1131 HARBOR BAY PARKWAY
 ALAMEDA, CA 94502-864
 (510) 687-8700
<http://www.acgov.org/aceh/>

Facility: BART Metro Center		Address: 101 8th St		City/State: Oakland, CA		Zip Code: 94607		Date: 05/24/2016	
Owner: S. F. Bay Area Rapid Transit District				Facility email: None specified			Telephone: (510) 464-6000		
FA #: FA0321213		PR: PR0519070		Program Element: APSA SPCC 1,320 GALLONS TO 5,000 GALLONS			Inspection Type: ROUTINE INSPECTION - AST Tier I		
NVO = No Violation Observed UD = Undetermined NA = Not Applicable VO = Violation Observed COS = Corrected On Site RPT = Repeat Violation									
0 Has a valid ACDEH Operating Permit <input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT									
Violation Code Definition/Section: ALCO Title 6 6.92.050									
2 SPCC maintained onsite (If facility staffed 4 hrs/day) <input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT									
Violation Code Definition/Section: Failure to maintain SPCC plan onsite (applies if facility is manned at least four (4) hours per day). 40 CFR 112.3(e)(1); HSC 6.67 25270.4.5(a)									
4 SPCC has been prepared and implemented <input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT									
Violation Code Definition/Section: Failure to prepare and implement a Spill Prevention Control and Countermeasure (SPCC) Plan . 40 CFR 112.3; HSC 6.67 25270.4.5(a)									
5 Facility has amended SPCC as necessary <input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT									
Violation Code Definition/Section: Failure to make SPCC plan amendment(s) when the facility has had a change in: design, construction, operation, or maintenance which affects the facility's discharge potential. 40 CFR 112.5(a); HSC 6.67 25270.4.5(a)									
6 5 year review performed on SPCC <input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT									
Violation Code Definition/Section: Failure to perform a five-year review of the SPCC plan. 40 CFR 112.5(b); HSC 6.67 25270.4.5(a)									
7 Technical Amendments have been certified by a PE for a Qualified Facility <input type="checkbox"/> NVO <input type="checkbox"/> UD <input checked="" type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT									
Violation Code Definition/Section: Failure to have technical amendment(s) certified by a professional engineer for a qualified facility. 40 CFR 112.5(c), 112.6(a)(2); HSC 6.67 25270.4.5(a)									

8	Facility qualifies for Tier I requirements and plan has been prepared, certified, and implemented	
	<input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

Preparation and Self-Certification of Plan. If you are the owner or operator of a facility that meets the Tier I qualified facility criteria in § 112.3(g)(1), you may choose to self-certify your Plan. You must certify in the Plan that:

- (i) You are familiar with the requirements of this part;
- (ii) You have visited and examined the facility;
- (iii) The Plan has been prepared in accordance with accepted and sound industry practices and standards, and with the requirements of this part;
- (iv) Procedures for required inspections and testing have been established;
- (v) You will fully implement the Plan;
- (vi) The facility meets the qualification criteria set forth under § 112.3(g)(1);
- (vii) The Plan does not deviate from any requirement of this part as allowed by § 112.7(a)(2) and 112.7(d) or include measures pursuant to § 112.9(c)(6) for produced water containers and any associated piping, except as provided in paragraph (b)(3) of this section; and
- (viii) The Plan and individual(s) responsible for implementing the Plan have the full approval of management and the facility owner or operator has committed the necessary resources to fully implement the Plan.
(40 CFR 112.6(a) and HSC 25270.4.5(a)) 40 CFR 112.6(a) HSC 6.67 25270.4.5(a)

9	Qualified facility's SPCC self or PE certified	
	<input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

The Qualified Facility's Plan has been self certified by the owner/operator or a PE. The owner/operator certifies:

- (i) Familiarity with the requirements of this part;
- (ii) Visitation and examination of facility;
- (iii) Plan preparation in accordance with accepted and sound industry practices and standards, and with requirements of this part;
- (iv) Procedures for required inspections and testing have been established;
- (v) Full implementation of the Plan;
- (vi) It meets qualification criteria set forth under §112.3(g);
- (vii) No deviation from any requirement of this part as allowed by §112.7(a)(2) and 112.7(d), except as provided in paragraph (c) of this section; and
- (viii) The Plan and individual(s) responsible for implementing the Plan have the full approval of management and facility owner or operator has committed the necessary resources to fully implement the Plan. (40 CFR 112.6(a)(1)) 40 CFR 112.6(a)(1) HSC 6.67 25270.4.5(a)

10	Tech amendments have been certified when there has been a change in facility design/operations	
	<input type="checkbox"/> NVO <input type="checkbox"/> UD <input checked="" type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

Technical amendments to the SPCC have been certified when there has been a change in facility design, construction, operation or maintenance that may affect its potential for a discharge. (40 CFR 112.6(a)(2)) 40 CFR 112.6(a)(2) HSC 6.67 25270.4.5(a)

11	SPCC template complete and signed by owner/operator	
	<input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

Plan has been prepared in accordance with the template in Appendix G and may be used as the facility's SPCC once completed and signed by the owner/operator. 40 CFR 112.6(a)(3) HSC 6.67 25270.4.5(a)

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12	SPCC contains a prediction of direction/rate of flow/total quantity of oil potentially discharged <input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	
Violation Code Definition/Section: Failure Analysis: SPCC contains a prediction of direction, rate of flow, and total quantity of oil potentially discharged from the facility as a result of each type of major equipment failure where experience indicates a reasonable potential (i.e.: loading or unloading equipment, tank overflow, rupture, or leakage). 40 CFR 112.6(a)(3)(i) HSC 6.67 25270.4.5(a)		
13	All bulk storage containers have sec cont and mobile refuelers in a position to prev discharge <input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	
Violation Code Definition/Section: Bulk storage containers do not have proper secondary containment and/or mobile refuelers are not positioned to prevent a discharge (40 CFR 112.6 (a)(3)(ii) 112.6(a)(3)(ii) HSC 6.67 25270.4.5(a)		
14	Containers provided w/overflow prevention, discussion included in SPCC, and tested <input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	
Violation Code Definition/Section: Overflow prevention, in lieu of the requirements in §§ 112.8(c)(8) and 112.12(c)(8). Ensure that each container is provided with a system or documented procedure to prevent overfills of the container, describe the system or procedure in the SPCC Plan and regularly test to ensure proper operation or efficacy. 40 CFR 112.6(a)(3)(iii) HSC 6.67 25270.4.5(a)		
26	Alternative environmental equivalence discussed in SPCC <input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	
Violation Code Definition/Section: Failure to discuss alternative environmental protection to SPCC requirements within the SPCC plan. 40 CFR 112.5(c), 112.7(a)(2); HSC 6.67 25270.4.5(a)		
27	SPCC contains facility management approval to fully implement the SPCC Plan <input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	
Violation Code Definition/Section: Failure to obtain facility management approval to fully implement the SPCC Plan. 40 CFR 112.7; HSC 6.67 25270.4.5(a)		
28	SPCC follows seq/cross ref, good engineering practice, has mgt. approval, in writing, procedures <input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	
Violation Code Definition/Section: 1. Failure to prepare a SPCC plan that follows a sequence of rule and/or cross-reference. 2. Failure of the owner or operator of a facility subject to this part to prepare a SPCC plan in accordance with good engineering practices. 3. Failure to have the full approval of management at a level of authority to commit the necessary resources to fully implement the SPCC plan. 4. Failure to prepare the Plan in writing. AND 5. Failure to prepare a SPCC plan that addresses additional procedures/methods/equipment not yet fully operational. 40 CFR 112.7; HSC 6.67 25270.4.5(a)		
29	Adequate physical facility layout of facility included in SPCC <input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	
Violation Code Definition/Section: Failure to adequately describe the physical layout of the facility, or no description of the physical layout of the facility included within the SPCC plan. 40 CFR 112.7(a)(3); HSC 6.67 25270.4.5(a)		

30	SPCC adequately addresses facility layout, operations, discharge prevention methods and containers <input type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT
Violation Code Definition/Section: Failure to adequately discuss the facility layout, containers and storage capacity, transfer operations, pumping, and the facility processes and discharge prevention methods including contact list within the SPCC plan. 40 CFR 112.7(a)(3), 112.7(a)(3)(i), 112.7(a)(3)(ii), 112.7(a)(3)(iii), 112.7(a)(3)(iv), 112.7(a)(3)(v), 112.7(a)(3)(vi); HSC 6.67 25270.4.5(a)	
31	SPCC contains an adequate facility diagram <input type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT
Violation Code Definition/Section: Failure to have an adequate facility diagram, or no facility diagram included within the SPCC plan. 40 CFR 112.7(a)(3); HSC 6.67 25270.4.5(a)	
32	SPCC contains procedures for reporting a discharge <input type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT
Violation Code Definition/Section: Failure to adequately discuss procedures for reporting a discharge, or no information and procedures for reporting a discharge are included within the SPCC plan. Note: this is not required if facility has facility response plan 40 CFR 112.7(a)(4); HSC 6.67 25270.4.5(a)	
33	Discharge procedures are adequately addressed if the facility has no response plan <input type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT
Violation Code Definition/Section: Failure to adequately describe the procedures to use when a discharge occurs, or no description and procedures to use for when a discharge may occur within the SPCC plan. This is not required if the facility has a facility response plan. 40 CFR 112.7(a)(5); HSC 6.67 25270.4.5(a)	
35	SPCC addresses the appropriate containment/diversionary structures/equipment <input type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT
Violation Code Definition/Section: Failure to discuss the appropriate containment/diversionary structures/equipment within the plan. 40 CFR 112.7(c); HSC 6.67 25270.4.5(a)	
39	Inspections/tests conducted in accordance with written procedures, records maintained for 3 years <input type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT
Violation Code Definition/Section: Failure to comply with all of the following requirements: 1. Failure to conduct inspections and tests in accordance with written procedures that you or a certifying engineer have developed for the facility. 2. Failure to sign written procedures and/or a record of inspections and/or customary business records by the appropriate supervisor or inspector. 3. Failure to keep written procedures and/or a record of inspections and/or customary business records with the plan. AND 4. Failure to maintain written procedures and/or a record of inspections and/or customary business records for three years. 40 CFR 112.7(e); HSC 6.67 25270.4.5(a)	

40	Training provided for op/maint of equip, discharge procedures, laws/regs, general fac ops, and SPCC	
	<input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

Failure to provide training regarding:
 1. The operation and maintenance of equipment to prevent discharges.
 2. Discharge procedure protocols.
 3. Applicable pollution control laws, rules, and regulations.
 4. General facility operations. AND
 5. The contents of the SPCC Plan. 40 CFR 112.7(f)(1); HSC 6.67 25270.4.5(a)

41	Person who reports to management has been designated for discharge prevention	
	<input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

Failure to designate a person accountable for discharge prevention and who reports to facility management. 40 CFR 112.7(f)(2); HSC 6.67 25270.4.5(a)

42	Spill prevention briefings are conducted annually	
	<input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

Failure to schedule and conduct spill prevention briefings at least once a year. 40 CFR 112.7(f)(3); HSC 6.67 25270.4.5(a)

43	SPCC addresses site security, lockout/tag out, and lighting	
	<input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

Failure to describe in your SPCC Plan how you secure and control access to the oil handling, processing and storage areas; secure master flow and drain valves; prevent unauthorized access to starter controls on oil pumps; secure out-of-service and loading/unloading connections of oil pipelines; and address the appropriateness of security lighting to both prevent acts of vandalism and assist in the discovery of oil discharges. 40 CFR 112.7(g); HSC 6.67 25270.4.5(a)

44	Handling areas and drain valves secure, pump start controls lock, un/load connect secured, lights	
	<input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

Failure to implement the following security measures for the facility:
 1. Secure and control access to the oil handling, processing and storage areas.
 2. Secure the master flow and drain valves that permit direct outward flow to the surface in the closed position when in a non-operating or standby status.
 3. Lock starter controls on pumps in the "off" position or locate at a site accessible only to authorized personnel when pumps are not in a non-operating or standby status.
 4. Cap or blank-flange loading and unloading connection(s) of piping/pipelines when not in service or standby status; and
 5. Provide adequate facility lighting to facilitate the discovery of spills during hours of darkness and to deter vandalism. 40 CFR 112.7(g); HSC 6.67 25270.4.5(a)

51	Facility drainage adequately discussed	
	<input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

Failure to adequately discuss facility drainage, or no discussion of facility drainage included within the SPCC plan. 40 CFR 112.8(b); HSC 6.67 25270.4.5(a)

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52		Valves used for drainage controlled to prevent a discharge <input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	
Violation Code Definition/Section: Failure to control valves used for drainage from diked storage areas to drainage system, watercourse, or effluent treatment system to prevent a discharge. 40 CFR 112.8(b)(2); HSC 6.67 25270.4.5(a)			
55		Adequate discussion regarding bulk storage tanks located at the facility <input type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	
Violation Code Definition/Section: Failure to adequately discuss bulk storage tanks or no discussion regarding bulk storage tanks included within the SPCC Plan. 40 CFR 112.8(c); HSC 6.67 25270.4.5(a)			
56		Material and construction of all containers are compatible with the material stored <input type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	
Violation Code Definition/Section: Failure to construct tanks out of materials compatible to the oil stored and the conditions of storage such as pressure and temperature. 40 CFR 112.8(c)(1); HSC 6.67 25270.4.5(a)			
59		Containment bypass valves closed when not draining rainwater <input type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	
Violation Code Definition/Section: Failure to close containment bypass valves when not draining rainwater. 40 CFR 112.8(c)(3)(i); HSC 6.67 25270.4.5(a)			
60		Run-off rainwater for diked areas is inspected <input type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	
Violation Code Definition/Section: Failure to inspect run-off rainwater from diked areas. 40 CFR 112.8(c)(3)(ii); HSC 6.67 25270.4.5(a)			
61		Valves resealed under responsible supervision <input type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	
Violation Code Definition/Section: Failure to open and reseat valves under responsible supervision. 40 CFR 112.8(c)(3)(iii); HSC 6.67 25270.4.5(a)			
62		Records maintained of drainage from diked areas <input type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	
Violation Code Definition/Section: Failure to maintain adequate records (or NPDES permit records) of drainage from diked areas. 40 CFR 112.8(c)(3)(iv); HSC 6.67 25270.4.5(a)			
63		Partially buried tanks have corrosion protection <input type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	
Violation Code Definition/Section: Failure to have buried sections protected from corrosion on partially buried tanks. 40 CFR 112.8(c)(5); HSC 6.67 25270.4.5(a)			

64		Tank inspections include supports, foundations, deterioration, discharges and comparison records <input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT
Violation Code Definition/Section: Failure to include inspections of tank supports/foundation, deterioration, discharges and/or accumulations of oil inside diked areas, and comparison records in the records of inspections (or customary business records). 40 CFR 112.8(c)(6); HSC 6.67 25270.4.5(a)		
65		Integrity testing performed to industry standards by a qualified person <input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT
Violation Code Definition/Section: Failure to test or inspect aboveground tanks for integrity by a person qualified in accordance with industry standards. 40 CFR 112.8(c)(6); HSC 6.67 25270.4.5(a)		
66		After material repairs AST has been tested by a qualified person <input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT
Violation Code Definition/Section: Failure to integrity test aboveground tanks by such methods as hydrostatic, nondestructive, etc. 40 CFR 112.8(c)(6); HSC 6.67 25270.4.5(a)		
71		Cause(s) of leaks promptly corrected <input type="checkbox"/> NVO <input type="checkbox"/> UD <input checked="" type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT
Violation Code Definition/Section: Failure to promptly correct the causes of leaks that result in accumulations of oil in diked areas. 40 CFR 112.8(c)(10); HSC 6.67 25270.4.5(a)		
78		Aboveground valves, piping, and appurtenances are regularly inspected <input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT
Violation Code Definition/Section: Failure to regularly inspect aboveground valves, piping, and appurtenances. 40 CFR 112.8(d)(4); HSC 6.67 25270.4.5(a)		
79		Periodic integrity/leak testing performed on buried piping <input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT
Violation Code Definition/Section: Failure to perform periodic integrity and leak testing of buried piping. 40 CFR 112.8(d)(4); HSC 6.67 25270.4.5(a)		
Last tested 5/12/16		
81		Oil filled electrical equipment exclusions have been met <input type="checkbox"/> NVO <input type="checkbox"/> UD <input checked="" type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT
Violation Code Definition/Section: Failure to meet provisions of excluded oil-filled electrical equipment. HSC 6.67 25270.2(a)(4)		

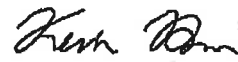
82	Valid permit maintained <input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	
Violation Code Definition/Section: Failure to maintain a valid permit. HSC 6.11 25404.1		
83	SPCC prepared and implemented <input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	
Violation Code Definition/Section: Failure to discuss conformance with SPCC requirements within the SPCC plan. HSC 6.67 25270.4.5(a)		
84	Tank Facility Statement or Business Plan has been submitted <input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	
Violation Code Definition/Section: Failure to submit a Tank Facility Statement or Business Plan. HSC 6.67 25270.6(a)(1), 25270.6(a)(2)		
85	Spills of one barrel or more reported to Cal EMA and UPA <input type="checkbox"/> NVO <input type="checkbox"/> UD <input checked="" type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	
Violation Code Definition/Section: Failure to report spills of one barrel or more to Cal EMA and UPA. HSC 6.67 25270.8		
86	APSA program fee paid <input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	
Violation Code Definition/Section: Failure to pay the APSA Program fee. HSC 6.67 25270.6(b)		
87	All/any permanently closed tanks are properly closed under the definition in 40 CFR 112.2 <input type="checkbox"/> NVO <input type="checkbox"/> UD <input checked="" type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	
Violation Code Definition/Section: Failure to properly permanently close all/any tanks under the definition of "Permanently Closed " in 40 CFR 112.2? 1) All liquid and sludge has been removed from each container and connecting line. 2) All connecting lines and piping have been disconnected from the container blanked off. 3) All valves have been closed and locked. 4) Conspicuous signs have been posted on the container stating that it is a permanently closed container and denoting the date of closure. 40 CFR 112.2; HSC 6.67 25270.4.5(a)		
Overall Inspection Comments: Onsite to conduct the Aboveground Petroleum Storage Act Inspection at BART Metro Center - 101 8th Street, Oakland, CA 94607. Met with Principal Engineer, Gary Jensen. Reviewed SPCC Plan onsite.		

Facility representative who granted permission to conduct inspection on 5/24/16 and reviewed inspection report

Date: 5/24/16

Gary Jensen 05/24/2016

Principal Engineer

A large, stylized handwritten signature in black ink, appearing to read 'Gary Jensen', is written over a horizontal dashed line. The signature extends significantly to the right of the line.A handwritten signature in black ink, appearing to read 'Kevin Horn', is written above a solid horizontal line.

Kevin Horn

Hazardous Materials Specialist

ICC Certified UST Inspector - 8006055

Inspection Report



DEPARTMENT OF ENVIRONMENTAL HEALTH
 1131 HARBOR BAY PARKWAY
 ALAMEDA, CA 94502-854
 (510) 587-8700
<http://www.acgov.org/aceh/>

Facility: BART Metro Center		Address: 101 8th St		City/State: Oakland, CA		Zip Code: 94607		Date: 05/24/2016	
Owner: S. F. Bay Area Rapid Transit District				Facility email: None specified				Telephone: (510) 464-8000	
FA #: FA0321213		PR: PR0619069		Program Element: HMBP 1-5 TYPES HM, CATEGORY 2			Inspection Type: ROUTINE INSPECTION - HMBP		

NVO = No Violation Observed UD = Undetermined NA = Not Applicable VO = Violation Observed COS = Corrected On Site RPT = Repeat Violation

0	Has a valid ACDEH Operating Permit <input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	
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Violation Code Definition/Section:

ALCO Title 8 8.92.050

1	Established and adequately implemented a business plan <input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	
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Violation Code Definition/Section:

Failed to adequately establish and implement a Hazardous Materials Business Plan (HMBP) when storing and/or handling a hazardous material in reportable quantities.
 Emergency shutoffs for chemical processes or equipment are labeled.
 Emergency equipment (such as fire extinguishers, spill prevention & alarm equipment) tested & maintained as necessary (e.g. fire extinguishers assessed annually).
 Spill control and spill mitigation materials are available (e.g. absorbents, rags, or shop vacuum).
 All containers are kept closed unless in use.
 All containers are in good condition.
 Containers stored in a manner to prevent rupture, leaking or structural deterioration.
 Containers are compatible with contents.
 Containers are properly labeled.
 All spills promptly addressed to prevent discharge to air, soil or surface water.
 Storage area is maintained to separate incompatible materials.
 19 CCR 4 2729.1, 2731(c), 2732; HSC 6.95 25507.
 Containers of hazardous materials are disposed of properly when empty. 22 CCR 66261.7.

2	Adequate completion and electronic submission of a business plan <input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	
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Violation Code Definition/Section:

"Failed to complete and/or electronically submit a complete Hazardous Materials Business Plan (HMBP) when storing and/or handling hazardous materials or a mixture containing a hazardous material at or above the threshold quantities:
 (1) equal to or greater than 500 pounds for a solid, 55 gallons for a liquid, or 200 cubic feet for a compressed gas, or
 (2) equal to or greater than the applicable federal threshold planning quantity (TPQ) for an extremely hazardous substance (EHS) listed in Appendix A, Part 355, Title 40, of the Code of Federal Regulations.
 (3) radioactive materials that are handled in quantities for which an emergency plan is required to be adopted pursuant to Part 30 (commencing with Section 30.1), Part 40 (commencing with Section 40.1), or Part 70 (commencing with Section 70.1), of Chapter 10 of Title 10 of the Code of Federal Regulations (54 Federal Register 14051), or pursuant to any regulations adopted by the state in accordance with those regulations. HSC 6.95 25505, 25508(a)(1)"

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3	Notified property owner in writing that business is subject to HMBP program and has complied	
	<input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

"Failure to notify the property owner or provide a copy of the Hazardous Materials Business Plan (HMBP) to the owner or the owners agent within five working days after receiving a request for a copy from the owner or the owners agent. HSC 6.95 25501.1"

4	Adequate completion and electronic submission of hazardous materials inventory information	
	<input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

"Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site. HSC 6.95 25506, 25505(a)(1), 25508(a)(1)"

5	Adequate completion and electronic submission of Owner/Operator and Business Activities Forms	
	<input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

"Failure to complete and electronically submit the Business Activities Page and/or Business Owner Operator Identification Page. HSC 25508(a)(1), 19 CCR 4 2728.2(a)(1)"

6	Adequate completion and electronic submission of annotated Site Map with all required content	
	<input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

"Failure to complete and electronically submit an annotated site map with all required content (north orientation, loading areas, internal roads, adjacent streets, storm and sewer drains, access and exit points, emergency shutoffs, evacuation staging areas, hazardous material handling and storage areas, and emergency response equipment). Updates to existing maps to meet these requirements shall be completed by January 1, 2015. HSC 25505(a)(2), 25508(a)(1)"

7	Adequate completion and electronic submission of Emergency Response Plan and procedures	
	<input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

"Failure to establish and electronically submit an adequate Emergency Response Plan and procedures in the event of a reportable release or threatened release of a hazardous material, including, but not limited to, all of the following:
 (A) Immediate notification to the appropriate local emergency rescue personnel and to the unified program agency.
 (B) Procedures for the mitigation of a release or threatened release to minimize any potential harm or damage to persons, property, or the environment.
 (C) Evacuation plans and procedures, including immediate notice, for the business site. HSC 6.95 25505(a)(3), 25508(a)(1)"

8	"Annually reviewed and electronically certified that HMBP is complete, accurate and up-to-date"	
	<input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

"Failure to annually review and electronically certify that the Hazardous Materials Business Plan (HMBP) is complete, accurate, and up-to-date. HSC 6.95 25508.2"

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9	"HMBP updated within 30 days: chemical inventory, change of address, ownership, or business name"	
	<input type="checkbox"/> NVO <input type="checkbox"/> UD <input checked="" type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

"Failure to electronically update the Hazardous Materials Business Plan (HMBP) information within 30 days of: (a) A 100 percent or more increase in the quantity of a previously disclosed material, (b) Any handling of a previously undisclosed hazardous material, (c) Change of business address, (d) Change of business ownership, (e) Change of business name. HSC 6.95 25508.1(a)-(e)."

10	Business plan electronically updated within 30 days of substantial changes in operations	
	<input type="checkbox"/> NVO <input type="checkbox"/> UD <input checked="" type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

Failure to electronically update the Hazardous Materials Business Plan (HMBP) information within 30 days of a substantial change in the handler's operations that requires modification to any portion of the HMBP. HSC 6.95 25508.1(f)

11	Training program submitted and adequate for the size of the business and materials handled	
	<input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

Failure to include and electronically submit an adequate training program in the Hazardous Materials Business Plan (HMBP), which is reasonable and appropriate for the size of the business and the nature of the hazardous material handled. HSC 6.95 25508(a)(4), 25508(a)(1)

12	Initial and annual employee training completed, documented and records made available for 3 years	
	<input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

Failure to (1) provide initial training and annual training, including refresher courses, to all employees in safety procedures in the event of a release or threatened release of a hazardous material, including, but not limited to, the Emergency Response Plan, and (2) document electronically or by hard copy and make available for a minimum of three years. HSC 6.95 25505(a)(4)

Mr. Gary Jensen provided records of training while onsite.

13	Actual or threatened release reported to the CUPA and the California OES Warning Center	
	<input type="checkbox"/> NVO <input type="checkbox"/> UD <input checked="" type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

Failure of business to provide an immediate, verbal report of a release or threatened release of a hazardous material to the CUPA and the California Office of Emergency Services (OES) Warning Center. HSC 6.95 25510(a)

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14

Remote unstaffed facility exemption requirements are met when not submitting a business plan

NVO UD NA VO COS RPT

Violation Code Definition/Section:

"Failure to meet one or more of the following to comply with the remote unstaffed facility exemption of electronically submitting a business plan:

(1) The types and quantities of materials onsite are limited to one or more of the following:

(A) One thousand standard cubic feet of compressed inert gases (asphyxiation and pressure hazards only).

(B) Five hundred gallons of combustible liquid used as a fuel source.

(C) Two hundred gallons of corrosive liquids used as electrolytes in closed containers.

(D) Five hundred gallons of lubricating and hydraulic fluids.

(E) One thousand two hundred gallons of flammable gas used as a fuel source.

(F) Any quantity of mineral oil contained within electrical equipment, such as transformers, bushings, electrical switches, and voltage regulators, if the spill prevention control and countermeasure plan has been prepared for quantities that meet or exceed 1,320 gallons.

(2) The facility is secured and not accessible to the public.

(3) Warning signs are posted and maintained for hazardous materials pursuant to the California Fire Code.

(4) A one-time notification and inventory are provided to the unified program agency along with a processing fee in lieu of the existing fee. The fee shall not exceed the actual cost of processing the notification and inventory, including a verification inspection, if necessary.

(5) If the information contained in the initial notification or inventory changes and the time period of the change is longer than 30 days, the notification or inventory shall be resubmitted within 30 days to the unified program agency to reflect the change, along with a processing fee, in lieu of the existing fee, that does not exceed the actual cost of processing the amended notification or inventory, including a verification inspection, if necessary.

HSC 25507.2 "

Overall Inspection Comments:

Onsite to conduct the Hazardous Materials Business Plan Inspection at BART Metro Center - 101 8th Street, Oakland, CA 94607. Met with Principal Engineer, Gary Jensen. Facility's most recent HMBP submittal was on 2/19/2016.

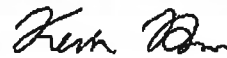
Facility has a room of Lead Acid Batteries that we were unable to access. Will verify when inspecting Lake Merritt BART station in the future.

Facility has a 4,000 gallon aboveground diesel convault tank that is backup power for BART's operating system at the Metro Center. The tank and underground piping are monitoring with an INCON monitoring system that was recently tested by TEC Accutite on 5/12/2016.

Facility representative who granted permission to conduct inspection on 5/24/16 and reviewed inspection report

Date: 5/24/16

Gary Jensen 05/24/2016
Principal Engineer

Kevin Horn
Hazardous Materials Specialist
ICC Certified UST Inspector - 8006055

Inspection Report



ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH
 1131 HARBOR BAY PARKWAY
 ALAMEDA, CA 94502-654
 (510) 567-6700
<http://www.acgov.org/aceh/>

Facility: BART Lake Merritt Substation (LMA)		Address: 800 Madison St		City/State: Oakland, CA		Zip Code: 94607		Date: 05/01/2017	
Owner: S.F BAY AREA RAPID TRANSIT DISTRICT				Facility email: None specified			Telephone: (510) 464-6000		
FA #: FA0321141		PR: PR0518825		Program Element: HMBP 1-5 TYPES HM, CATEGORY 1			Inspection Type: ROUTINE INSPECTION - HMBP		

NVO = No Violation Observed UD = Undetermined NA = Not Applicable VO = Violation Observed COS = Corrected On Site RPT = Repeat Violation

0	Has a valid ACDEH Operating Permit <input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	
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Violation Code Definition/Section:

ALCO Title 6 6.92.050

Business Plan

1	Established and adequately implemented a business plan <input type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input checked="" type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	CUPA Minor COMPLY BY: 5/31/2017
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Violation Code Definition/Section:

Failure to adequately establish and implement a Hazardous Materials Business Plan (HMBP) when storing and/or handling a hazardous material in reportable quantities, including the following:

- Emergency shutoffs for chemical processes or equipment are labeled.
- Emergency equipment (such as fire extinguishers, spill prevention & alarm equipment) tested and maintained as necessary (e.g. fire extinguishers assessed annually).
- Spill control and spill mitigation materials are available (e.g. absorbents, rags, or shop vacuum).
- All containers are kept closed unless in use.
- All containers are in good condition.
- Containers stored in a manner to prevent rupture, leaking or structural deterioration.
- Containers are compatible with contents.
- Containers are properly labeled.
- All spills promptly addressed to prevent discharge to air, soil or surface water.
- Storage area is maintained to separate incompatible materials.

Containers of hazardous materials are disposed of properly when empty.
 19 CCR 2651, 2658(c); 22 CCR 66261.7; HSC 6.95 25507

Violation Comments:

OBSERVATION: Fire extinguisher with expired date of February 2017 observed in transformer room. Emergency equipment (such as fire extinguishers, spill prevention and alarm equipment) shall be tested and maintained as necessary (e.g. fire extinguishers assessed annually).

CORRECTIVE ACTION: Maintain emergency equipment such as fire extinguishers as necessary; ensure fire extinguisher is serviced and is current. Provide written and/or photo documentation of corrective action within 30 days.

Business Plan

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Business Plan

2	Adequate completion and electronic submission of a business plan	
	<input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

Failure to complete and/or electronically submit a complete Hazardous Materials Business Plan (HMBP) when storing and/or handling hazardous materials or a mixture containing a hazardous material at or above the threshold quantities:
 (1) Equal to or greater than 500 pounds for a solid, 55 gallons for a liquid, or 200 cubic feet for a compressed gas, or
 (2) Equal to or greater than the applicable federal threshold planning quantity (TPQ) for an extremely hazardous substance (EHS) listed in Appendix A, Part 355, Title 40, of the Code of Federal Regulations.
 (3) Radioactive materials that are handled in quantities for which an emergency plan is required to be adopted pursuant to Part 30 (commencing with Section 30.1), Part 40 (commencing with Section 40.1), or Part 70 (commencing with Section 70.1), of Chapter 10 of Title 10 of the Code of Federal Regulations (54 Federal Register 14051), or pursuant to any regulations adopted by the state in accordance with those regulations.
 HSC 6.95 25505, 25508(a)(1)

Business Plan

3	Notified property owner in writing that business is subject to HMBP program and has complied	
	<input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

Failure to notify the property owner or provide a copy of the Hazardous Materials Business Plan (HMBP) to the owner or the owners agent within five working days after receiving a request for a copy from the owner or the owners agent. HSC 6.95 25505.1

Business Plan

4	Adequate completion and electronic submission of hazardous materials inventory information	
	<input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site. HSC 6.95 25505(a)(1), 25506, 25508(a)(1)

Business Plan

5	Adequate completion and electronic submission of Owner/Operator and Business Activities Forms	
	<input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

Failure to complete and electronically submit the Business Activities Page and/or Business Owner Operator Identification Page. HSC 25508(a)(1), 19 CCR 4 2729.2(a)(1)

Business Plan

6	Adequate completion and electronic submission of annotated Site Map with all required content	
	<input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

Failure to complete and electronically submit an annotated site map with all required content (north orientation, loading areas, internal roads, adjacent streets, storm and sewer drains, access and exit points, emergency shutoffs, evacuation staging areas, hazardous material handling and storage areas, and emergency response equipment). HSC 25505(a)(2), 25508(a)(1)

Business Plan

7	Adequate completion and electronic submission of Emergency Response Plan and procedures	
	<input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

Failure to establish and electronically submit an adequate Emergency Response Plan and procedures in the event of a reportable release or threatened release of a hazardous material, including, but not limited to, all of the following:
 (A) Immediate notification to the appropriate local emergency rescue personnel and to the unified program agency.
 (B) Procedures for the mitigation of a release or threatened release to minimize any potential harm or damage to persons, property, or the environment.
 (C) Evacuation plans and procedures, including immediate notice, for the business site.
 HSC 6.95 25505(a)(3), 25508(a)(1)

Annual Certification/ Updates

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Annual Certification/ Updates

8	"Annually reviewed and electronically certified that HMBP is complete, accurate and up-to-date"	
	<input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

Failure to annually review and electronically certify that the Hazardous Materials Business Plan (HMBP) is complete, accurate, and up-to-date. HSC 6.95 25508.2

Business Plan

9	"HMBP updated within 30 days: chemical inventory, change of address, ownership, or business name"	
	<input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

Failure to electronically update the Hazardous Materials Business Plan (HMBP) information within 30 days of any one of the following events:

- (a) A 100 percent or more increase in the quantity of a previously disclosed material,
 - (b) Any handling of a previously undisclosed hazardous material,
 - (c) Change of business address,
 - (d) Change of business ownership,
 - (e) Change of business name.
 - (f) A substantial change the in handler's operations that requires modification to any portion of the business plan.
- HSC 6.95 25508.1(a) through (f).

Training

11	Training program submitted and adequate for the size of the business and materials handled	
	<input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

Failure to include and electronically submit an adequate training program in the Hazardous Materials Business Plan (HMBP), which is reasonable and appropriate for the size of the business and the nature of the hazardous material handled. HSC 6.95 25505(a)(4), 25508(a)(1)

Training

12	Initial and annual employee training completed, documented and records made available for 3 years	
	<input checked="" type="checkbox"/> NVO <input type="checkbox"/> UD <input type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

Failure to (1) provide initial training and annual training, including refresher courses, to all employees in safety procedures in the event of a release or threatened release of a hazardous material, including, but not limited to, the Emergency Response Plan, and (2) document electronically or by hard copy and make available for a minimum of three years. HSC 6.95 25505(a)(4)

Notification

13	Actual or threatened release reported to the CUPA and the California OES Warning Center	
	<input type="checkbox"/> NVO <input type="checkbox"/> UD <input checked="" type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT	

Violation Code Definition/Section:

Failure of business to provide an immediate, verbal report of a release or threatened release of a hazardous material to the CUPA and the California Office of Emergency Services (OES) Warning Center. HSC 6.95 25510(a)

Remote Unstaffed Facility

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Remote Unstaffed Facility

14	Remote unstaffed facility exemption requirements are met when not submitting a business plan
	<input type="checkbox"/> NVO <input type="checkbox"/> UD <input checked="" type="checkbox"/> NA <input type="checkbox"/> VO <input type="checkbox"/> COS <input type="checkbox"/> RPT

Violation Code Definition/Section:

Failure to meet one or more of the following to comply with the remote unstaffed facility exemption of electronically submitting a business plan:

- (a) The types and quantities of materials onsite are limited to one or more of the following:
 - (1) One thousand standard cubic feet of compressed inert gases (asphyxiation and pressure hazards only)
 - (2) Five hundred gallons of combustible liquid used as a fuel source.
 - (3) Two hundred gallons of corrosive liquids used as electrolytes in closed containers.
 - (4) Five hundred gallons of lubricating and hydraulic fluids.
 - (5) One thousand two hundred gallons of flammable gas used as a fuel source.
 - (6) Any quantity of mineral oil contained within electrical equipment, such as transformers, bushings, electrical switches, and voltage regulators, if the spill prevention control and countermeasure plan has been prepared for quantities that meet or exceed 1,320 gallons.
- (b) The facility is secured and not accessible to the public.
- (c) Warning signs are posted and maintained for hazardous materials pursuant to the California Fire Code.
- (d) (1) A one-time notification and inventory are provided to the unified program agency along with a processing fee in lieu of the existing fee. The fee shall not exceed the actual cost of processing the notification and inventory, including a verification inspection, if necessary.
- (2) If the information contained in the initial notification or inventory changes and the time period of the change is longer than 30 days, the notification or inventory shall be resubmitted within 30 days to the unified program agency to reflect the change, along with a processing fee, in lieu of the existing fee, that does not exceed the actual cost of processing the amended notification or inventory, including a verification inspection, if necessary.

HSC 25507.2

Overall Inspection Comments:

Routine hazardous materials business plan (HMBP) inspection of BART Lake Merritt Substation (LMA) located at 800 Madison St, Oakland CA 94607. ACDEH Inspectors Kevin Hom and Antoinette Stetzenmeyer conducted the inspection. Facility walk through conducted with Aaron Meeks, Safety Specialist, and Jonathan Rossen, Manager of Employee/Patron Safety. Email inspection reports to: ameeks@bart.gov; jrossen@bart.gov. Facility inventory confirmed on site.

CERTIFICATION OF RETURN TO COMPLIANCE:

I certify that the violation(s) noted in this HMBP inspection report have been corrected at BART Lake Merritt Substation (LMA) located at 800 Madison St, Oakland, CA 94607. I have personally examined any documentation attached to the certification to establish that the violations have been corrected.

PRINT: _____ SIGN: _____

TITLE: _____ DATE: _____

Signatures

Facility representative who granted permission to conduct inspection



Aaron Meeks 05/01/2017
Safety Specialist



Antoinette Stetzenmeyer
Hazardous Materials Specialist
ICC Certified UST Inspector -

Reviewed inspection report and violations

Date _____

Aaron Meeks 05/11/2017
Safety Specialist



October 23, 2012

Roya C. Kambin
Project Manager
Marketing Business Unit

**Chevron Environmental
Management Company**
6101 Bollinger Canyon Road
San Ramon, CA 94583
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Mr. Jerry Wickham
Alameda County Health Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

RE: Feasibility Study

800, 726, and 706 Harrison Street, Oakland, California 94607
Fuel Leak Case No.: RO0000231, RO0000321, and RO0000484
Comingled Plume Claim No. 6678

Dear Mr. Wickham,

I declare under penalty of perjury that to the best of my knowledge the information and/or recommendations contained in the attached report is/are true and correct.

If you have any questions or need additional information, please contact me at 925.790.6270.

Sincerely,

A handwritten signature in black ink, appearing to read "Roya Kambin".

Roya Kambin
Union Oil of California – Project Manager

Attachment
Feasibility Study



Imagine the result

**Chevron Environmental
Management Company**

Feasibility Study

706/726/800 Harrison Street
Oakland, California
ACEH Case #RO0000231/321/484

October 23, 2012



Tyler Sale
Environmental Engineer II

Katherine Brandt
Project Manager

David Lay
Professional Geologist



Feasibility Study

706/726/800 Harrison Street
Oakland, California
ACEH Case
#RO0000231/321/484

Prepared for:
Chevron Environmental
Management Company

Prepared by:
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Our Ref.:
B0047339.2012

Date:
October 23, 2012

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1. Introduction

On behalf of Chevron Environmental Management Company, for itself and as Attorney-in-Fact for Union Oil Company of California, ARCADIS U.S., Inc. (ARCADIS) prepared this Feasibility Study (FS) to identify and evaluate potential remedial alternatives for interim remedial action to address the petroleum-hydrocarbon-impacted groundwater in the co-mingled plume at 706, 726, and 800 Harrison Street in Oakland, California (site). Figure 1 illustrates the general area of the site and Figure 2 presents a layout of the three properties.

This FS was prepared as requested by the Alameda County Department of Environmental Health (ACEH) in a letter dated July 9, 2012 (Appendix A). This FS presents relevant background information, provides a detailed comparative analysis of potential remedial alternatives, and recommends further actions to address petroleum hydrocarbon concentrations in groundwater.

1.1 Purpose/Remedial Action Objectives

The purpose of this FS is to identify and evaluate remedial action alternatives that are:

- Appropriate for site-specific conditions
- Protective of present and potential future public health, safety, and welfare of the environment
- Consistent with applicable laws, regulations and guidance documents

This FS recommends further action to address groundwater, based on balancing the remedy selection factors.

1.2 Report Organization

A description of site background information is provided in Section 2. A summary of the site conceptual model is provided in Section 3. A discussion of the development of remedial alternatives is presented in Section 4. The analysis and evaluation of each remedial alternative is summarized in Section 5. A discussion of the comparative analysis of remedial alternatives is provided in Section 6.



2. Site Background

This section describes the site's physical setting, regulatory history, and previous environmental investigations conducted at the site.

2.1 Site and Surrounding Area

The site consists of three properties located in a mixed commercial and residential area at 706, 726, and 800 Harrison Street, Oakland, California (Figure 1). All property locations and boundaries are shown on Figure 2.

The 706 Harrison Street Property is a former ARCO service station owned by Mr. Bo Gin. This property currently contains an asphalt parking lot. Former facilities at the 706 Harrison Street Property included four 1,000-gallon and two 6,000-gallon fuel underground storage tanks (USTs), one steel waste oil UST, product line piping and pump islands, and a station building. The USTs and associated piping were removed in January 1991 (Cambria Environmental Technology, Inc. 1995).

The property located at 726 Harrison Street is a former Shell service station owned by Mr. Peter Yee. This property currently contains an asphalt parking lot and building. Former facilities at the 726 Harrison Street Property included three 4,000-gallon and one 8,000-gallon fuel USTs, one steel 1,000-gallon waste oil UST, product line piping and pump islands, and a station building. The USTs and associated piping were removed in October 1995 (Aqua Science Engineers, Inc. [ASE] 2001).

The property located at 800 Harrison Street is an active 76 Station (Unocal) owned by Mr. Muhammad Usman. Current station facilities include a single-story convenience store, three product dispenser islands under two canopies, and two 12,000-gallon double-wall poly-steel gasoline USTs.

2.2 Site Water and Land Use

Sections 2.2.1 and 2.2.2 describe the beneficial water and land use determinations.

2.2.1 Beneficial Water Use Determination(s)

The site is located in the East Bay Plain sub-basin of the Santa Clara Valley groundwater basin, as identified in the San Francisco Bay Basin (Region 2) Water Quality Control Plan (California Regional Water Quality Control Board – San Francisco Bay Region [RWQCB] 2007). The Santa Clara Valley groundwater basin has been designated as having existing



beneficial uses for municipal and domestic water supply, industrial process water supply, industrial service water supply, and agricultural water supply. The information presented in the Sections 2.2.2, 2.2.3, and 2.2.4 will help to evaluate potential receptors for groundwater at the site.

2.2.2 Review of Well Logs

Water well searches have been performed for all three properties to identify the location of permitted water supply wells within a 1-mile radius of the site. The survey included reviewing the California Department of Water Resources files for water wells within a 1-mile radius of the site. The water well survey concluded that five water supply wells are located within a 1-mile radius of the site: four industrial supply wells and one irrigation supply well. The closest water well is an irrigation well located at 900 Fallon Street at Laney College, approximately 1,880 feet southeast (cross gradient) of the site (Stantec 2009).

2.2.3 Summary of Beneficial Water Use Determination

Potential beneficial uses of the site groundwater, as defined by the RWQCB, are broad and include domestic, municipal, agricultural, and industrial uses (RWQCB 2007).

2.2.4 Land Use Determination

According to the City of Oakland, all three properties are zoned in the central business zoning district. For this FS, it is assumed that potential future uses of the properties will be consistent with current zoning or commercial zoning purposes.



3. Site Conceptual Model

This section describes the site geology and hydrogeology as well as the nature and extent of remaining petroleum hydrocarbons in the groundwater.

A summary of the site history, previous investigations, and interim remedial actions is included in Appendix B. Well construction and soil boring details are included in Tables 1 and 2, respectively. Historical soil and groundwater analytical data are provided in Tables 3 and 4, respectively.

3.1 Regional Geology

The site is underlain by Holocene and Pleistocene-age eolian sand deposits referred to as the Merrit Sand. Merrit Sand typically consists of fine grained, very well-sorted, well-drained eolian sand, inter-fingering with Holocene Bay Mud. This silty sand reaches a maximum depth of approximately 50 feet below ground surface (bgs) across all three properties (Stantec 2009).

3.2 Local Geology and Hydrogeology

Property-specific well boring logs and cone penetrometer test (CPT) investigation results indicate that the site lithology is consistent with regional lithology. The general site lithology comprises primarily silty sands and fine-grained sands extending to approximately 30 feet bgs. Deeper CPTs were conducted in the area of 800 Harrison Street and indicate the presence of silt and clay between approximately 30 and 42 feet bgs. Below the clay, fine-grained sand and silty sand are present (Stantec 2009). It is assumed the Merritt Sand lies under the site, based on visual inspections of soil during the investigations (Stantec 2009). Cross-section locations are shown on Figure 3. A generalized cross-section depicting subsurface materials for all three properties is provided on Figure 4. Property-specific cross-sections for 800 Harrison Street, 726 Harrison Street, and 706 Harrison Street are provided on Figures 5, 6, and 7, respectively.

The nearest surface waters to the site are the Oakland Inner Harbor to the south and west and Lake Merritt to the east and northeast. Each body of water is approximately ½ mile from the site (Stantec 2009).

Depth to water beneath the three properties has historically ranged from 10.93 to 20.01 feet bgs. During the second semiannual groundwater monitoring and sampling event in August 2012, average depth-to-water measurements were approximately 16.30



(706 Harrison Street), 19.80 (726 Harrison Street), and 17.92 (800 Harrison Street) feet below top of well casing. A deeper water bearing zone was encountered at depths of 42 to 50 feet bgs during advancement of the cone penetrometers. Prior to the June 2011 site assessment, no wells were installed in the deeper water bearing zone. In June 2011, ASE oversaw the installation of monitoring well MW-6 in the source area near EW-1 on the 726 Harrison Street Property within the deeper water bearing zone. MW-6 is screened from 44 to 49 feet bgs (Table 1).

The predominant groundwater gradient observed across all three properties is south-southeast with a horizontal hydraulic gradient of 0.007 foot per foot (ARCADIS 2011). This gradient direction indicates that groundwater flows from 800 Harrison Street toward 726 Harrison Street and from 726 Harrison Street toward 706 Harrison Street.

A groundwater potentiometric surface map from the second semiannual 2012 monitoring event is presented on Figure 8. A groundwater gradient direction rose diagram is provided on Figure 9.

3.3 Mass Distribution in the Subsurface

3.3.1 Dissolved in Groundwater

The area of impacted groundwater was estimated and is presented on isoconcentration contour maps for total petroleum hydrocarbons quantified as gasoline range organics (TPH-g), benzene, and methyl tert-butyl ether (MTBE) for the August 9, 2012 sampling event (Figures 10, 11, and 12; Table 4). The properties located at 706 and 726 Harrison Street have the greatest mass for the dissolved groundwater plume. The following equation was used to estimate the petroleum hydrocarbon mass remaining in the area of impacted groundwater:

$$\text{Mass remaining} = C * V * n$$

Where:

C = Average concentration (micrograms per liter [$\mu\text{g/L}$])

V = Volume of impacted groundwater

n = Porosity of soil (estimated as 30 percent)



Based on this equation, an estimated total of 1.28 pounds of benzene, 2.58 pounds of MTBE, and 5.09 pounds of TPH-g mass exists in the groundwater at the site. The complete calculations are presented in Appendix C.

3.3.2 Sorbed to Soil Matrix

Various excavations have been performed at each property to address petroleum hydrocarbons in the soils. The details of excavations and soil removal activities are described in Appendix B. Soil isopleth contour maps for benzene, MTBE, and TPH-g at various depths are provided in Appendix D. The soil impacts are generally at the water table or in the saturated zone on the properties located at 706 and 726 Harrison Street.

Evaluation of the soil data with the corresponding groundwater potentiometric surface maps and cross-sections indicates the presence of two source areas beneath the former USTs at 706 and 726 Harrison Street, which were removed in 1991 and 1995, respectively. Due to the building location, over excavation of the tank pit was not completed for the removal of impacted soil at 726 Harrison Street.

3.4 Groundwater

Elevated concentrations of dissolved TPH-g, benzene, and MTBE are currently present in groundwater on site and downgradient from the USTs at 706 and 726 Harrison Street. A statistical analysis of groundwater analytical trends is presented in Section 3.4.1. Biogeochemical and natural attenuation indicator parameters are discussed in Section 3.4.2. Groundwater isoconcentration contour maps for benzene, MTBE, and TPH-g for the August 2012 sampling event are included on Figures 10, 11, and 12. Groundwater monitoring well hydrographs depicting groundwater elevation and constituent concentration trends are provided in Appendix E.

3.4.1 Linear Regression Trend Analysis

To assess trends in benzene, MTBE, and TPH-g concentrations with time, a statistical evaluation of the groundwater monitoring data was prepared for monitoring wells demonstrating decreasing trends. MTBE is the slowest constituent to naturally attenuate in groundwater and was therefore the focus of the linear regression trend analysis. All monitoring wells from the three properties were included in the linear regression trend analysis. The statistical analysis was performed using a linear regression trend test on historical groundwater analytical data.



Data sets for the analyzed monitoring wells at 706 and 726 Harrison Street consist of monitoring results from 1997 through February 2012, while the data set for 800 Harrison Street consists of monitoring results from 1991 to February 2012. Where non-detect concentrations were used in the calculations, the concentrations were assumed to be equal to the detection limits. Use of the detection limit for concentrations that were below detection provides a conservative estimate for evaluating the concentration trends through time.

Linear regression trend analyses were conducted using natural log-normalized benzene, MTBE, and TPH-g concentration data to estimate concentration-time trend direction, attenuation rates, and approximate time to achieve cleanup goals using a point-rate approach (United States Environmental Protection Agency [USEPA] 2002). The results of the linear regression trend analyses, including correlation coefficients, p-value of the correlation, trend direction, and anticipated date to reach cleanup goals, are summarized in Appendix F. Linear regression analysis allows for estimating the time to reach the cleanup goal at wells with decreasing constituent of concern (COC) concentration trends. The correlation coefficient, R^2 , is a measure of how well the linear regression fits the site data; values close to one are considered to be a good fit, while values close to zero are considered to be a poor fit. The p-value of the correlation provides a measure of the level of significance of the statistical test. Correlations were accepted as significant for p-values less than or equal to 0.05 and not significant for p-values greater than 0.05.

Groundwater monitoring data collected at the following wells indicate statistically significant decreasing concentration trends for MTBE:

- 706 Harrison Street: MW-1
- 726 Harrison Street: MW-1, MW-3, MW-4
- 800 Harrison Street: MW-1, MW-5, MW-6, MW-7, MW-8

The groundwater monitoring data collected in the remaining wells do not indicate statistically significant trends. Based on the data sets from 2003 through 2012, the average projected date to reach the water quality objective for MTBE [5 µg/L] in wells with decreasing trends is 2046.

3.4.2 Biogeochemical and Natural Attenuation Indicator Parameters

Native bacteria in soil and groundwater obtain energy for cell production and maintenance by facilitating thermodynamically advantageous reduction-oxidation reactions, involving the transfer of electrons from electron donors to available electron acceptors. Electron



acceptors in groundwater systems include oxygen, nitrate, manganese oxides, ferric iron hydroxides, sulfate, and carbon dioxide.

Natural biodegradation of petroleum hydrocarbons can occur in both aerobic and anaerobic environments. Aerobic biodegradation occurs when sufficient oxygen is present in groundwater. Anaerobic biodegradation processes will become dominant as oxygen is consumed. Anaerobic microorganisms will consume other electron acceptors in the absence of oxygen in the following order of thermodynamic preference: nitrate, ferric iron, sulfate, and carbon dioxide.

As hydrocarbons are biodegraded through anaerobic processes, concentrations of nitrate and sulfate will decrease, while concentrations of dissolved ferrous iron increase. Carbon dioxide will be consumed and created, and methane will be produced within in the plume through this process (Suthersan 1997).

During the third quarter 2012 groundwater monitoring event, biogeochemical and natural attenuation indicator parameters were collected from each monitoring well at all three properties to better understand the extent of biodegradation of petroleum hydrocarbon compounds in groundwater. The parameters collected include dissolved oxygen (DO), oxidation-reduction potential (ORP), nitrate, nitrite, total iron, sulfate, methane, alkalinity as calcium carbonate, nonvolatile organic carbon, and dissolved metals. The biogeochemical and natural attenuation indicator results are presented in Table 5.

Biogeochemical parameters have only been collected once at all three properties. To better understand the biodegradation process in groundwater, one additional round of biogeochemical parameters will be collected from each monitoring well during the first semiannual 2013 groundwater monitoring event. Biogeochemical parameter results are discussed below (without detailed interpretation due to the lack of historical data):

- DO concentrations in groundwater ranged from 0.01 milligram per liter (mg/L) (MW-8, 800 Harrison Street) to 6.25 mg/L (MW-6, 800 Harrison Street) across the three properties.
- Nitrate detections in groundwater ranged from 0.56 mg/L (MW-3, 726 Harrison Street) to 66 mg/L (MW-2, 726 Harrison Street) across the three properties.
- Sulfate detections in groundwater ranged from 2.5 mg/L (MW-5, 800 Harrison Street) to 130 mg/L (MW-2, 800 Harrison Street) across the three properties.



- Dissolved iron detections ranged from 0.16 mg/L (MW-6, 800 Harrison Street) to 6.9 mg/L (MW-2, 706 Harrison Street) across the three properties.
- Methane detections ranged from 0.0012 mg/L (MW-2, 726 Harrison Street) to 6.8 mg/L (MW-2, 706 Harrison Street) across the three properties.

The biogeochemical parameter monitoring results generally indicate aerobic conditions in groundwater at the site. Monitoring wells located outside of the hydrocarbon groundwater plume typically have higher concentrations of DO, while wells located within the plume generally have lower (but not depleted) DO concentrations. Monitoring well MW-2, located at 706 Harrison Street, demonstrated a depleted nitrate concentration and an elevated ferrous iron concentration with respect to other monitoring wells on the same property. This typically indicates anaerobic, iron-reducing conditions in groundwater within the extent of a hydrocarbon plume; however, MW-2 (706 Harrison Street) contains a fairly high DO concentration.

Results from the baseline biogeochemical and natural attenuation monitoring event indicate moderate evidence of active biodegradation processes occurring at the site, with DO, nitrate, and ferric iron used as electron acceptors. Biodegradation processes at the site will be evaluated following the additional biogeochemical monitoring event to be conducted during the first semiannual 2013 groundwater monitoring event. This additional information will help to understand the biodegradation of petroleum hydrocarbon constituents in groundwater at the site.

3.5 Summary

Over-excavations were completed to remove petroleum-impacted soil during UST removal activities at 706 and 726 Harrison Street. As discussed above, the groundwater monitoring network at 800 Harrison Street contains significantly lower concentrations of COCs compared to the other two properties. The property at 800 Harrison is located hydraulically upgradient of the other two properties (726 and 706 Harrison Street, respectively) and monitoring wells MW-1, MW-5, MW-6, MW-7, and MW-8 at 800 Harrison Street exhibit statistically significant declining trends. Therefore, remedial alternatives will focus on dissolved-phase mass in groundwater at 706 and 726 Harrison Street.

The saturated zone at 706 and 726 Harrison Street primarily comprises moderately permeable silty sand material above a denser silty clay layer. Baseline geochemical parameter data indicate possible background aerobic processes in the aquifer and anaerobic conditions within the plume spanning 706 and 726 Harrison Street. Additional



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biogeochemical parameters will be required to fully understand biodegradation processes in groundwater at all three properties.



4. Development of Remedial Options

Based on results from previous investigations and historical remedial activities conducted at the site, five potential remedial alternatives were compiled for further evaluation in this FS. The following five remedial alternatives were developed for the site:

- Alternative 1 – Monitored Natural Attenuation (MNA)
- Alternative 2 – Air Sparge (AS)/Soil Vapor Extraction (SVE)
- Alternative 3 – Multi-Phase Extraction (MPE)
- Alternative 4 – In-Situ Enhanced Bioremediation
- Alternative 5 – In-Situ Chemical Oxidation (ISCO)

Remedial alternatives 2 through 5 will be evaluated in conjunction with MNA. These remedial alternatives are described in Sections 4.1 through 4.5.

4.1 Remedial Alternative 1 – Monitored Natural Attenuation

Remedial Alternative 1 (RA1) does not involve the implementation of active remediation to remove, treat, or contain COCs at the site. This remedial alternative relies on natural attenuation and biodegradation processes to reduce chemical concentrations through time. Semiannual groundwater monitoring will be performed to document COC concentration changes.

MNA processes achieve site-specific remediation objectives through reliance on natural attenuation within a controlled, monitored site cleanup approach. The natural attenuation process includes a variety of biological, chemical, or physical processes that can reduce mass, toxicity, mobility, volume, or concentrations of COCs in groundwater. Favorable background conditions are necessary in groundwater to drive the natural attenuation process and continued biodegradation of petroleum hydrocarbons. These intrinsic in-situ processes include: biodegradation, volatilization, diffusion, dilution, sorption, and chemical or biological stabilization, transformation, or destruction of COCs.

The effectiveness of natural attenuation processes is driven by the types and concentrations of constituents present and the physical, chemical, and biological characteristics of the soil and groundwater. Natural attenuation processes in the subsurface can reduce the potential risk posed by COCs in multiple ways. The biodegradation process may produce daughter compounds of constituents that are less toxic. Physical processes, dilution, or diffusion within the groundwater aquifer may also reduce risk by decreasing concentration levels. Sorption to soil or aquifer matrix within the subsurface may also decrease constituent mobility.



Components of this alternative include:

- Conducting an additional baseline biogeochemical groundwater monitoring event to further evaluate the biodegradation processes (i.e., anaerobic vs. aerobic) taking place within the site groundwater. This monitoring event would include collection of the same geochemical and natural attenuation parameters collected during the August 9, 2012 event. The supplemental groundwater monitoring event would include collection of DO, nitrate, ferrous iron, sulfate, alkalinity as calcium carbonate, methane, nonvolatile organic carbon, and ORP; and the evaluation of COCs to confirm water quality at the site. This data, in conjunction with initial baseline geochemical parameters, will be used to evaluate the effectiveness of MNA via trend analysis to verify decreasing trends and statistical analysis to determine whether site cleanup objectives can be achieved within a reasonable time frame.
- Continuing the semiannual groundwater monitoring program to confirm continued reduction of site COC concentrations through natural attenuation processes. One semiannual groundwater monitoring event each year would also include collection of biogeochemical indicator parameters, including DO, nitrate, ferrous iron, sulfate, alkalinity as calcium carbonate, methane, nonvolatile organic carbon, and ORP for continued evaluation of the biodegradation processes taking place within site groundwater.

4.2 Remedial Alternative 2 – Air Sparge/Soil Vapor Extraction

Remedial Alternative 2 (RA2) uses AS/SVE to treat petroleum hydrocarbon impacts through physical treatment. AS involves the controlled injection of ambient air into the subsurface beneath the water table through a series of injection wells. The injected air treats dissolved petroleum hydrocarbons through volatilization or stripping. Volatilized volatile organic compounds (VOCs) then migrate upward through groundwater and into the vadose zone. The VOC vapors are captured in SVE wells and directed to a treatment system through air conveyance piping. Typical equipment used for implementation of AS includes vertical sparge wells, a blower to inject air, and system controls and instrumentation.

SVE is a process that removes VOCs from unsaturated soil below the ground surface and above the groundwater table. The SVE process involves inducing a vacuum within the soil matrix through a network of vapor extraction wells. The vacuum induced in the vadose zone volatilizes VOCs in the soil and captures VOCs stripped from groundwater through the AS process. After collection in the SVE wells, vapors are conveyed to a treatment system. Typically, the extracted vapors are treated by vapor-phase granular



activated carbon or thermal destruction (catalytic or thermal oxidation) prior to being discharged through an exhaust stack. Typical equipment used for implementation of SVE includes vertical extraction wells, a vacuum unit (blower), a liquid/vapor separator (knock-out tank), a discharge vapor treatment system, and system controls and instrumentation.

Components of this remedial alternative potentially include:

- Conducting an additional baseline biogeochemical groundwater monitoring event to further evaluate the biodegradation processes taking place within the site groundwater.
- Completing a pilot study to further evaluate soil permeability, porosity, moisture content, VOC mass removal rate, radius of influence, and optimal system design and operation parameters.
- Installing AS and SVE wells, conveyance piping, and a skid-mounted treatment system at the site. The system would include necessary SVE wells to capture subsurface vapors after stripping through the AS process.
- Performing system startup, optimization, and operation and maintenance (O&M) activities.
- Conducting air monitoring activities to evaluate the reduction of total VOC concentrations in the influent and effluent air of the treatment system.
- Maintaining and repairing the concrete/pavement materials covering the majority of the properties during remediation.
- Continuing the semiannual groundwater monitoring program. One semiannual groundwater monitoring event each year would also include collection of biogeochemical indicator parameters, including DO, nitrate, ferrous iron, sulfate, alkalinity as calcium carbonate, methane, nonvolatile organic carbon, and ORP for continued evaluation of the biodegradation processes taking place within site groundwater.

4.3 Alternative 3 – Multi-Phase Extraction

Remedial Alternative 3 (RA3) uses MPE to contain and treat COCs in groundwater. The MPE process extracts impacted groundwater and vapor from the subsurface through use of a high vacuum system and an extraction well network. The vacuum extraction wells are screened across the fringe of the water table to allow removal of soil vapors in the vadose



zone and petroleum-impacted groundwater. The high vacuum induced on the extraction wells lowers the water table surrounding the well casing to expose soil below the water table and allow extraction of the VOCs in the newly exposed soils. The vapors or liquid-phase organics and groundwater are removed, separated, and treated in an aboveground remediation building.

Components of this alternative potentially include:

- Conducting an additional baseline biogeochemical groundwater monitoring event to further evaluate the biodegradation processes taking place within the site groundwater.
- Completing a pilot study to further evaluate soil permeability, porosity, moisture content, VOC mass removal rate, radius of influence, and optimal system design and operation parameters.
- Installing vacuum extraction wells, conveyance piping, and a skid-mounted treatment system at the site. The system could include a sufficient number of vacuum wells to capture subsurface groundwater and vapors.
- Performing system startup, optimization, and O&M activities.
- Conducting air monitoring activities to evaluate the reduction of total VOC concentrations in the influent and effluent air of the treatment system.
- Maintaining and repairing the concrete/pavement materials covering the majority of the properties during remediation.
- Continuing the semiannual groundwater monitoring program. One semiannual groundwater monitoring event each year would also include collection of biogeochemical indicator parameters, including DO, nitrate, ferrous iron, sulfate, alkalinity as calcium carbonate, methane, nonvolatile organic carbon, and ORP for continued evaluation of the biodegradation processes taking place within site groundwater.

4.4 Remedial Alternative 4 – In-Situ Enhanced Bioremediation

Remediation Alternative 4 (RA4) includes in-situ enhanced bioremediation to treat COCs in groundwater through biodegradation. While bioremediation will occur aerobically through natural attenuation at some sites, the enhanced bioremediation approach accelerates the



rate of microorganism degradation reactions and stimulates the activity of microorganisms by optimizing environmental conditions. In-situ enhanced bioremediation typically entails the use of a system to supply oxygen, other electron acceptors, or nutrients to groundwater through an injection well network to stimulate microbial activity.

Components of this alternative potentially include:

- Conducting an additional baseline biogeochemical groundwater monitoring event to further evaluate the biodegradation processes taking place within the site groundwater.
- Completing an injection pilot study to further evaluate soil permeability, porosity, moisture content, radius of influence, required amendment volume, optimal injection well locations, and effectiveness of the enhanced biodegradation process.
- Installing injection wells, conveyance piping, and a skid-mounted treatment system at the site.
- Performing system startup, optimization, and O&M.
- Continuing the semiannual groundwater monitoring program. One semiannual groundwater monitoring event each year would also include collection of biogeochemical indicator parameters, including DO, nitrate, ferrous iron, sulfate, alkalinity as calcium carbonate, methane, nonvolatile organic carbon, and ORP for continued evaluation of the biodegradation processes taking place within site groundwater.

4.5 Remedial Alternative 5 – In-Situ Chemical Oxidation

Remedial Alternative 5 (RA5) involves remediation of groundwater COCs through ISCO by delivering oxidants and other amendments to impacted groundwater to degrade organic hydrocarbon constituents to non-toxic byproducts. Typical chemical oxidants are activated persulfate, ozone, hydrogen peroxide, and potassium permanganate. Oxidant injections can be completed either through direct-push injections or manned injection events into permanent injection wells.

The completion of bench testing and further biogeochemical evaluation would be necessary to determine the proper reagent and dosing requirements. For this FS, we have assumed the use of sodium persulfate as the chemical oxidant with hydrogen peroxide or ferrous sulfate and citric acid as an activator. Assuming adequate dosing and delivery/contact, the



VOCs will likely react rapidly (i.e., within minutes), with complete destruction upon contact (greater than 90 percent effective destruction). Therefore, the effectiveness of this alternative is primarily based on the ability to deliver/distribute the treatment reagents to the affected media, the oxidation reaction kinetics, and the ability to overcome natural oxidant demand of the soils/aquifer. Reaction kinetics will also affect the rate of carbon dioxide generation and the amount of heat generated, and is often an important design consideration from a health and safety perspective.

MNA would be relied upon for areas outside the direct influence of the injection zone for final treatment.

Components of the alternative include:

- Conducting an additional baseline biogeochemical groundwater monitoring event to further evaluate the biodegradation processes taking place within the site groundwater.
- Completing an injection pilot study to further evaluate oxidant demand, potential infiltration/oxidant injection rates, and other parameters related to the design.
- Completing bench testing and further geochemical evaluation to aid in reagent selection and dose requirements.
- Installing an ISCO injection system (such as a network of vertical injection wells) at and hydraulically downgradient from the two source areas on 706 and 726 Harrison.
- Injecting oxidant solution into the injection wells.
- Conducting verification sampling and analysis activities to evaluate the reduction of COC concentrations in unsaturated soil.
- Continuing the semiannual groundwater monitoring program. One semiannual groundwater monitoring event each year would also include collection of biogeochemical indicator parameters, including DO, nitrate, ferrous iron, sulfate, alkalinity as calcium carbonate, methane, nonvolatile organic carbon, and ORP for continued evaluation of the biodegradation processes taking place within site groundwater.



5. Analysis of Remedial Alternatives

This section describes and evaluates the five remedial alternatives identified in Section 4. Each remedial alternative is evaluated by assessing the following five remedy selection factors:

- Effectiveness
- Long-term reliability
- Implementability
- Implementation risk
- Cost

These five remedy selection factors are described in Section 5.1 and the remedial alternatives are evaluated in Section 5.2.

5.1 Remedy Selection Factors

Each of the five remedy selection factors used in this FS is described below.

5.1.1 Effectiveness

Each remedial action alternative is assessed for its short- and long-term effectiveness in achieving site cleanup goals by considering the following criteria, as appropriate:

- Magnitude of risk from untreated waste or treatment residuals remaining at the site with on-site management and controls to mitigate exposure through various exposure pathways. The characteristics of the residuals will be considered to the degree that they remain hazardous, considering their volume, toxicity, mobility, propensity to bioaccumulate, and propensity to degrade.
- Required level of engineering and institutional controls necessary to manage the risk posed from treatment residuals and untreated hazardous substances remaining at the site.
- For areas requiring remedial action, the ability of the remedial action to restore or protect beneficial uses of site groundwater.
- Adequacy of treatment technologies in meeting treatment objectives.
- Time required to achieve the remedial action objectives.



- Any other information relevant to effectiveness.

5.1.2 Long-Term Reliability

Each remedial action alternative is assessed for its long-term reliability by considering the following criteria, as appropriate:

- Reliability of treatment technologies in meeting treatment objectives.
- Reliability of engineering and institutional controls necessary to manage the risk from treatment residuals and untreated hazardous substances.
- Characteristics of the hazardous substance to be managed and the effectiveness and enforceability through time of engineering and institutional controls in preventing migration of constituents and in managing risks associated with potential exposure.
- Nature, degree, and certainties or uncertainties of any long-term management as related to ease of operation (e.g., operation, maintenance, and monitoring).
- Any other information relevant to long-term reliability.

5.1.3 Implementability

Each remedial alternative is assessed for the ease or difficulty of implementing the remedial action, by considering the following criteria, as appropriate:

- Constructability as related to practical, technical, and legal difficulties and unknowns associated with the implementation of a technology, engineering control, or institutional control.
- Ability to monitor the short- and long-term effectiveness of the remedy.
- Consistency with federal, state, and local requirements; activities needed to coordinate with other agencies; and ability and time required to obtain any necessary authorization from other governmental bodies.
- Availability of necessary services, materials, equipment, and specialists, including the availability of adequate off-site treatment, storage, and disposal capacity and services, and availability of prospective technologies.



- Any other information relevant to implementability.

5.1.4 Implementation Risk

Each remedial action alternative is assessed for the risk associated with implementing the remedial action, by considering the following criteria, as appropriate:

- Potential impacts to the community during implementation of the remedial action and the effectiveness and reliability of protective or preventative measures.
- Potential impacts to workers (800 Harrison Street) during implementation of the remedial action and the effectiveness and reliability of protective or preventative measures.
- Potential impacts to the environment during implementation of the remedial action and the effectiveness and reliability of protective or preventative measures.
- Time until the remedial action is complete.
- Any other information relevant to implementation risk.

5.1.5 Cost

Each remedial alternative is assessed for the reasonableness of cost by considering all of the following criteria, as appropriate:

- Cost of the remedial action including:
 - capital costs, including both direct and indirect costs
 - annual O&M costs
 - costs of any periodic review requirements.
- Degree to which the costs of the remedial action are proportionate to the benefits to human health and the environment created through risk reduction or risk management.
- Degree of sensitivity and uncertainty of the costs.
- Any other information relevant to cost-reasonableness.



The total cost of each alternative represents the sum of the direct capital costs (materials, equipment, labor), indirect capital costs (engineering, licenses/permits, and contingency allowances), and O&M costs. O&M costs may include operating labor, utility usage, necessary chemicals/reagents, and sampling and analysis. These costs are estimated with an anticipated accuracy between -30 and +50 percent, in accordance with USEPA guidance (USEPA 1988). The actual costs will depend on true labor and material costs, competitive market conditions, final project scope, and implementation schedule.

5.2 Remedial Alternative Evaluation

This section evaluates each remedial alternative based on the remedy selection factors described in Section 5.1.

5.2.1 Remedial Alternative 1 – Monitored Natural Attenuation Only

RA1 will rely solely on MNA processes (either aerobic respiration or anaerobic oxidation of petroleum hydrocarbon using naturally occurring electron acceptors) to reduce COC concentrations in groundwater through time. Semiannual groundwater monitoring will be performed to document changes in concentrations through time.

5.2.1.1 *Effectiveness*

Under RA1, active remediation will not occur; remediation will rely on natural attenuation processes to continue to reduce total COC mass through time. Due to the lack of historical biogeochemical data, it is difficult to provide a complete assessment of the current biodegradation conditions occurring in the aquifer between all three properties. The baseline natural attenuation indicator analytical results from the August 2012 semiannual monitoring event demonstrate possible aerobic conditions and anaerobic oxidation in groundwater. The results of the additional biogeochemical parameter sampling event during 2013 will provide a better understanding of natural COC degradation in groundwater. Potential sources of impacts (e.g., USTs, associated piping) have been removed and previous remedial activities (i.e., over excavations during UST removal) at 706 and 726 Harrison Street have made future COC concentration increases unlikely.

5.2.1.2 *Long-Term Reliability*

Under RA1, dissolved concentrations of benzene, MTBE, and TPH-g are expected to decrease to cleanup goals within approximately 35 years based on results from the linear regression trend analysis. Groundwater conditions within the plume appear to be anaerobic after baseline geochemical analysis. Under anaerobic conditions, nitrate and sulfate act as



electron-acceptors to support the biodegradation of the petroleum hydrocarbon constituents in groundwater in the presence of depleted DO concentrations. Semiannual groundwater monitoring will document the groundwater changes through time.

5.2.1.3 Implementability

MNA is an easily implementable remedial alternative. MNA relies solely on continuing the current semiannual groundwater monitoring and reporting program with the addition of annual sampling for biogeochemical and natural attenuation indicator parameters.

5.2.1.4 Implementation Risk

The MNA alternative poses minor implementation risk concerns for community members and the environment. Field personnel may come into contact with impacted groundwater during the sampling events and there is the potential for a release of impacted groundwater during sampling activities. Potential risk during sampling procedures can be readily mitigated with proper use of personal protective equipment (PPE) and sampling standard operating procedures.

5.2.1.5 Cost

The costs to implement the MNA alternative include costs associated with groundwater sampling and report preparation. Groundwater concentrations of benzene, MTBE, and TPH-g are expected to reach cleanup goals in approximately 35 years for the majority of wells with remaining impacts. Based on the current remedial time frames estimated using mass remaining calculations, the total estimated cost to implement RA1 is \$2,150,000. Assumptions and a breakdown of costs are summarized along with other remedial alternatives in Appendix G.

Due to the ease of implementation for this alternative and the low annual costs, this alternative has been retained for comparative analysis.

5.2.2 Remedial Alternative 2 – Air Sparge/Soil Vapor Extraction

RA2 will involve the installation of AS and SVE wells. The injection of air into the subsurface below the water table under controlled pressure allows VOCs to be volatilized. The resulting VOC vapors are then captured by SVE wells and conveyed into a treatment system. For this FS, ARCADIS has been assumed that 20 AS wells and 15 SVE wells will be installed on the properties located at 706 and 726 Harrison Street to address remaining dissolved - phase source areas. Groundwater conditions will be monitored for effectiveness of



biodegradation and stripping from air sparging. This remedial alternative will require a pilot test to provide data necessary to evaluate the effectiveness of the remedy and estimate the anticipated remedial timeframe; however, for costing purposes, the duration of RA2 implementation, including performance and groundwater monitoring, is assumed to be 6 years.

5.2.2.1 Effectiveness

Historical AS/SVE system operation at 706 Harrison Street has demonstrated effective treatment of VOCs in groundwater. Groundwater concentrations of COCs decreased in monitoring wells located within the influence of AS wells during AS system operations. However, groundwater COC concentrations rebounded following shutdown of the AS/SVE system in 2002. The AS/SVE technology can be an effective remedy through sustained and optimized system operation. A review of historical boring logs and additional soil boring investigation data collected during pilot testing will provide necessary information to select optimal well locations to remediate the site.

5.2.2.2 Long-Term Reliability

This alternative will be reliable for the long term because the VOC concentrations within the soil and groundwater will be reduced and the reduction would be a permanent and irreversible process. Because air is the only amendment added to groundwater and extracted from the vadose zone, the O&M of an AS/SVE system is relatively simple. Typical O&M activities include collection of AS/SVE system component readings, pressures, vacuums, flow rates, and discharge photoionization detector readings and system optimization.

5.2.2.3 Implementability

RA2 is a readily implementable alternative. Equipment and labor required to install injection wells are available and the well installation depths are easily achieved. The AS/SVE system can be applied using an on-site treatment facility installed at 706 Harrison Street. The existing electrical utility connection and former remediation building location could be used to enhance constructability of the treatment system.

5.2.2.4 Implementation Risk

Implementation risks associated with this alternative, such as the risks associated with injection and extraction well installation, can be readily mitigated using standard operating procedures and PPE.



5.2.2.5 Cost

The estimated costs associated with RA2 are presented in Appendix G. The total capital cost for implementation of RA2 including pilot study, design, equipment procurement, and equipment installation is estimated to be \$415,000. Including indirect costs associated with institutional controls, present worth analysis of O&M costs, utility usage, post-treatment groundwater monitoring, and site decommissioning (total estimated cost of approximately \$850,000), the total 6-year present worth cost associated with implementation of RA2 is estimated to be \$1,408,000.

5.2.3 Remedial Alternative 3 – Multi-Phase Extraction

RA3 involves using MPE to address COCs in groundwater. The MPE process extracts impacted groundwater and/or vapor from the subsurface through use of a high vacuum system and an extraction well network. The groundwater extraction associated with the MPE technology can hydraulically control impacted groundwater migration and increase SVE efficiency. MPE systems can enhance the biodegradation processes in the vadose zone due to the addition of oxygen.

For this FS, ARCADIS has been assumed 15 extraction wells will be installed at 706 and 726 Harrison Street. Groundwater conditions will be monitored for effectiveness of vapor and liquid recovery rates from the extraction wells. RA3 will require a pilot test to provide data necessary to evaluate the effectiveness of the remedy and estimate the anticipated remedial timeframe; however, for costing purposes, remedial operation (including performance and groundwater monitoring) is assumed to continue for 6 years.

5.2.3.1 Effectiveness

Historical SVE system operation at 706 Harrison Street demonstrated effective hydrocarbon soil vapor recovery from the vadose zone. The SVE system was shutdown in 2001 due to diminishing mass removal rates. The MPE system will allow more VOCs to volatilize due to water table depression around MPE wells, increasing mass removal rates during sustained operation while continuing to remove hydrocarbon-impacted groundwater.

5.2.3.2 Long-Term Reliability

This alternative will be reliable for long-term operation because COC concentrations within the lower vadose zone (exposed by water table depression) and groundwater will be reduced through physical treatment. The O&M activities associated with MPE are similar to



RA2, but would entail additional time and effort to monitor vapor and groundwater extraction parameters.

5.2.3.3 Implementability

RA3 is a readily implementable alternative. Equipment and labor required to install extraction wells are available and the well installation depths are easily achieved. The MPE system can be applied using an on-site treatment facility installed at 706 Harrison Street. The existing electrical utility connection and former remediation building location will be used to ease constructability of the treatment system.

5.2.3.4 Implementation Risk

Implementation risks associated with RA3, such as the risks associated with extraction well installation, can be readily mitigated using standard operating procedures and PPE. A high-vacuum system and additional treatment of extracted water pose additional implementation risks that can be accounted for through standard operating procedures and a detailed MPE system O&M manual.

5.2.3.5 Cost

The estimated costs associated with RA3 are presented in Appendix G. The total capital cost for implementation of RA3 is estimated to be \$318,000. Including indirect costs associated with institutional controls, present worth analysis of O&M costs, utility usage, post-treatment groundwater monitoring, and site decommissioning (total estimated cost of \$770,000), the total 6-year present worth cost associated with implementation of RA3 is estimated to be \$1,208,000.

5.2.4 Remedial Alternative 4 – In-Situ Enhanced Bioremediation

RA4 entails in-situ enhanced bioremediation to treat COCs in groundwater through biodegradation. In-situ enhanced bioremediation typically involves the introduction of oxygen, other electron acceptors, or nutrients to groundwater through an injection well network to stimulate microbial activity.

5.2.4.1 Effectiveness

Effectiveness of bioremediation is dependent upon soil permeability, constituent (i.e., MTBE) biodegradability, and native bacteria characteristics. The saturated zone consists primarily of moderately permeable silty sands that may inhibit bioremediation amendment



contact with impacted groundwater during injections. Baseline geochemical parameters indicate possible background aerobic conditions in the aquifer and anaerobic conditions within the plume. These readings may indicate higher effectiveness of oxygen or other electron acceptor introduction.

5.2.4.2 Long-Term Reliability

Bioremediation relies on microbial activity to treat VOCs in groundwater in-situ through biodegradation; as a result, the groundwater monitoring timeframe can be longer than anticipated depending on native bacteria consumption of introduced amendments. This can lead to extended operation of the bioremediation system and decreases the ease of system operation.

5.2.4.3 Implementability

RA4 is a readily implementable alternative. Equipment and labor required to install extraction wells are available and the well installation depths are easily achieved. The bioremediation system can be installed using an on-site treatment facility installed at 706 Harrison. The existing electrical utility connection and former remediation building location would be used to ease constructability of the treatment system. The procurement of oxygen delivery agents, other electron acceptors, or nutrient amendments would not complicate implementability of the remedial alternative.

5.2.4.4 Implementation Risk

Implementation risks associated with RA4, such as the risks associated with injection well installation and groundwater amendment handling, can be readily mitigated using standard operating procedures and PPE.

5.2.4.5 Cost

The estimated costs associated with RA4 are presented in Appendix G. The total capital cost for implementation of RA4 is estimated to be \$300,000. Including indirect costs associated with institutional controls, present worth analysis of O&M costs, utility usage, post-treatment groundwater monitoring, and site decommissioning (total estimated cost of \$1,040,000), the total 8-year present worth cost associated with implementation of RA4 is estimated to be \$1,470,000.



5.2.5 Remedial Alternative 5 – In-Situ Chemical Oxidation

RA5 involves ISCO injections to deliver oxidants and other amendments to impacted groundwater to degrade organic hydrocarbon constituents to non-toxic byproducts. For this FS, ARCADIS has assumed the use of sodium persulfate as the chemical oxidant, with hydrogen peroxide or ferrous sulfate and citric acid as an activator.

5.2.5.1 Effectiveness

The application of ISCO injections is effective in reducing the flux of dissolved hydrocarbon constituents downgradient of the treatment area. Batch ISCO injections can also be effective in reducing the size of the plume and mass of dissolved MTBE and other COCs.

5.2.5.2 Long-Term Reliability

RA5 would target residual dissolved hydrocarbon mass in the source area for active treatment. Petroleum hydrocarbons would be degraded rapidly in the treatment zone and reduce the concentration and migration of COCs downgradient. Long-term reliability would depend on selected oxidant and dosing requirements, which would be developed and refined during injection pilot testing and bench testing procedures. The injection events would be the most labor-intensive portion of the alternative. All four injections would occur within the first 2 years of remedy implementation. Groundwater monitoring would be the only O&M activity associated with RA5 following the ISCO injections.

5.2.5.3 Implementability

Due to the anticipated number of injection locations (40 injection points), RA5 will be the most difficult remedial alternative to implement. Although the anticipated injection areas are located in the parking lots of 706 and 726 Harrison Street, persulfate injection equipment and chemical handling in a moderately trafficked area can cause logistical issues and health and safety concerns.

5.2.5.4 Implementation Risk

Potential risks to workers are high when dealing with persulfate injection and chemical handling. Risk to workers and the community posed by injection equipment and oxidants can be mitigated through proper PPE usage, chemical handling procedures, and work area exclusion zones.



5.2.5.5 Cost

The estimated costs associated with RA5 are presented in Appendix G. The total capital cost for implementation of RA5 is estimated to be \$290,000. Including indirect costs associated with institutional controls, present worth analysis of injection events, post-injection groundwater monitoring, and site decommissioning (total estimated cost of \$1,300,000), the total 8-year present worth cost associated with implementation of RA5 is estimated to be \$1,590,000.



6. Comparative Analysis of Remedial Alternatives

This section presents a comparative analysis of the five remedial alternatives for groundwater remediation:

- Alternative 1 – Monitored Natural Attenuation
- Alternative 2 – Air Spage/Soil Vapor Extraction
- Alternative 3 – Multi-phase Extraction
- Alternative 4 – In-Situ Enhanced Bioremediation
- Alternative 5 – In-Situ Chemical Oxidation

The comparative analysis examines the advantages and disadvantages of each remedial alternative relative to each other and considers the five remedy selection factors: effectiveness, long-term reliability, implementability, implementation risk, and cost. The results of the comparative analysis are used as the basis for selecting a recommended remedial alternative to address groundwater impacts at the site.

6.1 Compliance with Remedy Selection Factors

6.1.1 Effectiveness

No active remedial actions will be implemented under RA1 (MNA) to address petroleum hydrocarbon constituents in groundwater. Baseline biogeochemical parameter results indicate that possible biodegradation is occurring within the plume; however, additional monitoring data is required to fully assess current biodegradation processes and aquifer conditions. RA1 implementation may not be reasonable given the mobility of MTBE in groundwater and potential downgradient migration. Active remediation may be necessary to control potential migration off site from 706 Harrison Street.

RA2, RA3, RA4, and RA5 will likely protect current and future public health, safety, and welfare of the environment because they will actively treat petroleum-hydrocarbon-impacted groundwater. RA4 and RA5 may be limited depending on the radius of influence from injections and ability to deliver amendments/reagents to impacted groundwater in the moderately permeable silty sands beneath the anticipated treatment area.

RA2, RA3, RA4, and RA5 will also require a monitoring component to evaluate the groundwater concentration trends through time to evaluate overall remedy effectiveness. All remedial alternatives would include an annual increase in groundwater monitoring parameter analyses to track biogeochemical parameters during remedy implementation.



6.1.2 Long-Term Reliability

All remedial alternatives will be reliable for long-term implementation because the hydrocarbon source areas have been removed during UST removal and over-excavations at 706 and 726 Harrison Street. Remedial alternatives will be implemented to address residual dissolved-phase mass. Ease of operation was also evaluated as a component of long-term reliability for each remedial alternative.

RA1 entails only groundwater monitoring and sampling throughout remedy duration, with no additional O&M for an active remediation system. RA2 and RA3 entail moderate O&M for physical treatment remediation systems. RA4 requires slightly more intense O&M activities to monitor the bioremediation treatment system. These additional O&M activities entail groundwater amendment procurement and handling, detailed biogeochemical parameter analysis, and ensuring that optimal system parameters remain constant to accelerate biodegradation of hydrocarbon constituents in groundwater. RA5 does not entail long-term O&M activities associated with a treatment system because batch ISCO injections will be performed semiannually. Health and safety risks must be considered when choosing a remedy. Implementation of ISCO injections is a more involved remedy pertaining to chemical handling and health and safety. However, following ISCO injections, groundwater monitoring will be the only task associated with long-term implementation.

6.1.3 Implementability

RA1 would be easily implemented at the site. RA2, RA3, and RA4 are more difficult to implement because an active treatment system will be installed and operated on site. After a constructability review, a remediation system location and electrical utility connection are available in the area of the former AS/SVE system located at 706 Harrison Street for RA2, RA3, and RA4. These available implementation requirements will ease the construction of the treatment systems for RA2, RA3, and RA4. RA5 would be the most difficult remedy to implement at the site due to the number of anticipated ISCO injection points. The injection points would target residual dissolved source mass areas beneath 726 and 706 Harrison Street. While anticipated injection points would be located in the parking lot at each property, performing ISCO injections would be difficult due to traffic in the parking lots and potential injection point accessibility issues.

6.1.4 Implementation Risk

RA1 does not involve any implementation risk because it does not include implementation of active remediation. RA2, RA3, RA4, and RA5 pose risks associated with drilling activities,



soil and groundwater sample collection, and injection activities; however, these hazards can be readily mitigated using standard operating procedures and PPE.

6.1.5 Cost

The estimated costs associated with RA1 are considerable due to the duration of groundwater monitoring necessary to evaluate the effectiveness of MNA and determine where groundwater cleanup objectives can be achieved within a reasonable time frame. The total estimated cost to implement RA1 (estimated to be a 35-year time frame) is \$2.15 million. The total estimated costs to implement RA2, RA3, RA4, and RA5 are \$1.4, \$1.2, \$1.45, and \$1.59 million, respectively.

6.2 Recommended Remedial Alternative

Based on the results of the comparative analysis presented above, RA2 and RA3 are recommended for pilot testing. RA1 is not recommended for further evaluation because it is the least effective alternative, takes the longest to achieve remedial objectives, and is the most costly alternative. RA4 is not recommended for further evaluation because RA4 will likely take longer than RA2 or RA3 to achieve remedial objectives and is not as likely to succeed. RA5 is not recommended for further evaluation because RA5 would be the most difficult alternative to implement. RA5 requires the most disturbance to the site, the most disruption to current operations, and has greater implementation risks due to the chemicals that would be handled on site.

At this time, sufficient information is not available to determine which alternative (RA2 or RA 3) is preferable. ARCADIS recommends pilot testing both AS/SVE and MPE prior to the preparation of a remedial action plan. During pilot testing, additional soil borings will be advanced to record site lithology and confirm the depth of the clay confining layer in the source area. The additional information about site geology and the outcome of the pilot tests will provide the information needed to determine if RA2 or RA3 has a greater likelihood of success.

Following approval of this FS, a work plan will be submitted detailing the methodology of the pilot studies and how the data collected during the pilot studies will be used to select the appropriate remedial alternative for the site.



7. References

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ARCADIS

Tables

Table 1
Well Constuction Details
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Installation Date	TOC (ft MSL)	Boring Depth (ft bgs)	Well Depth (ft bgs)	Boring Diameter (inches)	Well Diameter (inches)	Screen Interval (ft bgs)	Screen Size (inches)	Sand Filter Pack	Screen Zone Within Soil Type	Filter Pack Interval (ft bgs)	Seal Interval (ft bgs)	First Water (ft bgs)	Historical High GWE (ft MSL)	Historical Low GWE (ft MSL)	Location	Status	Notes
706 Harrison Street																		
MW-1	07/23/93	29.15	28.0	28.0	NA	NA	18.0-28.0	NA	NA	18.0-28.0	16.5-28.0	14.5-16.5	22.0	18.22	7.95	Onsite	Active	
MW-2	07/23/93	30.51	28.0	28.0	NA	NA	18.0-28.0	NA	NA	18.0-28.0	16.5-28.0	14.5-16.5	19.0	18.56	8.97	Onsite	Active	
MW-3	07/23/93	29.77	28.0	28.0	NA	NA	18.0-28.0	NA	NA	18.0-28.0	16.5-28.0	14.5-16.5	21.0	17.97	8.90	Onsite	Active	
MW-4	11/28/94	31.18	31.5	29.5	NA	2.0	9.5-29.5	0.010	#2/12	9.5-29.5	8.5-31.5	6.5-8.5	17.5	19.07	9.13	Onsite	Active	
MW-5	11/30/94	28.04	30.0	29.0	NA	2.0	14.5-29.0	0.010	#1/20	14.5-29.0	13.0-30.0	11.0-13.0	17.5	17.11	8.13	Offsite	Active	
MW-6	12/01/94	29.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17.89	8.24	Offsite	Active	
MW-7	12/02/94	29.67	29.0	28.0	NA	2.0	13.0-28.0	0.010	#1/20	15.0-29.0	12.0-29.0	10.0-12.0	NA	17.91	8.79	Offsite	Active	
VW-1	07/22/93	NA	20.0	20.0	NA	NA	15.0-20.0	NA	NA	15.0-20.0	13.0-20.0	12.0-13.0	NA	NA	NA	Onsite	Active	
VW-2	07/22/93	NA	20.0	20.0	NA	NA	15.0-20.0	NA	NA	15.0-20.0	13.0-20.0	12.0-13.0	NA	NA	NA	Onsite	Active	
VW-3	11/28/94	NA	29.5	18.0	NA	2.0	8.0-18.0	0.010	#1/20	15.0-18.0	6.0-18.0	5.0-6.0	18.0	NA	NA	Onsite	Active	
VW-4	11/29/94	NA	29.5	18.0	NA	2.0	8.0-18.0	0.010	#1/20	8.0-18.0	7.0-18.0	5.0-7.0	18.0	NA	NA	Onsite	Active	
VW-5	11/30/94	NA	30.0	17.0	NA	2.0	7.0-17.0	0.010	#1/20	7.0-17.0	6.0-17.0	5.0-6.0	NA	NA	NA	Onsite	Active	
726 Harrison Street																		
AS-1	08/16/01	NA	30.0	30.0	8.0	2.0	28.0-30.0	0.020	#2/12	28.0-30.0	26.0-30.0	22.5-26.0	19.0	NA	NA	Onsite	Active	
EW-1	08/17/01	NA	30.0	30.0	12.0	6.0	9.0-30.0	0.020	#2/12	9.0-30.0	8.0-30.0	7.0-8.0	17.0	NA	NA	Onsite	Active	
MW-1	07/03/97	28.98	28.0	28.0	8.0	2.0	18.0-28.0	NA	NA	18.0-28.0	16.0-28.0	15.0-16.0	20.0	19.24	13.24	Onsite	Active	
MW-2	NA	32.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20.01	NA	Onsite	Active	
MW-3	NA	31.64	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19.61	13.22	Onsite	Active	
MW-4	12/07/98	32.56	31.5	30.0	8.0	2.0	10.0-30.0	0.020	No. 2	10.0-30.0	8.0-30.0	7.0-8.0	20.0	19.53	NA	Onsite	Active	
MW-5	08/16/01	32.06	30.0	30.0	8.0	2.0	10.0-30.0	0.020	#2/12	10.0-30.0	8.0-30.0	7.0-8.0	19.5	19.62	13.66	Onsite	Active	
MW-6	06/20/11	NA	49.0	49.0	12.0	2.0	44.0-49.0	0.020	No. 3	44.0-49.0	42.5-49.0	40.5-42.5	25.0	28.35	NA	Onsite	Active	
VE-1	08/16/01	NA	15.0	15.0	8.0	2.0	5.0-15.0	0.020	#2/12	5.0-15.0	3.5-15.0	2.5-3.5	NA	NA	NA	Onsite	Active	
VE-2	08/16/01	NA	15.0	15.0	8.0	2.0	5.0-15.0	0.020	#2/12	5.0-15.0	3.5-15.0	2.5-3.5	NA	NA	NA	Onsite	Active	
800 Harrison Street																		
MW-1	05/30/91	34.69	35.0	35.0	9.0	2.0	15.0-35.0	0.020	No. 3	15.0-35.0	11.5-35.0	9.5-11.5	24.0	20.74	15.03	Onsite	Active	
MW-2	05/30/91	34.72	33.0	33.0	9.0	2.0	15.0-33.0	0.020	No. 3	15.0-33.0	13.0-33.0	11.0-13.0	22.5	20.50	14.91	Onsite	Active	
MW-3	05/30/91	33.14	33.0	33.0	9.0	2.0	15.0-33.0	0.020	No. 3	15.0-33.0	13.0-33.0	11.0-13.0	23.0	19.54	13.66	Onsite	Active	
MW-4	09/30/92	32.71	33.0	33.0	9.0	2.0	15.0-33.0	0.020	No. 3	15.0-33.0	13.0-33.0	11.0-13.0	23.0	18.80	13.94	Onsite	Active	
MW-5	09/30/92	32.95	32.0	32.0	9.0	2.0	17.0-32.0	0.020	No. 3	17.0-32.0	13.0-32.0	11.0-13.0	22.0	19.25	13.90	Onsite	Active	
MW-6	09/30/92	32.16	32.0	32.0	9.0	2.0	17.0-32.0	0.020	No. 3	17.0-32.0	13.0-32.0	11.0-13.0	21.5	18.50	13.02	Offsite	Active	
MW-7	04/14/93	32.20	33.0	33.0	8.0	2.0	13.0-33.0	0.020	No. 3	13.0-33.0	11.0-33.0	9.0-11.0	21.5	18.90	13.40	Offsite	Active	
MW-8	04/14/93	32.00	31.0	31.0	8.0	2.0	13.0-31.0	0.020	No. 3	13.0-31.0	9.0-31.0	7.0-9.0	21.0	18.65	13.13	Offsite	Active	

Explanation

- ft MSL Feet relative to mean sea level
- ft bgs Feet below ground surface
- TOC Top of casing
- GWE Groundwater elevation
- NA Not available

Table 2
Soil Boring Details
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Installation Date	Surface Elevation (ft MSL)	Boring Depth (ft bgs)	Boring Diameter (inches)	First Water (ft bgs)	Location
706 Harrison Street						
GP-5	06/24/11	31.16	20.0	2.5	NA	Onsite
GP-6	06/24/11	31.19	20.0	2.5	NA	Onsite
GP-7	06/24/11	30.29	20.0	2.5	NA	Onsite
SB-B	11/28/94	NA	30.0	NA	NA	Onsite
SB-I	12/02/94	NA	27.0	NA	NA	Onsite
726 Harrison Street						
BH-A	08/17/01	NA	25.0	4.0	19.0	Onsite
BH-B	08/17/01	NA	25.0	4.0	19.0	Onsite
BH-C	08/17/01	NA	25.0	4.0	19.0	Onsite
BH-D	07/17/02	NA	24.0	2.0	20.0	Onsite
BH-E	07/17/02	NA	24.0	2.0	20.0	Onsite
BH-F	07/17/02	NA	24.0	2.0	20.0	Onsite
BH-G	07/17/02	NA	24.0	2.0	20.0	Onsite
BH-H	07/17/02	NA	20.0	2.0	18.0	Offsite
GP-3	06/20/11	NA	24.0	2.5	20.0	Onsite
800 Harrison Street						
CPT-1	02/07/07	NA	50.0	NA	NA	Onsite
CPT-2	02/07/07	NA	50.0	NA	NA	Onsite
CPT-3	02/06/07	NA	50.0	NA	NA	Offsite
CPT-4	02/05/07	NA	50.0	NA	NA	Offsite
CPT-5	02/05/07	NA	50.0	NA	NA	Offsite
CPT-6	02/06/07	NA	50.0	NA	NA	Offsite
EB-1	05/29/91	NA	23.0	8.0	22.5	Onsite
EB-2	05/29/91	NA	23.0	8.0	23.0	Onsite
EB-3	03/18/94	NA	20.5	8.5	20.5	Onsite
EB-4	03/18/94	NA	20.5	8.5	20.5	Onsite
EB-5	03/17/94	NA	20.5	8.5	20.5	Onsite
EB-6	03/18/94	NA	20.5	8.5	20.5	Onsite
EB-7	03/17/94	NA	19.5	8.5	19.5	Onsite
EB-8	03/17/94	NA	19.5	8.5	19.5	Onsite
EB-9	03/17/94	NA	20.5	8.5	20.5	Onsite
EB-10	03/17/94	NA	20.5	8.5	20.5	Onsite
EB-11	03/18/94	NA	10.5	3.0	NA	Onsite
EB-12	03/18/94	NA	11.0	3.0	NA	Onsite
GP-1	03/28/12	NA	20.0	2.5	NA	Onsite
GP-2	06/24/11	35.03	20.0	2.5	NA	Onsite

Explanation

ft MSL Feet relative to mean sea level
ft bgs Feet below ground surface
NA Not available

Table 3
Historical Soil Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	Sample Depth (ft bgs)	LUFT GC/MS					EPA 8260B								Lead (mg/kg)
			TPPH (mg/kg)	TPH-d (mg/kg)	TPH-g (mg/kg)	TPH-mo (mg/kg)	TOG (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	EDB (mg/kg)	1,2-DCA (mg/kg)		
706 Harrison Street																
GP-5	06/24/11	5.0	<0.30	NA	NA	NA	NA	<0.0074	<0.0074	<0.0074	<0.015	<0.0074	<0.0074	<0.0074	NA	
	06/24/11	10.0	<0.18	NA	NA	NA	NA	<0.0044	<0.0044	<0.0044	<0.0089	<0.0044	<0.0044	<0.0044	NA	
	06/24/11	15.0	<0.16	NA	NA	NA	NA	<0.0040	<0.0040	<0.0040	<0.0081	<0.0040	<0.0040	<0.0040	NA	
	06/24/11	20.0	2.1	NA	NA	NA	NA	<0.0043	<0.0043	0.0057	<0.0085	0.0099	<0.0043	<0.0043	NA	
GP-6	06/24/11	5.0	<0.19	NA	NA	NA	NA	<0.0047	<0.0047	<0.0047	<0.0094	<0.0047	<0.0047	<0.0047	NA	
	06/24/11	10.0	<0.17	NA	NA	NA	NA	<0.0043	<0.0043	<0.0043	<0.0086	<0.0043	<0.0043	<0.0043	NA	
	06/24/11	15.0	<0.18	NA	NA	NA	NA	<0.0045	<0.0045	<0.0045	<0.0089	<0.0045	<0.0045	<0.0045	NA	
GP-7	06/24/11	5.0	<0.23	NA	NA	NA	NA	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	NA	
	06/24/11	10.0	<0.19	NA	NA	NA	NA	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	<0.0048	<0.0048	NA	
	06/24/11	15.0	<0.17	NA	NA	NA	NA	<0.0043	<0.0043	<0.0043	<0.0086	<0.0043	<0.0043	<0.0043	NA	
MW-1	07/23/93	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	
	07/23/93	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	
	07/23/93	15.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	
	07/23/93	20.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	
MW-2	07/23/93	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	
	07/23/93	10.0	NA	NA	ND	NA	NA	0.059	0.036	0.0061	0.031	NA	NA	NA	ND	
	07/23/93	15.0	NA	NA	48	NA	NA	0.56	2.8	1.5	8.8	NA	NA	NA	ND	
MW-3	07/23/93	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	
	07/23/93	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	
	07/23/93	15.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	
	07/23/93	20.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	
MW-4	11/28/94	16.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	
	11/28/94	17.5	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	
	11/28/94	26.0	NA	NA	ND/0.021	NA	NA	ND/ND	ND/ND	ND/ND	ND/ND	NA	NA	NA	ND	
MW-5	11/30/94	18.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	
MW-6	12/01/94	16.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	
MW-7	12/02/94	16.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	
	12/02/94	18.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	
	12/02/94	26.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	
SB-B	11/28/94	11.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	
	11/28/94	16.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	
	11/28/94	26.0	NA	NA	1.1	NA	NA	0.18	0.054	0.024	0.071	NA	NA	NA	ND	
SB-I	12/02/94	11.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	
VW-1	07/23/93	17.0	NA	NA	360	NA	NA	18	40	13	68	NA	NA	NA	ND	
VW-2	07/23/93	17.0	NA	NA	6,000	NA	NA	210	890	210	1,200	NA	NA	NA	ND	
VW-3	11/28/94	11.0	NA	NA	410	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	
	11/28/94	18.0	NA	NA	14,000	NA	NA	120	620	220	1,100	NA	NA	NA	ND	
	11/28/94	26.0	NA	NA	ND	NA	NA	0.059	0.041	0.0028	0.050	NA	NA	NA	ND	
VW-4	11/29/94	17.5	NA	NA	15,000	NA	NA	160	700	240	1,200	NA	NA	NA	ND	
VW-5	11/30/94	11.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	
	11/30/94	17.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	
	11/30/94	26.0	NA	NA	ND	NA	NA	ND	0.012	ND	ND	NA	NA	NA	ND	
726 Harrison Street																
AS-1	NA	6.0	NA	NA	740	NA	NA	<0.25	<0.25	3.5	5.1	<0.25	NA	NA	NA	
BH-A	NA	11.5	NA	NA	<1.0	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	
BH-B	NA	15.0	NA	NA	360	NA	NA	0.55	5.0	3.4	23	0.064	NA	NA	NA	
BH-C	NA	10.0	NA	NA	<1.0	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	
EW-1	NA	10.0	NA	NA	2,300	NA	NA	0.33	0.27	16	26	<0.25	NA	NA	NA	
GP-3	06/20/11	7.0	<0.20	NA	NA	NA	NA	<0.0050	<0.0050	<0.0050	<0.010	0.00087 J	<0.0050	<0.0050	NA	

Table 3
Historical Soil Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	Sample Depth (ft bgs)	LUFT GC/MS					EPA 8260B							
			TPPH (mg/kg)	TPH-d (mg/kg)	TPH-g (mg/kg)	TPH-mo (mg/kg)	TOG (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	EDB (mg/kg)	1,2-DCA (mg/kg)	Lead (mg/kg)
	06/20/11	10.0	<0.20	NA	NA	NA	NA	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	NA
	06/20/11	15.0	<0.20	NA	NA	NA	NA	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	NA
MW-1	NA	14.5	NA	NA	<1.0	NA	NA	0.011	<0.005	<0.005	<0.005	<0.05	NA	NA	NA
	NA	19.5	NA	NA	650	NA	NA	1.2	<0.05	2.2	2.8	<0.05	NA	NA	NA
MW-2	NA	16.0	NA	NA	<1.0	NA	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA
MW-3	NA	16.0	NA	NA	<1.0	NA	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA
MW-4	NA	16.0	NA	NA	<1.0	NA	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA
MW-5	NA	14.0	NA	NA	<1.0	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	NA
MW-6	06/20/11	6.5	<0.20	NA	NA	NA	NA	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	NA
	06/20/11	11.0	<0.20	NA	NA	NA	NA	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	NA
	06/20/11	16.0	0.12 J	NA	NA	NA	NA	<0.0050	<0.0050	<0.0050	<0.010	0.0092	<0.0050	<0.0050	NA
VE-1	NA	9.0	NA	NA	<1.0	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	NA
VE-2	NA	14.0	NA	NA	<1.0	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	NA
800 Harrison Street															
EB-1	05/29/91	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	05/29/91	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	05/29/91	15.0	NA	NA	ND	NA	NA	0.0087	ND	ND	ND	NA	NA	NA	NA
	05/29/91	20.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	05/29/91	22.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
EB-2	05/29/91	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	05/29/91	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	05/29/91	15.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	05/29/91	20.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	05/29/91	22.5	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
EB-3	03/18/94	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	03/18/94	9.5	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	03/18/94	14.5	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	03/18/94	19.5	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
EB-4	03/18/94	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	03/18/94	9.5	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	03/18/94	14.5	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	03/18/94	19.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
EB-5	03/18/94	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	03/18/94	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	03/18/94	15.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	03/18/94	19.0	NA	NA	310	NA	NA	0.71	2.4	1.3	2.2	NA	NA	NA	NA
EB-6	03/18/94	4.5	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	03/18/94	9.5	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	03/18/94	14.5	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	03/18/94	19.5	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
EB-7	03/18/94	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	03/18/94	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	03/18/94	15.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	03/18/94	19.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
EB-8	03/18/94	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	03/18/94	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	03/18/94	15.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	03/18/94	18.5	NA	NA	21,000	NA	NA	7.0	78	26	140	NA	NA	NA	NA
EB-9	03/18/94	5.5	NA	ND	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	03/18/94	10.0	NA	ND	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA

Table 3
Historical Soil Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	Sample Depth (ft bgs)	LUFT GC/MS					EPA 8260B								
			TPPH (mg/kg)	TPH-d (mg/kg)	TPH-g (mg/kg)	TPH-mo (mg/kg)	TOG (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	EDB (mg/kg)	1,2-DCA (mg/kg)	Lead (mg/kg)	
EB-10	03/18/94	15.0	NA	ND	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	20.0	NA	ND	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	15.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
EB-11	03/18/94	20.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	5.0	NA	ND	1.8	NA	NA	ND	0.0091	ND	0.0088	NA	NA	NA	NA	
	03/18/94	6.0	NA	19	3.6	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
EB-12	03/18/94	10.0	NA	ND	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	5.0	NA	ND	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
GP-1	03/28/12	6.0	<0.16	NA	NA	NA	NA	<0.0040	<0.0040	<0.0040	<0.0079	<0.0040	<0.0040	<0.0040	NA	
	03/28/12	10.0	<0.18	NA	NA	NA	NA	<0.0045	<0.0045	<0.0045	<0.0090	<0.0045	<0.0045	<0.0045	NA	
	03/28/12	14.0	<0.16	NA	NA	<4.0	<50	<0.0040	<0.0040	<0.0040	<0.0079	<0.0040	<0.0040	<0.0040	NA	
GP-2	06/24/11	5.0	<0.63	NA	NA	NA	NA	<0.016	<0.016	<0.016	<0.031	<0.016	<0.016	<0.016	NA	
	06/24/11	10.0	21	NA	NA	NA	NA	<0.0044	<0.0044	<0.0044	<0.0088	0.013	<0.0044	<0.0044	NA	
	06/24/11	14.0	3,200	NA	NA	NA	NA	<0.0044	<0.0044	0.013	0.11	0.028	<0.0044	<0.0044	NA	
	06/24/11	17.0	1,000	NA	NA	NA	NA	<0.0044	0.024	0.015	0.098	0.060	<0.0044	<0.0044	NA	
MW-1	05/30/91	5.0	NA	2.2	1.1	NA	NA	ND	ND	ND	0.010	NA	NA	NA	NA	
	05/30/91	10.0	NA	43	43	NA	NA	ND	0.0059	0.0074	0.43	NA	NA	NA	NA	
	05/30/91	15.0	NA	120	250	NA	NA	0.80	0.73	0.91	2.9	NA	NA	NA	NA	
	05/30/91	20.0	NA	ND	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	05/30/91	24.0	NA	ND	ND	NA	NA	ND	ND	ND	0.0073	NA	NA	NA	NA	
MW-2	05/30/91	5.0	NA	NA	ND	NA	NA	ND	ND	ND	0.0054	NA	NA	NA	NA	
	05/30/91	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	05/30/91	15.0	NA	NA	ND	NA	NA	0.015	ND	0.0064	0.025	NA	NA	NA	NA	
	05/30/91	20.0	NA	NA	ND	NA	NA	0.0086	ND	ND	ND	NA	NA	NA	NA	
	05/30/91	22.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
MW-3	05/30/91	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	05/30/91	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	05/30/91	15.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	05/30/91	20.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
MW-4	05/30/91	23.0	NA	NA	2.9	NA	NA	0.0079	ND	0.012	0.031	NA	NA	NA	NA	
	10/01/92	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	10/01/92	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	10/01/92	15.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	10/01/92	20.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
MW-5	10/01/92	22.5	NA	NA	27	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	10/01/92	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	10/01/92	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	10/01/92	15.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	10/01/92	20.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
MW-6	10/01/92	22.0	NA	NA	27	NA	NA	ND	0.0060	ND	0.014	NA	NA	NA	NA	
	10/01/92	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	10/01/92	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	10/01/92	15.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	10/01/92	20.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
MW-7	10/01/92	21.5	NA	NA	170	NA	NA	ND	0.38	1.8	4.5	NA	NA	NA	NA	
	04/14/93	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
MW-7	04/14/93	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	

Table 3
Historical Soil Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	Sample Depth (ft bgs)	LUFT GC/MS					EPA 8260B							
			TPPH (mg/kg)	TPH-d (mg/kg)	TPH-g (mg/kg)	TPH-mo (mg/kg)	TOG (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	EDB (mg/kg)	1,2-DCA (mg/kg)	Lead (mg/kg)
	04/14/93	15.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	04/14/93	21.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
MW-8	04/14/93	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	04/14/93	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	04/14/93	15.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	04/14/93	20.5	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
ESLs for Residential Soils			83	-	-	-	-	0.044	2.9	3.3	2.3	0.023	-	-	-

Explanation

- bgs Below ground surface
- mg/kg Milligrams per kilogram
- TPPH Total purgeable petroleum hydrocarbons
- TPH-g Total petroleum hydrocarbons as gasoline
- TPH-mo Total petroleum hydrocarbons as motor oil
- TOG Total oil and grease
- MTBE Methyl tertiary butyl ether
- EDB 1,2-Dibromoethane
- 1,2-DCA 1,2-Dichloroethane
- NA Not analyzed
- ND Non-detect
- <0.0005 Not detected at concentration threshold as shown
- J Estimated value
- ESL Table C. Environmental Screening Levels (ESLs), Deep Soils (>3meters below ground surface), Groundwater is a Current or Potential Source of Drinking Water, CRWQCB-SFBR, Table C, November 2007

Table 4
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	TPH-g (µg/L)	EPA 8260B					8021B
						Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)
706 Harrison Street											
MW-1	08/13/93	29.15	17.40	11.75	20000	8500	640	280	440	--	--
	12/14/93	29.15	17.27	11.88	17000	9200	1200	4400	540	--	--
	04/15/94	29.15	17.00	12.15	9500	3600	530	160	280	--	--
	12/29/94	29.15	16.40	12.75	--	--	--	--	--	--	--
	07/19/96	29.15	15.83	13.32	17000	5200	1100	330	530	--	--
	01/27/97	29.15	13.58	15.57	30000	9800	1300	790	880	--	400
	06/18/97	29.15	16.11	13.04	19000	5600	1400	510	770	800	1200
	09/18/97	29.15	16.62	12.53	48000	18000	4400	1000	1700	--	<640
	10/12/97	29.15	15.93	13.22	22000	4900	1300	580	650	260	460
	02/18/98	29.15	11.56	17.59	16000	5000	750	400	780	--	1800
	12/05/98	29.15	13.53	15.62	19000	4600	810	450	770	--	5500
	08/18/98	29.15	15.19	13.96	12000	3600	1300	300	570	3700	5100
	11/24/98	29.15	15.67	13.48	13000	3600	890	330	380	--	6100
	04/02/99	29.15	15.31	13.84	20000	5900	830	450	500	--	4900
	05/18/99	29.15	14.95	14.20	23000	7000	1600	520	830	--	6100
	08/27/99	29.15	15.84	13.31	19000	5800	1700	410	710	2100	1800
	11/18/99	29.15	16.39	12.76	20000	4900	630	410	580	3600	4900
	02/29/00	29.15	13.43	15.72	12000	2800	24	290	170	3400	3100
	05/25/00	29.15	15.08	14.07	12000	2200	120	330	260	12000	9100
	09/08/00	29.15	16.09	13.06	13000	2500	44	310	140	--	16000
	09/11/00	29.15	15.90	13.25	11000	2500	140	380	150	12000	11000
	01/29/01	29.15	16.05	13.10	9600	3100	100	77	200	2400	2600
	04/16/01	29.15	16.90	12.25	3300	1200	4.4	2.7	28	940	900
	08/14/01	29.15	17.13	12.02	2000	500	3.4	24	7.8	53	68
	10/22/01	29.15	16.11	13.04	220	83	0.63	2.8	<0.5	5.7	<10
	01/02/02	29.15	16.93	12.22	640	220	1.7	4.7	0.57	--	<10
	10/05/02	29.15	15.09	14.06	230	26	0.97	<0.5	<0.5	--	<5.0
	08/07/02	29.15	15.20	13.95	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	02/10/02	29.15	15.70	13.45	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	01/23/03	29.15	15.09	14.06	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	04/29/03	29.15	13.02	16.13	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	07/18/03	26.17	14.50	11.67	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	09/10/03	26.17	13.81	12.36	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	01/28/04	26.17	13.09	13.08	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	07/04/04	26.17	14.97	11.20	180	60	0.56	1.9	<0.5	--	<5.0
	07/23/04	26.17	14.15	12.02	130	36	<0.5	0.65	<0.5	--	<5.0
	12/10/04	26.17	16.30	9.87	<50	2.5	1.5	<0.5	0.86	--	<5.0
	02/14/05	26.17	13.85	12.32	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	04/27/05	26.17	13.35	12.82	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	07/19/05	26.17	14.68	11.49	4500	1400	6.5	160	58	--	630
	10/18/05	26.17	15.15	11.02	1700	340	<5.0	28	<5.0	7200	8000
	01/23/06	26.17	13.27	12.90	3100	790	6.5	79	32	5100	4200
	12/04/06	26.17	12.33	13.84	7200	2600	110	350	320	4000	5600
	10/07/06	26.17	14.93	11.24	2700	550	4.2	77	47	8300	5500
	10/16/06	26.17	16.51	9.66	2000	470	6.4	38	13	6400	6300
	01/26/07	26.17	16.87	9.30	3300	600	36	34	27	5900	6200
	04/18/07	26.17	16.77	9.40	5400	1400	170	210	350	4700	3600
	02/08/07	26.17	17.21	8.96	6100	1200	130	140	240	5400	5300
	10/23/07	26.17	17.67	8.50	2600	740	53	60	110	6900	5800
	01/30/08	26.17	16.66	9.51	1900	380	2.6	15	20	2800	2400
	04/18/08	26.17	17.14	9.03	1500	320	4.5	13	25	2900	2900
	07/28/08	26.17	17.70	8.47	1100	240	3.6	6.9	15	1800	1600
	12/05/08	26.17	18.22	7.95	1000	150	2.1	4.1	15	140	150
	01/26/09	26.17	17.84	8.33	540	120	1.4	1.6	3.0	79	82
	03/08/09	29.17	17.45	11.72	290	94	2.8	3.4	6.7	20	25
	01/25/10	29.17	16.72	12.45	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	03/08/10	29.17	16.90	12.27	6200	1200	340	110	500	350	580
	02/17/11	29.17	16.81	12.36	<50	1.6	<0.5	<0.5	<0.5	60	65
	08/23/11	29.17	17.02	12.15	4800	720	140	84	230	810	--
	02/07/12	29.17	17.33	11.84	8900	1000	260	230	610	420	--
	08/09/12	29.17	16.58	12.59	2200	850	110	42	120	84	--

Table 4
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	TPH-g (µg/L)	EPA 8260B					8021B	
						Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	
706 Harrison Street												
MW-2	08/13/93	30.51	17.05	13.46	34000	6800	10000	740	3900	--	--	
	12/14/93	18.80	18.28	12:23	16000	3200	4200	500	1700	--	--	
	04/15/94	30.51	18.10	12.41	23000	2500	4200	470	1800	--	--	
	12/29/94	30.51	17.40	13.11	--	--	--	--	--	--	--	
	07/19/96	30.51	16.72	13.79	90000	7300	14000	1600	7300	--	--	
	01/27/97	30.51	14.89	15.62	63000	7100	13000	1600	7100	--	500	
	06/18/97	30.51	17.12	13.39	52000	5100	10000	1400	6000	--	<200	
	09/18/97	30.51	17.63	12.88	110000	9400	23000	2600	13000	--	<890	
	10/12/97	30.51	16.98	13.53	39000	2600	5300	940	3900	320	780	
	02/18/98	30.51	12.61	17.90	85000	9000	19000	2300	11000	--	2400	
	12/05/98	30.51	14.45	16.06	110000	9500	21000	2500	12000	--	<1200	
	08/18/98	30.51	16.14	14.37	64000	6000	13000	1700	7800	1300	2000	
	11/24/98	30.51	16.70	13.81	78000	5300	14000	2300	11000	--	<2000	
	04/02/99	30.51	18.39	12.12	66000	5800	16000	2600	12000	--	3000	
	05/18/99	30.51	15.90	14.61	78000	6700	17000	2400	10000	--	4300	
	08/27/99	30.51	16.79	13.72	91000	7400	17000	2300	11000	1000	1200	
	11/18/99	30.51	17.32	13.19	180000	7000	20000	3300	16000	1700	<6000	
	02/29/00	30.51	14.37	16.14	86000	5500	13000	2000	9500	4700	3500	
	05/25/00	30.51	16.01	14.50	110000	6300	14000	2400	10000	6500	7500	
	09/08/00	30.51	17.02	13.49	77000	5000	13000	2000	8600	--	5900	
	09/11/00	30.51	17.00	13.51	70000	4800	12000	1900	8000	8300	9400	
	01/29/01	30.51	18.31	12.20	110000	8200	21000	2800	13000	1900	2500	
	04/16/01	30.51	18.59	11.92	97000	7400	15000	2500	12000	<50	<3000	
	08/14/01	30.51	18.74	11.77	97000	6200	14000	2400	13000	<50	<250	
	10/22/01	30.51	18.27	12.24	71000	5900	15000	2400	12000	150	<1400	
	01/02/02	30.51	18.05	12.46	1400	11	88	44	210	--	<5.0	
	10/05/02	30.51	17.15	13.36	97000	4500	15000	2500	12000	--	<3000	
	08/07/02	30.51	15.30	15.21	42000	2100	6500	2200	8800	65	<1000	
	02/10/02	30.51	15.89	14.62	70000	1700	5700	1900	8300	--	<1700	
	01/23/03	30.51	17.51	13.00	40000	1900	7800	1200	5600	--	<1000	
	04/29/03	30.51	15.31	15.20	82000	2500	11000	2200	9400	--	<2000	
	07/18/03	27.53	16.84	10.69	57000	2100	8700	2200	10000	<50	--	
	09/10/03	27.53	16.05	11.48	49000	1800	7000	1700	7600	26	<1500	
	01/28/04	27.53	15.39	12.14	550	21	33	3.0	61	--	<100	
	07/04/04	27.53	16.01	11.52	41000	2500	11000	1900	8000	--	<2000	
	07/23/04	27.53	15.30	12.23	81000	2000	12000	2500	12000	--	<2000	
	12/10/04	27.53	17.87	9.66	75000	2600	13000	2300	11000	--	<1300	
	02/14/05	27.53	14.80	12.73	75000	2600	12000	2400	10000	--	<1800	
	04/27/05	27.53	14.63	12.90	61000	2800	11000	1600	7000	--	<2700	
	07/19/05	27.53	15.60	11.93	90000	3700	14000	2600	10000	--	<7000	
	10/18/05	27.53	16.08	11.45	77000	3300	14000	2400	11000	6400	7900	
	01/23/06	27.53	14.20	13.33	54000	1600	8000	1600	6700	7000	6600	
	12/04/06	27.53	12.51	15.02	43000	1800	7800	1300	5200	4900	6400	
	10/07/06	27.53	14.76	12.77	86000	2800	11000	2100	9600	400	<6500	
	10/16/06	27.53	16.74	10.79	110000	3600	16000	2400	12000	2700	<6000	
	01/26/07	27.53	17.10	10.43	120000	3900	16000	2300	10000	3000	<5000	
	04/18/07	27.53	17.02	10.51	100000	3500	18000	2500	12000	3400	5200	
	02/08/07	27.53	17.47	10.06	61000	2700	11000	1800	7600	4600	6400	
	10/23/07	27.53	17.94	9.59	56000	3100	13000	1800	8100	--	4500	
	01/30/08	27.53	16.99	10.54	52000	2700	11000	1700	7300	--	5300	
	04/18/08	27.53	17.41	10.12	64000	3400	13000	1800	8100	--	<4000	
	07/28/08	27.53	17.99	9.54	51000	2000	6200	1300	2700	1500	<2600	
	05/12/08	27.53	18.56	8.97	74000	2200	12000	1700	7500	1900	2500	
	01/26/09	27.53	18.20	9.33	90000	2800	14000	NA	9500	1600	<3500	
	03/08/09	30.53	17.74	12.79	67000	2900	12000	1800	8200	1900	<3500	
	01/25/10	30.53	17.10	13.43	46000	1400	6200	1100	5800	1500	<3500	
	03/08/10	30.53	17.24	13.29	79000	3300	14000	2000	10000	2300	<6000	
	01/17/11	30.53	17.35	13.18	76000	3400	15000	2300	11000	1400	<3500	
	08/23/11	30.53	17.23	13.30	17000	940	1900	740	3600	1500	--	
	02/07/12	30.53	17.90	12.63	36000	1100	3600	990	4200	1600	--	
	08/09/12	30.53	16.90	13.63	5100	810	1800	440	1900	4100	--	

Table 4
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)
706 Harrison Street											
MW-3	08/13/93	29.77	17.05	12.72	<50	<0.50	<0.50	<0.50	<1.5	--	--
	12/14/93	29.77	17.70	12.07	<50	<0.50	<0.50	<0.50	<1.5	--	--
	04/15/94	29.77	17.40	12.37	<50	<0.5	<0.5	<0.5	<0.5	--	--
	12/29/94	29.77	16.80	12.97	--	--	--	--	--	--	--
	07/19/96	29.77	16.28	13.49	<50	<0.5	<0.5	<0.5	<0.5	--	--
	01/27/97	29.77	13.83	15.94	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	06/18/97	29.77	16.53	13.24	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	09/18/97	29.77	17.07	12.70	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	10/12/97	29.77	16.15	13.62	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	02/18/98	29.77	11.80	17.97	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	12/05/98	29.77	13.85	15.92	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	08/18/98	29.77	15.57	14.20	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	11/24/98	29.77	16.04	13.73	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	04/02/99	29.77	17.80	11.97	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	05/18/99	29.77	15.29	14.48	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	08/27/99	29.77	16.15	13.62	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	11/18/99	29.77	16.77	13.00	--	--	--	--	--	--	--
	02/29/00	29.77	13.71	16.06	<50	2	<0.5	<0.5	<0.5	--	<5.0
	05/25/00	29.77	15.46	14.31	--	--	--	--	--	--	--
	09/08/00	29.77	16.46	13.31	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	09/11/00	29.77	16.25	13.52	--	--	--	--	--	--	--
	01/29/01	29.77	16.52	13.25	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	04/16/01	29.77	16.95	12.82	--	--	--	--	--	--	--
	08/14/01	29.77	17.11	12.66	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	10/22/01	29.77	16.50	13.27	--	--	--	--	--	--	--
	01/02/02	29.77	16.90	12.87	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	10/05/02	29.77	15.03	14.74	--	--	--	--	--	--	--
	08/07/02	29.77	14.45	15.32	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	02/10/02	29.77	15.03	14.74	--	--	--	--	--	--	--
	01/23/03	29.77	15.48	14.29	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	04/29/03	29.77	12.49	17.28	--	--	--	--	--	--	--
	07/18/03	26.79	14.80	11.99	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	09/10/03	26.79	14.13	12.66	--	--	--	--	--	--	--
	01/28/04	26.79	13.47	13.32	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	07/04/04	26.79	15.41	11.38	--	--	--	--	--	--	--
	07/23/04	26.79	14.54	12.25	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	12/10/04	26.79	16.58	10.21	--	--	--	--	--	--	--
	02/14/05	26.79	14.19	12.60	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	04/27/05	26.79	13.68	13.11	--	--	--	--	--	--	--
	07/19/05	26.79	15.15	11.64	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	10/18/05	26.79	15.60	11.19	--	--	--	--	--	--	--
	01/23/06	26.79	13.65	13.14	<50	<0.5	<0.5	<0.5	<0.5	260	270
	12/04/06	26.79	11.94	14.85	--	--	--	--	--	--	--
	10/07/06	26.79	14.48	12.31	<50	<0.5	<0.5	<0.5	<0.5	1600	1100
	10/16/06	26.79	16.19	10.60	--	--	--	--	--	--	--
	01/26/07	26.79	16.56	10.23	<50	<0.5	<0.5	<0.5	<0.5	3400	2500
	04/18/07	26.79	16.45	10.34	--	--	--	--	--	--	--
	02/08/07	26.79	16.92	9.87	<100	<1.0	<1.0	<1.0	<1.0	3500	3300
	10/23/07	26.79	17.42	9.37	--	--	--	--	--	--	--
	01/30/08	26.79	16.45	10.34	<250	<2.5	<2.5	<2.5	<2.5	10000	8400
	04/18/08	26.79	16.87	9.92	--	--	--	--	--	--	--
	07/28/08	26.79	17.41	9.38	<250	<2.5	<2.5	<2.5	<2.5	6900	6400
	05/12/08	26.79	17.89	8.90	--	--	--	--	--	--	--
	01/26/09	26.79	17.50	9.29	<50	<0.5	<0.5	<0.5	<0.5	3800	3400
	03/08/09	29.79	17.18	12.61	<50	<0.5	<0.5	<0.5	<0.5	3100	2900
	01/25/10	29.79	16.39	13.40	300	<1.7	2.5	<1.7	<1.7	4500	4600
	03/08/10	29.79	16.61	13.18	<50	<0.5	<0.5	<0.5	<0.5	1500	1200
	02/17/11	29.79	16.60	13.19	<50	<0.5	<0.5	<0.5	<0.5	79	55
	08/23/11	29.79	16.65	13.14	310	0.53	2.4	2.6	10	200	--
	02/07/12	29.79	17.23	12.56	<50	<0.50	<0.50	<0.50	<1.0	110	--
	08/09/12	29.79	16.32	13.47	<50	<0.50	<0.50	<0.50	<1.0	0.8	--

Table 4
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	TPH-g (µg/L)	EPA 8260B					8021B	
						Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	
706 Harrison Street												
MW-5	12/16/94	28.04	16.07	11.97	<50	1.1	<0.5	<0.5	<0.5	2.4	--	--
	12/29/94	28.04	16.10	11.94	--	--	--	--	--	--	--	--
	07/19/96	28.04	15.49	12.55	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
	01/27/97	28.04	13.60	14.44	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
	06/18/97	28.04	15.55	12.49	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
	09/18/97	28.04	16.16	11.88	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
	10/12/97	28.04	15.41	12.63	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
	02/18/98	28.04	10.93	17.11	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
	12/05/98	28.04	13.25	14.79	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
	08/18/98	28.04	14.75	13.29	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
	11/24/98	28.04	15.15	12.89	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
	04/02/99	28.04	14.61	13.43	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
	05/18/99	28.04	14.15	13.89	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
	08/27/99	28.04	15.43	12.61	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
	11/18/99	28.04	15.97	12.07	--	--	--	--	--	--	--	--
	02/29/00	28.04	13.16	14.88	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
	05/25/00	28.04	14.72	13.32	--	--	--	--	--	--	--	--
	09/08/00	28.04	15.68	12.36	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
	09/11/00	28.04	15.39	12.65	--	--	--	--	--	--	--	--
	01/29/01	28.04	15.97	12.07	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
	04/16/01	28.04	16.24	11.80	--	--	--	--	--	--	--	--
	08/14/01	28.04	17.39	10.65	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
	10/22/01	28.04	15.90	12.14	--	--	--	--	--	--	--	--
	01/02/02	28.04	16.55	11.49	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
	10/05/02	28.04	15.12	12.92	--	--	--	--	--	--	--	--
	08/07/02	28.04	15.92	12.12	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
	02/10/02	28.04	16.42	11.62	--	--	--	--	--	--	--	--
	01/23/03	28.04	14.90	13.14	<50	20	<0.5	<0.5	<0.5	<0.5	--	<5.0
	04/29/03	28.04	12.05	15.99	--	--	--	--	--	--	--	--
	07/18/03	25.07	14.28	10.79	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
	09/10/03	25.07	13.36	11.71	--	--	--	--	--	--	--	--
	01/28/04	25.07	12.68	12.39	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
	07/04/04	25.07	14.71	10.36	--	--	--	--	--	--	--	--
	07/23/04	25.07	13.49	11.58	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
	12/10/04	25.07	15.88	9.19	--	--	--	--	--	--	--	--
	02/14/05	25.07	13.22	11.85	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
	04/27/05	25.07	13.40	11.67	--	--	--	--	--	--	--	--
	07/19/05	25.07	14.21	10.86	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
	10/18/05	25.07	14.79	10.28	--	--	--	--	--	--	--	--
	01/23/06	25.07	13.12	11.95	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
	12/04/06	25.07	11.39	13.68	--	--	--	--	--	--	--	--
	10/07/06	25.07	14.40	10.67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	25
	10/16/06	25.07	15.44	9.63	--	--	--	--	--	--	--	--
	01/26/07	25.07	15.76	9.31	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	490
	04/18/07	25.07	15.61	9.46	--	--	--	--	--	--	--	--
	02/08/07	25.07	16.04	9.03	<50	<0.5	<0.5	<0.5	<0.5	<0.5	760	660
	10/23/07	25.07	16.89	8.18	--	--	--	--	--	--	--	--
	01/30/08	25.07	15.61	9.46	<50	<0.5	<0.5	<0.5	<0.5	<0.5	280	250
	04/18/08	25.07	15.99	9.08	--	--	--	--	--	--	--	--
	07/28/08	25.07	16.45	8.62	<50	<0.5	<0.5	<0.5	<0.5	<0.5	670	640
	05/12/08	25.07	16.94	8.13	--	--	--	--	--	--	--	--
	01/26/09	25.07	16.54	8.53	<50	<0.5	<0.5	<0.5	<0.5	<0.5	3700	3500
	03/08/09	28.07	16.23	11.84	<50	<0.5	<0.5	<0.5	<0.5	<0.5	1400	1300
	01/25/10	28.07	15.58	12.49	<50	<0.5	<0.5	<0.5	<0.5	<0.5	1400	1300
	03/08/10	28.07	15.55	12.52	<50	<0.5	<0.5	<0.5	<0.5	<0.5	450	400
	02/17/11	28.07	15.56	12.51	<50	<0.5	<0.5	<0.5	<0.5	<0.5	7.7	6.4
	08/23/11	28.07	15.80	12.27	280	<0.50	<0.50	<0.50	<0.50	<0.50	360	--
	02/07/12	28.07	16.45	11.62	<50	<0.50	<0.50	<0.50	<0.50	1.6	190	--
	08/09/12	28.07	15.22	12.85	<50	<0.50	<0.50	<0.50	<0.50	<1.0	13	--

Table 4
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)
706 Harrison Street											
MW-6	12/16/94	29.10	17.74	11.36	--	--	--	--	--	--	--
	12/29/94	29.10	17.40	11.70	--	--	--	--	--	--	--
	07/19/96	29.10	16.60	12.50	<50	<0.5	<0.5	<0.5	<0.5	--	--
	01/27/97	29.10	14.88	14.22	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	06/18/97	29.10	16.73	12.37	51	22	<0.5	<0.5	<0.5	--	<5.0
	09/18/97	29.10	17.24	11.86	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	10/12/97	29.10	16.56	12.54	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	02/18/98	29.10	12.93	16.17	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	12/05/98	29.10	14.35	14.75	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	08/18/98	29.10	15.94	13.16	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	11/24/98	29.10	16.46	12.64	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	04/02/99	29.10	18.25	10.85	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	05/18/99	29.10	15.73	13.37	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	08/27/99	29.10	15.64	13.46	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	11/18/99	29.10	17.04	12.06	--	--	--	--	--	--	--
	02/29/00	29.10	14.55	14.55	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	05/25/00	29.10	15.86	13.24	--	--	--	--	--	--	--
	09/08/00	29.10	16.80	12.30	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	09/11/00	29.10	16.60	12.50	--	--	--	--	--	--	--
	01/29/01	29.10	17.00	12.10	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	04/16/01	29.10	17.15	11.95	--	--	--	--	--	--	--
	08/14/01	29.10	17.30	11.80	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	10/22/01	29.10	17.13	11.97	--	--	--	--	--	--	--
	01/02/02	29.10	16.57	12.53	70	37	<0.5	<0.5	<0.5	--	<5.0
	10/05/02	29.10	15.25	13.85	--	--	--	--	--	--	--
	08/07/02	29.10	15.79	13.31	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	02/10/02	29.10	16.38	12.72	--	--	--	--	--	--	--
	01/23/03	29.10	16.03	13.07	<50	21	<0.5	<0.5	<0.5	--	<5.0
	04/29/03	29.10	14.19	14.91	--	--	--	--	--	--	--
	07/18/03	26.13	15.47	10.66	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	09/10/03	26.13	14.73	11.40	--	--	--	--	--	--	--
	01/28/04	26.13	14.05	12.08	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	07/04/04	26.13	14.41	11.72	--	--	--	--	--	--	--
	07/23/04	26.13	15.15	10.98	3300	1300	<5.0	52	9.7		<5.0
	12/10/04	26.13	17.29	8.84	--	--	--	--	--	--	--
	02/14/05	26.13	14.60	11.53	350	160	<0.5	<0.5	<0.5	2	<25
	04/27/05	26.13	14.10	12.03	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	07/19/05	26.13	15.18	10.95	110	15	<0.5	0.62	<0.5	1.7	<5.0
	10/18/05	26.13	15.65	10.48	<50	<0.5	<0.5	<0.5	<0.5	0.87	<5.0
	01/23/06	26.13	14.02	12.11	<50	<0.5	<0.5	<0.5	<0.5	0.5	<5.0
	12/04/06	26.13	12.66	13.47	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	10/07/06	26.13	14.64	11.49	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	10/16/06	26.13	16.50	9.63	--	--	--	--	--	--	--
	01/26/07	26.13	16.83	9.30	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	04/18/07	26.13	16.72	9.41	--	--	--	--	--	--	--
	02/08/07	26.13	17.13	9.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	10/23/07	26.13	17.71	8.42	--	--	--	--	--	--	--
	01/30/08	26.13	16.54	9.59	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	04/18/08	26.13	17.02	9.11	--	--	--	--	--	--	--
	07/28/08	26.13	17.50	8.63	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	05/12/08	26.13	17.89	8.24	--	--	--	--	--	--	--
	01/26/09	26.13	17.61	8.52	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	03/08/09	29.13	17.24	11.89	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	01/25/10	29.13	16.72	12.41	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	03/08/10	29.13	16.80	12.33	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	02/17/11	29.13	16.73	12.40	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	08/23/11	29.13	16.97	12.16	<50	<0.50	<0.50	<0.50	<1.0	89	--
	02/07/12	29.13	17.51	11.62	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--
	08/09/12	29.13	16.41	12.72	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--

Table 4
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B	
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	
706 Harrison Street												
MW-7	12/16/94	29.67	17.07	12.60	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	12/29/94	29.67	17.65	12.02	--	--	--	--	--	--	--	--
	07/19/96	29.67	16.44	13.23	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
	01/27/97	29.67	15.09	14.58	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
	06/18/97	29.67	16.59	13.08	73	<0.5	1	<0.5	<0.5	--	--	<5.0
	09/18/97	29.67	17.06	12.61	94	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
	10/12/97	29.67	16.58	13.09	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
	02/18/98	29.67	12.60	17.07	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
	12/05/98	29.67	14.81	14.86	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
	08/18/98	29.67	15.67	14.00	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
	11/24/98	29.67	16.30	13.37	200	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
	04/02/99	29.67	15.99	13.68	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
	05/18/99	29.67	15.42	14.25	200	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
	08/27/99	29.67	16.35	13.32	140	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
	11/18/99	29.67	16.81	12.86	--	--	--	--	--	--	--	--
	02/29/00	29.67	14.16	15.51	100	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
	05/25/00	29.67	15.54	14.13	--	--	--	--	--	--	--	--
	09/08/00	29.67	16.56	13.11	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
	09/11/00	29.67	16.45	13.22	--	--	--	--	--	--	--	--
	01/29/01	29.67	16.92	12.75	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
	04/16/01	29.67	17.03	12.64	--	--	--	--	--	--	--	--
	08/14/01	29.67	17.27	12.40	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
	10/22/01	29.67	16.95	12.72	--	--	--	--	--	--	--	--
	01/02/02	29.67	16.14	13.53	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
	10/05/02	29.67	15.30	14.37	--	--	--	--	--	--	--	--
	08/07/02	29.67	15.73	13.94	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
	02/10/02	29.67	16.24	13.43	--	--	--	--	--	--	--	--
	01/23/03	29.67	15.70	13.97	<50	23	<0.5	<0.5	<0.5	--	--	<5.0
	04/29/03	29.67	12.68	16.99	--	--	--	--	--	--	--	--
	07/18/03	26.70	15.19	11.51	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
	09/10/03	26.70	14.45	12.25	--	--	--	--	--	--	--	--
	01/28/04	26.70	13.88	12.82	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
	07/04/04	26.70	15.71	10.99	--	--	--	--	--	--	--	--
	07/23/04	26.70	14.85	11.85	<50	<0.5	<0.5	<0.5	<0.5	120	130	<5.0
	12/10/04	26.70	16.90	9.80	--	--	--	--	--	--	--	--
	02/14/05	26.70	14.42	12.28	<50	<0.5	<0.5	<0.5	<0.5	200	190	<5.0
	04/27/05	26.70	13.75	12.95	<50	<0.5	<0.5	<0.5	<0.5	1	1	<5.0
	07/19/05	26.70	14.91	11.79	<50	<0.5	<0.5	<0.5	<0.5	66	65	<5.0
	10/18/05	26.70	15.40	11.30	<50	<0.5	<0.5	<0.5	<0.5	15	12	<5.0
	01/23/06	26.70	13.99	12.71	<50	<0.5	<0.5	<0.5	<0.5	2.2	2.2	<5.0
	12/04/06	26.70	12.32	14.38	<50	<0.5	<0.5	<0.5	<0.5	2	2	<5.0
	10/07/06	26.70	14.31	12.39	<50	<0.5	<0.5	<0.5	<0.5	1.5	1.5	<5.0
	10/16/06	26.70	16.23	10.47	--	--	--	--	--	--	--	--
	01/26/07	26.70	16.61	10.09	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	04/18/07	26.70	16.54	10.16	--	--	--	--	--	--	--	--
	02/08/07	26.70	16.93	9.77	<50	<0.5	<0.5	<0.5	<0.5	2	2	<5.0
	10/23/07	26.70	17.36	9.34	--	--	--	--	--	--	--	--
	01/30/08	26.70	16.36	10.34	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	04/18/08	26.70	16.85	9.85	--	--	--	--	--	--	--	--
	07/28/08	26.70	17.43	9.27	<50	<0.5	<0.5	<0.5	<0.5	1.1	1.1	<5.0
	05/12/08	26.70	17.91	8.79	--	--	--	--	--	--	--	--
	01/26/09	26.70	17.65	9.05	<50	<0.5	<0.5	<0.5	<0.5	0.96	0.96	<5.0
	03/08/09	29.70	17.17	12.53	<50	<0.5	<0.5	<0.5	<0.5	0.87	0.87	<5.0
	01/25/10	29.70	16.65	13.05	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	03/08/10	29.70	16.74	12.96	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	02/17/11	29.70	16.69	13.01	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	08/23/11	29.70	16.79	12.91	<50	<0.50	<0.50	<0.50	<1.0	89	89	--
	02/07/12	29.70	17.40	12.30	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	--
	08/09/12	29.70	16.38	13.32	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	--

Table 4
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)
706 Harrison Street											
VW-3	06/03/03	NA	NA	NA	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	03/25/03	NA	NA	NA	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
VW-4	06/03/03	NA	NA	NA	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	03/25/03	NA	NA	NA	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
726 Harrison Street											
MW-1	07/03/97	NA	NA	NA	18000	2700	350	450	900	--	7400
	12/15/98	31.95	17.32	14.63	18000	1500	270	260	560	--	14000
	04/03/99	31.95	15.52	16.43	44000	2800	400	440	960	--	43000
	06/17/99	31.95	16.90	15.05	33000	2200	250	460	660	--	25000
	08/27/99	31.95	17.39	14.56	6000	1000	97	190	230	16000	14000
	09/12/99	31.95	18.03	13.92	15000	1500	160	220	420	--	17000
	07/03/00	31.95	15.11	16.84	9300	1500	210	66	530	--	12000
	07/06/00	31.95	16.66	15.29	26000	1700	<250	360	580	--	30000
	11/10/00	31.95	18.08	13.87	13000	1600	<100	140	160	--	19000
	01/18/01	31.95	17.96	13.99	14000	450	<100	110	230	--	9600
	05/04/01	31.95	16.35	15.60	38000	2200	180	290	590	--	35000
	07/17/01	31.95	16.94	15.01	35000	1800	<100	300	170	--	35000
	05/01/10	28.98	17.35	11.63	17000	1500	210	420	790	--	27000
	01/18/02	28.98	15.40	13.58	18000	1500	120	160	220	--	22000
	11/04/02	28.98	15.76	13.22	41000	2700	210	340	380	--	30000
	08/07/02	28.98	16.17	12.81	36000	2800	140	360	300	--	31000
	09/02/10	28.98	16.72	12.26	30000	1700	310	<100	<100	--	19000
	01/29/03	28.98	16.26	12.72	26000	2400	<100	310	520	--	20000
	11/04/03	28.98	16.56	12.42	22000	1700	<100	270	580	--	16000
	07/18/03	28.98	16.42	12.56	40000	3200	290	480	830	--	39000
	09/03/10	28.98	16.88	12.10	54000	3300	<130	350	310	--	49000
	01/28/04	28.98	16.10	12.88	26000	3000	310	420	800	--	31000
	07/04/04	28.98	15.43	13.55	33000	2800	130	310	310	--	39000
	07/23/04	28.98	16.41	12.57	56000	4500	<250	390	<500	--	53000
	12/04/10	28.98	17.73	11.25	25000	1400	<250	<250	<500	--	25000
	01/29/05	28.98	15.02	13.96	24000	1600	<100	160	<200	--	19000
	04/28/05	28.98	14.99	13.99	10000	2000	<100	160	100	--	34000
	07/19/05	28.98	16.36	12.62	37000	2100	83	210	230	--	28000
	10/18/05	28.98	17.82	11.16	37000	1300	<250	<250	<250	--	23000
	01/23/06	28.98	15.80	13.18	23000	780	<100	160	260	--	11000
	12/04/06	28.98	13.24	15.74	11000	1500	87	360	670	--	17000
	10/07/06	28.98	15.64	13.34	72000	4700	<250	350	<500	--	66000
	10/16/06	28.98	17.51	11.47	26000	1600	<250	330	<500	--	22000
	01/26/07	28.98	18.36	10.62	7200	1500	<70	140	96	--	34000
04/18/07	28.98	17.79	11.19	5400	1100	<50	200	120	--	21000	
02/08/07	28.98	18.20	10.78	6600	1500	64	240	190	--	32000	
10/23/07	28.98	18.75	10.23	5900	1300	52	200	180	--	28000	
01/30/08	28.98	17.90	11.08	2700	300	21	64	90	--	5200	
04/18/08	28.98	18.21	10.77	3800	930	41	110	130	--	15000	
07/28/08	28.98	18.85	10.13	6000	900	52	140	160	--	10000	
10/29/08	28.98	19.24	9.74	7300	1700	74	140	220	--	17000	
01/26/09	28.98	19.17	9.81	4900	720	48	140	180	--	6300	
03/08/09	31.98	18.62	13.36	4000	870	44	110	120	--	13000	
01/25/10	31.98	18.26	13.72	3200	360	26	82	86	--	3000	
03/08/10	31.98	18.13	13.85	3800	560	27	97	92	--	8600	
02/17/11	31.98	18.15	13.83	6000	1100	51	110	110	--	11000	
08/23/11	31.98	18.60	13.38	8200	290	36	66	79	4700	--	
02/07/12	31.98	18.77	13.21	370	46	1.7	4.2	4.5	3800	--	
08/09/12	31.98	17.82	14.16	6600	760	27	58	60	6700	--	

Table 4
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)
726 Harrison Street											
MW-2	12/15/98	32.40	18.03	14.37	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<5.0
	03/04/99	32.40	16.11	16.29	--	--	--	--	--	--	--
	06/17/99	32.40	17.72	14.68	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<5.0
	08/27/99	NA	NA	NA	--	--	--	--	--	--	--
	12/09/99	NA	NA	NA	--	--	--	--	--	--	--
	03/07/00	NA	NA	NA	--	--	--	--	--	--	--
	06/07/00	32.40	17.67	14.73	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	10/11/00	32.40	18.91	13.49	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	01/18/01	32.40	18.66	13.74	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	04/05/01	32.40	16.97	15.43	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	07/17/01	32.40	17.54	14.86	NA	NA	NA	NA	NA	NA	NA
	10/05/01	29.44	17.98	11.46	NA	NA	NA	NA	NA	NA	NA
	01/18/02	29.44	15.87	13.57	NA	NA	NA	NA	NA	NA	NA
	04/11/02	29.44	16.36	13.08	NA	NA	NA	NA	NA	NA	NA
	07/18/02	29.44	16.72	12.72	NA	NA	NA	NA	NA	NA	NA
	10/09/02	29.44	17.33	12.11	NA	NA	NA	NA	NA	NA	NA
	01/29/03	29.44	16.82	12.62	NA	NA	NA	NA	NA	NA	NA
	04/11/03	29.44	17.15	12.29	NA	NA	NA	NA	NA	NA	NA
	07/18/03	29.44	17.05	12.39	NA	NA	NA	NA	NA	NA	NA
	10/09/03	29.44	17.52	11.92	NA	NA	NA	NA	NA	NA	NA
	01/28/04	29.44	16.70	12.74	NA	NA	NA	NA	NA	NA	NA
	04/07/04	29.44	16.02	13.42	NA	NA	NA	NA	NA	NA	NA
	07/23/04	--	--	--	--	--	--	--	--	--	--
	10/12/04	29.44	17.31	12.13	NA	NA	NA	NA	NA	NA	NA
	01/29/05	29.44	15.46	13.98	NA	NA	NA	NA	NA	NA	NA
	04/28/05	29.44	15.79	13.65	NA	NA	NA	NA	NA	NA	NA
	07/19/05	29.44	17.25	12.19	NA	NA	NA	NA	NA	NA	NA
	10/18/05	29.44	17.72	11.72	NA	NA	NA	NA	NA	NA	NA
	01/23/06	29.44	15.65	13.79	NA	NA	NA	NA	NA	NA	NA
	04/12/06	29.44	12.33	17.11	NA	NA	NA	NA	NA	NA	NA
	07/10/06	29.44	16.58	12.86	<50	<0.50	<0.50	<0.50	<1.0	--	4.5
	10/16/06	29.44	18.33	11.11	<50	<0.50	<0.50	<0.50	<1.0	--	<0.5
01/26/07	29.44	19.21	10.23	<50	0.55	1	<0.50	1.4	--	0.97	
04/18/07	29.44	18.58	10.86	<50	1.5	2.6	0.93	3.2	--	0.64	
08/02/07	29.44	19.02	10.42	<50	<0.50	<0.50	<0.50	<0.50	--	2.2	
10/23/07	--	--	--	--	--	--	--	--	--	--	
01/30/08	29.44	18.63	10.81	<50	<0.50	<0.50	<0.50	<0.50	--	300	
04/18/08	29.44	19.04	10.40	<50	<0.50	<0.50	<0.50	<0.50	--	40	
07/28/08	--	--	--	--	--	--	--	--	--	--	
10/29/08	29.44	20.01	9.43	<50	<0.50	<0.50	<0.50	<0.50	--	300	
01/26/09	29.44	19.84	9.60	<50	<0.50	<0.50	<0.50	<0.50	--	120	
08/03/09	32.44	19.39	13.05	<50	<0.50	<0.50	<0.50	<0.50	--	1	
01/25/10	32.44	18.67	13.77	<50	<0.50	<0.50	<0.50	<0.50	--	12	
03/08/10	32.44	18.84	13.60	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	
02/17/11	32.44	18.82	13.62	<50	<0.50	<0.50	<0.50	<0.50	--	5.2	
08/23/11	32.44	19.38	13.06	<50	<0.50	<0.50	<0.50	<1.0	0.37	--	
02/07/12	32.44	19.52	12.92	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
08/09/12	32.44	18.55	13.89	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
MW-3	12/15/98	31.61	17.26	14.35	6500	<50	50	60	502	--	3900
	03/04/99	31.61	15.47	16.14	2800	<25	<25	<25	<25	--	1600
	06/17/99	31.61	16.92	14.69	1000	<10	<10	<10	<10	--	1400
	08/27/99	31.61	17.40	14.21	230	<0.5	0.51	0.50	1	1600	1500
	12/09/99	31.61	18.01	13.60	870	<0.5	<0.5	<0.5	<0.5	--	2100
	03/07/00	31.61	16.15	15.46	150	4	<0.5	<0.5	<0.5	--	830
	06/07/00	31.61	16.85	14.76	140	<0.5	<0.5	<0.5	<0.5	--	1100
	10/11/00	31.61	18.07	13.54	620	<5.0	<5.0	<5.0	<5.0	--	1500
	01/18/01	31.61	17.89	13.72	1200	<5.0	<5.0	<5.0	<5.0	--	1000
	04/05/01	31.61	16.21	15.40	1700	<5.0	<5.0	<5.0	<5.0	--	1900
	07/17/01	31.61	16.90	14.71	1400	<10	<10	<10	<10	--	1700
10/05/01	28.64	17.32	11.32	<1000	<10	<10	<10	<10	--	1700	

Table 4
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B	
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	
726 Harrison Street												
MW-3 cont'd	01/18/02	28.64	15.35	13.29	1600	26	20	16	54	--	2100	
	04/11/02	28.64	15.82	12.82	2600	21	16	<10	21	--	2300	
	07/18/02	28.64	16.15	12.49	2800	<10	<10	<10	<10	--	3800	
	10/09/02	28.64	16.67	11.97	6000	<50	<50	<50	<50	--	4900	
	01/29/03	28.64	16.19	12.45	1800	<10	<10	<10	<10	--	2300	
	04/11/03	28.64	16.49	12.15	2900	<25	<25	<25	<25	--	3100	
	07/18/03	28.64	16.42	12.22	3400	<10	<10	<10	<10	--	3200	
	10/09/03	28.64	16.80	11.84	2300	<10	<10	<10	<10	--	2700	
	01/28/04	28.64	15.94	12.70	1700	<10	<10	<10	<10	--	2900	
	04/07/04	28.64	15.28	13.36	2700	<10	<10	<10	<20	--	3600	
	07/23/04	28.64	16.15	12.49	4200	<25	<25	<25	<50	--	4900	
	10/12/04	28.64	16.63	12.01	5000	<50	<50	<50	<100	--	5900	
	01/29/05	28.64	16.15	12.49	<1000	<10	<10	<10	<20	--	3100	
	04/28/05	28.64	14.94	13.70	<200	<2.0	<2.0	<2.0	<2.0	--	1300	
	07/19/05	28.64	16.25	12.39	4400	<20	<20	<20	<40	--	3000	
	10/18/05	28.64	16.76	11.88	18000	<50	<50	<50	<50	--	6800	
	01/23/06	28.64	15.81	12.83	17000	<100	<100	<100	<200	--	7000	
	04/12/06	28.64	13.22	15.42	<200	<2.0	<2.0	<2.0	<2.0	--	7800	
	07/10/06	28.64	15.49	13.15	11000	<100	<100	<100	<200	--	12000	
	10/16/06	28.64	17.46	11.18	<10000	<100	<100	<100	<100	--	17000	
	01/26/07	28.64	18.02	10.62	<200	<2.0	<2.0	<2.0	<2.0	--	4000	
	04/18/07	28.64	17.75	10.89	<900	<9.0	<9.0	<9.0	<9.0	--	11000	
	08/02/07	28.64	18.38	10.26	110	<0.80	<0.80	<0.80	2	--	410	
	10/23/07	28.64	19.61	9.03	< 80	<0.80	<0.80	<0.80	<0.80	--	480	
	01/30/08	28.64	17.65	10.99	< 80	<0.80	<0.80	<0.80	<0.80	--	430	
	04/18/08	28.64	18.08	10.56	<50	<0.50	<0.50	<0.50	<0.50	--	350	
	07/28/08	28.64	18.77	9.87	61	<0.50	<0.50	<0.50	<0.50	--	140	
	10/29/08	28.64	19.14	9.50	120	<0.50	<0.50	<0.50	<0.50	--	640	
01/26/09	28.64	19.06	9.58	210	1.9	<1.5	<1.5	<1.5	--	1300		
08/03/09	31.64	18.51	13.13	<250	<2.5	<2.5	<2.5	<2.5	--	1600		
01/25/10	31.64	18.02	13.62	87	<0.50	<0.50	<0.50	<0.50	--	300		
03/08/10	31.64	18.06	13.58	92	<0.50	<0.50	<0.50	<0.50	--	32		
02/17/11	31.64	18.03	13.61	<50	<0.50	<0.50	<0.50	<0.50	--	25		
08/23/11	31.64	18.56	13.08	60	<0.50	<0.50	<0.50	<0.50	9.1	--		
02/07/12	31.64	18.71	12.93	25	<0.50	<0.50	<0.50	<1.0	2.1	--		
08/09/12	31.64	17.74	13.90	39	<0.50	<0.50	<0.50	<1.0	9.2	--		
MW-4	12/15/98	32.53	17.59	14.94	880	3	<0.5	<0.5	<0.5	--	950	
	03/04/99	32.53	15.88	16.65	3800	<25	<25	<25	<25	--	3700	
	06/17/99	32.53	17.14	15.39	2700	<25	<25	<25	<25	--	2700	
	08/27/99	32.53	17.65	14.88	440	4.7	1.1	0.58	1.3	1700	1600	
	12/09/99	32.53	18.28	14.25	1100	<2.5	<2.5	<2.5	<2.5	--	1700	
	03/07/00	32.53	15.41	17.12	<250	<2.5	<2.5	<2.5	<2.5	--	1700	
	06/07/00	32.53	17.09	15.44	530	8.8	<2.5	<2.5	<2.5	--	440	
	10/11/00	32.53	18.33	14.20	700	3.9	<2.5	<2.5	<2.5	--	680	
	01/18/01	32.53	18.23	14.30	2000	<2.5	<2.5	<2.5	<2.5	--	780	
	04/05/01	32.53	16.69	15.84	810	<2.5	<2.5	<2.5	<2.5	--	620	
	07/17/01	32.53	17.32	15.21	880	<2.5	<2.5	<2.5	<2.5	--	570	
	10/05/01	29.58	17.71	11.87	550	<2.5	<2.5	<2.5	<2.5	--	710	
	01/18/02	29.58	15.85	13.73	960	<5.0	<5.0	<5.0	<5.0	--	1300	
	04/11/02	29.58	16.14	13.44	1100	<5.0	<5.0	<5.0	<5.0	--	550	
	07/18/02	29.58	16.56	13.02	1200	<5.0	<5.0	<5.0	<5.0	--	890	
	10/09/02	29.58	17.09	12.49	1300	<5.0	<5.0	<5.0	<5.0	--	880	
	01/29/03	29.58	16.65	12.93	530	<1.0	<1.0	<1.0	<1.0	--	190	
	04/11/03	29.58	16.93	12.65	690	<2.5	<2.5	<2.5	<2.5	--	310	
	07/18/03	29.58	16.78	12.80	1600	<10	<10	<10	<10	--	1300	
	10/09/03	29.58	17.26	12.32	1500	<10	<10	<10	<10	--	1400	
01/28/04	29.58	16.38	13.20	1200	<10	<10	<10	<10	--	1900		
04/07/04	29.58	15.64	13.94	1900	<10	<10	<10	<20	--	2200		
07/23/04	29.58	16.58	13.00	1800	<10	<10	<10	<20	--	1600		

Table 4
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)
726 Harrison Street											
MW-4 cont'd	10/12/04	--	--	--	--	--	--	--	--	--	--
	01/29/05	29.58	14.90	14.68	<1300	<13	<13	<13	<25	--	3900
	04/28/05	29.58	15.18	14.40	510	<1.5	<1.5	<1.5	<1.5	--	510
	07/19/05	29.58	16.48	13.10	5400	<50	<50	<50	<100	--	2700
	10/18/05	29.58	16.99	12.59	10000	<50	<50	<50	<50	--	9000
	01/23/06	29.58	15.09	14.49	10000	<100	<100	<100	<200	--	8300
	04/12/06	29.58	13.49	16.09	1900	<10	<10	<10	<20	--	2200
	07/10/06	29.58	14.99	14.59	750	5.4	<5.0	<5.0	<10	--	790
	10/16/06	29.58	17.29	12.29	2400	<10	<10	<10	<10	--	2200
	01/26/07	29.58	18.17	11.41	250	<1.5	<1.5	<1.5	<1.5	--	7000
	04/18/07	29.58	18.06	11.52	<400	<4.0	<4.0	<4.0	<4.0	--	2300
	02/08/07	29.58	18.45	11.13	400	<4.0	<4.0	<4.0	<4.0	--	4500
	10/23/07	29.58	18.99	10.59	<500	<5.0	<5.0	<5.0	<5.0	--	3400
	01/30/08	29.58	18.14	11.44	580	89	1.5	< 0.90	2.5	--	500
	04/18/08	29.58	18.49	11.09	660	13	0.58	0.51	0.94	--	180
	07/28/08	29.58	19.15	10.43	520	19	0.97	1.4	2.6	--	71
	10/29/08	29.58	19.53	10.05	480	38	1.8	4.5	4.3	--	420
	01/26/09	29.58	19.52	10.06	470	51	2.2	4.2	5.2	--	180
	08/03/09	32.56	18.91	13.65	320	62	<0.5	0.59	<0.5	--	120
	01/25/10	32.56	18.51	14.05	820	110	1.9	1.3	5.5	--	8.8
03/08/10	32.56	18.45	14.11	500	8.6	0.84	<0.50	1.4	--	43	
02/17/11	32.56	18.46	14.10	440	4.9	<0.50	<0.50	0.87	--	40	
08/23/11	32.56	18.88	13.68	630	36	1.3	0.69	3.6	32	--	
02/07/12	32.56	19.09	13.47	210	<0.50	<0.50	<0.50	<1.0	17	--	
08/09/12	32.56	18.16	14.40	280	2	<0.50	<0.50	<1.0	21	--	
MW-5	08/29/01	29.06	17.42	11.64	14000	1300	470	230	800	--	14000
	01/18/02	29.06	15.68	13.38	24000	3200	1300	390	1500	--	5700
	04/11/02	29.06	16.17	12.89	23000	2700	980	38	950	--	4300
	07/08/02	29.06	16.51	12.55	19000	3300	25	360	1100	--	2100
	10/09/02	29.06	17.10	11.96	24000	2800	990	360	820	--	2400
	01/29/03	29.06	16.58	12.48	17000	2100	1400	380	1400	--	<250
	04/11/03	29.06	16.87	12.19	26000	2900	2200	590	2200	--	630
	07/18/03	29.06	16.77	12.29	26000	3500	1700	480	1300	--	1300
	10/09/03	29.06	17.21	11.85	27000	3800	1900	510	1700	--	1200
	01/28/04	29.06	16.34	12.72	29000	4800	2900	770	2300	--	3300
	04/07/04	29.06	15.38	13.68	23000	4400	2700	720	2200	--	1700
	07/23/04	29.06	16.55	12.51	29000	5200	2200	810	1400	--	2200
	10/12/04	29.06	17.02	12.04	26000	4300	2000	670	1300	--	2200
	01/29/05	29.06	15.23	13.83	NA	NA	NA	NA	NA	--	NA
	04/28/05	29.06	15.41	13.65	NA	NA	NA	NA	NA	--	NA
	07/19/05	29.06	16.79	12.27	NA	NA	NA	NA	NA	--	NA
	10/18/05	29.06	17.28	11.78	NA	NA	NA	NA	NA	--	NA
	01/23/06	29.06	15.28	13.78	21000	1800	1200	270	820	--	13000
	04/12/06	29.06	13.66	15.40	NA	NA	NA	NA	NA	--	NA
	07/10/06	29.06	16.14	12.92	45000	3700	2600	650	1800	--	23000
	10/16/06	29.06	19.33	9.73	66000	4200	3300	800	2100	--	35000
	01/26/07	29.06	18.94	10.12	30000	3200	2600	610	2400	--	38000
	04/18/07	29.06	18.21	10.85	30000	4300	3300	800	2600	--	27000
	08/02/07	29.06	19.00	10.06	26000	3700	2800	690	1900	--	32000
	10/23/07	29.06	19.15	9.91	34000	4400	3700	860	3200	--	34000
	01/30/08	29.06	18.21	10.85	28000	3900	2800	750	2300	--	26000
	04/18/08	29.06	18.61	10.45	30000	4300	3200	810	2000	--	32000
	07/28/08	29.06	19.23	9.83	34000	3700	3000	740	2900	--	28000
	10/29/08	29.06	19.62	9.44	29000	3300	2900	680	2800	--	27000
	01/26/09	29.06	19.51	9.55	19000	2100	1500	410	1500	--	18000
03/08/09	32.06	19.00	13.06	28000	3500	2800	630	2600	--	28000	
01/25/10	32.06	18.43	13.63	12000	1400	750	270	900	--	7500	
03/08/10	32.06	18.50	13.56	24000	3300	2200	620	1700	--	26000	
02/17/11	32.06	18.47	13.59	27000	3500	1900	630	2200	--	24000	
08/23/11	32.06	19.02	13.04	19000	1100	400	190	390	14000	--	
02/07/12	32.06	19.16	12.90	19000	890	410	360	990	17000	--	
08/09/12	32.06	18.24	13.82	16000	1400	580	470	960	16000	--	

Table 4
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	TPH-g (µg/L)	EPA 8260B					8021B	
						Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	
726 Harrison Street												
MW-6	08/23/11	32.04	28.35	3.69	500	<0.50	<0.50	<0.50	<1.0	740	--	
	02/07/12	32.04	26.53	5.51	410	<0.50	<0.50	<0.50	<1.0	970	--	
	08/09/12	32.04	28.27	3.77	830	<0.50	<0.50	<0.50	<1.0	970	--	
800 Harrison Street												
MW-1	06/05/91	34.94	--	--	ND	ND	ND	ND	ND	--	--	
	09/30/91	34.94	--	--	ND	ND	ND	ND	ND	--	--	
	12/30/91	34.94	--	--	ND	ND	ND	ND	ND	--	--	
	04/02/92	34.94	--	--	ND	ND	ND	ND	ND	--	--	
	06/30/92	34.94	--	--	ND	ND	ND	ND	ND	--	--	
	09/15/92	34.94	--	--	76	1	ND	ND	ND	--	--	
	12/21/92	34.94	21.17	13.77	95	0.69	ND	ND	1	--	--	
	04/28/93	34.94	--	--	920	3.1	2.3	1.2	9.7	--	--	
	07/23/93	34.94	20.13	14.81	ND	0.5	0.66	ND	ND	--	--	
	10/05/93	34.69	20.30	14.39	92	1.5	ND	ND	0.72	--	--	
	01/03/94	34.69	20.52	14.17	ND	ND	ND	ND	ND	--	--	
	04/02/94	34.69	20.16	14.53	ND	ND	ND	ND	ND	--	--	
	07/05/94	34.69	19.27	15.42	250	4.8	13	1.2	7.3	--	--	
	10/06/94	34.69	20.87	13.82	540	1.4	ND	0.66	11	--	--	
	01/02/95	34.69	19.67	15.02	140	ND	ND	ND	ND	--	--	
	04/03/95	34.69	17.61	17.08	580	3.6	0.8	ND	4	--	--	
	07/14/95	34.69	18.58	16.11	260	2.1	ND	ND	1.2	--	--	
	10/10/95	34.69	19.60	15.09	220	2	ND	25	5.6	--	29	
	01/03/96	34.69	19.69	15.00	190	2.4	ND	0.71	1.2	--	--	
	04/10/96	34.69	17.65	17.04	540	8.9	1.7	1.5	7.4	--	50	
	07/09/96	34.69	18.52	16.17	490	3	1.4	1.3	2.5	--	150	
	01/24/97	34.69	17.72	16.97	760	27	0.89	5.2	10	--	510	
	07/23/97	34.69	19.42	15.27	ND	ND	ND	ND	ND	--	550	
	01/26/98	34.69	17.46	17.23	1800	ND	ND	ND	ND	--	4800	
	07/03/98	34.69	18.61	16.08	ND	ND	ND	ND	ND	--	1800	
	01/14/99	34.69	18.92	15.77	83	ND	ND	ND	ND	--	230	
	07/15/99	34.69	17.84	16.85	110	ND	ND	ND	1	--	290	
	01/07/00	34.69	19.13	15.56	ND	ND	ND	ND	ND	--	260	
	07/19/00	34.69	20.27	14.42	ND	ND	ND	ND	ND	--	648	
	01/02/01	34.69	20.04	14.65	ND	ND	ND	ND	ND	--	119	
	05/23/01	34.69	18.27	16.42	84	ND	ND	ND	ND	--	760	
	07/30/01	34.69	18.56	16.13	<50	<0.50	<0.50	<0.50	<0.50	--	350	
	10/15/01	34.69	18.72	15.97	96	<0.50	<0.50	<0.50	<0.50	--	160	
	01/14/02	34.69	16.78	17.91	450	<2.5	<2.5	<2.5	3.3	--	4100	
	04/15/02	34.69	17.35	17.34	<1000	<10	<10	<10	<10	--	10000	
	07/15/02	34.69	17.63	17.06	2100	<10	<10	<10	<20	2100	--	
01/18/03	34.69	17.04	17.65	<25000	<250	<250	<250	<500	29000	--		
07/11/03	34.69	17.91	16.78	4000	<25	<25	<25	<50	6300	--		
02/04/04	34.69	17.98	16.71	8000	<50	<50	<50	<100	8500	--		
08/11/04	34.69	17.84	16.85	1100	<10	<10	<10	<20	1500	--		
03/31/05	34.69	15.71	18.98	<2000	<0.50	<0.50	0.54	2.2	4900	--		
09/30/05	34.69	17.65	17.04	190	<0.50	<0.50	<0.50	<1.0	160	--		
03/27/06	34.69	15.03	19.66	760	<0.50	<0.50	<0.50	<1.0	1000	--		
09/27/06	34.69	18.45	16.24	170	<0.50	<0.50	<0.50	0.61	73	--		
03/27/07	34.69	18.84	15.85	120	<0.50	<0.50	<0.50	<0.50	99	--		
09/28/07	34.69	19.73	14.96	68	<0.50	<0.50	<0.50	<0.50	15	--		
03/26/08	34.69	19.32	15.37	200	<0.50	<0.50	<0.50	1	47	--		
07/28/08	34.69	20.15	14.54	<50	<0.50	<0.50	<0.50	<1.0	8.7	--		
01/26/09	34.69	20.74	13.95	<50	<0.50	<0.50	<0.50	<1.0	5.2	--		
08/03/09	34.72	20.10	14.62	76	<0.50	<0.50	<0.50	<1.0	12	--		
01/25/10	34.72	19.78	14.94	<50	<0.50	<0.50	<0.50	<1.0	14	--		
08/03/10	34.72	19.47	15.25	210	<0.50	<0.50	<0.50	<1.0	37	--		
02/17/11	34.72	19.50	15.22	150	<0.50	<0.50	<0.50	<1.0	17	--		
08/03/11	34.72	18.96	15.76	230	<0.50	<0.50	<0.50	<1.0	44	--		
02/07/12	34.72	20.00	14.72	97	<0.50	<0.50	<0.50	<1.0	8.6	--		
08/09/12	34.72	19.14	15.58	140	<0.50	<0.50	<0.50	<1.0	18	--		

Table 4
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)
800 Harrison Street											
MW-2	06/05/91	34.97	--	--	49	ND	ND	ND	ND	--	--
	09/30/91	34.97	--	--	130	18	0.53	14	9.6	--	--
	12/30/91	34.97	--	--	91	16	0.89	11	1.9	--	--
	04/02/92	34.97	--	--	88	12	0.32	6.3	7.2	--	--
	06/30/92	34.97	--	--	76	9.3	0.76	4.8	6.9	--	--
	09/15/92	34.97	--	--	1300	91	5.7	80	110	--	--
	12/21/92	34.97	20.85	14.12	960	97	3.2	74	96	--	--
	04/28/93	34.97	--	--	1300	76	1.9	130	87	--	--
	07/23/93	34.97	19.81	15.16	66	1.8	ND	2.5	2	--	--
	10/05/93	34.72	19.95	14.77	120	12	ND	2.1	12	--	--
	01/03/94	34.72	20.21	14.51	260	25	ND	5.5	26	--	--
	04/02/94	34.72	19.88	14.84	ND	0.65	ND	ND	0.99	--	--
	07/05/94	34.72	19.07	15.65	160	16	ND	0.73	10	--	--
	10/06/94	34.72	20.55	14.17	170	15	ND	1.4	11	--	--
	01/02/95	34.72	19.25	15.47	190	27	ND	0.95	11	--	--
	04/03/95	34.72	17.49	17.23	2400	65	6.6	19	63	--	--
	07/14/95	34.72	18.30	16.42	750	270	ND	ND	13	--	--
	10/10/95	34.72	19.25	15.47	50	1.6	ND	ND	ND	--	200
	01/03/96	34.72	19.40	15.32	ND	ND	ND	ND	ND	--	--
	04/10/96	34.72	17.35	17.37	300	42	ND	2.4	9	--	620
	07/09/96	34.72	18.22	16.50	760	230	ND	1.3	2.4	--	1500
	01/24/97	34.72	17.59	17.13	2900	400	350	190	720	--	1300
	07/23/97	34.72	19.13	15.59	ND	ND	ND	ND	ND	--	65
	01/26/98	34.72	17.12	17.60	ND	ND	ND	ND	0.58	--	13
	07/03/98	34.72	18.20	16.52	140	26	ND	0.95	5	--	330
	01/14/99	34.72	18.56	16.16	ND	0.54	ND	ND	ND	--	350
	07/15/99	34.72	17.39	17.33	ND	0.88	ND	ND	ND	--	39
	01/07/00	34.72	18.78	15.94	ND	ND	ND	ND	ND	--	24
	07/19/00	34.72	19.68	15.04	ND	1.45	ND	ND	ND	--	117
	01/02/01	34.72	19.73	14.99	ND	ND	ND	ND	ND	--	11.4
	05/23/01	34.72	18.16	16.56	ND	ND	ND	ND	ND	--	33
	07/30/01	34.72	18.34	16.38	<50	<0.50	<0.50	<0.50	<0.50	--	67
	10/15/01	34.72	18.52	16.20	<50	<0.50	<0.50	<0.50	<0.50	--	31
	01/14/02	34.72	16.72	18.00	<50	<0.50	<0.50	<0.50	0.56	--	11
	04/15/02	34.72	17.26	17.46	<50	<0.50	<0.50	<0.50	<0.50	--	110
	07/15/02	34.72	17.46	17.26	270	21	<0.50	3.8	4	73	--
	01/18/03	34.72	16.93	17.79	<50	<0.50	<0.50	<0.50	<1.0	22	--
	07/11/03	34.72	17.68	17.04	130	3	<0.50	<0.50	<1.0	89	--
	02/04/04	34.72	17.36	17.36	61	2.9	<0.50	<0.50	<1.0	22	--
	08/11/04	34.72	17.61	17.11	140	<0.50	0.6	<0.50	<1.0	94	--
	03/31/05	34.72	15.56	19.16	<50	<0.50	<0.50	<0.50	<1.0	14	--
	09/30/05	34.72	17.31	17.41	<50	<0.50	<0.50	<0.50	<1.0	9.1	--
	03/27/06	34.72	14.91	19.81	<50	<0.50	<0.50	<0.50	<1.0	2.7	--
	09/27/06	34.72	18.15	16.57	<50	<0.50	<0.50	<0.50	<0.50	7.7	--
	03/27/07	34.72	18.57	16.15	<50	<0.50	<0.50	<0.50	<0.50	1.4	--
	09/28/07	34.72	18.38	16.34	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--
	03/26/08	34.72	19.06	15.66	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--
	07/28/08	34.72	19.90	14.82	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--
	01/26/09	34.72	20.50	14.22	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--
	08/03/09	34.74	19.92	14.82	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--
	01/25/10	34.74	19.70	15.04	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--
	08/03/10	34.74	19.26	15.48	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--
	02/17/11	34.74	19.32	15.42	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--
	08/03/11	34.74	18.74	16.00	77	6.7	<0.50	<0.50	<1.0	14	--
	02/07/12	34.74	19.77	14.97	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--
	08/09/12	34.74	18.89	15.85	<50	<0.50	<0.50	<0.50	<1.0	4.7	--

Table 4
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)
800 Harrison Street											
MW-3	06/05/91	33.39	--	--	5800	1200	40	140	97	--	--
	09/30/91	33.39	--	--	6800	1400	130	290	240	--	--
	12/30/91	33.39	--	--	7200	2100	690	410	550	--	--
	04/02/92	33.39	--	--	8000	1400	200	300	310	--	--
	06/30/92	33.39	--	--	8900	1900	210	430	550	--	--
	09/15/92	33.39	--	--	10000	1900	330	400	580	--	--
	12/21/92	33.39	20.02	13.37	8500	1500	150	310	330	--	--
	04/28/93	33.39	--	--	2600	220	7.6	41	27	--	--
	07/23/93	33.39	19.00	14.39	4400	660	26	160	82	--	--
	10/05/93	33.14	19.20	13.94	9200	720	88	140	140	--	--
	01/03/94	33.14	19.40	13.74	4900	830	100	170	150	--	--
	04/02/94	33.14	19.01	14.13	6000	800	30	140	110	--	--
	07/05/94	33.14	18.14	15.00	25000	ND	ND	ND	ND	--	--
	10/06/94	33.14	19.73	13.41	49000	1300	200	280	300	--	--
	01/02/95	33.14	18.36	14.78	480	1.6	ND	1.4	ND	--	--
	04/03/95	33.14	16.38	16.76	8100	65	ND	ND	ND	--	--
	07/14/95	33.14	17.49	15.65	ND	1300	ND	ND	ND	--	--
	10/10/95	33.14	18.50	14.64	3100	1400	36	50	53	--	190000
	01/03/96	33.14	18.54	14.60	ND	2300	110	150	140	--	--
	07/09/96	33.14	17.43	15.71	ND	2000	ND	150	160	--	140000
	01/24/97	33.14	16.57	16.57	540	8	ND	11	9.9	--	45
	07/23/97	33.14	18.38	14.76	7400	1900	180	140	340	--	45000
	01/26/98	33.14	16.22	16.92	250	2.2	1.9	0.87	1.9	--	4
	07/03/98	33.14	17.46	15.68	230	1.8	2.5	1.5	3.4	--	6.3
	01/14/99	33.14	17.73	15.41	400	8.2	2.7	0.9	5.9	--	140
	07/15/99	33.14	16.58	16.56	290	3.3	3.6	1.7	2.5	--	13
	01/07/00	33.14	17.84	15.30	ND	890	91	100	480	--	20000
	07/19/00	33.14	18.92	14.22	354	3.87	2.61	0.646	ND	--	13.7
	01/02/01	33.14	19.07	14.07	464	ND	3.69	3.91	ND	--	21.1
	05/23/01	33.14	17.12	16.02	420	7.6	3.1	3	5.1	--	1900
	07/30/01	33.14	17.38	15.76	290	4.6	4.1	<0.50	3.4	--	23
	10/15/01	33.14	17.61	15.53	400	<0.50	<0.50	<0.50	<0.50	--	13
	01/14/02	33.14	15.53	17.61	130	0.5	0.61	1.1	<0.50	--	9.9
	04/15/02	33.14	16.12	17.02	280	9.9	1.6	3.3	6.8	--	1400
	07/15/02	33.14	16.48	16.66	64	<0.50	<0.50	<0.50	<1.0	--	33
	01/18/03	33.14	15.81	17.33	420	0.54	<0.50	<0.50	<1.0	--	130
	07/11/03	33.14	16.74	16.40	300	2.3	<0.50	<0.50	<1.0	--	31
	02/04/04	33.14	16.15	16.99	130	7.9	<0.50	<0.50	<1.0	--	63
	08/11/04	33.14	16.64	16.50	<20000	<200	<200	<200	<400	20000	--
	03/31/05	33.14	14.53	18.61	<20000	330	<200	<200	<400	78000	--
	09/30/05	33.14	16.55	16.59	12000	360	40	<25	50	20000	--
	03/27/06	33.14	13.66	19.48	10000	150	<25	53	99	15000	--
	09/27/06	33.14	17.40	15.74	<12000	<120	<120	<120	<120	12000	--
	03/27/07	33.14	17.55	15.59	8700	180	<12	60	57	8900	--
	09/28/07	33.14	18.59	14.55	9000	55	<50	<50	<50	11000	--
	03/26/08	33.14	18.19	14.95	450	13	1.3	0.84	1.4	7200	--
	07/28/08	33.14	19.00	14.14	8300	<50	<50	<50	<100	13000	--
	01/26/09	33.14	19.54	13.60	8800	27	<12	<12	<25	13000	--
	08/03/09	33.18	18.90	14.28	9300	56	<50	<50	<100	8000	--
	01/25/10	33.18	18.54	14.64	4900	79	7.3	5.4	13	8100	--
	08/03/10	33.18	18.35	14.83	2500	30	<12	<12	<25	4600	--
	02/17/11	33.18	18.30	14.88	3800	11	<5.0	<5.0	<10	4700	--
	08/03/11	33.18	17.87	15.31	2600	9.7	0.8	3.1	1.4	2000	--
	02/07/12	33.18	18.88	14.30	1800	6.7	<1.0	1.9	<2.0	1600	--
	08/09/12	33.18	18.02	15.16	1400	1.8	<0.50	1.5	<1.0	370	--

Table 4
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	TPH-g (µg/L)	EPA 8260B					8021B
						Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)
800 Harrison Street											
MW-4	10/19/92	--	--	--	480	0.51	2.1	2.8	6.8	--	--
	12/21/92	33.12	19.73	13.39	220	ND	ND	0.97	0.74	--	--
	04/28/93	33.12	--	--	ND	ND	ND	ND	ND	--	--
	07/23/93	33.12	18.72	14.40	85	ND	ND	ND	ND	--	--
	10/05/93	32.71	18.74	13.97	130	ND	ND	ND	ND	--	--
	01/03/94	32.71	18.93	13.78	210	ND	ND	0.76	1.6	--	--
	04/02/94	32.71	18.53	14.18	89	ND	ND	ND	ND	--	--
	07/05/94	32.71	17.67	15.04	190	ND	ND	ND	ND	--	--
	10/06/94	32.71	19.25	13.46	170	0.85	ND	ND	0.74	--	--
	01/02/95	32.71	17.75	14.96	ND	ND	ND	ND	ND	--	--
	04/03/95	32.71	15.87	16.84	98	ND	ND	ND	ND	--	--
	07/14/95	32.71	17.01	15.70	ND	ND	ND	ND	ND	--	--
	10/10/95	32.71	18.03	14.68	ND	ND	ND	ND	ND	--	120
	01/03/96	32.71	18.05	14.66	ND	ND	ND	ND	ND	--	--
	04/10/96	32.71	16.00	16.71	ND	ND	ND	ND	ND	--	240
	07/09/96	32.71	16.96	15.75	ND	ND	ND	ND	ND	--	480
	01/24/97	32.71	16.04	16.67	ND	ND	ND	ND	ND	--	270
	07/23/97	32.71	17.87	14.84	ND	ND	ND	ND	ND	--	460
	01/26/98	32.71	16.05	16.66	ND	ND	ND	ND	ND	--	17
	07/03/98	32.71	16.95	15.76	ND	ND	ND	ND	ND	--	3.8
	01/14/99	32.71	17.34	15.37	ND	ND	ND	ND	ND	--	4600
	07/15/99	32.71	16.36	16.35	ND	ND	ND	ND	ND	--	ND
	01/07/00	32.71	17.81	14.90	ND	ND	ND	ND	ND	--	450
	07/19/00	32.71	18.94	13.77	ND	ND	ND	ND	ND	--	ND
	01/02/01	32.71	18.85	13.86	ND	ND	ND	ND	ND	--	ND
	05/23/01	32.71	16.82	15.89	ND	ND	ND	ND	ND	--	ND
	07/30/01	32.71	16.88	15.83	<50	<0.50	<0.50	<0.50	<0.50	--	4.9
	10/15/01	32.71	17.08	15.63	<50	<0.50	<0.50	<0.50	<0.50	--	<5.0
	01/14/02	32.71	14.97	17.74	<50	<0.50	<0.50	<0.50	<0.50	--	30
	04/15/02	32.71	15.48	17.23	<50	<0.50	<0.50	<0.50	<0.50	--	180
	07/15/02	32.71	15.90	16.81	<50	<0.50	<0.50	<0.50	<1.0	--	50
	01/18/03	32.71	15.39	17.32	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0
	07/11/03	32.71	16.17	16.54	200	<0.50	<0.50	<0.50	<1.0	52	--
	02/04/04	32.71	16.12	16.59	1300	<10	<10	<10	<20	1700	--
	08/11/04	32.71	16.16	16.55	<5000	<50	<50	<50	<100	6400	--
	03/31/05	32.71	14.15	18.56	<1300	<0.50	<0.50	<0.50	<1.0	1600	--
	09/30/05	32.71	16.91	15.80	900	<0.50	<0.50	<0.50	<1.0	3800	--
	03/27/06	32.71	13.94	18.77	870	<0.50	<0.50	<0.50	<1.0	2000	--
	09/27/06	32.71	16.91	15.80	<1000	<10	<10	<10	<10	1600	--
	03/27/07	32.71	17.15	15.56	1500	<2.5	<2.5	<2.5	<2.5	1700	--
	09/28/07	32.71	18.13	14.58	590	<5.0	<5.0	<5.0	<5.0	1400	--
	03/26/08	32.71	17.66	15.05	390	<0.50	<0.50	<0.50	<1.0	1400	--
	07/28/08	32.71	18.34	14.37	480	<1.0	<1.0	<1.0	<2.0	950	--
	01/26/09	32.71	18.80	13.91	500	<0.50	<0.50	<0.50	<1.0	830	--
	08/03/09	32.72	18.43	14.29	640	<5.0	6.6	<5.0	<10	570	--
	01/25/10	32.72	18.02	14.70	190	<0.50	<0.50	<0.50	<1.0	400	--
	08/03/10	32.72	17.83	14.89	58	<0.50	<0.50	<0.50	<1.0	110	--
	02/17/11	32.72	17.85	14.87	<50	<0.50	<0.50	<0.50	<1.0	12	--
	08/03/11	32.72	17.36	40725.28	<50	<0.50	<0.50	<0.50	<1.0	12	--
	02/07/12	32.72	18.38	14.34	<50	<0.50	<0.50	<0.50	<1.0	1.5	--
	08/09/12	32.72	17.55	15.17	<50	<0.50	<0.50	<0.50	<1.0	1.3	--
MW-5	10/19/92	--	--	--	2700	61	5	100	61	--	--
	12/21/92	33.25	19.75	13.50	1700	51	4.7	83	34	--	--
	04/28/93	33.25	--	--	6700	200	190	250	430	--	--
	07/23/93	33.25	18.74	14.51	2000	122	8	68	47	--	--
	10/05/93	32.95	18.83	14.12	1700	70	6.2	54	40	--	--
	01/03/94	32.95	19.05	13.90	1500	44	ND	42	46	--	--
	04/02/94	32.95	18.68	14.27	1800	46	5.1	38	35	--	--

Table 4
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)
800 Harrison Street											
MW-5 cont'd	07/05/94	32.95	17.90	15.05	2200	97	8.4	37	36	--	--
	10/06/94	32.95	19.37	13.58	1600	79	5.7	28	22	--	--
	01/02/95	32.95	17.92	15.03	1700	50	8.6	30	28	--	--
	04/03/95	32.95	16.15	16.80	5400	190	240	170	420	--	--
	07/14/95	32.95	17.18	15.77	3800	210	100	130	190	--	--
	10/10/95	32.95	18.15	14.80	1300	92	14	15	39	--	1100
	01/03/96	32.95	18.20	14.75	630	53	4.4	8.3	13	--	--
	04/10/96	32.95	16.05	16.90	500	25	18	7	20	--	640
	07/09/96	32.95	17.11	15.84	1000	44	20	10	34	--	150
	01/24/97	32.95	16.36	16.59	4000	190	400	160	430	--	600
	07/23/97	32.95	18.08	14.87	1700	200	23	18	45	--	2500
	01/26/98	32.95	16.27	16.68	ND	ND	ND	ND	ND	--	ND
	07/03/98	32.95	17.27	15.68	ND	ND	ND	ND	ND	--	ND
	01/14/99	32.95	17.55	15.40	330	61	4.1	2.2	2.9	--	560
	07/15/99	32.95	16.41	16.54	1100	170	ND	ND	27	--	660
	01/07/00	32.95	17.85	15.10	1000	180	6.3	ND	14	--	430
	07/19/00	32.95	18.87	14.08	2980	289	57.3	65.3	43.4	--	976
	01/02/01	32.95	18.47	14.48	1150	87.2	17.8	7.97	9.32	--	368
	05/23/01	32.95	17.38	15.57	840	42	10	13	7.1	--	130
	07/30/01	32.95	17.12	15.83	1900	82	24	6.9	13	--	370
	10/15/01	32.95	17.33	15.62	26000	390	230	58	1300	--	<500
	01/14/02	32.95	15.33	17.62	<50	<0.50	<0.50	<0.50	<0.50	--	<2.5
	04/15/02	32.95	15.89	17.06	310	20	6.7	11	7.7	--	77
	07/15/02	32.95	16.21	16.74	1500	40	22	60	28	--	170
	01/18/03	32.95	15.68	17.27	<50	0.75	<0.50	<0.50	<1.0	--	81
	07/11/03	32.95	16.29	16.66	<50	<0.50	<0.50	<0.50	<1.0	3.6	--
	02/04/04	32.95	16.08	16.87	82	16	1.6	0.65	<1.0	16	--
	08/11/04	32.95	16.38	16.57	900	81	14	2.8	11	120	--
	03/31/05	32.95	14.30	18.65	5000	160	84	65	72	140	--
	09/30/05	32.95	16.19	16.76	1200	26	5.8	2.4	9.2	38	--
03/27/06	32.95	13.90	19.05	1100	13	12	4.7	16	8.8	--	
09/27/06	32.95	17.06	15.89	1300	20	11	2.3	15	21	--	
03/27/07	32.95	17.43	15.52	960	15	7.8	2.2	11	14	--	
09/28/07	32.95	18.25	14.70	1300	13	6	2.3	15	8.4	--	
03/26/08	32.95	17.82	15.13	1200	7.6	3.3	1.8	11	2.7	--	
07/28/08	32.95	18.70	14.25	2000	12	4.9	3.2	17	<0.50	--	
01/26/09	32.95	19.25	13.70	1400	7.4	3.3	2.5	11	3.3	--	
08/03/09	32.98	18.62	14.36	1500	17	9	3.5	22	7.3	--	
01/25/10	32.98	18.34	14.64	1600	7.6	3.6	2.4	15	1.7	--	
08/03/10	32.98	18.07	14.91	2200	32	32	10	48	10	--	
02/17/11	32.98	18.05	14.93	1800	33	7.4	<0.50	11	15	--	
08/03/11	32.98	17.57	15.41	2500	58	23	12	34	40	--	
02/07/12	32.98	18.59	14.39	1600	58	11	3.0	25	10	--	
08/09/12	32.98	17.73	15.25	1900	81	18	10	22	19	--	
MW-6	10/19/92	--	--	--	3900	420	12	60	28	--	--
	12/21/92	32.42	19.17	13.25	2300	370	11	39	15	--	--
	04/28/93	32.42	--	--	1200	54	1.5	11	5.3	--	--
	07/23/93	32.42	18.17	14.25	580	19	0.99	3.4	2.7	--	--
	10/05/93	32.16	18.35	13.81	1400	34	ND	5.3	7.3	--	--
	01/03/94	32.16	18.54	13.62	1400	57	ND	8.5	11	--	--
	04/02/94	32.16	18.15	14.01	5300	ND	ND	ND	ND	--	--
	07/05/94	32.16	17.25	14.91	ND	ND	ND	ND	ND	--	--
	10/06/94	32.16	18.85	13.31	11000	ND	ND	ND	ND	--	--
	01/02/95	32.16	17.51	14.65	550	18	0.92	2	1.8	--	--
	04/03/95	32.16	15.48	16.68	6600	ND	ND	ND	ND	--	--
	07/14/95	32.16	16.63	15.53	ND	ND	ND	ND	ND	--	--
10/10/95	32.16	17.68	14.48	ND	81	ND	ND	ND	--	75000	
01/03/96	32.16	17.66	14.50	70	9.9	0.58	ND	0.81	--	--	
04/10/96	32.16	15.56	16.60	300	258	4.7	0.94	2.7	--	53000	

Table 4
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B	
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	
800 Harrison Street												
MW-6 cont'd	07/09/96	32.16	16.59	15.57	1800	410	ND	12	ND	--	76000	
	01/24/97	32.16	15.69	16.47	ND	0.8	ND	ND	ND	--	390	
	07/23/97	32.16	17.53	14.63	5700	1100	240	240	700	--	16000	
	01/26/98	32.16	15.44	16.72	ND	ND	ND	ND	ND	--	ND	
	07/03/98	32.16	16.58	15.58	ND	ND	ND	ND	ND	--	ND	
	01/14/99	32.16	17.02	15.14	ND	ND	ND	ND	ND	--	14	
	07/15/99	32.16	15.95	16.21	ND	ND	ND	ND	ND	--	2.8	
	01/07/00	32.16	16.96	15.20	78	24	ND	0.66	17	--	280	
	07/19/00	32.16	18.04	14.12	ND	ND	1.32	ND	0.974	--	ND	
	01/02/01	32.16	18.10	14.06	ND	ND	ND	ND	ND	--	ND	
	05/23/01	32.16	16.42	15.74	ND	ND	ND	ND	ND	--	ND	
	07/30/01	32.16	16.49	15.67	<50	<0.50	<0.50	<0.50	<0.50	--	<2.5	
	10/15/01	32.16	16.67	15.49	<50	<0.50	0.62	<0.50	<0.50	--	<5.0	
	01/14/02	32.16	14.60	17.56	<50	<0.50	<0.50	<0.50	<0.50	--	<2.5	
	04/15/02	32.16	15.07	17.09	<50	<0.50	<0.50	<0.50	0.73	--	<5.0	
	07/15/02	32.16	15.56	16.60	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	
	01/18/03	32.16	15.80	16.36	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	
	07/11/03	32.16	15.74	16.42	<50	<0.50	<0.50	<0.50	<1.0	<2.0	--	
	02/04/04	32.16	15.49	16.67	<50	2.6	<0.50	<0.50	<1.0	2.4	--	
	08/11/04	32.16	15.81	16.35	7900	95	<50	<50	<100	9100	--	
	03/31/05	32.16	13.70	18.46	<5000	2.5	<0.50	<0.50	<1.0	7600	--	
	09/30/05	32.16	15.48	16.68	4300	140	37	28	41	5800	--	
	03/27/06	32.16	13.02	19.14	7200	34	0.66	0.96	18	9900	--	
	09/27/06	32.16	16.56	15.60	1800	<12	<12	<12	<12	3300	--	
	03/27/07	32.16	16.73	15.43	1600	2.8	<2.5	<2.5	<2.5	1800	--	
	09/28/07	32.16	17.75	14.41	830	<5.0	<5.0	<5.0	<5.0	1600	--	
	03/26/08	32.16	17.31	14.85	940	45	5.9	2	5.3	1300	--	
	07/28/08	32.16	18.50	13.66	500	<1.0	<1.0	<1.0	<2.0	750	--	
	01/26/09	32.16	18.46	13.70	570	<0.50	<0.50	<0.50	<1.0	500	--	
	08/03/09	32.19	18.01	14.18	800	<5.0	<5.0	<5.0	<10	690	--	
01/25/10	32.19	17.64	14.55	410	4.8	0.63	<0.50	1.4	390	--		
08/03/10	32.19	17.48	14.71	480	2	<0.50	<0.50	<1.0	520	--		
02/17/11	32.19	17.48	14.71	290	<0.50	<0.50	<0.50	<1.0	130	--		
08/03/11	32.19	17.02	15.17	330	<0.50	<0.50	<0.50	<1.0	89	--		
02/07/12	32.19	18.02	14.17	450	<0.50	<0.50	<0.50	<1.0	29	--		
08/09/12	32.19	17.17	15.02	180	<0.50	<0.50	<0.50	<1.0	10	--		
MW-7	10/19/92	--	--	--	--	--	--	--	--	--	--	
	04/28/93	32.49	--	--	110	2.8	1.3	1.4	1.7	--	--	
	07/23/93	32.49	18.60	13.89	790	23	3.3	28	5.4	--	--	
	10/05/93	32.20	18.76	13.44	360	10	1.2	0.91	0.99	--	--	
	01/03/94	32.20	18.91	13.29	ND	0.93	ND	0.75	1.9	--	--	
	04/02/94	32.20	18.50	13.70	360	2	ND	ND	0.8	--	--	
	07/05/94	32.20	17.52	14.68	ND	ND	ND	ND	ND	--	--	
	10/06/94	32.20	19.25	12.95	340	5.6	0.85	ND	1.2	--	--	
	01/02/95	32.20	17.67	14.53	ND	ND	ND	ND	ND	--	--	
	04/03/95	32.20	15.81	16.39	570	24	ND	3.4	5.8	--	--	
	07/14/95	32.20	17.05	15.15	ND	14	ND	ND	ND	--	--	
	10/10/95	32.20	18.08	14.12	740	170	ND	ND	ND	--	13000	
	01/03/96	32.20	18.02	14.18	360	16	1.3	2.7	1.4	--	--	
	04/10/96	32.20	15.81	16.39	120	4.1	1.5	ND	0.88	--	3200	
	07/09/96	32.20	16.99	15.21	ND	ND	ND	ND	ND	--	3400	
	01/24/97	32.20	16.08	16.12	ND	16	ND	ND	ND	--	6600	
	07/23/97	32.20	17.99	14.21	ND	16	ND	ND	0.62	--	10000	
	01/26/98	32.20	15.56	16.64	ND	ND	ND	ND	0.56	--	ND	
	07/03/98	32.20	17.04	15.16	ND	ND	ND	ND	ND	--	ND	
	01/14/99	32.20	--	--	--	--	--	--	--	--	--	
07/15/99	32.20	15.72	16.48	ND	ND	ND	ND	ND	--	290		
01/07/00	32.20	16.80	15.40	ND	7.7	ND	ND	4.4	--	98		
07/19/00	32.20	17.88	14.32	ND	ND	1.27	ND	0.979	--	ND		

Table 4
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)
800 Harrison Street											
MW-7 cont'd	01/02/01	32.20	17.97	14.23	ND	ND	ND	ND	ND	--	ND
	05/23/01	32.20	16.81	15.39	ND	ND	ND	ND	ND	--	ND
	07/30/01	32.20	16.79	15.41	<50	<0.50	<0.50	<0.50	<0.50	--	<2.5
	10/15/01	32.20	16.98	15.22	<50	<0.50	0.58	<0.50	<0.50	--	<5.0
	01/14/02	32.20	14.85	17.35	<50	<0.50	<0.50	<0.50	<0.50	--	<2.5
	04/15/02	32.20	15.29	16.91	<50	<0.50	<0.50	<0.50	0.7	--	<5.0
	07/15/02	32.20	15.92	16.28	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50
	01/18/03	32.20	15.11	17.09	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0
	07/11/03	32.20	15.89	16.31	<50	<0.50	<0.50	<0.50	<1.0	19	--
	02/04/04	32.20	15.90	16.30	<50	3.6	<0.50	<0.50	<1.0	3.2	--
	08/11/04	32.20	16.12	16.08	<5000	120	<50	<50	<100	5100	--
	03/31/05	32.20	13.99	18.21	<5000	190	<50	<50	<100	8400	--
	09/30/05	32.20	15.93	16.27	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--
	03/27/06	32.20	13.40	18.80	2500	160	10	11	26	5600	--
	09/27/06	32.20	16.96	15.24	2800	180	<12	15	44	4200	--
	03/27/07	32.20	17.30	14.90	920	66	2.9	3.4	4.5	970	--
	09/28/07	32.20	18.10	14.10	4000	440	15	17	59	3300	--
	03/26/08	32.20	17.64	14.56	390	39	3.3	0.85	7.5	96	--
	07/28/08	32.20	18.50	13.70	64	3.3	<0.50	<0.50	<1.0	8.7	--
	01/26/09	32.20	18.90	13.30	80	7.9	0.58	<0.50	<1.0	10	--
08/03/09	32.22	18.29	13.93	2100	220	14	10	31	750	--	
01/25/10	32.22	17.49	14.73	490	25	3.5	0.54	6.9	16	--	
08/03/10	32.22	17.84	14.38	240	45	1.8	1.2	1.7	290	--	
02/17/11	32.22	17.83	14.39	370	53	2	<0.50	2.1	12	--	
08/03/11	32.22	17.42	14.80	390	20	1.8	<0.50	1.6	27	--	
02/07/12	32.22	18.40	13.82	310	25	2	<0.50	3.2	9.0	--	
08/09/12	32.22	17.53	14.69	280	11	1.2	<0.50	<1.0	24	--	
MW-8	04/28/93	32.33	--	--	450	18	1.8	1.8	1.4	--	--
	07/23/93	32.33	18.45	13.88	260	5.1	ND	0.6	ND	--	--
	10/05/93	32.00	18.57	13.43	120	1.7	ND	ND	ND	--	--
	01/03/94	32.00	18.73	13.27	ND	ND	ND	ND	ND	--	51
	04/02/94	32.00	18.30	13.70	150	1.2	ND	ND	ND	--	--
	07/05/94	32.00	17.41	14.59	730	17	ND	1.6	ND	--	--
	10/06/94	32.00	18.98	13.02	140	ND	ND	ND	ND	--	--
	01/02/95	32.00	17.58	14.42	440	18	0.72	2	1.8	--	--
	04/03/95	32.00	15.54	16.46	960	11	ND	ND	ND	--	--
	07/14/95	32.00	16.81	15.19	280	4.2	2.6	1.1	3.3	--	--
	10/10/95	32.00	17.85	14.15	110	1.3	0.62	0.67	ND	--	170
	01/03/96	32.00	17.82	14.18	63	ND	0.51	ND	1.8	--	--
	04/10/96	32.00	15.70	16.30	ND	1.1	0.61	ND	ND	--	60
	07/09/96	32.00	16.78	15.22	72	1	ND	ND	ND	--	140
	01/24/97	32.00	15.79	16.21	ND	ND	ND	ND	ND	--	76
	07/23/97	32.00	17.69	14.31	ND	ND	ND	ND	ND	--	270
	01/26/98	32.00	15.50	16.50	ND	ND	ND	ND	0.76	--	2.9
	07/03/98	32.00	16.80	15.20	ND	ND	ND	ND	ND	--	ND
	01/14/99	32.00	17.13	14.87	ND	ND	ND	ND	ND	--	11
	07/15/99	32.00	15.85	16.15	ND	ND	ND	ND	ND	--	ND
	01/07/00	32.00	16.94	15.06	ND	ND	ND	ND	ND	--	11
	07/19/00	32.00	18.06	13.94	ND	ND	2.99	0.521	ND	--	ND
	01/02/01	32.00	18.12	13.88	ND	ND	ND	ND	ND	--	ND
	05/23/01	32.00	16.96	15.04	ND	ND	ND	ND	ND	--	ND
	07/30/01	32.00	16.52	15.48	<50	<0.50	<0.50	<0.50	<0.50	--	2.7
	10/15/01	32.00	16.72	15.28	<50	<0.50	0.65	<0.50	<0.50	--	<5.0
	01/14/02	32.00	14.53	17.47	<50	<0.50	<0.50	<0.50	<0.50	--	<2.5
	04/15/02	32.00	14.96	17.04	<50	<0.50	<0.50	<0.50	<0.50	--	<5.0
	07/15/02	32.00	15.60	16.40	<50	<0.50	<0.50	<0.50	<1.0	--	11
	01/18/03	32.00	14.78	17.22	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0
02/04/04	32.00	15.65	16.35	52	2.3	<0.50	<0.50	<1.0	2.4	--	
08/11/04	32.00	15.86	16.14	350	<2.5	<2.5	<2.5	<5.0	310	--	
03/31/05	32.00	13.73	18.27	<2000	<0.50	<0.50	<0.50	<1.0	2100	--	

Table 4
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)
800 Harrison Street											
MW-8 cont'd	09/30/05	32.00	15.94	16.06	1200	<0.50	0.5	<0.50	<1.0	6900	--
	03/27/06	32.00	13.13	18.87	460	<0.50	<0.50	<0.50	<1.0	820	--
	09/27/06	32.00	16.75	15.25	520	<5.0	<5.0	<5.0	8.2	870	--
	03/27/07	32.00	16.87	15.13	1400	<0.50	<0.50	<0.50	<0.50	3600	--
	09/28/07	32.00	17.91	14.09	280	<2.5	<2.5	<2.5	<2.5	670	--
	03/26/08	32.00	17.45	14.55	110	<0.50	<0.50	<0.50	<1.0	210	--
	07/28/08	32.00	18.50	13.50	<50	<0.50	<0.50	<0.50	<1.0	11	--
	01/26/09	32.00	18.65	13.35	<50	<0.50	<0.50	<0.50	<1.0	22	--
	08/03/09	32.03	18.11	13.92	67	<0.50	<0.50	<0.50	<1.0	64	--
	01/25/10	32.03	17.67	14.36	<50	<0.50	<0.50	<0.50	<1.0	10	--
	08/03/10	32.03	17.58	14.45	<50	<0.50	<0.50	<0.50	<1.0	10	--
	02/17/11	32.03	17.53	14.50	<50	<0.50	<0.50	<0.50	<1.0	2.5	--
	08/03/11	32.03	17.18	14.85	<50	<0.50	<0.50	<0.50	<1.0	1.6	--
02/07/12	32.03	18.15	13.88	<50	<0.50	<0.50	<0.50	<1.0	0.75	--	
08/09/12	32.03	17.29	14.74	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
ESLs for Residential Groundwater					100	1	40	30	20	5	5

Explanation

- TOC Top of casing
- ft MSL Feet relative to mean sea level
- ft BTOC Feet below top of casing
- TPH-g Total petroleum hydrocarbons as gasoline
- MTBE Methyl tertiary butyl ether
- NA Not available
- ND Non-detect
- Not analyzed
- <0.0005 Not detected at concentration threshold as shown
- J Estimated value
- ESL Table C. Environmental Screening Levels (ESLs), Deep Soils (>3meters below ground surface), Groundwater is a Current or Potential Source of Drinking Water, CRWQCB-SFBR, Table C, November 2007

Table 5
Analytical Groundwater Data Summary - Biogeochemical Parameters
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	Methane (mg/L)	Alkalinity as CaCO3 (mg/L)	Nitrate as NO3 (mg/L)	Nitrite as NO2 (mg/L)	Sulfate (mg/L)	Non-Volatile Organic Carbon (mg/L)	Comments
706 Harrison Street								
MW-1	8/9/2012	0.28	250	<0.44	<0.17	51	7.3	A01
MW-2	8/9/2012	6.8	500	<0.44	<0.17	<1.0	15	A01, S01
MW-3	8/9/2012	<0.0010	130	43	<0.17	61	1.4	
MW-4	8/9/2012	--	--	--	--	--	--	
MW-5	8/9/2012	<0.0010	150	19	<0.17	49	2.0	
MW-6	8/9/2012	0.0082	140	<0.44	<0.17	27	1.9	
MW-7	8/9/2012	0.0045	230	<0.44	<0.17	49	3.0	
726 Harrison Street								
MW-1	8/9/2012	1.4	290	<0.44	<0.17	16	5.8	
MW-2	8/9/2012	0.0012	100	66	<0.17	33	0.94	
MW-3	8/9/2012	0.0	150	0.6	<0.17	18	1.4	
MW-4	8/9/2012	0.5	320	<0.44	<0.17	13	3.8	
MW-5	8/9/2012	4.9	570	<0.44	<0.17	4.6	21	
MW-6	8/9/2012	0.0048	190	10.0	<0.17	27	0.64	
800 Harrison Street								
MW-1	8/9/2012	0.026	69	1.9	<0.17	10	1.6	
MW-2	8/9/2012	0.076	190	19	0.38	130	1.4	
MW-3	8/9/2012	6.3	290	<0.44	<0.17	3.5	2.9	A01, S01
MW-4	8/9/2012	0.031	98	4.3	<0.17	22	0.90	
MW-5	8/9/2012	2.9	140	<0.44	<0.17	2.5	1.7	A01
MW-6	8/9/2012	0.18	130	<0.44	<0.17	16	1.0	A01
MW-7	8/9/2012	0.43	180	<0.44	<0.17	17	2.7	A01
MW-8	8/9/2012	0.0041	130	1.3	<0.17	37	1.6	

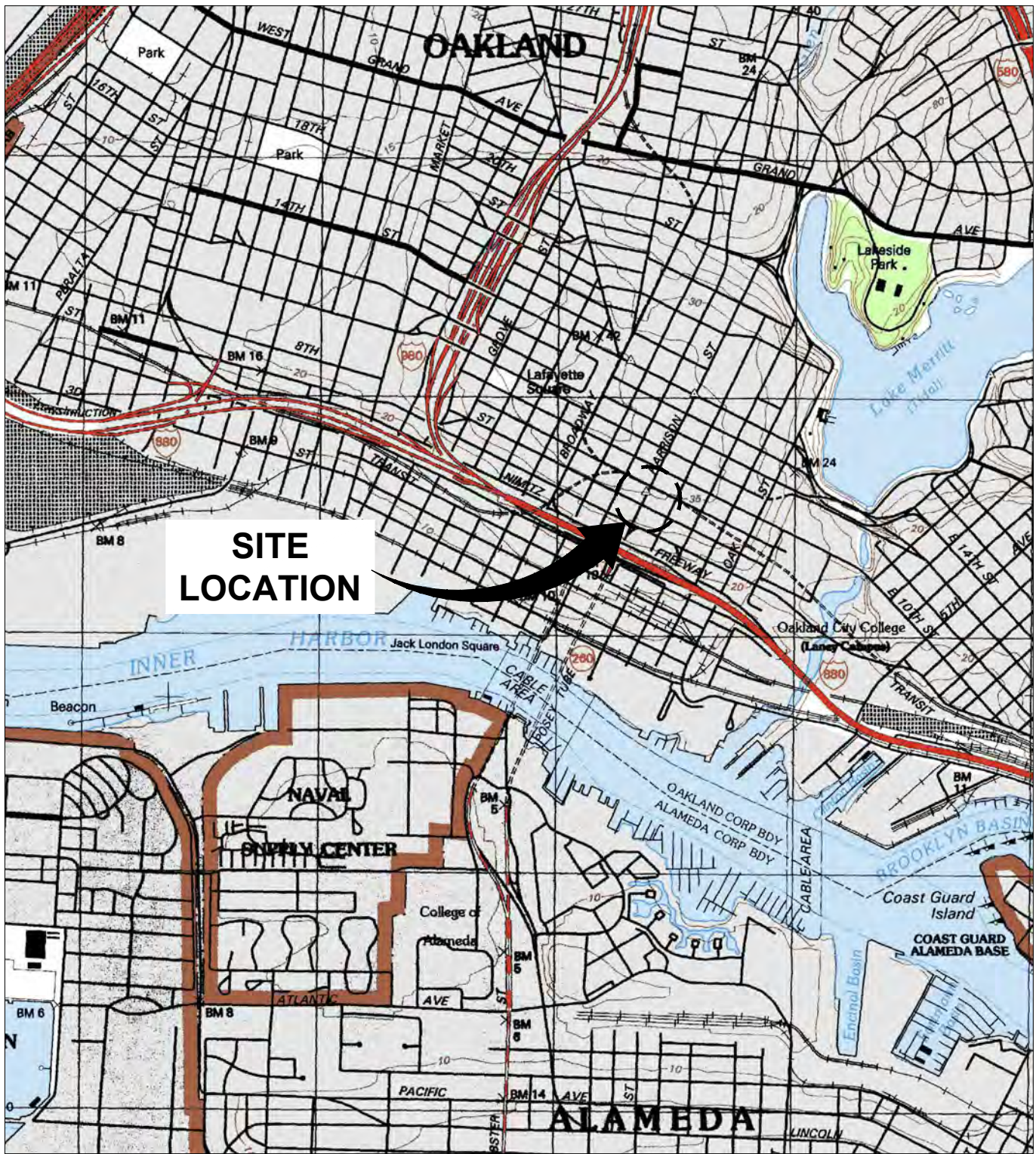
Explanation

- Not analyzed or not sampled
- < Not Detected
- mg/l Milligrams per liter
- CaCO3 Calcium carbonate
- NO3 Nitrate
- NO2 Nitrogen dioxide
- EDC 1,2-Dichloroethane (ethylene dichloride)
- A01 PQL's and MDL's are raised due to sample dilution.
- PQL Practical quantitation limit
- MDL Method detection limit
- S01 Sample result is not within the quantitation range of the method

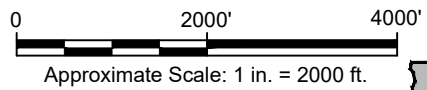
ARCADIS

Figures

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS LD: J. HARRIS PM: K. ABBOTT TM: K. ABBOTT LYR: OPI/ON* OFF: REF
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REFERENCE: BASE MAP USGS 7.5. MIN. TOPO. QUAD., OAKLAND WEST, CALIFORNIA, 1993.



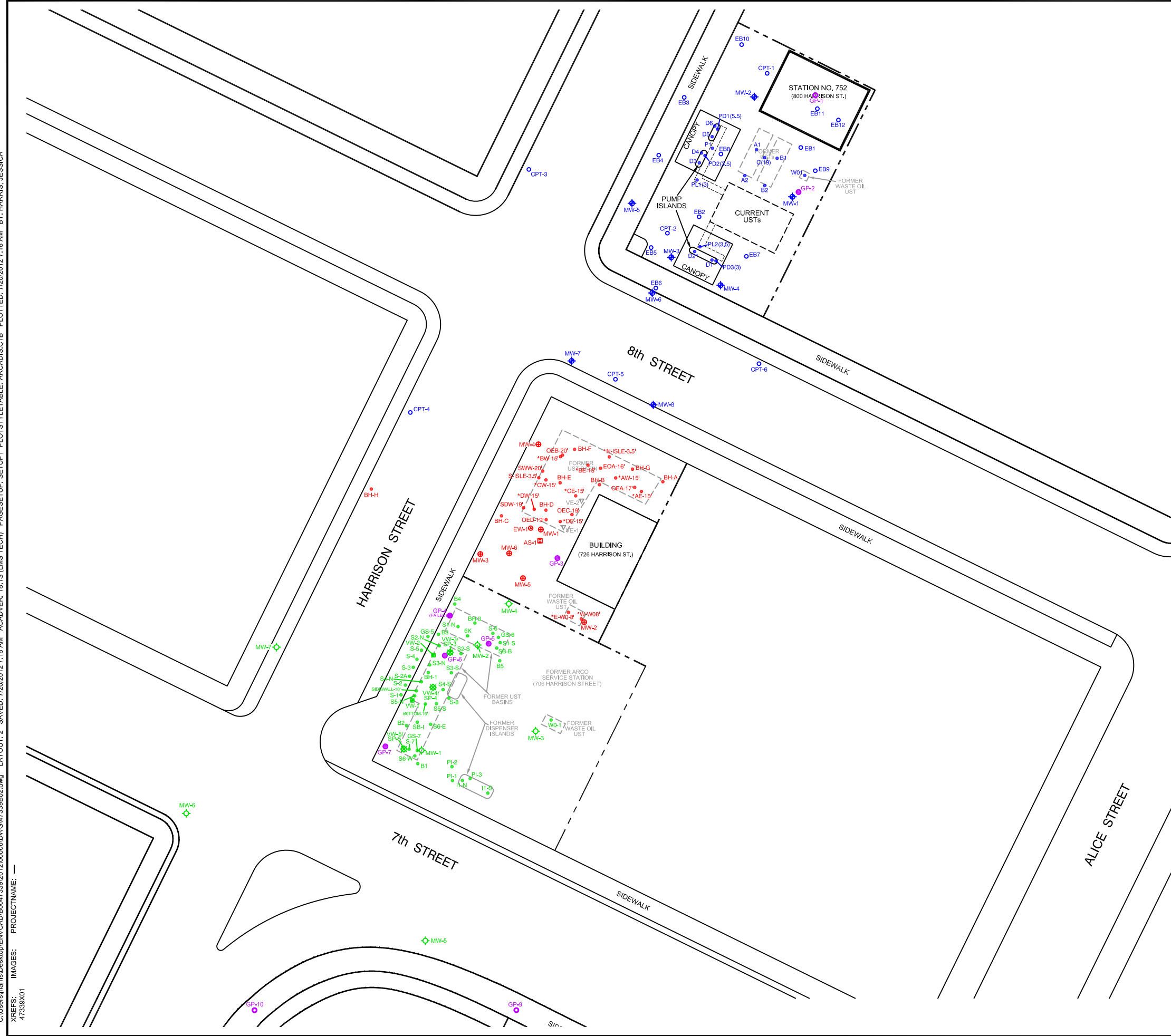
UNION OIL
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

SITE LOCATION MAP

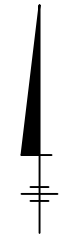


FIGURE
1

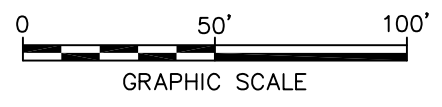
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- LEGEND**
- PROPERTY BOUNDARY
 - - - - PRODUCT PIPING
 - MW-1 ◆ GROUNDWATER MONITORING WELL (UNOCAL)
 - MW-1 ● GROUNDWATER MONITORING WELL (YEE)
 - MW-1 ◇ GROUNDWATER MONITORING WELL (GIN)
 - B1 ● SOIL SAMPLE LOCATION (UNOCAL)
 - EB1 ● EXPLORATORY BORING LOCATION (UNOCAL)
 - AS-1 ■ AIR SPARGE WELL (YEE)
 - EW-1 ● EXTRACTION WELL (YEE)
 - BHA ● SOIL SAMPLE LOCATION (YEE)
 - VE-1 ▽ DESTROYED WELL (YEE)
 - VW-1 ■ SOIL VAPOR EXTRACTION WELL (GIN)
 - VW-3/SP-3 ■ SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
 - B1 ● SOIL SAMPLE LOCATION (GIN)
 - GP-2 ● GEOPROBE™ (JUNE 2011)
 - GP-9 ● GEOPROBE™ (MARCH 2012)

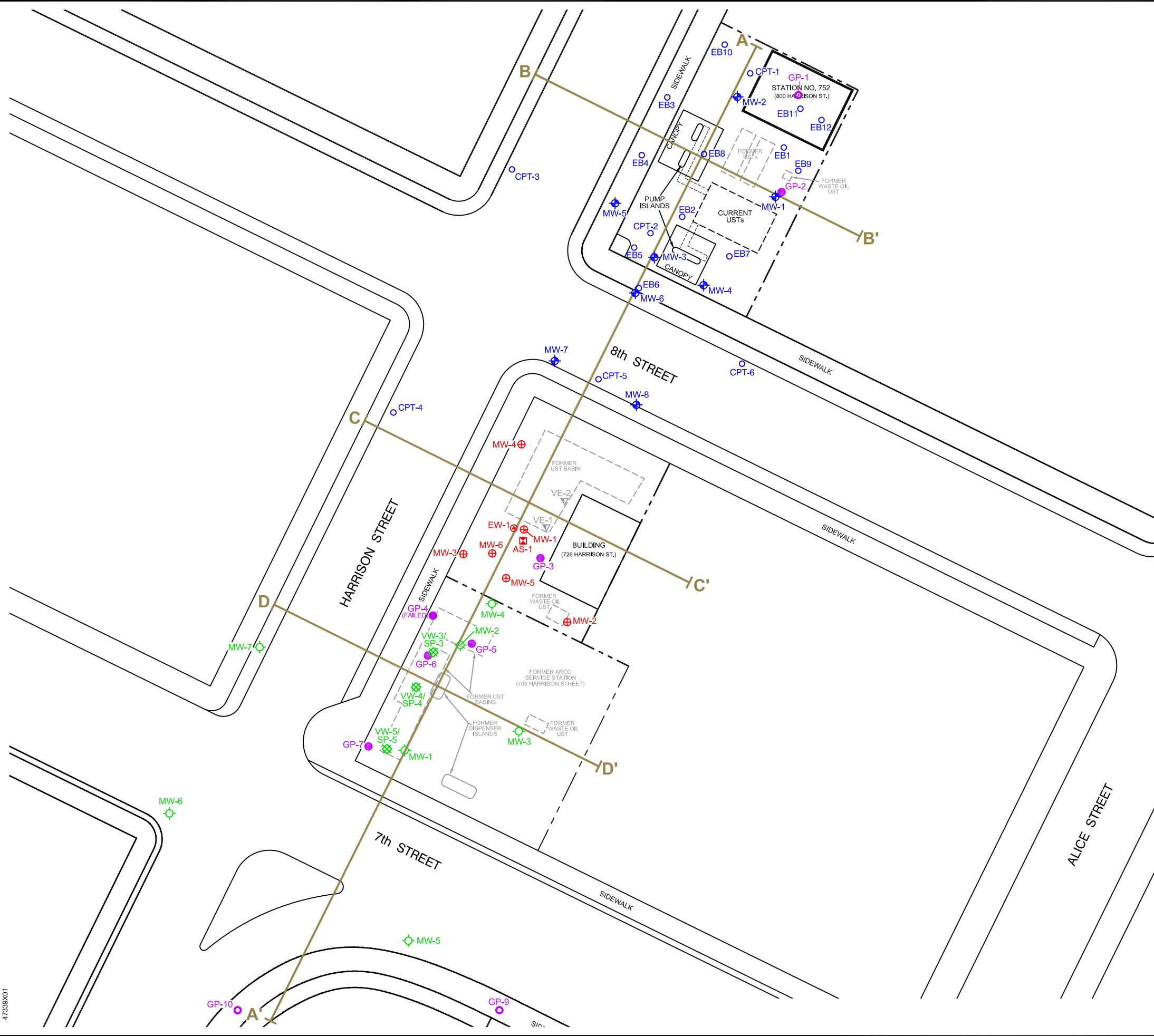


- NOTE:**
1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.



UNION OIL OF CALIFORNIA STATION NO. 0752/YEE/GIN COMMINGLED 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA	
SITE PLAN	
	FIGURE 2

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
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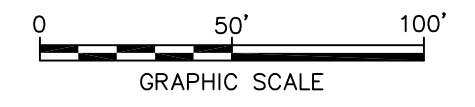


LEGEND

- PROPERTY BOUNDARY
- PRODUCT PIPING
- MW-1 GROUNDWATER MONITORING WELL (UNOCAL)
- MW-1 GROUNDWATER MONITORING WELL (GIN)
- MW-1 GROUNDWATER MONITORING WELL (YEE)
- CPT-1 EXPLORATORY BORING LOCATION (UNOCAL)
- ⊠ AS-1 AIR SPARGE WELL (YEE)
- ⊙ EW-1 EXTRACTION WELL (YEE)
- ▽ VE-1 DESTROYED WELL (YEE)
- GP-2 GEOPROBE™ (JUNE 2011)
- GP-9 GEOPROBE™ (MARCH 2012)
- CROSS SECTION LOCATION

NOTE:

1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

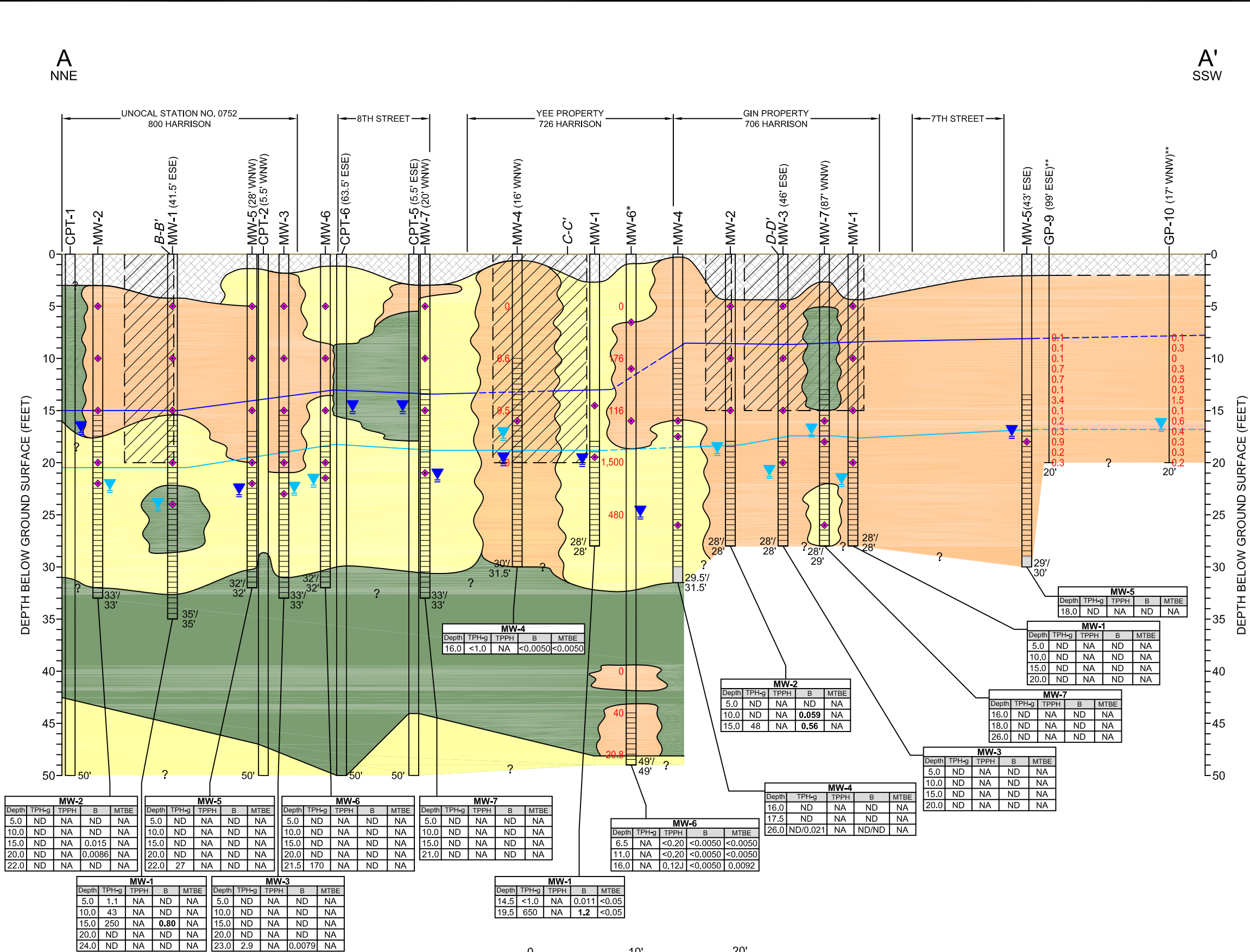


UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

GEOLOGIC CROSS SECTION LOCATIONS

FIGURE
3

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
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 47339X01



- LEGEND**
- WELL ID (PROJECTED DISTANCE AND DIRECTION FROM CROSS SECTION)
 - GROUND SURFACE
 - LITHOLOGIC CONTACT (DASHED WHERE INFERRED)
 - FIRST WATER
 - STATIC WATER
 - SOIL SAMPLE LOCATION
 - SCREEN INTERVAL
 - SUMP
 - WELL DEPTH/TOTAL BORING DEPTH (FEET BELOW GROUND SURFACE)
 - HISTORICAL HIGH GROUNDWATER ELEVATION (DASHED WHERE INTERPRETED)
 - HISTORICAL LOW GROUNDWATER ELEVATION (DASHED WHERE INTERPRETED)
 - ** DEEP WELL NOT USED IN HISTORICAL HIGH OR LOW GROUNDWATER ELEVATION
 - * SOIL BORING

- LITHOLOGY**
- FILL MATERIAL
 - PERMEABLE SOIL TYPES (SP, SW)
 - MEDIUM PERMEABLE SOIL TYPES (SC, SM)
 - LOW PERMEABLE SOIL TYPES (CL, ML)
 - EXCAVATION AREA

- ANALYTICAL RESULTS**
- 0.1 PID READING (ppmv)
 - PID PHOTOIONIZATION DETECTOR
 - TPH-g TOTAL PETROLEUM HYDROCARBONS AS GASOLINE (mg/kg)
 - TPPH TOTAL PURGEABLE PETROLEUM HYDROCARBONS (mg/kg)
 - B BENZENE (mg/kg)
 - MTBE METHYL TERTIARY BUTYL ETHER (mg/kg)
 - ppmv PARTS PER MILLION BY VOLUME
 - mg/kg MILLIGRAMS PER KILOGRAM
 - NA NOT ANALYZED
 - ND NON-DETECT
 - ND/0.021 CONCENTRATIONS COLLECTED AT MULTIPLE DEPTHS WITHIN TARGET RANGE
 - < LESS THAN STATED LABORATORY REPORTING LIMIT
 - J ESTIMATED VALUE
 - BOLD** RESULT EXCEEDS THE FOLLOWING ENVIRONMENTAL SCREENING LEVELS (ESLs) FOR RESIDENTIAL SOIL:
 TPH - 83 mg/kg
 BENZENE - 0.044 mg/kg
 MTBE - 0.023 mg/kg

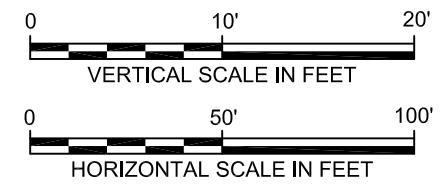
MW-2					MW-5					MW-6					MW-7				
Depth	TPH-g	TPPH	B	MTBE	Depth	TPH-g	TPPH	B	MTBE	Depth	TPH-g	TPPH	B	MTBE	Depth	TPH-g	TPPH	B	MTBE
5.0	ND	NA	ND	NA	5.0	ND	NA	ND	NA	5.0	ND	NA	ND	NA	5.0	ND	NA	ND	NA
10.0	ND	NA	ND	NA	10.0	ND	NA	ND	NA	10.0	ND	NA	ND	NA	10.0	ND	NA	ND	NA
15.0	ND	NA	0.015	NA	15.0	ND	NA	ND	NA	15.0	ND	NA	ND	NA	15.0	ND	NA	ND	NA
20.0	ND	NA	0.0086	NA	20.0	ND	NA	ND	NA	20.0	ND	NA	ND	NA	20.0	ND	NA	ND	NA
22.0	ND	NA	NA	NA	22.0	27	NA	NA	NA	21.5	170	NA	NA	NA	21.0	ND	NA	ND	NA

MW-1					MW-3					MW-4				
Depth	TPH-g	TPPH	B	MTBE	Depth	TPH-g	TPPH	B	MTBE	Depth	TPH-g	TPPH	B	MTBE
5.0	1.1	NA	ND	NA	5.0	ND	NA	ND	NA	16.0	ND	NA	ND	NA
10.0	43	NA	ND	NA	10.0	ND	NA	ND	NA	17.5	ND	NA	ND	NA
15.0	250	NA	0.80	NA	15.0	ND	NA	ND	NA	26.0	ND/0.021	NA	ND/ND	NA
20.0	ND	NA	ND	NA	20.0	ND	NA	ND	NA	6.5	NA	<0.20	<0.0050	<0.0050
24.0	ND	NA	ND	NA	23.0	2.9	NA	0.0079	NA	11.0	NA	<0.20	<0.0050	<0.0050
										16.0	NA	0.12J	<0.0050	0.0092

MW-5					MW-1				
Depth	TPH-g	TPPH	B	MTBE	Depth	TPH-g	TPPH	B	MTBE
18.0	ND	NA	ND	NA	5.0	ND	NA	ND	NA
20.0	ND	NA	ND	NA	10.0	ND	NA	ND	NA
					15.0	ND	NA	ND	NA
					20.0	ND	NA	ND	NA

MW-2				
Depth	TPH-g	TPPH	B	MTBE
5.0	ND	NA	ND	NA
10.0	ND	NA	0.059	NA
15.0	48	NA	0.56	NA

MW-3				
Depth	TPH-g	TPPH	B	MTBE
5.0	ND	NA	ND	NA
10.0	ND	NA	ND	NA
15.0	ND	NA	ND	NA
20.0	ND	NA	ND	NA

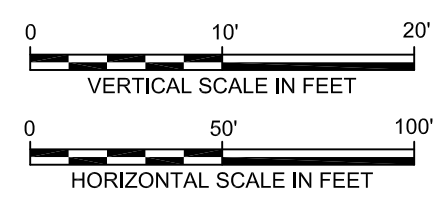
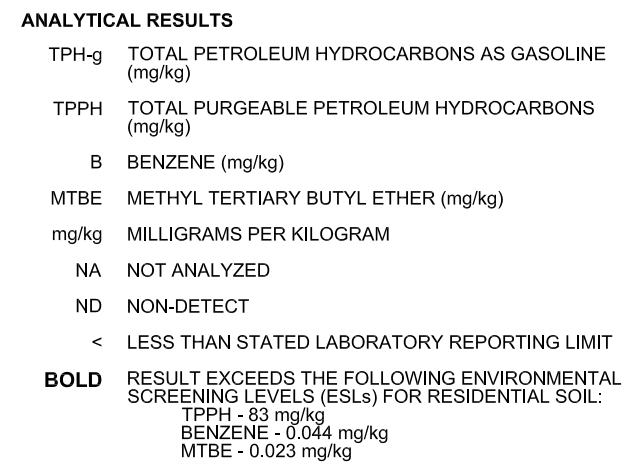
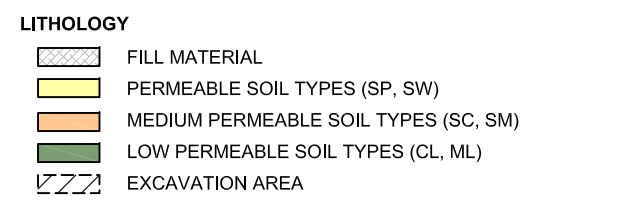
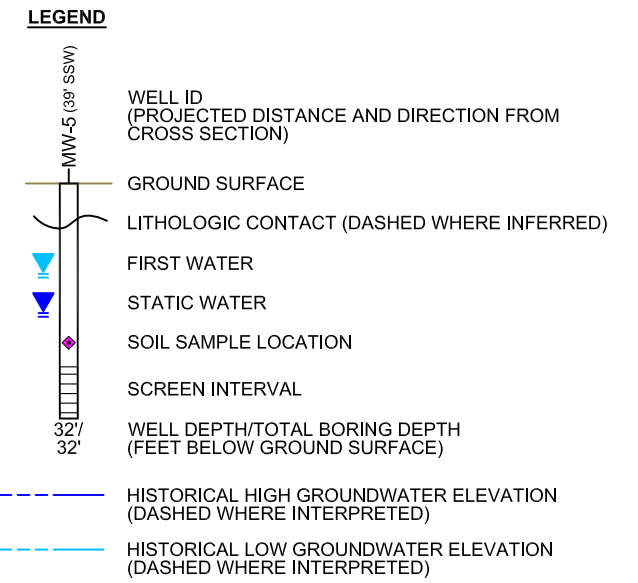
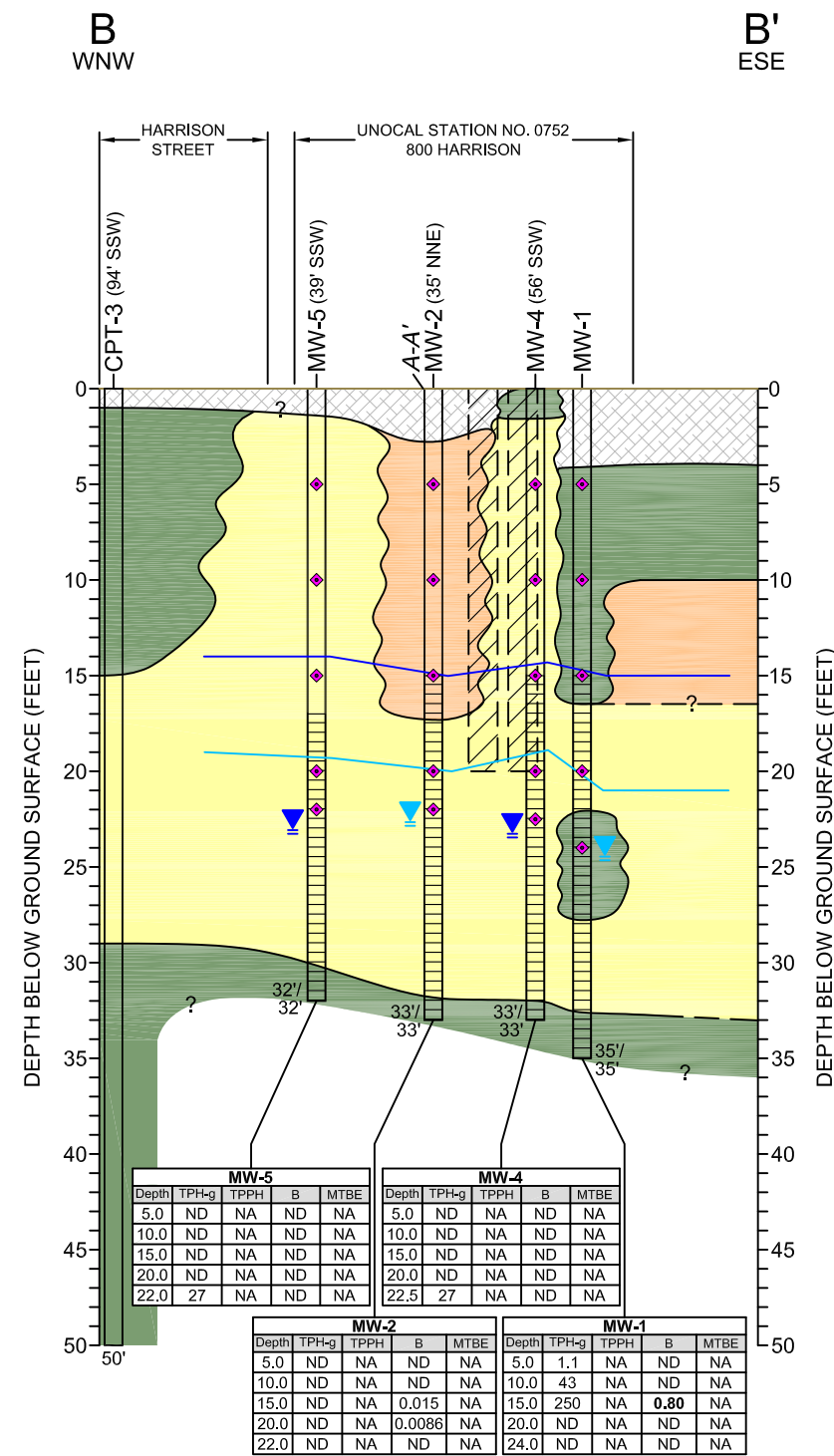


UNION OIL OF CALIFORNIA
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GEOLOGIC CROSS SECTION A-A'

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FIGURE
4

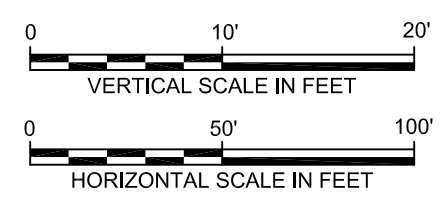
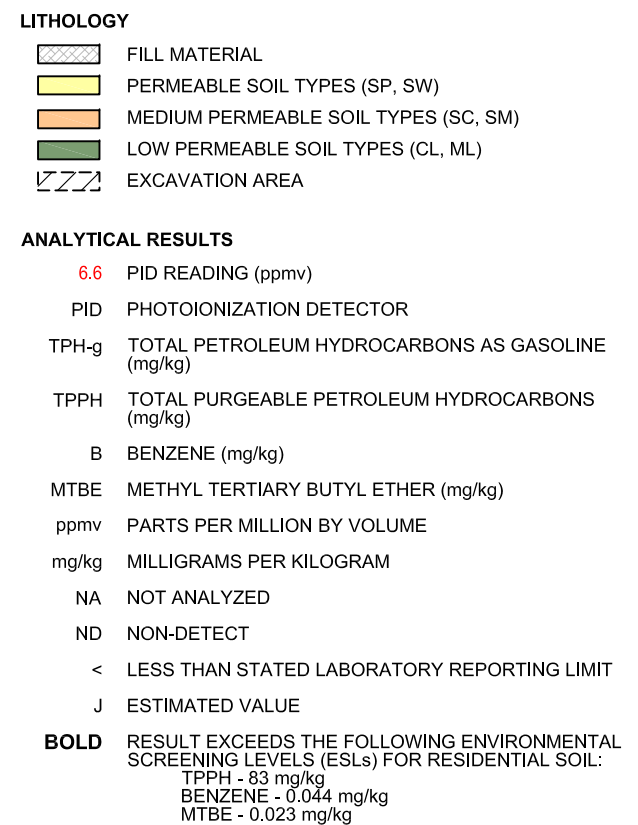
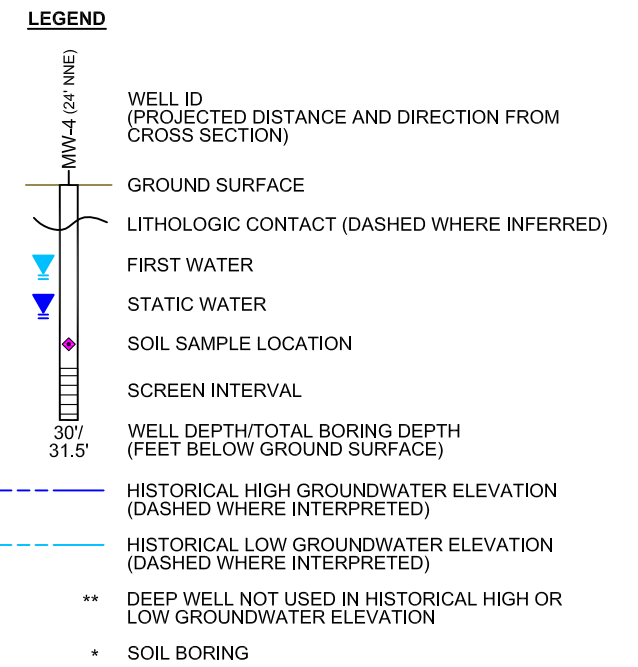
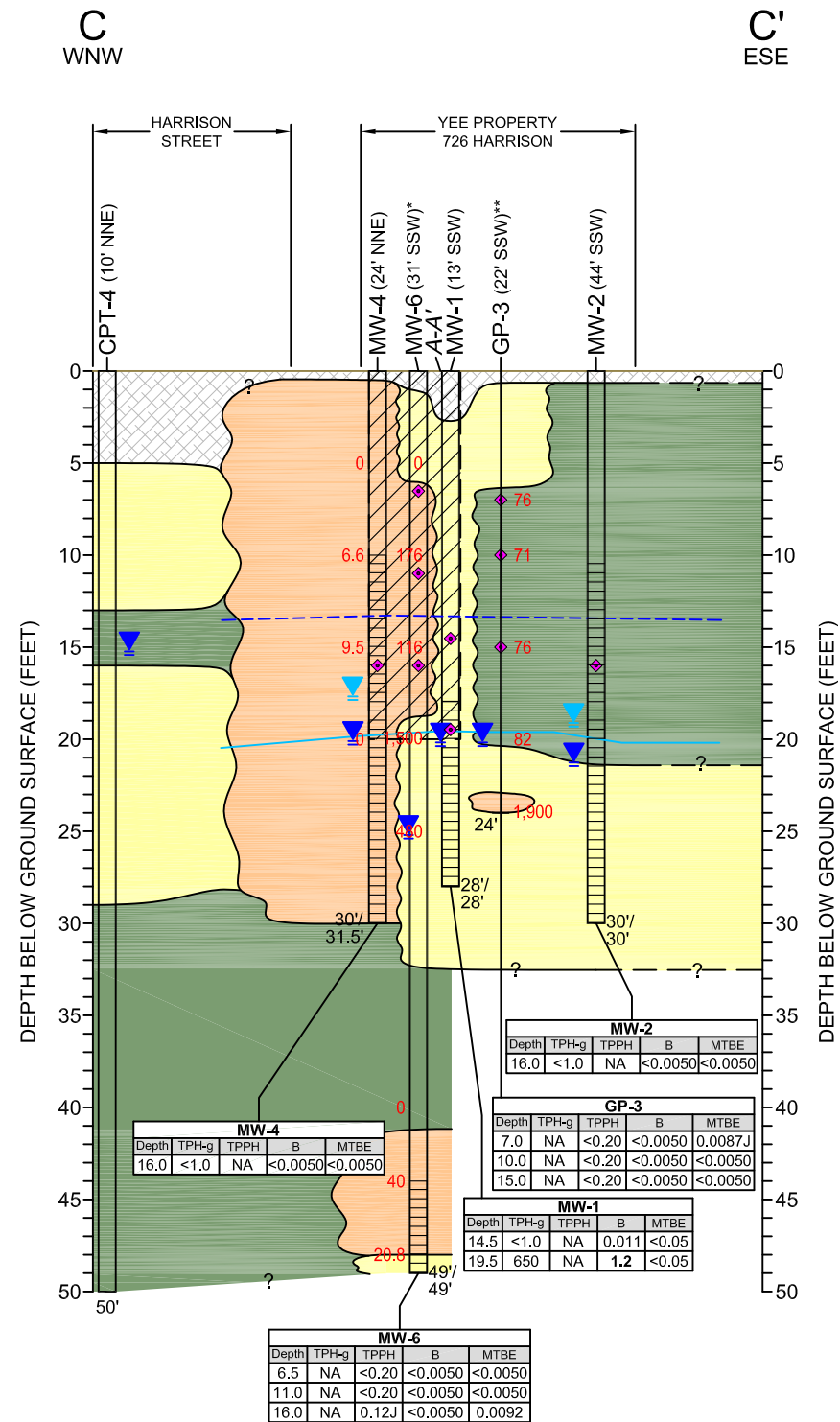


UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

GEOLOGIC CROSS SECTION B-B'

FIGURE **5**

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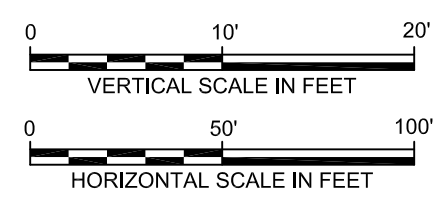
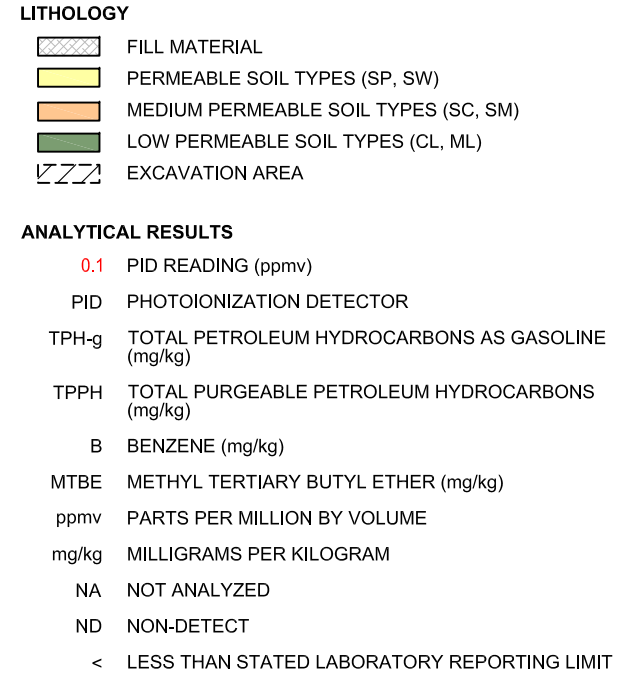
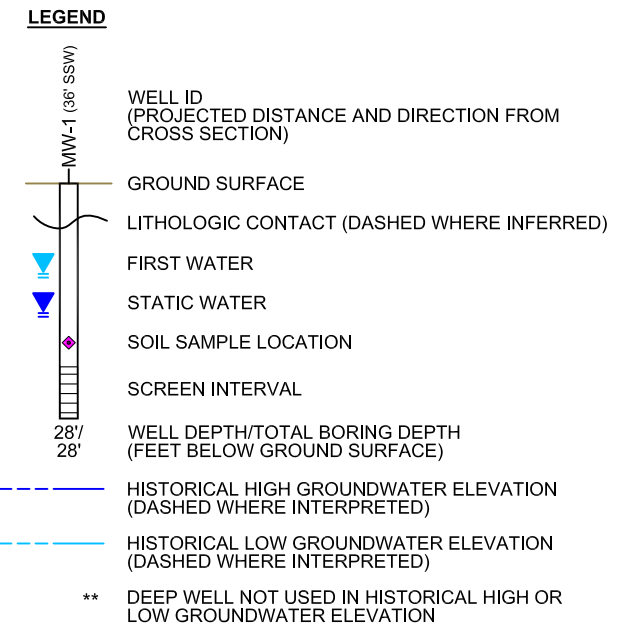
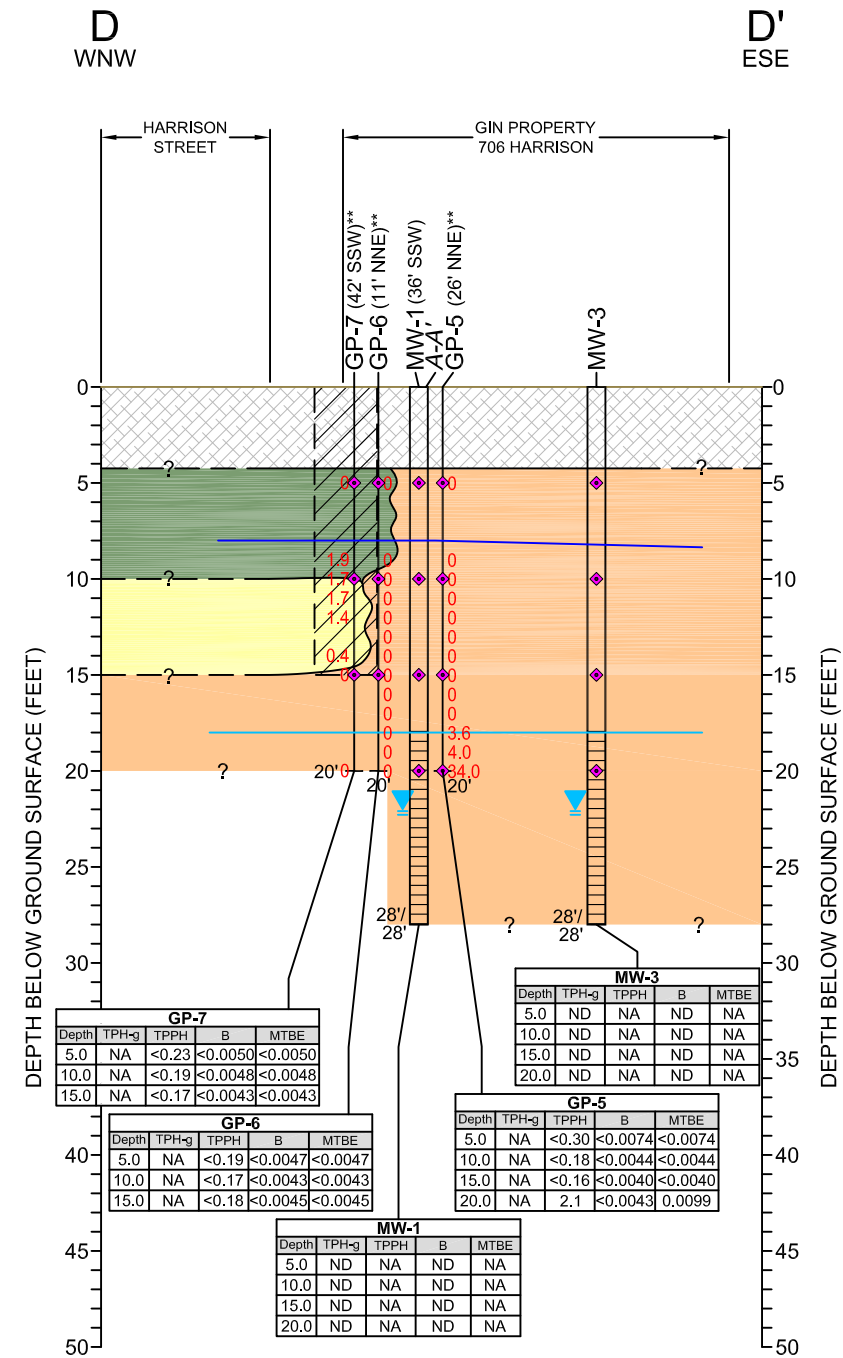


UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

GEOLOGIC CROSS SECTION C-C'

ARCADIS

FIGURE 6

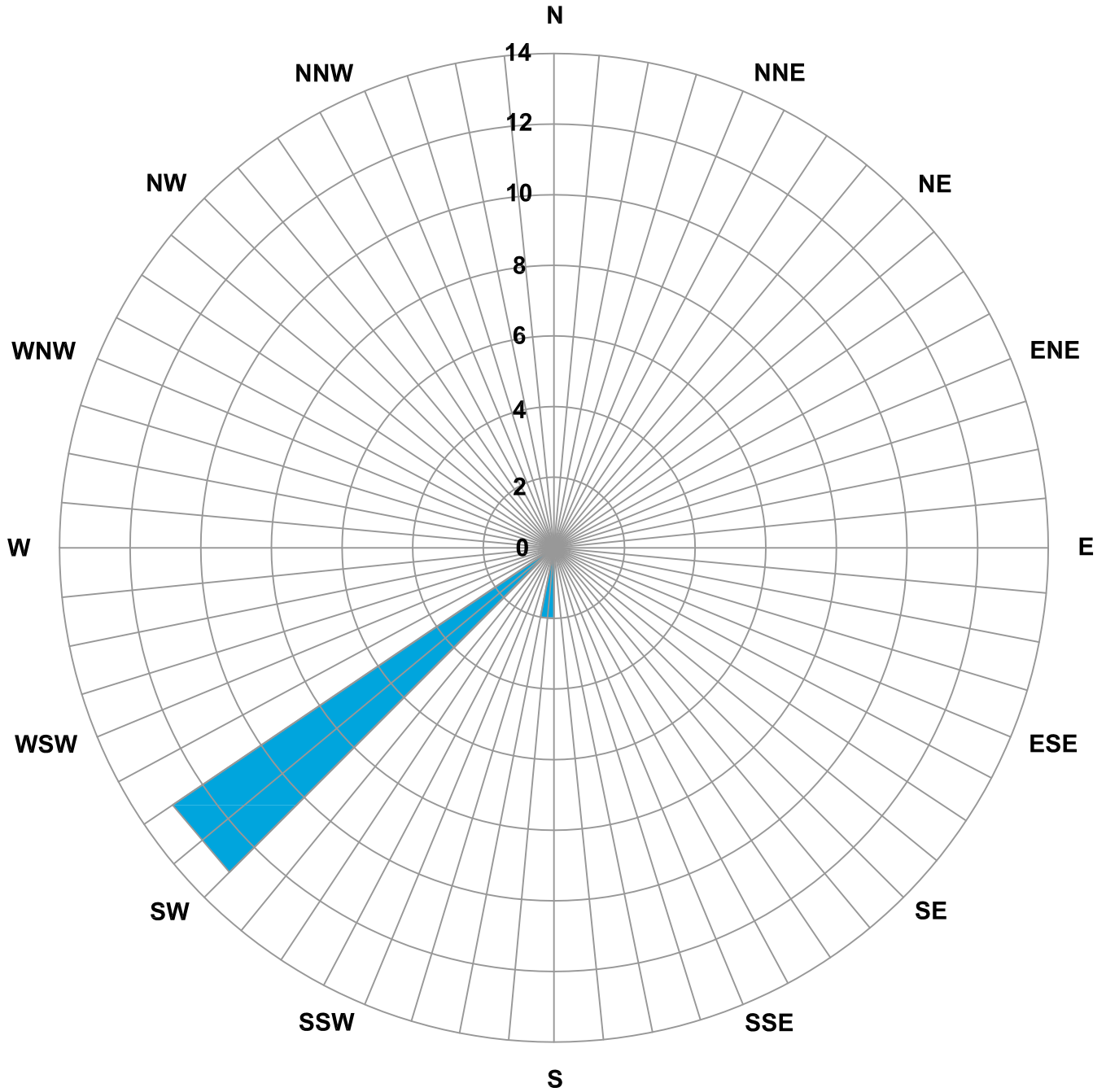


UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

GEOLOGIC CROSS SECTION D-D'

FIGURE 7

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS, LD: -- PIC: S. GLENN, PM: S. DAVIS, TM: M. MISAKIAN LYR: /OPTION=OFF=REF: C:\Users\jharris\Desktop\ENVCAD\B0047339\201200007\DWG\47339\W01.dwg LAYOUT: 9 SAVED: 10/17/2012 12:45 PM ACADVER: 18.1S (LIMS TECH) PAGES SETUP: SETUP1 PLOTSTYLE TABLE: -- PLOTTED: 10/17/2012 12:45 PM BY: HARRIS, JESSICA XREFS: IMAGES: PROJECTNAME: --



LEGEND

CONCENTRIC CIRCLES REPRESENT 15 SEMI ANNUAL MONITORING EVENTS CONDUCTED BETWEEN THE FIRST QUARTER 2004 THROUGH THE FIRST QUARTER 2012.

 GROUNDWATER FLOW DIRECTION

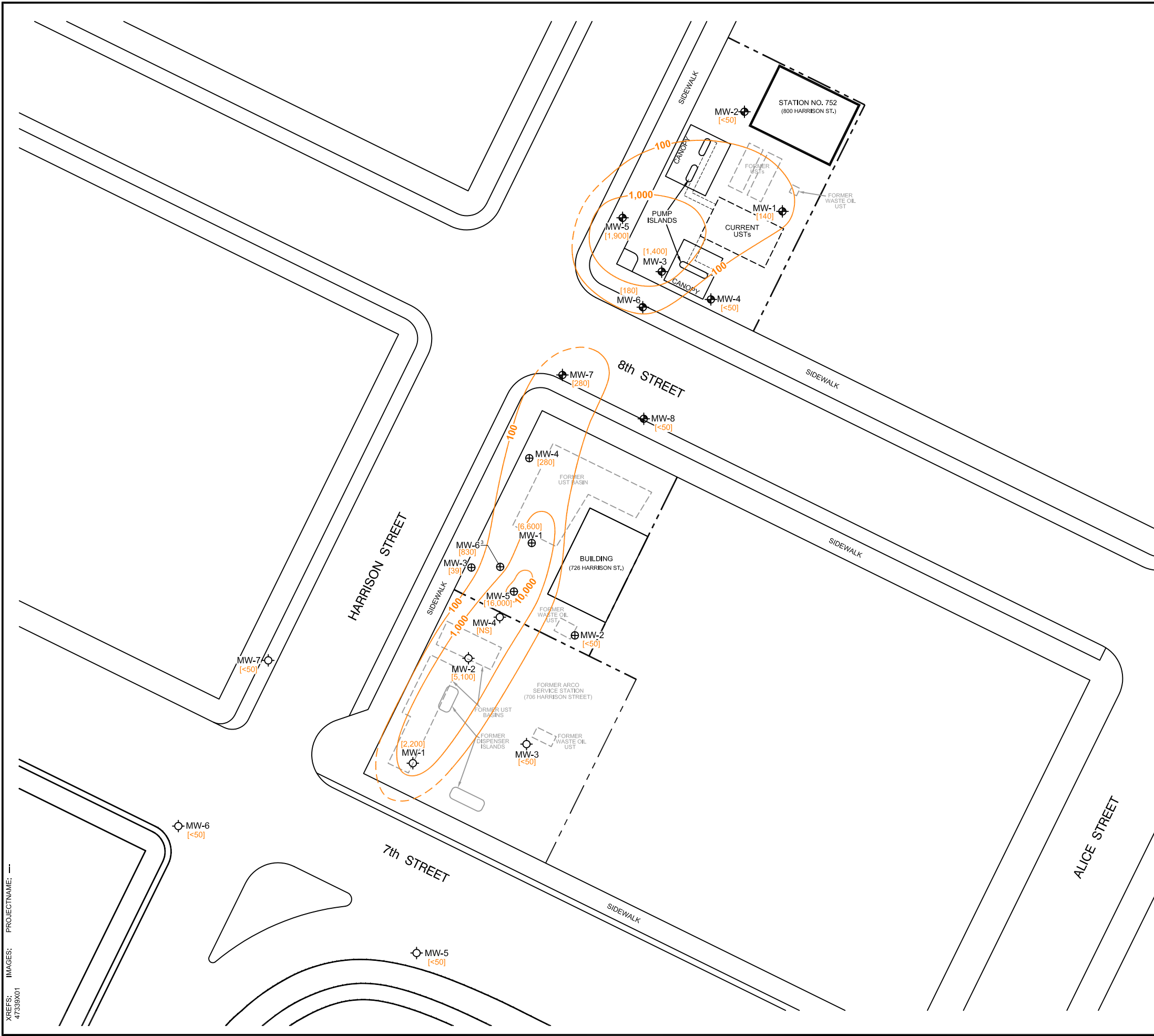
UNION OIL OF CALIFORNIA
STATION NO. 0752/YEE/GIN COMMINGLED
706/726/800 HARRISON STREET
OAKLAND, CALIFORNIA

**GROUNDWATER FLOW DIRECTION
ROSE DIAGRAM**



FIGURE

9

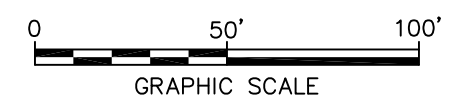


LEGEND

- PROPERTY BOUNDARY
- - - - - PRODUCT PIPING
- MW-1 ⊕ GROUNDWATER MONITORING WELL (UNOCAL SITE)
- MW-1 ⊕ GROUNDWATER MONITORING WELL (YEE SITE)
- MW-1 ⊙ GROUNDWATER MONITORING WELL (GIN SITE)
- [TPH-g] TOTAL PETROLEUM HYDROCARBONS AS GASOLINE CONCENTRATION IN MICROGRAMS PER LITER (µg/L)
- 100 ——— TPH-g ISOCONCENTRATION CONTOUR (µg/L; DASHED WHERE INFERRED)
- < DENOTES LESS THAN LABORATORY REPORTING LIMIT
- [NS] NOT SAMPLED; CAR PARKED AT TIME OF SAMPLING EVENT

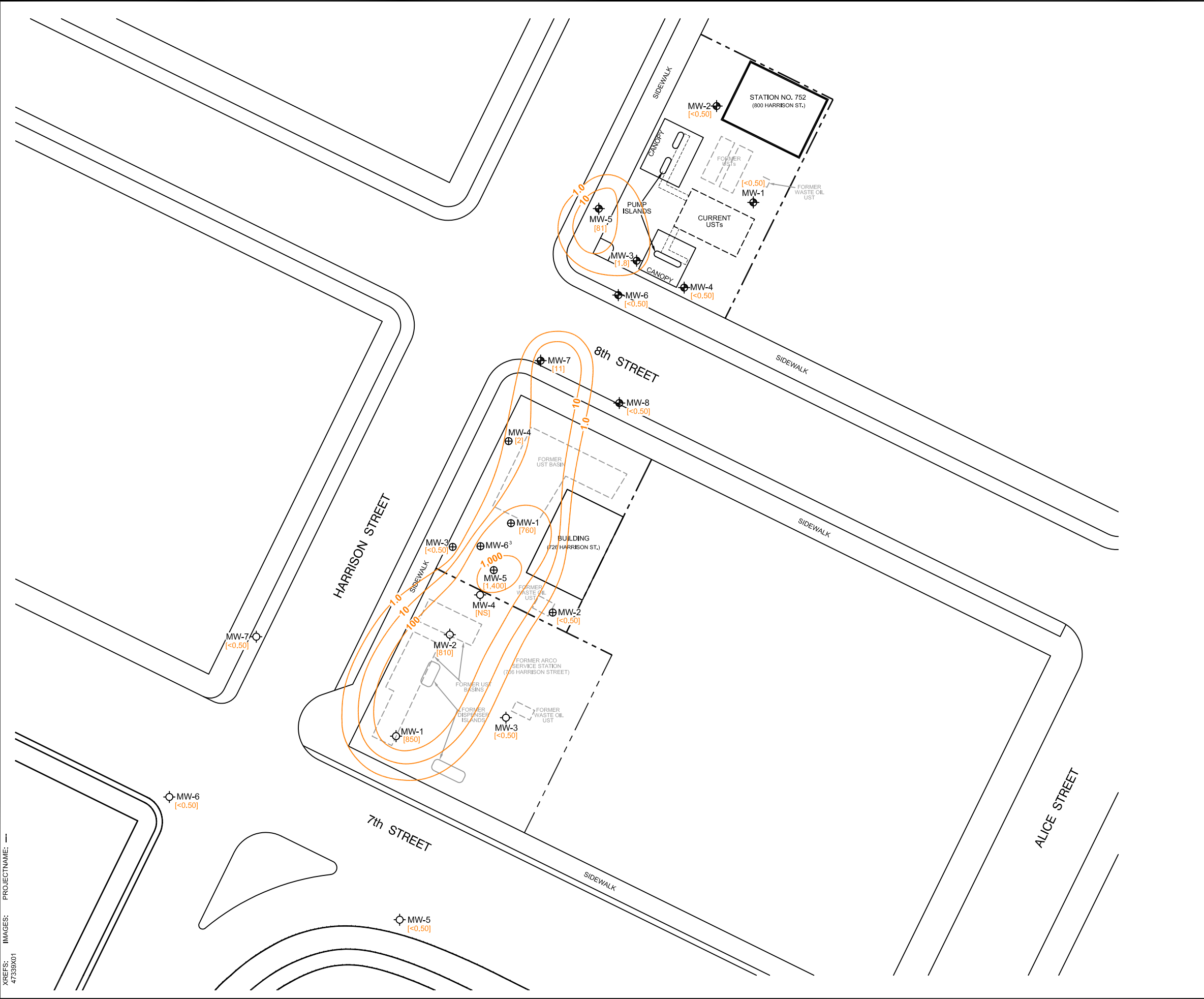
NOTES:

1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.
3. MW-6 AT 726 HARRISON IS NOT USED IN CONTOURING BECAUSE IT IS LOCATED IN A LOWER WATER BEARING ZONE.



UNION OIL OF CALIFORNIA STATION NO. 0752/YEE/GIN COMMINGLED 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA	
TPH-g ISOCONCENTRATION CONTOUR MAP AUGUST 2012	
	FIGURE 10

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
 C:\Users\jharris\Desktop\ENVCAD\B0047339\2012100007\DWG\47339C02.dwg LAYOUT: 11
 XREFS: IMAGES: PROJECTNAME: --
 47339X01

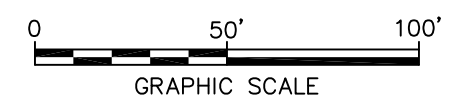


LEGEND

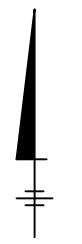
- PROPERTY BOUNDARY
- - - - - PRODUCT PIPING
- MW-1 ⊕ GROUNDWATER MONITORING WELL (UNOCAL SITE)
- MW-1 ⊕ GROUNDWATER MONITORING WELL (YEE SITE)
- MW-1 ⊙ GROUNDWATER MONITORING WELL (GIN SITE)
- [BENZ] BENZENE CONCENTRATION IN MICROGRAMS PER LITER (µg/L)
- 100 — BENZENE ISOCONCENTRATION CONTOUR (µg/L; DASHED WHERE INFERRED)
- < DENOTES LESS THAN LABORATORY REPORTING LIMIT
- [NS] NOT SAMPLED; CAR PARKED AT TIME OF SAMPLING EVENT

NOTES:

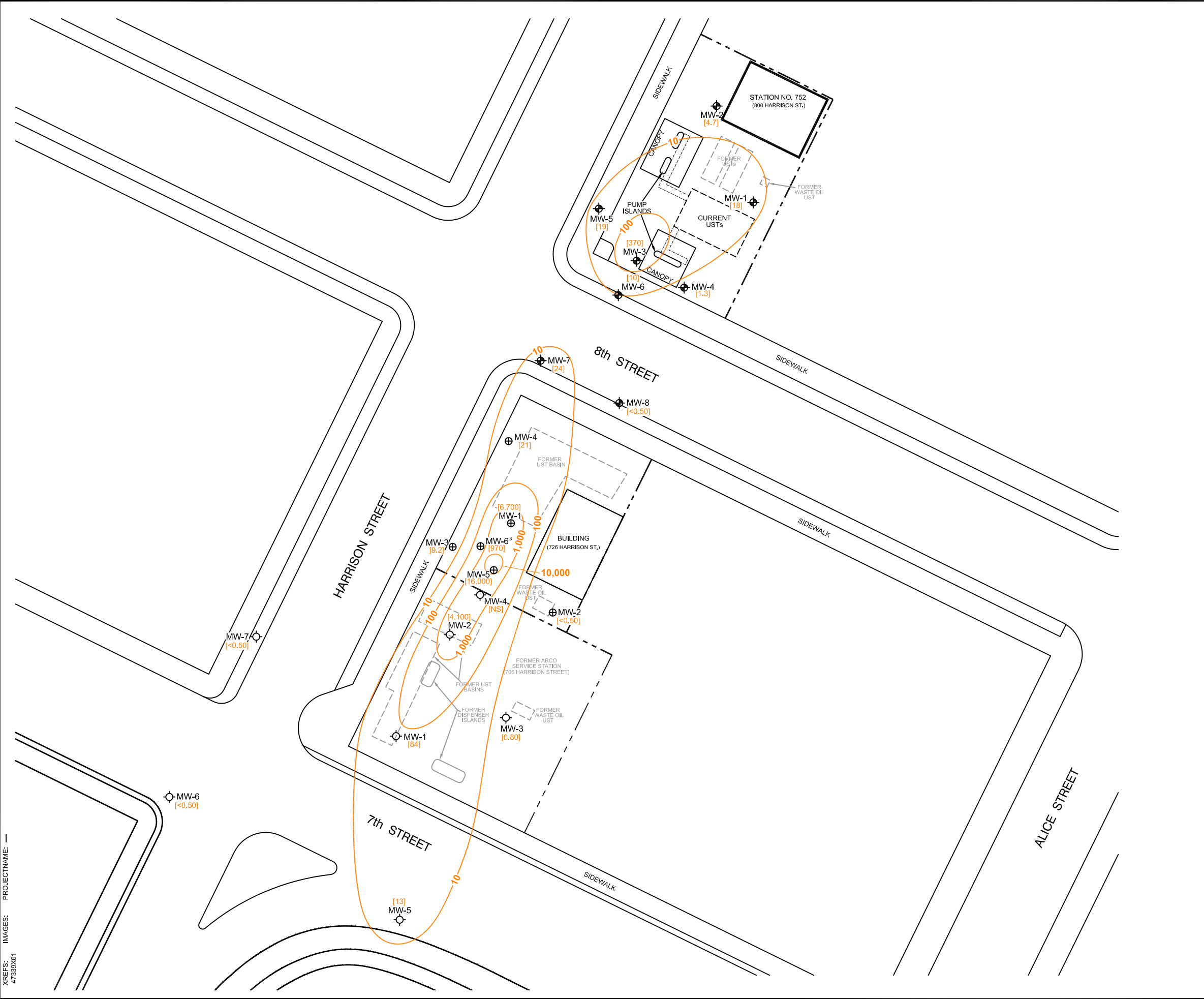
1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.
3. MW-6 IS NOT USED IN CONTOURING BECAUSE IT IS LOCATED IN A LOWER WATER BEARING ZONE.



UNION OIL OF CALIFORNIA STATION NO. 0752/YEE/GIN COMMINGLED 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA	
BENZENE ISOCONCENTRATION CONTOUR MAP AUGUST 2012	
	FIGURE 11



CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
 C:\Users\jharris\Desktop\ENVCAD\B0047339\2012100007\DWG\47339C03.dwg LAYOUT: 12 SAVED: 10/17/2012 12:50 PM ACADVER: 18.1 S (LMS TECH) PAGESSETUP: SETUP1 PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 10/17/2012 12:50 PM BY: HARRIS, JESSICA
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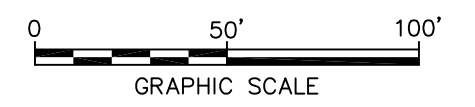


LEGEND

- PROPERTY BOUNDARY
- PRODUCT PIPING
- MW-1 ⊕ GROUNDWATER MONITORING WELL (UNOCAL SITE)
- MW-1 ⊕ GROUNDWATER MONITORING WELL (YEE SITE)
- MW-1 ⊙ GROUNDWATER MONITORING WELL (GIN SITE)
- [MTBE] METHYL TERTIARY BUTYL ETHER CONCENTRATION IN MICROGRAMS PER LITER (µg/L)
- 100 ——— MTBE ISOCONCENTRATION CONTOUR (µg/L; DASHED WHERE INFERRED)
- < DENOTES LESS THAN LABORATORY REPORTING LIMIT
- [NS] NOT SAMPLED; CAR PARKED AT TIME OF SAMPLING EVENT

NOTES:

1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.
3. MW-6 IS NOT USED IN CONTOURING BECAUSE IT IS LOCATED IN A LOWER WATER BEARING ZONE.



UNION OIL OF CALIFORNIA STATION NO. 0752/YEE/GIN COMMINGLED 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA	
MTBE CONCENTRATION MAP AUGUST 2012	
	FIGURE 12



Appendix A

Agency Correspondence



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

July 9, 2012

RO0000231 Responsible Parties:

Roya Kambin
Chevron Environmental Management Company
6101 Bollinger Canyon Road, 5th Floor
San Ramon, CA 94583-5186
(Sent via E-mail to: RKLG@chevron.com)

Eric Hetrick
ConocoPhillips Company
76 Broadway
Sacramento, CA 95818
(Sent via E-mail to: eric.g.hetrick@conocophillips.com)

Muhammad Usman
800 Harrison Street
Oakland, CA 94607

Mahmood M Ali
Armsco, Inc.
P.O. Box 5427
Novato, CA 94948-5427

RO0000321 Responsible Parties:

Peter Yee
1000 San Antonio Avenue
Alameda, CA 94501

Kin Chan
4328 Edgewood Avenue
Oakland, CA 94602-1316

RO0000484 Responsible Parties:

Bo Gin
342 Lester Avenue
Oakland, CA 94606-1317

Subject: Case File Review for Commingled Plume Assessment for Fuel Leak Case No. RO0000231 (GeoTracker Global ID T0600101486), Unocal #0752, 800 Harrison Street, Oakland, CA 94607; Fuel Leak Case No. RO0000321 (GeoTracker Global ID T0600102122), Chan's Service Station/Shell, 726 Harrison Street, Oakland, CA 94607; and Fuel Leak Case No. RO0000484 (GeoTracker Global ID T0600100985), Oakland Auto Parts, 706 Harrison Street, Oakland, CA 94607

Dear Responsible Parties:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case files for the above referenced sites including the document entitled, "*Site Assessment Addendum Report, 800, 726, and 706 Harrison Street, Oakland, California,*" dated May 11, 2012 (Report) and "*First Quarter 2012 Semiannual Status Summary Report, 800, 726, and 706 Harrison Street, Oakland, California,*" dated April 6, 2012 (Monitoring Report). Both reports were prepared on your behalf by ARCADIS. The Report presents the results from three soil borings advanced to address data gaps within the area of a commingled plume that affects three adjacent sites at 800, 726, and 706 Harrison Street. The three borings were proposed in a Work Plan Addendum dated November 4, 2011 to address deviations from a previous Work Plan. Unfortunately, the proposed scope of work in the Work Plan Addendum dated November 4, 2011 was not

completed. We request that you address the technical comments below, perform the proposed work, and send us the reports requested below.

TECHNICAL COMMENTS

1. **Boring GP-10.** Boring GP-10 was advanced to a depth of 20 feet bgs but a grab groundwater sample could not be collected. The text of the Report states that no groundwater recharge was observed in GP-10 between approximately 20 and 25 feet bgs. However, the boring log for GP-10 indicates that the total depth of GP-10 was only 20 feet bgs. We are disappointed that additional attempts do not appear to have been made to either collect a grab groundwater sample from the GP-10 boring or to advance an adjacent boring to collect a grab groundwater sample for the following reasons:
 - Boring GP-10 is directly downgradient from the plume and is the key location to defining downgradient plume extent.
 - A significant amount of time and resources went into the planning, reviewing, revision of the location, permitting, and gaining access to advance GP-10.
 - The boring log for GP-10 indicates silty sands to 20 feet bgs which is consistent with other borings in the area that have yielded grab groundwater samples.
 - Additional grab groundwater sampling or boring attempts do not appear to have been made.
 - Soil screening parameters and observations on the boring logs did not indicate obvious evidence of contamination. However, a groundwater sample was needed to confirm this conclusion.

2. **Conclusions Regarding Plume Extent.** We do not concur with the conclusion that the additional investigation addressed the data gap regarding the downgradient extent of the plume. Three downgradient borings were originally proposed for collection of grab groundwater samples to define downgradient plume extent. The number of proposed borings was reduced from three to two in the Work Plan Addendum dated November 4, 2011. Only one of the two proposed grab groundwater samples was collected in March 2012. Although a grab groundwater sample from GP-9 did not contain petroleum constituents at concentrations above the reporting limit, boring GP-9 is located in more of a cross gradient location than GP-10. Therefore, the downgradient plume extent remains a data gap that will need to be addressed at a future date. However, in order to move the case forward, we do not object to the recommendation to prepare a Feasibility Study at this time. Confirmation of the downgradient plume extent could be conducted concurrently with a Feasibility Study or during a future phase of work.

3. **Groundwater Monitoring.** Groundwater monitoring is to be continued on a semi-annual basis during the first and third quarters. Please present the results in the reports requested below.

Responsible Parties
RO0000231, RO0000321, and RO0000484
July 9, 2012
Page 3

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **October 23, 2012** – Feasibility Study Report
- **October 30, 2012** – Semi-Annual Groundwater Monitoring Report – Third Quarter 2012

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at jerry.wickham@acgov.org. Case files can be reviewed online at the following website: <http://www.acgov.org/aceh/index.htm>. As your email address does not appear on the cover page of this notification ACEH is requesting you provide your email address so that we can correspond with you quickly and efficiently regarding your case.

Sincerely,

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Attachment: Responsible Party(ies) Legal Requirements/Obligations

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA 94612-2032 (*Sent via E-mail to: lgriffin@oaklandnet.com*)

Katherine Brandt, ARCADIS, 1900 Powell Street, 11th Floor, Emeryville, CA 94608 (*Sent via E-mail to: Katherine.Brandt@arcadis-us.com*)

Robert Foss, Conestoga-Rovers & Associates, 5900 Hollis Street, Suite A, Emeryville, CA 94608 2032 (*Sent via E-mail to: bfoss@croworld.com*)

Robert Kitay, Aqua Science Engineers, Inc., 55 Oak Ct., Suite 220, Danville, CA 94526 (*Sent via E-mail to: rkitay@aquascienceengineers.com*)

Donna Drogos, ACEH (*Sent via E-mail to: donna.drogos@acgov.org*)
Jerry Wickham, ACEH (*Sent via E-mail to: jerry.wickham@acgov.org*)

GeoTracker, eFile

Attachment 1

Responsible Party(ies) Legal Requirements / Obligations

REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	REVISION DATE: July 20, 2010
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection.**
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

- 1) Obtain User Name and Password
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to deh.loptoxic@acgov.org
 - b) In the subject line of your request, be sure to include "**ftp PASSWORD REQUEST**" and in the body of your request, include the **Contact Information, Site Addresses,** and the **Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
 - a) Using Internet Explorer (IE4+), go to <ftp://alcoftp1.acgov.org>
 - (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
 - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
 - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
 - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
 - a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
 - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
 - c) The subject line of the e-mail must start with the RO# followed by **Report Upload.** (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
 - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.



Appendix B

Historical Site Investigations and
Remedial Actions

Appendix B

Union Oil of California
Station No. 0752/Yee/Gin Co-mingled
706/726/800 Harrison Street
Oakland, California

Site History and Previous Investigations and Remedial Actions

800 Harrison Street (Active Unocal)

In November 1990, two gasoline USTs and one waste oil UST were removed from the site. The tanks consisted of one 10,000 gallon regular unleaded gasoline storage tank, one 10,000 gallon super unleaded gasoline storage tank, and one 280 gallon waste oil tank. The waste oil tank was reported to contain one, 1/8 -inch square hole. Based on confirmation soil sampling during the UST removal, the majority of the source area was the soil beneath the former UST pit. In November 1996, one 1,100- gallon waste oil UST and associated product dispensers piping were removed from the site. No apparent holes or cracks were observed in the waste oil tank, or piping at this time.

Gettler-Ryan Inc., in their April 23, 2001 *Site Conceptual Model for 800 Harrison Street*, referenced the source area leak as a potential UST spill bucket containment failure stating that there were several historically documented maintenance reports in which residual rainwater was noted in the spill tank basin after overflow. The spill bucket containment was repaired in November 2001. Since the repair, hydrocarbon concentrations decreased in the short term, but there have been several additional elevated concentrations observed in 2004, which suggests that the spill bucket containment failure was not likely the single contributing source release.

726 Harrison Street (Former Shell)

In October 1995, four gasoline USTs and one waste UST were removed from the site. The tanks consisted of two 5,000-gallon single-walled bare-steel premium unleaded gasoline storage tanks, one 5,000-gallon single-walled bare-steel plus unleaded gasoline storage tank, one 8,000-gallon single-walled bare-steel regular unleaded gasoline storage tank, and one 1,000-gallon single-walled bare-steel waste oil tank. The State of California UST Permit Applications indicate that the USTs contain no spill or overfill preventative containment equipment for any of the former USTs.

Elevated hydrocarbon concentrations were detected in soil beneath each of the former gasoline USTs. Elevated concentrations of Total Oil and Grease (TOG) were detected in soil beneath the waste oil UST. Approximately 530 tons of impacted soil was removed from the excavations to a maximum depth of 20 feet below ground surface (bgs) in December 1995. Seven confirmation soil samples were collected from the bottom and side walls of the excavation to determine the removal of impacted soil. Two of the seven samples contained elevated concentrations of petroleum hydrocarbons at the northern and southern portion of the excavation (Aqua Science Engineers, Inc. [ASE] 2007). Over excavation was not possible due the building location to the southeast and the street to the northwest.

In July 1997, a groundwater monitoring well was installed at the southern edge of the former USTs. Groundwater samples from the well contained elevated concentrations of petroleum hydrocarbons. In December 1998, three additional wells were installed along the southern property boundary between 706 and 726 Harrison Street. Newly installed wells (MW-3 and MW-

Appendix B

Union Oil of California
Station No. 0752/Yee/Gin Co-mingled
706/726/800 Harrison Street
Oakland, California

4) contained much lower detections of hydrocarbons. MW-2 did not contain hydrocarbons detected above laboratory detection limits.

706 Harrison Street (Former ARCO)

In January 1991, four 1,000-gallon gasoline USTs, two 6,000-gallon gasoline USTs, and one unknown size waste oil tank were removed from the site. Confirmation soil samples were collected beneath the tanks, and elevated petroleum hydrocarbon concentrations were observed in confirmation samples. In December 1991, the UST pipes were removed and a limited subsurface investigation was performed to resample the former tank pit areas (Conestoga-Rovers and Associates [CRA] 2007).

In February 1993, an over excavation of unknown volume was performed from three excavations in the vicinity of the former UST locations. Limitations during the excavation related to shoring prevented removal of all impacted soil (CRA 2007). Soil samples collected at 16 feet bgs contained elevated concentrations of hydrocarbons.

In July 1993, monitoring wells (MW-1 through MW-3) and soil vapor extraction (SVE) wells (VW-1 and VW-2) were installed. Soil samples collected during the installation contained elevated total petroleum hydrocarbons as gasoline and benzene (6,000 parts per million [ppm] and 210 ppm, respectively). In December 1993, additional soil samples were collected from the former pump island locations containing concentrations of organic lead with a maximum of 17 ppm at 2 feet bgs.

In April 1994, a SVE pilot test was conducted and SVE was determined to be an effective remedial alternative. In November 1994, additional groundwater monitoring wells, SVE wells, and air sparge (AS) wells were installed for on-site remediation. Operation the AS/SVE began in May 1998 and continued into February 2001. The SVE portion was shut down but the AS system continued to inject air to increase oxygen concentrations to enhance aerobic biodegradation.

Groundwater samples collected from SVE wells determined that the system was effective and the AS system was shut down.

The Co-mingled Plume Investigation (800, 726, and 706 Harrison Street):

In June 2011, ARCADIS conducted site assessment activities to address data gaps presented in Stantec's Work Plan (Stantec 2011) for the site. ARCADIS oversaw the advancement of four soil borings associated with the 800 and 706 Harrison Street properties (Figure 2). ASE oversaw the installation of one monitoring well and one soil boring associated with 726 Harrison Street with observations by ARCADIS (Figure 2).

Soil concentrations for the site assessment were elevated in soil boring GP-2 located at 800 Harrison Street. Total purgeable petroleum hydrocarbons (TPPH) and methyl tertiary butyl ether (MTBE) were detected at 3,200 milligrams per kilograms (mg/kg) and 0.0060 mg/kg, respectively. Groundwater samples were collected from two locations (GP-3 and MW-6) located on the 726 Harrison Street property. Elevated groundwater concentrations for benzene (1,800

Appendix B

Union Oil of California
Station No. 0752/Yee/Gin Co-mingled
706/726/800 Harrison Street
Oakland, California

micrograms per liter ($\mu\text{g/L}$), toluene (2,000 $\mu\text{g/L}$), ethylbenzene (1,500 $\mu\text{g/L}$), xylenes (5,000 $\mu\text{g/L}$) (collectively BTEX), and MTBE (4,600 $\mu\text{g/L}$) were from soil boring GP-3.

On March 28, 2012, additional site assessment activities were conducted. ARCADIS oversaw the advancement of three soil borings (GP-1, GP-9 and GP 10) on the 800 Harrison and 640 Harrison Street properties.

800 Harrison Street Summary

Soil borings GP-1 and GP-2 were advanced to a depth of approximately 20 feet bgs to delineate the soil stratigraphy and extent of petroleum hydrocarbon impacts to vadose-zone soil. Soil samples collected from boring GP-2 indicate elevated concentrations for TPPH, toluene, ethylbenzene, xylenes, and MTBE at sample depths ranging from 10 feet to 17 feet bgs. Concentrations were detected above ESLs for two of the five analytes; TPPH and MTBE at sample depths of 14 feet and 17 feet bgs. Soil collected from GP-1 had concentrations below the detection limit for all analyses. Because TOG and Hydraulic Oil were not detected above detection limits, no additional samples were analyzed for Title 22 Metals or SVOCs per the Work Plan (Stantec 2011) specifications. Soil boring GP-1 is located southeast of MW-2 within the smog shop, and soil boring GP-2 is located northeast of MW-1 and southeast of the former USTs.

726 Harrison Street Summary

Soil boring GP-3 was advanced to a depth of approximately 20 feet bgs to delineate the soil stratigraphy and extent of petroleum hydrocarbon impacts to vadose-zone soil. Soil collected from GP-3 had concentrations below the detection limit for all analytes except MTBE at 7 feet bgs which had a concentration above the method detection Limit (MDL) but below the ESL.

The soil samples were collected at depths of 6.5, 11, and 16 feet bgs from MW-6. The newly installed well was placed south of EW-1, which previously had the highest detected MTBE groundwater concentrations for the comingled plume. Soil samples were not detected at the 6.5 and 11 feet bgs intervals. Elevated concentrations of TPPH and MTBE were detected at 16 feet bgs but concentrations were below the ESLs.

Groundwater samples were collected from boring GP-3 and from monitoring well MW-6. Concentrations of BTEX and MTBE were detected in excess of the MCL in GP-3 and MTBE was detected at a concentration of 990 micrograms per liter at MW-6. Groundwater was encountered at approximately 20 feet bgs at GP-3 and MW-6.

706 Harrison Street Summary

Soil boring locations GP-5 through GP-7 were advanced and sampled to assess the effectiveness of past site remediation events including several over-excavations to remove impacted hydrocarbon soil and the installation of a SVE and AS well system to remediate the property. Data collected from the assessment work indicates that soil has limited impacts in the vadose-zone. Soil samples collected from soil borings GP-6 located southwest of MW-2 within

Appendix B

Union Oil of California
Station No. 0752/Yee/Gin Co-mingled
706/726/800 Harrison Street
Oakland, California

the former UST basin and GP-7 located in the southwestern corner along the fence line of the property, indicated that all analytes were not detected at concentrations in excess of the MDL. GP-5 located northeast of MW-4 and within the former UST basin, showed concentrations detected above MDLs for TPPH, ethylbenzene and MTBE at 20 feet bgs.

Downgradient Delineation

Groundwater samples were collected from boring GP-9 located from the 640 Harrison Street property. Groundwater samples collected from GP-9 had concentrations below the detection limit for all analytes. Groundwater was encountered at approximately 20 feet bgs.

Appendix B

Union Oil of California
Station No. 0752/Yee/Gin Co-mingled
706/726/800 Harrison Street
Oakland, California

References

- Aqua Science Engineers, Inc. 2007. "*Subsurface Utility Study, Area Well Study, and Work Plan for Additional Soil and Groundwater Assessment for 726 Harrison Street, Oakland, California.*" December 6.
- Conestoga-Rovers and Associates. 2007. "*Onsite Characterization Work Plan for 706 Harrison Street, Oakland, California.*" October 5.
- Gettler-Ryan, Inc. 2001. "*Site Conceptual Model for 800 Harrison Street, Oakland, California.*" April 23.
- Stantec Consulting Corporation (Stantec). 2009. "*Site Conceptual Model 800, 726, and 706 Harrison Street Comingled Plume Oakland.*" California, September 30, 2009.
- Stantec. 2011. "*Commingled Plume Assessment Work Plan, 800, 726, and 706 Harrison Street.*" Oakland, California. 2011.
- U.S. Geological Survey. 2000. USGS, R.W, Graymer, Geologic Map and Map Database of the Oakland Metropolitan Area, Alameda, Contra Costa, and San Francisco Counties, California.



Appendix C

Hydrocarbon Mass Remaining
Calculations

**Appendix C
Hydrocarbon Mass Remaining Calculations**

Union Oil of California

706/726/800 Harrison Street
Oakland, California

Isoconcentration Contour (µg/L)	Sample Date	EPA 8260B
		Average Concentration (µg/L)
TPH-g		
100 to 1,000	8/9/2012	342
1,000 to 10,000	8/9/2012	3,440
10,000 to 16,000	8/9/2012	13,000
Benzene		
1 to 10	8/9/2012	1.9
10 to 100	8/9/2012	46
100 to 1000	8/9/2012	807
1000 to 1400	8/9/2012	1,200
MTBE		
10 to 100	8/9/2012	27
100 to 1,000	8/9/2012	670
1,000 to 10,000	8/9/2012	5,400
10,000 to 16,000	8/9/2012	13,000
Explanations		
TPH-g	Total petroleum hydrocarbons as gasoline	
MTBE	Methyl tertiary butyl ether	
µg/L	Microgram per liter	
COC	Constituent of Concern	

Area ft ²	Thickness ft	Volume ft ³ *	Volume liters	Groundwater Mass kg	COC Mass per Interval kg
10,800	12	45,360	1,284,459	1,284,459	0.439
4,025	12	16,905	478,699	478,699	1.647
145	12	609	17,245	17,245	0.224
7,615	12	31,983	905,663	905,663	0.002
6,916	12	29,047	822,530	822,530	0.038
5,045	12	21,189	600,009	600,009	0.484
400	12	1,680	47,573	47,573	0.057
18,475	12	77,595	2,197,258	2,197,258	0.059
4,360	12	18,312	518,541	518,541	0.347
1,052	12	4,418	125,116	125,116	0.676
57	12	239	6,779	6,779	0.088

Groundwater Mass kg	COC Total Mass kg
Total	7,003,870
TPH-g	2.310
Benzene	0.581
MTBE	1.171
	COC Total Mass lbs
TPH-g	5.09
Benzene	1.28
MTBE	2.58

Explanations for Calculations:

Volume (ft³)= Area x Thickness x Porosity

Volume (liters)= Volume (ft³) x 28.317

Mass per Interval= Average TPH-g (µg/L) x Groundwater Mass (kg)

1 µg/L= 10⁻⁹ kg

1 kg= 2.204 lbs

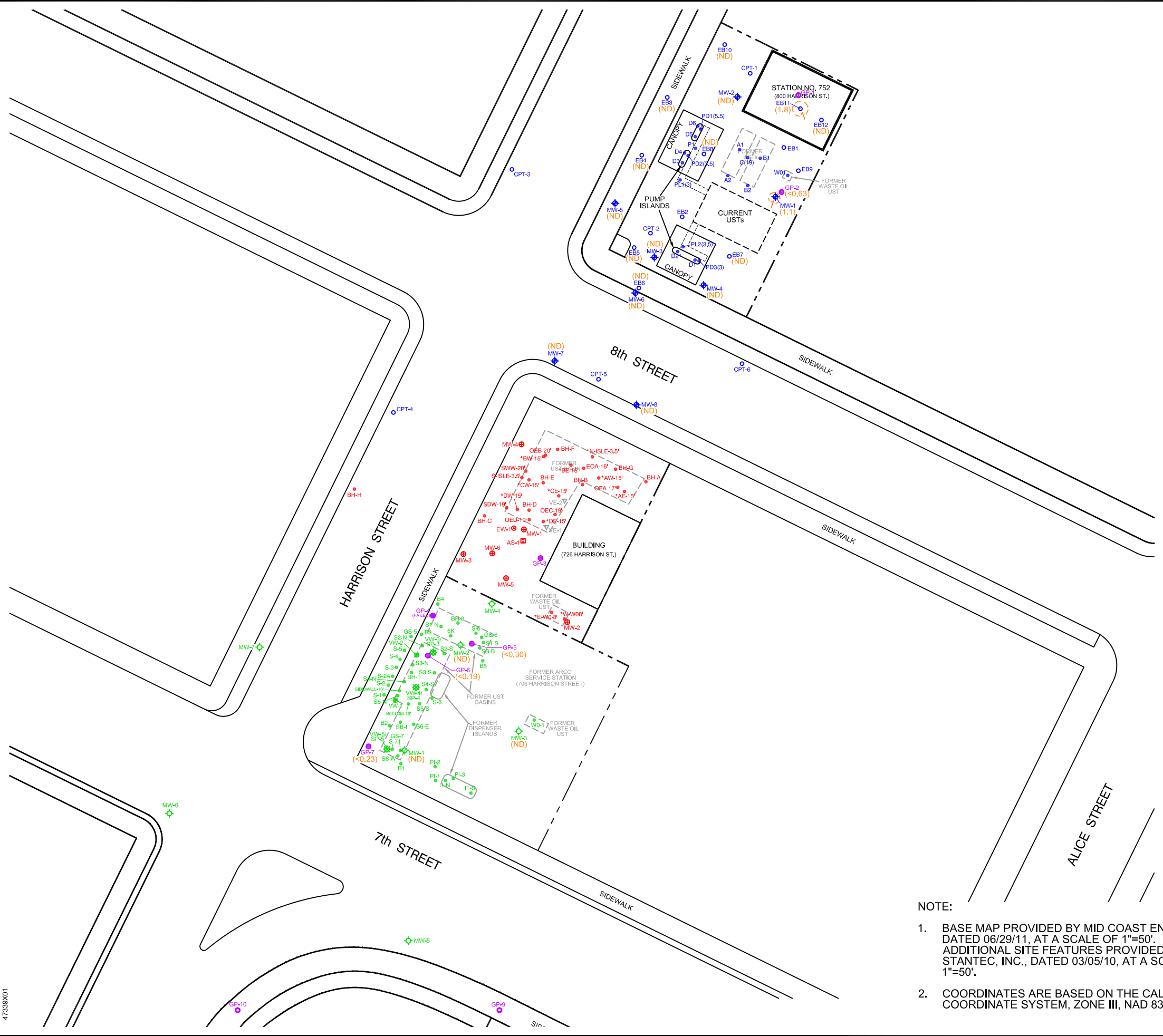
* assumes aquifer porosity is 35% (0.35)



Appendix D

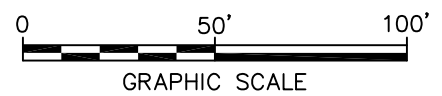
Soil Isopleth Contour Maps

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 XREFS: IMAGES: PROJECTNAME: 47339X01



LEGEND

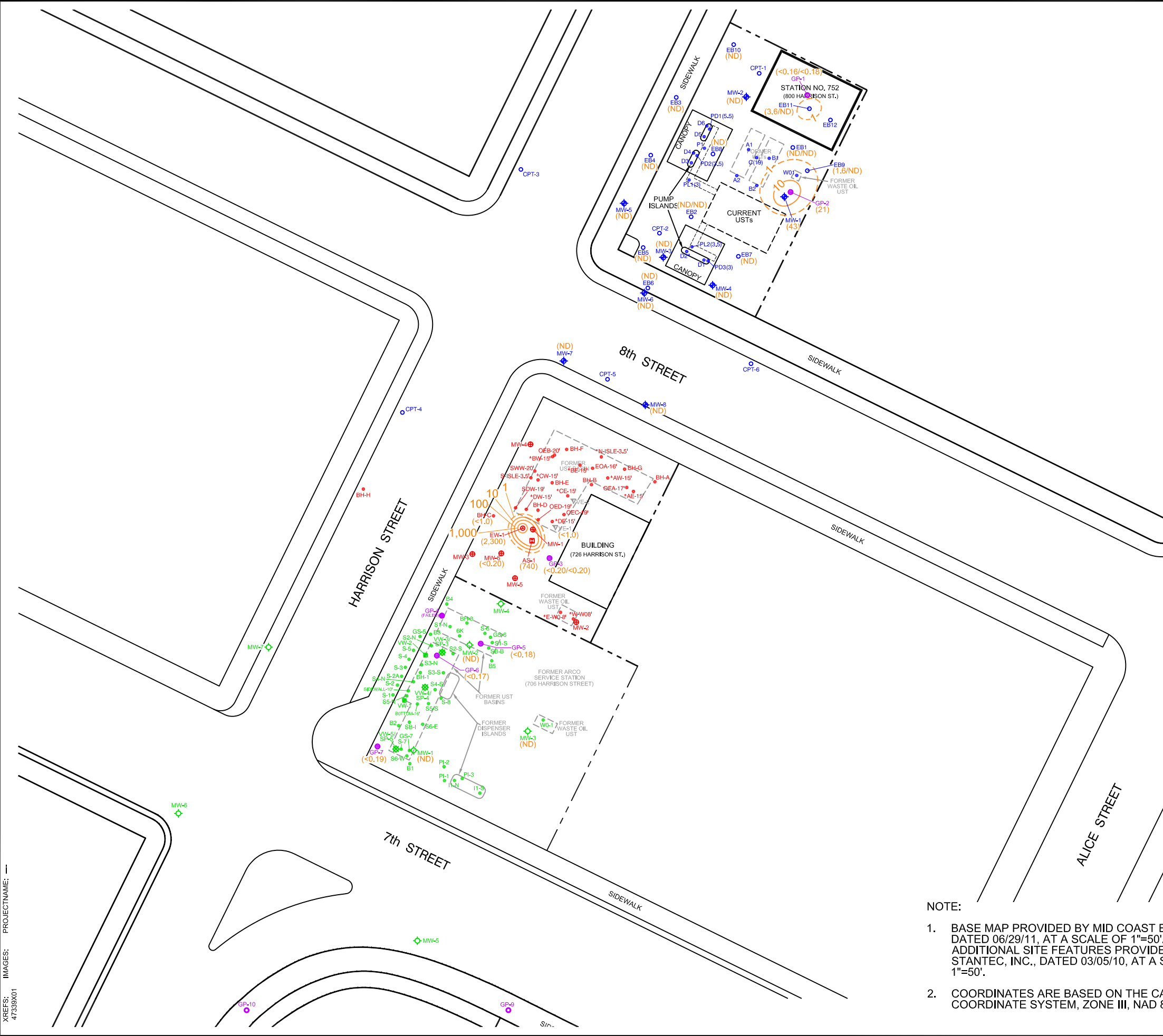
- PROPERTY BOUNDARY
- PRODUCT PIPING
- ◆ MW-1 GROUNDWATER MONITORING WELL (UNOCAL)
- MW-1 GROUNDWATER MONITORING WELL (YEE)
- ◆ MW-1 GROUNDWATER MONITORING WELL (GIN)
- B1 SOIL SAMPLE LOCATION (UNOCAL)
- EB1 EXPLORATORY BORING LOCATION (UNOCAL)
- AS-1 AIR SPARGE WELL (YEE)
- EW-1 EXTRACTION WELL (YEE)
- BHA SOIL SAMPLE LOCATION (YEE)
- ▽ VE-1 DESTROYED WELL (YEE)
- VW-1 SOIL VAPOR EXTRACTION WELL (GIN)
- VW-3/SP-3 SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
- B1 SOIL SAMPLE LOCATION (GIN)
- GP-2 GEOPROBE™ (JUNE 2011)
- GP-9 GEOPROBE™ (MARCH 2012)
- (1.1) TPH-G/TPPH CONCENTRATION (mg/kg)
- TPH-G/TPPH ISOPLETH CONTOUR (mg/kg; DASHED WHERE INFERRED)
- (ND) NON-DETECT
- < LESS THAN LABORATORY REPORTING LIMIT
- TPH-G TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
- TPPH TOTAL PURGEABLE PETROLEUM HYDROCARBONS
- mg/kg MILLIGRAMS PER KILOGRAM
- BGS BELOW GROUND SURFACE



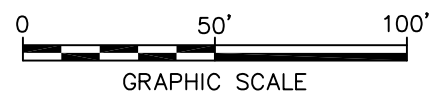
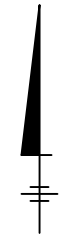
- NOTE:**
1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

UNION OIL OF CALIFORNIA STATION NO. 0752/YEE/GIN COMMINGLED 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA	
TPH-G/TPPH SOIL ISOPLETH CONTOUR MAP (0.0'-5.0' BGS)	
	FIGURE 13

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 XREFS: IMAGES: PROJECTNAME: 47339X01



- LEGEND**
- PROPERTY BOUNDARY
 - PRODUCT PIPING
 - MW-1 ◆ GROUNDWATER MONITORING WELL (UNOCAL)
 - MW-1 ● GROUNDWATER MONITORING WELL (YEE)
 - MW-1 ◇ GROUNDWATER MONITORING WELL (GIN)
 - B1 ● SOIL SAMPLE LOCATION (UNOCAL)
 - EB1 ● EXPLORATORY BORING LOCATION (UNOCAL)
 - AS-1 ■ AIR SPARGE WELL (YEE)
 - EW-1 ● EXTRACTION WELL (YEE)
 - BHA ● SOIL SAMPLE LOCATION (YEE)
 - VE-1 ▼ DESTROYED WELL (YEE)
 - VW-1 ■ SOIL VAPOR EXTRACTION WELL (GIN)
 - VW-3/SP-3 ■ SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
 - B1 ● SOIL SAMPLE LOCATION (GIN)
 - GP-2 ● GEOPROBE™ (JUNE 2011)
 - GP-9 ● GEOPROBE™ (MARCH 2012)
 - (21) TPH-G/TPPH CONCENTRATION (mg/kg)
 - <math><0.20</math> / <math><0.20</math> TPH-G/TPPH CONCENTRATIONS COLLECTED AT MULTIPLE DEPTHS WITHIN TARGET RANGE (mg/kg)
 - 1 --- TPH-G/TPPH ISOPLETH CONTOUR (mg/kg; DASHED WHERE INFERRED)
 - (ND) NON-DETECT
 - <math><0.20</math> LESS THAN LABORATORY REPORTING LIMIT
 - TPH-G TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
 - TPPH TOTAL PURGEABLE PETROLEUM HYDROCARBONS
 - mg/kg MILLIGRAMS PER KILOGRAM
 - BGS BELOW GROUND SURFACE



- NOTE:**
- BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 - COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

**TPH-G/TPPH SOIL ISOPLETH
 CONTOUR MAP
 (5.0'-10.0' BGS)**

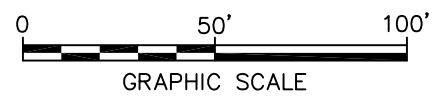
ARCADIS

FIGURE
14

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 XREFS: IMAGES: PROJECTNAME: 47339X01



- LEGEND**
- PROPERTY BOUNDARY
 - PRODUCT PIPING
 - MW-1 (blue diamond) GROUNDWATER MONITORING WELL (UNOCAL)
 - MW-1 (red circle) GROUNDWATER MONITORING WELL (YEE)
 - MW-1 (green diamond) GROUNDWATER MONITORING WELL (GIN)
 - B1 (blue circle) SOIL SAMPLE LOCATION (UNOCAL)
 - EB1 (blue circle) EXPLORATORY BORING LOCATION (UNOCAL)
 - AS-1 (red square) AIR SPARGE WELL (YEE)
 - EW-1 (red circle) EXTRACTION WELL (YEE)
 - BHA (red circle) SOIL SAMPLE LOCATION (YEE)
 - VE-1 (green inverted triangle) DESTROYED WELL (YEE)
 - VW-1 (green square) SOIL VAPOR EXTRACTION WELL (GIN)
 - VW-3/SP-3 (green square) SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
 - B1 (green circle) SOIL SAMPLE LOCATION (GIN)
 - GP-2 (purple circle) GEOPROBE™ (JUNE 2011)
 - GP-9 (purple circle) GEOPROBE™ (MARCH 2012)
 - (250) (orange circle) TPH-G/TPPH CONCENTRATION (mg/kg)
 - 1 (orange dashed line) TPH-G/TPPH ISOPLETH CONTOUR (mg/kg; DASHED WHERE INFERRED)
 - (ND) (orange circle) NON-DETECT
 - < (orange circle) LESS THAN LABORATORY REPORTING LIMIT
 - TPH-G TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
 - TPPH TOTAL PURGEABLE PETROLEUM HYDROCARBONS
 - mg/kg MILLIGRAMS PER KILOGRAM
 - BGS BELOW GROUND SURFACE



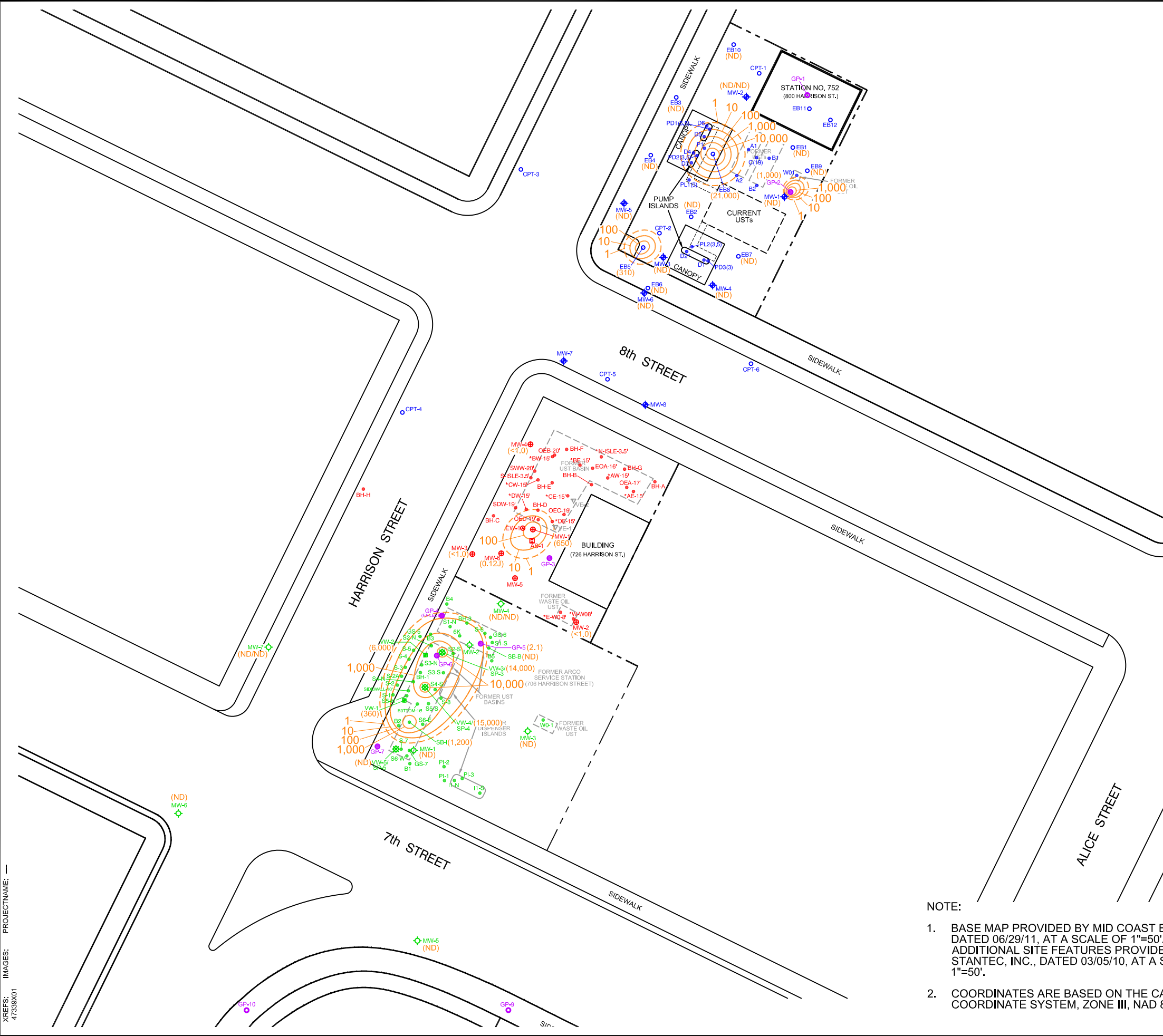
- NOTE:**
- BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 - COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

**TPH-G/TPPH SOIL ISOPLETH
 CONTOUR MAP
 (10.0'-15.0' BGS)**

ARCADIS

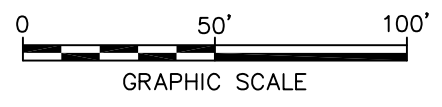
FIGURE
15



LEGEND

- PROPERTY BOUNDARY
- PRODUCT PIPING
- MW-1 ◆ GROUNDWATER MONITORING WELL (UNOCAL)
- MW-1 ⊕ GROUNDWATER MONITORING WELL (YEE)
- MW-1 ⊕ GROUNDWATER MONITORING WELL (GIN)
- B1 • SOIL SAMPLE LOCATION (UNOCAL)
- EB1 ⊕ EXPLORATORY BORING LOCATION (UNOCAL)
- AS-1 ⊕ AIR SPARGE WELL (YEE)
- EW-1 ⊕ EXTRACTION WELL (YEE)
- BHA • SOIL SAMPLE LOCATION (YEE)
- VE-1 ▽ DESTROYED WELL (YEE)
- VW-1 ⊕ SOIL VAPOR EXTRACTION WELL (GIN)
- VW-3/SP-3 ⊕ SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
- B1 • SOIL SAMPLE LOCATION (GIN)
- GP-2 ● GEOPROBE™ (JUNE 2011)
- GP-9 ● GEOPROBE™ (MARCH 2012)
- (310) TPH-G/TPPH CONCENTRATION (mg/kg)
- (ND/ND) TPH-G/TPPH CONCENTRATIONS COLLECTED AT MULTIPLE DEPTHS WITHIN TARGET RANGE (mg/kg)
- 1--- TPH-G/TPPH ISOPLETH CONTOUR (mg/kg; DASHED WHERE INFERRED)
- (ND) NON-DETECT
- < LESS THAN LABORATORY REPORTING LIMIT
- J ESTIMATED VALUE; LESS THAN LABORATORY REPORTING LIMIT AND GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT

TPH-G TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
 TPPH TOTAL PURGEABLE PETROLEUM HYDROCARBONS
 mg/kg MILLIGRAMS PER KILOGRAM
 BGS BELOW GROUND SURFACE



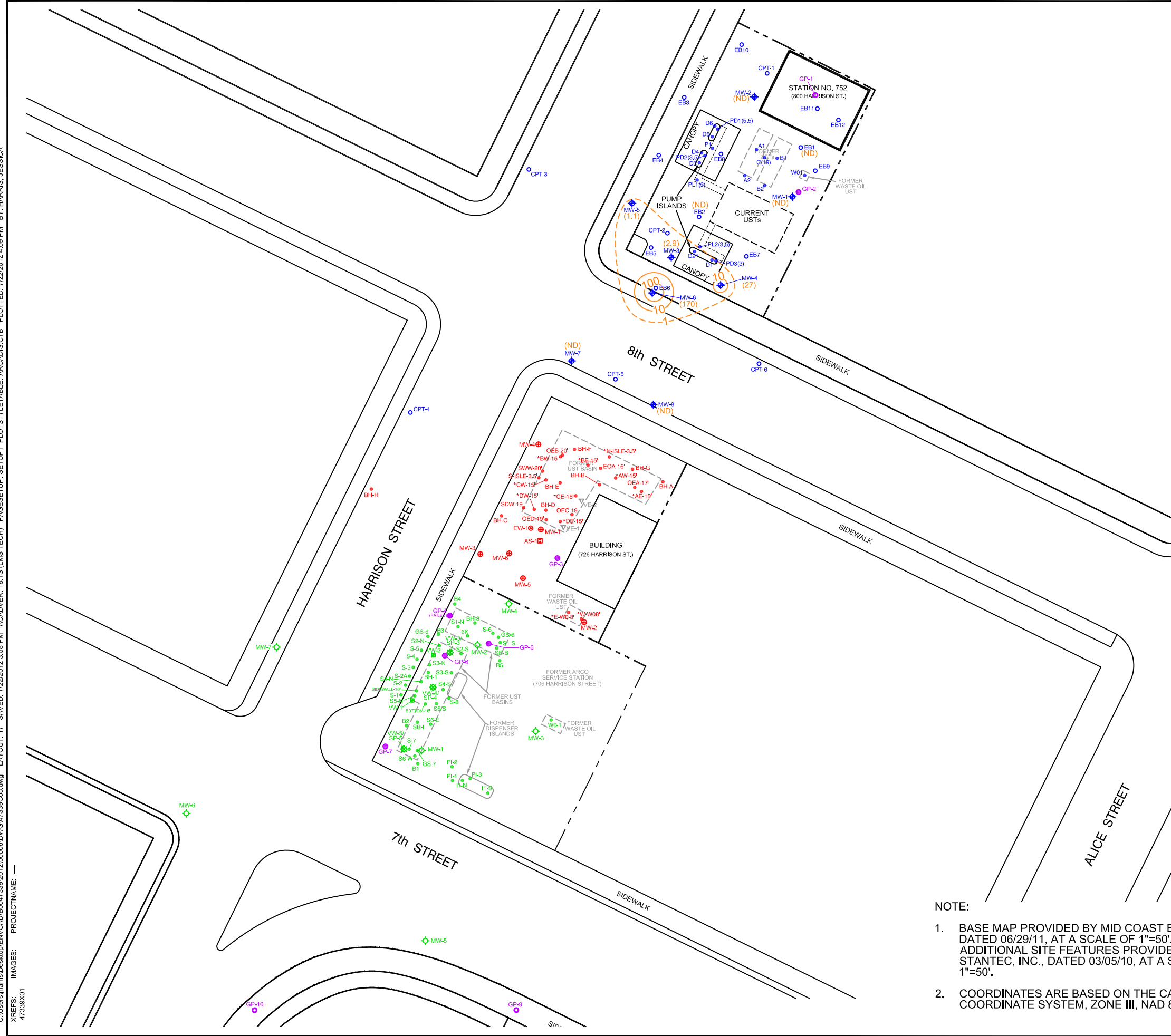
- NOTE:
1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

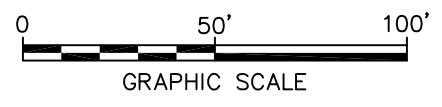
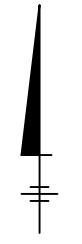
TPH-G/TPPH SOIL ISOPLETH CONTOUR MAP (15.0'-20.0' BGS)

FIGURE 16

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 XREFS: IMAGES: PROJECTNAME: 47339X01



- LEGEND**
- PROPERTY BOUNDARY
 - PRODUCT PIPING
 - MW-1 (blue diamond) GROUNDWATER MONITORING WELL (UNOCAL)
 - MW-1 (red circle) GROUNDWATER MONITORING WELL (YEE)
 - MW-1 (green diamond) GROUNDWATER MONITORING WELL (GIN)
 - B1 (blue circle) SOIL SAMPLE LOCATION (UNOCAL)
 - EB1 (blue circle) EXPLORATORY BORING LOCATION (UNOCAL)
 - AS-1 (red square) AIR SPARGE WELL (YEE)
 - EW-1 (red circle) EXTRACTION WELL (YEE)
 - BHA (red circle) SOIL SAMPLE LOCATION (YEE)
 - VE-1 (green inverted triangle) DESTROYED WELL (YEE)
 - VW-1 (green square) SOIL VAPOR EXTRACTION WELL (GIN)
 - VW-3/SP-3 (green square) SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
 - B1 (green circle) SOIL SAMPLE LOCATION (GIN)
 - GP-2 (purple circle) GEOPROBE™ (JUNE 2011)
 - GP-9 (purple circle) GEOPROBE™ (MARCH 2012)
 - (27) (orange circle) TPH-G/TPPH CONCENTRATION (mg/kg)
 - 1- (dashed orange line) TPH-G/TPPH ISOPLETH CONTOUR (mg/kg; DASHED WHERE INFERRED)
 - (ND) (orange circle) NON-DETECT
 - TPH-G TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
 - TPPH TOTAL PURGEABLE PETROLEUM HYDROCARBONS
 - mg/kg MILLIGRAMS PER KILOGRAM
 - BGS BELOW GROUND SURFACE



- NOTE:**
- BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 - COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

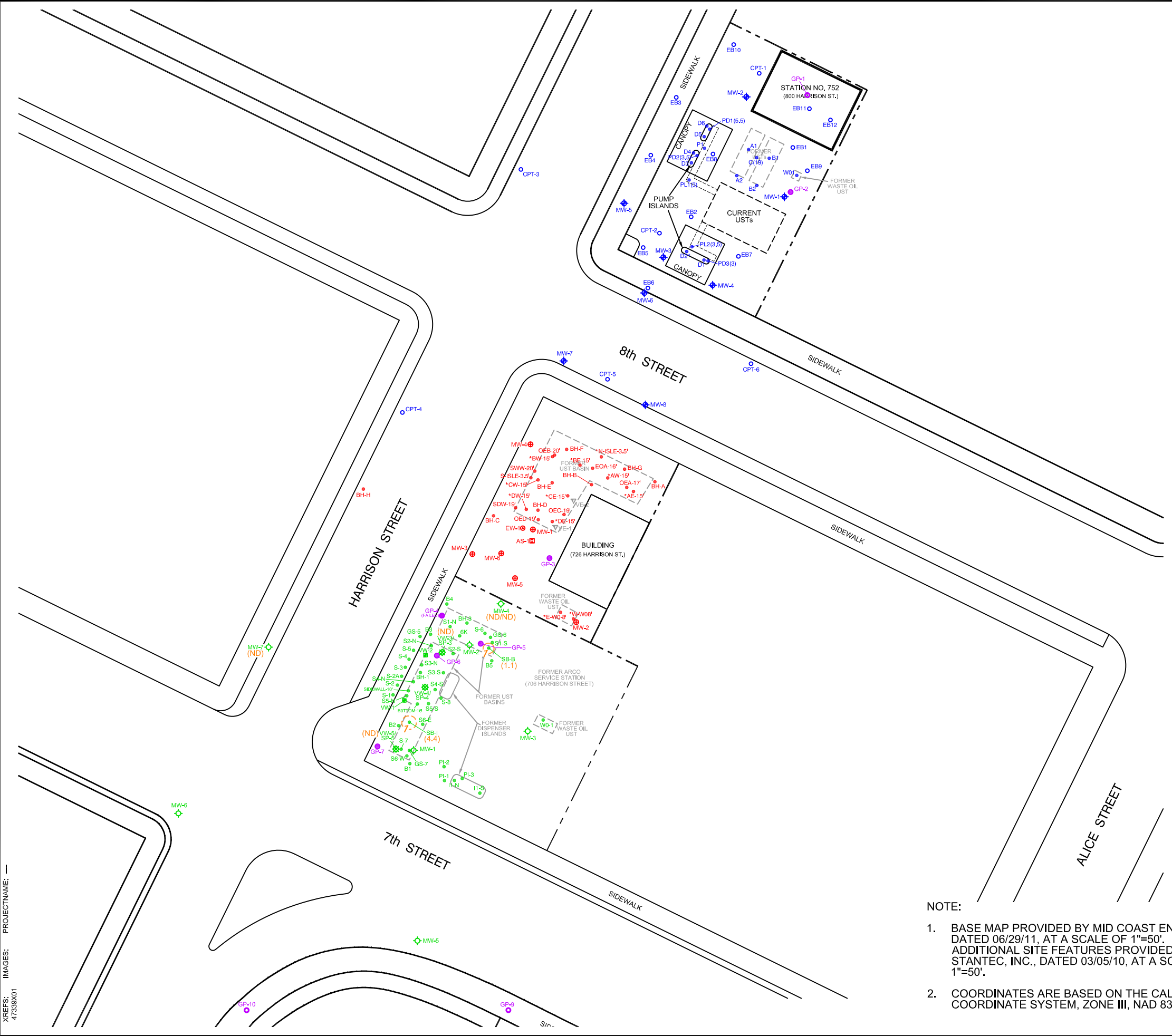
UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

**TPH-G/TPPH SOIL ISOPLETH
 CONTOUR MAP
 (20.0'-25.0' BGS)**

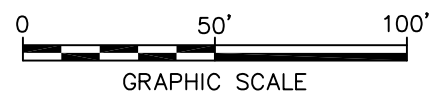
ARCADIS

FIGURE
17

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 XREFS: IMAGES: PROJECTNAME: 47339X01



- LEGEND**
- PROPERTY BOUNDARY
 - - - - PRODUCT PIPING
 - MW-1 (blue diamond) GROUNDWATER MONITORING WELL (UNOCAL)
 - MW-1 (red circle) GROUNDWATER MONITORING WELL (YEE)
 - MW-1 (green diamond) GROUNDWATER MONITORING WELL (GIN)
 - B1 (blue circle) SOIL SAMPLE LOCATION (UNOCAL)
 - EB1 (blue circle) EXPLORATORY BORING LOCATION (UNOCAL)
 - AS-1 (red square) AIR SPARGE WELL (YEE)
 - EW-1 (red circle) EXTRACTION WELL (YEE)
 - BHA (red circle) SOIL SAMPLE LOCATION (YEE)
 - VE-1 (black inverted triangle) DESTROYED WELL (YEE)
 - VW-1 (green square) SOIL VAPOR EXTRACTION WELL (GIN)
 - VW-3/SP-3 (green square) SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
 - B1 (green circle) SOIL SAMPLE LOCATION (GIN)
 - GP-2 (purple circle) GEOPROBE™ (JUNE 2011)
 - GP-9 (purple circle) GEOPROBE™ (MARCH 2012)
 - (4.4) TPH-G/TPPH CONCENTRATION (mg/kg)
 - (ND/ND) TPH-G/TPPH CONCENTRATIONS COLLECTED AT MULTIPLE DEPTHS WITHIN TARGET RANGE (mg/kg)
 - 1- - - - TPH-G/TPPH ISOPLETH CONTOUR (mg/kg; DASHED WHERE INFERRED)
 - (ND) NON-DETECT
 - TPH-G TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
 - TPPH TOTAL PURGEABLE PETROLEUM HYDROCARBONS
 - mg/kg MILLIGRAMS PER KILOGRAM
 - BGS BELOW GROUND SURFACE



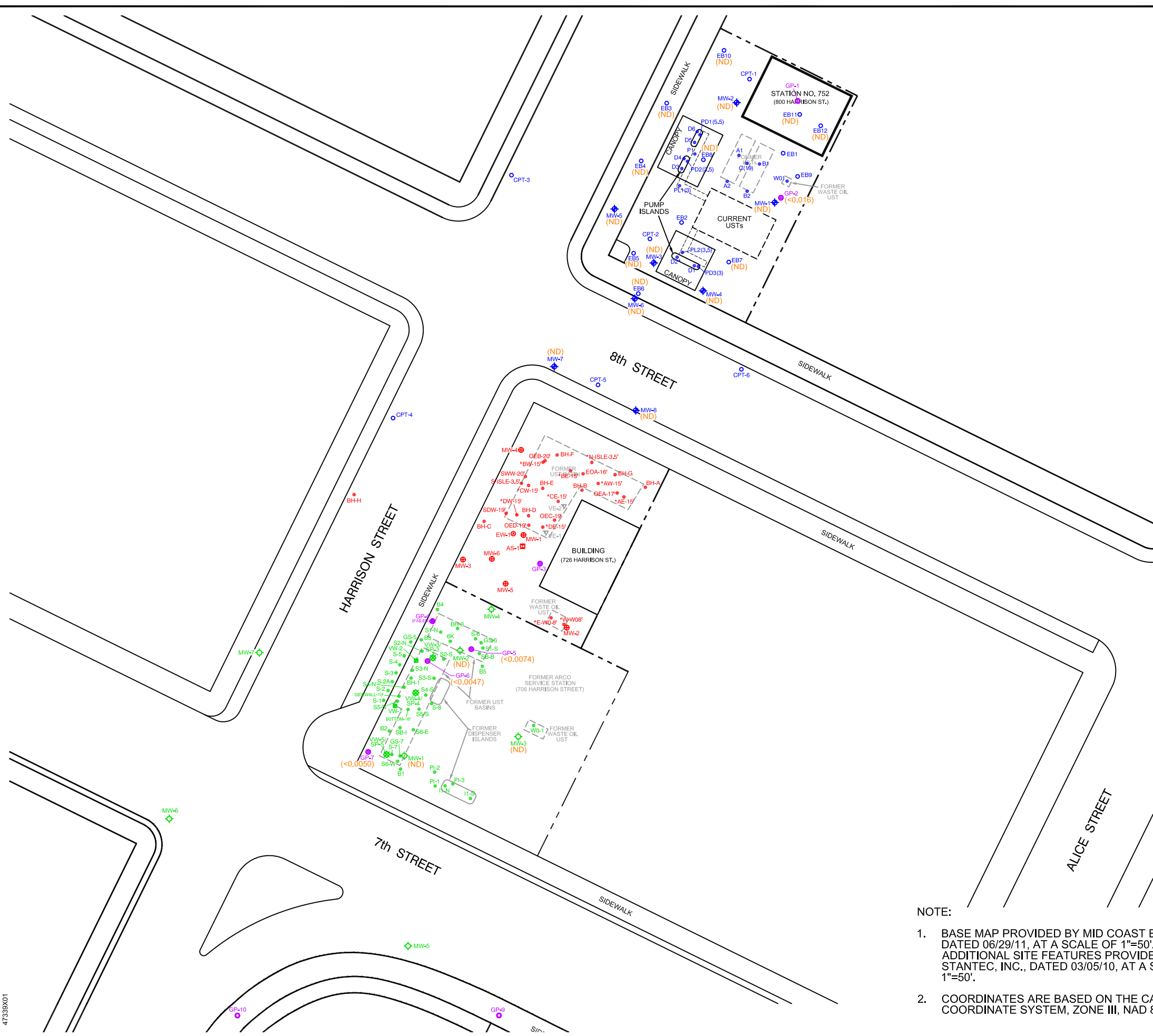
- NOTE:**
- BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 - COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

**TPH-G/TPPH SOIL ISOPLETH
 CONTOUR MAP
 (25.0'-30.0' BGS)**

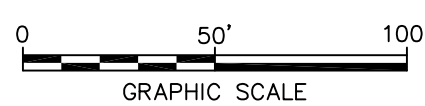
ARCADIS

FIGURE
18



LEGEND

- PROPERTY BOUNDARY
- - - - PRODUCT PIPING
- MW-1 (blue diamond) GROUNDWATER MONITORING WELL (UNOCAL)
- MW-1 (red circle) GROUNDWATER MONITORING WELL (YEE)
- MW-1 (green diamond) GROUNDWATER MONITORING WELL (GIN)
- B1 (blue circle) SOIL SAMPLE LOCATION (UNOCAL)
- EB1 (blue circle) EXPLORATORY BORING LOCATION (UNOCAL)
- AS-1 (red square) AIR SPARGE WELL (YEE)
- EW-1 (red circle) EXTRACTION WELL (YEE)
- BHA (red circle) SOIL SAMPLE LOCATION (YEE)
- VE-1 (green inverted triangle) DESTROYED WELL (YEE)
- VW-1 (green square) SOIL VAPOR EXTRACTION WELL (GIN)
- VW-3/SP-3 (green square with cross) SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
- B1 (green circle) SOIL SAMPLE LOCATION (GIN)
- GP-2 (purple circle) GEOPROBE™ (JUNE 2011)
- GP-9 (purple circle) GEOPROBE™ (MARCH 2012)
- <0.016 (orange) BENZENE CONCENTRATION (mg/kg)
- (ND) NON-DETECT
- < LESS THAN LABORATORY REPORTING LIMIT
- mg/kg MILLIGRAMS PER KILOGRAM
- BGS BELOW GROUND SURFACE



- NOTE:**
- BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 - COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

**BENZENE SOIL ISOPLETH
 CONTOUR MAP
 (0.0'-5.0' BGS)**

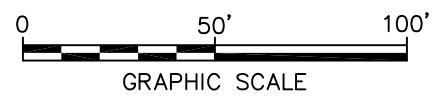
ARCADIS

FIGURE
19

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
 C:\Users\jharris\Desktop\ENVCAD\B0047339\2012100006\DWG\47339C08.dwg LAYOUT: 20 SAVED: 7/22/2012 4:42 PM ACADVER: 18.1 S (LMS TECH) PAGES: 20 PLOTTED: 7/30/2012 8:18 AM BY: HARRIS, JESSICA
 XREFS: IMAGES: PROJECTNAME: 47339X01



- LEGEND**
- PROPERTY BOUNDARY
 - PRODUCT PIPING
 - MW-1 (blue diamond) GROUNDWATER MONITORING WELL (UNOCAL)
 - MW-1 (red circle) GROUNDWATER MONITORING WELL (YEE)
 - MW-1 (green diamond) GROUNDWATER MONITORING WELL (GIN)
 - B1 (blue circle) SOIL SAMPLE LOCATION (UNOCAL)
 - EB1 (blue circle) EXPLORATORY BORING LOCATION (UNOCAL)
 - AS-1 (red square) AIR SPARGE WELL (YEE)
 - EW-1 (red circle) EXTRACTION WELL (YEE)
 - BHA (red circle) SOIL SAMPLE LOCATION (YEE)
 - VE-1 (red inverted triangle) DESTROYED WELL (YEE)
 - VW-1 (green square) SOIL VAPOR EXTRACTION WELL (GIN)
 - VW-3/SP-3 (green square) SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
 - B1 (green circle) SOIL SAMPLE LOCATION (GIN)
 - GP-2 (purple circle) GEOPROBE™ (JUNE 2011)
 - GP-9 (purple circle) GEOPROBE™ (MARCH 2012)
 - (0.33) BENZENE CONCENTRATION (mg/kg)
 - (<0.0050/<0.0050) BENZENE CONCENTRATIONS COLLECTED AT MULTIPLE DEPTHS WITHIN TARGET RANGE (mg/kg)
 - (ND) NON-DETECT
 - < LESS THAN LABORATORY REPORTING LIMIT
 - mg/kg MILLIGRAMS PER KILOGRAM
 - BGS BELOW GROUND SURFACE



- NOTE:**
- BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 - COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

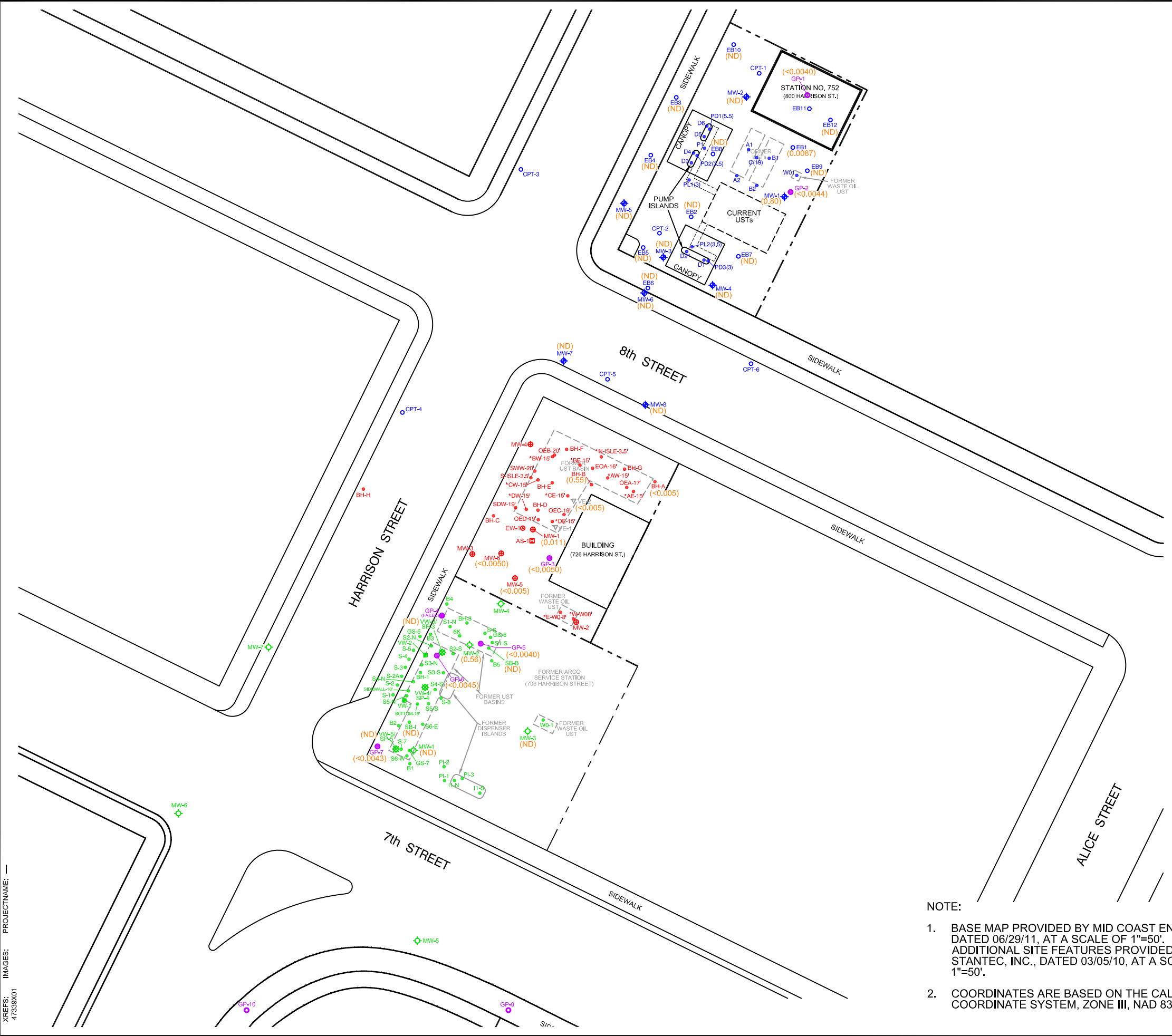
UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

**BENZENE SOIL ISOPLETH
 CONTOUR MAP
 (5.0'-10.0' BGS)**

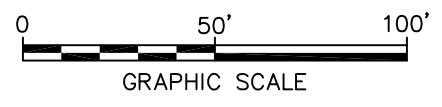
ARCADIS

FIGURE
20

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
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 XREFS: IMAGES: PROJECTNAME: 47339X01



- LEGEND**
- PROPERTY BOUNDARY
 - PRODUCT PIPING
 - MW-1 ◆ GROUNDWATER MONITORING WELL (UNOCAL)
 - MW-1 ● GROUNDWATER MONITORING WELL (YEE)
 - MW-1 ◆ GROUNDWATER MONITORING WELL (GIN)
 - B1 ● SOIL SAMPLE LOCATION (UNOCAL)
 - EB1 ● EXPLORATORY BORING LOCATION (UNOCAL)
 - AS-1 ■ AIR SPARGE WELL (YEE)
 - EW-1 ● EXTRACTION WELL (YEE)
 - BHA ● SOIL SAMPLE LOCATION (YEE)
 - VE-1 ▼ DESTROYED WELL (YEE)
 - VW-1 ■ SOIL VAPOR EXTRACTION WELL (GIN)
 - VW-3/SP-3 ■ SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
 - B1 ● SOIL SAMPLE LOCATION (GIN)
 - GP-2 ● GEOPROBE™ (JUNE 2011)
 - GP-9 ● GEOPROBE™ (MARCH 2012)
 - (0.011) BENZENE CONCENTRATION (mg/kg)
 - (ND) NON-DETECT
 - < LESS THAN LABORATORY REPORTING LIMIT
 - mg/kg MILLIGRAMS PER KILOGRAM
 - BGS BELOW GROUND SURFACE



- NOTE:**
- BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 - COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

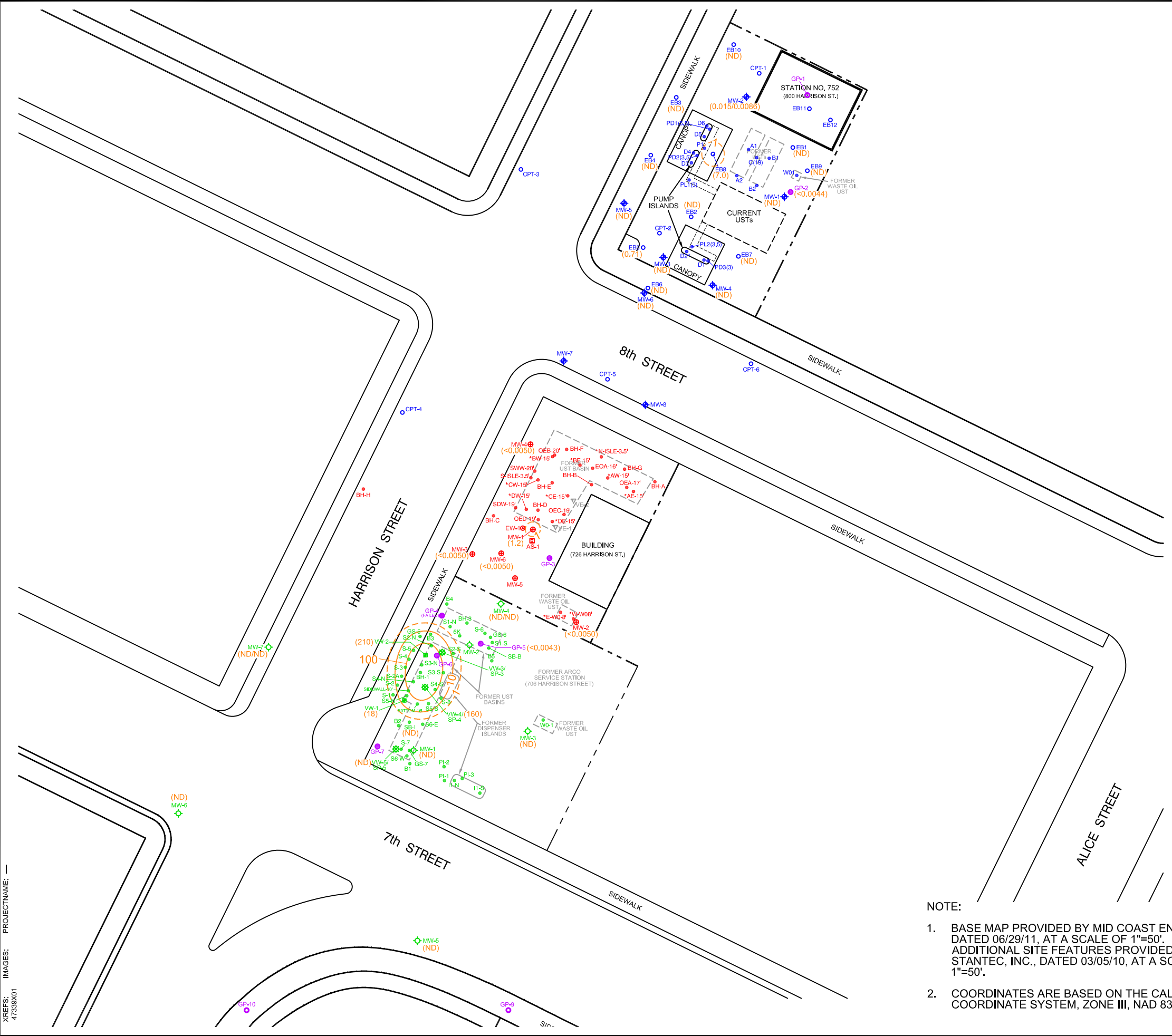
UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

**BENZENE SOIL ISOPLETH
 CONTOUR MAP
 (10.0'-15.0' BGS)**

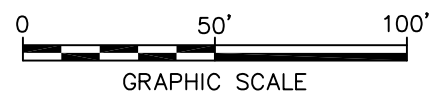
ARCADIS

FIGURE
21

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
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 XREFS: IMAGES: PROJECTNAME: 47339X01



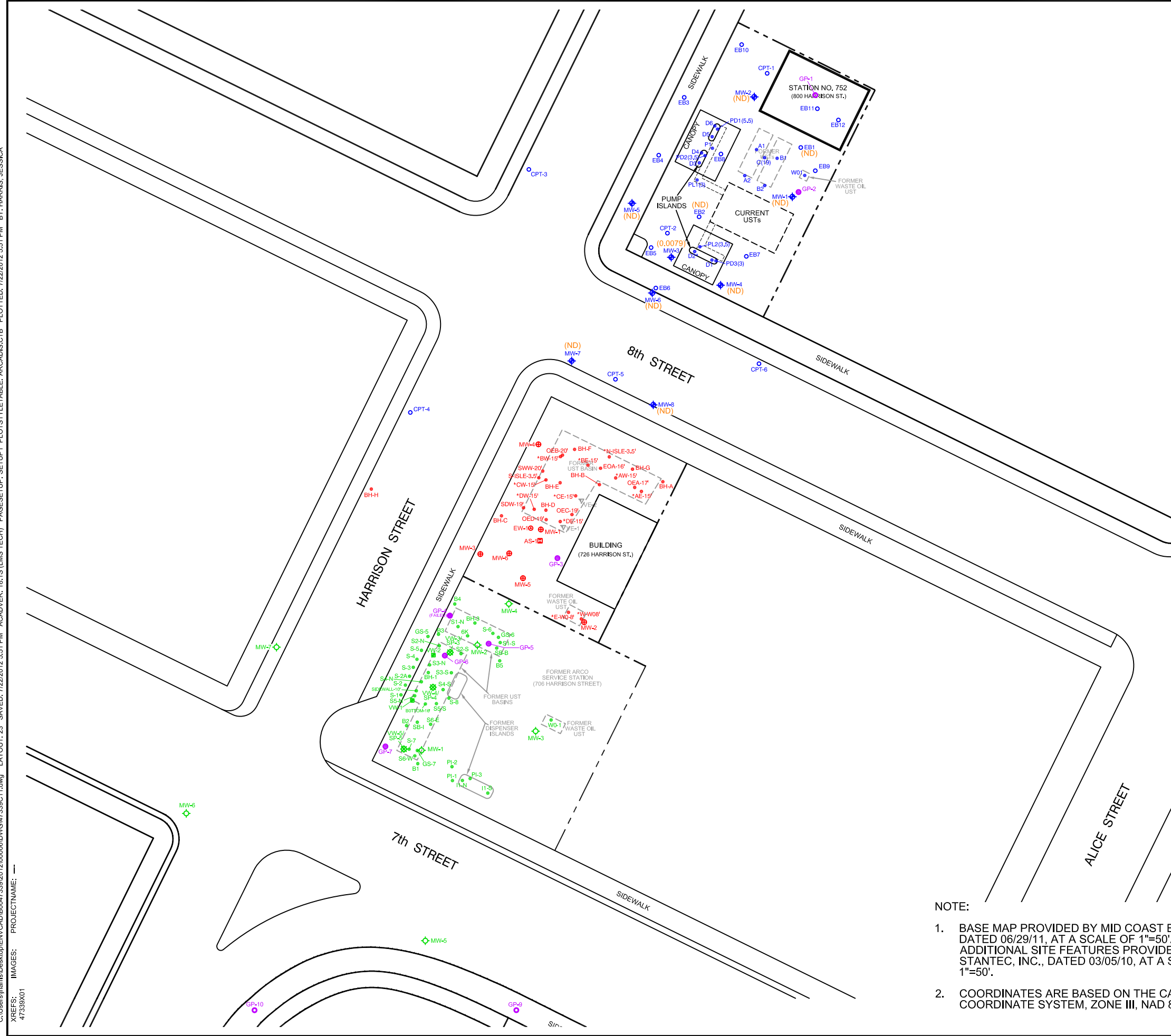
- LEGEND**
- PROPERTY BOUNDARY
 - PRODUCT PIPING
 - MW-1 (blue diamond) GROUNDWATER MONITORING WELL (UNOCAL)
 - MW-1 (red circle) GROUNDWATER MONITORING WELL (YEE)
 - MW-1 (green diamond) GROUNDWATER MONITORING WELL (GIN)
 - B1 (blue circle) SOIL SAMPLE LOCATION (UNOCAL)
 - EB1 (blue circle) EXPLORATORY BORING LOCATION (UNOCAL)
 - AS-1 (red square) AIR SPARGE WELL (YEE)
 - EW-1 (red circle) EXTRACTION WELL (YEE)
 - BHA (red circle) SOIL SAMPLE LOCATION (YEE)
 - VE-1 (black inverted triangle) DESTROYED WELL (YEE)
 - VW-1 (green square) SOIL VAPOR EXTRACTION WELL (GIN)
 - VW-3/SP-3 (green square) SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
 - B1 (green circle) SOIL SAMPLE LOCATION (GIN)
 - GP-2 (purple circle) GEOPROBE™ (JUNE 2011)
 - GP-9 (purple circle) GEOPROBE™ (MARCH 2012)
 - (18) BENZENE CONCENTRATION (mg/kg)
 - (0.015/0.0086) BENZENE CONCENTRATIONS COLLECTED AT MULTIPLE DEPTHS WITHIN TARGET RANGE (mg/kg)
 - 1- (dashed orange line) BENZENE ISOPLETH CONTOUR (mg/kg; DASHED WHERE INFERRED)
 - (ND) NON-DETECT
 - < LESS THAN LABORATORY REPORTING LIMIT
 - mg/kg MILLIGRAMS PER KILOGRAM
 - BGS BELOW GROUND SURFACE



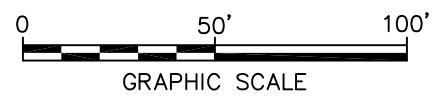
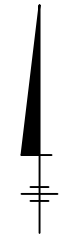
- NOTE:**
- BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 - COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

UNION OIL OF CALIFORNIA STATION NO. 0752/YEE/GIN COMMINGLED 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA	
BENZENE SOIL ISOPLETH CONTOUR MAP (15.0'-20.0' BGS)	
	FIGURE 22

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
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 XREFS: IMAGES: PROJECTNAME: 47339X01



- LEGEND**
- PROPERTY BOUNDARY
 - PRODUCT PIPING
 - MW-1 (blue diamond) GROUNDWATER MONITORING WELL (UNOCAL)
 - MW-1 (red circle) GROUNDWATER MONITORING WELL (YEE)
 - MW-1 (green diamond) GROUNDWATER MONITORING WELL (GIN)
 - B1 (blue circle) SOIL SAMPLE LOCATION (UNOCAL)
 - EB1 (blue circle) EXPLORATORY BORING LOCATION (UNOCAL)
 - AS-1 (red square) AIR SPARGE WELL (YEE)
 - EW-1 (red circle) EXTRACTION WELL (YEE)
 - BHA (red circle) SOIL SAMPLE LOCATION (YEE)
 - VE-1 (red inverted triangle) DESTROYED WELL (YEE)
 - VW-1 (green square) SOIL VAPOR EXTRACTION WELL (GIN)
 - VW-3/SP-3 (green square) SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
 - B1 (green circle) SOIL SAMPLE LOCATION (GIN)
 - GP-2 (purple circle) GEOPROBE™ (JUNE 2011)
 - GP-9 (purple circle) GEOPROBE™ (MARCH 2012)
 - (0.0079) BENZENE CONCENTRATION (mg/kg)
 - (ND) NON-DETECT
 - mg/kg MILLIGRAMS PER KILOGRAM
 - BGS BELOW GROUND SURFACE



- NOTE:**
- BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 - COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

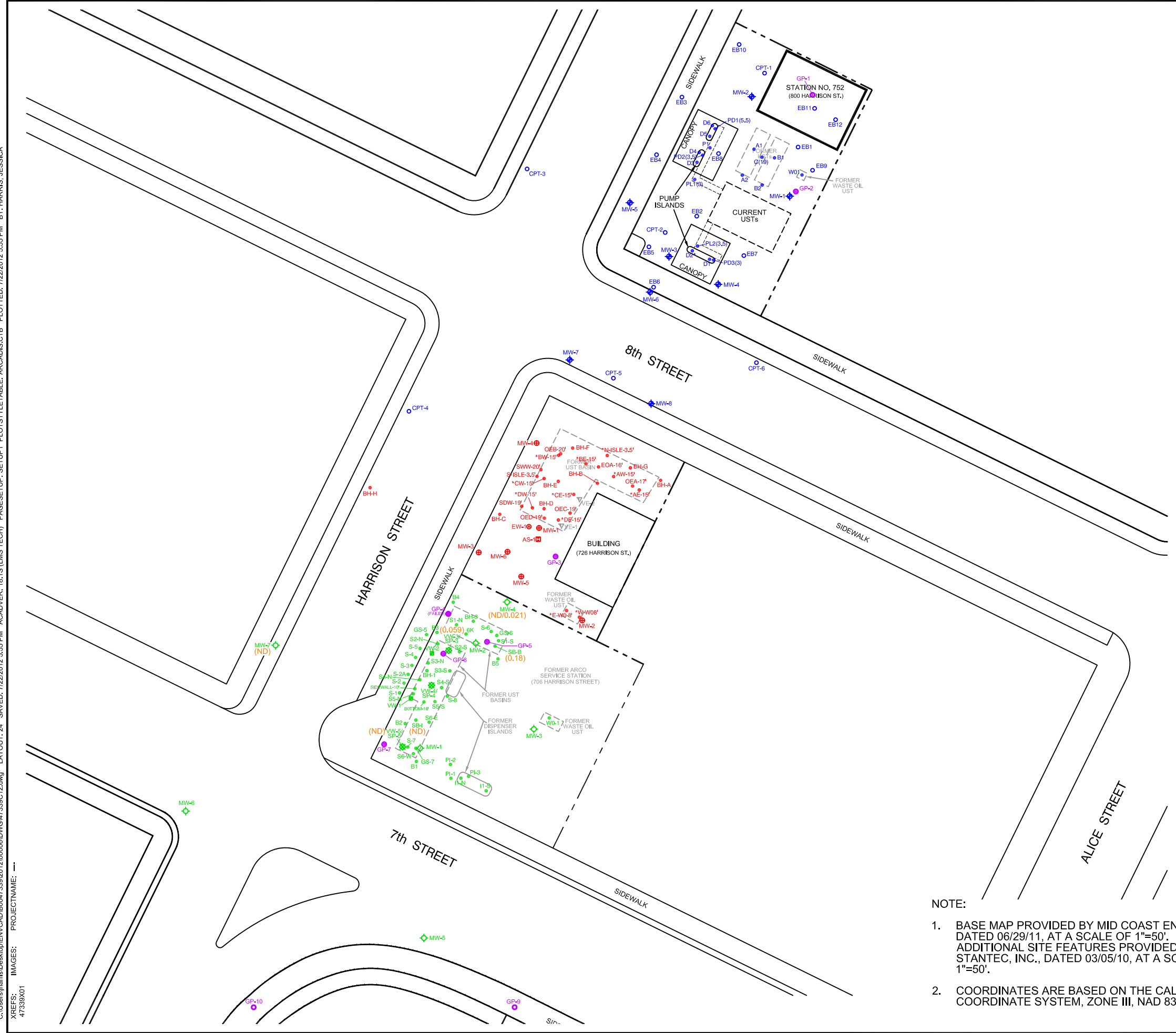
UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

**BENZENE SOIL ISOPLETH
 CONTOUR MAP
 (20.0'-25.0' BGS)**

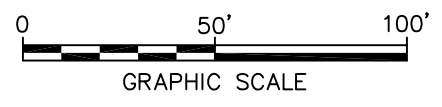
ARCADIS

FIGURE
23

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
 C:\Users\jharris\Desktop\ENVCAD\B0047339\2012\1000006\DWG\47339C12.dwg LAYOUT: 24 SAVED: 7/22/2012 5:55 PM ACADVER: 18.1 S (LMS TECH) PAGESETUP: SETUP1 PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 7/22/2012 5:55 PM BY: HARRIS, JESSICA
 XREFS: IMAGES: PROJECTNAME: 47339X01



- LEGEND**
- PROPERTY BOUNDARY
 - PRODUCT PIPING
 - MW-1 GROUNDWATER MONITORING WELL (UNOCAL)
 - MW-1 GROUNDWATER MONITORING WELL (YEE)
 - MW-1 GROUNDWATER MONITORING WELL (GIN)
 - B1 SOIL SAMPLE LOCATION (UNOCAL)
 - EB1 EXPLORATORY BORING LOCATION (UNOCAL)
 - AS-1 AIR SPARGE WELL (YEE)
 - EW-1 EXTRACTION WELL (YEE)
 - BHA SOIL SAMPLE LOCATION (YEE)
 - VE-1 DESTROYED WELL (YEE)
 - VW-1 SOIL VAPOR EXTRACTION WELL (GIN)
 - VW-3/SP-3 SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
 - B1 SOIL SAMPLE LOCATION (GIN)
 - GP-2 GEOPROBE™ (JUNE 2011)
 - GP-9 GEOPROBE™ (MARCH 2012)
 - (0.18) BENZENE CONCENTRATION (mg/kg)
 - (ND/0.021) BENZENE CONCENTRATIONS COLLECTED AT MULTIPLE DEPTHS WITHIN TARGET RANGE (mg/kg)
 - (ND) NON-DETECT
 - mg/kg MILLIGRAMS PER KILOGRAM
 - BGS BELOW GROUND SURFACE



- NOTE:**
1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

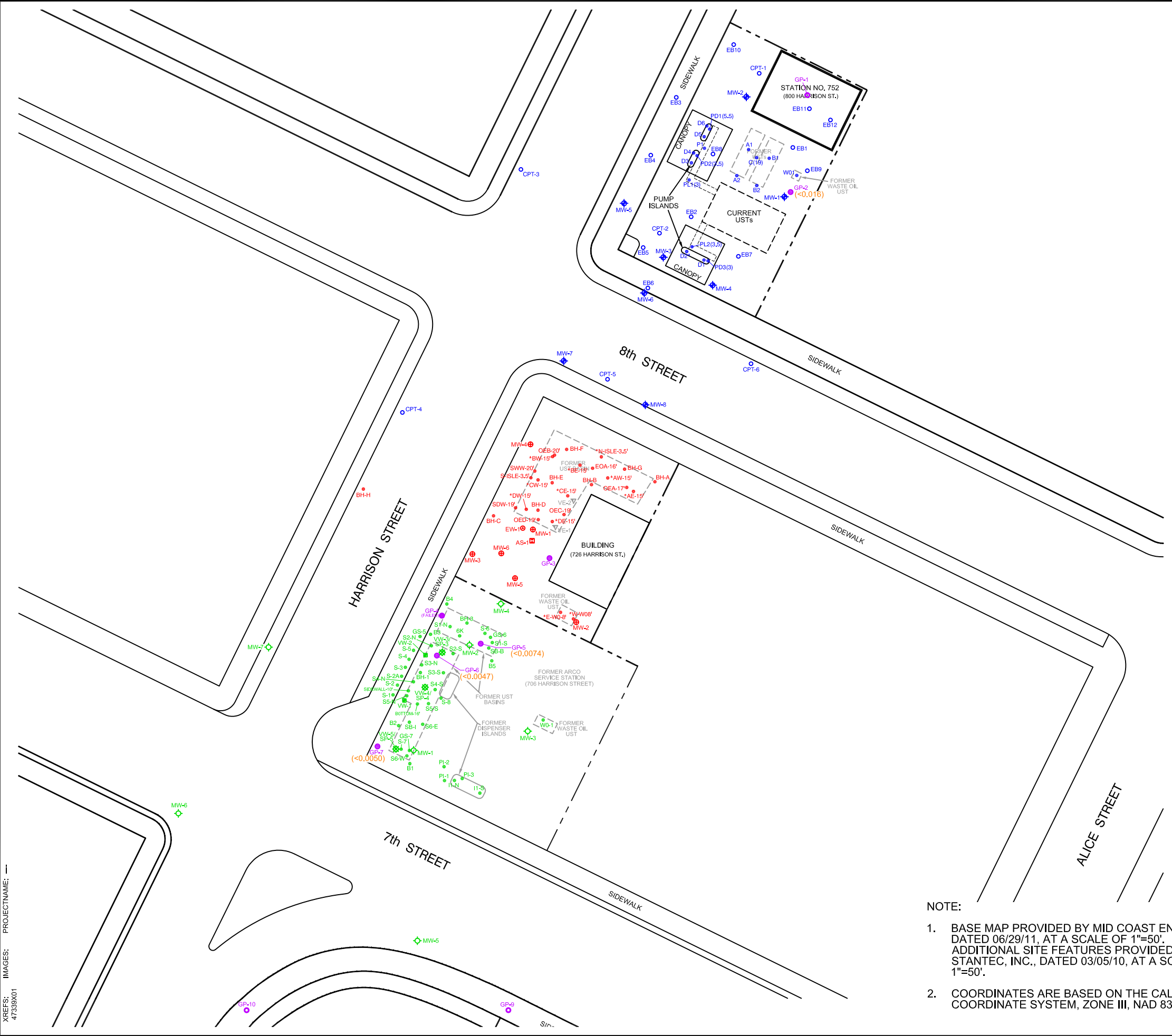
UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

**BENZENE SOIL ISOPLETH
 CONTOUR MAP
 (25.0'-30.0' BGS)**

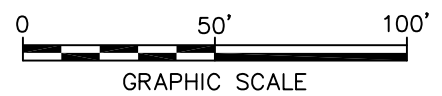
ARCADIS

FIGURE
24

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
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 XREFS: IMAGES: PROJECTNAME: 47339X01



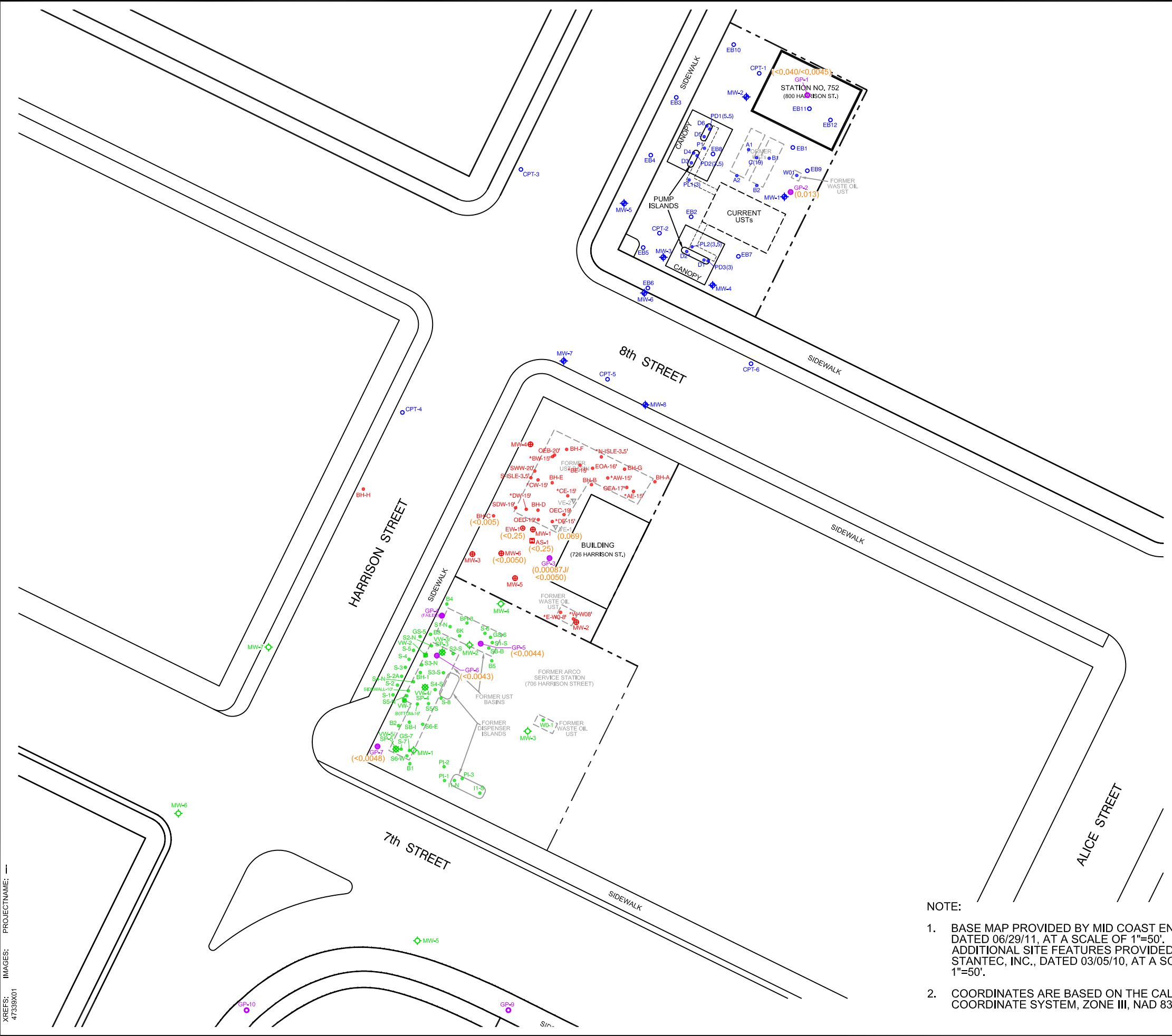
- LEGEND**
- PROPERTY BOUNDARY
 - PRODUCT PIPING
 - MW-1 ◆ GROUNDWATER MONITORING WELL (UNOCAL)
 - MW-1 ● GROUNDWATER MONITORING WELL (YEE)
 - MW-1 ◆ GROUNDWATER MONITORING WELL (GIN)
 - B1 ● SOIL SAMPLE LOCATION (UNOCAL)
 - EB1 ● EXPLORATORY BORING LOCATION (UNOCAL)
 - AS-1 ■ AIR SPARGE WELL (YEE)
 - EW-1 ● EXTRACTION WELL (YEE)
 - BHA ● SOIL SAMPLE LOCATION (YEE)
 - VE-1 ▼ DESTROYED WELL (YEE)
 - VW-1 ■ SOIL VAPOR EXTRACTION WELL (GIN)
 - VW-3/SP-3 ■ SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
 - B1 ● SOIL SAMPLE LOCATION (GIN)
 - GP-2 ● GEOPROBE™ (JUNE 2011)
 - GP-9 ● GEOPROBE™ (MARCH 2012)
 - <math><0.0074</math> MTBE CONCENTRATION (mg/kg)
 - <math><0.0047</math> LESS THAN LABORATORY REPORTING LIMIT
 - MTBE METHYL TERTIARY BUTYL ETHER
 - mg/kg MILLIGRAMS PER KILOGRAM
 - BGS BELOW GROUND SURFACE



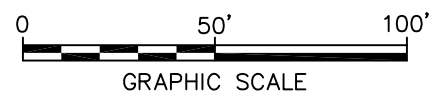
- NOTE:**
- BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 - COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

UNION OIL OF CALIFORNIA STATION NO. 0752/YEE/GIN COMMINGLED 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA	
MTBE SOIL ISOPLETH CONTOUR MAP (0.0'-5.0' BGS)	
	FIGURE 25

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
 C:\Users\jharris\Desktop\ENVCAD\B0047339\2012100006\DWG\47339C14.dwg LAYOUT: 26 SAVED: 7/23/2012 6:08 AM ACADVER: 18.1 S (LMS TECH) PAGES: 26 PLOTTED: 7/23/2012 6:11 AM BY: HARRIS, JESSICA
 XREFS: IMAGES: PROJECTNAME: 47339X01



- LEGEND**
- PROPERTY BOUNDARY
 - PRODUCT PIPING
 - MW-1 (blue diamond) GROUNDWATER MONITORING WELL (UNOCAL)
 - MW-1 (red circle) GROUNDWATER MONITORING WELL (YEE)
 - MW-1 (green diamond) GROUNDWATER MONITORING WELL (GIN)
 - B1 (blue circle) SOIL SAMPLE LOCATION (UNOCAL)
 - EB1 (blue circle) EXPLORATORY BORING LOCATION (UNOCAL)
 - AS-1 (red square) AIR SPARGE WELL (YEE)
 - EW-1 (red circle) EXTRACTION WELL (YEE)
 - BHA (red circle) SOIL SAMPLE LOCATION (YEE)
 - VE-1 (inverted triangle) DESTROYED WELL (YEE)
 - VW-1 (green square) SOIL VAPOR EXTRACTION WELL (GIN)
 - VW-3/SP-3 (green square) SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
 - B1 (green circle) SOIL SAMPLE LOCATION (GIN)
 - GP-2 (purple circle) GEOPROBE™ (JUNE 2011)
 - GP-9 (purple circle) GEOPROBE™ (MARCH 2012)
 - (0.0069) MTBE CONCENTRATION (mg/kg)
 - (<0.0040/<0.0045) MTBE CONCENTRATIONS COLLECTED AT MULTIPLE DEPTHS WITHIN TARGET RANGE (mg/kg)
 - < LESS THAN LABORATORY REPORTING LIMIT
 - J ESTIMATED VALUE; LESS THAN LABORATORY REPORTING LIMIT AND GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT
 - MTBE METHYL TERTIARY BUTYL ETHER
 - mg/kg MILLIGRAMS PER KILOGRAM
 - BGS BELOW GROUND SURFACE



- NOTE:**
- BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 - COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

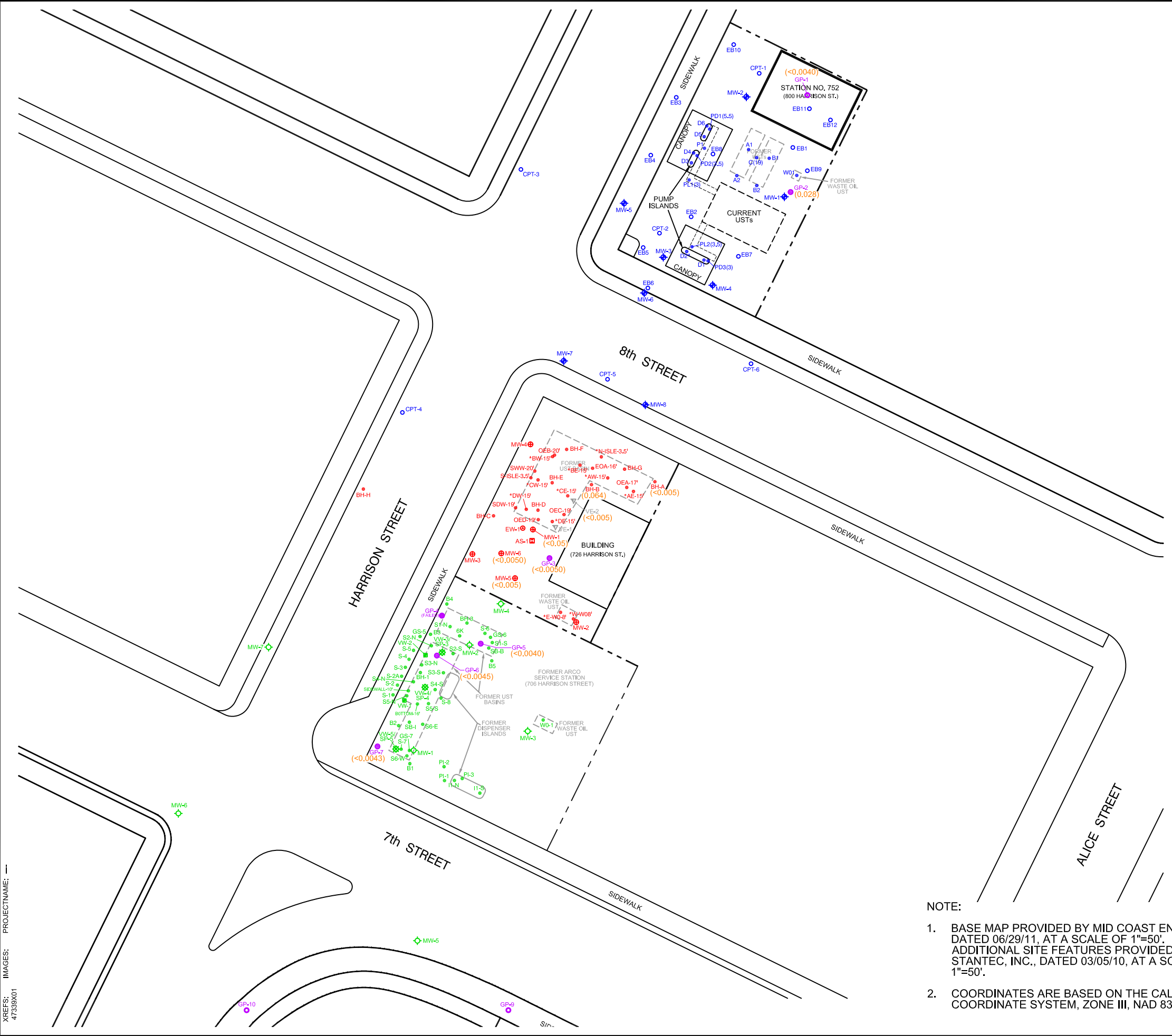
UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

**MTBE SOIL ISOPLETH
 CONTOUR MAP
 (5.0'-10.0' BGS)**

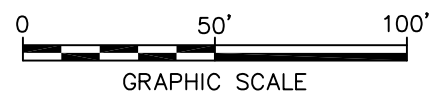
ARCADIS

FIGURE
26

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
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 XREFS: IMAGES: PROJECTNAME: 47339X01



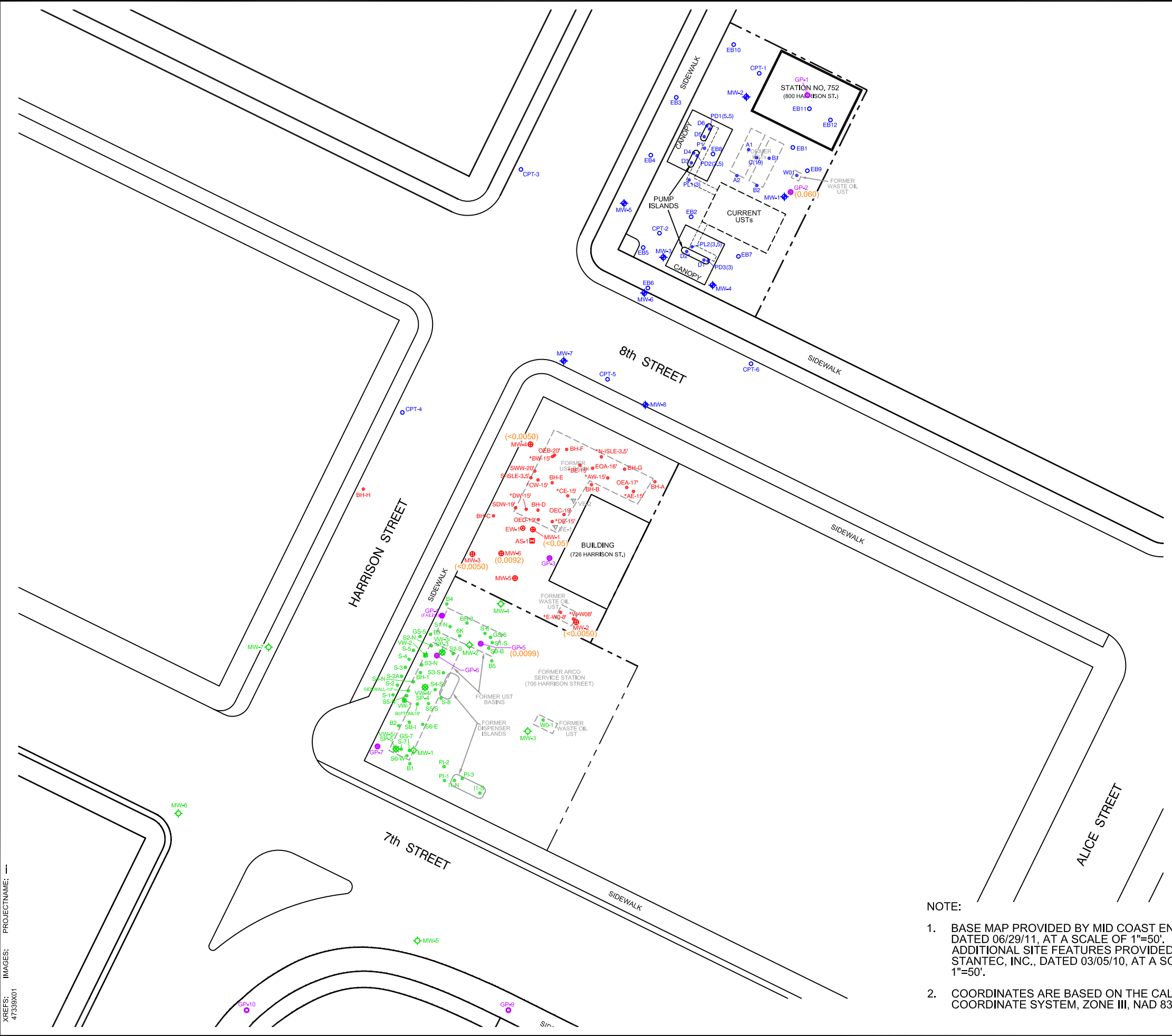
- LEGEND**
- PROPERTY BOUNDARY
 - - - - PRODUCT PIPING
 - MW-1 (blue diamond) GROUNDWATER MONITORING WELL (UNOCAL)
 - MW-1 (red circle) GROUNDWATER MONITORING WELL (YEE)
 - MW-1 (green diamond) GROUNDWATER MONITORING WELL (GIN)
 - B1 (blue circle) SOIL SAMPLE LOCATION (UNOCAL)
 - EB1 (blue circle) EXPLORATORY BORING LOCATION (UNOCAL)
 - AS-1 (red square) AIR SPARGE WELL (YEE)
 - EW-1 (red circle) EXTRACTION WELL (YEE)
 - BHA (red circle) SOIL SAMPLE LOCATION (YEE)
 - VE-1 (red inverted triangle) DESTROYED WELL (YEE)
 - VW-1 (green square) SOIL VAPOR EXTRACTION WELL (GIN)
 - VW-3/SP-3 (green square) SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
 - B1 (green circle) SOIL SAMPLE LOCATION (GIN)
 - GP-2 (purple circle) GEOPROBE™ (JUNE 2011)
 - GP-9 (purple circle) GEOPROBE™ (MARCH 2012)
 - (0.028) MTBE CONCENTRATION (mg/kg)
 - < LESS THAN LABORATORY REPORTING LIMIT
 - MTBE METHYL TERTIARY BUTYL ETHER
 - mg/kg MILLIGRAMS PER KILOGRAM
 - BGS BELOW GROUND SURFACE



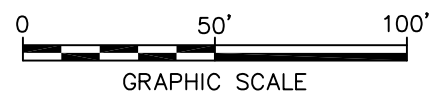
- NOTE:**
1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

UNION OIL OF CALIFORNIA STATION NO. 0752/YEE/GIN COMMINGLED 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA	
MTBE SOIL ISOPLETH CONTOUR MAP (10.0'-15.0' BGS)	
	FIGURE 27

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
 C:\Users\jharris\Desktop\ENVCAD\B0047339\2012100006\DWG\47339C16.dwg LAYOUT: 28 SAVED: 7/23/2012 6:17 AM ACADVER: 18.1 S (LMS TECH) PAGESETUP: SETUP1 PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 7/23/2012 6:20 AM BY: HARRIS, JESSICA
 XREFS: IMAGES: PROJECTNAME: 47339X01



- LEGEND**
- PROPERTY BOUNDARY
 - PRODUCT PIPING
 - MW-1 (blue diamond) GROUNDWATER MONITORING WELL (UNOCAL)
 - MW-1 (red circle) GROUNDWATER MONITORING WELL (YEE)
 - MW-1 (green diamond) GROUNDWATER MONITORING WELL (GIN)
 - B1 (blue circle) SOIL SAMPLE LOCATION (UNOCAL)
 - EB1 (blue circle) EXPLORATORY BORING LOCATION (UNOCAL)
 - AS-1 (red square) AIR SPARGE WELL (YEE)
 - EW-1 (red circle) EXTRACTION WELL (YEE)
 - BHA (red circle) SOIL SAMPLE LOCATION (YEE)
 - VE-1 (red inverted triangle) DESTROYED WELL (YEE)
 - VW-1 (green square) SOIL VAPOR EXTRACTION WELL (GIN)
 - VW-3/SP-3 (green square) SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
 - B1 (green circle) SOIL SAMPLE LOCATION (GIN)
 - GP-2 (purple circle) GEOPROBE™ (JUNE 2011)
 - GP-9 (purple circle) GEOPROBE™ (MARCH 2012)
 - (0.060) MTBE CONCENTRATION (mg/kg)
 - < LESS THAN LABORATORY REPORTING LIMIT
 - MTBE METHYL TERTIARY BUTYL ETHER
 - mg/kg MILLIGRAMS PER KILOGRAM
 - BGS BELOW GROUND SURFACE



- NOTE:**
- BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 - COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

**MTBE SOIL ISOPLETH
 CONTOUR MAP
 (15.0'-20.0' BGS)**

FIGURE
28



Appendix E

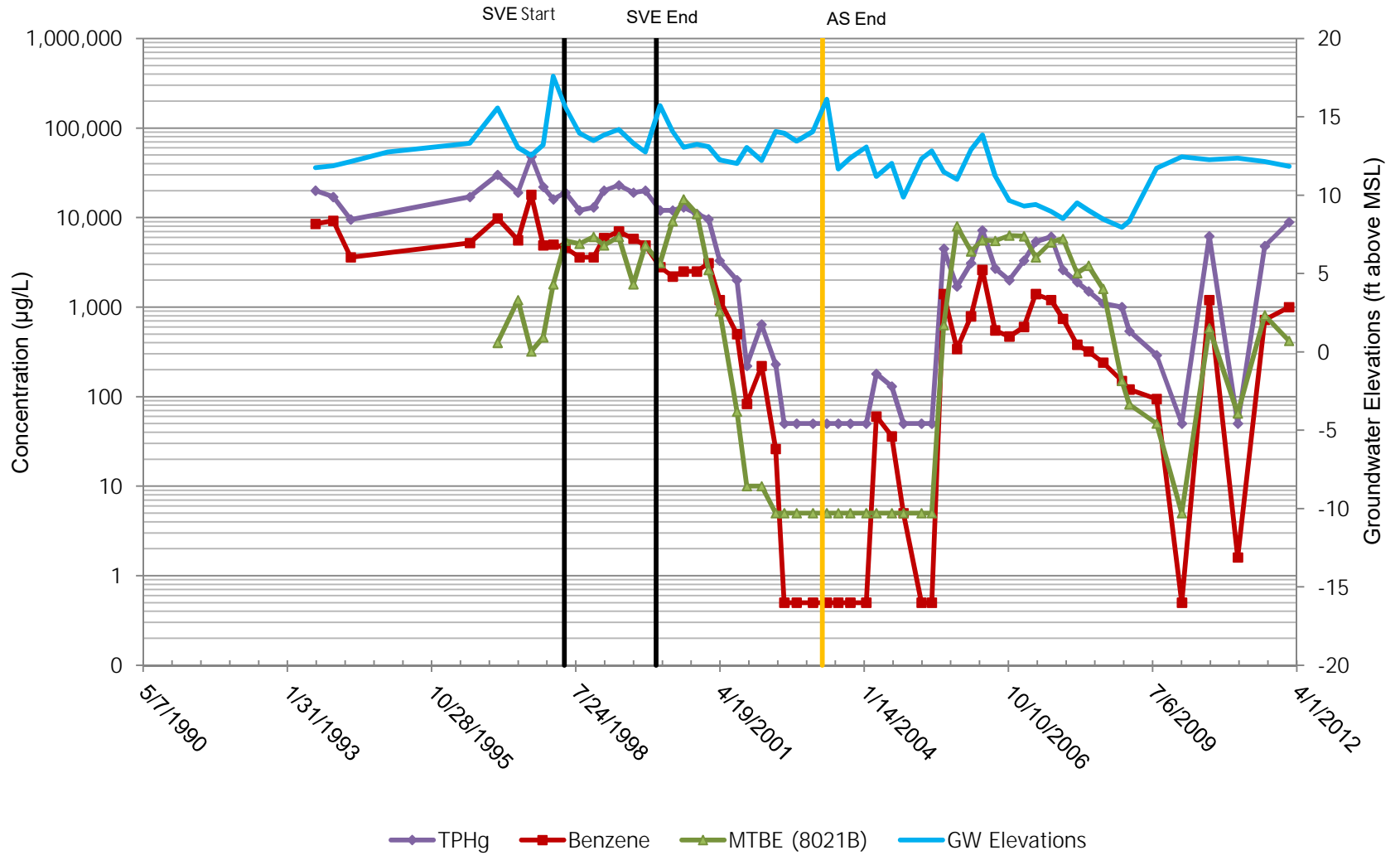
Hydrographs

ARCADIS

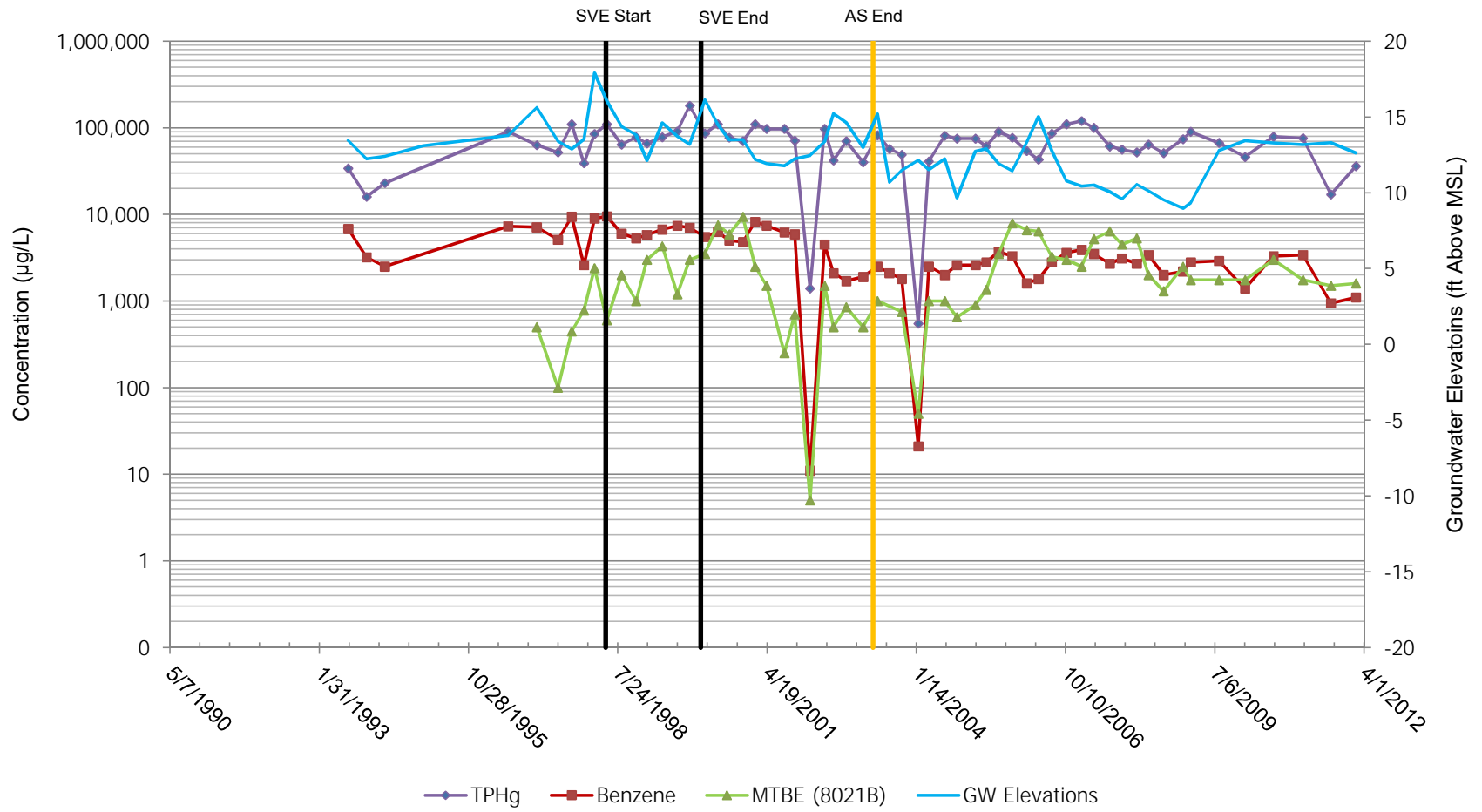
Hydrographs

706 Harrison Street: MW-1 through MW-7

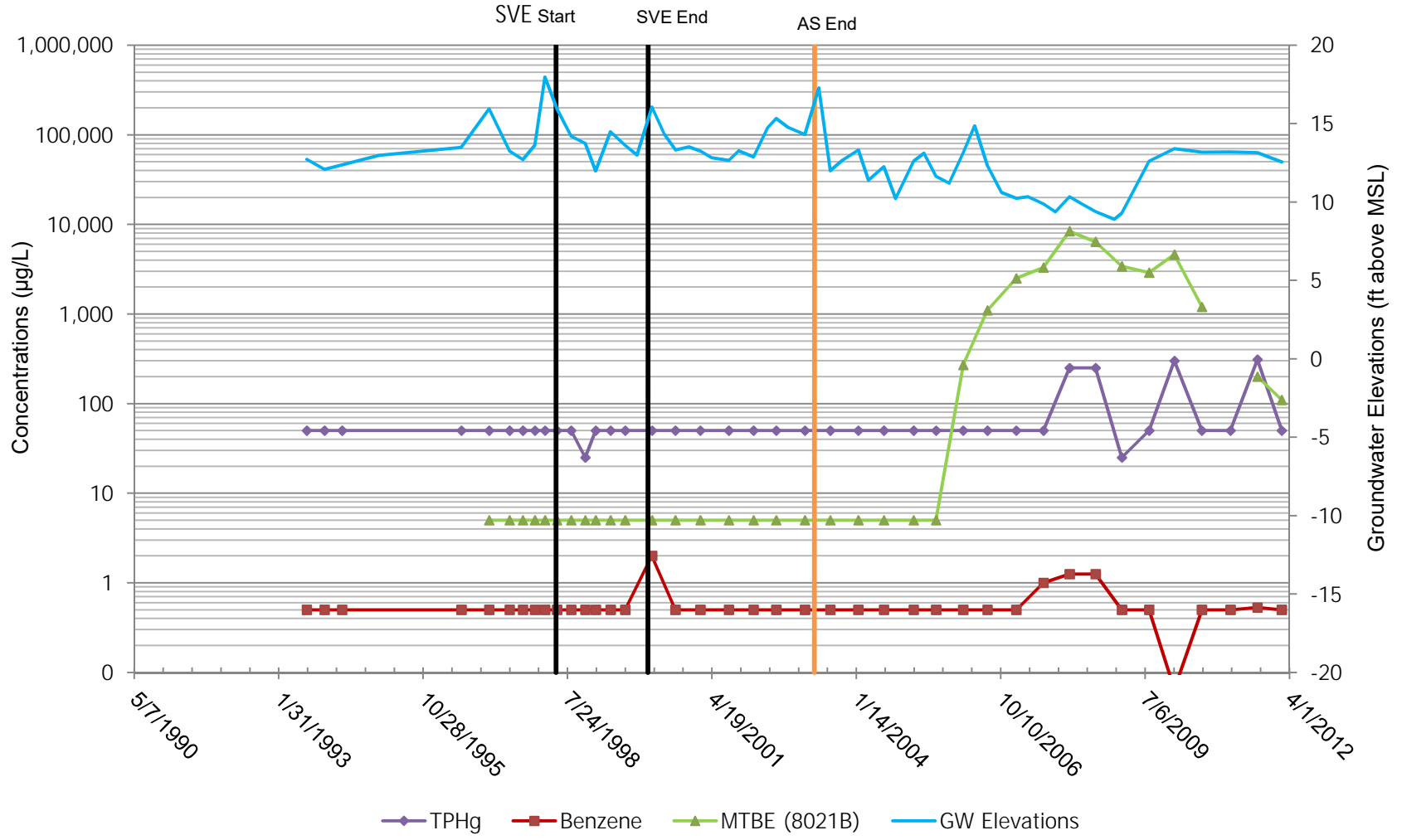
MW-1
Gin Property
706 Harrison St,
Oakland CA



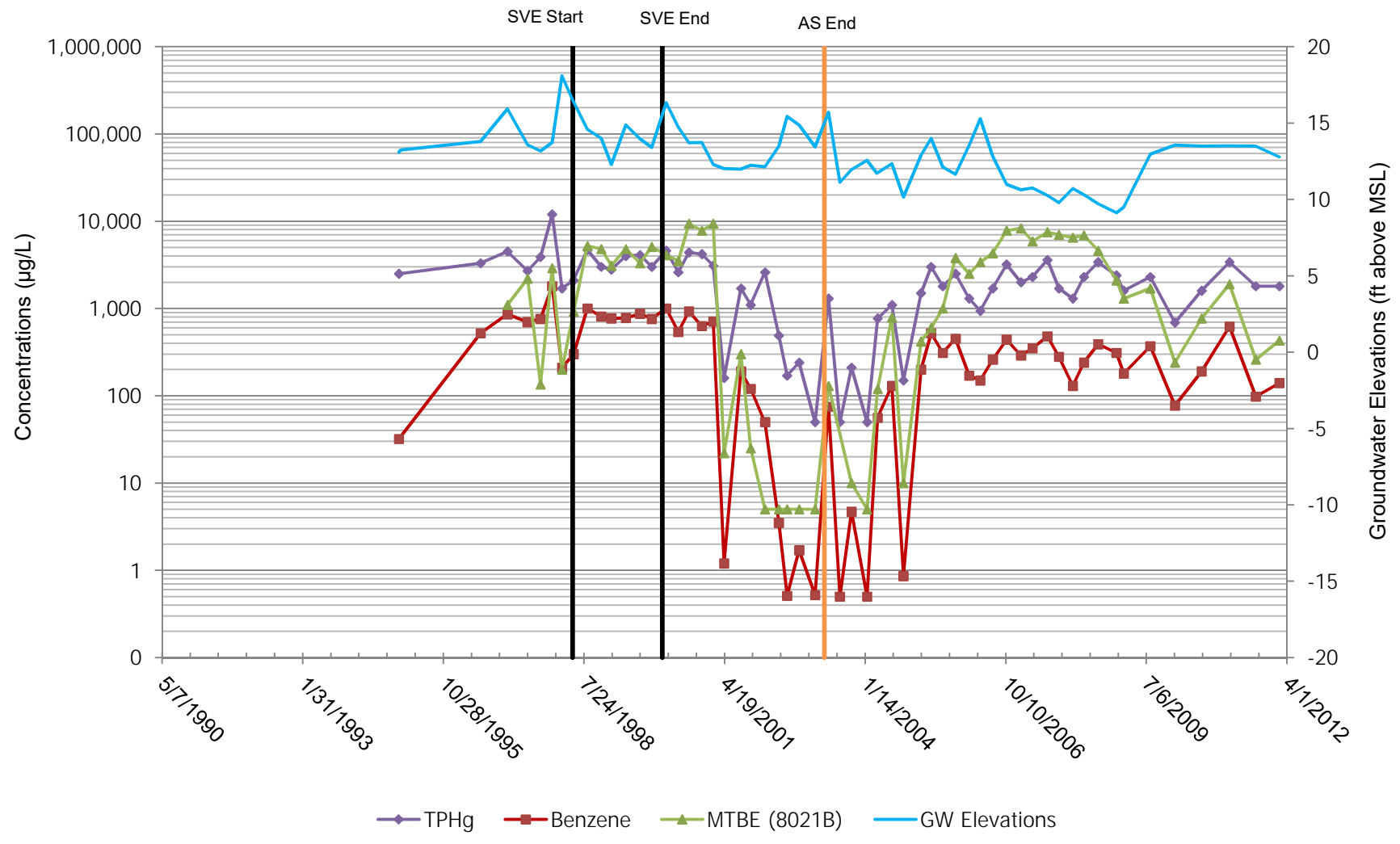
MW-2
Gin Property
706 Harrison St,
Oakland CA



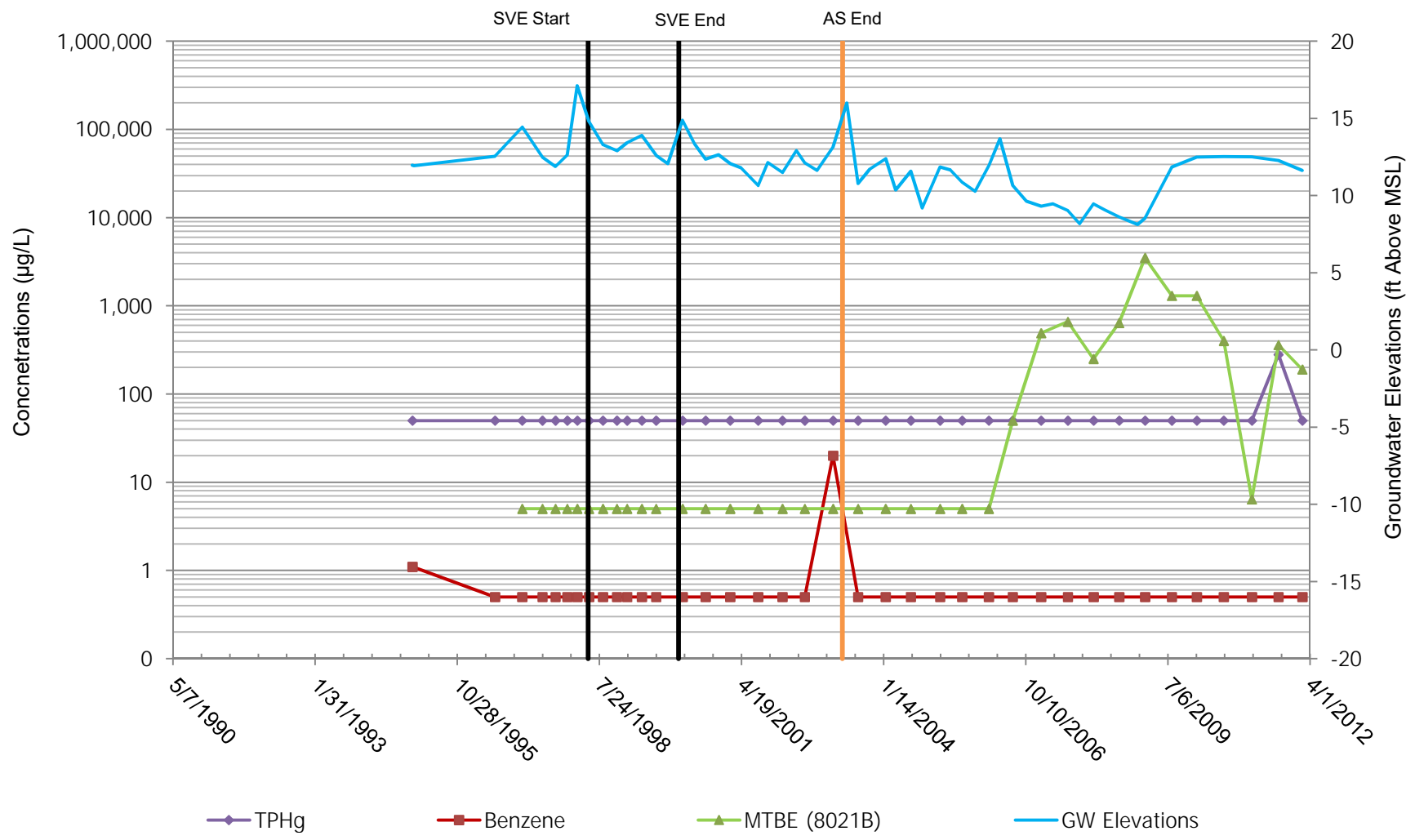
MW-3
Gin Property
706 Harrison St,
Oakland CA



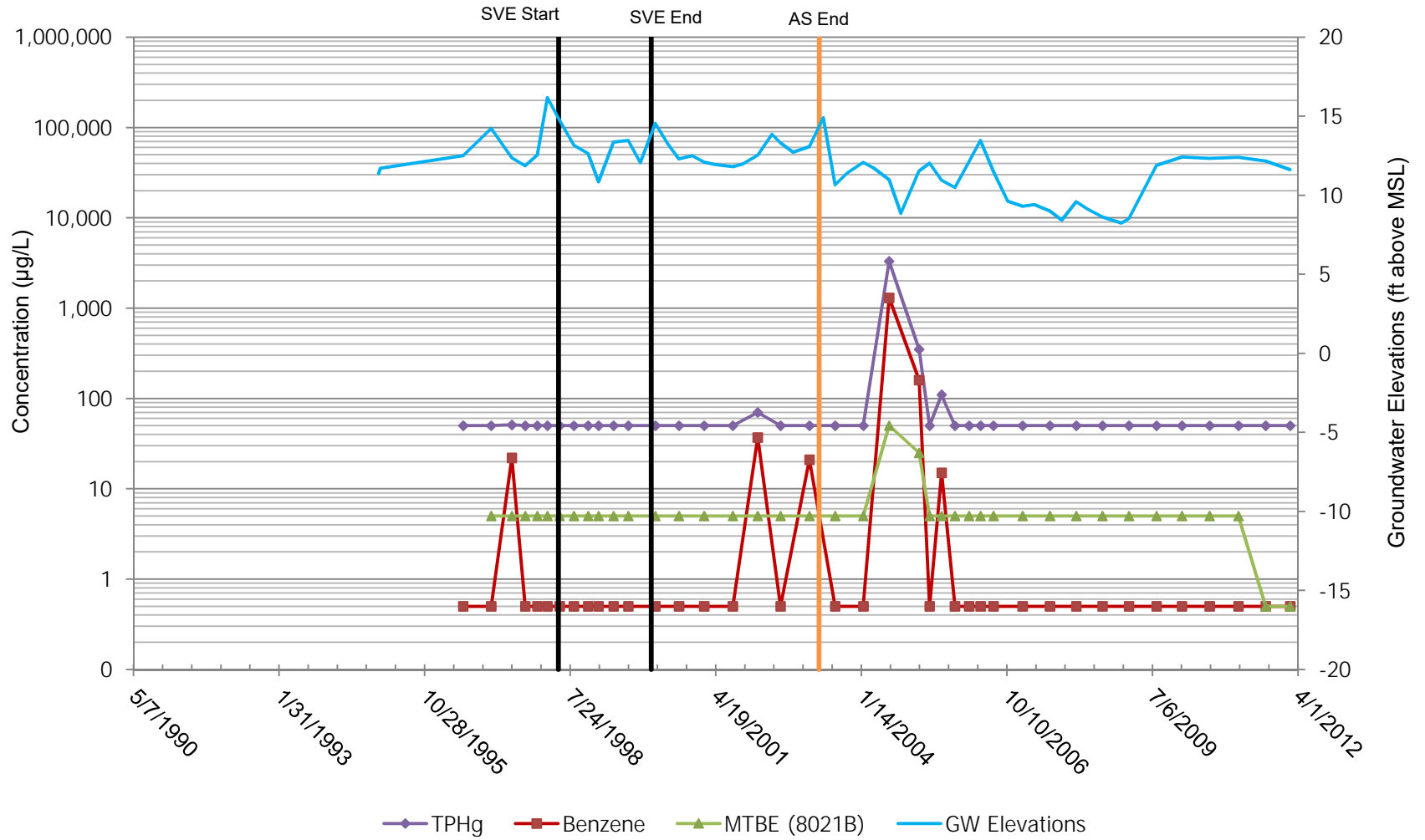
MW-4
Gin Property
706 Harrison St,
Oakland CA



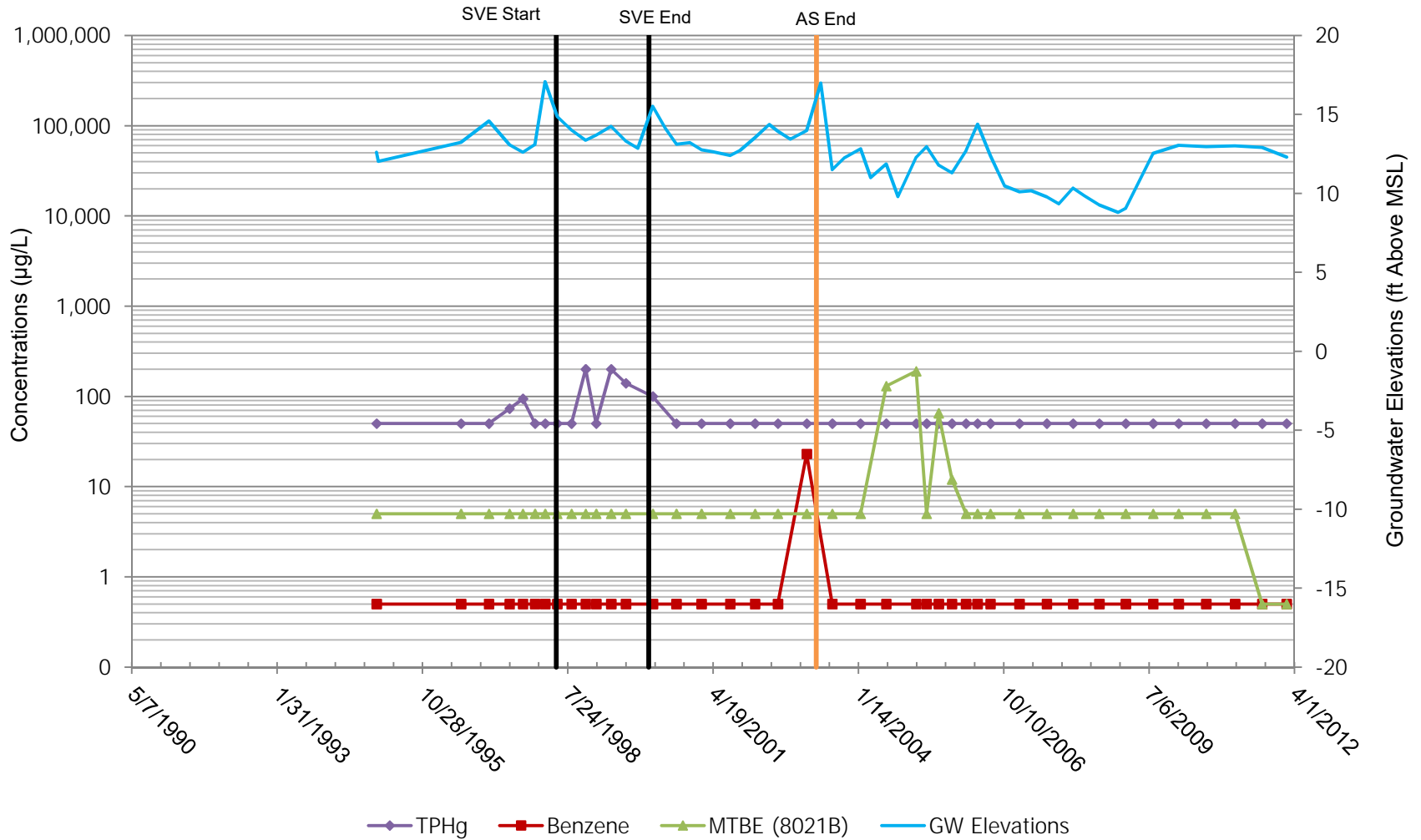
MW-5
Gin Property
706 Harrison St,
Oakland CA



MW-6
Yee Property
706 Harrison St.
Oakland CA



MW-7
Yee Property
706 Harrison St.
Oakland CA



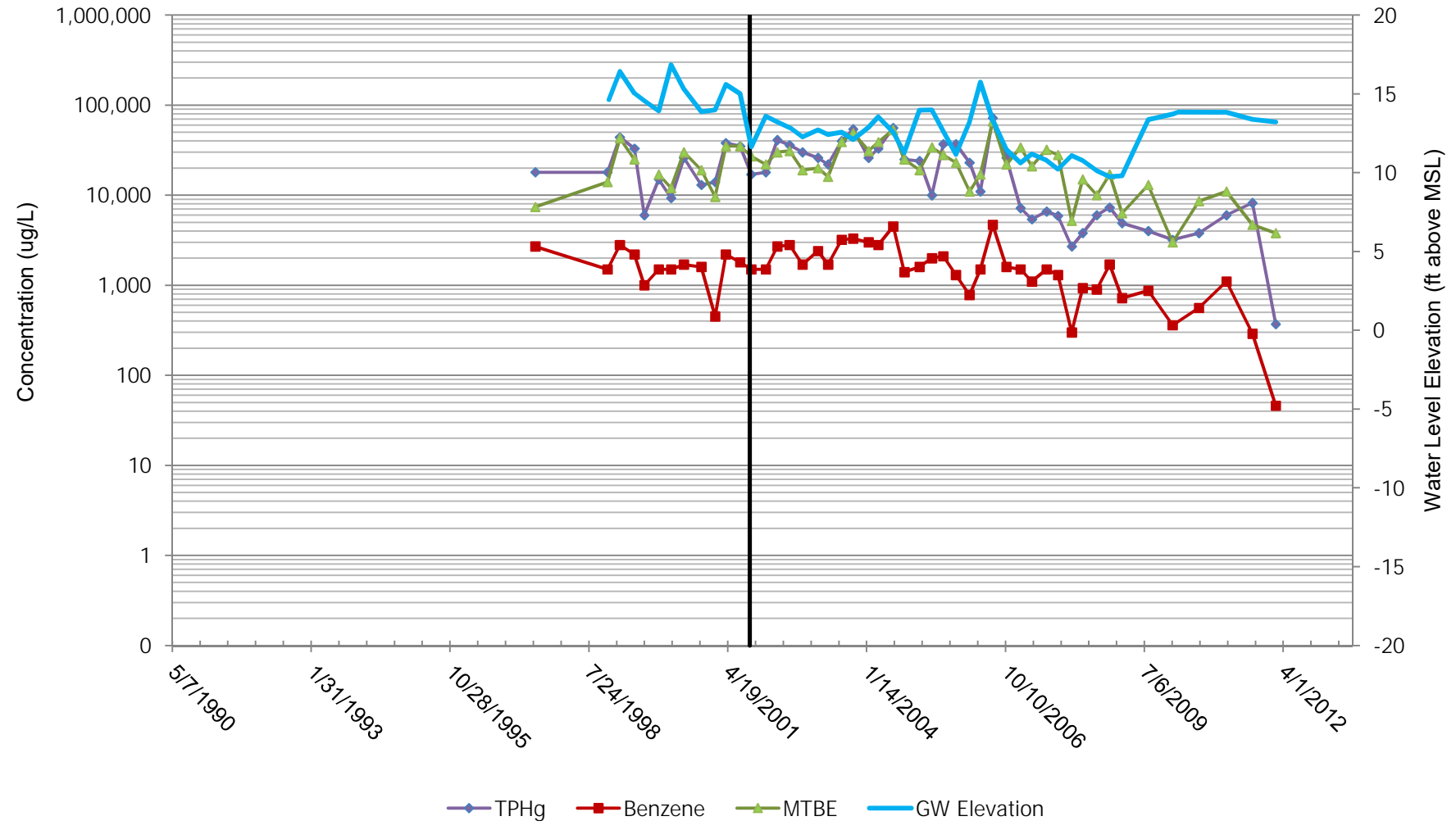
ARCADIS

Hydrographs

726 Harrison Street: MW-1 through MW-6

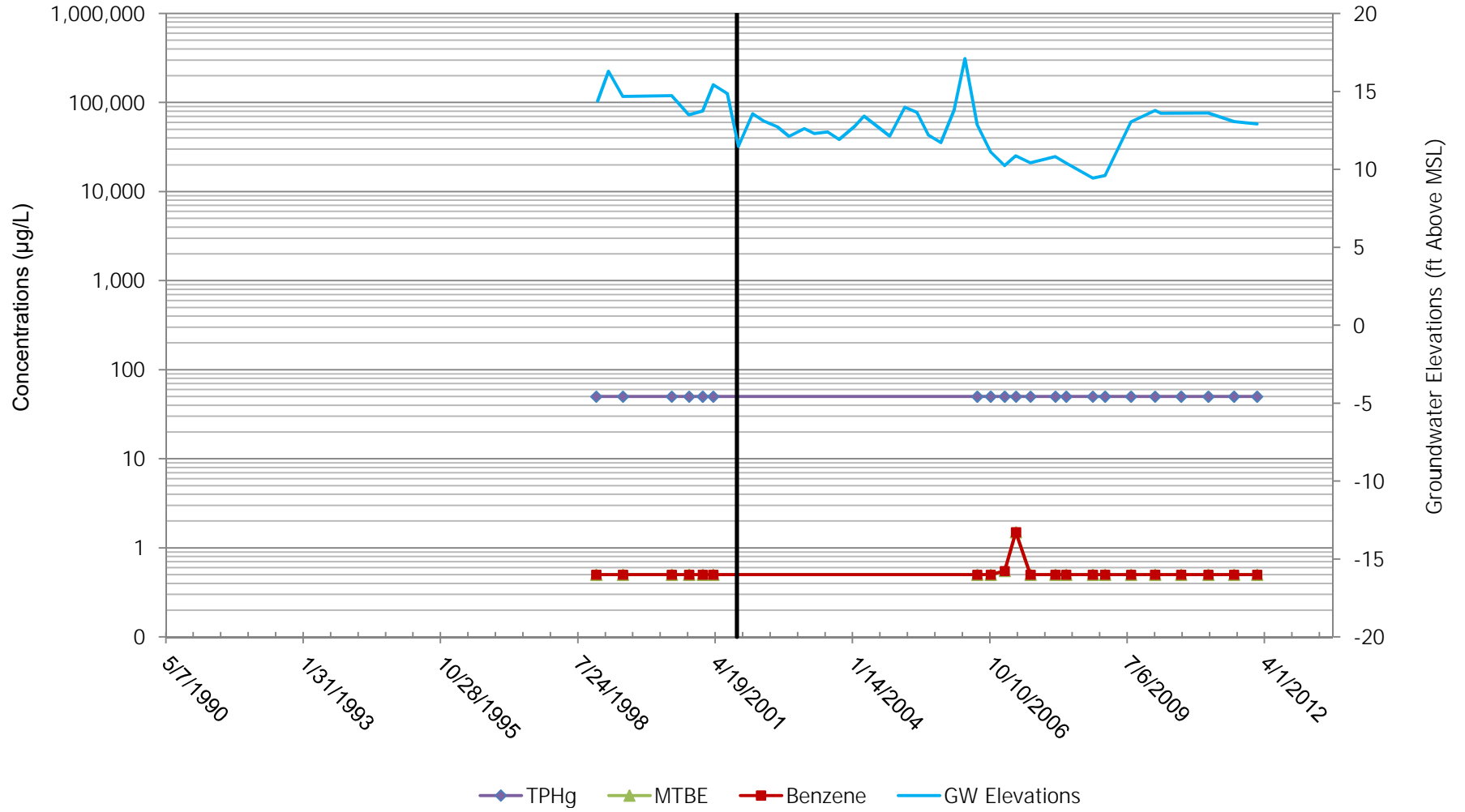
MW-1
Yee Property
726 Harrison St.
Oakland CA

SVE Pilot Test



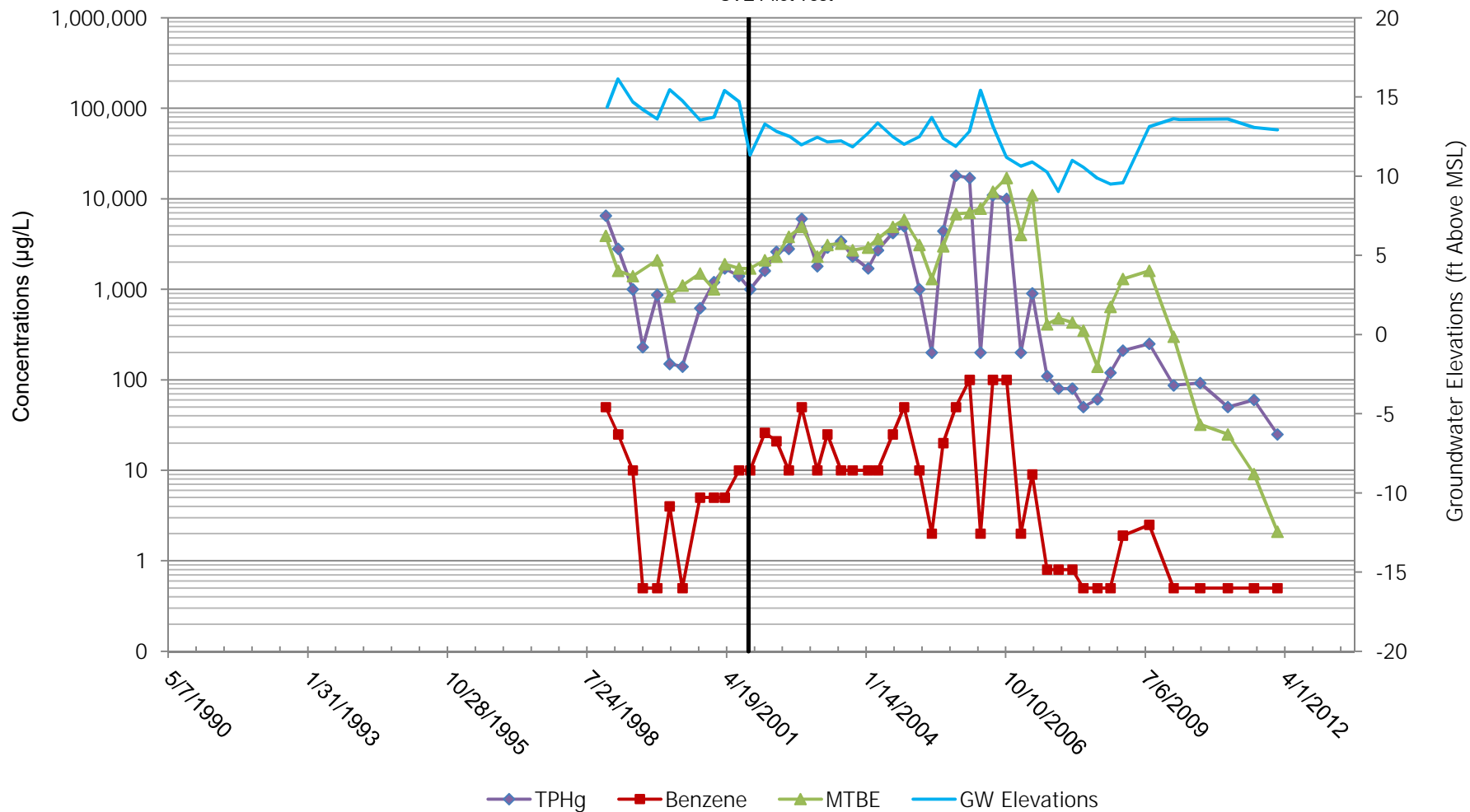
MW-2
Yee Property
726 Harrison St.
Oakland, CA

SVE Pilot Test



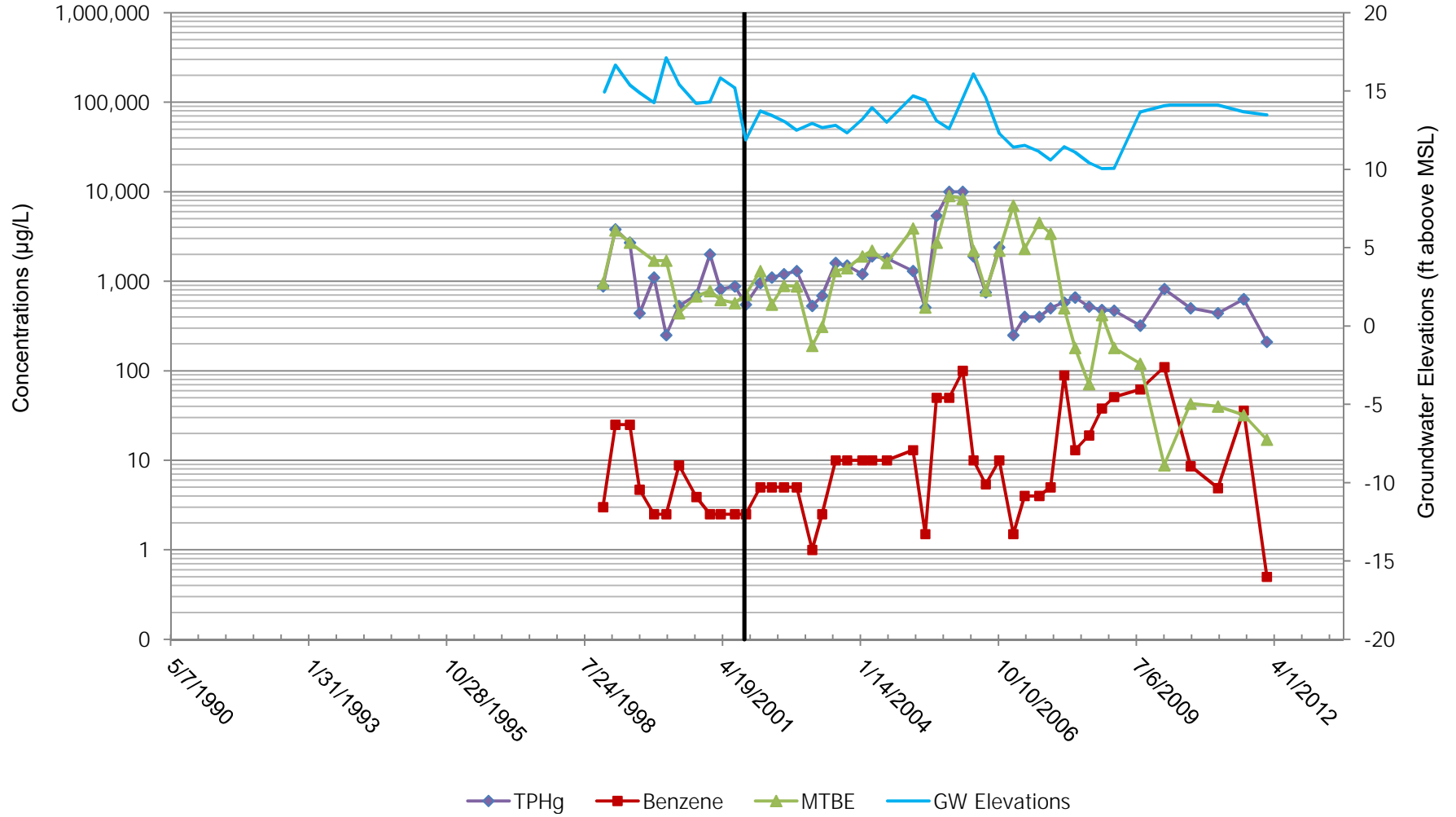
MW-3
Yee Property
726 Harrison St.
Oakland, CA

SVE Pilot Test



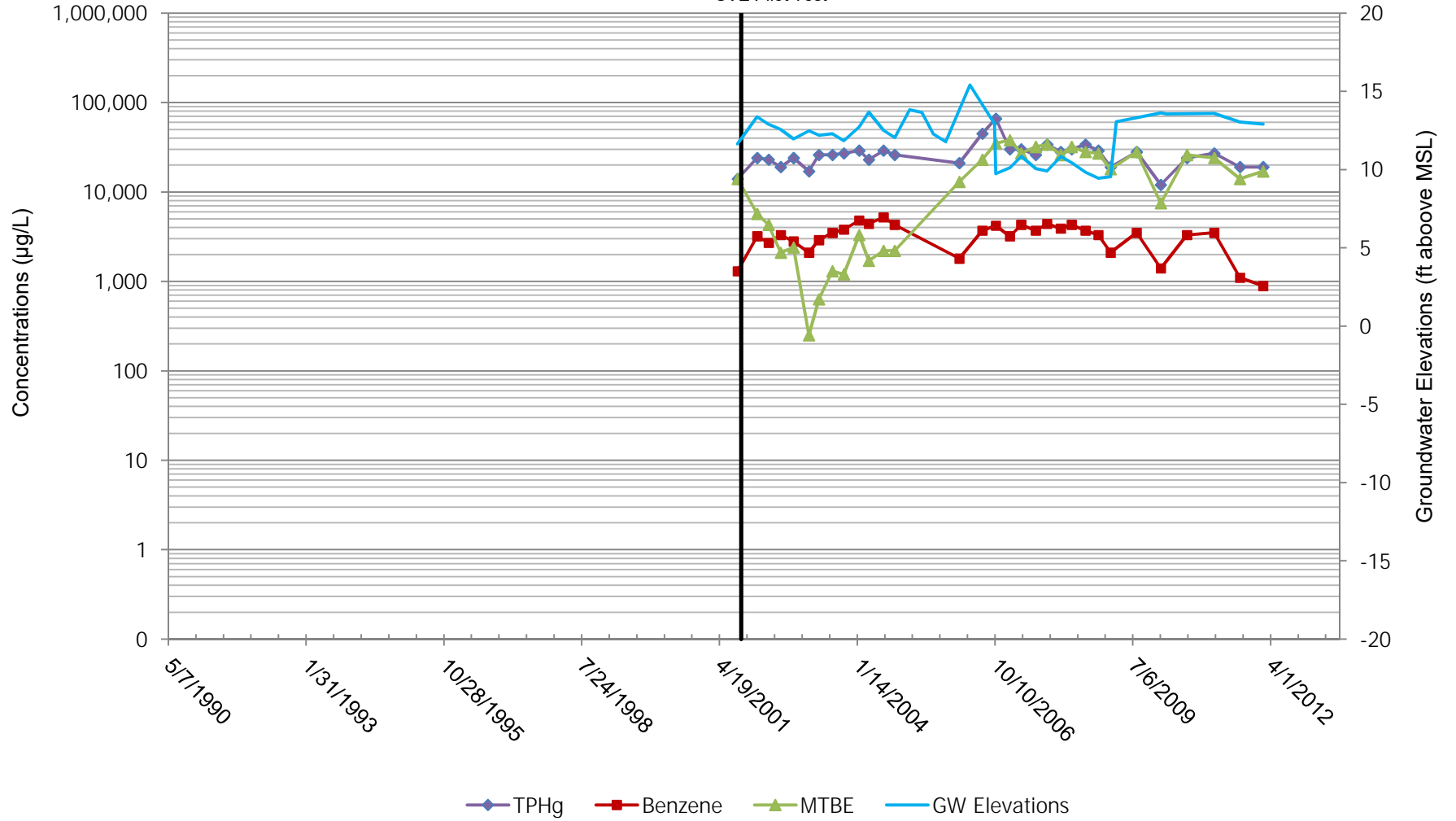
MW-4
Yee Property
726 Harrison St.
Oakland, CA

SVE Pilot Test



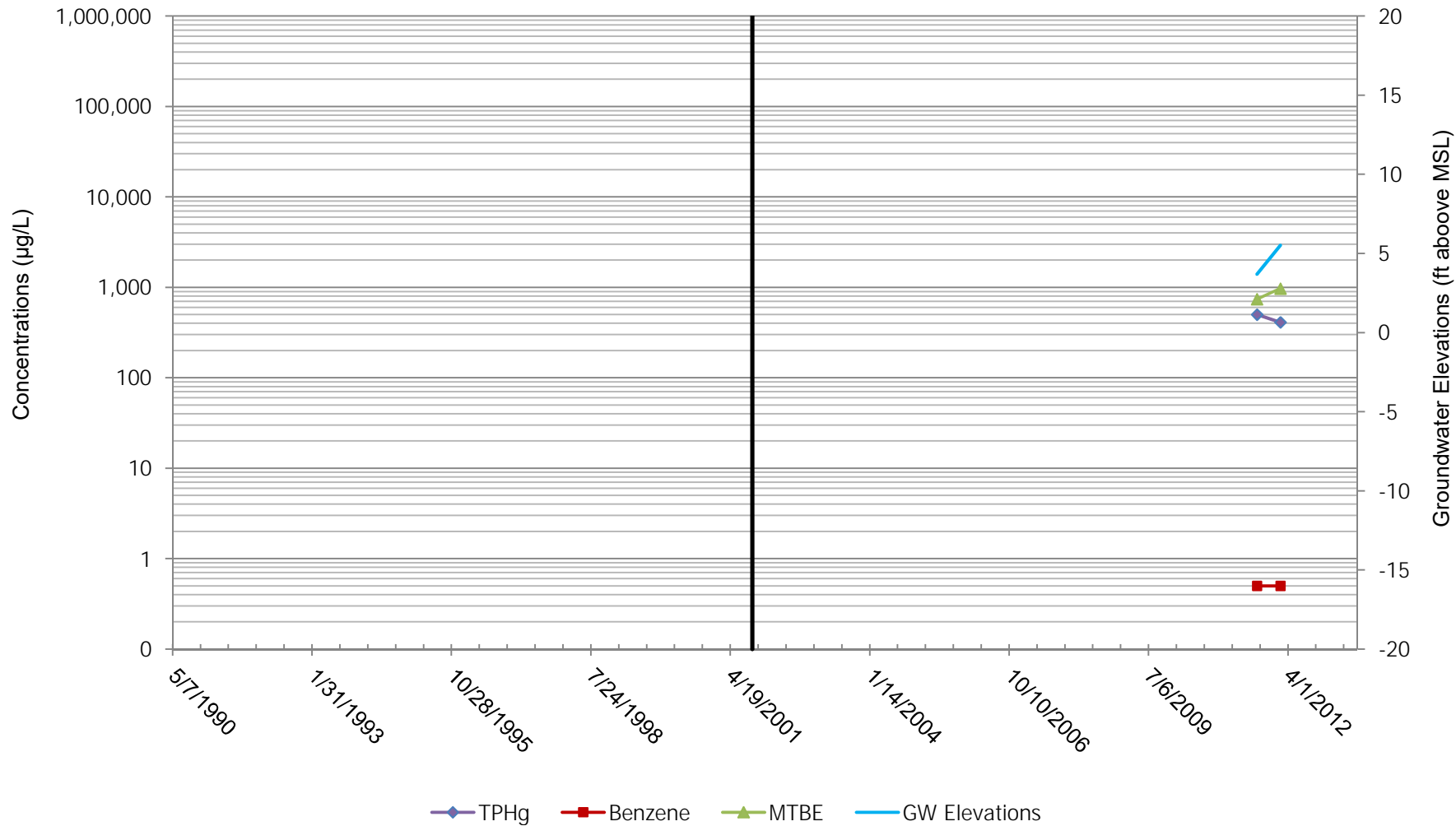
MW-5
Yee Property
726 Harrison St.
Oakland, CA

SVE Pilot Test



MW-6
Yee Property
726 Harrison St.
Oakland, CA

SVE Pilot Test

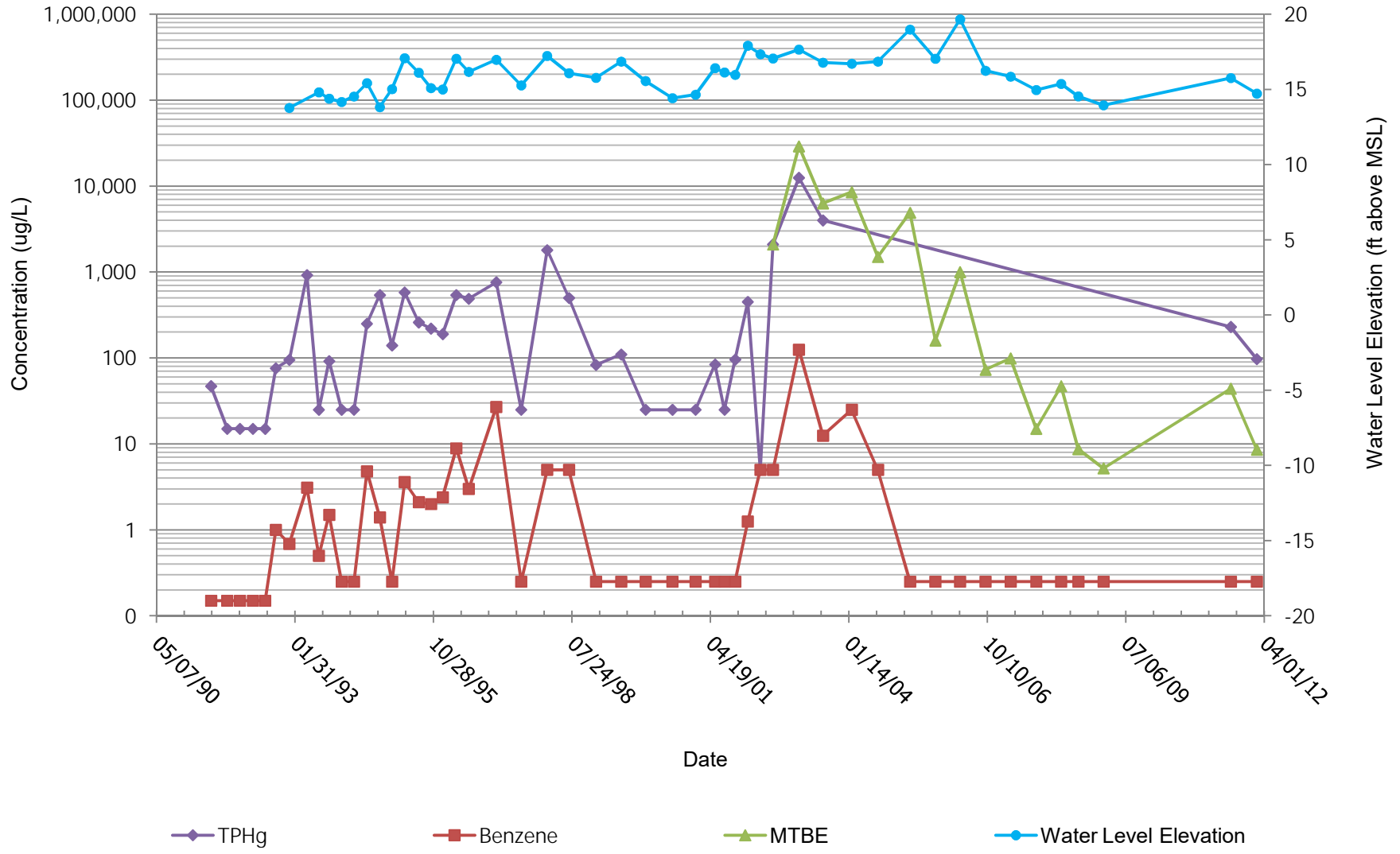


ARCADIS

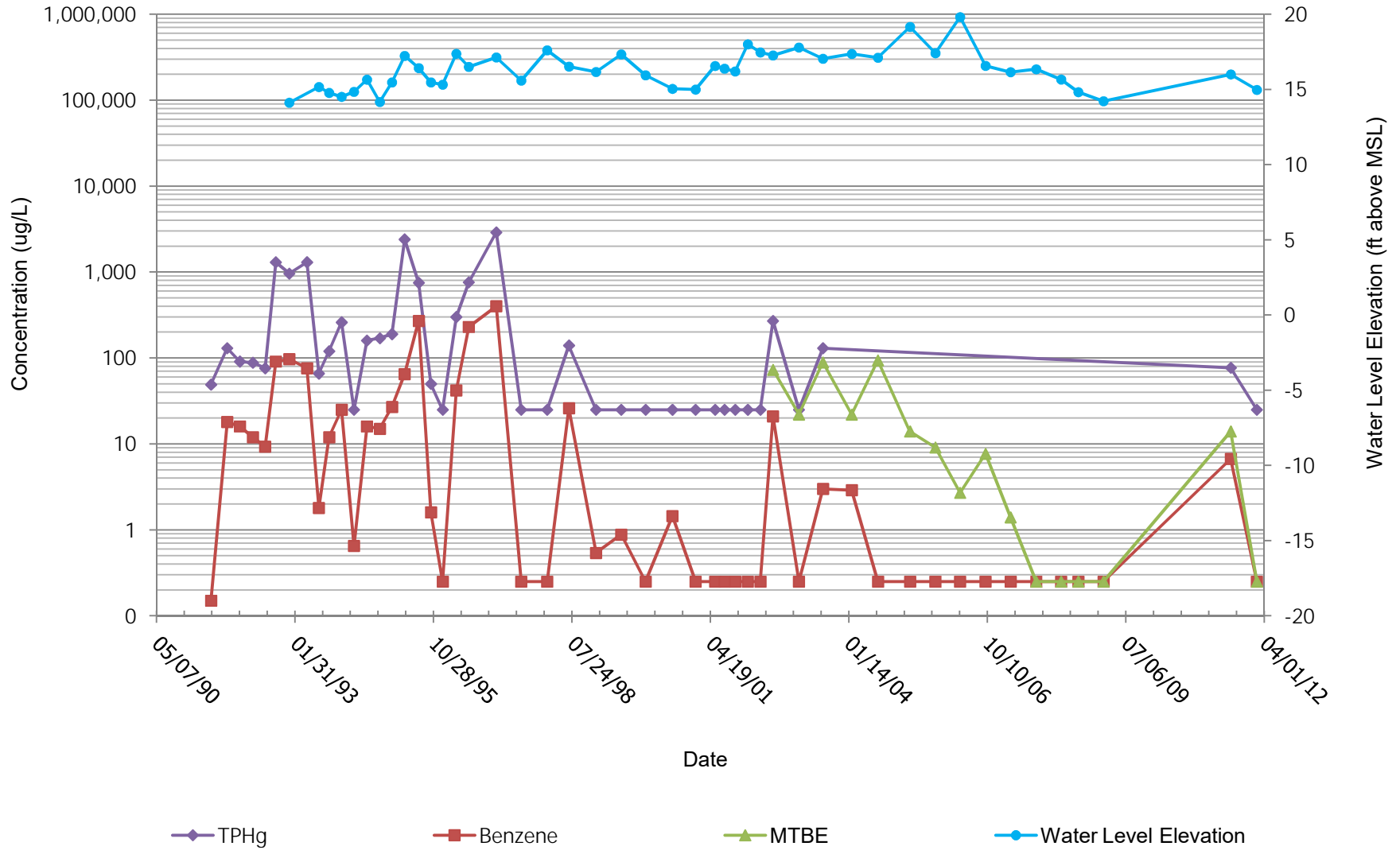
Hydrographs

800 Harrison Street: MW-1 through MW-8

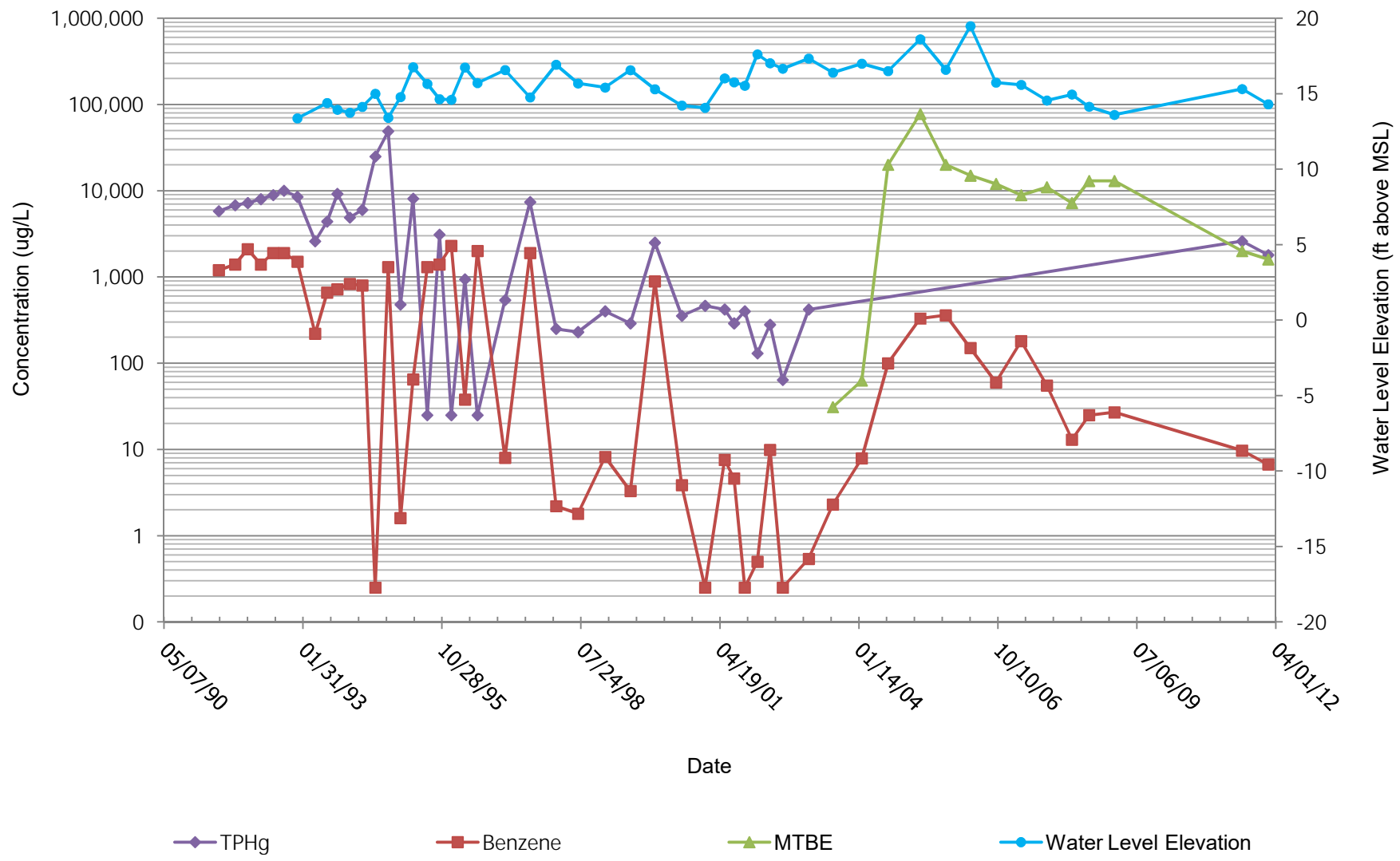
MW-1
76 Station 0752
800 Harrison Street
Oakland, California



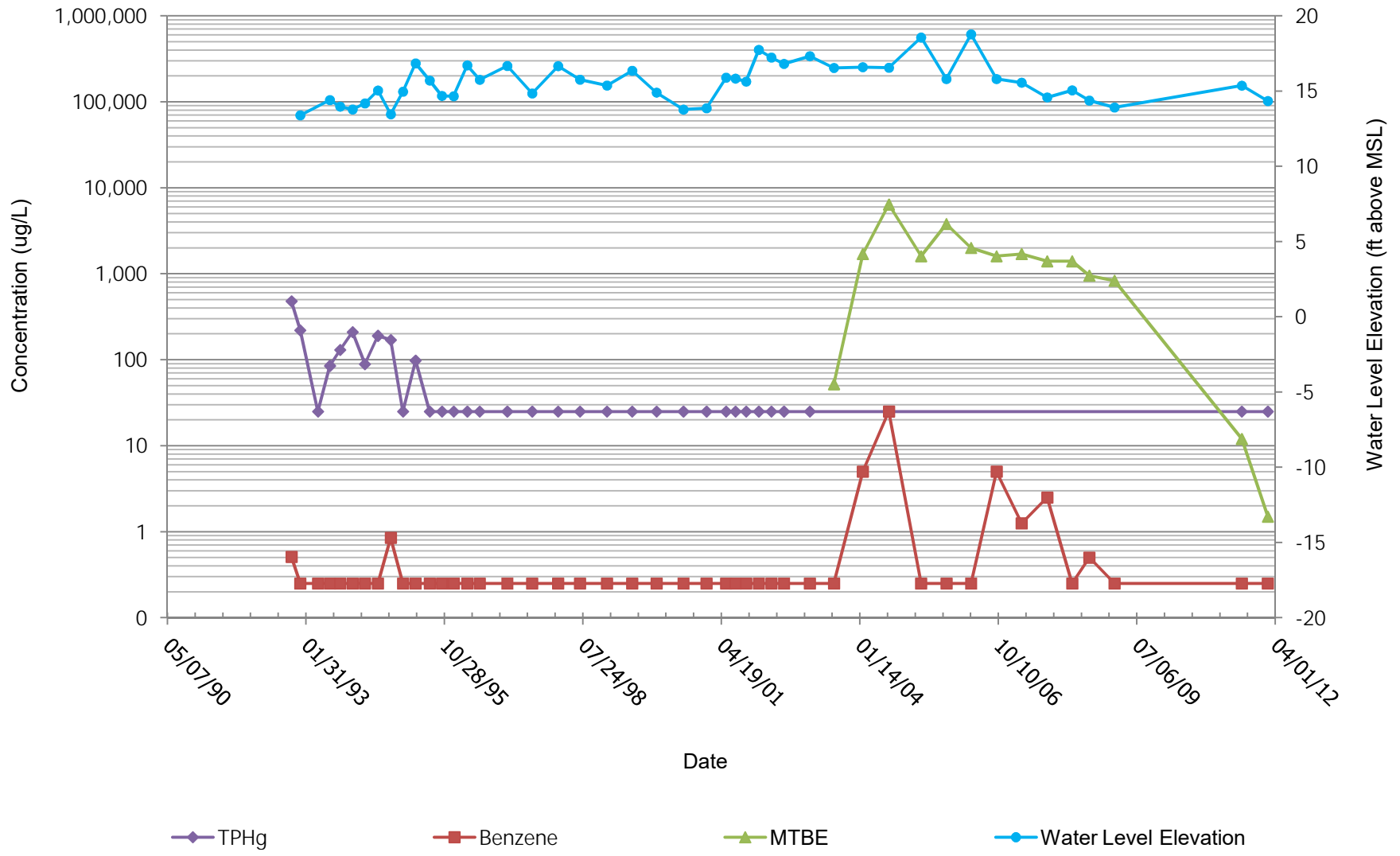
MW-2
76 Station 0752
800 Harrison Street
Oakland, California



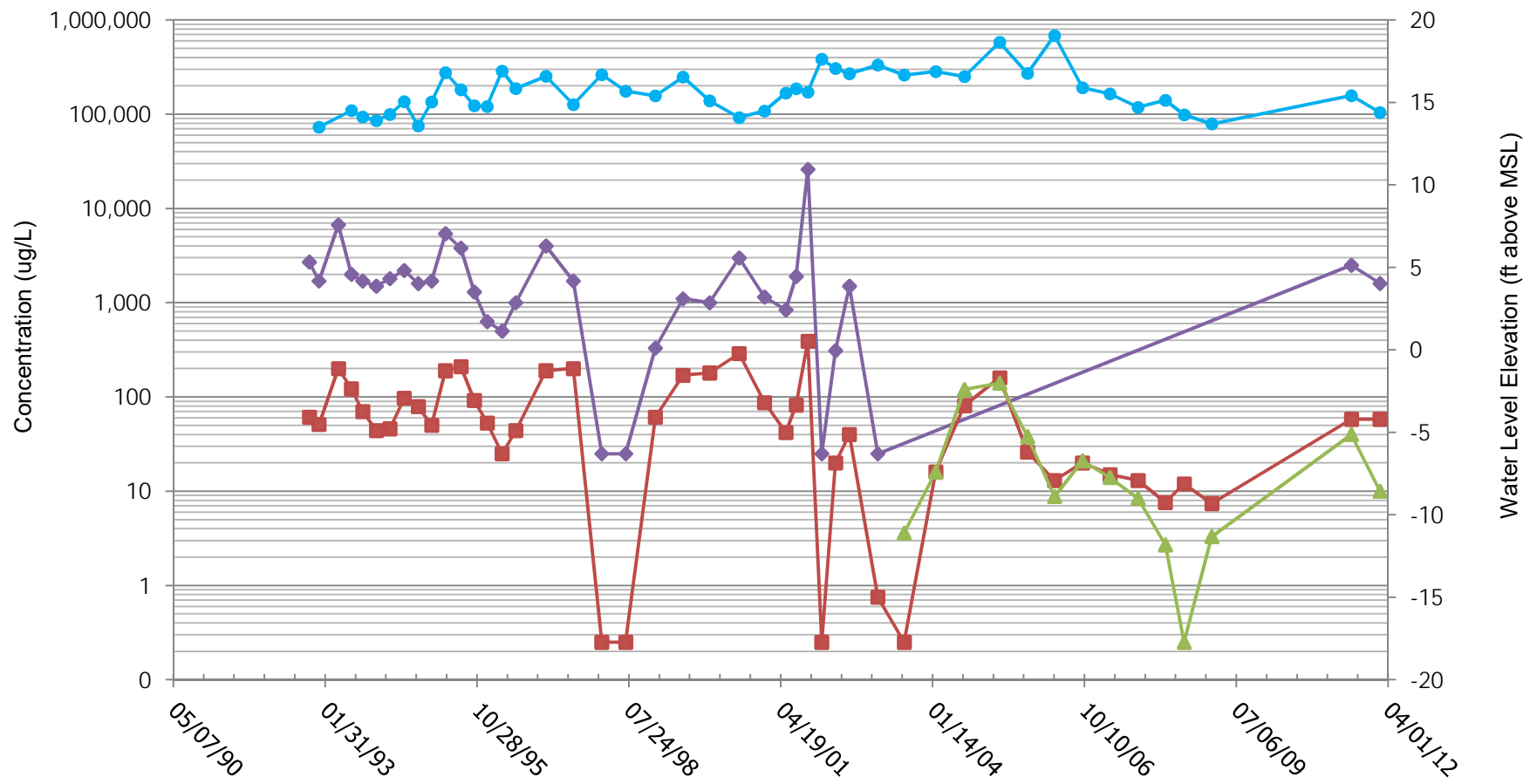
MW-3
76 Station 0752
800 Harrison Street
Oakland, California



MW-4
76 Station 0752
800 Harrison Street
Oakland, California

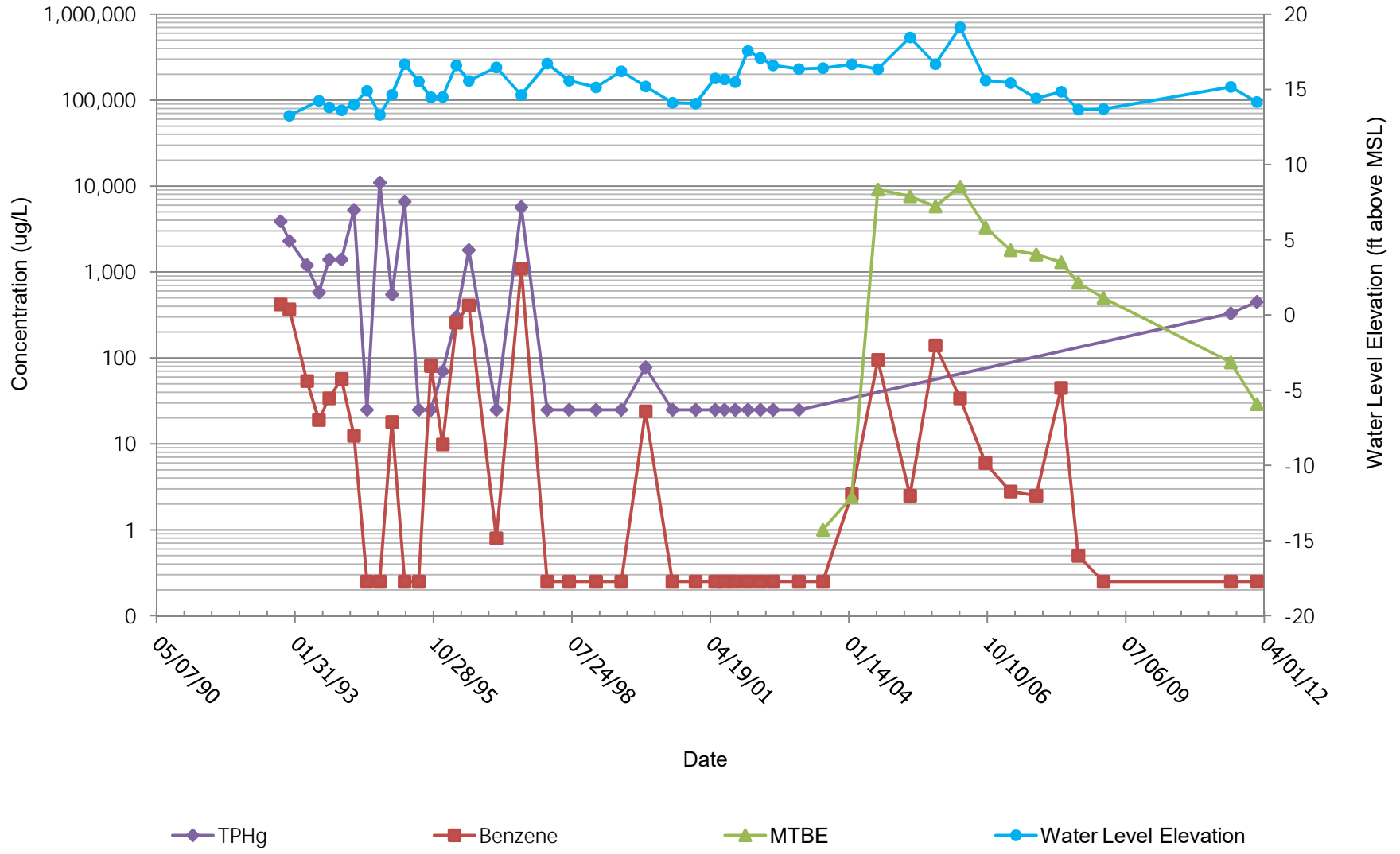


MW-5
76 Station 0752
800 Harrison Street
Oakland, California

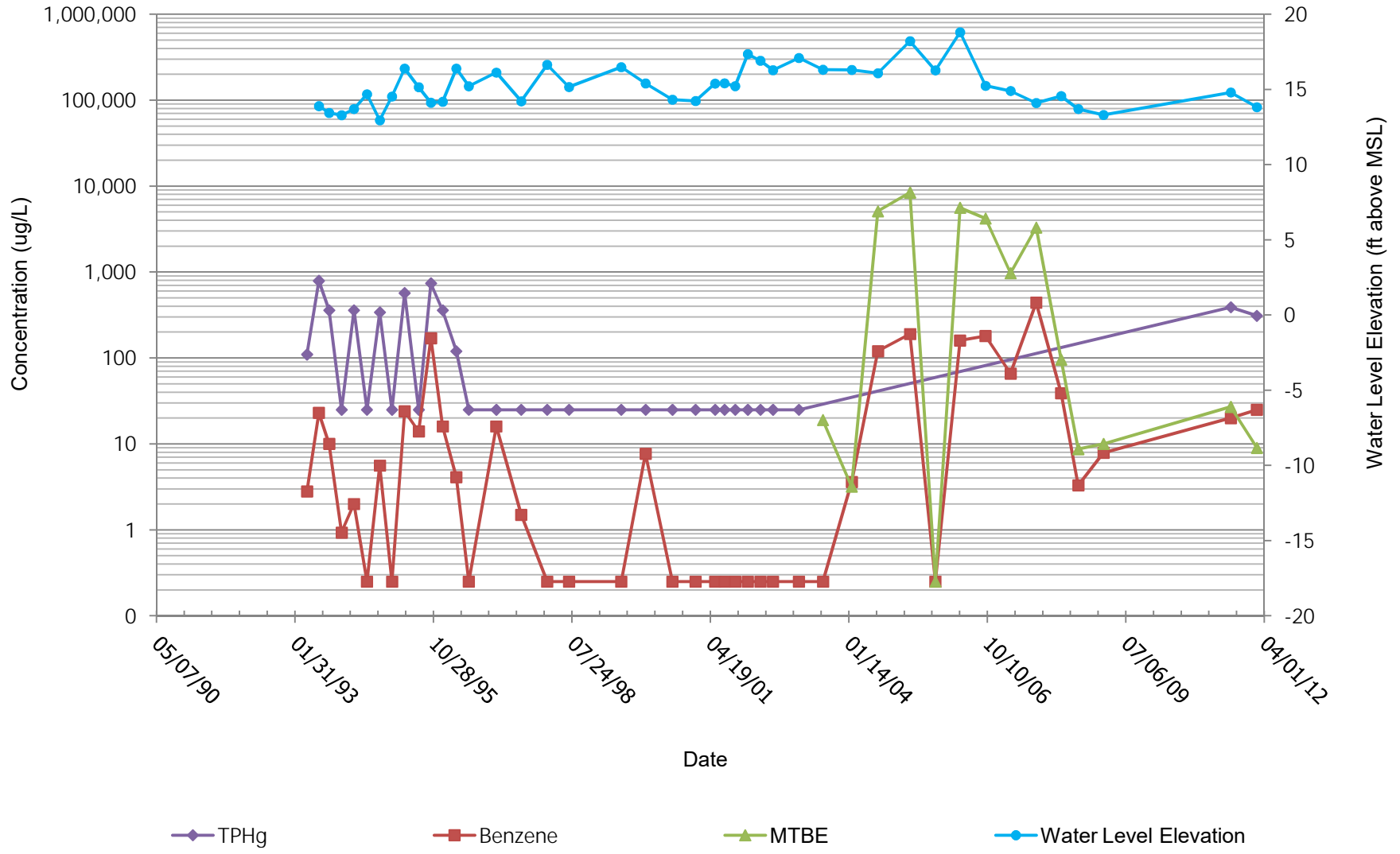


◆ TPHg ■ Benzene ▲ MTBE ● Water Level Elevation

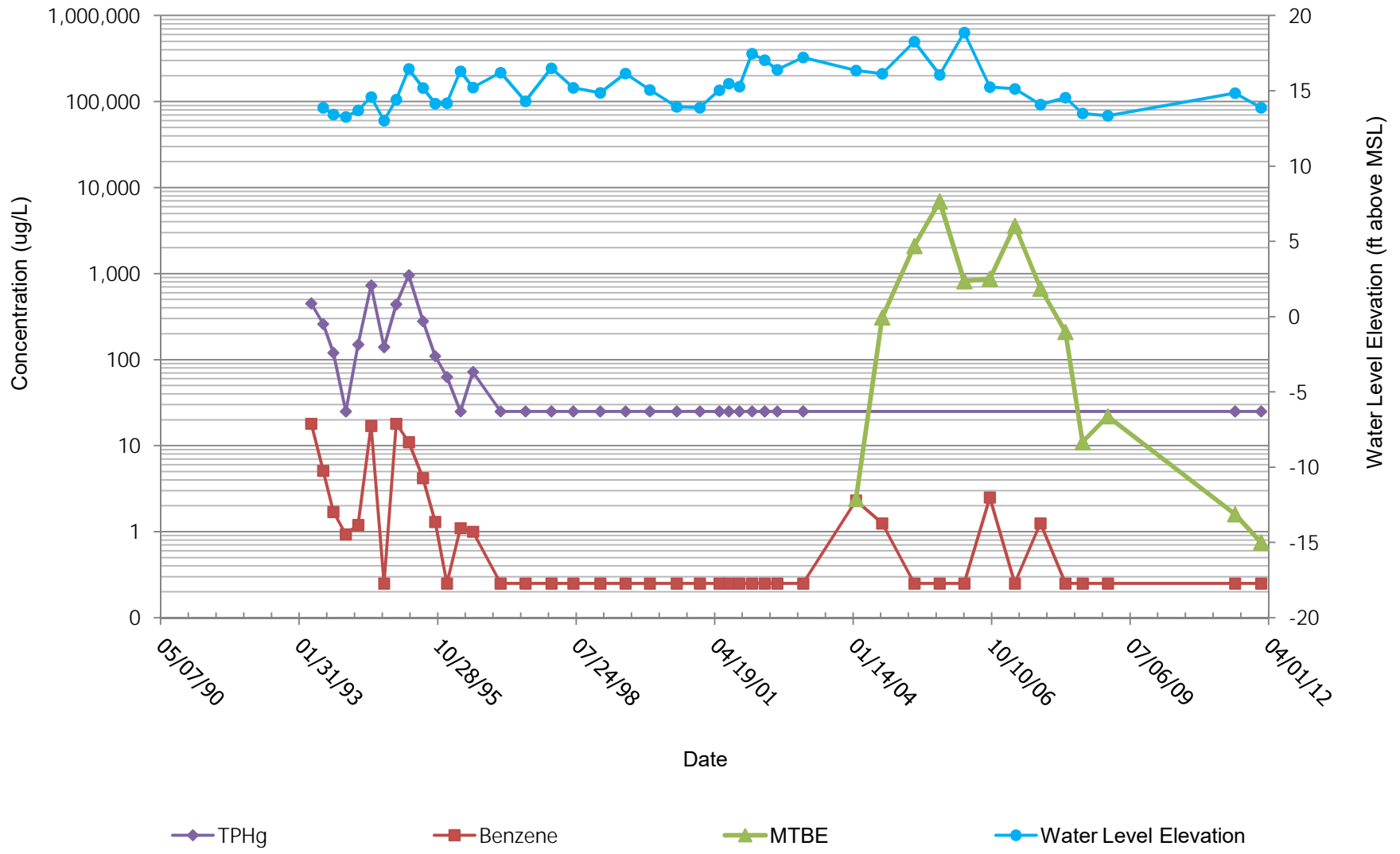
MW-6
76 Station 0752
800 Harrison Street
Oakland, California



MW-7
76 Station 0752
800 Harrison Street
Oakland, California



MW-8
76 Station 0752
800 Harrison Street
Oakland, California





Appendix F

Summary of Statistical Analysis and
Linear Regression

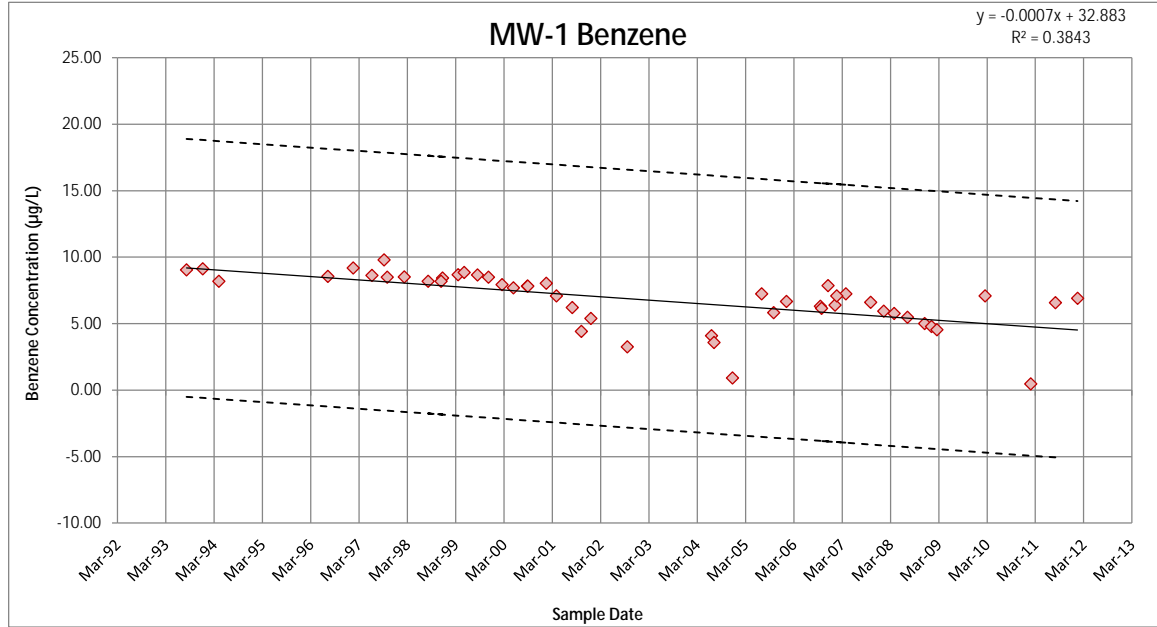
ARCADIS

**Summary of Statistical Analysis
and Linear Regression**

706 Harrison Street

Location: 706 Harrison Street
Well ID: MW-1
Constituent: Benzene

Sample Date	Detected Concentration (µg/L)	LN Concentration
08/13/93	8,500	9.05
12/14/93	9,200	9.13
04/15/94	3,600	8.19
07/19/96	5,200	8.56
01/27/97	9,800	9.19
06/18/97	5,600	8.63
09/18/97	18,000	9.80
10/12/97	4,900	8.50
02/18/98	5,000	8.52
12/05/98	4600	8.43
08/18/98	3,600	8.19
11/24/98	3,600	8.19
04/02/99	5,900	8.68
05/18/99	7,000	8.85
08/27/99	5,800	8.67
11/18/99	4,900	8.50
02/29/00	2,800	7.94
05/25/00	2,200	7.70
09/08/00	2,500	7.82
09/11/00	2,500	7.82
01/29/01	3,100	8.04
04/16/01	1,200	7.09
08/14/01	500	6.21
10/22/01	83	4.42
01/02/02	220	5.39
10/05/02	26	3.26
07/04/04	60	4.09
07/23/04	36	3.58
12/10/04	2.5	0.92
07/19/05	1,400	7.24
10/18/05	340	5.83
01/23/06	790	6.67
12/04/06	2,600	7.86
10/07/06	550	6.31
10/16/06	470	6.15
01/26/07	600	6.40
04/18/07	1,400	7.24
02/08/07	1,200	7.09
10/23/07	740	6.61
01/30/08	380	5.94
04/18/08	320	5.77
07/28/08	240	5.48
12/05/08	150	5.01
01/26/09	120	4.79
03/08/09	94	4.54
03/08/10	1,200	7.09
02/17/11	1.6	0.47
08/23/11	720	6.58
02/07/12	1,000	6.91



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.619880462
R Square	0.384251787
Adjusted R Square	0.371150761
Standard Error	1.611297961
Observations	49

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	12.00
LN Target Concentration	2.48
Intercept	32.882697
Slope	-0.000693
Date Objective is Reached	03/04/2020

ANOVA

	df	SS	MS	F	Significance F
Regression	1	76.14866772	76.14866772	29.3299008	2.03711E-06
Residual	47	122.0252127	2.596281121		
Total	48	198.1738804			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	32.8826969	4.821089946	6.820593948	1.52986E-08	23.1839151	42.58147871	24.79326125	40.97213255
X Variable 1	-0.000692523	0.000127873	-5.415708707	2.03711E-06	-0.00094977	-0.000435276	-0.000907085	-0.000477962

Abbreviations:

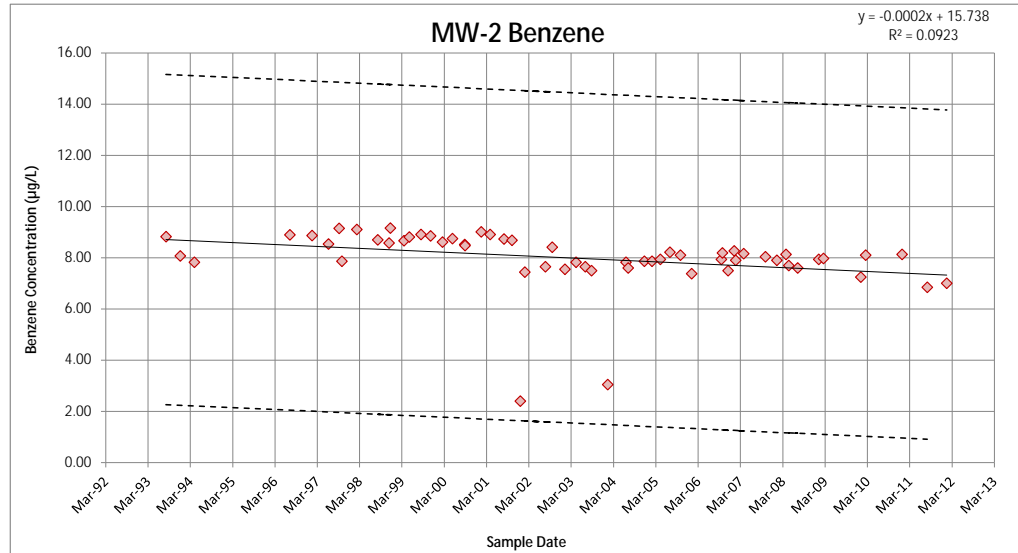
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 706 Harrison Street
Well ID: MW-2
Constituent: Benzene

Sample Date	Detected Concentration (µg/L)	LN Concentration
08/13/93	6,800.00	8.82
12/14/93	3,200.00	8.07
04/15/94	2,500.00	7.82
07/19/96	7,300.00	8.90
01/27/97	7,100.00	8.87
06/18/97	5,100.00	8.54
09/18/97	9,400.00	9.15
10/12/97	2,600.00	7.86
02/18/98	9,000.00	9.10
12/05/98	9,500.00	9.16
08/18/98	6,000.00	8.70
11/24/98	5,300.00	8.58
04/02/99	5,800.00	8.67
05/18/99	6,700.00	8.81
08/27/99	7,400.00	8.91
11/18/99	7,000.00	8.85
02/29/00	5,500.00	8.61
05/25/00	6,300.00	8.75
09/08/00	5,000.00	8.52
09/11/00	4,800.00	8.48
01/29/01	8,200.00	9.01
04/16/01	7,400.00	8.91
08/14/01	6,200.00	8.73
10/22/01	5,900.00	8.68
01/02/02	11.00	2.40
10/05/02	4,500.00	8.41
08/07/02	2,100.00	7.65
02/10/02	1,700.00	7.44
01/23/03	1,900.00	7.55
04/29/03	2,500.00	7.82
07/18/03	2,100.00	7.65
09/10/03	1,800.00	7.50
01/28/04	21.00	3.04
07/04/04	2,500.00	7.82
07/23/04	2,000.00	7.60
12/10/04	2,600.00	7.86
02/14/05	2,600.00	7.86
04/27/05	2,800.00	7.94
07/19/05	3,700.00	8.22
10/18/05	3,300.00	8.10
01/23/06	1,600.00	7.38
12/04/06	1,800.00	7.50
10/07/06	2,800.00	7.94
10/16/06	3,600.00	8.19
01/26/07	3,900.00	8.27
04/18/07	3,500.00	8.16
02/08/07	2,700.00	7.90
10/23/07	3,100.00	8.04
01/30/08	2,700.00	7.90
04/18/08	3,400.00	8.13
07/28/08	2,000.00	7.60
05/12/08	2,200.00	7.70
01/26/09	2,800.00	7.94
03/08/09	2,900.00	7.97
01/25/10	1,400.00	7.24
03/08/10	3,300.00	8.10
01/17/11	3,400.00	8.13
08/23/11	940.00	6.85
02/07/12	1,100.00	7.00



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.303834798
R Square	0.092315585
Adjusted R Square	0.076391297
Standard Error	1.097627451
Observations	59

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	12.00
LN Target Concentration	2.48
Intercept	15.738398
Slope	-0.000205
Date Objective is Reached	08/22/2076

ANOVA

	df	SS	MS	F	Significance F
Regression	1	6.984332728	6.984332728	5.79715618	0.019311215
Residual	57	68.67280315	1.20478602		
Total	58	75.65713588			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	15.7383984	3.222065425	4.884568227	8.7736E-06	9.286323729	22.19047307	10.35101193	21.12578487
X Variable 1	-0.00020542	8.53169E-05	-2.40772843	0.01931121	-0.000376264	-3.4576E-05	-0.00034807	-6.2768E-05

Abbreviations:

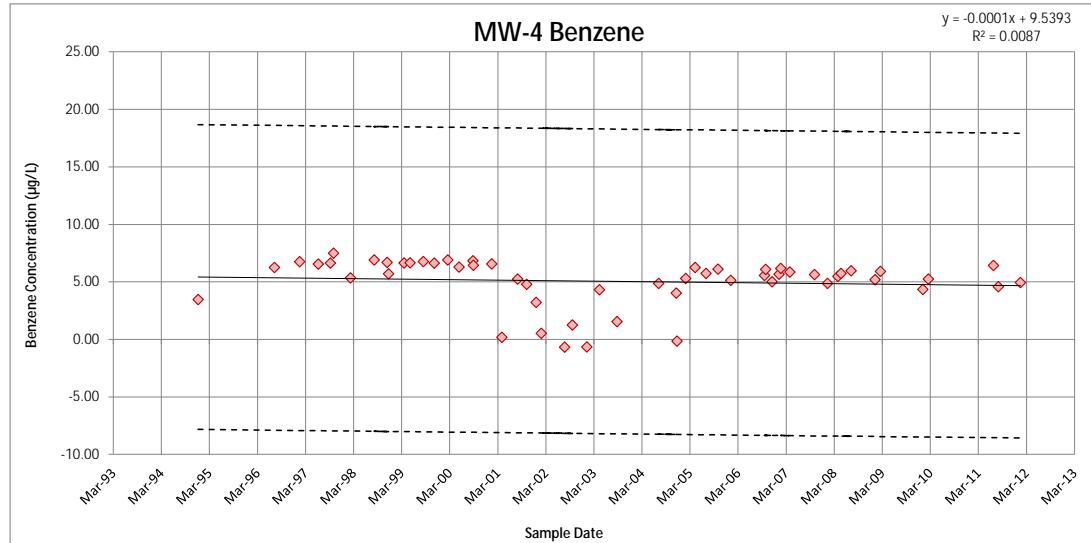
- LN Natural Log
- NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 706 Harrison Street
Well ID: MW-4
Constituent: Benzene

Sample Date	Detected Concentration (µg/L)	LN Concentration
12/16/94	32	3.47
07/19/96	520	6.25
01/27/97	860	6.76
06/18/97	700	6.55
09/18/97	760	6.63
10/12/97	1,800	7.50
02/18/98	210	5.35
12/05/98	300	5.70
08/18/98	1,000	6.91
11/24/98	810	6.70
04/02/99	770	6.65
05/18/99	780	6.66
08/27/99	870	6.77
11/18/99	760	6.63
02/29/00	1,000	6.91
05/25/00	540	6.29
09/08/00	930	6.84
09/11/00	630	6.45
01/29/01	710	6.57
04/16/01	1.2	0.18
08/14/01	190	5.25
10/22/01	120	4.79
01/02/02	25	3.22
10/05/02	3.5	1.25
08/07/02	0.51	-0.67
02/10/02	1.7	0.53
01/23/03	0.52	-0.65
04/29/03	75	4.32
09/10/03	4.7	1.55
12/04/04	56	4.03
07/23/04	130	4.87
12/10/04	0.86	-0.15
02/14/05	200	5.30
04/27/05	520	6.25
07/19/05	310	5.74
10/18/05	450	6.11
01/23/06	170	5.14
12/04/06	150	5.01
10/07/06	260	5.56
10/16/06	440	6.09
01/26/07	290	5.67
04/18/07	350	5.86
02/08/07	480	6.17
10/23/07	280	5.63
01/30/08	130	4.87
04/18/08	240	5.48
07/28/08	390	5.97
05/12/08	310	5.74
01/26/09	180	5.19
03/08/09	370	5.91
01/25/10	77	4.34
03/08/10	190	5.25
07/17/11	620	6.43
08/23/11	98	4.58
02/07/12	140	4.94



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.093184066
R Square	0.00868327
Adjusted R Square	-0.010020819
Standard Error	2.063228667
Observations	55

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	12.00
LN Target Concentration	2.48
Intercept	9.539340
Slope	-0.000119
Date Objective is Reached	07/29/2062

ANOVA

	df	SS	MS	F	Significance F
Regression	1	1.976248144	1.976248144	0.46424448	0.498613439
Residual	53	225.6163642	4.256912532		
Total	54	227.5926123			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	9.539339857	6.606795577	1.44386787	0.154661687	-3.712213605	22.79089332	-1.521203894	20.59988361
X Variable 1	-0.000118799	0.000174357	-0.681354885	0.498613439	-0.000468515	0.000230917	-0.000410693	0.000173095

Abbreviations:

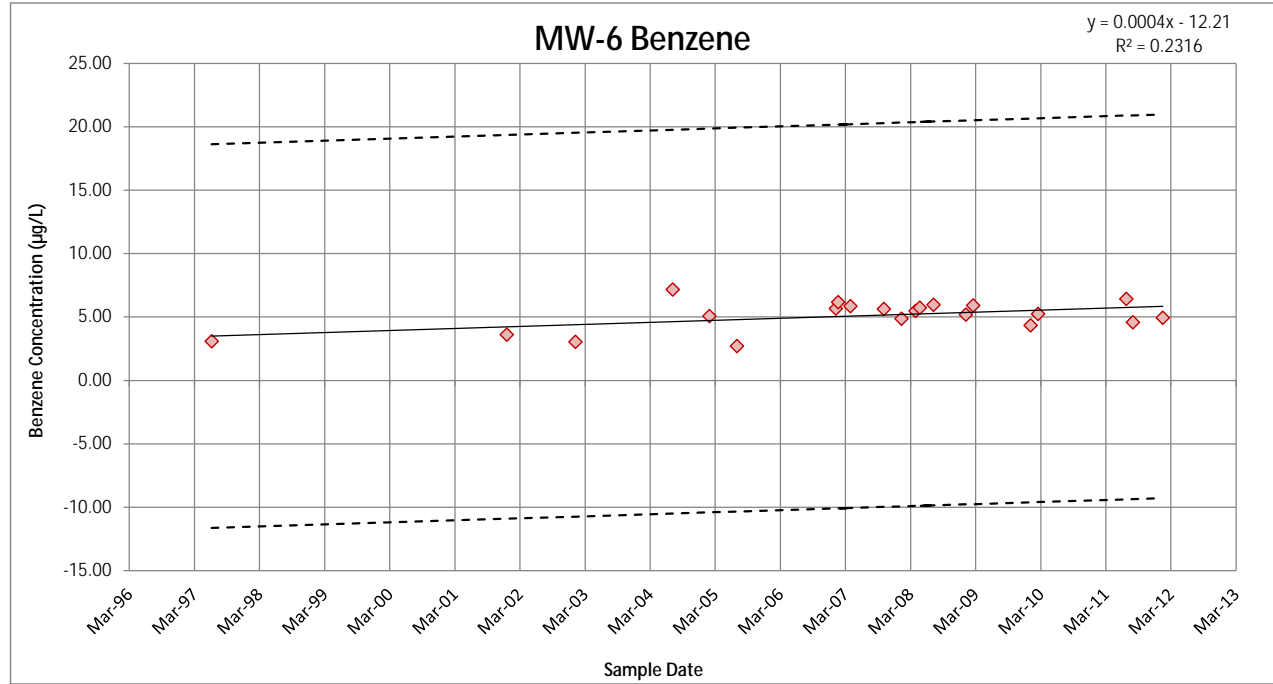
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 706 Harrison Street
Well ID: MW-6
Constituent: Benzene

Sample Date	Detected Concentration (µg/L)	LN Concentration
06/18/97	22	3.09
01/02/02	37	3.61
01/23/03	21	3.04
07/23/04	1,300	7.17
02/14/05	160	5.08
07/19/05	15	2.71
01/26/07	290	5.67
04/18/07	350	5.86
02/08/07	480	6.17
10/23/07	280	5.63
01/30/08	130	4.87
04/18/08	240	5.48
07/28/08	390	5.97
05/12/08	310	5.74
01/26/09	180	5.19
03/08/09	370	5.91
01/25/10	77	4.34
03/08/10	190	5.25
07/17/11	620	6.43
08/23/11	98	4.58
02/07/12	140	4.94



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.481210703
R Square	0.231563741
Adjusted R Square	0.191119727
Standard Error	1.054508779
Observations	21

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	12.00
LN Target Concentration	2.48
Intercept	-12.209955
Slope	0.000441
Date Objective is Reached	N/A

ANOVA

	df	SS	MS	F	Significance F
Regression	1	6.366734039	6.366734039	5.725538102	0.027208738
Residual	19	21.12778652	1.111988764		
Total	20	27.49452056			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	-12.20995522	7.230667361	-1.688634618	0.10763467	-27.3439159	2.924005467	-24.71273926	0.292828829
X Variable 1	0.000441069	0.000184331	2.392809667	0.027208738	5.52598E-05	0.000826878	0.000122336	0.000759802

Abbreviations:

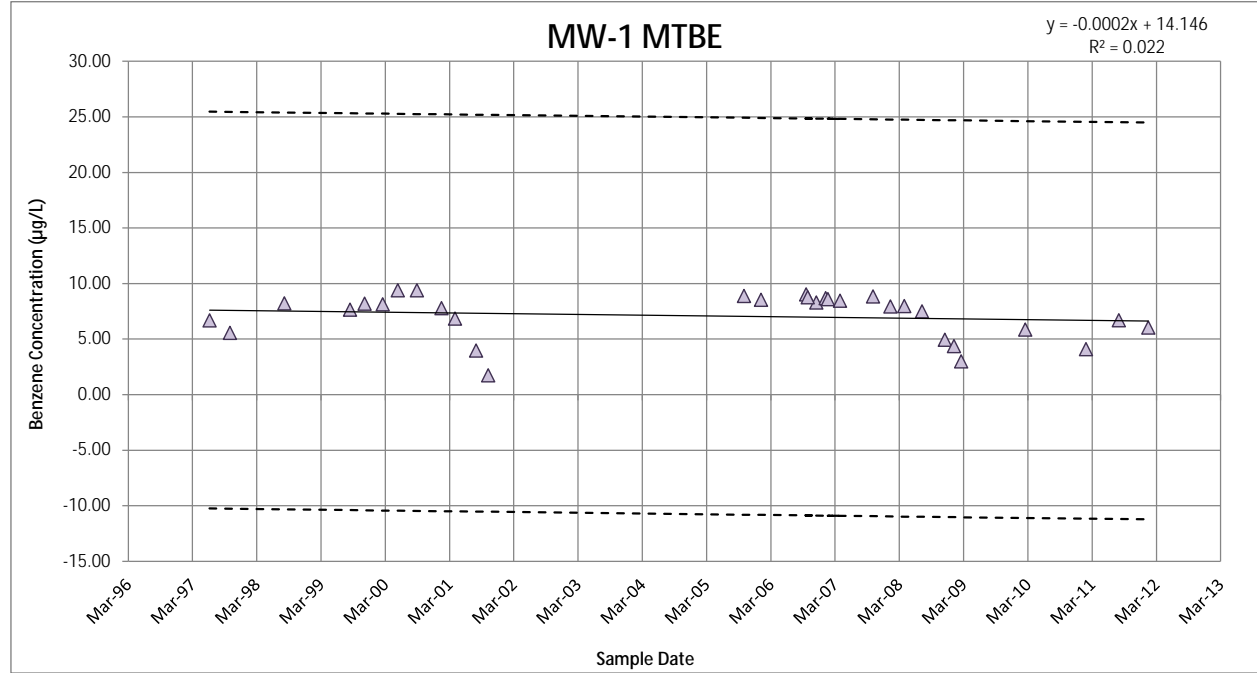
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 706 Harrison Street
Well ID: MW-1
Constituent: MTBE

Sample Date	Detected Concentration (µg/L)	LN Concentration
06/18/97	800	6.68
10/12/97	260	5.56
08/18/98	3,700	8.22
08/27/99	2,100	7.65
11/18/99	3,600	8.19
02/29/00	3,400	8.13
05/25/00	12,000	9.39
09/11/00	12,000	9.39
01/29/01	2,400	7.78
04/16/01	940	6.85
08/14/01	53	3.97
10/22/01	5.7	1.74
10/18/05	7,200	8.88
01/23/06	5,100	8.54
12/04/06	4,000	8.29
10/07/06	8,300	9.02
10/16/06	6,400	8.76
01/26/07	5,900	8.68
04/18/07	4,700	8.46
02/08/07	5,400	8.59
10/23/07	6,900	8.84
01/30/08	2,800	7.94
04/18/08	2,900	7.97
07/28/08	1,800	7.50
12/05/08	140	4.94
01/26/09	79	4.37
03/08/09	20	3.00
03/08/10	350	5.86
02/17/11	60	4.09
08/23/11	810	6.70
02/07/12	420	6.04



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.148350287
R Square	0.022007808
Adjusted R Square	-0.011716061
Standard Error	2.020706263
Observations	31

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	5.00
LN Target Concentration	1.61
Intercept	14.146333
Slope	-0.000184
Date Objective is Reached	01/01/2087

ANOVA

	df	SS	MS	F	Significance F
Regression	1	2.664684322	2.664684322	0.652588463	0.425765808
Residual	29	118.4143602	4.083253801		
Total	30	121.0790445			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	14.14633312	8.732864031	1.619896184	0.116079751	-3.714378986	32.00704523	-0.691911904	28.98457815
X Variable 1	-0.000183546	0.000227208	-0.807829476	0.425765808	-0.000648239	0.000281148	-0.000569602	0.00020251

Abbreviations:

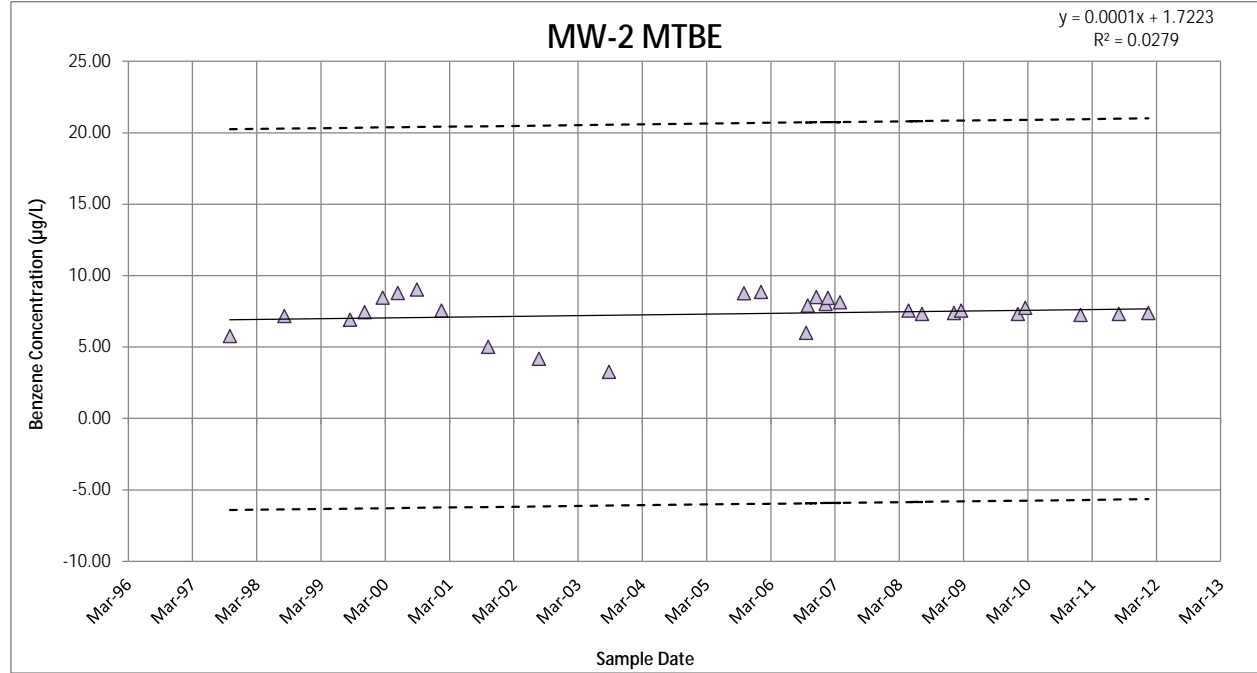
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 706 Harrison Street
Well ID: MW-2
Constituent: MTBE

Sample Date	Detected Concentration (µg/L)	LN Concentration
10/12/97	320.00	5.77
08/18/98	1,300.00	7.17
08/27/99	1,000.00	6.91
11/18/99	1,700.00	7.44
02/29/00	4,700.00	8.46
05/25/00	6,500.00	8.78
09/11/00	8,300.00	9.02
01/29/01	1,900.00	7.55
10/22/01	150.00	5.01
08/07/02	65.00	4.17
09/10/03	26.00	3.26
10/18/05	6,400.00	8.76
01/23/06	7,000.00	8.85
12/04/06	4,900.00	8.50
10/07/06	400.00	5.99
10/16/06	2,700.00	7.90
01/26/07	3,000.00	8.01
04/18/07	3,400.00	8.13
02/08/07	4,600.00	8.43
07/28/08	1,500.00	7.31
05/12/08	1,900.00	7.55
01/26/09	1,600.00	7.38
03/08/09	1,900.00	7.55
01/25/10	1,500.00	7.31
03/08/10	2,300.00	7.74
01/17/11	1,400.00	7.24
08/23/11	1,500.00	7.31
02/07/12	1,600.00	7.38



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.166979185
R Square	0.027882048
Adjusted R Square	-0.009507104
Standard Error	1.385039175
Observations	28

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	5.00
LN Target Concentration	1.61
Intercept	1.722263
Slope	0.000145
Date Objective is Reached	NA

ANOVA

	df	SS	MS	F	Significance F
Regression	1	1.430550439	1.430550439	0.745725613	0.395729552
Residual	26	49.87667145	1.918333517		
Total	27	51.30722189			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	1.722263306	6.484778145	0.26558554	0.79265299	-11.60738894	15.05191555	-9.338290379	12.78281699
X Variable 1	0.000145381	0.000168352	0.863554059	0.395729552	-0.000200671	0.000491432	-0.000141763	0.000432524

Abbreviations:

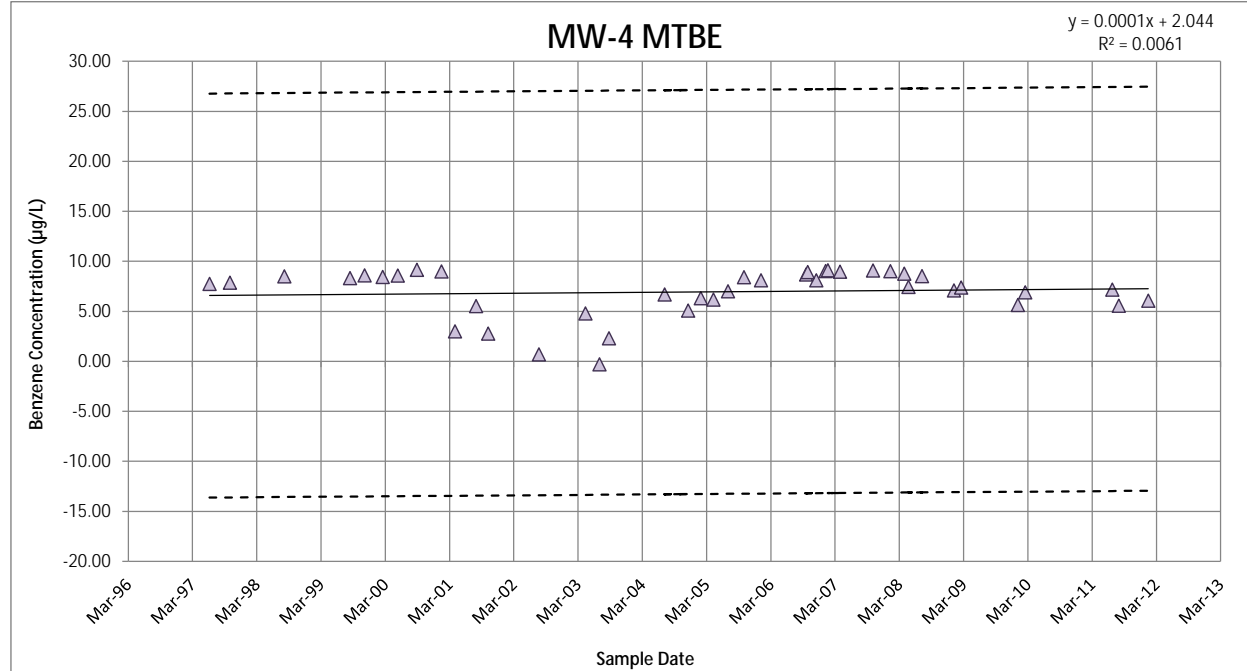
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 706 Harrison Street
Well ID: MW-4
Constituent: MTBE

Sample Date	Detected Concentration (µg/L)	LN Concentration
06/18/97	2300	7.74
10/12/97	2600	7.86
08/18/98	4900	8.50
08/27/99	4,100	8.32
11/18/99	5,400	8.59
02/29/00	4,600	8.43
05/25/00	5,300	8.58
09/11/00	9,400	9.15
01/29/01	8,000	8.99
04/16/01	20	3.00
08/14/01	250	5.52
10/22/01	16	2.77
08/07/02	2.0	0.69
04/29/03	120	4.79
07/18/03	0.74	-0.30
09/10/03	10	2.30
12/04/04	160	5.08
07/23/04	800	6.68
02/14/05	550	6.31
04/27/05	480	6.17
07/19/05	1,100	7.00
10/18/05	4,500	8.41
01/23/06	3,300	8.10
12/04/06	3,300	8.10
10/07/06	5,900	8.68
10/16/06	7,500	8.92
01/26/07	8,300	9.02
04/18/07	7,800	8.96
02/08/07	9,000	9.10
10/23/07	8,800	9.08
01/30/08	8,200	9.01
04/18/08	6,400	8.76
07/28/08	5,000	8.52
05/12/08	1,700	7.44
01/26/09	1,200	7.09
03/08/09	1,600	7.38
01/25/10	280	5.63
03/08/10	990	6.90
07/17/11	1,300	7.17
08/23/11	260	5.56
02/07/12	430	6.06



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.078140708
R Square	0.00610597
Adjusted R Square	-0.019378492
Standard Error	2.389935372
Observations	41

ANOVA

	df	SS	MS	F	Significance F
Regression	1	1.368521175	1.368521175	0.239595804	0.627240162
Residual	39	222.7598522	5.711791081		
Total	40	224.1283734			

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	5.00
LN Target Concentration	1.61
Intercept	2.044006
Slope	0.000127
Date Objective is Reached	NA

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	2.044005776	9.987264323	0.204661227	0.838901193	-18.1571429	22.24515445	-14.78328742	18.87129897
X Variable 1	0.000127295	0.000260059	0.489485244	0.627240162	-0.000398724	0.000653313	-0.000310872	0.000565461

Abbreviations:

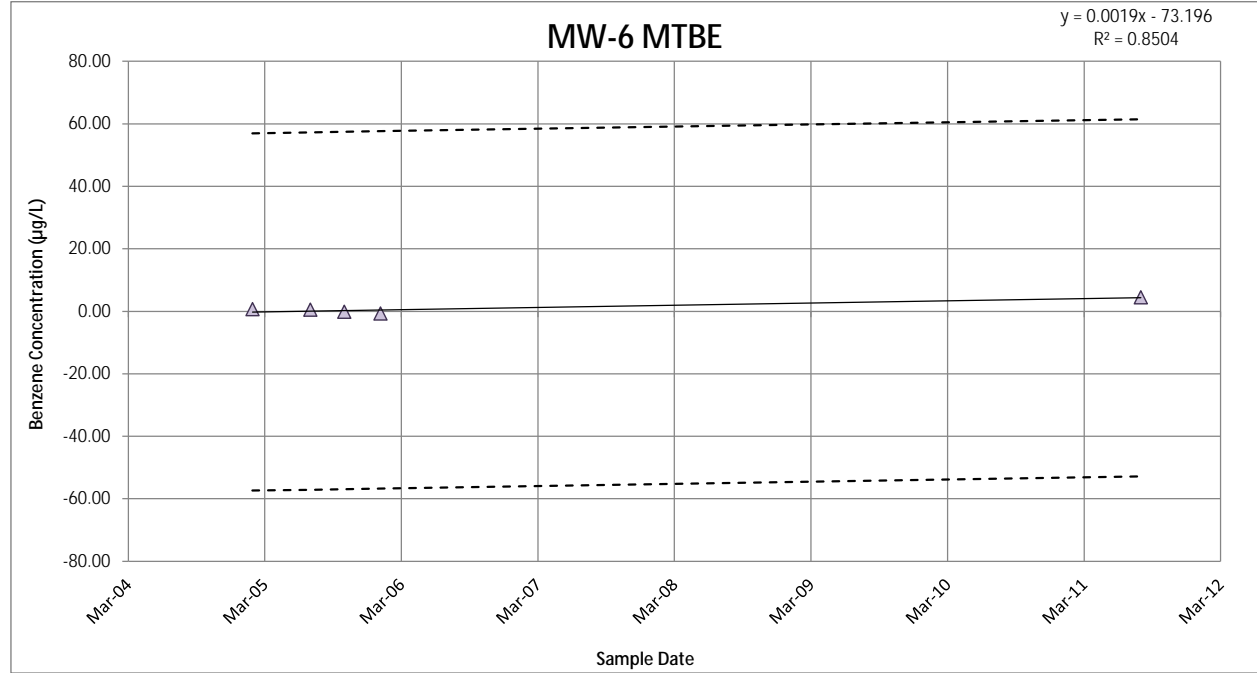
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 706 Harrison Street
Well ID: MW-6
Constituent: MTBE

Sample Date	Detected Concentration (µg/L)	LN Concentration
02/14/05	2	0.69
07/19/05	1.7	0.53
10/18/05	0.87	-0.14
01/23/06	0.5	-0.69
08/23/11	89	4.49



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.922168862
R Square	0.85039541
Adjusted R Square	0.800527213
Standard Error	0.91112446
Observations	5

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	5.00
LN Target Concentration	1.61
Intercept	-73.196191
Slope	0.001901
Date Objective is Reached	NA

ANOVA

	df	SS	MS	F	Significance F
Regression	1	14.15639442	14.15639442	17.05286063	0.02575892
Residual	3	2.490443345	0.830147782		
Total	4	16.64683777			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	-73.19619095	17.96611654	-4.074124243	0.02669136	-130.3723921	-16.01998976	-115.4769927	-30.91538923
X Variable 1	0.001900779	0.000460292	4.129510943	0.02575892	0.000435926	0.003365632	0.000817546	0.002984012

Abbreviations:

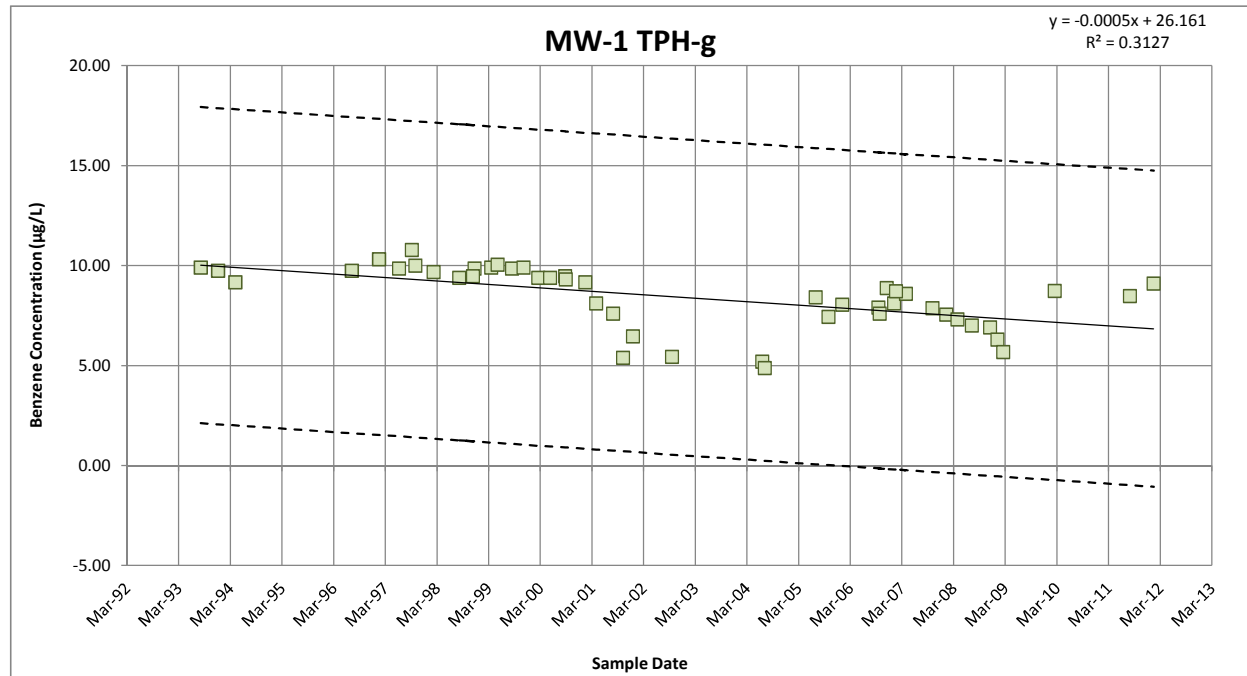
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Well ID: MW-1
 Constituent: TPH-g

Sample Date	Detected Concentration (µg/L)	LN Concentration
08/13/93	20,000	9.90
12/14/93	17,000	9.74
04/15/94	9,500	9.16
07/19/96	17,000	9.74
01/27/97	30,000	10.31
06/18/97	19,000	9.85
09/18/97	48,000	10.78
10/12/97	22,000	10.00
02/18/98	16,000	9.68
12/05/98	19,000	9.85
08/18/98	12,000	9.39
11/24/98	13,000	9.47
04/02/99	20,000	9.90
05/18/99	23,000	10.04
08/27/99	19,000	9.85
11/18/99	20,000	9.90
02/29/00	12,000	9.39
05/25/00	12,000	9.39
09/08/00	13,000	9.47
09/11/00	11,000	9.31
01/29/01	9,600	9.17
04/16/01	3,300	8.10
08/14/01	2,000	7.60
10/22/01	220	5.39
01/02/02	640	6.46
10/05/02	230	5.44
07/04/04	180	5.19
07/23/04	130	4.87
07/19/05	4,500	8.41
10/18/05	1,700	7.44
01/23/06	3,100	8.04
12/04/06	7,200	8.88
10/07/06	2,700	7.90
10/16/06	2,000	7.60
01/26/07	3,300	8.10
04/18/07	5,400	8.59
02/08/07	6,100	8.72
10/23/07	2,600	7.86
01/30/08	1,900	7.55
04/18/08	1,500	7.31
07/28/08	1,100	7.00
12/05/08	1,000	6.91
01/26/09	540	6.29
03/08/09	290	5.67
03/08/10	6,200	8.73
08/23/11	4,800	8.48
02/07/12	8,900	9.09



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.559186403
R Square	0.312689433
Adjusted R Square	0.297415865
Standard Error	1.275095553
Observations	47

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	33.28573565	33.28573565	20.47258568	4.39423E-05
Residual	45	73.16409014	1.62586867		
Total	46	106.4498258			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	26.16075714	3.924280609	6.666382899	3.18878E-08	18.25685038	34.0646639	19.57021279	32.75130149
X Variable 1	-0.000471925	0.0001043	-4.524664151	4.39423E-05	-0.000681996	-0.000261853	-0.00064709	-0.000296759

Abbreviations:

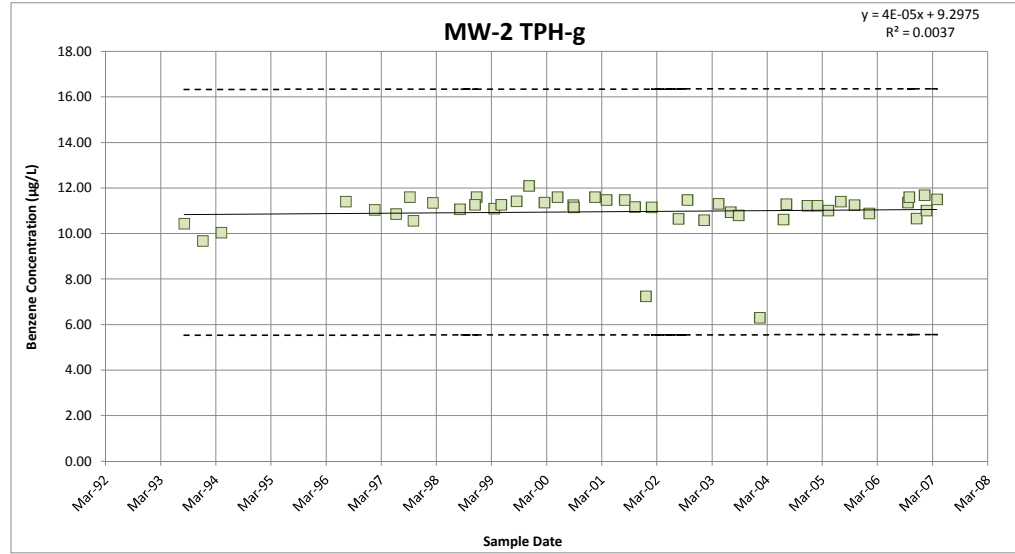
LN Natural Log

Notes:

- Upper and lower bounds are shown as dashed lines at 95% confidence
- Linear regressions were performed on log-normalized concentration data.

Well ID: MW-2
 Constituent: TPH-g

Sample Date	Detected Concentration (µg/L)	LN Concentration
08/13/93	34,000.00	10.43
12/14/93	16,000.00	9.68
04/15/94	23,000.00	10.04
07/19/96	90,000.00	11.41
01/27/97	63,000.00	11.05
06/18/97	52,000.00	10.86
09/18/97	110,000.00	11.61
10/12/97	39,000.00	10.57
02/18/98	85,000.00	11.35
12/05/98	110,000.00	11.61
08/18/98	64,000.00	11.07
11/24/98	78,000.00	11.26
04/02/99	66,000.00	11.10
05/18/99	78,000.00	11.26
08/27/99	91,000.00	11.42
11/18/99	180,000.00	12.10
02/29/00	86,000.00	11.36
05/25/00	110,000.00	11.61
09/08/00	77,000.00	11.25
09/11/00	70,000.00	11.16
01/29/01	110,000.00	11.61
04/16/01	97,000.00	11.48
08/14/01	97,000.00	11.48
10/22/01	71,000.00	11.17
01/02/02	1,400.00	7.24
10/05/02	97,000.00	11.48
08/07/02	42,000.00	10.65
02/10/02	70,000.00	11.16
01/23/03	40,000.00	10.60
04/29/03	82,000.00	11.31
07/18/03	57,000.00	10.95
09/10/03	49,000.00	10.80
01/28/04	550.00	6.31
07/04/04	41,000.00	10.62
07/23/04	81,000.00	11.30
12/10/04	75,000.00	11.23
02/14/05	75,000.00	11.23
04/27/05	61,000.00	11.02
07/19/05	90,000.00	11.41
10/18/05	77,000.00	11.25
01/23/06	54,000.00	10.90
12/04/06	43,000.00	10.67
10/07/06	86,000.00	11.36
10/16/06	110,000.00	11.61
01/26/07	120,000.00	11.70
04/18/07	100,000.00	11.51
02/08/07	61,000.00	11.02
10/23/07	56,000.00	10.93
01/30/08	52,000.00	10.86
04/18/08	64,000.00	11.07
07/28/08	51,000.00	10.84
05/12/08	74,000.00	11.21
01/26/09	90,000.00	11.41
03/08/09	67,000.00	11.11
01/25/10	46,000.00	10.74
03/08/10	79,000.00	11.28
01/17/11	76,000.00	11.24
08/23/11	17,000.00	9.74
02/07/12	36,000.00	10.49



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.010962506
R Square	0.000120177
Adjusted R Square	-0.017421575
Standard Error	0.918754879
Observations	59

ANOVA

	df	SS	MS	F	Significance F
Regression	1	0.005782905	0.005782905	0.006850887	0.934324344
Residual	57	48.11430013	0.844110529		
Total	58	48.12008303			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	10.72913023	2.696988245	3.978189468	0.000198338	5.328504467	16.12975599	6.219687971	15.23857249
X Variable 1	5.91089E-06	7.14134E-05	0.082770083	0.934324344	-0.000137092	0.000148914	-0.000113494	0.000125316

Abbreviations:

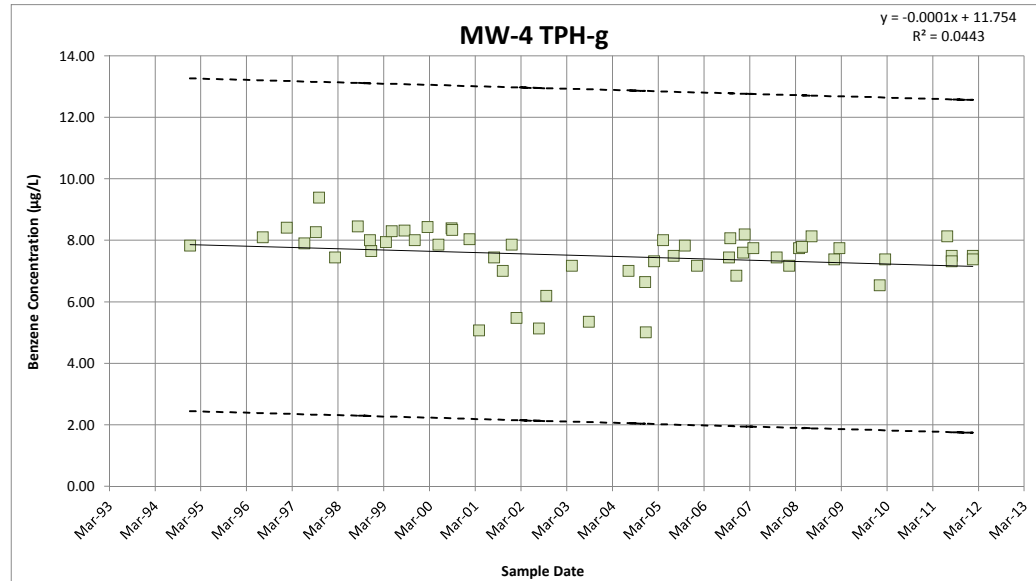
LN Natural Log

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence
- (2) Linear regressions were performed on log-normalized concentration data.

Well ID: MW-4
Constituent: TPH-g

Sample Date	Detected Concentration (µg/L)	LN Concentration
12/16/94	2,500	7.82
07/19/96	3,300	8.10
01/27/97	4,500	8.41
06/18/97	2,700	7.90
09/18/97	3,900	8.27
10/12/97	12,000	9.39
02/18/98	1,700	7.44
12/05/98	2,100	7.65
08/18/98	4,700	8.46
11/24/98	3,000	8.01
04/02/99	2,800	7.94
05/18/99	4,000	8.29
08/27/99	4,100	8.32
11/18/99	3,000	8.01
02/29/00	4,600	8.43
05/25/00	2,600	7.86
09/08/00	4,400	8.39
09/11/00	4,200	8.34
01/29/01	3,100	8.04
04/16/01	160	5.08
08/14/01	1,700	7.44
10/22/01	1,100	7.00
01/02/02	2,600	7.86
10/05/02	490	6.19
08/07/02	170	5.14
02/10/02	240	5.48
04/29/03	1,300	7.17
09/10/03	210	5.35
12/04/04	770	6.65
07/23/04	1,100	7.00
12/10/04	150	5.01
02/14/05	1,500	7.31
04/27/05	3,000	8.01
07/19/05	1,800	7.50
10/18/05	2,500	7.82
01/23/06	1,300	7.17
12/04/06	940	6.85
10/07/06	1,700	7.44
10/16/06	3,200	8.07
01/26/07	2,000	7.60
04/18/07	2,300	7.74
02/08/07	3,600	8.19
10/23/07	1,700	7.44
01/30/08	1,300	7.17
04/18/08	2,300	7.74
07/28/08	3,400	8.13
05/12/08	2,400	7.78
01/26/09	1,600	7.38
03/08/09	2,300	7.74
01/25/10	690	6.54
03/08/10	1,600	7.38
07/17/11	3,400	8.13
08/23/11	1,800	7.50
02/07/12	1,800	7.50
08/23/11	1,500.00	7.31
02/07/12	1,600.00	7.38



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.210533041
R Square	0.044324161
Adjusted R Square	0.026626461
Standard Error	0.890742151
Observations	56

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	1.987136441	1.987136441	2.504515245	0.119360331
Residual	54	42.84476527	0.793421579		
Total	55	44.83190171			

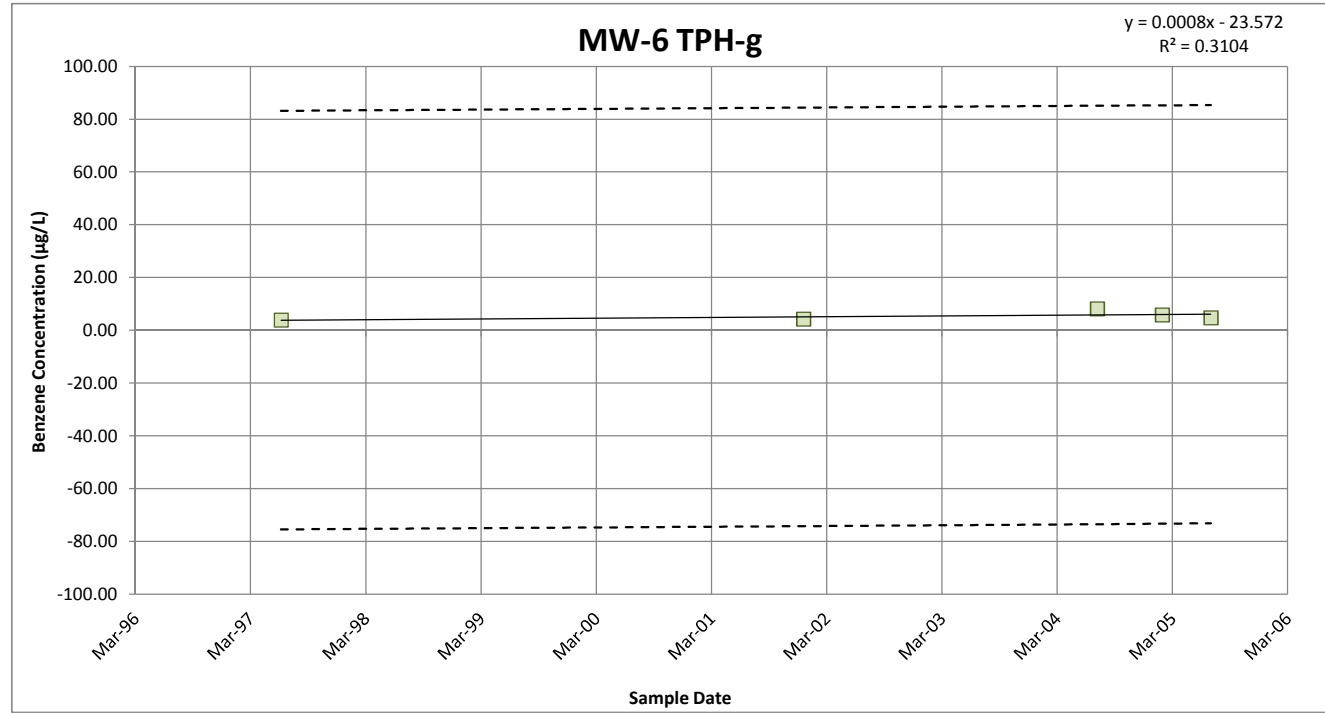
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	11.75360225	2.698901269	4.354958213	5.98233E-05	6.342631029	17.16457347	7.236815798	16.2703887
X Variable 1	-0.00011238	7.10111E-05	-1.582566032	0.119360331	-0.000254748	2.99889E-05	-0.000231221	6.46193E-06

Abbreviations:
 LN Natural Log

- Notes:**
- (1) Upper and lower bounds are shown as dashed lines at 95% confidence
 - (2) Linear regressions were performed on log-normalized concentration data.

Well ID: MW-6
 Constituent: TPH-g

Sample Date	Detected Concentration (µg/L)	LN Concentration
06/18/97	51	3.93
01/02/02	70	4.25
07/23/04	3,300	8.10
02/14/05	350	5.86
07/19/05	110	4.70



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.557129403
R Square	0.310393172
Adjusted R Square	0.080524229
Standard Error	1.62407847
Observations	5

ANOVA

	df	SS	MS	F	Significance F
Regression	1	3.561606034	3.561606034	1.350304951	0.329270416
Residual	3	7.912892633	2.637630878		
Total	4	11.47449867			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	-23.57222483	24.91562644	-0.946081965	0.413903369	-102.8648681	55.72041847	-82.20774905	35.06329939
X Variable 1	0.000769701	0.000662379	1.162026227	0.329270416	-0.001338283	0.002877686	-0.000789116	0.002328519

Abbreviations:

LN Natural Log

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence
- (2) Linear regressions were performed on log-normalized concentration data.

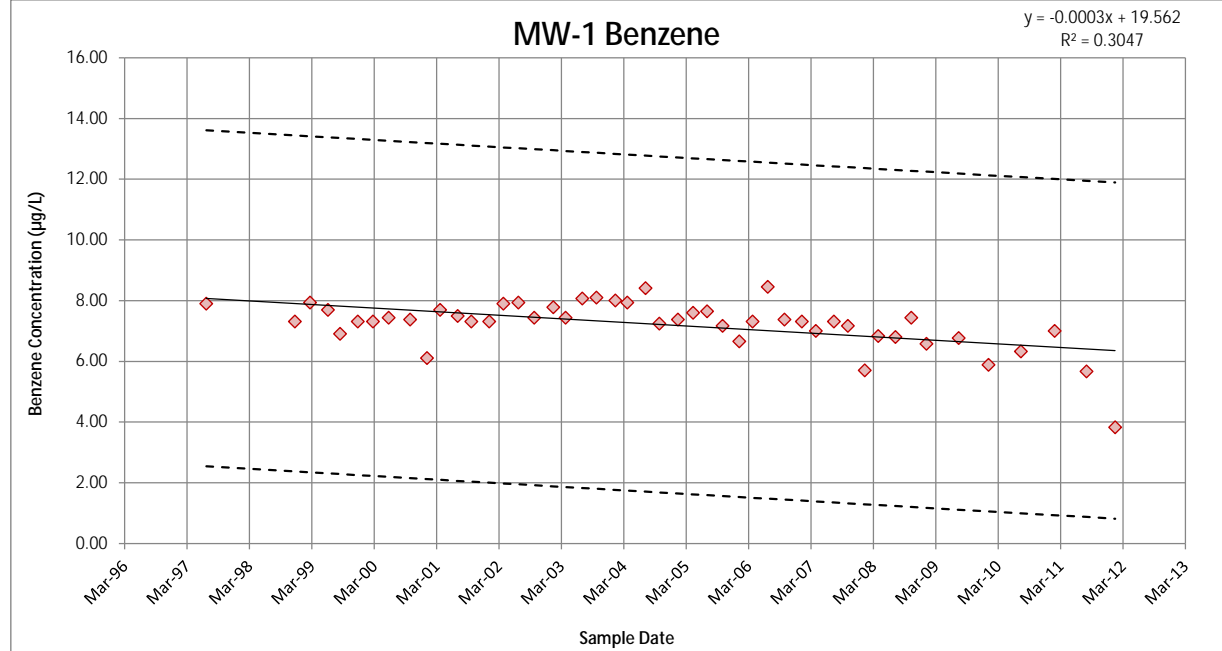
ARCADIS

**Summary of Statistical Analysis
and Linear Regression**

726 Harrison Street

Location: 726 Harrison Street
Well ID: MW-1
Constituent: Benzene

Sample Date	Detected Concentration (µg/L)	Normalized Concentration
7/3/1997	2,700	7.90
12/5/1998	1,500	7.31
3/4/1999	2,800	7.94
6/17/1999	2,200	7.70
8/27/1999	1,000	6.91
12/9/1999	1,500	7.31
3/7/2000	1,500	7.31
6/7/2000	1,700	7.44
10/11/2000	1,600	7.38
1/18/2001	450	6.11
4/5/2001	2,200	7.70
7/17/2001	1,800	7.50
10/5/2001	1,500	7.31
1/18/2002	1,500	7.31
4/11/2002	2,700	7.90
7/8/2002	2,800	7.94
10/9/2002	1,700	7.44
1/29/2003	2,400	7.78
4/11/2003	1,700	7.44
7/18/2003	3,200	8.07
10/9/2003	3,300	8.10
1/28/2004	3,000	8.01
4/7/2004	2,800	7.94
7/23/2004	4,500	8.41
10/12/2004	1,400	7.24
1/29/2005	1,600	7.38
4/28/2005	2,000	7.60
7/19/2005	2,100	7.65
10/18/2005	1,300	7.17
1/24/2006	780	6.66
4/12/2006	1,500	7.31
7/10/2006	4,700	8.46
10/16/2006	1,600	7.38
1/26/2007	1,500	7.31
4/18/2007	1,100	7.00
8/2/2007	1,500	7.31
10/23/2007	1,300	7.17
1/30/2008	300	5.70
4/18/2008	930	6.84
7/28/2008	900	6.80
10/29/2008	1,700	7.44
1/26/2009	720	6.58
8/3/2009	870	6.77
1/25/2010	360	5.89
8/3/2010	560	6.33
2/17/2011	1,100	7.00
8/23/2011	290	5.67
2/7/2012	46	3.83



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.552021043
R Square	0.304727232
Adjusted R Square	0.289612607
Standard Error	0.679070276
Observations	48

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	12.00
LN Target Concentration	2.48
Intercept	19.561698
Slope	-0.000323
Date Objective is Reached	12/13/2044

ANOVA

	df	SS	MS	F	Significance F
Regression	1	9.297010501	9.297010501	20.161084	4.75463E-05
Residual	46	21.21227624	0.46113644		
Total	47	30.50928674			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	19.561698	2.750002132	7.113339211	6.16212E-09	14.0262309	25.0971651	14.94537828	24.17801772
X Variable 1	-0.00032254	7.18334E-05	-4.490109575	4.75463E-05	-0.000467133	-0.000177947	-0.000443124	-0.000201956

Abbreviations:

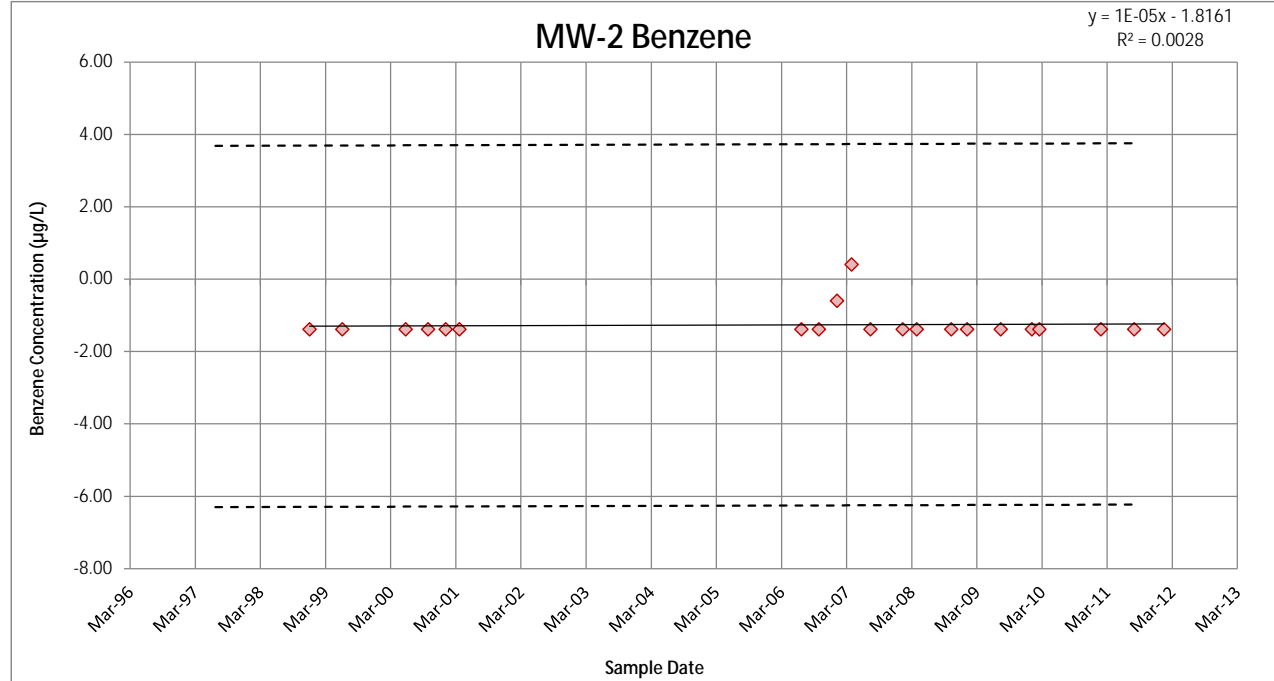
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 726 Harrison Street
Well ID: MW-2
Constituent: Benzene

Sample Date	Detected Concentration (µg/L)	LN Concentration
12/15/1998	0.25	-1.39
6/17/1999	0.25	-1.39
6/7/2000	0.25	-1.39
10/11/2000	0.25	-1.39
1/18/2001	0.25	-1.39
4/5/2001	0.25	-1.39
7/10/2006	0.25	-1.39
10/16/2006	0.25	-1.39
1/26/2007	0.55	-0.60
4/18/2007	1.5	0.41
8/2/2007	0.25	-1.39
1/30/2008	0.25	-1.39
4/18/2008	0.25	-1.39
10/29/2008	0.25	-1.39
1/26/2009	0.25	-1.39
8/3/2009	0.25	-1.39
1/25/2010	0.25	-1.39
3/8/2010	0.25	-1.39
2/17/2011	0.25	-1.39
8/23/2011	0.25	-1.39
2/7/2012	0.25	-1.39



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.05312263
R Square	0.002822014
Adjusted R Square	-0.049661038
Standard Error	0.429511522
Observations	21

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	12.00
LN Target Concentration	2.48
Intercept	-1.816082
Slope	0.000014
Date Objective is Reached	09/27/2728

ANOVA

	df	SS	MS	F	Significance F
Regression	1	0.009919498	0.009919498	0.053770003	0.819107591
Residual	19	3.505122798	0.184480147		
Total	20	3.515042296			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	-1.816081901	2.385171698	-0.761405103	0.455762493	-6.808303628	3.176139825	-5.940360499	2.308196697
X Variable 1	1.42091E-05	6.1277E-05	0.231883598	0.819107591	-0.000114045	0.000142463	-9.17469E-05	0.000120165

Abbreviations:

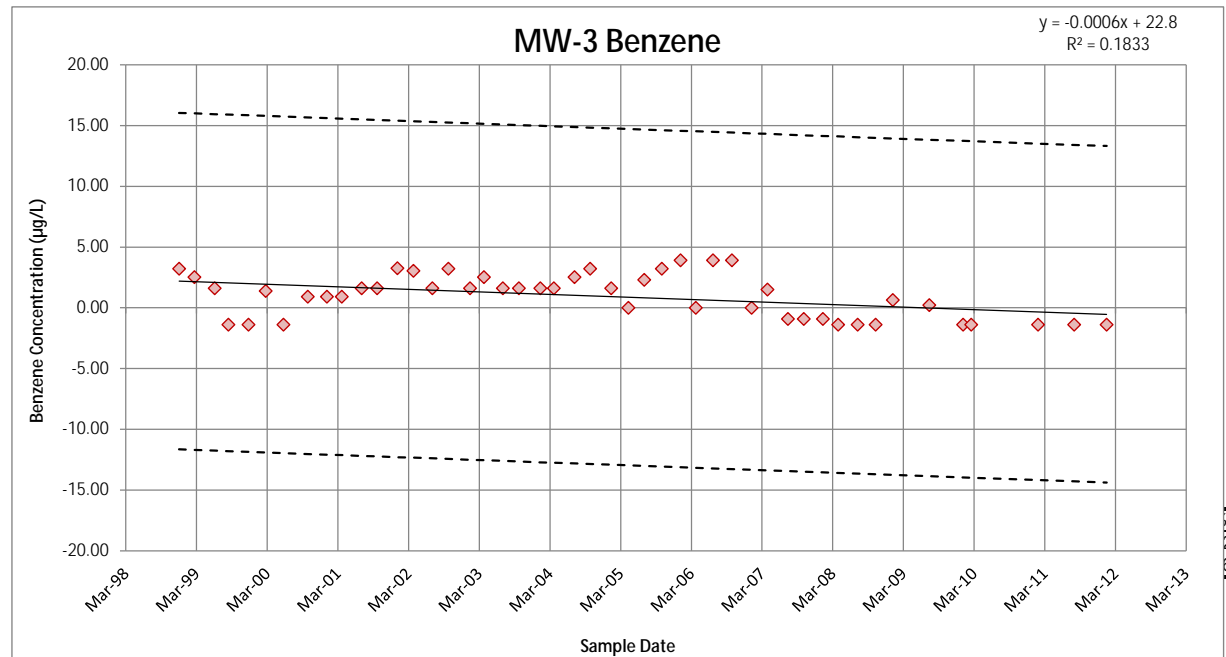
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 726 Harrison Street
Well ID: MW-3
Constituent: Benzene

Sample Date	Detected Concentration (µg/L)	LN Concentration
12/15/98	25	3.22
03/04/99	13	2.53
06/17/99	5	1.61
08/27/99	0	-1.39
12/09/99	0	-1.39
03/07/00	4	1.39
06/07/00	0.25	-1.39
10/11/00	2.5	0.92
01/18/01	2.5	0.92
04/05/01	2.5	0.92
07/17/01	5	1.61
10/05/01	5	1.61
01/18/02	26	3.26
04/11/02	21	3.04
07/18/02	5	1.61
10/09/02	25	3.22
01/29/03	5	1.61
04/11/03	12.5	2.53
07/18/03	5	1.61
10/09/03	5	1.61
01/28/04	5	1.61
04/07/04	5	1.61
07/23/04	12.5	2.53
10/12/04	25	3.22
01/29/05	5	1.61
04/28/05	1	0.00
07/19/05	10	2.30
10/18/05	25	3.22
01/23/06	50	3.91
04/12/06	1	0.00
07/10/06	50	3.91
10/16/06	50	3.91
01/26/07	1	0.00
04/18/07	4.5	1.50
08/02/07	0.4	-0.92
10/23/07	0	-0.92
01/30/08	0.4	-0.92
04/18/08	0.25	-1.39
07/28/08	0	-1.39
10/29/08	0.25	-1.39
01/26/09	1.9	0.64
08/03/09	1.25	0.22
01/25/10	0.25	-1.39
03/08/10	0.25	-1.39
02/17/11	0.25	-1.39
08/23/11	0.25	-1.39
02/07/12	0.25	-1.39



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.428081662
R Square	0.183253909
Adjusted R Square	0.165103996
Standard Error	1.619816346
Observations	47

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	12.00
LN Target Concentration	2.48
Intercept	22.799802
Slope	-0.000570
Date Objective is Reached	08/04/1997

ANOVA

	df	SS	MS	F	Significance F
Regression	1	26.4917258	26.4917258	10.09668243	0.002684658
Residual	45	118.0712248	2.623804995		
Total	46	144.5629506			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	22.79980245	6.875429083	3.316127935	0.001811214	8.951977636	36.64762726	11.25301851	34.34658639
X Variable 1	-0.000569895	0.000179352	-3.177527723	0.002684658	-0.000931127	-0.000208662	-0.000871103	-0.000268687

Abbreviations:

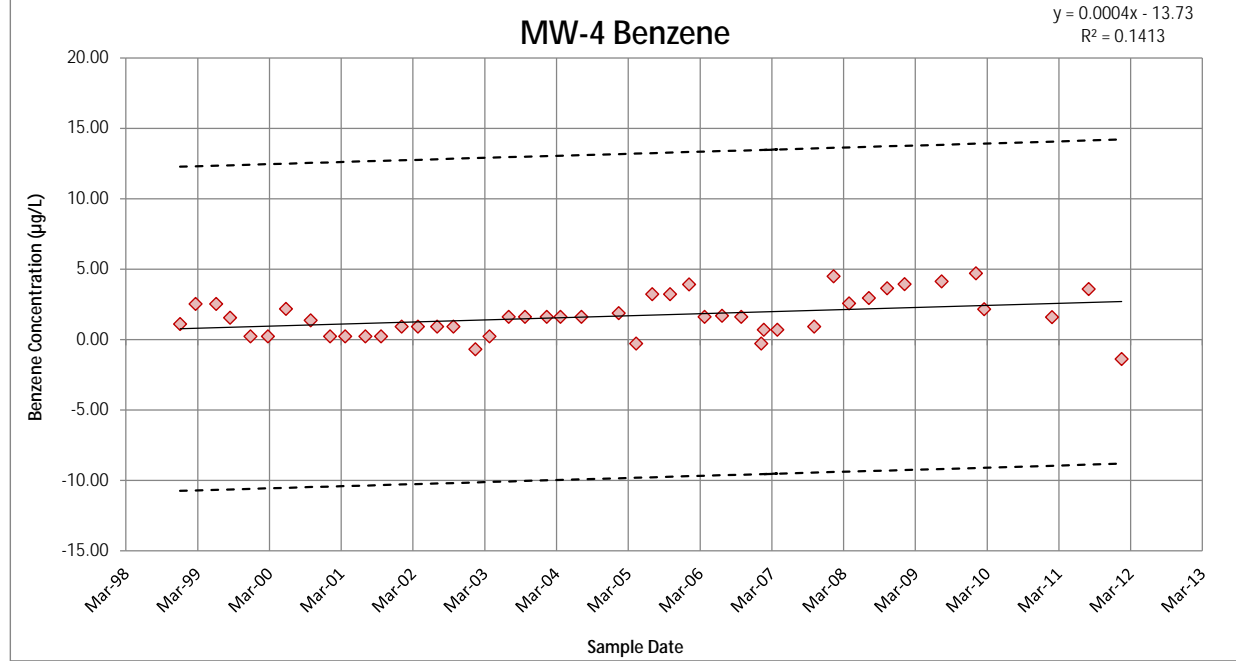
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 726 Harrison Street
Well ID: MW-4
Constituent: Benzene

Sample Date	Detected Concentration (µg/L)	LN Concentration
12/15/98	3	1.10
03/04/99	12.5	2.53
06/17/99	12.5	2.53
08/27/99	4.7	1.55
12/09/99	1.25	0.22
03/07/00	1.25	0.22
06/07/00	8.8	2.17
10/11/00	3.9	1.36
01/18/01	1.25	0.22
04/05/01	1.25	0.22
07/17/01	1.25	0.22
10/05/01	1.25	0.22
01/18/02	2.5	0.92
04/11/02	2.5	0.92
07/18/02	2.5	0.92
10/09/02	2.5	0.92
01/29/03	0.5	-0.69
04/11/03	1.25	0.22
07/18/03	5	1.61
10/09/03	5	1.61
01/28/04	5	1.61
04/07/04	5	1.61
07/23/04	5	1.61
01/29/05	6.5	1.87
04/28/05	0.75	-0.29
07/19/05	25	3.22
10/18/05	25	3.22
01/23/06	50	3.91
04/12/06	5	1.61
07/10/06	5.4	1.69
10/16/06	5	1.61
01/26/07	0.75	-0.29
04/18/07	2	0.69
02/08/07	2	0.69
10/23/07	2.5	0.92
01/30/08	89	4.49
04/18/08	13	2.56
07/28/08	19	2.94
10/29/08	38	3.64
01/26/09	51	3.93
08/03/09	62	4.13
01/25/10	110	4.70
03/08/10	8.6	2.15
02/17/11	4.9	1.59
08/23/11	36	3.58
02/07/12	0.25	-1.39



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.375901036
R Square	0.141301589
Adjusted R Square	0.121785716
Standard Error	1.34320237
Observations	46

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	12.00
LN Target Concentration	2.48
Intercept	-13.730092
Slope	0.000401
Date Objective is Reached	09/19/2010

ANOVA

	df	SS	MS	F	Significance F
Regression	1	13.06297099	13.06297099	7.240341716	0.010038308
Residual	44	79.38447468	1.804192606		
Total	45	92.44744568			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	-13.7300916	5.712009725	-2.403723428	0.02050865	-25.24189062	-2.218292571	-23.32758157	-4.132601628
X Variable 1	0.000400961	0.000149013	2.690788308	0.010038308	0.000100646	0.000701277	0.000150586	0.000651337

Abbreviations:

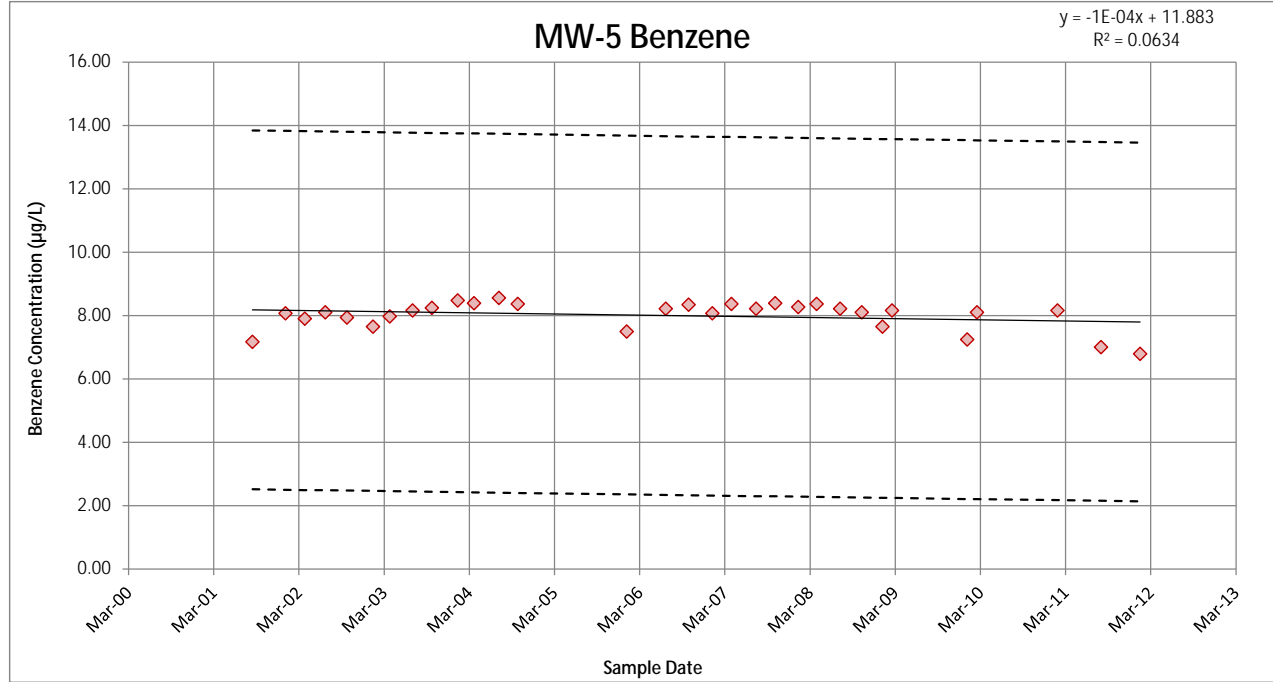
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 726 Harrison Street
Well ID: MW-5
Constituent: Benzene

Sample Date	Detected Concentration (µg/L)	LN Concentration
08/29/01	1,300	7.17
01/18/02	3,200	8.07
04/11/02	2,700	7.90
07/08/02	3,300	8.10
10/09/02	2,800	7.94
01/29/03	2,100	7.65
04/11/03	2,900	7.97
07/18/03	3,500	8.16
10/09/03	3,800	8.24
01/28/04	4,800	8.48
04/07/04	4,400	8.39
07/23/04	5,200	8.56
10/12/04	4,300	8.37
01/23/06	1,800	7.50
07/10/06	3,700	8.22
10/16/06	4,200	8.34
01/26/07	3,200	8.07
04/18/07	4,300	8.37
08/02/07	3,700	8.22
10/23/07	4,400	8.39
01/30/08	3,900	8.27
04/18/08	4,300	8.37
07/28/08	3,700	8.22
10/29/08	3,300	8.10
01/26/09	2,100	7.65
03/08/09	3,500	8.16
01/25/10	1,400	7.24
03/08/10	3,300	8.10
02/17/11	3,500	8.16
08/23/11	1,100	7.00
02/07/12	890	6.79



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.251808896
R Square	0.06340772
Adjusted R Square	0.031111435
Standard Error	0.439396613
Observations	31

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	12.00
LN Target Concentration	2.48
Intercept	11.882962
Slope	-0.000100
Date Objective is Reached	11/25/2157

ANOVA

	df	SS	MS	F	Significance F
Regression	1	0.379055647	0.379055647	1.963313088	0.171770668
Residual	29	5.599012118	0.193069383		
Total	30	5.978067765			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	11.88296238	2.768736505	4.291835775	0.000180211	6.220260498	17.54566427	7.178527444	16.58739732
X Variable 1	-9.97683E-05	7.12029E-05	-1.401182746	0.171770668	-0.000245395	4.5858E-05	-0.000220751	2.12145E-05

Abbreviations:

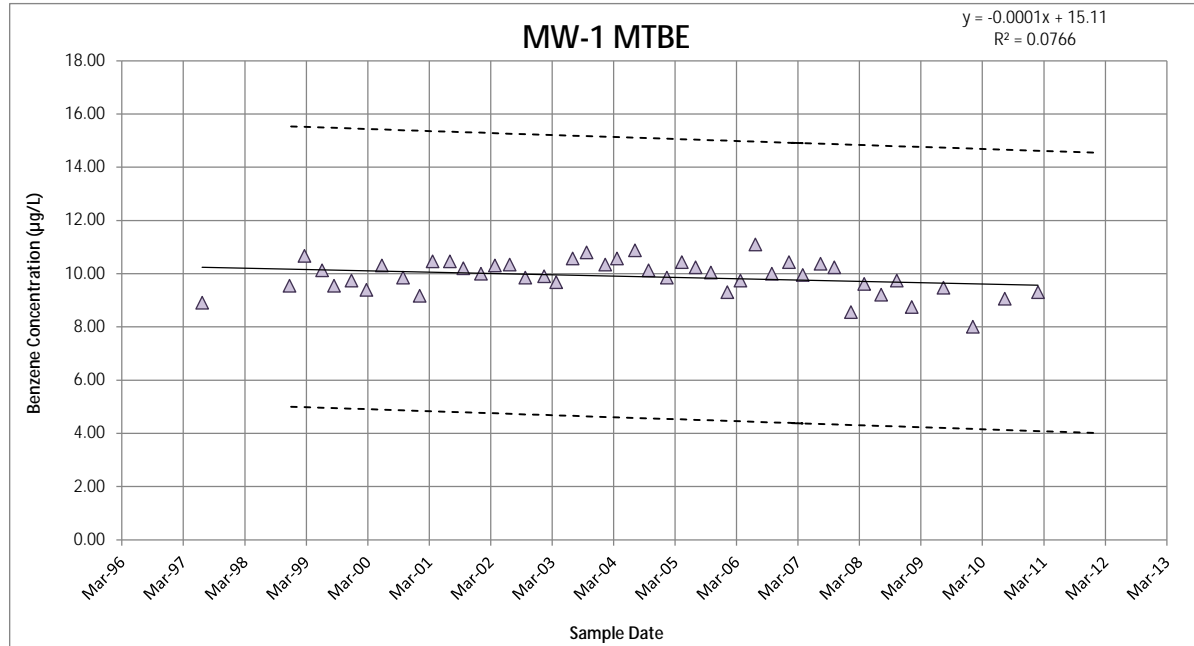
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 726 Harrison Street
Well ID: MW-1
Constituent: MTBE

Sample Date	Detected Concentration (µg/L)	LN Concentration
7/3/1997	7,400	8.91
12/5/1998	14,000	9.55
3/4/1999	43,000	10.67
6/17/1999	25,000	10.13
8/27/1999	14,000	9.55
12/9/1999	17,000	9.74
3/7/2000	12,000	9.39
6/7/2000	30,000	10.31
10/11/2000	19,000	9.85
1/18/2001	9,600	9.17
4/5/2001	35,000	10.46
7/17/2001	35,000	10.46
10/5/2001	27,000	10.20
1/18/2002	22,000	10.00
4/11/2002	30,000	10.31
7/8/2002	31,000	10.34
10/9/2002	19,000	9.85
1/29/2003	20,000	9.90
4/11/2003	16,000	9.68
7/18/2003	39,000	10.57
10/9/2003	49,000	10.80
1/28/2004	31,000	10.34
4/7/2004	39,000	10.57
7/23/2004	53,000	10.88
10/12/2004	25,000	10.13
1/29/2005	19,000	9.85
4/28/2005	34,000	10.43
7/19/2005	28,000	10.24
10/18/2005	23,000	10.04
1/24/2006	11,000	9.31
4/12/2006	17,000	9.74
7/10/2006	66,000	11.10
10/16/2006	22,000	10.00
1/26/2007	34,000	10.43
4/18/2007	21,000	9.95
8/2/2007	32,000	10.37
10/23/2007	28,000	10.24
1/30/2008	5,200	8.56
4/18/2008	15,000	9.62
7/28/2008	10,000	9.21
10/29/2008	17,000	9.74
1/26/2009	6,300	8.75
8/3/2009	13,000	9.47
1/25/2010	3,000	8.01
8/3/2010	8,600	9.06
2/17/2011	11,000	9.31
8/23/2011	4,700	8.46
2/7/2012	3,800	8.24



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.405260697
R Square	0.164236232
Adjusted R Square	0.146067455
Standard Error	0.645634836
Observations	48

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	5.00
LN Target Concentration	1.61
Intercept	17.687094
Slope	-0.000205
Date Objective is Reached	05/15/2114

ANOVA

	df	SS	MS	F	Significance F
Regression	1	3.768054496	3.768054496	9.039476195	0.004270753
Residual	46	19.17483968	0.416844341		
Total	47	22.94289418			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	17.68709382	2.614600044	6.76474165	2.05501E-08	12.42417698	22.95001066	13.29806823	22.07611941
X Variable 1	-0.00020534	6.82965E-05	-3.006572167	0.004270753	-0.000342812	-6.78646E-05	-0.000319985	-9.06917E-05

Abbreviations:

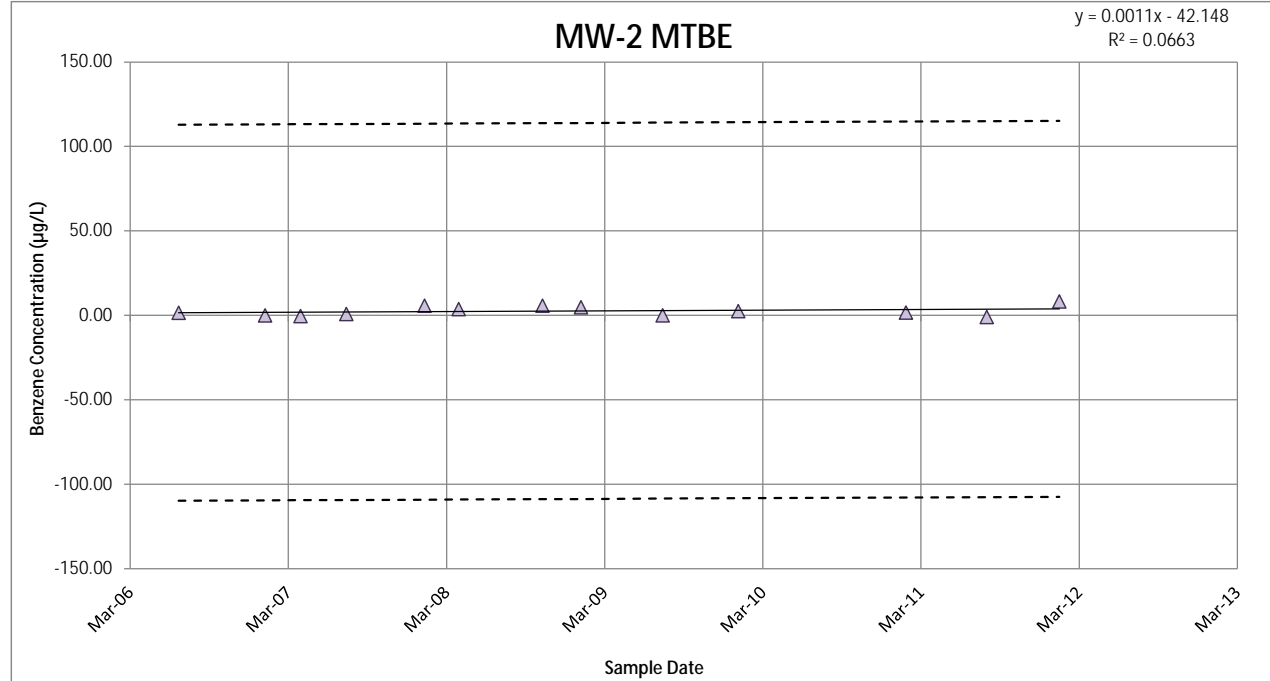
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 726 Harrison Street
Well ID: MW-2
Constituent: MTBE

Sample Date	Detected Concentration (µg/L)	LN Concentration
7/10/2006	4.5	1.50
1/26/2007	0.97	-0.03
4/18/2007	0.64	-0.45
8/2/2007	2.2	0.79
1/30/2008	300	5.70
4/18/2008	40	3.69
10/29/2008	300	5.70
1/26/2009	120	4.79
8/3/2009	1	0.00
1/25/2010	12	2.48
2/17/2011	5.2	1.65
8/23/2011	0.37	-0.99
2/7/2012	3,800	8.24



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.257437985
R Square	0.066274316
Adjusted R Square	-0.01860984
Standard Error	2.888876152
Observations	13

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	5.00
LN Target Concentration	1.61
Intercept	-42.147803
Slope	0.001122
Date Objective is Reached	NA

ANOVA

	df	SS	MS	F	Significance F
Regression	1	6.51593111	6.51593111	0.780761944	0.395809707
Residual	11	91.80165964	8.345605421		
Total	12	98.31759075			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	-42.1478032	50.58600277	-0.833191019	0.422459613	-153.4868445	69.19123815	-132.9944374	48.698831
X Variable 1	0.001122343	0.001270183	0.883607347	0.395809707	-0.001673311	0.003917996	-0.001158759	0.003403445

Abbreviations:

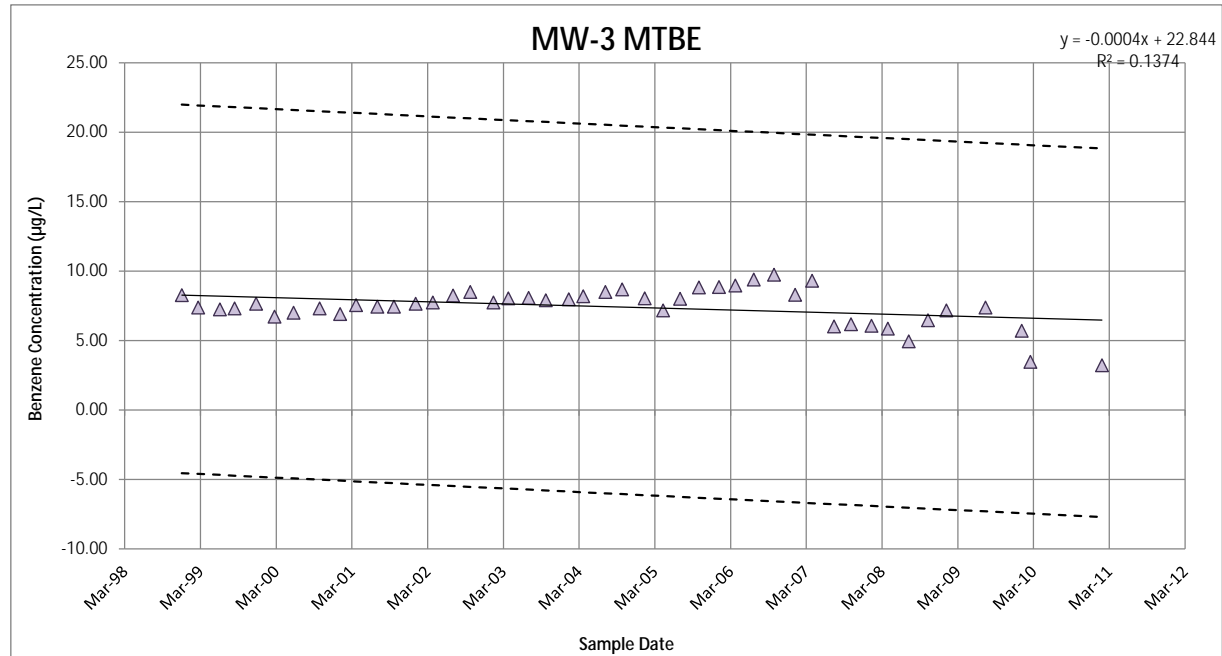
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 726 Harrison Street
Well ID: MW-3
Constituent: MTBE

Sample Date	Detected Concentration (µg/L)	LN Concentration
12/15/98	3,900	8.27
03/04/99	1,600	7.38
06/17/99	1,400	7.24
08/27/99	1,500	7.31
12/09/99	2,100	7.65
03/07/00	830	6.72
06/07/00	1,100	7.00
10/11/00	1,500	7.31
01/18/01	1,000	6.91
04/05/01	1,900	7.55
07/17/01	1,700	7.44
10/05/01	1,700	7.44
01/18/02	2,100	7.65
04/11/02	2,300	7.74
07/18/02	3,800	8.24
10/09/02	4,900	8.50
01/29/03	2,300	7.74
04/11/03	3,100	8.04
07/18/03	3,200	8.07
10/09/03	2,700	7.90
01/28/04	2,900	7.97
04/07/04	3,600	8.19
07/23/04	4,900	8.50
10/12/04	5,900	8.68
01/29/05	3,100	8.04
04/28/05	1,300	7.17
07/19/05	3,000	8.01
10/18/05	6,800	8.82
01/23/06	7,000	8.85
04/12/06	7,800	8.96
07/10/06	12,000	9.39
10/16/06	17,000	9.74
01/26/07	4,000	8.29
04/18/07	11,000	9.31
08/02/07	410	6.02
10/23/07	480	6.17
01/30/08	430	6.06
04/18/08	350	5.86
07/28/08	140	4.94
10/29/08	640	6.46
01/26/09	1,300	7.17
08/03/09	1,600	7.38
01/25/10	300	5.70
03/08/10	32	3.47
02/17/11	25	3.22
08/23/11	9.1	2.21
02/07/12	2.1	0.74



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.524490213
R Square	0.275089984
Adjusted R Square	0.258980872
Standard Error	1.552125426
Observations	47

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	5.00
LN Target Concentration	1.61
Intercept	34.388123
Slope	-0.000710
Date Objective is Reached	05/13/2026

ANOVA

	df	SS	MS	F	Significance F
Regression	1	41.13929241	41.13929241	17.07667019	0.000154119
Residual	45	108.4092003	2.40909334		
Total	46	149.5484927			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	34.38812315	6.588110018	5.219725088	4.41124E-06	21.11898863	47.65725766	23.32387071	45.45237558
X Variable 1	-0.00071018	0.000171857	-4.132392792	0.000154119	-0.001056316	-0.000364042	-0.0009988	-0.000421558

Abbreviations:

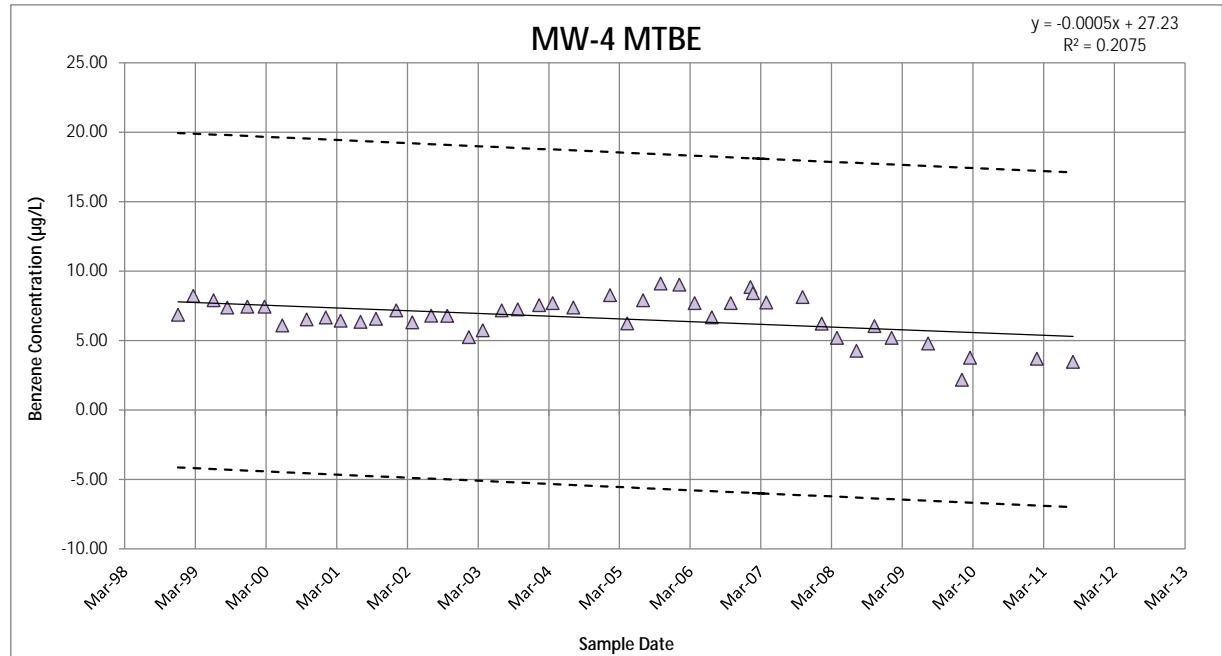
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 726 Harrison Street
Well ID: MW-4
Constituent: MTBE

Sample Date	Detected Concentration (µg/L)	LN Concentration
12/15/98	950	6.86
03/04/99	3,700	8.22
06/17/99	2,700	7.90
08/27/99	1,600	7.38
12/09/99	1,700	7.44
03/07/00	1,700	7.44
06/07/00	440	6.09
10/11/00	680	6.52
01/18/01	780	6.66
04/05/01	620	6.43
07/17/01	570	6.35
10/05/01	710	6.57
01/18/02	1,300	7.17
04/11/02	550	6.31
07/18/02	890	6.79
10/09/02	880	6.78
01/29/03	190	5.25
04/11/03	310	5.74
07/18/03	1,300	7.17
10/09/03	1,400	7.24
01/28/04	1,900	7.55
04/07/04	2,200	7.70
07/23/04	1,600	7.38
01/29/05	3,900	8.27
04/28/05	510	6.23
07/19/05	2,700	7.90
10/18/05	9,000	9.10
01/23/06	8,300	9.02
04/12/06	2,200	7.70
07/10/06	790	6.67
10/16/06	2,200	7.70
01/26/07	7,000	8.85
04/18/07	2,300	7.74
02/08/07	4,500	8.41
10/23/07	3,400	8.13
01/30/08	500	6.21
04/18/08	180	5.19
07/28/08	71	4.26
10/29/08	420	6.04
01/26/09	180	5.19
08/03/09	120	4.79
01/25/10	8.8	2.17
03/08/10	43	3.76
02/17/11	40	3.69
08/23/11	32	3.47
02/07/12	17	2.83



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.510891724
R Square	0.261010354
Adjusted R Square	0.244215135
Standard Error	1.405921029
Observations	46

ANOVA

	df	SS	MS	F	Significance F
Regression	1	30.71806904	30.71806904	15.54075301	0.000285656
Residual	44	86.97101336	1.97661394		
Total	45	117.6890824			

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	5.00
LN Target Concentration	1.61
Intercept	30.125868
Slope	-0.000615
Date Objective is Reached	12/22/2026

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	30.12586841	5.978722768	5.038846854	8.47997E-06	18.07654457	42.17519225	20.08023919	40.17149763
X Variable 1	-0.00061486	0.00015597	-3.942176177	0.000285656	-0.000929201	-0.000300525	-0.000876929	-0.000352797

Abbreviations:

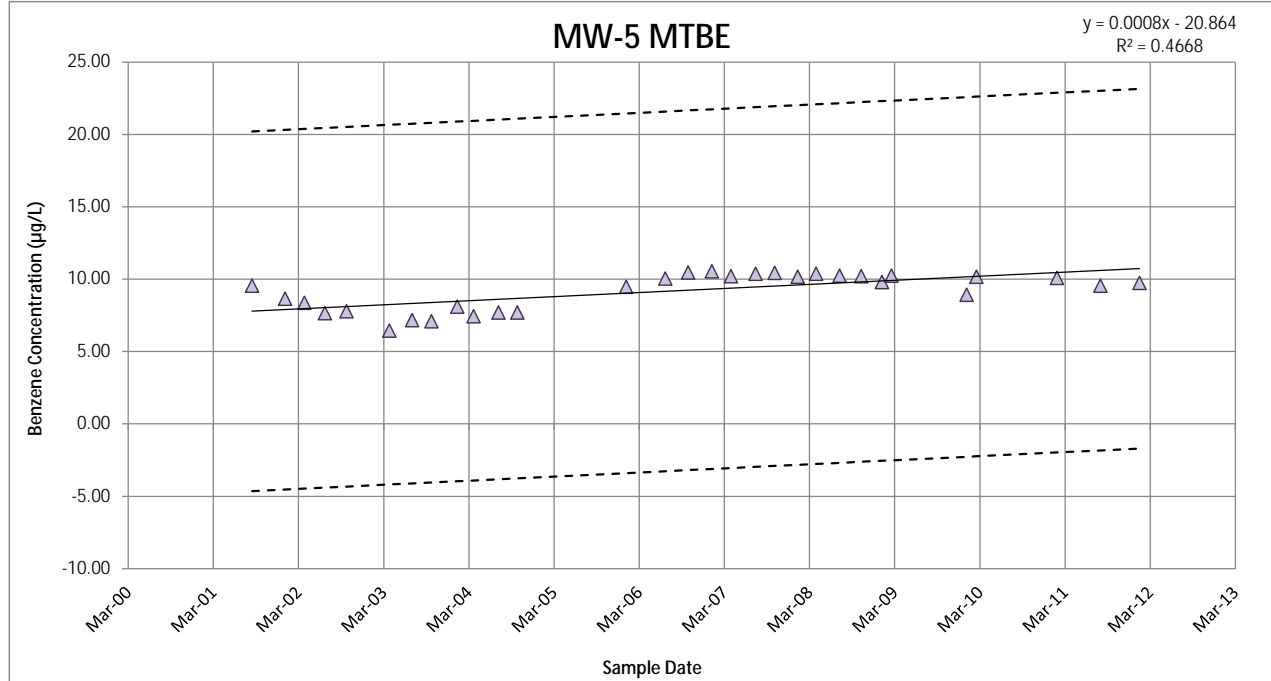
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 726 Harrison Street
Well ID: MW-5
Constituent: MTBE

Sample Date	Detected Concentration (µg/L)	LN Concentration
08/29/01	14,000	9.55
01/18/02	5,700	8.65
04/11/02	4,300	8.37
07/08/02	2,100	7.65
10/09/02	2,400	7.78
04/11/03	630	6.45
07/18/03	1,300	7.17
10/09/03	1,200	7.09
01/28/04	3,300	8.10
04/07/04	1,700	7.44
07/23/04	2,200	7.70
10/12/04	2,200	7.70
01/23/06	13,000	9.47
07/10/06	23,000	10.04
10/16/06	35,000	10.46
01/26/07	38,000	10.55
04/18/07	27,000	10.20
08/02/07	32,000	10.37
10/23/07	34,000	10.43
01/30/08	26,000	10.17
04/18/08	32,000	10.37
07/28/08	28,000	10.24
10/29/08	27,000	10.20
01/26/09	18,000	9.80
03/08/09	28,000	10.24
01/25/10	7,500	8.92
03/08/10	26,000	10.17
02/17/11	24,000	10.09
08/23/11	14,000	9.55
02/07/12	17,000	9.74



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.683198618
R Square	0.466760351
Adjusted R Square	0.447716078
Standard Error	0.942091108
Observations	30

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	5.00
LN Target Concentration	1.61
Intercept	-20.864374
Slope	0.000772
Date Objective is Reached	NA

ANOVA

	df	SS	MS	F	Significance F
Regression	1	21.75280991	21.75280991	24.50922367	3.17376E-05
Residual	28	24.85099836	0.887535656		
Total	29	46.60380827			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	-20.8643737	6.066136469	-3.439483066	0.001844455	-33.29029076	-8.438456558	-31.1836659	-10.54508142
X Variable 1	0.000771509	0.000155839	4.950679112	3.17376E-05	0.000452287	0.001090731	0.000506407	0.001036612

Abbreviations:

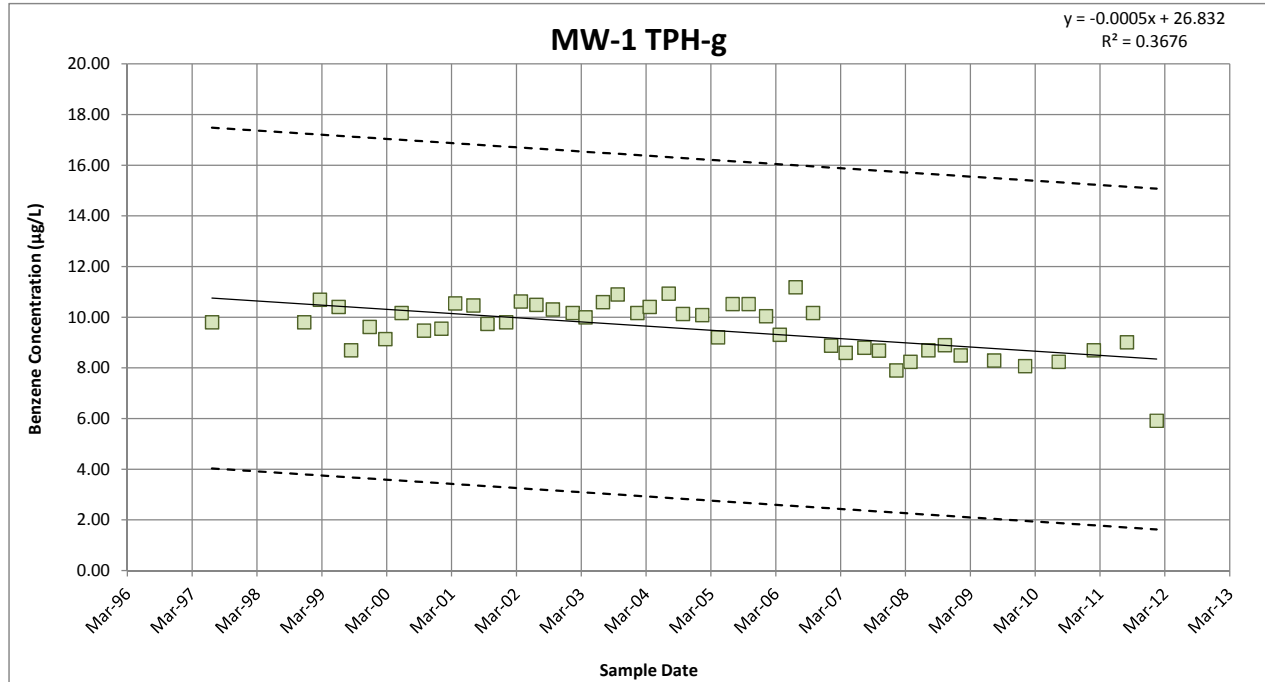
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Well ID: MW-1
Constituent: TPH-g

Sample Date	Detected Concentration (µg/L)	Normalized Concentration
7/3/1997	18,000	9.80
12/5/1998	18,000	9.80
3/4/1999	44,000	10.69
6/17/1999	33,000	10.40
8/27/1999	6,000	8.70
12/9/1999	15,000	9.62
3/7/2000	9,300	9.14
6/7/2000	26,000	10.17
10/11/2000	13,000	9.47
1/18/2001	14,000	9.55
4/5/2001	38,000	10.55
7/17/2001	35,000	10.46
10/5/2001	17,000	9.74
1/18/2002	18,000	9.80
4/11/2002	41,000	10.62
7/8/2002	36,000	10.49
10/9/2002	30,000	10.31
1/29/2003	26,000	10.17
4/11/2003	22,000	10.00
7/18/2003	40,000	10.60
10/9/2003	54,000	10.90
1/28/2004	26,000	10.17
4/7/2004	33,000	10.40
7/23/2004	56,000	10.93
10/12/2004	25,000	10.13
1/29/2005	24,000	10.09
4/28/2005	10,000	9.21
7/19/2005	37,000	10.52
10/18/2005	37,000	10.52
1/24/2006	23,000	10.04
4/12/2006	11,000	9.31
7/10/2006	72,000	11.18
10/16/2006	26,000	10.17
1/26/2007	7,200	8.88
4/18/2007	5,400	8.59
8/2/2007	6,600	8.79
10/23/2007	5,900	8.68
1/30/2008	2,700	7.90
4/18/2008	3,800	8.24
7/28/2008	6,000	8.70
10/29/2008	7,300	8.90
1/26/2009	4,900	8.50
8/3/2009	4,000	8.29
1/25/2010	3,200	8.07
8/3/2010	3,800	8.24
2/17/2011	6,000	8.70
8/23/2011	8,200	9.01
2/7/2012	370	5.91



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.606330112
R Square	0.367636204
Adjusted R Square	0.353889165
Standard Error	0.825098842
Observations	48

ANOVA

	df	SS	MS	F	Significance F
Regression	1	18.2062735	18.2062735	26.7429374	4.93538E-06
Residual	46	31.3162523	0.680788099		
Total	47	49.52252604			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	26.83181589	3.341367828	8.030189212	2.66953E-10	20.1059914	33.55764038	21.22279398	32.44083779
X Variable 1	-0.00045136	8.72806E-05	-5.171357404	4.93538E-06	-0.000627046	-0.000275672	-0.000597873	-0.000304845

Abbreviations:

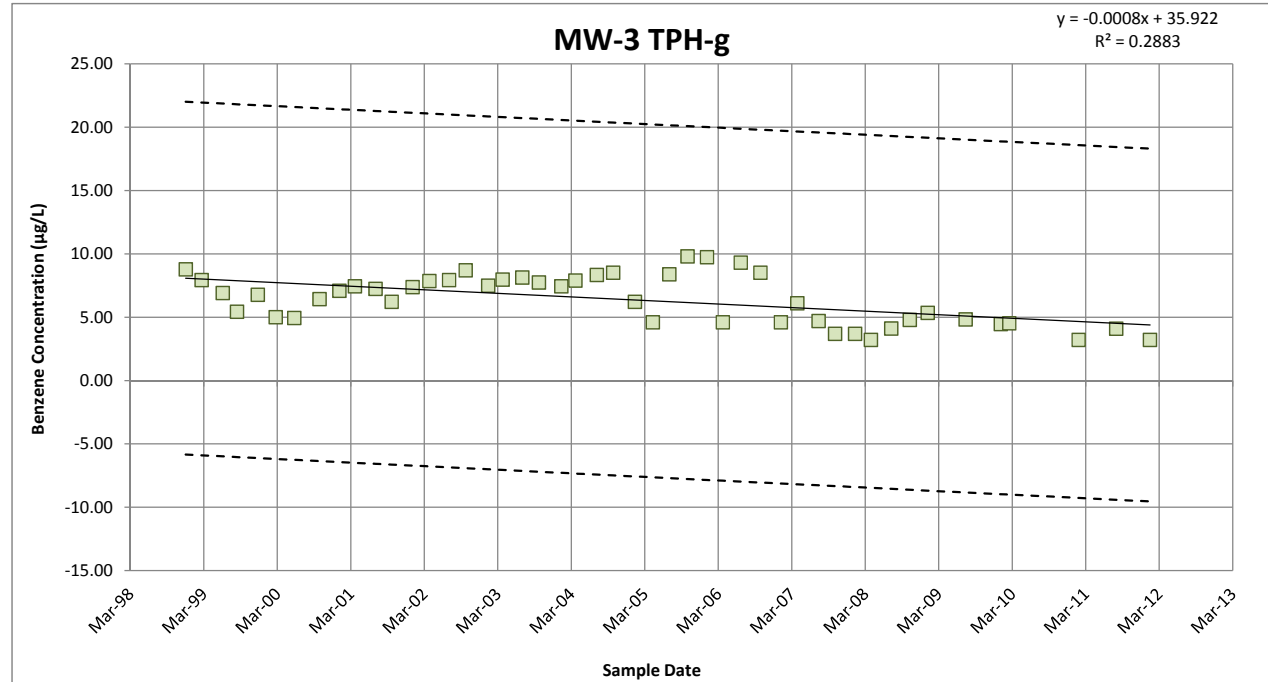
LN Natural Log

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence
- (2) Linear regressions were performed on log-normalized concentration data.

Well ID: MW-3
Constituent: TPH-g

Sample Date	Detected Concentration (µg/L)	Normalized Concentration
12/15/98	6,500	8.78
03/04/99	2,800	7.94
06/17/99	1,000	6.91
08/27/99	230	5.44
12/09/99	870	6.77
03/07/00	150	5.01
06/07/00	140	4.94
10/11/00	620	6.43
01/18/01	1,200	7.09
04/05/01	1,700	7.44
07/17/01	1,400	7.24
10/05/01	500	6.21
01/18/02	1,600	7.38
04/11/02	2,600	7.86
07/18/02	2,800	7.94
10/09/02	6,000	8.70
01/29/03	1,800	7.50
04/11/03	2,900	7.97
07/18/03	3,400	8.13
10/09/03	2,300	7.74
01/28/04	1,700	7.44
04/07/04	2,700	7.90
07/23/04	4,200	8.34
10/12/04	5,000	8.52
01/29/05	500	6.21
04/28/05	100	4.61
07/19/05	4,400	8.39
10/18/05	18,000	9.80
01/23/06	17,000	9.74
04/12/06	100	4.61
07/10/06	11,000	9.31
10/16/06	5000	8.52
01/26/07	100	4.61
04/18/07	450	6.11
08/02/07	110	4.70
10/23/07	40	3.69
01/30/08	40	3.69
04/18/08	25	3.22
07/28/08	61	4.11
10/29/08	120	4.79
01/26/09	210	5.35
08/03/09	125	4.83
01/25/10	87	4.47
03/08/10	92	4.52
02/17/11	25	3.22
08/23/11	60	4.09
02/07/12	25	3.22



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.53696084
R Square	0.288326944
Adjusted R Square	0.272511987
Standard Error	1.629169931
Observations	47

ANOVA

	df	SS	MS	F	Significance F
Regression	1	48.38937245	48.38937245	18.23128239	9.97279E-05
Residual	45	119.4387599	2.654194665		
Total	46	167.8281324			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	35.92161433	6.915131059	5.1946397	4.79886E-06	21.99382564	49.84940303	24.3081538	47.53507486
X Variable 1	-0.00077022	0.000180387	-4.26981058	9.97279E-05	-0.001133538	-0.000406901	-0.001073167	-0.000467272

Abbreviations:

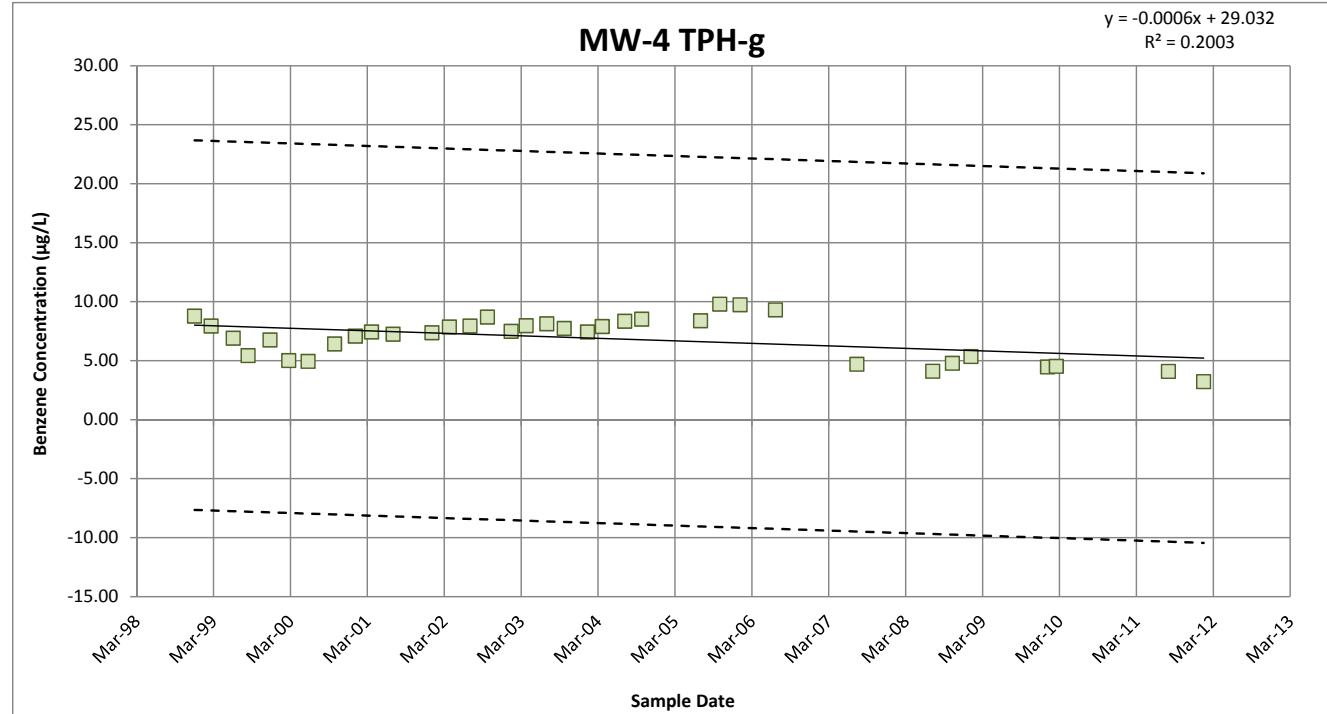
LN Natural Log

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence
- (2) Linear regressions were performed on log-normalized concentration data.

Well ID: MW-4
Constituent: TPH-g

Sample Date	Detected Concentration (µg/L)	Normalized Concentration
12/15/98	6,500	8.78
03/04/99	2,800	7.94
06/17/99	1,000	6.91
08/27/99	230	5.44
12/09/99	870	6.77
03/07/00	150	5.01
06/07/00	140	4.94
10/11/00	620	6.43
01/18/01	1,200	7.09
04/05/01	1,700	7.44
07/17/01	1,400	7.24
01/18/02	1,600	7.38
04/11/02	2,600	7.86
07/18/02	2,800	7.94
10/09/02	6,000	8.70
01/29/03	1,800	7.50
04/11/03	2,900	7.97
07/18/03	3,400	8.13
10/09/03	2,300	7.74
01/28/04	1,700	7.44
04/07/04	2,700	7.90
07/23/04	4,200	8.34
10/12/04	5,000	8.52
07/19/05	4,400	8.39
10/18/05	18,000	9.80
01/23/06	17,000	9.74
07/10/06	11,000	9.31
08/02/07	110	4.70
07/28/08	61	4.11
10/29/08	120	4.79
01/26/09	210	5.35
01/25/10	87	4.47
03/08/10	92	4.52
08/23/11	60	4.09
02/07/12	25	3.22



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.447541739
R Square	0.200293609
Adjusted R Square	0.176060082
Standard Error	1.610180871
Observations	35

ANOVA

	df	SS	MS	F	Significance F
Regression	1	21.42889562	21.42889562	8.265144747	0.00702317
Residual	33	85.55852039	2.592682436		
Total	34	106.987416			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	29.03233371	7.699417856	3.770718028	0.000641809	13.36775038	44.69691704	16.00214493	42.0625225
X Variable 1	-0.00058148	0.000202261	-2.874916477	0.00702317	-0.000992986	-0.00016998	-0.000923782	-0.000239185

Abbreviations:

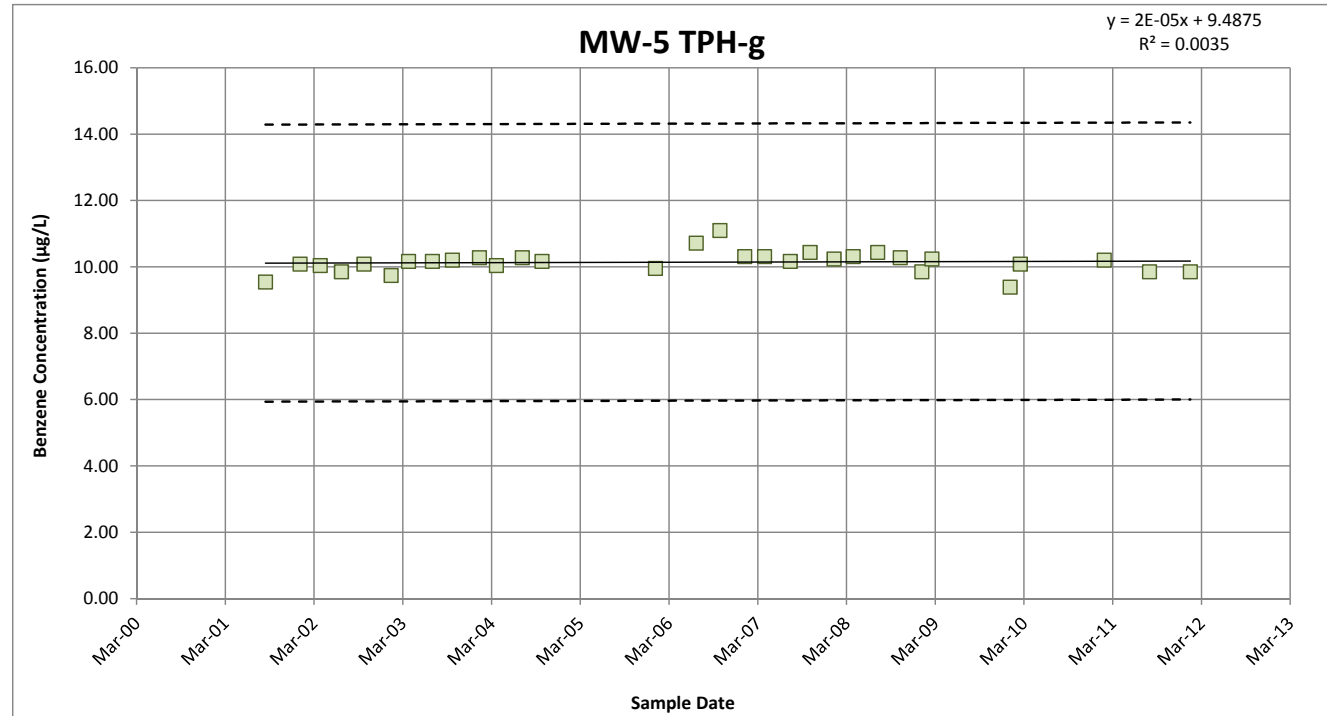
LN Natural Log

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence
- (2) Linear regressions were performed on log-normalized concentration data.

Well ID: MW-5
 Constituent: TPH-g

Sample Date	Detected Concentration (µg/L)	Normalized Concentration
08/29/01	14,000	9.55
01/18/02	24,000	10.09
04/11/02	23,000	10.04
07/08/02	19,000	9.85
10/09/02	24,000	10.09
01/29/03	17,000	9.74
04/11/03	26,000	10.17
07/18/03	26,000	10.17
10/09/03	27,000	10.20
01/28/04	29,000	10.28
04/07/04	23,000	10.04
07/23/04	29,000	10.28
10/12/04	26,000	10.17
01/23/06	21,000	9.95
07/10/06	45,000	10.71
10/16/06	66,000	11.10
01/26/07	30,000	10.31
04/18/07	30,000	10.31
08/02/07	26,000	10.17
10/23/07	34,000	10.43
01/30/08	28,000	10.24
04/18/08	30,000	10.31
07/28/08	34,000	10.43
10/29/08	29,000	10.28
01/26/09	19,000	9.85
03/08/09	28,000	10.24
01/25/10	12,000	9.39
03/08/10	24,000	10.09
02/17/11	27,000	10.20
08/23/11	19,000	9.85
02/07/12	19,000	9.85



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.059356137
R Square	0.003523151
Adjusted R Square	-0.03083812
Standard Error	0.323963553
Observations	31

ANOVA

	df	SS	MS	F	Significance F
Regression	1	0.010761043	0.010761043	0.102532618	0.751107102
Residual	29	3.043619135	0.104952384		
Total	30	3.054380177			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	9.48750872	2.041366935	4.647625353	6.74802E-05	5.312444618	13.66257282	6.018967053	12.95605039
X Variable 1	1.681E-05	5.24973E-05	0.320207148	0.751107102	-9.05591E-05	0.000124179	-7.23896E-05	0.00010601

Abbreviations:

LN Natural Log

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence
- (2) Linear regressions were performed on log-normalized concentration data.

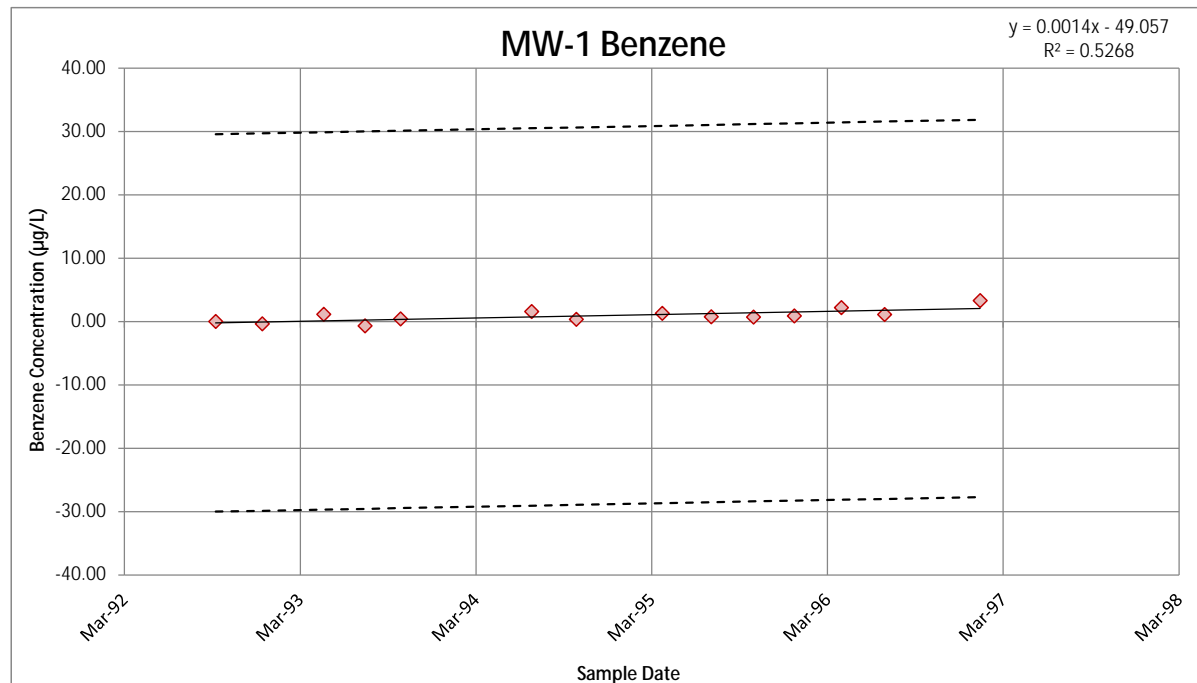
ARCADIS

**Summary of Statistical Analysis
and Linear Regression**

800 Harrison Street

Location: 800 Harrison Street
Well ID: MW-1
Constituent: Benzene

Sample Date	Detected Concentration	LN Concentration
09/15/92	1	0.00
12/21/92	0.69	-0.37
04/28/93	3.1	1.13
07/23/93	0.5	-0.69
10/05/93	1.5	0.41
07/05/94	4.8	1.57
10/06/94	1.4	0.34
04/03/95	3.6	1.28
07/14/95	2.1	0.74
10/10/95	2	0.69
01/03/96	2.4	0.88
04/10/96	8.9	2.19
07/09/96	3	1.10
01/24/97	27	3.30



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.725776753
R Square	0.526751895
Adjusted R Square	0.487314552
Standard Error	0.734324816
Observations	14

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	12.00
LN Target Concentration	2.48
Intercept	-49.056549
Slope	0.001442
Date Objective is Reached	NA

ANOVA

	df	SS	MS	F	Significance F
Regression	1	7.202360879	7.202360879	13.35667837	0.003298178
Residual	12	6.47079522	0.539232935		
Total	13	13.6731561			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	-49.05654909	13.66962955	-3.588725569	0.003722149	-78.8401133	-19.27298488	-73.41975962	-24.69333856
X Variable 1	0.001441733	0.00039449	3.654678969	0.003298178	0.000582214	0.002301252	0.000738639	0.002144827

Abbreviations:

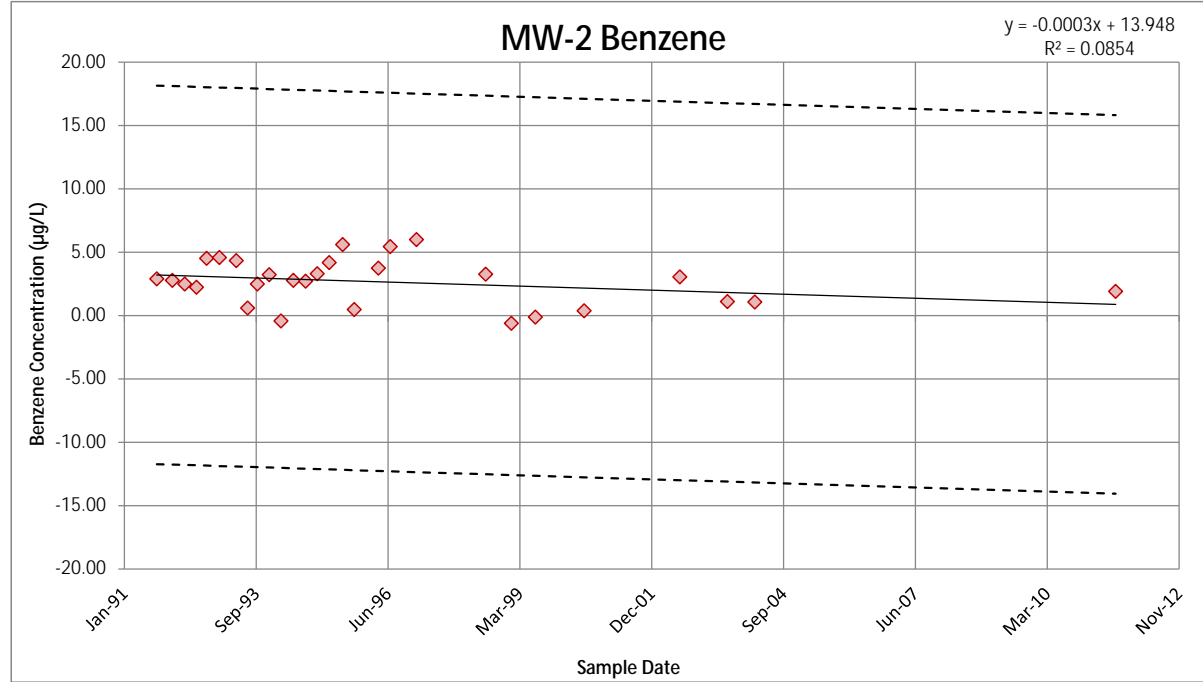
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 800 Harrison Street
Well ID: MW-2
Constituent: Benzene

Sample Date	Detected Concentration	LN Concentration
09/03/91	18	2.89
12/30/91	16	2.77
04/02/92	12	2.48
06/30/92	9.3	2.23
09/15/92	91	4.51
12/21/92	97	4.57
04/28/93	76	4.33
07/23/93	1.8	0.59
10/05/93	12	2.48
01/03/94	25	3.22
04/02/94	0.65	-0.43
07/05/94	16	2.77
10/06/94	15	2.71
01/02/95	27	3.30
04/03/95	65	4.17
07/14/95	270	5.60
10/10/95	1.6	0.47
04/10/96	42	3.74
07/09/96	230	5.44
01/24/97	400	5.99
07/03/98	26	3.26
01/14/99	0.54	-0.62
07/15/99	0.88	-0.13
07/19/00	1.45	0.37
07/15/02	21	3.04
07/11/03	3	1.10
02/04/04	2.9	1.06
08/03/11	6.7	1.90



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.292280157
R Square	0.08542769
Adjusted R Square	0.050251832
Standard Error	1.781901614
Observations	28

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	12.00
LN Target Concentration	2.48
Intercept	13.948396
Slope	-0.000321
Date Objective is Reached	11/01/1997

ANOVA

	df	SS	MS	F	Significance F
Regression	1	7.711190054	7.711190054	2.428588669	0.13123053
Residual	26	82.55450745	3.175173363		
Total	27	90.2656975			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	13.94839613	7.266155091	1.919639198	0.065940069	-0.987399416	28.88419168	1.555111941	26.34168032
X Variable 1	-0.000320788	0.000205845	-1.558392977	0.13123053	-0.000743909	0.000102333	-0.000671881	3.03056E-05

Abbreviations:

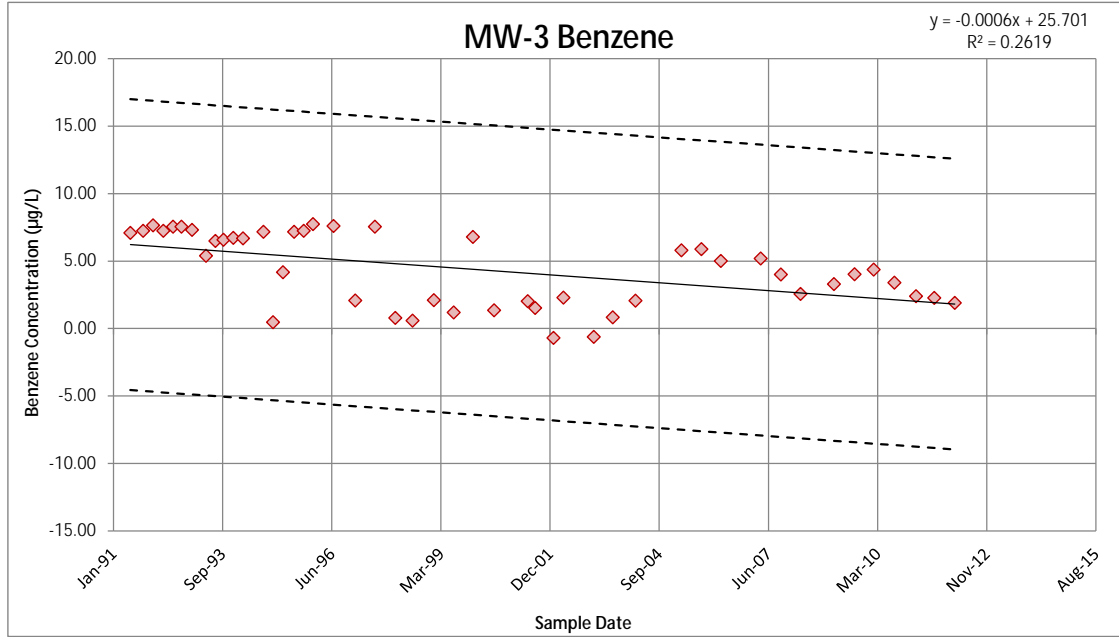
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 800 Harrison Street
Well ID: MW-3
Constituent: Benzene

Sample Date	Detected Concentration n	LN Concentration n
06/05/91	1,200	7.09
09/30/91	1,400	7.24
12/30/91	2,100	7.65
04/02/92	1,400	7.24
06/30/92	1,900	7.55
09/15/92	1,900	7.55
12/21/92	1,500	7.31
04/28/93	220	5.39
07/23/93	660	6.49
10/05/93	720	6.58
01/03/94	830	6.72
04/02/94	800	6.68
10/06/94	1,300	7.17
01/02/95	1.6	0.47
04/03/95	65	4.17
07/14/95	1,300	7.17
10/10/95	1,400	7.24
01/03/96	2,300	7.74
07/09/96	2,000	7.60
01/24/97	8	2.08
07/23/97	1,900	7.55
01/26/98	2.2	0.79
07/03/98	1.8	0.59
01/14/99	8.2	2.10
07/15/99	3.3	1.19
01/07/00	890	6.79
07/19/00	3.87	1.35
05/23/01	7.6	2.03
07/30/01	4.6	1.53
01/14/02	0.5	-0.69
04/15/02	9.9	2.29
01/18/03	0.54	-0.62
07/11/03	2.3	0.83
02/04/04	7.9	2.07
03/31/05	330	5.80
09/30/05	360	5.89
03/27/06	150	5.01
03/27/07	180	5.19
09/28/07	55	4.01
03/26/08	13	2.56
01/26/09	27	3.30
08/03/09	56	4.03
01/25/10	79	4.37
08/03/10	30	3.40
02/17/11	11	2.40
08/03/11	9.7	2.27
02/07/12	6.7	1.90



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.511787542
R Square	0.261926488
Adjusted R Square	0.245524854
Standard Error	2.327026579
Observations	47

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	12.00
LN Target Concentration	2.48
Intercept	25.700627
Slope	-0.000583
Date Objective is Reached	12/12/2008

ANOVA

	df	SS	MS	F	Significance F
Regression	1	86.47588225	86.47588225	15.9695366	0.000236051
Residual	45	243.6773714	5.415052698		
Total	46	330.1532537			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	25.70062737	5.350104105	4.803762106	1.7629E-05	14.92496472	36.47629002	16.71551598	34.68573876
X Variable 1	-0.000583391	0.000145987	-3.99619026	0.000236051	-0.000877423	-0.000289358	-0.000828565	-0.000338216

Abbreviations:

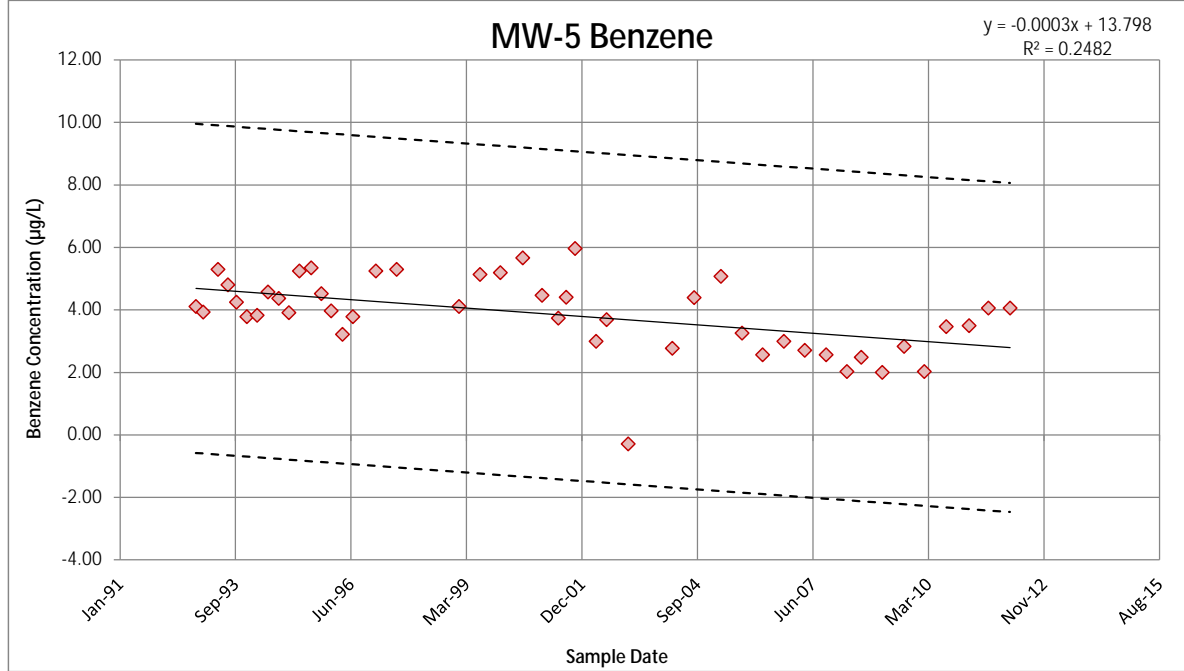
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 800 Harrison Street
Well ID: MW-5
Constituent: Benzene

Sample Date	Detected Concentration	LN Concentration
10/19/92	61	4.11
12/21/92	51	3.93
04/28/93	200	5.30
07/23/93	122	4.80
10/05/93	70	4.25
01/03/94	44	3.78
04/02/94	46	3.83
07/05/94	97	4.57
10/06/94	79	4.37
01/02/95	50	3.91
04/03/95	190	5.25
07/14/95	210	5.35
10/10/95	92	4.52
01/03/96	53	3.97
04/10/96	25	3.22
07/09/96	44	3.78
01/24/97	190	5.25
07/23/97	200	5.30
01/14/99	61	4.11
07/15/99	170	5.14
01/07/00	180	5.19
07/19/00	289	5.67
01/02/01	87.2	4.47
05/23/01	42	3.74
07/30/01	82	4.41
10/15/01	390	5.97
04/15/02	20	3.00
07/15/02	40	3.69
01/18/03	0.75	-0.29
02/04/04	16	2.77
08/11/04	81	4.39
03/31/05	160	5.08
09/30/05	26	3.26
03/27/06	13	2.56
09/27/06	20	3.00
03/27/07	15	2.71
09/28/07	13	2.56
03/26/08	7.6	2.03
07/28/08	12	2.48
01/26/09	7.4	2.00
08/03/09	17	2.83
01/25/10	7.6	2.03
08/03/10	32	3.47
02/17/11	33	3.50
08/03/11	58	4.06
02/07/12	58	4.06



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.498228698
R Square	0.248231835
Adjusted R Square	0.231146195
Standard Error	1.053804646
Observations	46

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	12.00
LN Target Concentration	2.48
Intercept	13.798424
Slope	-0.000269
Date Objective is Reached	04/13/2015

ANOVA

	df	SS	MS	F	Significance F
Regression	1	16.13416309	16.13416309	14.52868221	0.000425684
Residual	44	48.86218623	1.110504233		
Total	45	64.99634932			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	13.79842372	2.613076597	5.28052784	3.79838E-06	8.532113947	19.06473349	9.407854087	18.18899335
X Variable 1	-0.000268684	7.04902E-05	-3.811650852	0.000425684	-0.000410747	-0.00012662	-0.000387124	-0.000150244

Abbreviations:

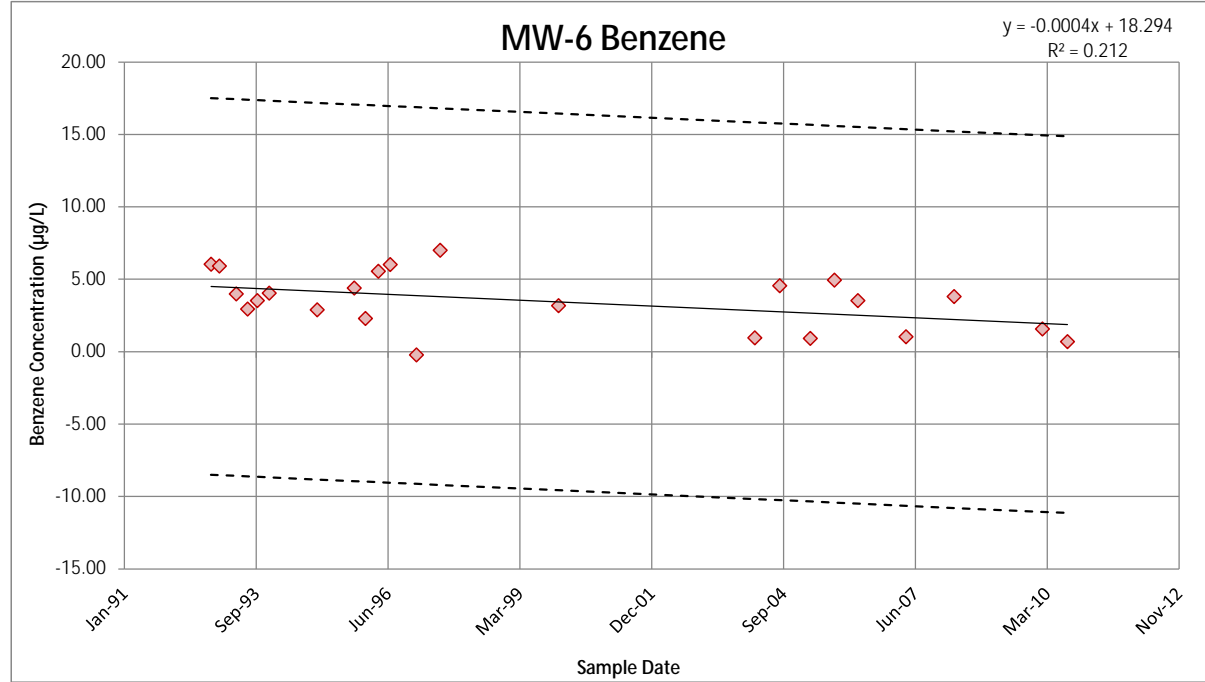
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 800 Harrison Street
Well ID: MW-6
Constituent: Benzene

Sample Date	Detected Concentration	LN Concentration
10/19/92	420	6.04
12/21/92	370	5.91
04/28/93	54	3.99
07/23/93	19	2.94
10/05/93	34	3.53
01/03/94	57	4.04
01/02/95	18	2.89
10/10/95	81	4.39
01/03/96	9.9	2.29
04/10/96	258	5.55
07/09/96	410	6.02
01/24/97	0.8	-0.22
07/23/97	1,100	7.00
01/07/00	24	3.18
02/04/04	2.6	0.96
08/11/04	95	4.55
03/31/05	2.5	0.92
09/30/05	140	4.94
03/27/06	34	3.53
03/27/07	2.8	1.03
03/26/08	45	3.81
01/25/10	4.8	1.57
08/03/10	2	0.69



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.460394496
R Square	0.211963092
Adjusted R Square	0.174437525
Standard Error	1.803108929
Observations	23

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	12.00
LN Target Concentration	2.48
Intercept	18.294456
Slope	-0.000407
Date Objective is Reached	05/30/2006

ANOVA

	df	SS	MS	F	Significance F
Regression	1	18.36440706	18.36440706	5.648498043	0.027057754
Residual	21	68.275238	3.25120181		
Total	22	86.63964506			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	18.29445649	6.253542972	2.92545467	0.008084364	5.289501995	31.29941099	7.533716999	29.05519598
X Variable 1	-0.000406753	0.000171145	-2.376656905	0.027057754	-0.000762668	-5.08374E-05	-0.000701249	-0.000112256

Abbreviations:

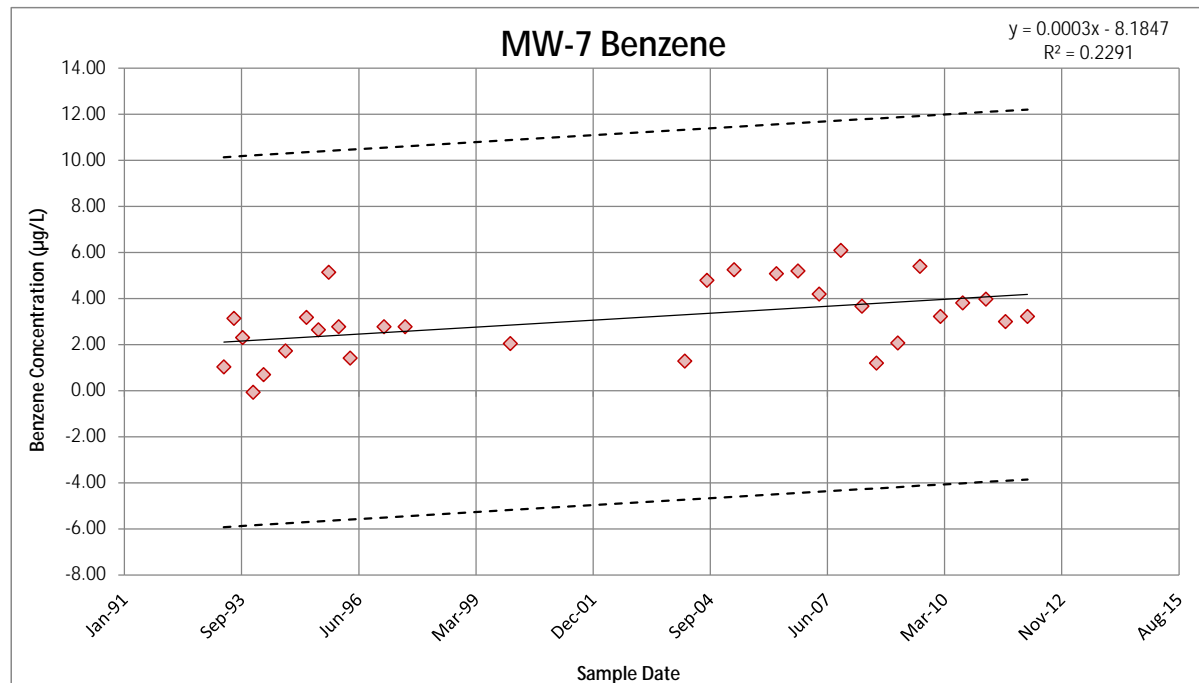
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 800 Harrison Street
Well ID: MW-7
Constituent: Benzene

Sample Date	Detected Concentration	LN Concentration
04/28/93	2.8	1.03
07/23/93	23	3.14
10/05/93	10	2.30
01/03/94	0.93	-0.07
04/02/94	2	0.69
10/06/94	5.6	1.72
04/03/95	24	3.18
07/14/95	14	2.64
10/10/95	170	5.14
01/03/96	16	2.77
04/10/96	4.1	1.41
01/24/97	16	2.77
07/23/97	16	2.77
01/07/00	7.7	2.04
02/04/04	3.6	1.28
08/11/04	120	4.79
03/31/05	190	5.25
03/27/06	160	5.08
09/27/06	180	5.19
03/27/07	66	4.19
09/28/07	440	6.09
03/26/08	39	3.66
07/28/08	3.3	1.19
01/26/09	7.9	2.07
08/03/09	220	5.39
01/25/10	25	3.22
08/03/10	45	3.81
02/17/11	53	3.97
08/03/11	20	3.00
02/07/12	25	3.22



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.478663988
R Square	0.229119213
Adjusted R Square	0.201587757
Standard Error	1.408591766
Observations	30

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	12.00
LN Target Concentration	2.48
Intercept	-8.184748
Slope	0.000302
Date Objective is Reached	NA

ANOVA

	df	SS	MS	F	Significance F
Regression	1	16.51211141	16.51211141	8.322088296	0.007454341
Residual	28	55.55566138	1.984130764		
Total	29	72.06777279			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	-8.184748171	3.919340812	-2.08829713	0.045985443	-16.21315377	-0.156342567	-14.85205996	-1.517436378
X Variable 1	0.000301841	0.000104631	2.884802991	0.007454341	8.75133E-05	0.000516169	0.000123849	0.000479833

Abbreviations:

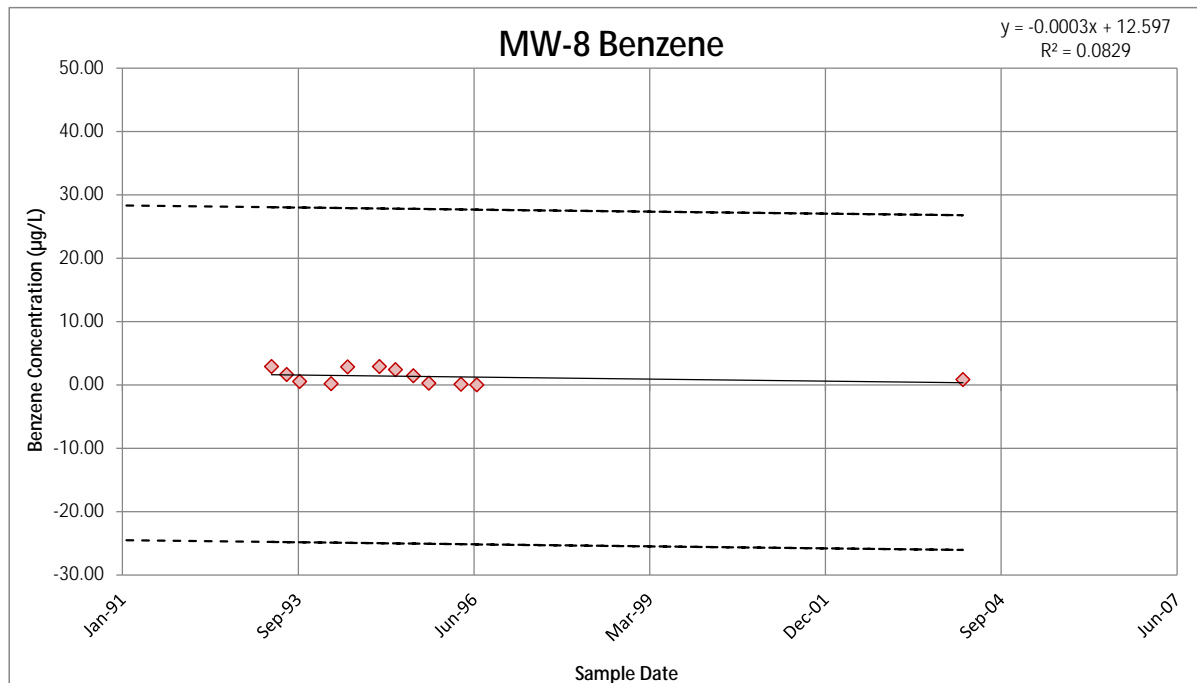
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 800 Harrison Street
Well ID: MW-8
Constituent: Benzene

Sample Date	Detected Concentration	LN Concentration
04/28/93	18	2.89
07/23/93	5.1	1.63
10/05/93	1.7	0.53
04/02/94	1.2	0.18
07/05/94	17	2.83
01/02/95	18	2.89
04/03/95	11	2.40
07/14/95	4.2	1.44
10/10/95	1.3	0.26
04/10/96	1.1	0.10
07/09/96	1	0.00
02/04/04	2.3	0.83



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.287869624
R Square	0.08286892
Adjusted R Square	-0.008844188
Standard Error	1.173158614
Observations	12

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	12.00
LN Target Concentration	2.48
Intercept	12.596861
Slope	-0.000322
Date Objective is Reached	11/10/1985

ANOVA

	df	SS	MS	F	Significance F
Regression	1	1.243580025	1.243580025	0.903566811	0.364235229
Residual	10	13.76301133	1.376301133		
Total	11	15.00659136			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	12.59686125	11.85596051	1.062491836	0.312997302	-13.81986487	39.01358737	-8.891606002	34.0853285
X Variable 1	-0.000322429	0.000339199	-0.950561313	0.364235229	-0.001078211	0.000433353	-0.000937214	0.000292355

Abbreviations:

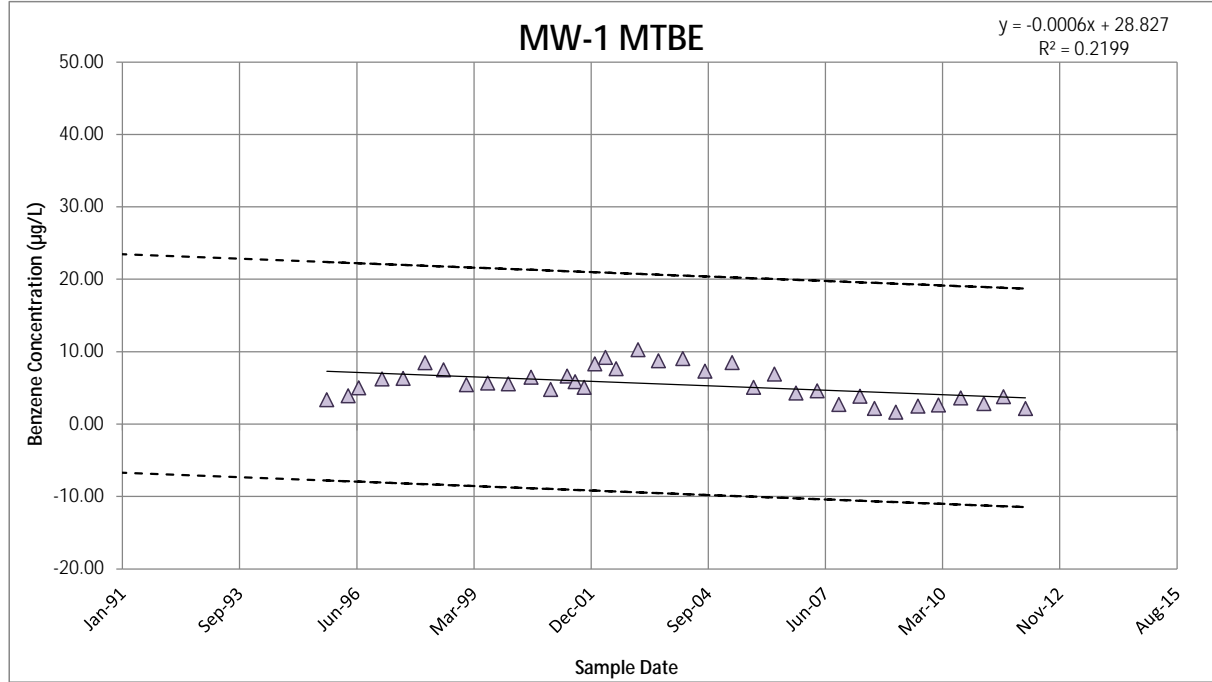
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 800 Harrison Street
Well ID: MW-1
Constituent: MTBE

Sample Date	Detected Concentration	LN Concentration
10/10/95	29	3.37
04/10/96	50	3.91
07/09/96	150	5.01
01/24/97	510	6.23
07/23/97	550	6.31
01/26/98	4,800	8.48
07/03/98	1,800	7.50
01/14/99	230	5.44
07/15/99	290	5.67
01/07/00	260	5.56
07/19/00	648	6.47
01/02/01	119	4.78
05/23/01	760	6.63
07/30/01	350	5.86
10/15/01	160	5.08
01/14/02	4,100	8.32
04/15/02	10,000	9.21
07/15/02	2,100	7.65
01/18/03	29,000	10.28
07/11/03	6,300	8.75
02/04/04	8,500	9.05
08/11/04	1,500	7.31
03/31/05	4,900	8.50
09/30/05	160	5.08
03/27/06	1,000	6.91
09/27/06	73	4.29
03/27/07	99	4.60
09/28/07	15	2.71
03/26/08	47	3.85
07/28/08	8.7	2.16
01/26/09	5.2	1.65
08/03/09	12	2.48
01/25/10	14	2.64
08/03/10	37	3.61
02/17/11	17	2.83
08/03/11	44	3.78
02/07/12	8.6	2.15



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.468987393
R Square	0.219949175
Adjusted R Square	0.197662009
Standard Error	2.068684627
Observations	37

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	5.00
LN Target Concentration	1.61
Intercept	28.827294
Slope	-0.000615
Date Objective is Reached	01/26/2021

ANOVA

	df	SS	MS	F	Significance F
Regression	1	42.23340093	42.23340093	9.868871205	0.00341159
Residual	35	149.780963	4.279456085		
Total	36	192.0143639			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	28.82729383	7.428235694	3.880772637	0.000440147	13.74717375	43.90741391	16.27675152	41.37783613
X Variable 1	-0.000615475	0.000195919	-3.14147596	0.00341159	-0.001013211	-0.000217738	-0.000946494	-0.000284455

Abbreviations:

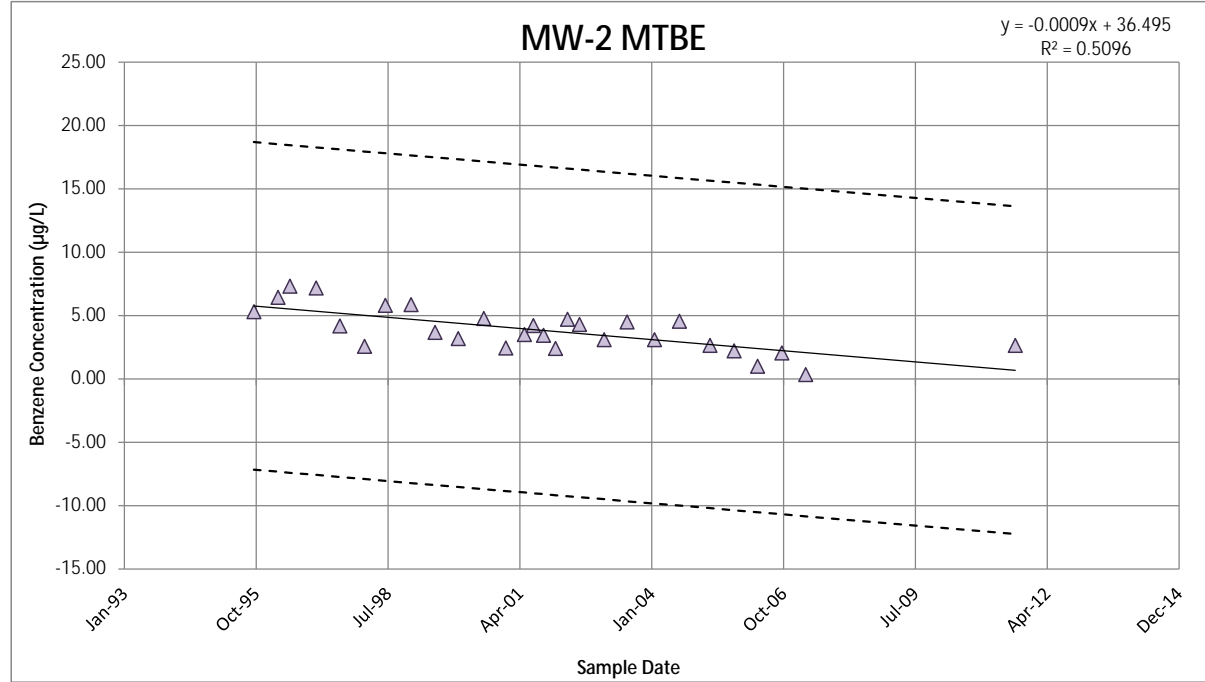
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 800 Harrison Street
Well ID: MW-2
Constituent: MTBE

Sample Date	Detected Concentration	LN Concentration
10/10/95	200	5.30
04/10/96	620	6.43
07/09/96	1,500	7.31
01/24/97	1,300	7.17
07/23/97	65	4.17
01/26/98	13	2.56
07/03/98	330	5.80
01/14/99	350	5.86
07/15/99	39	3.66
01/07/00	24	3.18
07/19/00	117	4.76
01/02/01	11.4	2.43
05/23/01	33	3.50
07/30/01	67	4.20
10/15/01	31	3.43
01/14/02	11	2.40
04/15/02	110	4.70
07/15/02	73	4.29
01/18/03	22	3.09
07/11/03	89	4.49
02/04/04	22	3.09
08/11/04	94	4.54
03/31/05	14	2.64
09/30/05	9.1	2.21
03/27/06	2.7	0.99
09/27/06	7.7	2.04
03/27/07	1.4	0.34
08/03/11	14	2.64



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.713850752
R Square	0.509582897
Adjusted R Square	0.4907207
Standard Error	1.225068799
Observations	28

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	5.00
LN Target Concentration	1.61
Intercept	36.494569
Slope	-0.000879
Date Objective is Reached	09/08/2008

ANOVA

	df	SS	MS	F	Significance F
Regression	1	40.54558224	40.54558224	27.01609553	1.99587E-05
Residual	26	39.02063261	1.500793562		
Total	27	79.56621485			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	36.49456878	6.288685818	5.803210691	4.09601E-06	23.56799007	49.42114748	25.76847367	47.22066388
X Variable 1	-0.000878725	0.00016906	-5.197700985	1.99587E-05	-0.001226233	-0.000531216	-0.001167077	-0.000590372

Abbreviations:

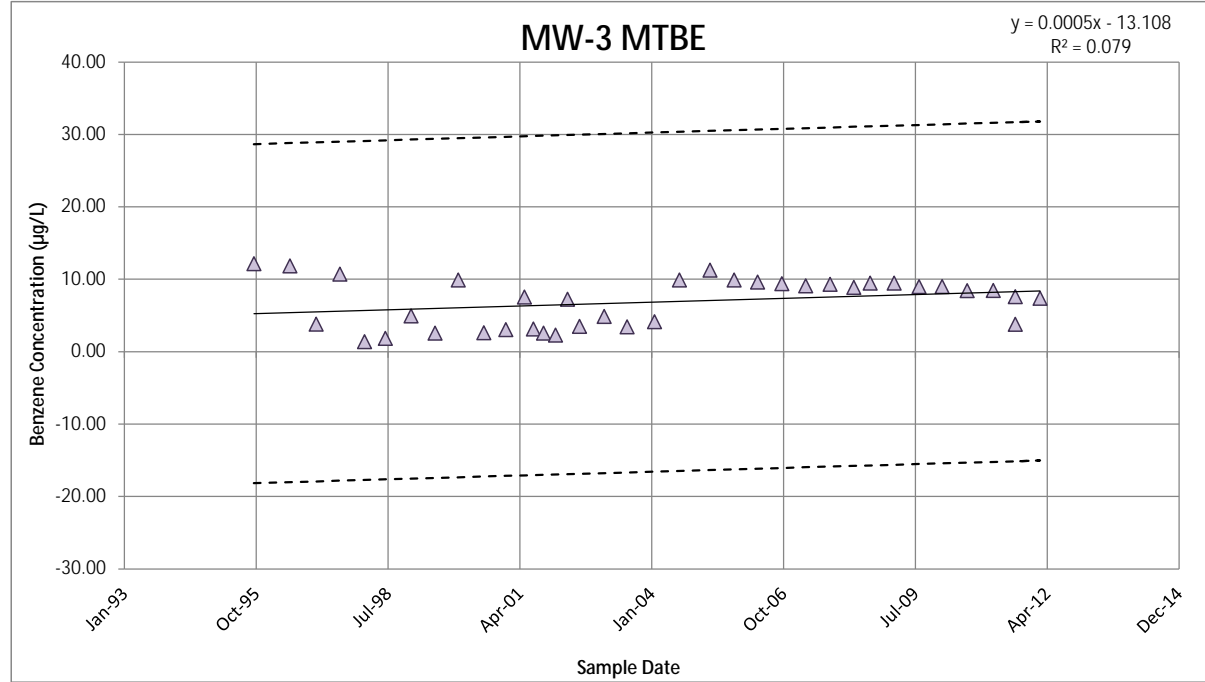
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 800 Harrison Street
Well ID: MW-3
Constituent: MTBE

Sample Date	Detected Concentration	LN Concentration
10/10/95	190,000	12.15
07/09/96	140,000	11.85
01/24/97	45	3.81
07/23/97	45,000	10.71
01/26/98	4	1.39
07/03/98	6.3	1.84
01/14/99	140	4.94
07/15/99	13	2.56
01/07/00	20,000	9.90
07/19/00	13.7	2.62
01/02/01	21.1	3.05
05/23/01	1,900	7.55
07/30/01	23	3.14
10/15/01	13	2.56
01/14/02	9.9	2.29
04/15/02	1,400	7.24
07/15/02	33	3.50
01/18/03	130	4.87
07/11/03	31	3.43
02/04/04	63	4.14
08/11/04	20,000	9.90
03/31/05	78,000	11.26
09/30/05	20,000	9.90
03/27/06	15,000	9.62
09/27/06	12,000	9.39
03/27/07	8,900	9.09
09/28/07	11,000	9.31
03/26/08	7,200	8.88
07/28/08	13,000	9.47
01/26/09	13,000	9.47
08/03/09	8,000	8.99
01/25/10	8,100	9.00
08/03/10	4,600	8.43
02/17/11	4,700	8.46
08/03/11	2,000	7.60
02/07/12	1,600	7.38
08/03/11	44	3.78



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.280997897
R Square	0.078959818
Adjusted R Square	0.052644385
Standard Error	3.201241993
Observations	37

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	5.00
LN Target Concentration	1.61
Intercept	-13.107916
Slope	0.000525
Date Objective is Reached	10/06/1976

ANOVA

	df	SS	MS	F	Significance F
Regression	1	30.74911483	30.74911483	3.000513657	0.092043809
Residual	35	358.6782605	10.2479503		
Total	36	389.4273753			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	-13.10791606	11.53454931	-1.136404701	0.263508515	-36.52429592	10.3084638	-32.59637268	6.380540556
X Variable 1	0.000524883	0.000303015	1.732199081	0.092043809	-9.0271E-05	0.001140037	1.29165E-05	0.001036849

Abbreviations:

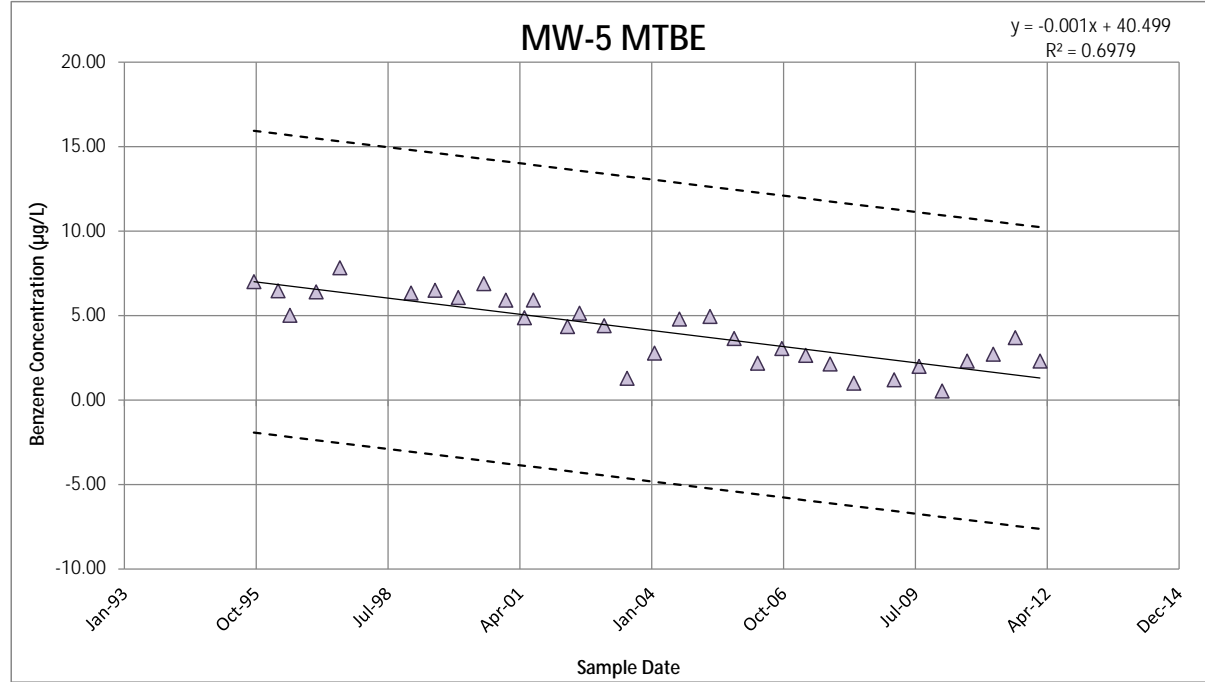
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 800 Harrison Street
Well ID: MW-5
Constituent: MTBE

Sample Date	Detected Concentration	LN Concentration
10/10/95	1,100	7.00
04/10/96	640	6.46
07/09/96	150	5.01
01/24/97	600	6.40
07/23/97	2,500	7.82
01/14/99	560	6.33
07/15/99	660	6.49
01/07/00	430	6.06
07/19/00	976	6.88
01/02/01	368	5.91
05/23/01	130	4.87
07/30/01	370	5.91
04/15/02	77	4.34
07/15/02	170	5.14
01/18/03	81	4.39
07/11/03	3.6	1.28
02/04/04	16	2.77
08/11/04	120	4.79
03/31/05	140	4.94
09/30/05	38	3.64
03/27/06	8.8	2.17
09/27/06	21	3.04
03/27/07	14	2.64
09/28/07	8.4	2.13
03/26/08	2.7	0.99
01/26/09	3.3	1.19
08/03/09	7.3	1.99
01/25/10	1.7	0.53
08/03/10	10	2.30
02/17/11	15	2.71
08/03/11	40	3.69
02/07/12	10	2.30



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.835394842
R Square	0.697884542
Adjusted R Square	0.687814027
Standard Error	1.146037095
Observations	32

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	5.00
LN Target Concentration	1.61
Intercept	40.499381
Slope	-0.000958
Date Objective is Reached	03/13/2011

ANOVA

	df	SS	MS	F	Significance F
Regression	1	91.01840839	91.01840839	69.29978491	2.72121E-09
Residual	30	39.40203069	1.313401023		
Total	31	130.4204391			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	40.49938111	4.373643301	9.259872907	2.65794E-10	31.56720989	49.43155233	33.07616756	47.92259466
X Variable 1	-0.00095752	0.000115022	-8.324649236	2.72121E-09	-0.001192427	-0.000722613	-0.001152743	-0.000762297

Abbreviations:

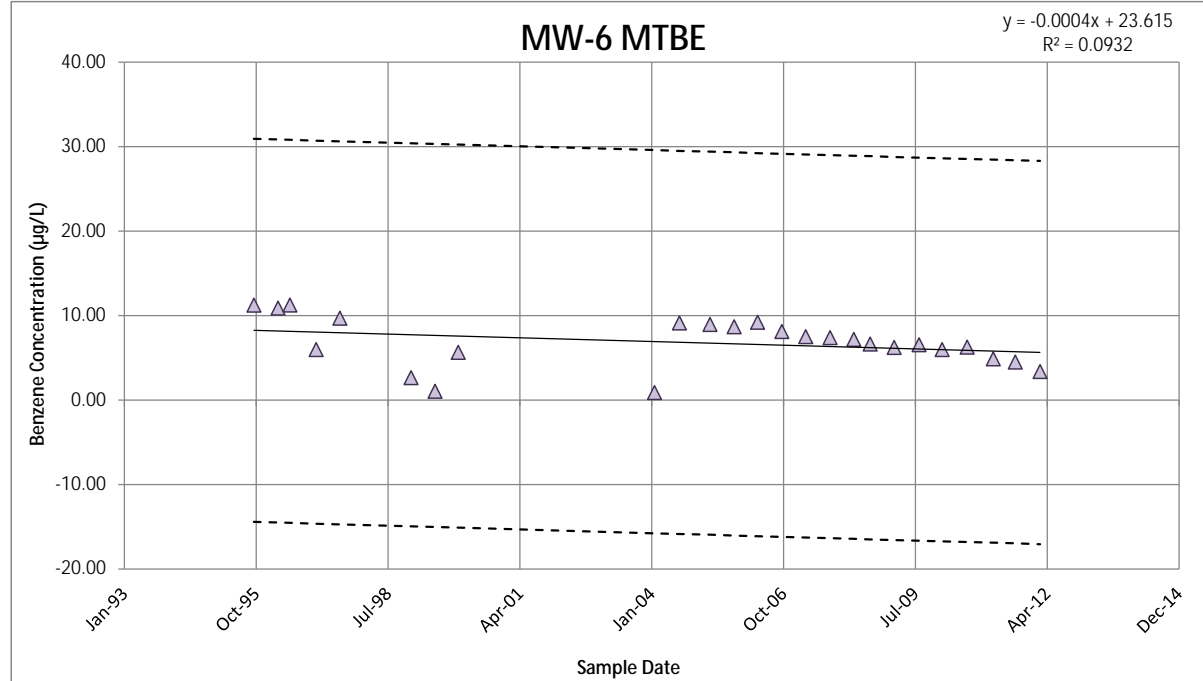
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 800 Harrison Street
Well ID: MW-6
Constituent: MTBE

Sample Date	Detected Concentration	LN Concentration
10/10/95	75,000	11.23
04/10/96	53,000	10.88
07/09/96	76,000	11.24
01/24/97	390	5.97
07/23/97	16,000	9.68
01/14/99	14	2.64
07/15/99	2.8	1.03
01/07/00	280	5.63
02/04/04	2.4	0.88
08/11/04	9,100	9.12
03/31/05	7,600	8.94
09/30/05	5,800	8.67
03/27/06	9,900	9.20
09/27/06	3,300	8.10
03/27/07	1,800	7.50
09/28/07	1,600	7.38
03/26/08	1,300	7.17
07/28/08	750	6.62
01/26/09	500	6.21
08/03/09	690	6.54
01/25/10	390	5.97
08/03/10	520	6.25
02/17/11	130	4.87
08/03/11	89	4.49
02/07/12	29	3.37



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.305307698
R Square	0.09321279
Adjusted R Square	0.053787259
Standard Error	2.780392136
Observations	25

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	5.00
LN Target Concentration	1.61
Intercept	23.614684
Slope	-0.000440
Date Objective is Reached	01/08/2037

ANOVA

	df	SS	MS	F	Significance F
Regression	1	18.27721674	18.27721674	2.36427483	0.137786272
Residual	23	177.80335	7.730580433		
Total	24	196.0805667			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	23.61468437	10.96147931	2.154333708	0.041926104	0.9391369	46.29023183	4.828117192	42.40125154
X Variable 1	-0.00043968	0.000285949	-1.537619859	0.137786272	-0.001031211	0.00015185	-0.00092976	5.03989E-05

Abbreviations:

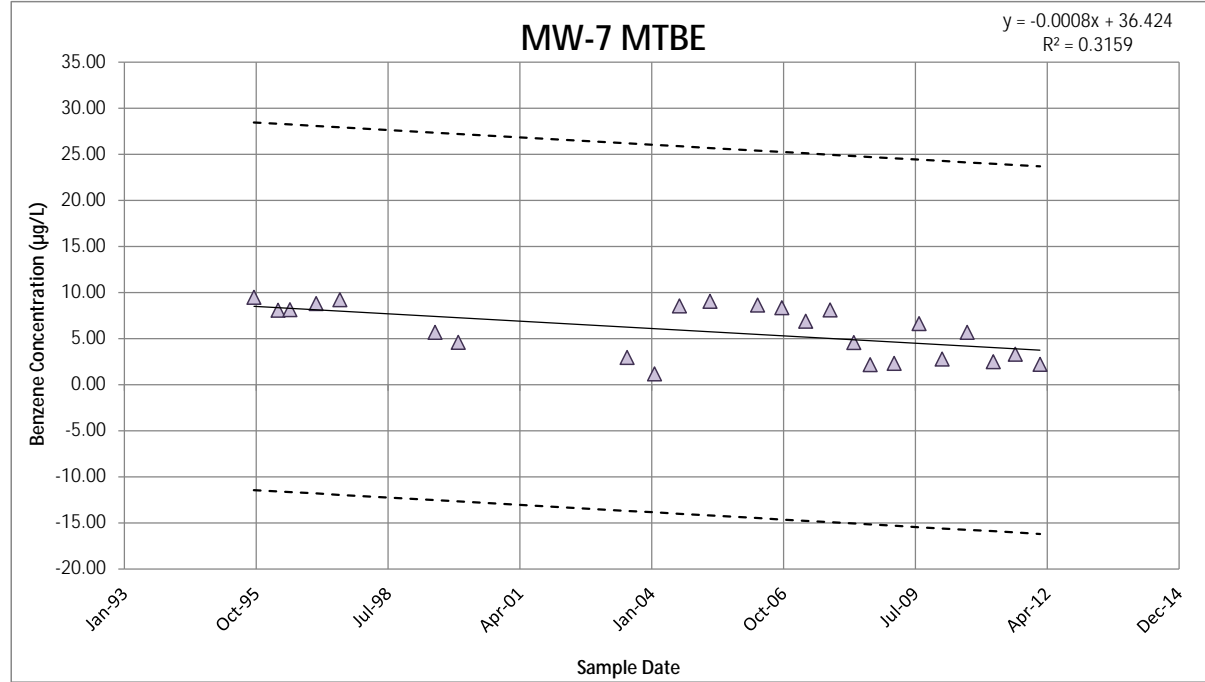
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 800 Harrison Street
Well ID: MW-7
Constituent: MTBE

Sample Date	Detected Concentration	LN Concentration
10/10/95	13,000	9.47
04/10/96	3,200	8.07
07/09/96	3,400	8.13
01/24/97	6,600	8.79
07/23/97	10,000	9.21
07/15/99	290	5.67
01/07/00	98	4.58
07/11/03	19	2.94
02/04/04	3.2	1.16
08/11/04	5,100	8.54
03/31/05	8,400	9.04
03/27/06	5,600	8.63
09/27/06	4,200	8.34
03/27/07	970	6.88
09/28/07	3,300	8.10
03/26/08	96	4.56
07/28/08	8.7	2.16
01/26/09	10	2.30
08/03/09	750	6.62
01/25/10	16	2.77
08/03/10	290	5.67
02/17/11	12	2.48
08/03/11	27	3.30
02/07/12	9.0	2.20



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.562087794
R Square	0.315942689
Adjusted R Square	0.284849175
Standard Error	2.377558393
Observations	24

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	5.00
LN Target Concentration	1.61
Intercept	36.424417
Slope	-0.000798
Date Objective is Reached	05/25/2019

ANOVA

	df	SS	MS	F	Significance F
Regression	1	57.43820846	57.43820846	10.16104797	0.004254114
Residual	22	124.361246	5.652783911		
Total	23	181.7994545			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	36.42441746	9.613760281	3.788779457	0.001008163	16.48669902	56.36213589	19.91620345	52.93263147
X Variable 1	-0.000798314	0.000250441	-3.187639874	0.004254114	-0.001317696	-0.000278932	-0.001228357	-0.000368272

Abbreviations:

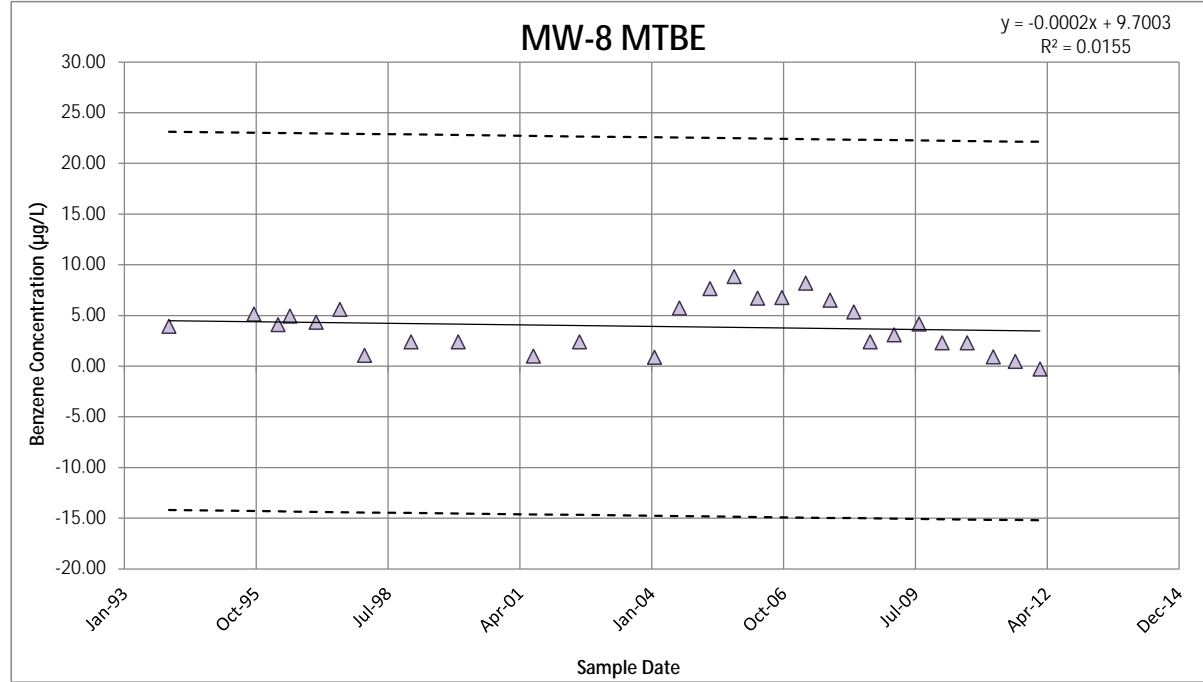
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Location: 800 Harrison Street
Well ID: MW-8
Constituent: MTBE

Sample Date	Detected Concentration	LN Concentration
01/03/94	51	3.93
10/10/95	170	5.14
04/10/96	60	4.09
07/09/96	140	4.94
01/24/97	76	4.33
07/23/97	270	5.60
01/26/98	2.9	1.06
01/14/99	11	2.40
01/07/00	11	2.40
07/30/01	2.7	0.99
07/15/02	11	2.40
02/04/04	2.4	0.88
08/11/04	310	5.74
03/31/05	2,100	7.65
09/30/05	6,900	8.84
03/27/06	820	6.71
09/27/06	870	6.77
03/27/07	3,600	8.19
09/28/07	670	6.51
03/26/08	210	5.35
07/28/08	11	2.40
01/26/09	22	3.09
08/03/09	64	4.16
01/25/10	10	2.30
08/03/10	10	2.30
02/17/11	2.5	0.92
08/03/11	1.6	0.47
02/07/12	0.75	-0.29



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.124392082
R Square	0.01547339
Adjusted R Square	-0.022393018
Standard Error	2.534539128
Observations	28

WATER QUALITY OBJECTIVES

Target Concentration (µg/L)	5.00
LN Target Concentration	1.61
Intercept	9.700274
Slope	-0.000152
Date Objective is Reached	05/16/2045

ANOVA

	df	SS	MS	F	Significance F
Regression	1	2.625000329	2.625000329	0.408631048	0.528257439
Residual	26	167.0211034	6.423888592		
Total	27	169.6461037			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	9.700273597	9.083069374	1.067951063	0.295358512	-8.97024271	28.3707899	-5.791972118	25.19251931
X Variable 1	-0.000152375	0.000238367	-0.639242558	0.528257439	-0.000642346	0.000337597	-0.000558938	0.000254189

Abbreviations:

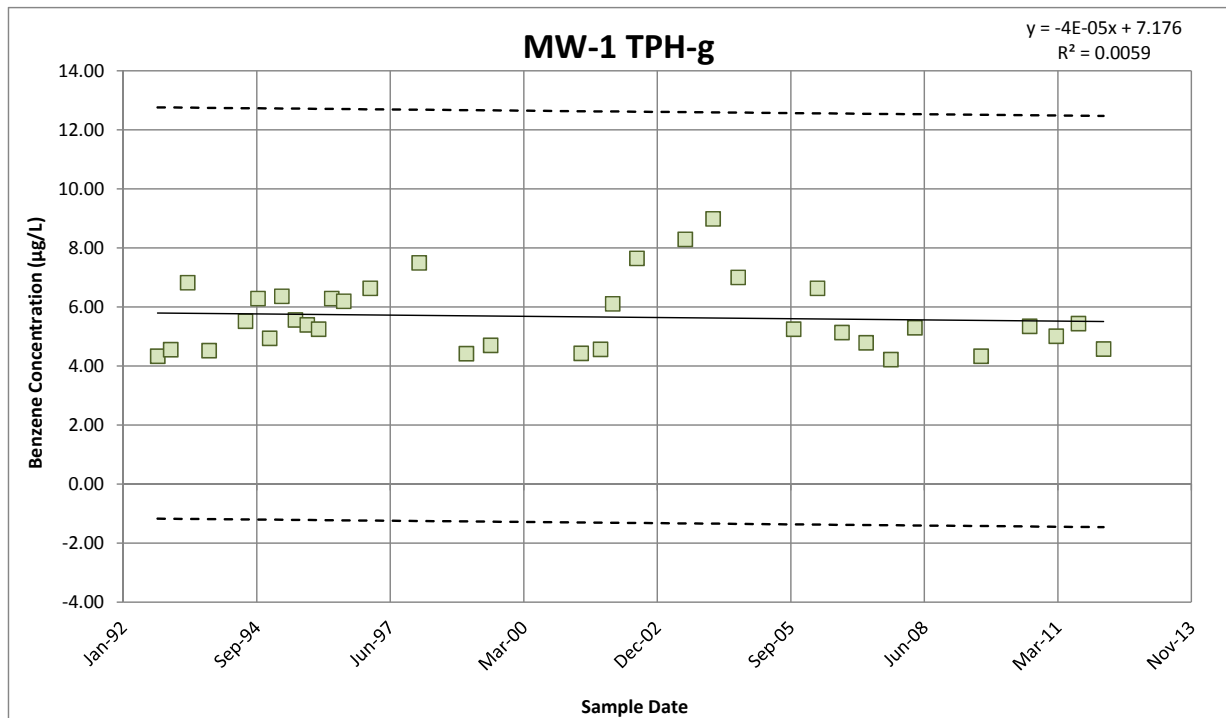
LN Natural Log
 NA Not Applicable

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence.
- (2) Linear regressions were performed on log-normalized concentration data.
- (3) Date to target concentration is not estimated if the constituent concentrations are showing increasing trends.

Well ID: MW-1
Constituent: TPH-g

Sample Date	Detected Concentration	LN Concentration
09/15/92	76	4.33
12/21/92	95	4.55
04/28/93	920	6.82
10/05/93	92	4.52
07/05/94	250	5.52
10/06/94	540	6.29
01/02/95	140	4.94
04/03/95	580	6.36
07/14/95	260	5.56
10/10/95	220	5.39
01/03/96	190	5.25
04/10/96	540	6.29
07/09/96	490	6.19
01/24/97	760	6.63
01/26/98	1,800	7.50
01/14/99	83	4.42
07/15/99	110	4.70
05/23/01	84	4.43
10/15/01	96	4.56
01/14/02	450	6.11
07/15/02	2,100	7.65
07/11/03	4,000	8.29
02/04/04	8,000	8.99
08/11/04	1,100	7.00
09/30/05	190	5.25
03/27/06	760	6.63
09/27/06	170	5.14
03/27/07	120	4.79
09/28/07	68	4.22
03/26/08	200	5.30
08/03/09	76	4.33
08/03/10	210	5.35
02/17/11	150	5.01
08/03/11	230	5.44
02/07/12	97	4.57



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.076621595
R Square	0.005870869
Adjusted R Square	-0.024254256
Standard Error	1.219165381
Observations	35

ANOVA

	df	SS	MS	F	Significance F
Regression	1	0.289666825	0.289666825	0.194882802	0.661762568
Residual	33	49.05001948	1.486364227		
Total	34	49.33968631			

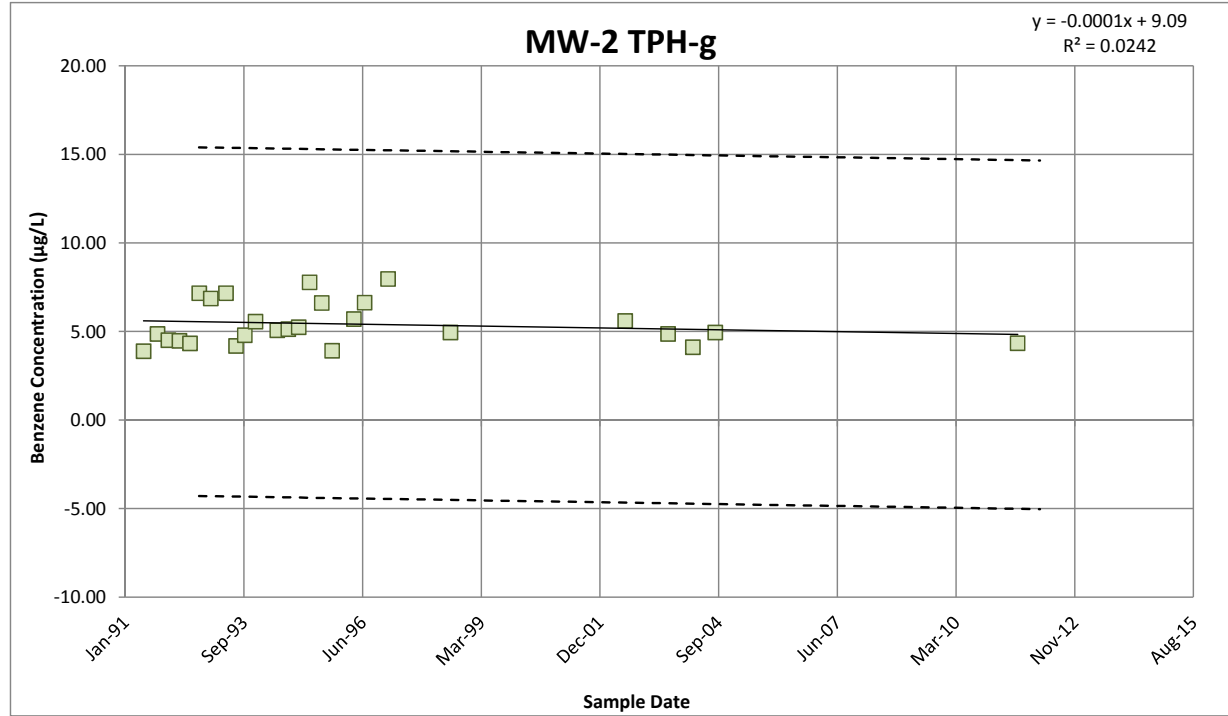
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	7.175968512	3.424367837	2.095560072	0.04387323	0.209039798	14.14289723	1.380704477	12.97123255
X Variable 1	-4.08108E-05	9.24461E-05	-0.441455322	0.661762568	-0.000228894	0.000147272	-0.000197263	0.000115641

Abbreviations:
 LN Natural Log

Notes:
 (1) Upper and lower bounds are shown as dashed lines at 95% confidence
 (2) Linear regressions were performed on log-normalized concentration data.

Well ID: MW-2
Constituent: TPH-g

Sample Date	Detected Concentration	LN Concentration
06/05/91	49	3.89
09/30/91	130	4.87
12/30/91	91	4.51
04/02/92	88	4.48
06/30/92	76	4.33
09/15/92	1,300	7.17
12/21/92	960	6.87
04/28/93	1,300	7.17
07/23/93	66	4.19
10/05/93	120	4.79
01/03/94	260	5.56
07/05/94	160	5.08
10/06/94	170	5.14
01/02/95	190	5.25
04/03/95	2,400	7.78
07/14/95	750	6.62
10/10/95	50	3.91
04/10/96	300	5.70
07/09/96	760	6.63
01/24/97	2,900	7.97
07/03/98	140	4.94
07/15/02	270	5.60
07/11/03	130	4.87
02/04/04	61	4.11
08/11/04	140	4.94
08/03/11	77	4.34



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.155689716
R Square	0.024239288
Adjusted R Square	-0.016417409
Standard Error	1.225779147
Observations	26

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.895802412	0.895802412	0.596194231	0.447570943
Residual	24	36.06082844	1.502534518		
Total	25	36.95663085			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	9.090003512	4.769570412	1.905832754	0.068718002	-0.753905933	18.93391296	0.929831028	17.250176
X Variable 1	-0.000104484	0.000135318	-0.772136148	0.447570943	-0.000383766	0.000174798	-0.000335997	0.000127029

Abbreviations:

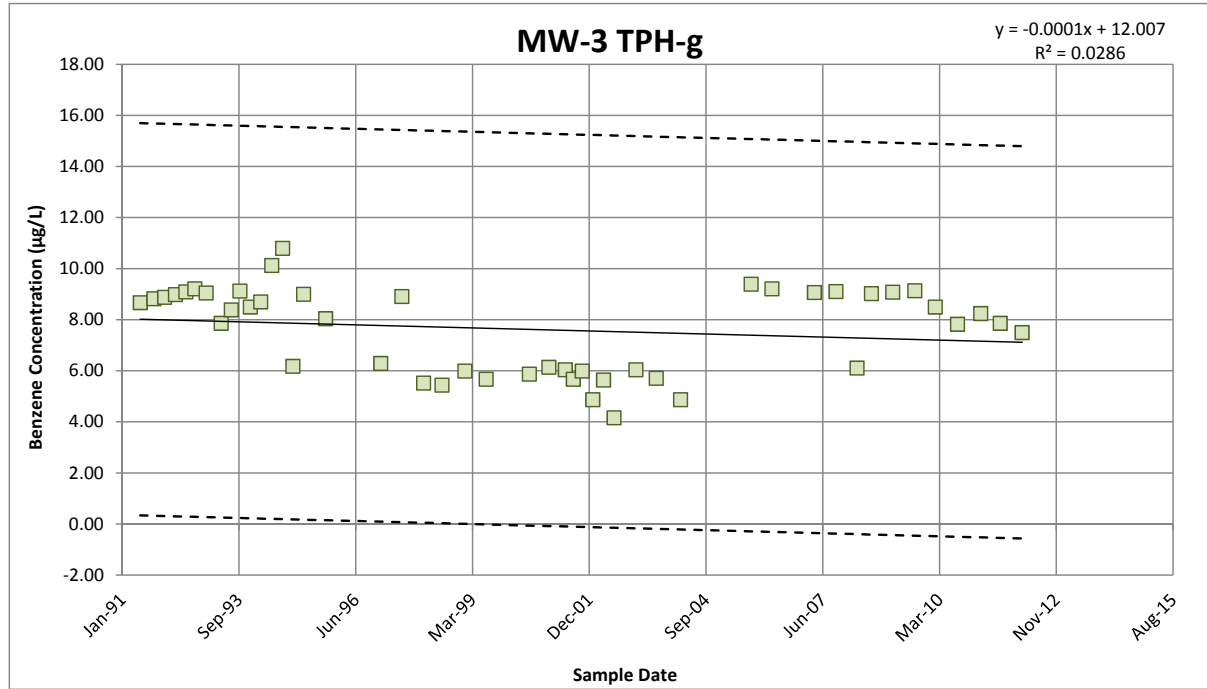
LN Natural Log

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence
- (2) Linear regressions were performed on log-normalized concentration data.

Well ID: MW-3
Constituent: TPH-g

Sample Date	Detected Concentration	LN Concentration
06/05/91	5,800	8.67
09/30/91	6,800	8.82
12/30/91	7,200	8.88
04/02/92	8,000	8.99
06/30/92	8,900	9.09
09/15/92	10,000	9.21
12/21/92	8,500	9.05
04/28/93	2,600	7.86
07/23/93	4,400	8.39
10/05/93	9,200	9.13
01/03/94	4,900	8.50
04/02/94	6,000	8.70
07/05/94	25,000	10.13
10/06/94	49,000	10.80
01/02/95	480	6.17
04/03/95	8,100	9.00
10/10/95	3,100	8.04
01/24/97	540	6.29
07/23/97	7,400	8.91
01/26/98	250	5.52
07/03/98	230	5.44
01/14/99	400	5.99
07/15/99	290	5.67
07/19/00	354	5.87
01/02/01	464	6.14
05/23/01	420	6.04
07/30/01	290	5.67
10/15/01	400	5.99
01/14/02	130	4.87
04/15/02	280	5.63
07/15/02	64	4.16
01/18/03	420	6.04
07/11/03	300	5.70
02/04/04	130	4.87
09/30/05	12,000	9.39
03/27/06	10,000	9.21
03/27/07	8,700	9.07
09/28/07	9,000	9.10
03/26/08	450	6.11
07/28/08	8,300	9.02
01/26/09	8,800	9.08
08/03/09	9,300	9.14
01/25/10	4,900	8.50
08/03/10	2,500	7.82
02/17/11	3,800	8.24
08/03/11	2,600	7.86
02/07/12	1,800	7.50



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.169255655
R Square	0.028647477
Adjusted R Square	0.007061865
Standard Error	1.666172131
Observations	47

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	3.684357355	3.684357355	1.327156122	0.255395493
Residual	45	124.9258307	2.776129571		
Total	46	128.610188			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	12.00712971	3.813242801	3.148797582	0.002909818	4.326864576	19.68739485	5.603065294	18.41119413
X Variable 1	-0.000119484	0.000103716	-1.152022622	0.255395493	-0.000328379	8.94119E-05	-0.000293668	5.47005E-05

Abbreviations:

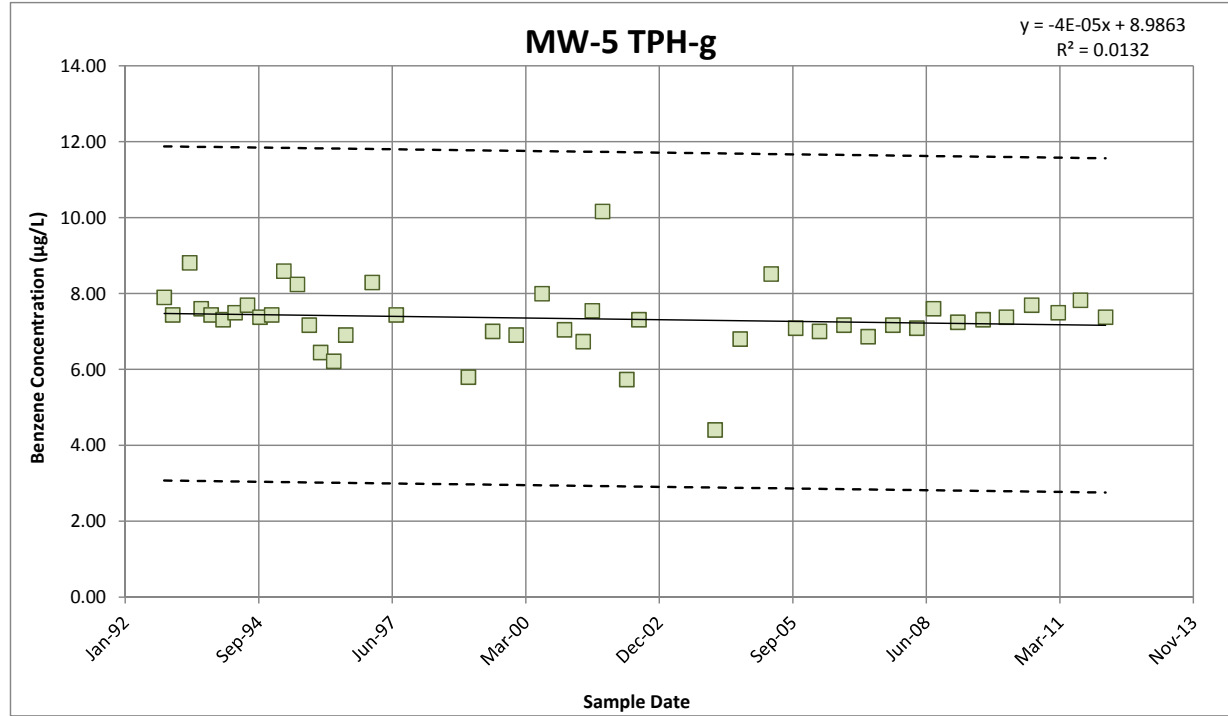
LN Natural Log

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence
- (2) Linear regressions were performed on log-normalized concentration data.

Well ID: MW-5
Constituent: TPH-g

Sample Date	Detected Concentration	LN Concentration
10/19/92	2,700	7.90
12/21/92	1,700	7.44
04/28/93	6,700	8.81
07/23/93	2,000	7.60
10/05/93	1,700	7.44
01/03/94	1,500	7.31
04/02/94	1,800	7.50
07/05/94	2,200	7.70
10/06/94	1,600	7.38
01/02/95	1,700	7.44
04/03/95	5,400	8.59
07/14/95	3,800	8.24
10/10/95	1,300	7.17
01/03/96	630	6.45
04/10/96	500	6.21
07/09/96	1,000	6.91
01/24/97	4,000	8.29
07/23/97	1,700	7.44
01/14/99	330	5.80
07/15/99	1,100	7.00
01/07/00	1,000	6.91
07/19/00	2,980	8.00
01/02/01	1,150	7.05
05/23/01	840	6.73
07/30/01	1,900	7.55
10/15/01	26,000	10.17
04/15/02	310	5.74
07/15/02	1,500	7.31
02/04/04	82	4.41
08/11/04	900	6.80
03/31/05	5,000	8.52
09/30/05	1,200	7.09
03/27/06	1,100	7.00
09/27/06	1,300	7.17
03/27/07	960	6.87
09/28/07	1,300	7.17
03/26/08	1,200	7.09
07/28/08	2,000	7.60
01/26/09	1,400	7.24
08/03/09	1,500	7.31
01/25/10	1,600	7.38
08/03/10	2,200	7.70
02/17/11	1,800	7.50
08/03/11	2,500	7.82
02/07/12	1,600	7.38



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.114714498
R Square	0.013159416
Adjusted R Square	-0.009790365
Standard Error	0.880011643
Observations	45

ANOVA

	df	SS	MS	F	Significance F
Regression	1	0.444053103	0.444053103	0.573400507	0.453040409
Residual	43	33.30008115	0.774420492		
Total	44	33.74413426			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	8.986331582	2.183390267	4.115769736	0.000171385	4.583105519	13.38955764	5.315898169	12.65676499
X Variable 1	-4.46155E-05	5.89192E-05	-0.757232135	0.453040409	-0.000163437	7.42064E-05	-0.000143663	5.44319E-05

Abbreviations:

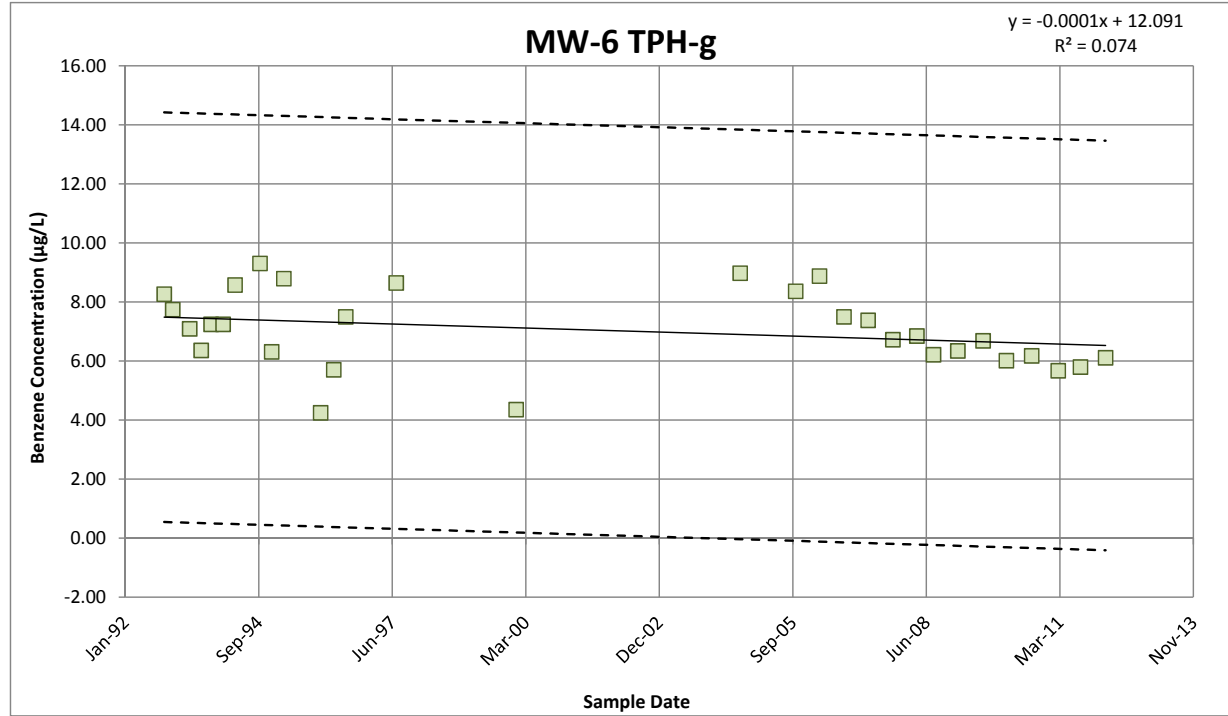
LN Natural Log

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence
- (2) Linear regressions were performed on log-normalized concentration data.

Well ID: MW-6
Constituent: TPH-g

Sample Date	Detected Concentration	LN Concentration
10/19/92	3,900	8.27
12/21/92	2,300	7.74
04/28/93	1,200	7.09
07/23/93	580	6.36
10/05/93	1,400	7.24
01/03/94	1,400	7.24
04/02/94	5,300	8.58
10/06/94	11,000	9.31
01/02/95	550	6.31
04/03/95	6,600	8.79
01/03/96	70	4.25
04/10/96	300	5.70
07/09/96	1,800	7.50
07/23/97	5,700	8.65
01/07/00	78	4.36
08/11/04	7,900	8.97
09/30/05	4,300	8.37
03/27/06	7,200	8.88
09/27/06	1,800	7.50
03/27/07	1,600	7.38
09/28/07	830	6.72
03/26/08	940	6.85
07/28/08	500	6.21
01/26/09	570	6.35
08/03/09	800	6.68
01/25/10	410	6.02
08/03/10	480	6.17
02/17/11	290	5.67
08/03/11	330	5.80
02/07/12	450	6.11



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.272062736
R Square	0.074018132
Adjusted R Square	0.040947351
Standard Error	1.285209487
Observations	30

ANOVA

	df	SS	MS	F	Significance F
Regression	1	3.696932464	3.696932464	2.2381731	0.1458275
Residual	28	46.24937588	1.651763424		
Total	29	49.94630835			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	12.09103134	3.387361545	3.569454038	0.00131533	5.152335855	19.02972683	6.328685924	17.85337676
X Variable 1	-0.000135903	9.08412E-05	-1.496052506	0.1458275	-0.000321983	5.01765E-05	-0.000290436	1.86296E-05

Abbreviations:

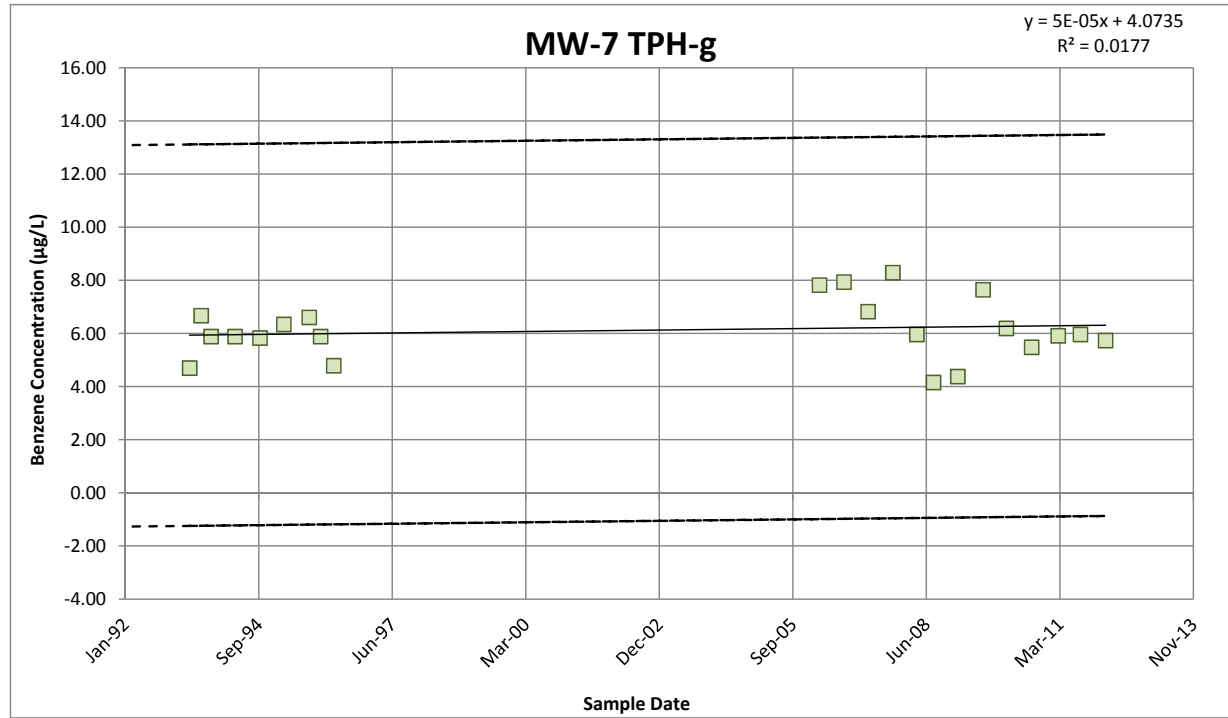
LN Natural Log

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence
- (2) Linear regressions were performed on log-normalized concentration data.

Well ID: MW-7
Constituent: TPH-g

Sample Date	Detected Concentration	LN Concentration
04/28/93	110	4.70
07/23/93	790	6.67
10/05/93	360	5.89
04/02/94	360	5.89
10/06/94	340	5.83
04/03/95	570	6.35
10/10/95	740	6.61
01/03/96	360	5.89
04/10/96	120	4.79
03/27/06	2,500	7.82
09/27/06	2,800	7.94
03/27/07	920	6.82
09/28/07	4,000	8.29
03/26/08	390	5.97
07/28/08	64	4.16
01/26/09	80	4.38
08/03/09	2,100	7.65
01/25/10	490	6.19
08/03/10	240	5.48
02/17/11	370	5.91
08/03/11	390	5.97
02/07/12	310	5.74



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.132921752
R Square	0.017668192
Adjusted R Square	-0.031448398
Standard Error	1.128214644
Observations	22

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.457875461	0.457875461	0.359719436	0.555396955
Residual	20	25.45736565	1.272868283		
Total	21	25.91524111			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	4.073482879	3.442387636	1.183330673	0.250553519	-3.107211881	11.25417764	-1.863665792	10.01063155
X Variable 1	5.46037E-05	9.10417E-05	0.599766151	0.555396955	-0.000135306	0.000244513	-0.000102418	0.000211625

Abbreviations:

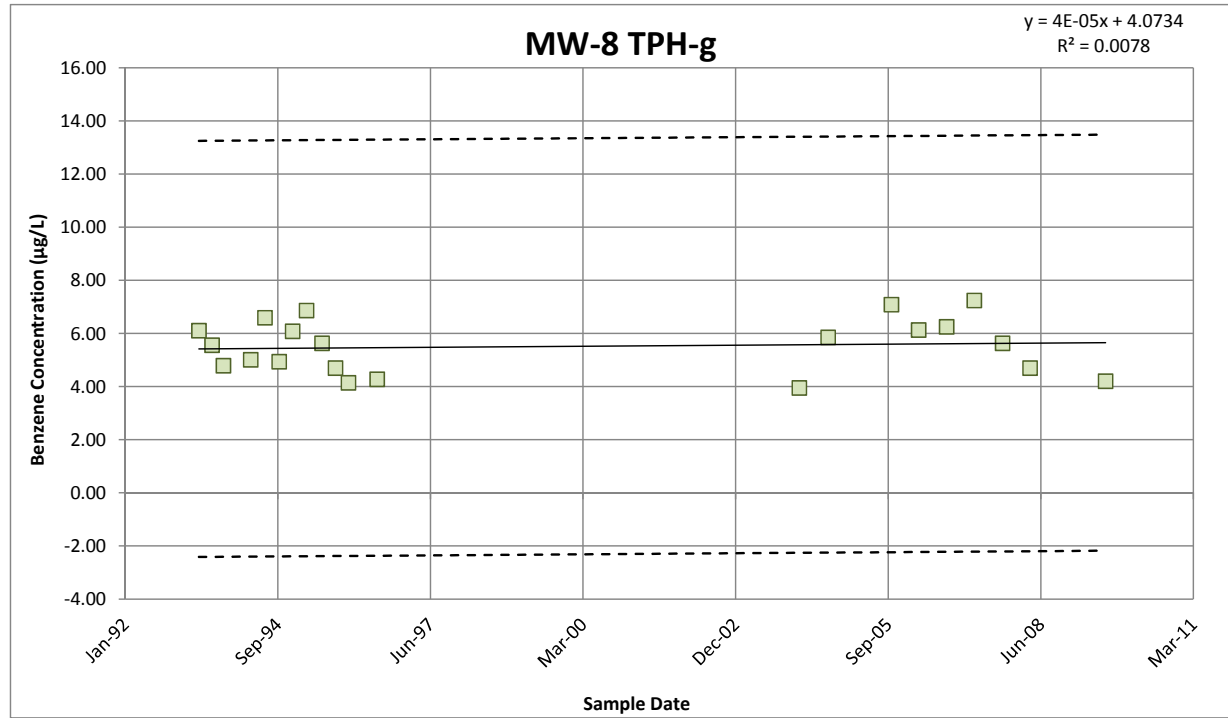
LN Natural Log

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence
- (2) Linear regressions were performed on log-normalized concentration data.

Well ID: MW-8
Constituent: TPH-g

Sample Date	Detected Concentration	LN Concentration
04/28/93	450	6.11
07/23/93	260	5.56
10/05/93	120	4.79
04/02/94	150	5.01
07/05/94	730	6.59
10/06/94	140	4.94
01/02/95	440	6.09
04/03/95	960	6.87
07/14/95	280	5.63
10/10/95	110	4.70
01/03/96	63	4.14
07/09/96	72	4.28
02/04/04	52	3.95
08/11/04	350	5.86
09/30/05	1,200	7.09
03/27/06	460	6.13
09/27/06	520	6.25
03/27/07	1,400	7.24
09/28/07	280	5.63
03/26/08	110	4.70
08/03/09	67	4.20



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.088095322
R Square	0.007760786
Adjusted R Square	-0.044462331
Standard Error	1.027899555
Observations	21

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.157016128	0.157016128	0.148608245	0.704150961
Residual	19	20.07497243	1.056577496		
Total	20	20.23198856			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 90.0%	Upper 90.0%
Intercept	4.073382116	3.742038574	1.088546266	0.289969432	-3.758794615	11.90555885	-2.397099493	10.54386373
X Variable 1	3.94515E-05	0.000102339	0.3854974	0.704150961	-0.000174747	0.00025365	-0.000137507	0.00021641

Abbreviations:

LN Natural Log

Notes:

- (1) Upper and lower bounds are shown as dashed lines at 95% confidence
- (2) Linear regressions were performed on log-normalized concentration data.



Appendix G

Remedial Alternative Cost Estimate

Remedial Alternative 1 (RA1)	
Monitored Natural Attenuation	
Remedial Alternative 1 - Key Assumptions	
Remedial alternative duration assumes 35 years are required to achieve cleanup goals for benzene, MTBE, and TPHH	
Semi-annual sampling and reporting for 25 years	
Annual sampling and reporting for 10 years	
Monitoring for MNA parameters in select wells within existing monitoring network	
Total anticipated remedial alternative duration: 35 years	
Remedial Alternative 1 Tasks	Estimated Cost
Semi-annual sampling and reporting (25 years, \$70,000/year)	\$1,750,000
Annual sampling and reporting (10 years, \$35,000/year)	\$350,000
Site decommissioning and well abandonment	\$50,000
Lifecycle Cost Totals (RA1): \$2,150,000	

Remedial Alternative 2 (RA2)	
Air Sparge (AS)/Soil Vapor Extraction (SVE)	
Remedial Alternative 2 - Key Assumptions	
Pilot study will be completed to determine key design parameters (2 AS wells, 1 SVE well)	
Full-scale AS/SVE system includes installation of 20 AS wells, 15 SVE wells, distribution piping, and remediation system equipment	
AS/SVE system O&M for 4 years	
Semi-annual sampling and reporting for 6 years (4 years during active treatment, 2 years post-treatment)	
Monitoring for MNA parameters in select wells within existing monitoring network	
Total anticipated remedial alternative duration: 6 years	
Remedial Alternative 2 Tasks	Estimated Cost
<u>AS/SVE Pilot Study</u>	
Work plan preparation	\$20,000
Permitting (Air Permit)	\$8,000
Pilot study well installation (2 AS wells and 1 SVE well)	\$15,000
Perform AS/SVE Pilot Study	\$50,000
RAP preparation and system design	\$50,000
<u>Full-Scale AS/SVE System</u>	
Installation of 20 AS wells and 15 SVE wells	\$125,000
Installation of full-scale AS/SVE system (including major system components, trenching, distribution piping, utility connection, and remediation building)	\$290,000
Quarterly system O&M (4 years, \$45,000/year)	\$180,000
Utility Usage (4 years, \$15,000/year)	\$60,000
Semi-annual sampling and reporting (6 years, \$70,000/year)	\$510,000
Site decommissioning and well abandonment	\$100,000
Lifecycle Cost Totals (RA2): \$1,408,000	

Remedial Alternative 3 (RA3)	
Multi-Phase Extraction (MPE)	
Remedial Alternative 3 - Key Assumptions	
Pilot study will be completed to determine key design parameters (2 extraction wells)	
Full-scale MPE system includes installation of 15 MPE wells, distribution piping, and remediation system equipment	
MPE system O&M for 4 years	
Semi-annual sampling and reporting for 6 years (4 years during active treatment, 2 years post-treatment)	
Monitoring for MNA parameters in select wells within existing monitoring network	
Total anticipated remedial alternative duration: 6 years	
Remedial Alternative 3 Tasks	Estimated Cost
<u>MPE Pilot Study</u>	
Work plan preparation	\$20,000
Permitting (Air Permit, POTW)	\$8,000
Pilot study well installation (2 extraction wells)	\$10,000
Perform MPE Pilot Study	\$50,000
RAP preparation and system design	\$50,000
<u>Full-Scale MPE System</u>	
Installation of 15 MPE wells	\$100,000
Installation of full-scale MPE system (including major system components, trenching, distribution piping, utility connection, and remediation building)	\$200,000
Monthly system O&M and annual utility usage (4 years, \$80,000/year)	\$320,000
Utility Usage (4 years, \$20,000/year)	\$80,000
Semi-annual sampling and reporting (6 years, \$70,000/year)	\$280,000
Site decommissioning and well abandonment	\$90,000
Lifecycle Cost Total (RA3): \$1,208,000	

Remedial Alternative 4 (RA4)	
In-Situ Enhanced Bioremediation	
Remedial Alternative 4 - Key Assumptions	
Pilot injection study will be completed to determine key design parameters (2 injection wells)	
Full-scale system includes installation of 25 injection wells, distribution piping, and remediation system equipment	
Bioremediation system O&M for 4 years	
Semi-annual sampling and reporting for 8 years (4 years during active treatment, 4 years post-treatment)	
Monitoring for MNA parameters in select wells within existing monitoring network	
Total anticipated remedial alternative duration: 8 years	
Remedial Alternative 4 Tasks	Estimated Cost
<u>Pilot Injection Study</u>	
Work plan preparation	\$20,000
Pilot injection study well installation (2 injection wells)	\$10,000
Perform Pilot Injection Study	\$50,000
RAP preparation and system design	\$50,000
<u>Full-Scale Bioremediation System</u>	
Installation of 25 injection wells	\$100,000
Installation of full-scale Bioremediation system (including major system components, trenching, distribution piping, utility connection, and remediation building)	\$200,000
Monthly system O&M and annual utility usage (4 years, \$80,000/year)	\$320,000
Utility Usage (4 years, \$20,000/year)	\$80,000
Semi-annual sampling and reporting (8 years, \$70,000/year)	\$560,000
Site decommissioning and well abandonment	\$80,000
Lifecycle Cost Total (RA4):	
\$1,470,000	

Remedial Alternative 5 (RA5)	
In-Situ Chemical Oxidation (ISCO)	
Remedial Alternative 5 - Key Assumptions	
Pilot injection study will be completed to determine key design parameters (2 injection wells)	
Full-scale system includes installation of 40 injection wells, distribution piping, and remediation system equipment	
4 persulfate injection events over 2 years	
Quarterly sampling and semi-annual reporting for 2 years during injections	
Semi-annual sampling and reporting for 4 years following injections	
Monitoring for MNA parameters in select wells within existing monitoring network	
Total anticipated remedial alternative duration: 6 years	
Remedial Alternative 5 Tasks	Estimated Cost
<u>Pilot Injection Study</u>	
Work plan preparation	\$20,000
Pilot injection study well installation (2 injection wells, 1 dose response well)	\$10,000
Perform Pilot Injection Study	\$50,000
RAP preparation and system design	\$50,000
<u>Full-Scale ISCO System</u>	
Installation of 40 ISCO injection wells	\$160,000
Perform semi-annual persulfate injections (4 events, \$120,000/event)	\$480,000
Quarterly sampling and semi-annual reporting for persulfate injection performance assessment (2 years, \$100,000/year)	\$200,000
Semi-annual sampling and reporting (6 years, \$70,000/year)	\$420,000
Site decommissioning and well abandonment	\$200,000
Lifecycle Cost Total (RA5):	
\$1,590,000	



April 18, 2014

Timothy L. Bishop,
P.G.
Project Manager
Marketing Business Unit

**Chevron Environmental
Management Company**
6101 Bollinger Canyon Road
Suite 5213
San Ramon, CA 94583
Tel (925) 790-6463
TimBishop@chevron.com

Mr. Jerry Wickham
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

RE: Remedial Action Plan

800, 726, and 706 Harrison Street, Oakland, California 94607
Fuel Leak Case No.: RO0000231, RO0000321, and RO0000484
Comingled Plume Claim No. 6678

Dear Mr. Wickham,

I declare under penalty of perjury that to the best of my knowledge the information and/or recommendations contained in the attached report is/are true and correct.

If you have any questions or need additional information, please contact me at (925) 790-6463.

Sincerely,

A handwritten signature in blue ink that reads "Tim Bishop".

Timothy Bishop
Union Oil of California – Project Manager

Attachment
Remedial Action Plan

**Chevron Environmental
Management Company**

Remedial Action Plan

706/726/800 Harrison Street
Oakland, California
ACEH Case #RO0000231/321/484

April 18, 2014



Tyler Sale
Environmental Engineer II

Katherine Brandt
Project Manager

David Lay
Professional Geologist



Remedial Action Plan

706/726/800 Harrison Street
Oakland, California
#RO0000231/321/484

Prepared for:
Chevron Environmental
Management Company

Prepared by:
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Emeryville
California 94608
Tel 510.596.9675
Fax 510.652.4906

Our Ref.:
B0047339.2012

Date:
April 18, 2014

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1. Introduction

On behalf of Chevron Environmental Management Company's affiliate, Union Oil Company of California (Union Oil), ARCADIS U.S., Inc. (ARCADIS) prepared this Remedial Action Plan (RAP) to address petroleum hydrocarbon impacted groundwater in a co-mingled plume at 706, 726, and 800 Harrison Street in Oakland, California (site). A co-mingled plume application was accepted by the co-mingled plume case board (Co-mingled plume Case #0068) and a letter of commitment for enrollment into the co-mingled plume fund is expected by June 30, 2014. Figure 1 illustrates the general area of the site and Figure 2 presents a layout of the three properties.

This RAP was prepared as requested by the Alameda County Department of Environmental Health (ACEH) in a letter dated December 2, 2013 (Appendix A). This RAP presents relevant background information, a summary of pilot test activities completed to evaluate potential remedial action alternatives, and a detailed design basis for the selected remedial action (air sparge [AS]/soil vapor extraction [SVE]).

1.1 Objectives

Union Oil's primary objective for this project is remedial implementation at the site in accordance with ACEH requirements to obtain a low-threat closure determination in accordance with the Low-Threat Underground Storage Tank Case Closure Policy (Low-Threat Closure Policy [SWRCB 2012]).

1.2 Report Organization

Following this introduction, the remaining sections of this report include:

- Description of site background information (Section 2).
- Design basis, including pilot test results (Section 3).
- Discussion of the cleanup approach (Section 4).
- Discussion of the permitting and regulatory involvement (Section 5).
- Remedy implementation process (Section 6).

2. Site Background

This section describes the site's physical setting, regional and local geology, project history, and mass distribution in the subsurface at the site.

2.1 Site and Surrounding Area

The site consists of three properties located in a mixed commercial and residential area at 706, 726, and 800 Harrison Street, in Oakland, California (Figure 1). All property locations and boundaries are shown on Figure 2.

The 706 Harrison Street Property is a former ARCO service station owned by Mr. Bo Gin. This property currently contains an asphalt parking lot. Former facilities at the 706 Harrison Street Property included four 1,000-gallon and two 6,000-gallon fuel underground storage tanks (USTs), one steel waste oil UST, product line piping, pump islands, and a station building. The USTs and associated piping were removed in January 1991 (Cambria Environmental Technology, Inc. 1995).

The property located at 726 Harrison Street is a former Shell service station owned by Mr. Peter Yee. This property currently contains an asphalt parking lot and one building. Former facilities at the 726 Harrison Street Property included three 4,000-gallon USTs, one 8,000-gallon fuel UST, one steel 1,000-gallon waste oil UST, product line piping, pump islands, and a station building. The USTs and associated piping were removed in October 1995 (Aqua Science Engineers, Inc. 2001).

The property located at 800 Harrison Street is an active 76 Station (Union Oil) owned by Mr. Muhammad Usman. Current station facilities include a single-story convenience store, three product dispenser islands under two canopies, and two 12,000-gallon double-wall poly-steel gasoline USTs.

2.2 Regional Geology

The site is underlain by Holocene and Pleistocene-age eolian sand deposits referred to as the Merrit Sand. This sand typically consists of fine-grained, well-sorted, well-drained eolian sand, inter-fingering with Holocene Bay Mud. Merrit Sand reaches a maximum depth of approximately 50 feet below ground surface (bgs) across all three properties (Stantec 2009).

2.3 Local Geology and Hydrogeology

Property-specific well boring logs and cone penetrometer test (CPT) investigation results indicate that the site lithology is consistent with regional lithology. The general site lithology comprises primarily silty and fine-grained sands extending to approximately 30 feet bgs. Deeper CPTs were conducted in the area of 800 Harrison Street and indicate the presence of silt and clay between approximately 30 and 42 feet bgs. Below the clay, fine-grained and silty sands are present (Stantec 2009). Visual inspections of soil during the investigations are consistent with Merritt Sand (Stantec 2009). Geologic cross-section locations are shown on Figure 3. A generalized cross-section depicting subsurface materials for all three properties is provided on Figure 4. Property-specific cross-sections for 800 Harrison Street, 726 Harrison Street, and 706 Harrison Street are provided on Figures 5, 6, and 7, respectively.

The nearest surface waters to the site are the Oakland Inner Harbor to the south and west and Lake Merritt to the east and northeast. Each body of water is approximately ½ mile from the site (Stantec 2009).

Depth to water beneath the three properties has historically ranged from 10.93 to 20.01 feet bgs. During the first semiannual groundwater monitoring and sampling event in February 2014, average depth-to-water measurements were approximately 18.92 (706 Harrison Street), 21.17 (726 Harrison Street), and 19.85 (800 Harrison Street) feet below top of well casing. A deeper water-bearing zone was encountered at depths of 42 to 50 feet bgs during advancement of the cone penetrometers. Prior to the June 2011 site assessment, no wells were installed in the deeper water-bearing zone. A February 2014 groundwater elevation contour map is provided on Figure 8.

The predominant groundwater gradient observed across all three properties is south-southeast, with a horizontal hydraulic gradient of 0.007 foot per foot (ARCADIS 2011). This gradient direction indicates that groundwater flows from 800 Harrison Street toward 726 Harrison Street and from 726 Harrison Street toward 706 Harrison Street.

2.4 Project History

This section summarizes previous pilot studies and remedial actions at the site. Excavations were completed to remove petroleum-impacted soil during UST removal activities at 706 and 726 Harrison Street. Previous pilot tests include SVE at 800 Harrison Street, AS at 726 Harrison Street, and AS/SVE at 706 Harrison Street. An AS/SVE system operated at 706 Harrison Street from May 1998 through February 2001. The SVE portion was shut down in 2001, while the AS system continued to inject air to increase oxygen

concentrations to enhance aerobic biodegradation. The AS system was subsequently shut down in 2003. No active remediation was performed at the three properties from 2003 to 2011. Groundwater monitoring at all three properties continued during this period. The three sites were classified as a co-mingled plume in 2011. During September 2013, ARCADIS conducted a multiphase extraction (MPE) pilot test and an AS/SVE pilot test on the site. Details of site history, previous remedial actions, and pilot studies conducted at all three properties are provided in Appendix B.

2.5 Mass Distribution in the Subsurface

2.5.1 Dissolved in Groundwater

Isoconcentration contour maps for total petroleum hydrocarbons quantified as total purgeable petroleum hydrocarbons (TPPH), benzene, and methyl tert-butyl ether (MTBE) for the February 6, 2014 sampling event are presented on Figures 9, 10, and 11, respectively. Well construction details and historical groundwater analytical data for all three properties are provided in Tables 1 and 2, respectively. Hydrographs depicting groundwater concentration and groundwater elevation are provided in Appendix C. Groundwater monitoring results from the first semiannual 2014 monitoring event at each property are discussed below.

2.5.1.1 706 Harrison Street

The maximum dissolved concentration of TPPH (5,200 micrograms per liter [$\mu\text{g/L}$]), benzene (1,400 $\mu\text{g/L}$), toluene (5,200 $\mu\text{g/L}$), ethylbenzene (1,300 $\mu\text{g/L}$), total xylenes (5,000 $\mu\text{g/L}$), and MTBE (3,000 $\mu\text{g/L}$) were detected in the samples collected from MW-2. Ethylene dibromide (EDB), ethylene dichloride (EDC), and ethanol were not detected above the laboratory reporting limits in any of the wells sampled. Maximum concentrations of the monitored natural attenuation (MNA) parameters were detected in samples collected from MW-2: methane (6.5 milligrams per liter [mg/L]), alkalinity as calcium carbonate (490 mg/L), and nonvolatile organic carbon (20 mg/L). The maximum concentration of nitrate as NO_3 (33 mg/L) was detected in MW-3. The maximum concentration of sulfate (51 mg/L) was detected in samples collected from MW-5. Nitrite as NO_2 was not detected above laboratory reporting limits.

2.5.1.2 726 Harrison Street

The maximum dissolved concentrations of TPPH (3,400 $\mu\text{g/L}$), benzene (1,900 $\mu\text{g/L}$), and toluene (150 $\mu\text{g/L}$) were detected in the samples collected from MW-5. The maximum dissolved concentrations of ethylbenzene (400 $\mu\text{g/L}$), total xylenes (250 $\mu\text{g/L}$), and MTBE

(10,000 µg/L) were detected in the samples collected from MW-1. EDB, EDC, and ethanol were not detected above the laboratory reporting limits in any of the wells sampled. Maximum concentrations of the MNA parameters were detected in samples collected from MW-5: methane (11 mg/L) and alkalinity as calcium carbonate (430 mg/L). Maximum concentrations of nitrate as NO₃ (38 mg/L) and sulfate (38 mg/L) were detected in MW-2. The maximum concentration of nonvolatile organic carbon (51 mg/L) was detected in samples collected from MW-1. Nitrite as NO₂ was not detected above laboratory reporting limits.

2.5.1.3 800 Harrison Street

The maximum dissolved concentration of TPPH (1,400 µg/L) was detected in the samples collected from MW-5. The maximum dissolved concentrations of benzene (66 µg/L), toluene (10 µg/L), ethylbenzene (2.5 µg/L), and total xylenes (17 µg/L) were detected in the samples collected from MW-7. The maximum dissolved concentration of MTBE (760 µg/L) was detected in the samples collected from MW-3. EDB, EDC, and ethanol were not detected above the laboratory reporting limits in any of the wells sampled. The maximum concentration for dissolved iron was detected in samples from MW-3 at 2,600 µg/L. Samples collected from MW-1 were analyzed for additional metals and had detected concentrations of dissolved zinc (14 µg/L) and dissolved iron (56 µg/L). Semivolatile organic compounds were analyzed for in the samples collected from MW-1 and were not detected above the laboratory limits for all analytes. Dissolved cadmium, chromium, lead, and nickel were below reporting limits in MW-1. Maximum concentrations of the MNA parameters were detected in samples collected from MW-3: methane (8.7 mg/L), alkalinity as calcium carbonate (420 mg/L), and nonvolatile organic carbon (5.1 mg/L). Maximum concentrations of nitrate as NO₃ (6.4 mg/L) and sulfate (110 mg/L) were detected in MW-2.

2.5.2 Sorbed to Soil Matrix

Various excavations have been performed at each property to address petroleum hydrocarbons in the soil. Soil impacts are generally at the water table or in the saturated zone on the properties located at 706 and 726 Harrison Street. A site assessment performed on June 20 through 24, 2011 consisted of collecting 20 soil samples from six locations across 706, 726, and 800 Harrison Street. BTEX, EDB, and 1,2-dichloroethane were not detected in any of the samples. Total petroleum hydrocarbons as gasoline (TPH-g) was detected above the environmental screening limit (ESL) of 83 milligrams per kilogram (mg/kg) in two of the samples. TPH-g exceedances were found in samples collected from GP-2 (1,000 mg/kg at 14 feet bgs and 3,200 mg/kg at 17 feet bgs). MTBE was detected above the ESL in two of the samples. MTBE exceedances were found in samples collected from GP-2 (0.028 mg/kg at 14 feet bgs and 0.060 mg/kg at 17 feet bgs).

Soil isopleth contour maps for benzene, MTBE, and TPPH at various depths are provided in Appendix D. The soil impacts are generally at the water table or in the saturated zone on the properties located at 706 and 726 Harrison Street. Soil boring details and historical soil analytical results are presented in Tables 2 and 3, respectively.

2.6 Summary

Benzene and MTBE have been detected in groundwater samples at concentrations greater than the Low-Threat Closure Policy (SWRCB 2012) Groundwater-Specific Criteria 2 and 4. The AS/SVE remediation system detailed in this RAP will target benzene and MTBE groundwater concentrations to achieve closure under the Low-Threat Closure Policy (SWRCB 2012). The monitoring wells with benzene and MTBE concentrations exceeding Groundwater-Specific Criteria are located at 706 and 726 Harrison Street. Groundwater analytical concentrations of benzene and MTBE are significantly lower at 800 Harrison Street in relation to the other two properties in the co-mingled plume. The remedial design presented in this RAP targets dissolved-phase mass in groundwater at 706 and 726 Harrison Street.

3. Basis of Design

The basis of design for the full-scale remedy proposed in this RAP is generated from results of MPE and AS/SVE pilot tests conducted during September 2013. The MPE pilot test was conducted on September 10 and 11, 2013 and the AS/SVE pilot test was conducted on September 12, 2013. Data from the AS/SVE pilot study have been used to estimate achievable extraction and injection influences, along with assessing the viability of relying upon AS/SVE to treat hydrocarbon-impacted soil. Additional consideration has been given to remedy effectiveness, constructability, integration with existing site infrastructure, and compliance with applicable ACEH regulations. Collectively, this information has been used to develop design configuration, extraction/injection operations, and monitoring criteria, which will govern the implementation of this remedy. This section summarizes existing AS/SVE systems, recent pilot testing efforts, and design basis considerations.

3.1 Former Air Sparge/Soil Vapor Extraction System

The former AS/SVE system located at 706 Harrison Street was operated from May 1998 through February 2001. The SVE portion was shut down in 2001, while the AS system continued to inject air to increase oxygen concentrations to enhance aerobic biodegradation. The AS system was subsequently shut down in 2003. The former AS/SVE major system components were removed from the site. Remaining system infrastructure includes the AS manifold and electrical meter. The former AS/SVE system remediation wells were not destroyed following system shutdown.

The remaining AS/SVE system components from historical operations include AS/SVE remediation wells, an above-ground AS manifold, and the system electrical meter. The AS manifold and electrical meter will be removed prior to proposed AS/SVE system installation. The existing remediation well network at 706 Harrison Street includes three AS wells (SP-3, SP-4, SP-5) dual-nested with three SVE wells (VW-3, VW-4, VW-5). These wells were installed following over-excavation and UST removal in the early 1990s. The 1-inch-diameter AS wells are installed to approximately 30 feet bgs with a 1-foot screen interval. The 2-inch-diameter SVE wells are installed to approximately 18 feet bgs with a 10-foot screen interval.

The existing AS and SVE wells located at 706 Harrison Street are currently covered by concrete. These AS and SVE wells will be uncovered and inspected during new remediation well installation to evaluate well casing integrity and functionality, as discussed in Section 4.1.2.

3.2 Multiphase Extraction Pilot Test

The MPE pilot test results were reported in the Multi-Phase Extraction and AS/SVE Pilot Test Summary Report (ARCADIS 2013). This section summarizes the MPE pilot test activities, results, and conclusions.

An MPE pilot test was conducted on pilot test well MPE-1 on September 10 and 11, 2013. Pilot testing consisted of two operational phases on MPE-1. Phase 1 was a pump test to determine dewatering capabilities in the well casing screen interval and expose soil in the smear zone for remediation through vapor extraction. A 3-hour pump test was performed on MPE-1 prior to initiating vacuum application and subsequent MPE operation. Once sufficient dewatering was observed in MPE-1, Phase 2 was initiated and vacuum was applied to the wellhead to determine optimal vacuum and flow rate operational parameters. The MPE pilot test operated under a 5-day pilot test exemption from air permitting with the Bay Area Air Quality Management District (BAAQMD).

3.2.1 Phase 1: Pump Test Results

On September 10, 2013, the pump test portion of the MPE pilot test was initiated on MPE-1. The maximum extraction rate applied was 3.5 gallons per minute (gpm) (maximum capacity of submersible pump) in an attempt to dewater MPE-1 to completely expose the screen interval. Groundwater was extracted at 3.5 gpm for approximately 2 hours and a maximum depth to water of 25.60 feet below top of casing (BTOC) was observed from PZ-1 pressure transducer data. This depth to water measurement correlates to a maximum water level drawdown of 6.23 feet in PZ-1 and a total exposed screen interval in MPE-1 of 10.60 feet. Water-level drawdown data from pressure transducers installed in the MPE pilot test monitoring network indicated maximum drawdown levels in MW-5, MW-4, and MP-1 of 2.87, 1.70, and 1.25 feet BTOC, respectively.

3.2.2 Phase 2: Multiphase Extraction Pilot Test Results

Phase 2 was initiated immediately following the completion of Phase 1. The initial wellhead vacuum at MPE-1 was 10 inches of water column (inH₂O) and subsequent vacuum steps of approximately 25, 40, and 60 inH₂O were applied to MPE-1 during Phase 2 startup. Wellhead vacuum was sustained at approximately 60 inH₂O throughout Phase 2. A maximum vacuum of 61.2 inH₂O was observed, with a flow rate of 11.2 standard cubic feet per minute (scfm) during Phase 2. The maximum observed photo ionization detector (PID) reading during the pilot test was 382 parts per million (ppm). Maximum induced wellhead vacuums at MW-5, MW-4, and MP-1 during Phase 2 were 9.83, 1.84, and 0.23 inH₂O, respectively. The average groundwater extraction flow rate from MPE-1 during Phase 2 was

3.5 gpm. The minimum and maximum depth to water measurements in PZ-1 during Phase 2 were 22.64 and 27.28 feet BTOC, respectively. The average depth to water in PZ-1 was 24.88 feet BTOC. Compared to the depth to water observed in PZ-1 during Phase I, less screen (0.72 foot less) was exposed in MPE-1 when vacuum was applied to the casing while extracting groundwater. A total of 5,065.5 gallons of groundwater were extracted from MPE-1 during both phases of the pilot test.

3.2.3 Mass Removal Estimates

To assess dissolved-phase mass removal, samples of influent water to the on-site storage tank were collected. To characterize the vapor-phase stream, samples were collected in SUMMA[®] canisters from the influent vapor stream before treatment by the oxidizer. The samples were submitted to a California Department of Health Services approved analytical laboratory for analyses. One vapor sample was collected from the effluent of the treatment system to confirm destruction efficiency of the catalytic oxidizer.

Dissolved mass removal rates for benzene, MTBE, and TPH-g during MPE operation ranged from approximately 2.98 to 3.50, 13.34 to 18.39, and 29.57 to 32.04 pounds per day (lbs/day), respectively. The estimated cumulative dissolved mass removed for benzene, MTBE, and TPH-g during 26 hours of MPE operation was 3.31, 19.35, and 36.02 pounds.

Vapor mass removal rates for TPH-g and BTEX during MPE operation ranged from approximately 0.71 to 5 and 0.006 to 0.063 lbs/day, respectively. The estimated cumulative mass removed for total BTEX, MTBE, and TPH-g during 23 hours of MPE Phase 2 operation was 3.31, 19.35, and 36.02 pounds, respectively.

3.3 Air Sparge/Soil Vapor Extraction Pilot Test

The AS/SVE pilot test results were reported in the Multi-Phase Extraction and AS/SVE Pilot Test Summary Report (ARCADIS 2013). This section summarizes the AS/SVE pilot test activities, results, and conclusions.

A combined AS/SVE pilot test was conducted on September 12, 2013 to determine if sufficient air delivery to groundwater was possible through AS. The AS pilot test was conducted on AS-1, which is located at 726 Harrison Street (installed in August 2001). AS-1 is a 2-inch-diameter well, installed to a total depth of approximately 30 feet with a 1-foot screen interval. An air compressor capable of at least approximately 20 actual cubic feet per minute (acfm) at a pressure of 40 pounds per square inch (psi) was used for AS pilot testing. A 20-horsepower rotary claw vacuum pump was used for the SVE pilot testing.

SVE data collected during MPE pilot testing was used to evaluate the effectiveness of SVE application in the subsurface. SVE was operated during AS pilot test activities to capture vapors from the vadose zone. A 1-day AS/SVE pilot test operated under the 5-day pilot test exemption from the BAAQMD. Vacuum was applied to existing extraction well EW-1 (approximately 8 feet from AS-1) and VE-3 (6.5 feet from AS-1, installed in June 2013) to capture vapors from the vadose zone during AS pilot testing. Soil vapor was extracted from EW-1 and VE-3 at a maximum of approximately 75 inH₂O and 12.5 scfm, respectively. The injection pressure during the pilot test ranged from 1 to 6 psi, with a flow rate of approximately 1 to 7.1 scfm. Measureable flow was observed at a sustained injection pressure of 6 psi.

PID measurements were used to evaluate increases in vapor-phase volatile organic compound (VOC) concentrations due to AS during the pilot test. The PID concentrations in EW-1 and VE-1 during initial SVE only pilot test operation were 675 and 380 ppm, respectively. Influent VOC vapor concentrations in EW-1 and VE-3 after approximately 4 hours of AS/SVE operation increased to 1,300 and 750 ppm, respectively.

4. Cleanup Approach

Based on site characterization results and pilot test findings, AS/SVE has been selected as the most appropriate technology to treat hydrocarbon impacts at the site. Petroleum hydrocarbon impacted soil will be treated through SVE application, while groundwater treatment will be accomplished through AS system operation.

4.1 Proposed Air Sparge/Soil Vapor Extraction System

An AS/SVE system has been designed based on site characterization and pilot test results. The proposed AS/SVE remediation system consists of 16 AS wells (13 new wells and three existing wells) and six SVE wells (two new wells and four existing wells). A Busch 1502 rotary claw blower, powered by a 20-horsepower (hp) totally enclosed, fan-cooled (TEFC) motor, capable of extraction air flows of 300 scfm at a vacuum of 7.87 inches of mercury will be used for the SVE system. A Busch model 1102 BP rotary claw compressor system, powered by a 10-hp TEFC motor, capable of delivering approximately 70 scfm of injection air at a discharge pressure of 23.5 psi will be used on site. The oxidizer will be an Intellishare ECO-300 catalytic oxidizer with a maximum air flow capacity of 300 scfm. Additional information is provided in the subsections that follow. AS/SVE system major equipment components specifications are provided in Appendix E.

AS treatment will consist of continuously cycled (i.e., pulsed) AS wells operating in four zones. A system performance monitoring program will be used to evaluate treatment

effectiveness for the AS/SVE system. Additionally, each AS/SVE remediation well location will be periodically monitored and adjusted to optimize treatment conditions and ensure that emissions remain within permit-required thresholds for the site. The AS/SVE remediation system described in the RAP is intended as an adaptable and effective remedial approach to address both dissolved and residual-/adsorbed-phase contaminant mass in the shallow water-bearing zone at the site.

4.2 Air Sparge/Soil Vapor Extraction System Components

The AS system will be used to volatilize and enhance biodegradation of hydrocarbon constituents in shallow groundwater at the site. The AS system will also be operated in a manner to facilitate bulk water movement in the capillary fringe, thereby desorbing mass from smear zone soil and dissolving it into the aqueous phase where it can be treated via AS. The SVE system will be used to volatilize any residual hydrocarbon constituents that are adsorbed to capillary fringe and overlying vadose zone soil. SVE will also capture vapors emitted during AS operation and promote secondary treatment of soil via enhanced biodegradation through the transfer/recharge of oxygen to subsurface pore spaces near the groundwater surface and within contaminant smear zones. Periodic performance monitoring will be conducted to quantify contaminant mass removal rates and qualitatively assess system effectiveness. This information will be used to identify opportunities to optimize the system cycling schedule and streamline operations and maintenance (O&M) costs. The system will be operated until asymptotic mass removal rates have been achieved, or until corresponding groundwater cleanup objectives have been met.

4.2.1 Soil Vapor Extraction Well Configuration and Network

The proposed SVE system uses four existing SVE wells (VW-3, VW-4, VW-5, and VE-3) and two new SVE wells (VE-4 and VE-5); approximate well locations are shown on Figure C-2 of Appendix E. A centralized manifold will be located in the treatment enclosure and each SVE well will have a dedicated pipe run (i.e., lateral). Instrumentation and controls to facilitate performance monitoring and wellfield optimization functions for each well will be located at the manifold. The proposed treatment enclosure location and new pipe run locations are shown on Figure 12. Details for the SVE manifold configuration, trenching details, and wellhead connections are presented on the system design drawings included with Appendix E.

4.2.2 Air Sparge Well Configuration and Network

The proposed AS well configuration consists of three existing AS wells (SP-3, SP-4, and SP-5) and 13 new AS wells (AS-2 through AS-14). Approximate well locations are depicted on Figure C-2 of Appendix E. A centralized manifold will be located in the treatment enclosure and each AS well will have a dedicated pipe run (i.e., lateral). The AS manifold will include flow control valves for individual well performance optimization and balancing pulsed air delivery among the various zones and phases of operation. Instrumentation and controls to facilitate performance monitoring and well field optimization functions for each well will be located at the manifold. Details for the AS manifold configuration, trenching details, and wellhead connections are presented on the system design drawings included with Appendix E.

During AS/SVE well installation, existing remediation wells VW-3/SP-3, VW-4/SP-4, and VW-5/SP-5 will be evaluated to determine if it is feasible for each well to be incorporated into the AS/SVE remediation system. Well casing integrity and functionality will be assessed for each existing remediation well. These wells were last used in 2003 and their current condition is not known. Due to potential infrastructure degradation and system operational limitations, only components that will support the operational function of the final remedy design will be used. If existing remediation well VW-5/SP-5 is inoperable, one additional AS well will be installed near VW-5/SP5. Replacement wells will not be installed if existing remediation wells VW-3/SP-3 or VW-4/SP-4 are inoperable; proposed wells AS-10 through AS-14 will adequately address the portion of the site covered by existing wells VW-3/SP-3 and VW-4/SP-4.

4.2.3 Soil Vapor Extraction Well Installation

Two new SVE wells will be installed at the site: VE-4 will be installed at 726 Harrison Street and VE-5 will be installed at 706 Harrison Street. SVE well installation will be performed using hollow-stem augers. Both new SVE wells will be installed to a total boring depth of approximately 15 feet bgs. The wells will be completed with a 2-inch-diameter Schedule 80 polyvinyl chloride (PVC) well casing with a 0.020-inch slot screen extending from approximately 5 to 15 feet bgs. The new SVE wells will be installed and constructed according to ARCADIS' Well Installation Standard Operating Procedure (SOP) and completed with a locking, flush-mount, 12-inch-diameter traffic-rated well box. Relevant ARCADIS SOPs are included in Appendix F.

Drilling augers and sampling tools will be decontaminated after drilling in accordance with ARCADIS' Field Equipment Decontamination SOP (Appendix F). Soil cuttings and decontamination water will be collected in labeled drums and temporarily stored on site

pending results of characterization sampling. Waste profile forms will be prepared and the soil and purge water will be transported for off-site disposal in accordance with applicable regulations. Approximate well locations and SVE well construction details are provided on Figures C-2 and C-4 of Appendix E, respectively. Well construction details, completions, with below-grade piping connections will adhere to the design requirements specified in Appendix E.

4.2.4 Air Sparge Well Installation

Thirteen new AS wells will be installed on site. AS-2 through AS-6 will be installed at 726 Harrison Street and AS-7 through AS-14 will be installed at 706 Harrison Street. AS soil borings will be advanced to a depth below the water table with a target depth for setting the bottom of the AS well screen at of the top of the clay lens (approximately 30 feet bgs). During well installation, the soil from each borehole will be continuously logged by a geologist to locate the target depth for each AS well screen.

Each well will be completed with a 2-inch-diameter Schedule 80 PVC well casing with a 0.010-inch slot 1-foot screen interval. Each AS well will be constructed with a 3-foot sump at the bottom of the well casing. The new AS wells will be installed and constructed according to ARCADIS' Well Installation SOP (Appendix F) and completed with a locking, flush-mount, 12-inch-diameter traffic-rated well box. Approximate well locations and AS well construction details are provided on Figures C-2 and C-5 of Appendix E, respectively. Well construction details, completions, with below-grade piping connections will adhere to the design requirements specified in Appendix E.

During well installation, soil from the borehole will be continuously logged by a geologist in accordance with the Unified Soils Classification System and screened with a PID and a flame ionization detector (FID). The PID and FID results, in parts per million, from the field screening will be recorded on the field boring logs. Soil samples will be collected for laboratory analysis, biased toward the highest probable degree of petroleum hydrocarbon concentration and based on the highest PID/FID readings greater than the background concentration. Soil samples will be collected for laboratory analysis at a frequency of every 5 feet if PID/FID readings are not detected above background concentrations and if other indicators of potential hydrocarbon impacts (e.g., staining, odor) are absent. If elevated PID/FID readings or other indicators of potential hydrocarbon impacts are observed during well installation, additional soil samples will be collected.

4.2.5 Air Sparge/Soil Vapor Extraction System Startup

Once the AS/SVE system has been installed, it will be inspected, started up, and tested to verify that the operation meets or exceeds performance design criteria, including equipment operating performance, system control functionality, measurement accuracy, compliance with applicable permits, and safety. Performance design criteria will be detailed in a site-specific performance monitoring plan

AS system startup will include balancing individual well pressures and flows during their respective zoned operation. AS pressures will typically range from 10 to 12 psi and will be adjusted, as appropriate, to flow rates of approximately 10 scfm per well. During startup, the system will be set up to sustain target wellhead pressures during the pulse interval, which is important to achieve AS break-through in the formation and deliver injected air distribution over the estimated AS radius of influence (ROI).

Individual SVE wells will be optimized and balanced at a target wellhead vacuum of 110 inH₂O to achieve a flow of approximately 40 scfm per well. The effective target ROI for the SVE wells is 30 feet. The SVE well network is designed to effectively capture residual soil contaminant mass and recover VOCs generated during AS operations. The treatment system has been designed to accommodate a flow rate up to 300 acfm at a vacuum of 7.5inHg to allow flexibility if it becomes apparent during performance monitoring that higher vacuum and flow are appropriate.

Vacuum, flow, and extracted vapor VOC concentrations will be measured periodically throughout startup testing activities. Data from each well will be used to assess individual wellhead extraction characteristics and to identify areas of the site with higher mass removal rates. The relative distribution of mass removal rates will factor into AS and SVE optimization efforts. System SVE data will also be collected and monitored to estimate emission attenuation rates.

Collectively, data from all AS and SVE wells will be used to develop system performance curves. Information gathered during startup will also be used to establish a baseline for subsequent treatment system performance evaluations.

4.2.6 Air Sparge/Soil Vapor Extraction System Optimization

System performance data will primarily be used to verify that the system is performing properly. A comprehensive system performance evaluation will be performed semiannually to assess treatment progress toward meeting cleanup objectives. The semiannual evaluation will consider all data collected to date; estimate mass removal of TPPH, benzene

and MTBE; and ultimately determine if AS/SVE is achieving cleanup objectives in a timely and cost-effective manner. Data collected monthly will be evaluated and used to optimize system operational parameters during subsequent O&M events to maintain optimal system performance.

4.2.7 Operations and Maintenance

ARCADIS will prepare an O&M manual for all AS/SVE treatment equipment. In addition to detailing system operating instructions, the O&M manual will outline equipment maintenance requirements. The level of detail will be sufficient for ensuring proper and efficient treatment throughout the project. The O&M manual will include a system maintenance schedule, detailing manufacturer recommended mechanical and electrical maintenance requirements based on equipment hours of operation and will document equipment make, model, troubleshooting, and manufacturer contact information for all treatment system components.

5. Remedy Implementation

Upon approval of this RAP from the ACEH, Chevron will proceed with implementing the final remedy. The following tasks are anticipated in order to implement this RAP:

- Design modifications based on feedback from the ACEH.
- Apply for and obtain construction and system operation permits as required.
- Develop detailed scopes of work for subcontractor procurement.
- Equipment procurement, contracting, and construction scheduling.
- Remove any existing AS/SVE system components that will not be incorporated into the final design.
- Utility surveying and locates in advance of well installation.
- Install AS and SVE wells.
- Complete installation of AS/SVE treatment enclosure.
- Install new AS/SVE piping and complete connections.

- System startup testing and optimization.
- Commence monthly and quarterly monitoring programs.

This section discusses the remedy implementation expectations.

5.1 Permitting and Utility Locates

Prior to initiation of on-site construction activities, permits will be obtained as required for building and electrical upgrades. ARCADIS personnel will mark all AS and SVE well locations to identify utilities in those areas. Utility locates will be performed on site before commencing drilling or intrusive excavation activities. A geophysical survey using a combination of ground-penetrating radar and electromagnetic utility locating equipment, metal detectors, utility locators, and conductivity meters will be performed to screen designated areas for utilities, buried metallic objects, and anomalies. Following well installation, well permits will be filed with the ACEH, as necessary.

5.1.1 Well Installation Permits

Prior to commencing well installations, all applicable well permits will be obtained from the Alameda County Public Works Agency.

5.1.2 Air Permit

An air permit will be procured from the BAAQMD for the duration of AS/SVE system operation. An SVE emissions evaluation will be performed immediately after AS/SVE system startup to confirm catalytic oxidizer destruction efficiency and air permit compliance. Air emissions monitoring will be performed monthly for one quarter after startup to verify anticipated declines in SVE mass removal rates. If the monitoring identifies point source emissions in excess of allowable thresholds, modification to system operations to maintain emission rates below the threshold will be performed or supplemental emission control measures will be used.

5.1.3 Building Permit

A building permit will be obtained from the City of Oakland for the AS/SVE treatment enclosure.

5.2 Surveying

Following AS/SVE well, conveyance piping and treatment enclosure installation, a licensed surveyor will perform an as-built survey of the major remediation system components. The survey will include measurement and identification of the following in both northing/easting and global positioning system (GPS) coordinates:

- Location of remediation equipment and treatment enclosure
- AS/SVE well locations
- Transect locations of SVE and AS pipe runs
- Locations of existing site utilities.

Results of the survey will be used to develop a revised site map and will be included in subsequent documentation of remediation activities, as appropriate.

5.3 Monitoring

The semiannual groundwater monitoring program will continue during 2014 at all three properties comprising the site.

5.4 Waste and Disposal

Construction waste that is characterized as nonhazardous material will be disposed of off site at an appropriate local landfill. Soil boring cuttings from installation of AS/SVE wells will be staged in drums until drilling completion. Soil cuttings will be sampled and analyzed for constituents of concern and any supplemental waste profiling tests required by the designated landfill. Investigation-derived waste handling will adhere to the ARCADIS SOP provided in Appendix F. Following characterization, soil cuttings will be transported for off-site disposal in accordance with applicable regulations.

6. References

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ARCADIS

Tables

Table 1
Well Construction Details
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Installation Date	TOC (ft MSL)	Boring Depth (ft bgs)	Well Depth (ft bgs)	Boring Diameter (inches)	Well Diameter (inches)	Screen Interval (ft bgs)	Screen Size (inches)	Sand Filter Pack	Screen Zone Within Soil Type	Filter Pack Interval (ft bgs)	Seal Interval (ft bgs)	First Water (ft bgs)	Historical High GWE (ft MSL)	Historical Low GWE (ft MSL)	Location	Status
706 Harrison Street																	
MW-1	07/23/93	29.15	28.0	28.0	NA	NA	18.0-28.0	NA	NA	18.0-28.0	16.5-28.0	14.5-16.5	22.0	18.22	7.95	Onsite	Active
MW-2	07/23/93	30.51	28.0	28.0	NA	NA	18.0-28.0	NA	NA	18.0-28.0	16.5-28.0	14.5-16.5	19.0	18.56	8.97	Onsite	Active
MW-3	07/23/93	29.77	28.0	28.0	NA	NA	18.0-28.0	NA	NA	18.0-28.0	16.5-28.0	14.5-16.5	21.0	17.97	8.90	Onsite	Active
MW-4	11/28/94	31.18	31.5	29.5	NA	2.0	9.5-29.5	0.010	#2/12	9.5-29.5	8.5-31.5	6.5-8.5	17.5	19.07	9.13	Onsite	Active
MW-5	11/30/94	28.04	30.0	29.0	NA	2.0	14.5-29.0	0.010	#1/20	14.5-29.0	13.0-30.0	11.0-13.0	17.5	17.11	8.13	Offsite	Active
MW-6	12/01/94	29.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17.89	8.24	Offsite	Active
MW-7	12/02/94	29.67	29.0	28.0	NA	2.0	13.0-28.0	0.010	#1/20	15.0-29.0	12.0-29.0	10.0-12.0	NA	17.91	8.79	Offsite	Active
VW-1	07/22/93	NA	20.0	20.0	NA	NA	15.0-20.0	NA	NA	15.0-20.0	13.0-20.0	12.0-13.0	NA	NA	NA	Onsite	Active
VW-2	07/22/93	NA	20.0	20.0	NA	NA	15.0-20.0	NA	NA	15.0-20.0	13.0-20.0	12.0-13.0	NA	NA	NA	Onsite	Active
VW-3	11/28/94	NA	29.5	18.0	NA	2.0	8.0-18.0	0.010	#1/20	15.0-18.0	6.0-18.0	5.0-6.0	18.0	NA	NA	Onsite	Active
VW-4	11/29/94	NA	29.5	18.0	NA	2.0	8.0-18.0	0.010	#1/20	8.0-18.0	7.0-18.0	5.0-7.0	18.0	NA	NA	Onsite	Active
VW-5	11/30/94	NA	30.0	17.0	NA	2.0	7.0-17.0	0.010	#1/20	7.0-17.0	6.0-17.0	5.0-6.0	NA	NA	NA	Onsite	Active
726 Harrison Street																	
AS-1	08/16/01	NA	30.0	30.0	8.0	2.0	28.0-30.0	0.020	#2/12	28.0-30.0	26.0-30.0	22.5-26.0	19.0	NA	NA	Onsite	Active
EW-1	08/17/01	NA	30.0	30.0	12.0	6.0	9.0-30.0	0.020	#2/12	9.0-30.0	8.0-30.0	7.0-8.0	17.0	NA	NA	Onsite	Active
MP-1	08/21/13	34.16	30.0	30.0	6.0	1.0	15.0-30.0	0.020	#2/12	15.0-30.0	14.0-30.0	11.0-14.0	25.0	NA	NA	Onsite	Active
MPE-1	08/21/13	34.36	40.0	33.0	12.0	4.0	15.0-30.0	0.020	#2/12	15.0-30.0	14.0-33.0	11.0-14.0	26.0	NA	NA	Onsite	Active
MW-1	07/03/97	28.98	28.0	28.0	8.0	2.0	18.0-28.0	NA	NA	18.0-28.0	16.0-28.0	15.0-16.0	20.0	19.24	13.24	Onsite	Active
MW-2	NA	32.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20.01	NA	Onsite	Active
MW-3	NA	31.64	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19.61	13.22	Onsite	Active
MW-4	12/07/98	32.56	31.5	30.0	8.0	2.0	10.0-30.0	0.020	No. 2	10.0-30.0	8.0-30.0	7.0-8.0	20.0	19.53	NA	Onsite	Active
MW-5	08/16/01	32.06	30.0	30.0	8.0	2.0	10.0-30.0	0.020	#2/12	10.0-30.0	8.0-30.0	7.0-8.0	19.5	19.62	13.66	Onsite	Active
MW-6	06/20/11	NA	49.0	49.0	12.0	2.0	44.0-49.0	0.020	No. 3	44.0-49.0	42.5-49.0	40.5-42.5	25.0	28.35	NA	Onsite	Active
PZ-1	06/20/13	34.36	40.0	30.0	12.0	1.0	15.0-30.0	0.020	#2/12	15.0-30.0	14.0-33.0	11.0-14.0	26.0	NA	NA	Onsite	Active
VE-1	08/16/01	NA	15.0	15.0	8.0	2.0	5.0-15.0	0.020	#2/12	5.0-15.0	3.5-15.0	2.5-3.5	NA	NA	NA	Onsite	Active
VE-2	08/16/01	NA	15.0	15.0	8.0	2.0	5.0-15.0	0.020	#2/12	5.0-15.0	3.5-15.0	2.5-3.5	NA	NA	NA	Onsite	Active
VE-3	08/21/13	34.42	16.0	15.0	8.0	2.0	5.0-15.0	0.020	#2/12	5.0-15.0	4.0-16.0	2.0-4.0	NA	NA	NA	Onsite	Active
800 Harrison Street																	
MW-1	05/30/91	34.69	35.0	35.0	9.0	2.0	15.0-35.0	0.020	No. 3	15.0-35.0	11.5-35.0	9.5-11.5	24.0	20.74	15.03	Onsite	Active
MW-2	05/30/91	34.72	33.0	33.0	9.0	2.0	15.0-33.0	0.020	No. 3	15.0-33.0	13.0-33.0	11.0-13.0	22.5	20.50	14.91	Onsite	Active
MW-3	05/30/91	33.14	33.0	33.0	9.0	2.0	15.0-33.0	0.020	No. 3	15.0-33.0	13.0-33.0	11.0-13.0	23.0	19.54	13.66	Onsite	Active
MW-4	09/30/92	32.71	33.0	33.0	9.0	2.0	15.0-33.0	0.020	No. 3	15.0-33.0	13.0-33.0	11.0-13.0	23.0	18.80	13.94	Onsite	Active
MW-5	09/30/92	32.95	32.0	32.0	9.0	2.0	17.0-32.0	0.020	No. 3	17.0-32.0	13.0-32.0	11.0-13.0	22.0	19.25	13.90	Onsite	Active
MW-6	09/30/92	32.16	32.0	32.0	9.0	2.0	17.0-32.0	0.020	No. 3	17.0-32.0	13.0-32.0	11.0-13.0	21.5	18.50	13.02	Offsite	Active
MW-7	04/14/93	32.20	33.0	33.0	8.0	2.0	13.0-33.0	0.020	No. 3	13.0-33.0	11.0-33.0	9.0-11.0	21.5	18.90	13.40	Offsite	Active
MW-8	04/14/93	32.00	31.0	31.0	8.0	2.0	13.0-31.0	0.020	No. 3	13.0-31.0	9.0-31.0	7.0-9.0	21.0	18.65	13.13	Offsite	Active

Abbreviations:

- ft MSL Feet relative to mean sea level
- ft bgs Feet below ground surface
- TOC Top of casing
- GWE Groundwater elevation
- NA Not available

Table 2
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B	
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	
706 Harrison Street												
MW-1	08/13/93	29.15	17.40	11.75	20000	8500	640	280	440	--	--	
MW-1	12/14/93	29.15	17.27	11.88	17000	9200	1200	4400	540	--	--	
MW-1	04/15/94	29.15	17.00	12.15	9500	3600	530	160	280	--	--	
MW-1	12/29/94	29.15	16.40	12.75	--	--	--	--	--	--	--	
MW-1	07/19/96	29.15	15.83	13.32	17000	5200	1100	330	530	--	--	
MW-1	01/27/97	29.15	13.58	15.57	30000	9800	1300	790	880	--	400	
MW-1	06/18/97	29.15	16.11	13.04	19000	5600	1400	510	770	800	1200	
MW-1	09/18/97	29.15	16.62	12.53	48000	18000	4400	1000	1700	--	<640	
MW-1	10/12/97	29.15	15.93	13.22	22000	4900	1300	580	650	260	460	
MW-1	02/18/98	29.15	11.56	17.59	16000	5000	750	400	780	--	1800	
MW-1	12/05/98	29.15	13.53	15.62	19000	4600	810	450	770	--	5500	
MW-1	08/18/98	29.15	15.19	13.96	12000	3600	1300	300	570	3700	5100	
MW-1	11/24/98	29.15	15.67	13.48	13000	3600	890	330	380	--	6100	
MW-1	04/02/99	29.15	15.31	13.84	20000	5900	830	450	500	--	4900	
MW-1	05/18/99	29.15	14.95	14.20	23000	7000	1600	520	830	--	6100	
MW-1	08/27/99	29.15	15.84	13.31	19000	5800	1700	410	710	2100	1800	
MW-1	11/18/99	29.15	16.39	12.76	20000	4900	630	410	580	3600	4900	
MW-1	02/29/00	29.15	13.43	15.72	12000	2800	24	290	170	3400	3100	
MW-1	05/25/00	29.15	15.08	14.07	12000	2200	120	330	260	12000	9100	
MW-1	09/08/00	29.15	16.09	13.06	13000	2500	44	310	140	--	16000	
MW-1	09/11/00	29.15	15.90	13.25	11000	2500	140	380	150	12000	11000	
MW-1	01/29/01	29.15	16.05	13.10	9600	3100	100	77	200	2400	2600	
MW-1	04/16/01	29.15	16.90	12.25	3300	1200	4.4	2.7	28	940	900	
MW-1	08/14/01	29.15	17.13	12.02	2000	500	3.4	24	7.8	53	68	
MW-1	10/22/01	29.15	16.11	13.04	220	83	0.63	2.8	<0.5	5.7	<10	
MW-1	01/02/02	29.15	16.93	12.22	640	220	1.7	4.7	0.57	--	<10	
MW-1	10/05/02	29.15	15.09	14.06	230	26	0.97	<0.5	<0.5	--	<5.0	
MW-1	08/07/02	29.15	15.20	13.95	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	
MW-1	02/10/02	29.15	15.70	13.45	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-1	01/23/03	29.15	15.09	14.06	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-1	04/29/03	29.15	13.02	16.13	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-1	07/18/03	26.17	14.50	11.67	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-1	09/10/03	26.17	13.81	12.36	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-1	01/28/04	26.17	13.09	13.08	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-1	07/04/04	26.17	14.97	11.20	180	60	0.56	1.9	<0.5	--	<5.0	
MW-1	07/23/04	26.17	14.15	12.02	130	36	<0.5	0.65	<0.5	--	<5.0	
MW-1	12/10/04	26.17	16.30	9.87	<50	2.5	1.5	<0.5	0.86	--	<5.0	
MW-1	02/14/05	26.17	13.85	12.32	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-1	04/27/05	26.17	13.35	12.82	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-1	07/19/05	26.17	14.68	11.49	4500	1400	6.5	160	58	--	630	
MW-1	10/18/05	26.17	15.15	11.02	1700	340	<5.0	28	<5.0	7200	8000	
MW-1	01/23/06	26.17	13.27	12.90	3100	790	6.5	79	32	5100	4200	
MW-1	12/04/06	26.17	12.33	13.84	7200	2600	110	350	320	4000	5600	
MW-1	10/07/06	26.17	14.93	11.24	2700	550	4.2	77	47	8300	5500	
MW-1	10/16/06	26.17	16.51	9.66	2000	470	6.4	38	13	6400	6300	
MW-1	01/26/07	26.17	16.87	9.30	3300	600	36	34	27	5900	6200	
MW-1	04/18/07	26.17	16.77	9.40	5400	1400	170	210	350	4700	3600	
MW-1	02/08/07	26.17	17.21	8.96	6100	1200	130	140	240	5400	5300	
MW-1	10/23/07	26.17	17.67	8.50	2600	740	53	60	110	6900	5800	
MW-1	01/30/08	26.17	16.66	9.51	1900	380	2.6	15	20	2800	2400	
MW-1	04/18/08	26.17	17.14	9.03	1500	320	4.5	13	25	2900	2900	
MW-1	07/28/08	26.17	17.70	8.47	1100	240	3.6	6.9	15	1800	1600	
MW-1	12/05/08	26.17	18.22	7.95	1000	150	2.1	4.1	15	140	150	
MW-1	01/26/09	26.17	17.84	8.33	540	120	1.4	1.6	3.0	79	82	
MW-1	03/08/09	29.17	17.45	11.72	290	94	2.8	3.4	6.7	20	25	
MW-1	01/25/10	29.17	16.72	12.45	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	
MW-1	03/08/10	29.17	16.90	12.27	6200	1200	340	110	500	350	580	
MW-1	02/17/11	29.17	16.81	12.36	<50	1.6	<0.5	<0.5	<0.5	60	65	
MW-1	08/23/11	29.17	17.02	12.15	4800	720	140	84	230	810	--	
MW-1	02/07/12	29.17	17.33	11.84	8900	1000	260	230	610	420	--	
MW-1	08/09/12	29.17	16.58	12.59	2200	850	110	42	120	84	--	
MW-1	02/27/13	29.17	17.03	12.14	--	--	--	--	--	--	--	
MW-1	08/15/13	29.17	17.89	11.28	5800	840	100	93	160	790	--	
MW-1	02/06/14	29.17	--	--	--	--	--	--	--	--	--	

Table 2
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B	
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	
706 Harrison Street												
MW-2	08/13/93	30.51	17.05	13.46	34000	6800	10000	740	3900	--	--	
MW-2	12/14/93	18.80	18.28	12:23	16000	3200	4200	500	1700	--	--	
MW-2	04/15/94	30.51	18.10	12.41	23000	2500	4200	470	1800	--	--	
MW-2	12/29/94	30.51	17.40	13.11	--	--	--	--	--	--	--	
MW-2	07/19/96	30.51	16.72	13.79	90000	7300	14000	1600	7300	--	--	
MW-2	01/27/97	30.51	14.89	15.62	63000	7100	13000	1600	7100	--	500	
MW-2	06/18/97	30.51	17.12	13.39	52000	5100	10000	1400	6000	--	<200	
MW-2	09/18/97	30.51	17.63	12.88	110000	9400	23000	2600	13000	--	<890	
MW-2	10/12/97	30.51	16.98	13.53	39000	2600	5300	940	3900	320	780	
MW-2	02/18/98	30.51	12.61	17.90	85000	9000	19000	2300	11000	--	2400	
MW-2	12/05/98	30.51	14.45	16.06	110000	9500	21000	2500	12000	--	<1200	
MW-2	08/18/98	30.51	16.14	14.37	64000	6000	13000	1700	7800	1300	2000	
MW-2	11/24/98	30.51	16.70	13.81	78000	5300	14000	2300	11000	--	<2000	
MW-2	04/02/99	30.51	18.39	12.12	66000	5800	16000	2600	12000	--	3000	
MW-2	05/18/99	30.51	15.90	14.61	78000	6700	17000	2400	10000	--	4300	
MW-2	08/27/99	30.51	16.79	13.72	91000	7400	17000	2300	11000	1000	1200	
MW-2	11/18/99	30.51	17.32	13.19	180000	7000	20000	3300	16000	1700	<6000	
MW-2	02/29/00	30.51	14.37	16.14	86000	5500	13000	2000	9500	4700	3500	
MW-2	05/25/00	30.51	16.01	14.50	110000	6300	14000	2400	10000	6500	7500	
MW-2	09/08/00	30.51	17.02	13.49	77000	5000	13000	2000	8600	--	5900	
MW-2	09/11/00	30.51	17.00	13.51	70000	4800	12000	1900	8000	8300	9400	
MW-2	01/29/01	30.51	18.31	12.20	110000	8200	21000	2800	13000	1900	2500	
MW-2	04/16/01	30.51	18.59	11.92	97000	7400	15000	2500	12000	<50	<3000	
MW-2	08/14/01	30.51	18.74	11.77	97000	6200	14000	2400	13000	<50	<250	
MW-2	10/22/01	30.51	18.27	12.24	71000	5900	15000	2400	12000	150	<1400	
MW-2	01/02/02	30.51	18.05	12.46	1400	11	88	44	210	--	<5.0	
MW-2	10/05/02	30.51	17.15	13.36	97000	4500	15000	2500	12000	--	<3000	
MW-2	08/07/02	30.51	15.30	15.21	42000	2100	6500	2200	8800	65	<1000	
MW-2	02/10/02	30.51	15.89	14.62	70000	1700	5700	1900	8300	--	<1700	
MW-2	01/23/03	30.51	17.51	13.00	40000	1900	7800	1200	5600	--	<1000	
MW-2	04/29/03	30.51	15.31	15.20	82000	2500	11000	2200	9400	--	<2000	
MW-2	07/18/03	27.53	16.84	10.69	57000	2100	8700	2200	10000	<50	--	
MW-2	09/10/03	27.53	16.05	11.48	49000	1800	7000	1700	7600	26	<1500	
MW-2	01/28/04	27.53	15.39	12.14	550	21	33	3.0	61	--	<100	
MW-2	07/04/04	27.53	16.01	11.52	41000	2500	11000	1900	8000	--	<2000	
MW-2	07/23/04	27.53	15.30	12.23	81000	2000	12000	2500	12000	--	<2000	
MW-2	12/10/04	27.53	17.87	9.66	75000	2600	13000	2300	11000	--	<1300	
MW-2	02/14/05	27.53	14.80	12.73	75000	2600	12000	2400	10000	--	<1800	
MW-2	04/27/05	27.53	14.63	12.90	61000	2800	11000	1600	7000	--	<2700	
MW-2	07/19/05	27.53	15.60	11.93	90000	3700	14000	2600	10000	--	<7000	
MW-2	10/18/05	27.53	16.08	11.45	77000	3300	14000	2400	11000	6400	7900	
MW-2	01/23/06	27.53	14.20	13.33	54000	1600	8000	1600	6700	7000	6600	
MW-2	12/04/06	27.53	12.51	15.02	43000	1800	7800	1300	5200	4900	6400	
MW-2	10/07/06	27.53	14.76	12.77	86000	2800	11000	2100	9600	400	<6500	
MW-2	10/16/06	27.53	16.74	10.79	110000	3600	16000	2400	12000	2700	<6000	
MW-2	01/26/07	27.53	17.10	10.43	120000	3900	16000	2300	10000	3000	<5000	
MW-2	04/18/07	27.53	17.02	10.51	100000	3500	18000	2500	12000	3400	5200	
MW-2	02/08/07	27.53	17.47	10.06	61000	2700	11000	1800	7600	4600	6400	
MW-2	10/23/07	27.53	17.94	9.59	56000	3100	13000	1800	8100	--	4500	
MW-2	01/30/08	27.53	16.99	10.54	52000	2700	11000	1700	7300	--	5300	
MW-2	04/18/08	27.53	17.41	10.12	64000	3400	13000	1800	8100	--	<4000	
MW-2	07/28/08	27.53	17.99	9.54	51000	2000	6200	1300	2700	1500	<2600	
MW-2	05/12/08	27.53	18.56	8.97	74000	2200	12000	1700	7500	1900	2500	
MW-2	01/26/09	27.53	18.20	9.33	90000	2800	14000	NA	9500	1600	<3500	
MW-2	03/08/09	30.53	17.74	12.79	67000	2900	12000	1800	8200	1900	<3500	
MW-2	01/25/10	30.53	17.10	13.43	46000	1400	6200	1100	5800	1500	<3500	
MW-2	03/08/10	30.53	17.24	13.29	79000	3300	14000	2000	10000	2300	<6000	
MW-2	01/17/11	30.53	17.35	13.18	76000	3400	15000	2300	11000	1400	<3500	
MW-2	08/23/11	30.53	17.23	13.30	17000	940	1900	740	3600	1500	--	
MW-2	02/07/12	30.53	17.90	12.63	36000	1100	3600	990	4200	1600	--	
MW-2	08/09/12	30.53	16.90	13.63	5100	810	1800	440	1900	4100	--	
MW-2	02/27/13	30.53	17.36	13.17	45000	1700	2500	1200	4900	2700	--	
MW-2	08/15/13	30.53	18.20	12.33	1500	1200	5600	820	4400	1700	--	
MW-2	02/06/14	30.53	20.20	10.33	5200	1400	5200	1300	5000	3000	--	

Table 2
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B	
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	
706 Harrison Street												
MW-3	08/13/93	29.77	17.05	12.72	<50	<0.50	<0.50	<0.50	<1.5	--	--	
MW-3	12/14/93	29.77	17.70	12.07	<50	<0.50	<0.50	<0.50	<1.5	--	--	
MW-3	04/15/94	29.77	17.40	12.37	<50	<0.5	<0.5	<0.5	<0.5	--	--	
MW-3	12/29/94	29.77	16.80	12.97	--	--	--	--	--	--	--	
MW-3	07/19/96	29.77	16.28	13.49	<50	<0.5	<0.5	<0.5	<0.5	--	--	
MW-3	01/27/97	29.77	13.83	15.94	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-3	06/18/97	29.77	16.53	13.24	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-3	09/18/97	29.77	17.07	12.70	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-3	10/12/97	29.77	16.15	13.62	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-3	02/18/98	29.77	11.80	17.97	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-3	12/05/98	29.77	13.85	15.92	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-3	08/18/98	29.77	15.57	14.20	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-3	11/24/98	29.77	16.04	13.73	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-3	04/02/99	29.77	17.80	11.97	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-3	05/18/99	29.77	15.29	14.48	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-3	08/27/99	29.77	16.15	13.62	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-3	11/18/99	29.77	16.77	13.00	--	--	--	--	--	--	--	
MW-3	02/29/00	29.77	13.71	16.06	<50	2	<0.5	<0.5	<0.5	--	<5.0	
MW-3	05/25/00	29.77	15.46	14.31	--	--	--	--	--	--	--	
MW-3	09/08/00	29.77	16.46	13.31	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-3	09/11/00	29.77	16.25	13.52	--	--	--	--	--	--	--	
MW-3	01/29/01	29.77	16.52	13.25	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-3	04/16/01	29.77	16.95	12.82	--	--	--	--	--	--	--	
MW-3	08/14/01	29.77	17.11	12.66	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-3	10/22/01	29.77	16.50	13.27	--	--	--	--	--	--	--	
MW-3	01/02/02	29.77	16.90	12.87	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-3	10/05/02	29.77	15.03	14.74	--	--	--	--	--	--	--	
MW-3	08/07/02	29.77	14.45	15.32	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-3	02/10/02	29.77	15.03	14.74	--	--	--	--	--	--	--	
MW-3	01/23/03	29.77	15.48	14.29	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-3	04/29/03	29.77	12.49	17.28	--	--	--	--	--	--	--	
MW-3	07/18/03	26.79	14.80	11.99	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-3	09/10/03	26.79	14.13	12.66	--	--	--	--	--	--	--	
MW-3	01/28/04	26.79	13.47	13.32	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-3	07/04/04	26.79	15.41	11.38	--	--	--	--	--	--	--	
MW-3	07/23/04	26.79	14.54	12.25	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-3	12/10/04	26.79	16.58	10.21	--	--	--	--	--	--	--	
MW-3	02/14/05	26.79	14.19	12.60	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-3	04/27/05	26.79	13.68	13.11	--	--	--	--	--	--	--	
MW-3	07/19/05	26.79	15.15	11.64	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-3	10/18/05	26.79	15.60	11.19	--	--	--	--	--	--	--	
MW-3	01/23/06	26.79	13.65	13.14	<50	<0.5	<0.5	<0.5	<0.5	260	270	
MW-3	12/04/06	26.79	11.94	14.85	--	--	--	--	--	--	--	
MW-3	10/07/06	26.79	14.48	12.31	<50	<0.5	<0.5	<0.5	<0.5	1600	1100	
MW-3	10/16/06	26.79	16.19	10.60	--	--	--	--	--	--	--	
MW-3	01/26/07	26.79	16.56	10.23	<50	<0.5	<0.5	<0.5	<0.5	3400	2500	
MW-3	04/18/07	26.79	16.45	10.34	--	--	--	--	--	--	--	
MW-3	02/08/07	26.79	16.92	9.87	<100	<1.0	<1.0	<1.0	<1.0	3500	3300	
MW-3	10/23/07	26.79	17.42	9.37	--	--	--	--	--	--	--	
MW-3	01/30/08	26.79	16.45	10.34	<250	<2.5	<2.5	<2.5	<2.5	10000	8400	
MW-3	04/18/08	26.79	16.87	9.92	--	--	--	--	--	--	--	
MW-3	07/28/08	26.79	17.41	9.38	<250	<2.5	<2.5	<2.5	<2.5	6900	6400	
MW-3	05/12/08	26.79	17.89	8.90	--	--	--	--	--	--	--	
MW-3	01/26/09	26.79	17.50	9.29	<50	<0.5	<0.5	<0.5	<0.5	3800	3400	
MW-3	03/08/09	29.79	17.18	12.61	<50	<0.5	<0.5	<0.5	<0.5	3100	2900	
MW-3	01/25/10	29.79	16.39	13.40	300	<1.7	2.5	<1.7	<1.7	4500	4600	
MW-3	03/08/10	29.79	16.61	13.18	<50	<0.5	<0.5	<0.5	<0.5	1500	1200	
MW-3	02/17/11	29.79	16.60	13.19	<50	<0.5	<0.5	<0.5	<0.5	79	55	
MW-3	08/23/11	29.79	16.65	13.14	310	0.53	2.4	2.6	10	200	--	
MW-3	02/07/12	29.79	17.23	12.56	<50	<0.50	<0.50	<0.50	<1.0	110	--	
MW-3	08/09/12	29.79	16.32	13.47	<50	<0.50	<0.50	<0.50	<1.0	0.8	--	
MW-3	02/27/13	29.79	16.75	13.04	<50	<0.50	<0.50	<0.50	<1.0	1.2	--	
MW-3	08/15/13	29.79	17.60	12.19	86	<0.50	<0.50	<0.50	<1.0	<0.50	--	
MW-3	02/06/14	29.79	18.36	11.43	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	

Table 2
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B	
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	
706 Harrison Street												
MW-4	12/16/94	31.18	18.10	13.08	2500	32	6.5	4.5	17	--	--	--
MW-4	12/29/94	31.18	17.95	13.23	--	--	--	--	--	--	--	--
MW-4	07/19/96	31.18	17.38	13.80	3300	520	39	67	60	--	--	--
MW-4	01/27/97	31.18	15.25	15.93	4500	860	55	100	91	--	--	1100
MW-4	06/18/97	31.18	17.61	13.57	2700	700	52	81	76	2300	--	2200
MW-4	09/18/97	31.18	18.01	13.17	3900	760	38	56	64	--	--	<170
MW-4	10/12/97	31.18	17.45	13.73	12000	1800	120	210	210	2600	--	2900
MW-4	02/18/98	31.18	13.09	18.09	1700	210	8.0	6.7	16	--	--	200
MW-4	12/05/98	31.18	14.78	16.40	2100	300	15	36	34	--	--	920
MW-4	08/18/98	31.18	16.59	14.59	4700	1000	130	110	150	4900	--	5200
MW-4	11/24/98	31.18	17.18	14.00	3000	810	44	76	94	--	--	4800
MW-4	04/02/99	31.18	18.90	12.28	2800	770	50	69	69	--	--	3100
MW-4	05/18/99	31.18	16.30	14.88	4000	780	57	7.7	79	--	--	4800
MW-4	08/27/99	31.18	17.21	13.97	4100	870	51	74	99	4100	--	3300
MW-4	11/18/99	31.18	17.77	13.41	3000	760	43	67	65	5400	--	5100
MW-4	02/29/00	31.18	14.85	16.33	4600	1000	64	94	170	4600	--	4100
MW-4	05/25/00	31.18	16.45	14.73	2600	540	39	59	41	5300	--	3500
MW-4	09/08/00	31.18	17.47	13.71	4400	930	66	98	79	--	--	9400
MW-4	09/11/00	31.18	17.45	13.73	4200	630	34	54	44	9400	--	7800
MW-4	01/29/01	31.18	18.90	12.28	3100	710	34	66	51	8000	--	9400
MW-4	04/16/01	31.18	19.17	12.01	160	1.2	1.3	<0.5	12	20	--	22
MW-4	08/14/01	31.18	19.20	11.98	1700	190	11	35	13	250	--	300
MW-4	10/22/01	31.18	18.95	12.23	1100	120	3.7	29	7.9	16	--	<25
MW-4	01/02/02	31.18	19.05	12.13	2600	25	43	21	280	--	--	<5.0
MW-4	10/05/02	31.18	17.69	13.49	490	3.5	2.0	2.1	2.2	--	--	<5.0
MW-4	08/07/02	31.18	15.75	15.43	170	0.51	0.62	1.6	1.2	2.0	--	<5.0
MW-4	02/10/02	31.18	16.30	14.88	240	1.7	2.0	2.2	0.88	--	--	<5.0
MW-4	01/23/03	31.18	17.74	13.44	<50	0.52	4.1	<0.5	1.9	--	--	<5.0
MW-4	04/29/03	31.18	15.47	15.71	1,300	75	4.8	21	7.3	120	--	130
MW-4	07/18/03	28.20	17.08	11.12	<50	<0.5	<0.5	<0.5	<0.5	0.74	--	--
MW-4	09/10/03	28.20	16.25	11.95	210	4.7	0.57	1.6	1.1	10	--	<10
MW-4	01/28/04	28.20	15.65	12.55	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-4	07/04/04	28.20	16.49	11.71	--	--	--	--	--	--	--	--
MW-4	12/04/04	--	--	--	770	56	3.2	7.0	6.5	160	--	120
MW-4	07/23/04	28.20	15.86	12.34	1100	130	11	17	17	800	--	790
MW-4	12/10/04	28.20	18.05	10.15	150	0.86	<0.5	<0.5	0.97	--	--	<10
MW-4	02/14/05	28.20	15.30	12.90	1500	200	16	30	31	550	--	420
MW-4	04/27/05	28.20	14.20	14.00	3000	520	100	27	86	480	--	600
MW-4	07/19/05	28.20	16.08	12.12	1800	310	16	36	25	1100	--	1000
MW-4	10/18/05	28.20	16.55	11.65	2500	450	28	47	51	4500	--	3800
MW-4	01/23/06	28.20	14.66	13.54	1300	170	13	14	14	3300	--	2500
MW-4	12/04/06	28.20	12.92	15.28	940	150	12	7.6	12	3300	--	3400
MW-4	10/07/06	28.20	15.38	12.82	1700	260	14	26	20	5900	--	4300
MW-4	10/16/06	28.20	17.21	10.99	3200	440	26	34	63	7500	--	7800
MW-4	01/26/07	28.20	17.58	10.62	2000	290	20	28	42	8300	--	8300
MW-4	04/18/07	28.20	17.46	10.74	2300	350	28	38	42	7800	--	5900
MW-4	02/08/07	28.20	17.95	10.25	3600	480	33	47	72	9000	--	7500
MW-4	10/23/07	28.20	18.41	9.79	1700	280	13	27	25	8800	--	7000
MW-4	01/30/08	28.20	17.49	10.71	1300	130	5	13	12	8200	--	6500
MW-4	04/18/08	28.20	17.90	10.30	2300	240	14	25	27	6400	--	6900
MW-4	07/28/08	28.20	18.49	9.71	3400	390	100	33	100	5000	--	4600
MW-4	05/12/08	28.20	19.07	9.13	2400	310	30	41	67	1700	--	2100
MW-4	01/26/09	28.20	18.71	9.49	1600	180	14	21	33	1200	--	1300
MW-4	03/08/09	31.20	18.23	12.97	2300	370	39	37	89	1600	--	1700
MW-4	01/25/10	31.20	17.64	13.56	690	77	7.4	8.6	20	280	--	240
MW-4	03/08/10	31.20	17.72	13.48	1600	190	17	23	44	990	--	770
MW-4	07/17/11	31.20	17.69	13.51	3400	620	25	52	100	1300	--	1900
MW-4	08/23/11	31.20	17.71	13.49	1800	98	11	14	26	260	--	--
MW-4	02/07/12	31.20	18.43	12.77	1800	140	15	21	32	430	--	--
MW-4	08/09/12	31.20	--	--	--	--	--	--	--	--	--	--
MW-4	02/27/13	31.20	--	--	--	--	--	--	--	--	--	--
MW-4	08/15/13	31.20	18.70	12.50	1100	620	38	62	67	1200	--	--
MW-4	02/06/14	31.20	20.68	10.52	620	850	29	54	62	600	--	--

Table 2
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B	
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	
706 Harrison Street												
MW-5	12/16/94	28.04	16.07	11.97	<50	1.1	<0.5	<0.5	<0.5	2.4	--	--
MW-5	12/29/94	28.04	16.10	11.94	--	--	--	--	--	--	--	--
MW-5	07/19/96	28.04	15.49	12.55	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
MW-5	01/27/97	28.04	13.60	14.44	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-5	06/18/97	28.04	15.55	12.49	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-5	09/18/97	28.04	16.16	11.88	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-5	10/12/97	28.04	15.41	12.63	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-5	02/18/98	28.04	10.93	17.11	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-5	12/05/98	28.04	13.25	14.79	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-5	08/18/98	28.04	14.75	13.29	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-5	11/24/98	28.04	15.15	12.89	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-5	04/02/99	28.04	14.61	13.43	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-5	05/18/99	28.04	14.15	13.89	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-5	08/27/99	28.04	15.43	12.61	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-5	11/18/99	28.04	15.97	12.07	--	--	--	--	--	--	--	--
MW-5	02/29/00	28.04	13.16	14.88	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-5	05/25/00	28.04	14.72	13.32	--	--	--	--	--	--	--	--
MW-5	09/08/00	28.04	15.68	12.36	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-5	09/11/00	28.04	15.39	12.65	--	--	--	--	--	--	--	--
MW-5	01/29/01	28.04	15.97	12.07	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-5	04/16/01	28.04	16.24	11.80	--	--	--	--	--	--	--	--
MW-5	08/14/01	28.04	17.39	10.65	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-5	10/22/01	28.04	15.90	12.14	--	--	--	--	--	--	--	--
MW-5	01/02/02	28.04	16.55	11.49	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-5	10/05/02	28.04	15.12	12.92	--	--	--	--	--	--	--	--
MW-5	08/07/02	28.04	15.92	12.12	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-5	02/10/02	28.04	16.42	11.62	--	--	--	--	--	--	--	--
MW-5	01/23/03	28.04	14.90	13.14	<50	20	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-5	04/29/03	28.04	12.05	15.99	--	--	--	--	--	--	--	--
MW-5	07/18/03	25.07	14.28	10.79	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-5	09/10/03	25.07	13.36	11.71	--	--	--	--	--	--	--	--
MW-5	01/28/04	25.07	12.68	12.39	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-5	07/04/04	25.07	14.71	10.36	--	--	--	--	--	--	--	--
MW-5	07/23/04	25.07	13.49	11.58	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-5	12/10/04	25.07	15.88	9.19	--	--	--	--	--	--	--	--
MW-5	02/14/05	25.07	13.22	11.85	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-5	04/27/05	25.07	13.40	11.67	--	--	--	--	--	--	--	--
MW-5	07/19/05	25.07	14.21	10.86	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-5	10/18/05	25.07	14.79	10.28	--	--	--	--	--	--	--	--
MW-5	01/23/06	25.07	13.12	11.95	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-5	12/04/06	25.07	11.39	13.68	--	--	--	--	--	--	--	--
MW-5	10/07/06	25.07	14.40	10.67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	25
MW-5	10/16/06	25.07	15.44	9.63	--	--	--	--	--	--	--	--
MW-5	01/26/07	25.07	15.76	9.31	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	490
MW-5	04/18/07	25.07	15.61	9.46	--	--	--	--	--	--	--	--
MW-5	02/08/07	25.07	16.04	9.03	<50	<0.5	<0.5	<0.5	<0.5	<0.5	760	660
MW-5	10/23/07	25.07	16.89	8.18	--	--	--	--	--	--	--	--
MW-5	01/30/08	25.07	15.61	9.46	<50	<0.5	<0.5	<0.5	<0.5	<0.5	280	250
MW-5	04/18/08	25.07	15.99	9.08	--	--	--	--	--	--	--	--
MW-5	07/28/08	25.07	16.45	8.62	<50	<0.5	<0.5	<0.5	<0.5	<0.5	670	640
MW-5	05/12/08	25.07	16.94	8.13	--	--	--	--	--	--	--	--
MW-5	01/26/09	25.07	16.54	8.53	<50	<0.5	<0.5	<0.5	<0.5	<0.5	3700	3500
MW-5	03/08/09	28.07	16.23	11.84	<50	<0.5	<0.5	<0.5	<0.5	<0.5	1400	1300
MW-5	01/25/10	28.07	15.58	12.49	<50	<0.5	<0.5	<0.5	<0.5	<0.5	1400	1300
MW-5	03/08/10	28.07	15.55	12.52	<50	<0.5	<0.5	<0.5	<0.5	<0.5	450	400
MW-5	02/17/11	28.07	15.56	12.51	<50	<0.5	<0.5	<0.5	<0.5	<0.5	7.7	6.4
MW-5	08/23/11	28.07	15.80	12.27	280	<0.50	<0.50	<0.50	<0.50	<0.50	360	--
MW-5	02/07/12	28.07	16.45	11.62	<50	<0.50	<0.50	<0.50	<0.50	1.6	190	--
MW-5	08/09/12	28.07	15.22	12.85	<50	<0.50	<0.50	<0.50	<0.50	<1.0	13	--
MW-5	02/27/13	28.07	15.68	12.39	<50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	--
MW-5	08/15/13	28.07	16.55	11.52	<50	<0.50	<0.50	<0.50	<0.50	<1.0	0.72	--
MW-5	02/06/14	28.07	17.37	10.70	<50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	--

Table 2
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B	
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	
706 Harrison Street												
MW-6	12/16/94	29.10	17.74	11.36	--	--	--	--	--	--	--	--
MW-6	12/29/94	29.10	17.40	11.70	--	--	--	--	--	--	--	--
MW-6	07/19/96	29.10	16.60	12.50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
MW-6	01/27/97	29.10	14.88	14.22	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-6	06/18/97	29.10	16.73	12.37	51	22	<0.5	<0.5	<0.5	--	--	<5.0
MW-6	09/18/97	29.10	17.24	11.86	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-6	10/12/97	29.10	16.56	12.54	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-6	02/18/98	29.10	12.93	16.17	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-6	12/05/98	29.10	14.35	14.75	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-6	08/18/98	29.10	15.94	13.16	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-6	11/24/98	29.10	16.46	12.64	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-6	04/02/99	29.10	18.25	10.85	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-6	05/18/99	29.10	15.73	13.37	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-6	08/27/99	29.10	15.64	13.46	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-6	11/18/99	29.10	17.04	12.06	--	--	--	--	--	--	--	--
MW-6	02/29/00	29.10	14.55	14.55	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-6	05/25/00	29.10	15.86	13.24	--	--	--	--	--	--	--	--
MW-6	09/08/00	29.10	16.80	12.30	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-6	09/11/00	29.10	16.60	12.50	--	--	--	--	--	--	--	--
MW-6	01/29/01	29.10	17.00	12.10	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-6	04/16/01	29.10	17.15	11.95	--	--	--	--	--	--	--	--
MW-6	08/14/01	29.10	17.30	11.80	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-6	10/22/01	29.10	17.13	11.97	--	--	--	--	--	--	--	--
MW-6	01/02/02	29.10	16.57	12.53	70	37	<0.5	<0.5	<0.5	--	--	<5.0
MW-6	10/05/02	29.10	15.25	13.85	--	--	--	--	--	--	--	--
MW-6	08/07/02	29.10	15.79	13.31	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-6	02/10/02	29.10	16.38	12.72	--	--	--	--	--	--	--	--
MW-6	01/23/03	29.10	16.03	13.07	<50	21	<0.5	<0.5	<0.5	--	--	<5.0
MW-6	04/29/03	29.10	14.19	14.91	--	--	--	--	--	--	--	--
MW-6	07/18/03	26.13	15.47	10.66	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-6	09/10/03	26.13	14.73	11.40	--	--	--	--	--	--	--	--
MW-6	01/28/04	26.13	14.05	12.08	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-6	07/04/04	26.13	14.41	11.72	--	--	--	--	--	--	--	--
MW-6	07/23/04	26.13	15.15	10.98	3300	1300	<5.0	52	9.7	--	--	<50
MW-6	12/10/04	26.13	17.29	8.84	--	--	--	--	--	--	--	--
MW-6	02/14/05	26.13	14.60	11.53	350	160	<0.5	<0.5	<0.5	2	--	<25
MW-6	04/27/05	26.13	14.10	12.03	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-6	07/19/05	26.13	15.18	10.95	110	15	<0.5	0.62	<0.5	1.7	--	<5.0
MW-6	10/18/05	26.13	15.65	10.48	<50	<0.5	<0.5	<0.5	<0.5	0.87	--	<5.0
MW-6	01/23/06	26.13	14.02	12.11	<50	<0.5	<0.5	<0.5	<0.5	0.5	--	<5.0
MW-6	12/04/06	26.13	12.66	13.47	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-6	10/07/06	26.13	14.64	11.49	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-6	10/16/06	26.13	16.50	9.63	--	--	--	--	--	--	--	--
MW-6	01/26/07	26.13	16.83	9.30	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-6	04/18/07	26.13	16.72	9.41	--	--	--	--	--	--	--	--
MW-6	02/08/07	26.13	17.13	9.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-6	10/23/07	26.13	17.71	8.42	--	--	--	--	--	--	--	--
MW-6	01/30/08	26.13	16.54	9.59	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-6	04/18/08	26.13	17.02	9.11	--	--	--	--	--	--	--	--
MW-6	07/28/08	26.13	17.50	8.63	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-6	05/12/08	26.13	17.89	8.24	--	--	--	--	--	--	--	--
MW-6	01/26/09	26.13	17.61	8.52	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-6	03/08/09	29.13	17.24	11.89	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-6	01/25/10	29.13	16.72	12.41	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-6	03/08/10	29.13	16.80	12.33	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-6	02/17/11	29.13	16.73	12.40	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
MW-6	08/23/11	29.13	16.97	12.16	<50	<0.50	<0.50	<0.50	<1.0	89	--	--
MW-6	02/07/12	29.13	17.51	11.62	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--
MW-6	08/09/12	29.13	16.41	12.72	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--
MW-6	02/27/13	29.13	16.93	12.20	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--
MW-6	08/15/13	29.13	17.78	11.35	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--
MW-6	02/06/14	29.13	18.48	10.65	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--

Table 2
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B	
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	
706 Harrison Street												
MW-7	12/16/94	29.67	17.07	12.60	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
MW-7	12/29/94	29.67	17.65	12.02	--	--	--	--	--	--	--	--
MW-7	07/19/96	29.67	16.44	13.23	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-7	01/27/97	29.67	15.09	14.58	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-7	06/18/97	29.67	16.59	13.08	73	<0.5	1	<0.5	<0.5	--	--	<5.0
MW-7	09/18/97	29.67	17.06	12.61	94	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-7	10/12/97	29.67	16.58	13.09	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-7	02/18/98	29.67	12.60	17.07	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-7	12/05/98	29.67	14.81	14.86	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-7	08/18/98	29.67	15.67	14.00	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-7	11/24/98	29.67	16.30	13.37	200	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-7	04/02/99	29.67	15.99	13.68	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-7	05/18/99	29.67	15.42	14.25	200	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-7	08/27/99	29.67	16.35	13.32	140	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-7	11/18/99	29.67	16.81	12.86	--	--	--	--	--	--	--	--
MW-7	02/29/00	29.67	14.16	15.51	100	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-7	05/25/00	29.67	15.54	14.13	--	--	--	--	--	--	--	--
MW-7	09/08/00	29.67	16.56	13.11	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-7	09/11/00	29.67	16.45	13.22	--	--	--	--	--	--	--	--
MW-7	01/29/01	29.67	16.92	12.75	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-7	04/16/01	29.67	17.03	12.64	--	--	--	--	--	--	--	--
MW-7	08/14/01	29.67	17.27	12.40	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-7	10/22/01	29.67	16.95	12.72	--	--	--	--	--	--	--	--
MW-7	01/02/02	29.67	16.14	13.53	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-7	10/05/02	29.67	15.30	14.37	--	--	--	--	--	--	--	--
MW-7	08/07/02	29.67	15.73	13.94	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-7	02/10/02	29.67	16.24	13.43	--	--	--	--	--	--	--	--
MW-7	01/23/03	29.67	15.70	13.97	<50	23	<0.5	<0.5	<0.5	--	--	<5.0
MW-7	04/29/03	29.67	12.68	16.99	--	--	--	--	--	--	--	--
MW-7	07/18/03	26.70	15.19	11.51	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-7	09/10/03	26.70	14.45	12.25	--	--	--	--	--	--	--	--
MW-7	01/28/04	26.70	13.88	12.82	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
MW-7	07/04/04	26.70	15.71	10.99	--	--	--	--	--	--	--	--
MW-7	07/23/04	26.70	14.85	11.85	<50	<0.5	<0.5	<0.5	<0.5	120	130	--
MW-7	12/10/04	26.70	16.90	9.80	--	--	--	--	--	--	--	--
MW-7	02/14/05	26.70	14.42	12.28	<50	<0.5	<0.5	<0.5	<0.5	200	190	--
MW-7	04/27/05	26.70	13.75	12.95	<50	<0.5	<0.5	<0.5	<0.5	1	<5.0	--
MW-7	07/19/05	26.70	14.91	11.79	<50	<0.5	<0.5	<0.5	<0.5	66	65	--
MW-7	10/18/05	26.70	15.40	11.30	<50	<0.5	<0.5	<0.5	<0.5	15	12	--
MW-7	01/23/06	26.70	13.99	12.71	<50	<0.5	<0.5	<0.5	<0.5	2.2	<5.0	--
MW-7	12/04/06	26.70	12.32	14.38	<50	<0.5	<0.5	<0.5	<0.5	2	<5.0	--
MW-7	10/07/06	26.70	14.31	12.39	<50	<0.5	<0.5	<0.5	<0.5	1.5	<5.0	--
MW-7	10/16/06	26.70	16.23	10.47	--	--	--	--	--	--	--	--
MW-7	01/26/07	26.70	16.61	10.09	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	--
MW-7	04/18/07	26.70	16.54	10.16	--	--	--	--	--	--	--	--
MW-7	02/08/07	26.70	16.93	9.77	<50	<0.5	<0.5	<0.5	<0.5	2	<5.0	--
MW-7	10/23/07	26.70	17.36	9.34	--	--	--	--	--	--	--	--
MW-7	01/30/08	26.70	16.36	10.34	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	--
MW-7	04/18/08	26.70	16.85	9.85	--	--	--	--	--	--	--	--
MW-7	07/28/08	26.70	17.43	9.27	<50	<0.5	<0.5	<0.5	<0.5	1.1	<5.0	--
MW-7	05/12/08	26.70	17.91	8.79	--	--	--	--	--	--	--	--
MW-7	01/26/09	26.70	17.65	9.05	<50	<0.5	<0.5	<0.5	<0.5	0.96	<5.0	--
MW-7	03/08/09	29.70	17.17	12.53	<50	<0.5	<0.5	<0.5	<0.5	0.87	<5.0	--
MW-7	01/25/10	29.70	16.65	13.05	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	--
MW-7	03/08/10	29.70	16.74	12.96	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	--
MW-7	02/17/11	29.70	16.69	13.01	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	--
MW-7	08/23/11	29.70	16.79	12.91	<50	<0.50	<0.50	<0.50	<1.0	89	--	--
MW-7	02/07/12	29.70	17.40	12.30	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--
MW-7	08/09/12	29.70	16.38	13.32	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--
MW-7	02/27/13	29.70	16.83	12.87	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--
MW-7	08/15/13	29.70	17.67	12.03	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--
MW-7	02/06/14	29.70	18.42	11.28	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--
706 Harrison Street												
VW-3	06/03/03	NA	NA	NA	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
VW-3	03/25/03	NA	NA	NA	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0

Table 2
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B	
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	
706 Harrison Street												
VW-4	06/03/03	NA	NA	NA	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
VW-4	03/25/03	NA	NA	NA	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<5.0
726 Harrison Street												
AS-1	08/15/13	34.50	18.17	16.33	--	--	--	--	--	--	--	--
726 Harrison Street												
EW-1	02/27/13	*--	18.17	*--	960	180	6.0	3.6	12	170	--	--
EW-1	08/15/13	34.37	18.98	15.39	290	67	1.7	1.3	3.3	57	--	--
EW-1	02/06/14	34.37	19.69	14.68	640	68	1.2	7.9	7	180	--	--
726 Harrison Street												
MP-1	08/15/13	34.16	19.03	15.13	<50	<0.50	<0.50	<0.50	<1.0	2.4	--	--
MP-1	02/06/14	34.16	21.07	13.09	<50	<0.50	<0.50	<0.50	<1.0	1.8	--	--
726 Harrison Street												
MPE-1	08/15/13	34.36	19.24	15.12	820	110	23	17	45	610	--	--
MPE-1	02/06/14	34.36	20.00	14.36	460	93	24	13	29	410	--	--
726 Harrison Street												
MW-1	07/03/97	NA	NA	NA	18000	2700	350	450	900	--	--	7400
MW-1	12/15/98	31.95	17.32	14.63	18000	1500	270	260	560	--	--	14000
MW-1	04/03/99	31.95	15.52	16.43	44000	2800	400	440	960	--	--	43000
MW-1	06/17/99	31.95	16.90	15.05	33000	2200	250	460	660	--	--	25000
MW-1	08/27/99	31.95	17.39	14.56	6000	1000	97	190	230	16000	--	14000
MW-1	09/12/99	31.95	18.03	13.92	15000	1500	160	220	420	--	--	17000
MW-1	07/03/00	31.95	15.11	16.84	9300	1500	210	66	530	--	--	12000
MW-1	07/06/00	31.95	16.66	15.29	26000	1700	<250	360	580	--	--	30000
MW-1	11/10/00	31.95	18.08	13.87	13000	1600	<100	140	160	--	--	19000
MW-1	01/18/01	31.95	17.96	13.99	14000	450	<100	110	230	--	--	9600
MW-1	05/04/01	31.95	16.35	15.60	38000	2200	180	290	590	--	--	35000
MW-1	07/17/01	31.95	16.94	15.01	35000	1800	<100	300	170	--	--	35000
MW-1	05/01/10	28.98	17.35	11.63	17000	1500	210	420	790	--	--	27000
MW-1	01/18/02	28.98	15.40	13.58	18000	1500	120	160	220	--	--	22000
MW-1	11/04/02	28.98	15.76	13.22	41000	2700	210	340	380	--	--	30000
MW-1	08/07/02	28.98	16.17	12.81	36000	2800	140	360	300	--	--	31000
MW-1	09/02/10	28.98	16.72	12.26	30000	1700	310	<100	<100	--	--	19000
MW-1	01/29/03	28.98	16.26	12.72	26000	2400	<100	310	520	--	--	20000
MW-1	11/04/03	28.98	16.56	12.42	22000	1700	<100	270	580	--	--	16000
MW-1	07/18/03	28.98	16.42	12.56	40000	3200	290	480	830	--	--	39000
MW-1	09/03/10	28.98	16.88	12.10	54000	3300	<130	350	310	--	--	49000
MW-1	01/28/04	28.98	16.10	12.88	26000	3000	310	420	800	--	--	31000
MW-1	07/04/04	28.98	15.43	13.55	33000	2800	130	310	310	--	--	39000
MW-1	07/23/04	28.98	16.41	12.57	56000	4500	<250	390	<500	--	--	53000
MW-1	12/04/10	28.98	17.73	11.25	25000	1400	<250	<250	<500	--	--	25000
MW-1	01/29/05	28.98	15.02	13.96	24000	1600	<100	160	<200	--	--	19000
MW-1	04/28/05	28.98	14.99	13.99	10000	2000	<100	160	100	--	--	34000
MW-1	07/19/05	28.98	16.36	12.62	37000	2100	83	210	230	--	--	28000
MW-1	10/18/05	28.98	17.82	11.16	37000	1300	<250	<250	<250	--	--	23000
MW-1	01/23/06	28.98	15.80	13.18	23000	780	<100	160	260	--	--	11000
MW-1	12/04/06	28.98	13.24	15.74	11000	1500	87	360	670	--	--	17000
MW-1	10/07/06	28.98	15.64	13.34	72000	4700	<250	350	<500	--	--	66000
MW-1	10/16/06	28.98	17.51	11.47	26000	1600	<250	330	<500	--	--	22000
MW-1	01/26/07	28.98	18.36	10.62	7200	1500	<70	140	96	--	--	34000
MW-1	04/18/07	28.98	17.79	11.19	5400	1100	<50	200	120	--	--	21000
MW-1	02/08/07	28.98	18.20	10.78	6600	1500	64	240	190	--	--	32000
MW-1	10/23/07	28.98	18.75	10.23	5900	1300	52	200	180	--	--	28000
MW-1	01/30/08	28.98	17.90	11.08	2700	300	21	64	90	--	--	5200
MW-1	04/18/08	28.98	18.21	10.77	3800	930	41	110	130	--	--	15000
MW-1	07/28/08	28.98	18.85	10.13	6000	900	52	140	160	--	--	10000
MW-1	10/29/08	28.98	19.24	9.74	7300	1700	74	140	220	--	--	17000
MW-1	01/26/09	28.98	19.17	9.81	4900	720	48	140	180	--	--	6300
MW-1	03/08/09	31.98	18.62	13.36	4000	870	44	110	120	--	--	13000
MW-1	01/25/10	31.98	18.26	13.72	3200	360	26	82	86	--	--	3000
MW-1	03/08/10	31.98	18.13	13.85	3800	560	27	97	92	--	--	8600
MW-1	02/17/11	31.98	18.15	13.83	6000	1100	51	110	110	--	--	11000
MW-1	08/23/11	31.98	18.60	13.38	8200	290	36	66	79	4700	--	--
MW-1	02/07/12	31.98	18.77	13.21	370	46	1.7	4.2	4.5	3800	--	--
MW-1	08/09/12	31.98	17.82	14.16	6600	760	27	58	60	6700	--	--
MW-1	02/27/13	31.98	18.21	13.77	3000	480	26	52	56	2600	--	--
MW-1	08/15/13	34.45	19.03	15.42	7200	820	50	65	99	7300	--	--
MW-1	02/06/14	34.45	19.87	14.58	2600	1800	86	400	250	10000	--	--

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Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B	
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	
726 Harrison Street												
MW-2	12/15/98	32.40	18.03	14.37	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<5.0	
MW-2	03/04/99	32.40	16.11	16.29	--	--	--	--	--	--	--	
MW-2	06/17/99	32.40	17.72	14.68	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<5.0	
MW-2	08/27/99	NA	NA	NA	--	--	--	--	--	--	--	
MW-2	12/09/99	NA	NA	NA	--	--	--	--	--	--	--	
MW-2	03/07/00	NA	NA	NA	--	--	--	--	--	--	--	
MW-2	06/07/00	32.40	17.67	14.73	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-2	10/11/00	32.40	18.91	13.49	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-2	01/18/01	32.40	18.66	13.74	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-2	04/05/01	32.40	16.97	15.43	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0	
MW-2	07/17/01	32.40	17.54	14.86	NA	NA	NA	NA	NA	NA	NA	
MW-2	10/05/01	29.44	17.98	11.46	NA	NA	NA	NA	NA	NA	NA	
MW-2	01/18/02	29.44	15.87	13.57	NA	NA	NA	NA	NA	NA	NA	
MW-2	04/11/02	29.44	16.36	13.08	NA	NA	NA	NA	NA	NA	NA	
MW-2	07/18/02	29.44	16.72	12.72	NA	NA	NA	NA	NA	NA	NA	
MW-2	10/09/02	29.44	17.33	12.11	NA	NA	NA	NA	NA	NA	NA	
MW-2	01/29/03	29.44	16.82	12.62	NA	NA	NA	NA	NA	NA	NA	
MW-2	04/11/03	29.44	17.15	12.29	NA	NA	NA	NA	NA	NA	NA	
MW-2	07/18/03	29.44	17.05	12.39	NA	NA	NA	NA	NA	NA	NA	
MW-2	10/09/03	29.44	17.52	11.92	NA	NA	NA	NA	NA	NA	NA	
MW-2	01/28/04	29.44	16.70	12.74	NA	NA	NA	NA	NA	NA	NA	
MW-2	04/07/04	29.44	16.02	13.42	NA	NA	NA	NA	NA	NA	NA	
MW-2	07/23/04	--	--	--	--	--	--	--	--	--	--	
MW-2	10/12/04	29.44	17.31	12.13	NA	NA	NA	NA	NA	NA	NA	
MW-2	01/29/05	29.44	15.46	13.98	NA	NA	NA	NA	NA	NA	NA	
MW-2	04/28/05	29.44	15.79	13.65	NA	NA	NA	NA	NA	NA	NA	
MW-2	07/19/05	29.44	17.25	12.19	NA	NA	NA	NA	NA	NA	NA	
MW-2	10/18/05	29.44	17.72	11.72	NA	NA	NA	NA	NA	NA	NA	
MW-2	01/23/06	29.44	15.65	13.79	NA	NA	NA	NA	NA	NA	NA	
MW-2	04/12/06	29.44	12.33	17.11	NA	NA	NA	NA	NA	NA	NA	
MW-2	07/10/06	29.44	16.58	12.86	<50	<0.50	<0.50	<0.50	<1.0	--	4.5	
MW-2	10/16/06	29.44	18.33	11.11	<50	<0.50	<0.50	<0.50	<1.0	--	<0.5	
MW-2	01/26/07	29.44	19.21	10.23	<50	0.55	1	<0.50	1.4	--	0.97	
MW-2	04/18/07	29.44	18.58	10.86	<50	1.5	2.6	0.93	3.2	--	0.64	
MW-2	08/02/07	29.44	19.02	10.42	<50	<0.50	<0.50	<0.50	<0.50	--	2.2	
MW-2	10/23/07	--	--	--	--	--	--	--	--	--	--	
MW-2	01/30/08	29.44	18.63	10.81	<50	<0.50	<0.50	<0.50	<0.50	--	300	
MW-2	04/18/08	29.44	19.04	10.40	<50	<0.50	<0.50	<0.50	<0.50	--	40	
MW-2	07/28/08	--	--	--	--	--	--	--	--	--	--	
MW-2	10/29/08	29.44	20.01	9.43	<50	<0.50	<0.50	<0.50	<0.50	--	300	
MW-2	01/26/09	29.44	19.84	9.60	<50	<0.50	<0.50	<0.50	<0.50	--	120	
MW-2	08/03/09	32.44	19.39	13.05	<50	<0.50	<0.50	<0.50	<0.50	--	1	
MW-2	01/25/10	32.44	18.67	13.77	<50	<0.50	<0.50	<0.50	<0.50	--	12	
MW-2	03/08/10	32.44	18.84	13.60	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	
MW-2	02/17/11	32.44	18.82	13.62	<50	<0.50	<0.50	<0.50	<0.50	--	5.2	
MW-2	08/23/11	32.44	19.38	13.06	<50	<0.50	<0.50	<0.50	<1.0	0.37	--	
MW-2	02/07/12	32.44	19.52	12.92	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
MW-2	08/09/12	32.44	18.55	13.89	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
MW-2	02/27/13	32.44	18.95	13.49	<50	<0.50	<0.50	<0.50	<1.0	1.7	--	
MW-2	08/15/13	34.91	19.77	15.14	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
MW-2	02/06/14	34.91	21.20	13.71	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	

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Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)
726 Harrison Street											
MW-3	12/15/98	31.61	17.26	14.35	6500	<50	50	60	502	--	3900
MW-3	03/04/99	31.61	15.47	16.14	2800	<25	<25	<25	<25	--	1600
MW-3	06/17/99	31.61	16.92	14.69	1000	<10	<10	<10	<10	--	1400
MW-3	08/27/99	31.61	17.40	14.21	230	<0.5	0.51	0.50	1	1600	1500
MW-3	12/09/99	31.61	18.01	13.60	870	<0.5	<0.5	<0.5	<0.5	--	2100
MW-3	03/07/00	31.61	16.15	15.46	150	4	<0.5	<0.5	<0.5	--	830
MW-3	06/07/00	31.61	16.85	14.76	140	<0.5	<0.5	<0.5	<0.5	--	1100
MW-3	10/11/00	31.61	18.07	13.54	620	<5.0	<5.0	<5.0	<5.0	--	1500
MW-3	01/18/01	31.61	17.89	13.72	1200	<5.0	<5.0	<5.0	<5.0	--	1000
MW-3	04/05/01	31.61	16.21	15.40	1700	<5.0	<5.0	<5.0	<5.0	--	1900
MW-3	07/17/01	31.61	16.90	14.71	1400	<10	<10	<10	<10	--	1700
MW-3	10/05/01	28.64	17.32	11.32	<1000	<10	<10	<10	<10	--	1700
MW-3	01/18/02	28.64	15.35	13.29	1600	26	20	16	54	--	2100
MW-3	04/11/02	28.64	15.82	12.82	2600	21	16	<10	21	--	2300
MW-3	07/18/02	28.64	16.15	12.49	2800	<10	<10	<10	<10	--	3800
MW-3	10/09/02	28.64	16.67	11.97	6000	<50	<50	<50	<50	--	4900
MW-3	01/29/03	28.64	16.19	12.45	1800	<10	<10	<10	<10	--	2300
MW-3	04/11/03	28.64	16.49	12.15	2900	<25	<25	<25	<25	--	3100
MW-3	07/18/03	28.64	16.42	12.22	3400	<10	<10	<10	<10	--	3200
MW-3	10/09/03	28.64	16.80	11.84	2300	<10	<10	<10	<10	--	2700
MW-3	01/28/04	28.64	15.94	12.70	1700	<10	<10	<10	<10	--	2900
MW-3	04/07/04	28.64	15.28	13.36	2700	<10	<10	<10	<20	--	3600
MW-3	07/23/04	28.64	16.15	12.49	4200	<25	<25	<25	<50	--	4900
MW-3	10/12/04	28.64	16.63	12.01	5000	<50	<50	<50	<100	--	5900
MW-3	01/29/05	28.64	16.15	12.49	<1000	<10	<10	<10	<20	--	3100
MW-3	04/28/05	28.64	14.94	13.70	<200	<2.0	<2.0	<2.0	<2.0	--	1300
MW-3	07/19/05	28.64	16.25	12.39	4400	<20	<20	<20	<40	--	3000
MW-3	10/18/05	28.64	16.76	11.88	18000	<50	<50	<50	<50	--	6800
MW-3	01/23/06	28.64	15.81	12.83	17000	<100	<100	<100	<200	--	7000
MW-3	04/12/06	28.64	13.22	15.42	<200	<2.0	<2.0	<2.0	<2.0	--	7800
MW-3	07/10/06	28.64	15.49	13.15	11000	<100	<100	<100	<200	--	12000
MW-3	10/16/06	28.64	17.46	11.18	<10000	<100	<100	<100	<100	--	17000
MW-3	01/26/07	28.64	18.02	10.62	<200	<2.0	<2.0	<2.0	<2.0	--	4000
MW-3	04/18/07	28.64	17.75	10.89	<900	<9.0	<9.0	<9.0	<9.0	--	11000
MW-3	08/02/07	28.64	18.38	10.26	110	<0.80	<0.80	<0.80	2	--	410
MW-3	10/23/07	28.64	19.61	9.03	< 80	<0.80	<0.80	<0.80	<0.80	--	480
MW-3	01/30/08	28.64	17.65	10.99	< 80	<0.80	<0.80	<0.80	<0.80	--	430
MW-3	04/18/08	28.64	18.08	10.56	<50	<0.50	<0.50	<0.50	<0.50	--	350
MW-3	07/28/08	28.64	18.77	9.87	61	<0.50	<0.50	<0.50	<0.50	--	140
MW-3	10/29/08	28.64	19.14	9.50	120	<0.50	<0.50	<0.50	<0.50	--	640
MW-3	01/26/09	28.64	19.06	9.58	210	1.9	<1.5	<1.5	<1.5	--	1300
MW-3	08/03/09	31.64	18.51	13.13	<250	<2.5	<2.5	<2.5	<2.5	--	1600
MW-3	01/25/10	31.64	18.02	13.62	87	<0.50	<0.50	<0.50	<0.50	--	300
MW-3	03/08/10	31.64	18.06	13.58	92	<0.50	<0.50	<0.50	<0.50	--	32
MW-3	02/17/11	31.64	18.03	13.61	<50	<0.50	<0.50	<0.50	<0.50	--	25
MW-3	08/23/11	31.64	18.56	13.08	60	<0.50	<0.50	<0.50	<0.50	9.1	--
MW-3	02/07/12	31.64	18.71	12.93	25	<0.50	<0.50	<0.50	<1.0	2.1	--
MW-3	08/09/12	31.64	17.74	13.90	39	<0.50	<0.50	<0.50	<1.0	9.2	--
MW-3	02/27/13	31.64	18.12	13.52	<50	<0.50	<0.50	<0.50	<1.0	2.8	--
MW-3	08/15/13	34.12	18.95	15.17	<50	<0.50	<0.50	<0.50	<1.0	1.1	--
MW-3	02/06/14	34.12	19.70	14.42	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--

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800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B	
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	
726 Harrison Street												
MW-4	12/15/98	32.53	17.59	14.94	880	3	<0.5	<0.5	<0.5	--	950	
MW-4	03/04/99	32.53	15.88	16.65	3800	<25	<25	<25	<25	--	3700	
MW-4	06/17/99	32.53	17.14	15.39	2700	<25	<25	<25	<25	--	2700	
MW-4	08/27/99	32.53	17.65	14.88	440	4.7	1.1	0.58	1.3	1700	1600	
MW-4	12/09/99	32.53	18.28	14.25	1100	<2.5	<2.5	<2.5	<2.5	--	1700	
MW-4	03/07/00	32.53	15.41	17.12	<250	<2.5	<2.5	<2.5	<2.5	--	1700	
MW-4	06/07/00	32.53	17.09	15.44	530	8.8	<2.5	<2.5	<2.5	--	440	
MW-4	10/11/00	32.53	18.33	14.20	700	3.9	<2.5	<2.5	<2.5	--	680	
MW-4	01/18/01	32.53	18.23	14.30	2000	<2.5	<2.5	<2.5	<2.5	--	780	
MW-4	04/05/01	32.53	16.69	15.84	810	<2.5	<2.5	<2.5	<2.5	--	620	
MW-4	07/17/01	32.53	17.32	15.21	880	<2.5	<2.5	<2.5	<2.5	--	570	
MW-4	10/05/01	29.58	17.71	11.87	550	<2.5	<2.5	<2.5	<2.5	--	710	
MW-4	01/18/02	29.58	15.85	13.73	960	<5.0	<5.0	<5.0	<5.0	--	1300	
MW-4	04/11/02	29.58	16.14	13.44	1100	<5.0	<5.0	<5.0	<5.0	--	550	
MW-4	07/18/02	29.58	16.56	13.02	1200	<5.0	<5.0	<5.0	<5.0	--	890	
MW-4	10/09/02	29.58	17.09	12.49	1300	<5.0	<5.0	<5.0	<5.0	--	880	
MW-4	01/29/03	29.58	16.65	12.93	530	<1.0	<1.0	<1.0	<1.0	--	190	
MW-4	04/11/03	29.58	16.93	12.65	690	<2.5	<2.5	<2.5	<2.5	--	310	
MW-4	07/18/03	29.58	16.78	12.80	1600	<10	<10	<10	<10	--	1300	
MW-4	10/09/03	29.58	17.26	12.32	1500	<10	<10	<10	<10	--	1400	
MW-4	01/28/04	29.58	16.38	13.20	1200	<10	<10	<10	<10	--	1900	
MW-4	04/07/04	29.58	15.64	13.94	1900	<10	<10	<10	<20	--	2200	
MW-4	07/23/04	29.58	16.58	13.00	1800	<10	<10	<10	<20	--	1600	
MW-4	10/12/04	--	--	--	--	--	--	--	--	--	--	
MW-4	01/29/05	29.58	14.90	14.68	<1300	<13	<13	<13	<25	--	3900	
MW-4	04/28/05	29.58	15.18	14.40	510	<1.5	<1.5	<1.5	<1.5	--	510	
MW-4	07/19/05	29.58	16.48	13.10	5400	<50	<50	<50	<100	--	2700	
MW-4	10/18/05	29.58	16.99	12.59	10000	<50	<50	<50	<50	--	9000	
MW-4	01/23/06	29.58	15.09	14.49	10000	<100	<100	<100	<200	--	8300	
MW-4	04/12/06	29.58	13.49	16.09	1900	<10	<10	<10	<20	--	2200	
MW-4	07/10/06	29.58	14.99	14.59	750	5.4	<5.0	<5.0	<10	--	790	
MW-4	10/16/06	29.58	17.29	12.29	2400	<10	<10	<10	<10	--	2200	
MW-4	01/26/07	29.58	18.17	11.41	250	<1.5	<1.5	<1.5	<1.5	--	7000	
MW-4	04/18/07	29.58	18.06	11.52	<400	<4.0	<4.0	<4.0	<4.0	--	2300	
MW-4	02/08/07	29.58	18.45	11.13	400	<4.0	<4.0	<4.0	<4.0	--	4500	
MW-4	10/23/07	29.58	18.99	10.59	<500	<5.0	<5.0	<5.0	<5.0	--	3400	
MW-4	01/30/08	29.58	18.14	11.44	580	89	1.5	< 0.90	2.5	--	500	
MW-4	04/18/08	29.58	18.49	11.09	660	13	0.58	0.51	0.94	--	180	
MW-4	07/28/08	29.58	19.15	10.43	520	19	0.97	1.4	2.6	--	71	
MW-4	10/29/08	29.58	19.53	10.05	480	38	1.8	4.5	4.3	--	420	
MW-4	01/26/09	29.58	19.52	10.06	470	51	2.2	4.2	5.2	--	180	
MW-4	08/03/09	32.56	18.91	13.65	320	62	<0.5	0.59	<0.5	--	120	
MW-4	01/25/10	32.56	18.51	14.05	820	110	1.9	1.3	5.5	--	8.8	
MW-4	03/08/10	32.56	18.45	14.11	500	8.6	0.84	<0.50	1.4	--	43	
MW-4	02/17/11	32.56	18.46	14.10	440	4.9	<0.50	<0.50	0.87	--	40	
MW-4	08/23/11	32.56	18.88	13.68	630	36	1.3	0.69	3.6	32	--	
MW-4	02/07/12	32.56	19.09	13.47	210	<0.50	<0.50	<0.50	<1.0	17	--	
MW-4	08/09/12	32.56	18.16	14.40	280	2	<0.50	<0.50	<1.0	21	--	
MW-4	02/27/13	32.56	18.50	14.06	170	1.8	<0.50	<0.50	<1.0	22	--	
MW-4	08/15/13	35.05	19.34	15.71	98	<0.50	<0.50	<0.50	<1.0	25	--	
MW-4	02/06/14	35.05	20.09	14.96	<50	<0.50	<0.50	<0.50	<1.0	9.4	--	

Table 2
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)
726 Harrison Street											
MW-5	08/29/01	29.06	17.42	11.64	14000	1300	470	230	800	--	14000
MW-5	01/18/02	29.06	15.68	13.38	24000	3200	1300	390	1500	--	5700
MW-5	04/11/02	29.06	16.17	12.89	23000	2700	980	38	950	--	4300
MW-5	07/08/02	29.06	16.51	12.55	19000	3300	25	360	1100	--	2100
MW-5	10/09/02	29.06	17.10	11.96	24000	2800	990	360	820	--	2400
MW-5	01/29/03	29.06	16.58	12.48	17000	2100	1400	380	1400	--	<250
MW-5	04/11/03	29.06	16.87	12.19	26000	2900	2200	590	2200	--	630
MW-5	07/18/03	29.06	16.77	12.29	26000	3500	1700	480	1300	--	1300
MW-5	10/09/03	29.06	17.21	11.85	27000	3800	1900	510	1700	--	1200
MW-5	01/28/04	29.06	16.34	12.72	29000	4800	2900	770	2300	--	3300
MW-5	04/07/04	29.06	15.38	13.68	23000	4400	2700	720	2200	--	1700
MW-5	07/23/04	29.06	16.55	12.51	29000	5200	2200	810	1400	--	2200
MW-5	10/12/04	29.06	17.02	12.04	26000	4300	2000	670	1300	--	2200
MW-5	01/29/05	29.06	15.23	13.83	NA	NA	NA	NA	NA	--	NA
MW-5	04/28/05	29.06	15.41	13.65	NA	NA	NA	NA	NA	--	NA
MW-5	07/19/05	29.06	16.79	12.27	NA	NA	NA	NA	NA	--	NA
MW-5	10/18/05	29.06	17.28	11.78	NA	NA	NA	NA	NA	--	NA
MW-5	01/23/06	29.06	15.28	13.78	21000	1800	1200	270	820	--	13000
MW-5	04/12/06	29.06	13.66	15.40	NA	NA	NA	NA	NA	--	NA
MW-5	07/10/06	29.06	16.14	12.92	45000	3700	2600	650	1800	--	23000
MW-5	10/16/06	29.06	19.33	9.73	66000	4200	3300	800	2100	--	35000
MW-5	01/26/07	29.06	18.94	10.12	30000	3200	2600	610	2400	--	38000
MW-5	04/18/07	29.06	18.21	10.85	30000	4300	3300	800	2600	--	27000
MW-5	08/02/07	29.06	19.00	10.06	26000	3700	2800	690	1900	--	32000
MW-5	10/23/07	29.06	19.15	9.91	34000	4400	3700	860	3200	--	34000
MW-5	01/30/08	29.06	18.21	10.85	28000	3900	2800	750	2300	--	26000
MW-5	04/18/08	29.06	18.61	10.45	30000	4300	3200	810	2000	--	32000
MW-5	07/28/08	29.06	19.23	9.83	34000	3700	3000	740	2900	--	28000
MW-5	10/29/08	29.06	19.62	9.44	29000	3300	2900	680	2800	--	27000
MW-5	01/26/09	29.06	19.51	9.55	19000	2100	1500	410	1500	--	18000
MW-5	03/08/09	32.06	19.00	13.06	28000	3500	2800	630	2600	--	28000
MW-5	01/25/10	32.06	18.43	13.63	12000	1400	750	270	900	--	7500
MW-5	03/08/10	32.06	18.50	13.56	24000	3300	2200	620	1700	--	26000
MW-5	02/17/11	32.06	18.47	13.59	27000	3500	1900	630	2200	--	24000
MW-5	08/23/11	32.06	19.02	13.04	19000	1100	400	190	390	14000	--
MW-5	02/07/12	32.06	19.16	12.90	19000	890	410	360	990	17000	--
MW-5	08/09/12	32.06	18.24	13.82	16000	1400	580	470	960	16000	--
MW-5	02/27/13	32.06	--	--	--	--	--	--	--	--	--
MW-5	08/15/13	32.06	19.40	12.66	8000	1900	590	390	1100	20000	--
MW-5	02/06/14	34.76	21.45	13.31	3400	1900	150	240	220	7600	--
726 Harrison Street											
MW-6	08/23/11	32.04	28.35	3.69	500	<0.50	<0.50	<0.50	<1.0	740	--
MW-6	02/07/12	32.04	26.53	5.51	410	<0.50	<0.50	<0.50	<1.0	970	--
MW-6	08/09/12	32.04	28.27	3.77	830	<0.50	<0.50	<0.50	<1.0	970	--
MW-6	02/27/13	32.04	26.48	5.56	<50	<0.50	<0.50	<0.50	<1.0	970	--
MW-6	08/15/13	34.53	28.85	5.68	58	<0.50	<0.50	<0.50	<1.0	1000	--
MW-6	02/06/14	34.53	27.50	7.03	<50	<0.50	<0.50	<0.50	<1.0	1100	--

Table 2
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B	
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	
800 Harrison Street												
MW-1	06/05/91	34.94	--	--	ND	ND	ND	ND	ND	--	--	
MW-1	09/30/91	34.94	--	--	ND	ND	ND	ND	ND	--	--	
MW-1	12/30/91	34.94	--	--	ND	ND	ND	ND	ND	--	--	
MW-1	04/02/92	34.94	--	--	ND	ND	ND	ND	ND	--	--	
MW-1	06/30/92	34.94	--	--	ND	ND	ND	ND	ND	--	--	
MW-1	09/15/92	34.94	--	--	76	1	ND	ND	ND	--	--	
MW-1	12/21/92	34.94	21.17	13.77	95	0.69	ND	ND	1	--	--	
MW-1	04/28/93	34.94	--	--	920	3.1	2.3	1.2	9.7	--	--	
MW-1	07/23/93	34.94	20.13	14.81	ND	0.5	0.66	ND	ND	--	--	
MW-1	10/05/93	34.69	20.30	14.39	92	1.5	ND	ND	0.72	--	--	
MW-1	01/03/94	34.69	20.52	14.17	ND	ND	ND	ND	ND	--	--	
MW-1	04/02/94	34.69	20.16	14.53	ND	ND	ND	ND	ND	--	--	
MW-1	07/05/94	34.69	19.27	15.42	250	4.8	13	1.2	7.3	--	--	
MW-1	10/06/94	34.69	20.87	13.82	540	1.4	ND	0.66	11	--	--	
MW-1	01/02/95	34.69	19.67	15.02	140	ND	ND	ND	ND	--	--	
MW-1	04/03/95	34.69	17.61	17.08	580	3.6	0.8	ND	4	--	--	
MW-1	07/14/95	34.69	18.58	16.11	260	2.1	ND	ND	1.2	--	--	
MW-1	10/10/95	34.69	19.60	15.09	220	2	ND	25	5.6	--	29	
MW-1	01/03/96	34.69	19.69	15.00	190	2.4	ND	0.71	1.2	--	--	
MW-1	04/10/96	34.69	17.65	17.04	540	8.9	1.7	1.5	7.4	--	50	
MW-1	07/09/96	34.69	18.52	16.17	490	3	1.4	1.3	2.5	--	150	
MW-1	01/24/97	34.69	17.72	16.97	760	27	0.89	5.2	10	--	510	
MW-1	07/23/97	34.69	19.42	15.27	ND	ND	ND	ND	ND	--	550	
MW-1	01/26/98	34.69	17.46	17.23	1800	ND	ND	ND	ND	--	4800	
MW-1	07/03/98	34.69	18.61	16.08	ND	ND	ND	ND	ND	--	1800	
MW-1	01/14/99	34.69	18.92	15.77	83	ND	ND	ND	ND	--	230	
MW-1	07/15/99	34.69	17.84	16.85	110	ND	ND	ND	1	--	290	
MW-1	01/07/00	34.69	19.13	15.56	ND	ND	ND	ND	ND	--	260	
MW-1	07/19/00	34.69	20.27	14.42	ND	ND	ND	ND	ND	--	648	
MW-1	01/02/01	34.69	20.04	14.65	ND	ND	ND	ND	ND	--	119	
MW-1	05/23/01	34.69	18.27	16.42	84	ND	ND	ND	ND	--	760	
MW-1	07/30/01	34.69	18.56	16.13	<50	<0.50	<0.50	<0.50	<0.50	--	350	
MW-1	10/15/01	34.69	18.72	15.97	96	<0.50	<0.50	<0.50	<0.50	--	160	
MW-1	01/14/02	34.69	16.78	17.91	450	<2.5	<2.5	<2.5	3.3	--	4100	
MW-1	04/15/02	34.69	17.35	17.34	<1000	<10	<10	<10	<10	--	10000	
MW-1	07/15/02	34.69	17.63	17.06	2100	<10	<10	<10	<20	2100	--	
MW-1	01/18/03	34.69	17.04	17.65	<25000	<250	<250	<250	<500	29000	--	
MW-1	07/11/03	34.69	17.91	16.78	4000	<25	<25	<25	<50	6300	--	
MW-1	02/04/04	34.69	17.98	16.71	8000	<50	<50	<50	<100	8500	--	
MW-1	08/11/04	34.69	17.84	16.85	1100	<10	<10	<10	<20	1500	--	
MW-1	03/31/05	34.69	15.71	18.98	<2000	<0.50	<0.50	0.54	2.2	4900	--	
MW-1	09/30/05	34.69	17.65	17.04	190	<0.50	<0.50	<0.50	<1.0	160	--	
MW-1	03/27/06	34.69	15.03	19.66	760	<0.50	<0.50	<0.50	<1.0	1000	--	
MW-1	09/27/06	34.69	18.45	16.24	170	<0.50	<0.50	<0.50	0.61	73	--	
MW-1	03/27/07	34.69	18.84	15.85	120	<0.50	<0.50	<0.50	<0.50	99	--	
MW-1	09/28/07	34.69	19.73	14.96	68	<0.50	<0.50	<0.50	<0.50	15	--	
MW-1	03/26/08	34.69	19.32	15.37	200	<0.50	<0.50	<0.50	1	47	--	
MW-1	07/28/08	34.69	20.15	14.54	<50	<0.50	<0.50	<0.50	<1.0	8.7	--	
MW-1	01/26/09	34.69	20.74	13.95	<50	<0.50	<0.50	<0.50	<1.0	5.2	--	
MW-1	08/03/09	34.72	20.10	14.62	76	<0.50	<0.50	<0.50	<1.0	12	--	
MW-1	01/25/10	34.72	19.78	14.94	<50	<0.50	<0.50	<0.50	<1.0	14	--	
MW-1	08/03/10	34.72	19.47	15.25	210	<0.50	<0.50	<0.50	<1.0	37	--	
MW-1	02/17/11	34.72	19.50	15.22	150	<0.50	<0.50	<0.50	<1.0	17	--	
MW-1	08/03/11	34.72	18.96	15.76	230	<0.50	<0.50	<0.50	<1.0	44	--	
MW-1	02/07/12	34.72	20.00	14.72	97	<0.50	<0.50	<0.50	<1.0	8.6	--	
MW-1	08/09/12	34.72	19.14	15.58	140	<0.50	<0.50	<0.50	<1.0	18	--	
MW-1	02/27/13	34.72	19.41	15.31	50	<0.50	<0.50	<0.50	<1.0	6.7	--	
MW-1	08/15/13	34.72	20.20	14.52	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
MW-1	02/06/14	34.72	21.09	13.63	<50	<0.50	<0.50	<0.50	<1.0	1.6	--	

Table 2
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B	
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	
800 Harrison Street												
MW-2	06/05/91	34.97	--	--	49	ND	ND	ND	ND	--	--	
MW-2	09/30/91	34.97	--	--	130	18	0.53	14	9.6	--	--	
MW-2	12/30/91	34.97	--	--	91	16	0.89	11	1.9	--	--	
MW-2	04/02/92	34.97	--	--	88	12	0.32	6.3	7.2	--	--	
MW-2	06/30/92	34.97	--	--	76	9.3	0.76	4.8	6.9	--	--	
MW-2	09/15/92	34.97	--	--	1300	91	5.7	80	110	--	--	
MW-2	12/21/92	34.97	20.85	14.12	960	97	3.2	74	96	--	--	
MW-2	04/28/93	34.97	--	--	1300	76	1.9	130	87	--	--	
MW-2	07/23/93	34.97	19.81	15.16	66	1.8	ND	2.5	2	--	--	
MW-2	10/05/93	34.72	19.95	14.77	120	12	ND	2.1	12	--	--	
MW-2	01/03/94	34.72	20.21	14.51	260	25	ND	5.5	26	--	--	
MW-2	04/02/94	34.72	19.88	14.84	ND	0.65	ND	ND	0.99	--	--	
MW-2	07/05/94	34.72	19.07	15.65	160	16	ND	0.73	10	--	--	
MW-2	10/06/94	34.72	20.55	14.17	170	15	ND	1.4	11	--	--	
MW-2	01/02/95	34.72	19.25	15.47	190	27	ND	0.95	11	--	--	
MW-2	04/03/95	34.72	17.49	17.23	2400	65	6.6	19	63	--	--	
MW-2	07/14/95	34.72	18.30	16.42	750	270	ND	ND	13	--	--	
MW-2	10/10/95	34.72	19.25	15.47	50	1.6	ND	ND	ND	--	200	
MW-2	01/03/96	34.72	19.40	15.32	ND	ND	ND	ND	ND	--	--	
MW-2	04/10/96	34.72	17.35	17.37	300	42	ND	2.4	9	--	620	
MW-2	07/09/96	34.72	18.22	16.50	760	230	ND	1.3	2.4	--	1500	
MW-2	01/24/97	34.72	17.59	17.13	2900	400	350	190	720	--	1300	
MW-2	07/23/97	34.72	19.13	15.59	ND	ND	ND	ND	ND	--	65	
MW-2	01/26/98	34.72	17.12	17.60	ND	ND	ND	ND	0.58	--	13	
MW-2	07/03/98	34.72	18.20	16.52	140	26	ND	0.95	5	--	330	
MW-2	01/14/99	34.72	18.56	16.16	ND	0.54	ND	ND	ND	--	350	
MW-2	07/15/99	34.72	17.39	17.33	ND	0.88	ND	ND	ND	--	39	
MW-2	01/07/00	34.72	18.78	15.94	ND	ND	ND	ND	ND	--	24	
MW-2	07/19/00	34.72	19.68	15.04	ND	1.45	ND	ND	ND	--	117	
MW-2	01/02/01	34.72	19.73	14.99	ND	ND	ND	ND	ND	--	11.4	
MW-2	05/23/01	34.72	18.16	16.56	ND	ND	ND	ND	ND	--	33	
MW-2	07/30/01	34.72	18.34	16.38	<50	<0.50	<0.50	<0.50	<0.50	--	67	
MW-2	10/15/01	34.72	18.52	16.20	<50	<0.50	<0.50	<0.50	<0.50	--	31	
MW-2	01/14/02	34.72	16.72	18.00	<50	<0.50	<0.50	<0.50	0.56	--	11	
MW-2	04/15/02	34.72	17.26	17.46	<50	<0.50	<0.50	<0.50	<0.50	--	110	
MW-2	07/15/02	34.72	17.46	17.26	270	21	<0.50	3.8	4	73	--	
MW-2	01/18/03	34.72	16.93	17.79	<50	<0.50	<0.50	<0.50	<1.0	22	--	
MW-2	07/11/03	34.72	17.68	17.04	130	3	<0.50	<0.50	<1.0	89	--	
MW-2	02/04/04	34.72	17.36	17.36	61	2.9	<0.50	<0.50	<1.0	22	--	
MW-2	08/11/04	34.72	17.61	17.11	140	<0.50	0.6	<0.50	<1.0	94	--	
MW-2	03/31/05	34.72	15.56	19.16	<50	<0.50	<0.50	<0.50	<1.0	14	--	
MW-2	09/30/05	34.72	17.31	17.41	<50	<0.50	<0.50	<0.50	<1.0	9.1	--	
MW-2	03/27/06	34.72	14.91	19.81	<50	<0.50	<0.50	<0.50	<1.0	2.7	--	
MW-2	09/27/06	34.72	18.15	16.57	<50	<0.50	<0.50	<0.50	<0.50	7.7	--	
MW-2	03/27/07	34.72	18.57	16.15	<50	<0.50	<0.50	<0.50	<0.50	1.4	--	
MW-2	09/28/07	34.72	18.38	16.34	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	
MW-2	03/26/08	34.72	19.06	15.66	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
MW-2	07/28/08	34.72	19.90	14.82	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
MW-2	01/26/09	34.72	20.50	14.22	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
MW-2	08/03/09	34.74	19.92	14.82	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
MW-2	01/25/10	34.74	19.70	15.04	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
MW-2	08/03/10	34.74	19.26	15.48	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
MW-2	02/17/11	34.74	19.32	15.42	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
MW-2	08/03/11	34.74	18.74	16.00	77	6.7	<0.50	<0.50	<1.0	14	--	
MW-2	02/07/12	34.74	19.77	14.97	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
MW-2	08/09/12	34.74	18.89	15.85	<50	<0.50	<0.50	<0.50	<1.0	4.7	--	
MW-2	02/27/13	34.74	19.16	15.58	<50	<0.50	<0.50	<0.50	<1.0	9.6	--	
MW-2	08/15/13	34.74	19.99	14.75	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
MW-2	02/06/14	34.74	20.82	13.92	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	

Table 2
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B	
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	
800 Harrison Street												
MW-3	06/05/91	33.39	--	--	5800	1200	40	140	97	--	--	
MW-3	09/30/91	33.39	--	--	6800	1400	130	290	240	--	--	
MW-3	12/30/91	33.39	--	--	7200	2100	690	410	550	--	--	
MW-3	04/02/92	33.39	--	--	8000	1400	200	300	310	--	--	
MW-3	06/30/92	33.39	--	--	8900	1900	210	430	550	--	--	
MW-3	09/15/92	33.39	--	--	10000	1900	330	400	580	--	--	
MW-3	12/21/92	33.39	20.02	13.37	8500	1500	150	310	330	--	--	
MW-3	04/28/93	33.39	--	--	2600	220	7.6	41	27	--	--	
MW-3	07/23/93	33.39	19.00	14.39	4400	660	26	160	82	--	--	
MW-3	10/05/93	33.14	19.20	13.94	9200	720	88	140	140	--	--	
MW-3	01/03/94	33.14	19.40	13.74	4900	830	100	170	150	--	--	
MW-3	04/02/94	33.14	19.01	14.13	6000	800	30	140	110	--	--	
MW-3	07/05/94	33.14	18.14	15.00	25000	ND	ND	ND	ND	--	--	
MW-3	10/06/94	33.14	19.73	13.41	49000	1300	200	280	300	--	--	
MW-3	01/02/95	33.14	18.36	14.78	480	1.6	ND	1.4	ND	--	--	
MW-3	04/03/95	33.14	16.38	16.76	8100	65	ND	ND	ND	--	--	
MW-3	07/14/95	33.14	17.49	15.65	ND	1300	ND	ND	ND	--	--	
MW-3	10/10/95	33.14	18.50	14.64	3100	1400	36	50	53	--	190000	
MW-3	01/03/96	33.14	18.54	14.60	ND	2300	110	150	140	--	--	
MW-3	07/09/96	33.14	17.43	15.71	ND	2000	ND	150	160	--	140000	
MW-3	01/24/97	33.14	16.57	16.57	540	8	ND	11	9.9	--	45	
MW-3	07/23/97	33.14	18.38	14.76	7400	1900	180	140	340	--	45000	
MW-3	01/26/98	33.14	16.22	16.92	250	2.2	1.9	0.87	1.9	--	4	
MW-3	07/03/98	33.14	17.46	15.68	230	1.8	2.5	1.5	3.4	--	6.3	
MW-3	01/14/99	33.14	17.73	15.41	400	8.2	2.7	0.9	5.9	--	140	
MW-3	07/15/99	33.14	16.58	16.56	290	3.3	3.6	1.7	2.5	--	13	
MW-3	01/07/00	33.14	17.84	15.30	ND	890	91	100	480	--	20000	
MW-3	07/19/00	33.14	18.92	14.22	354	3.87	2.61	0.646	ND	--	13.7	
MW-3	01/02/01	33.14	19.07	14.07	464	ND	3.69	3.91	ND	--	21.1	
MW-3	05/23/01	33.14	17.12	16.02	420	7.6	3.1	3	5.1	--	1900	
MW-3	07/30/01	33.14	17.38	15.76	290	4.6	4.1	<0.50	3.4	--	23	
MW-3	10/15/01	33.14	17.61	15.53	400	<0.50	<0.50	<0.50	<0.50	--	13	
MW-3	01/14/02	33.14	15.53	17.61	130	0.5	0.61	1.1	<0.50	--	9.9	
MW-3	04/15/02	33.14	16.12	17.02	280	9.9	1.6	3.3	6.8	--	1400	
MW-3	07/15/02	33.14	16.48	16.66	64	<0.50	<0.50	<0.50	<1.0	--	33	
MW-3	01/18/03	33.14	15.81	17.33	420	0.54	<0.50	<0.50	<1.0	--	130	
MW-3	07/11/03	33.14	16.74	16.40	300	2.3	<0.50	<0.50	<1.0	31	--	
MW-3	02/04/04	33.14	16.15	16.99	130	7.9	<0.50	<0.50	<1.0	63	--	
MW-3	08/11/04	33.14	16.64	16.50	<20000	<200	<200	<200	<400	20000	--	
MW-3	03/31/05	33.14	14.53	18.61	<20000	330	<200	<200	<400	78000	--	
MW-3	09/30/05	33.14	16.55	16.59	12000	360	40	<25	50	20000	--	
MW-3	03/27/06	33.14	13.66	19.48	10000	150	<25	53	99	15000	--	
MW-3	09/27/06	33.14	17.40	15.74	<12000	<120	<120	<120	<120	12000	--	
MW-3	03/27/07	33.14	17.55	15.59	8700	180	<12	60	57	8900	--	
MW-3	09/28/07	33.14	18.59	14.55	9000	55	<50	<50	<50	11000	--	
MW-3	03/26/08	33.14	18.19	14.95	450	13	1.3	0.84	1.4	7200	--	
MW-3	07/28/08	33.14	19.00	14.14	8300	<50	<50	<50	<100	13000	--	
MW-3	01/26/09	33.14	19.54	13.60	8800	27	<12	<12	<25	13000	--	
MW-3	08/03/09	33.18	18.90	14.28	9300	56	<50	<50	<100	8000	--	
MW-3	01/25/10	33.18	18.54	14.64	4900	79	7.3	5.4	13	8100	--	
MW-3	08/03/10	33.18	18.35	14.83	2500	30	<12	<12	<25	4600	--	
MW-3	02/17/11	33.18	18.30	14.88	3800	11	<5.0	<5.0	<10	4700	--	
MW-3	08/03/11	33.18	17.87	15.31	2600	9.7	0.8	3.1	1.4	2000	--	
MW-3	02/07/12	33.18	18.88	14.30	1800	6.7	<1.0	1.9	<2.0	1600	--	
MW-3	08/09/12	33.18	18.02	15.16	1400	1.8	<0.50	1.5	<1.0	370	--	
MW-3	02/27/13	33.18	18.36	14.82	1600	4.4	0.69	2.8	<1.0	820	--	
MW-3	08/15/13	33.18	19.17	14.01	410	4.0	<0.50	1.4	<1.0	340	--	
MW-3	02/06/14	33.18	19.96	13.22	1,300	7.9	0.87	1.7	5.2	760	--	

Table 2
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B	
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	
800 Harrison Street												
MW-4	10/19/92	--	--	--	480	0.51	2.1	2.8	6.8	--	--	
MW-4	12/21/92	33.12	19.73	13.39	220	ND	ND	0.97	0.74	--	--	
MW-4	04/28/93	33.12	--	--	ND	ND	ND	ND	ND	--	--	
MW-4	07/23/93	33.12	18.72	14.40	85	ND	ND	ND	ND	--	--	
MW-4	10/05/93	32.71	18.74	13.97	130	ND	ND	ND	ND	--	--	
MW-4	01/03/94	32.71	18.93	13.78	210	ND	ND	0.76	1.6	--	--	
MW-4	04/02/94	32.71	18.53	14.18	89	ND	ND	ND	ND	--	--	
MW-4	07/05/94	32.71	17.67	15.04	190	ND	ND	ND	ND	--	--	
MW-4	10/06/94	32.71	19.25	13.46	170	0.85	ND	ND	0.74	--	--	
MW-4	01/02/95	32.71	17.75	14.96	ND	ND	ND	ND	ND	--	--	
MW-4	04/03/95	32.71	15.87	16.84	98	ND	ND	ND	ND	--	--	
MW-4	07/14/95	32.71	17.01	15.70	ND	ND	ND	ND	ND	--	--	
MW-4	10/10/95	32.71	18.03	14.68	ND	ND	ND	ND	ND	--	120	
MW-4	01/03/96	32.71	18.05	14.66	ND	ND	ND	ND	ND	--	--	
MW-4	04/10/96	32.71	16.00	16.71	ND	ND	ND	ND	ND	--	240	
MW-4	07/09/96	32.71	16.96	15.75	ND	ND	ND	ND	ND	--	480	
MW-4	01/24/97	32.71	16.04	16.67	ND	ND	ND	ND	ND	--	270	
MW-4	07/23/97	32.71	17.87	14.84	ND	ND	ND	ND	ND	--	460	
MW-4	01/26/98	32.71	16.05	16.66	ND	ND	ND	ND	ND	--	17	
MW-4	07/03/98	32.71	16.95	15.76	ND	ND	ND	ND	ND	--	3.8	
MW-4	01/14/99	32.71	17.34	15.37	ND	ND	ND	ND	ND	--	4600	
MW-4	07/15/99	32.71	16.36	16.35	ND	ND	ND	ND	ND	--	ND	
MW-4	01/07/00	32.71	17.81	14.90	ND	ND	ND	ND	ND	--	450	
MW-4	07/19/00	32.71	18.94	13.77	ND	ND	ND	ND	ND	--	ND	
MW-4	01/02/01	32.71	18.85	13.86	ND	ND	ND	ND	ND	--	ND	
MW-4	05/23/01	32.71	16.82	15.89	ND	ND	ND	ND	ND	--	ND	
MW-4	07/30/01	32.71	16.88	15.83	<50	<0.50	<0.50	<0.50	<0.50	--	4.9	
MW-4	10/15/01	32.71	17.08	15.63	<50	<0.50	<0.50	<0.50	<0.50	--	<5.0	
MW-4	01/14/02	32.71	14.97	17.74	<50	<0.50	<0.50	<0.50	<0.50	--	30	
MW-4	04/15/02	32.71	15.48	17.23	<50	<0.50	<0.50	<0.50	<0.50	--	180	
MW-4	07/15/02	32.71	15.90	16.81	<50	<0.50	<0.50	<0.50	<1.0	--	50	
MW-4	01/18/03	32.71	15.39	17.32	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	
MW-4	07/11/03	32.71	16.17	16.54	200	<0.50	<0.50	<0.50	<1.0	52	--	
MW-4	02/04/04	32.71	16.12	16.59	1300	<10	<10	<10	<20	1700	--	
MW-4	08/11/04	32.71	16.16	16.55	<5000	<50	<50	<50	<100	6400	--	
MW-4	03/31/05	32.71	14.15	18.56	<1300	<0.50	<0.50	<0.50	<1.0	1600	--	
MW-4	09/30/05	32.71	16.91	15.80	900	<0.50	<0.50	<0.50	<1.0	3800	--	
MW-4	03/27/06	32.71	13.94	18.77	870	<0.50	<0.50	<0.50	<1.0	2000	--	
MW-4	09/27/06	32.71	16.91	15.80	<1000	<10	<10	<10	<10	1600	--	
MW-4	03/27/07	32.71	17.15	15.56	1500	<2.5	<2.5	<2.5	<2.5	1700	--	
MW-4	09/28/07	32.71	18.13	14.58	590	<5.0	<5.0	<5.0	<5.0	1400	--	
MW-4	03/26/08	32.71	17.66	15.05	390	<0.50	<0.50	<0.50	<1.0	1400	--	
MW-4	07/28/08	32.71	18.34	14.37	480	<1.0	<1.0	<1.0	<2.0	950	--	
MW-4	01/26/09	32.71	18.80	13.91	500	<0.50	<0.50	<0.50	<1.0	830	--	
MW-4	08/03/09	32.72	18.43	14.29	640	<5.0	6.6	<5.0	<1.0	570	--	
MW-4	01/25/10	32.72	18.02	14.70	190	<0.50	<0.50	<0.50	<1.0	400	--	
MW-4	08/03/10	32.72	17.83	14.89	58	<0.50	<0.50	<0.50	<1.0	110	--	
MW-4	02/17/11	32.72	17.85	14.87	<50	<0.50	<0.50	<0.50	<1.0	12	--	
MW-4	08/03/11	32.72	17.36	40725.28	<50	<0.50	<0.50	<0.50	<1.0	12	--	
MW-4	02/07/12	32.72	18.38	14.34	<50	<0.50	<0.50	<0.50	<1.0	1.5	--	
MW-4	08/09/12	32.72	17.55	15.17	<50	<0.50	<0.50	<0.50	<1.0	1.3	--	
MW-4	02/27/13	32.72	17.83	14.89	<50	<0.50	<0.50	<0.50	<1.0	1.1	--	
MW-4	08/15/13	32.72	18.70	14.02	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
MW-4	02/06/14	32.72	19.48	13.24	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	

Table 2
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B	
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	
800 Harrison Street												
MW-5	10/19/92	--	--	--	2700	61	5	100	61	--	--	--
MW-5	12/21/92	33.25	19.75	13.50	1700	51	4.7	83	34	--	--	--
MW-5	04/28/93	33.25	--	--	6700	200	190	250	430	--	--	--
MW-5	07/23/93	33.25	18.74	14.51	2000	122	8	68	47	--	--	--
MW-5	10/05/93	32.95	18.83	14.12	1700	70	6.2	54	40	--	--	--
MW-5	01/03/94	32.95	19.05	13.90	1500	44	ND	42	46	--	--	--
MW-5	04/02/94	32.95	18.68	14.27	1800	46	5.1	38	35	--	--	--
MW-5	07/05/94	32.95	17.90	15.05	2200	97	8.4	37	36	--	--	--
MW-5	10/06/94	32.95	19.37	13.58	1600	79	5.7	28	22	--	--	--
MW-5	01/02/95	32.95	17.92	15.03	1700	50	8.6	30	28	--	--	--
MW-5	04/03/95	32.95	16.15	16.80	5400	190	240	170	420	--	--	--
MW-5	07/14/95	32.95	17.18	15.77	3800	210	100	130	190	--	--	--
MW-5	10/10/95	32.95	18.15	14.80	1300	92	14	15	39	--	1100	--
MW-5	01/03/96	32.95	18.20	14.75	630	53	4.4	8.3	13	--	--	--
MW-5	04/10/96	32.95	16.05	16.90	500	25	18	7	20	--	640	--
MW-5	07/09/96	32.95	17.11	15.84	1000	44	20	10	34	--	150	--
MW-5	01/24/97	32.95	16.36	16.59	4000	190	400	160	430	--	600	--
MW-5	07/23/97	32.95	18.08	14.87	1700	200	23	18	45	--	2500	--
MW-5	01/26/98	32.95	16.27	16.68	ND	ND	ND	ND	ND	--	ND	--
MW-5	07/03/98	32.95	17.27	15.68	ND	ND	ND	ND	ND	--	ND	--
MW-5	01/14/99	32.95	17.55	15.40	330	61	4.1	2.2	2.9	--	560	--
MW-5	07/15/99	32.95	16.41	16.54	1100	170	ND	ND	27	--	660	--
MW-5	01/07/00	32.95	17.85	15.10	1000	180	6.3	ND	14	--	430	--
MW-5	07/19/00	32.95	18.87	14.08	2980	289	57.3	65.3	43.4	--	976	--
MW-5	01/02/01	32.95	18.47	14.48	1150	87.2	17.8	7.97	9.32	--	368	--
MW-5	05/23/01	32.95	17.38	15.57	840	42	10	13	7.1	--	130	--
MW-5	07/30/01	32.95	17.12	15.83	1900	82	24	6.9	13	--	370	--
MW-5	10/15/01	32.95	17.33	15.62	26000	390	230	58	1300	--	<500	--
MW-5	01/14/02	32.95	15.33	17.62	<50	<0.50	<0.50	<0.50	<0.50	--	<2.5	--
MW-5	04/15/02	32.95	15.89	17.06	310	20	6.7	11	7.7	--	77	--
MW-5	07/15/02	32.95	16.21	16.74	1500	40	22	60	28	--	170	--
MW-5	01/18/03	32.95	15.68	17.27	<50	0.75	<0.50	<0.50	<1.0	--	81	--
MW-5	07/11/03	32.95	16.29	16.66	<50	<0.50	<0.50	<0.50	<1.0	3.6	--	--
MW-5	02/04/04	32.95	16.08	16.87	82	16	1.6	0.65	<1.0	16	--	--
MW-5	08/11/04	32.95	16.38	16.57	900	81	14	2.8	11	120	--	--
MW-5	03/31/05	32.95	14.30	18.65	5000	160	84	65	72	140	--	--
MW-5	09/30/05	32.95	16.19	16.76	1200	26	5.8	2.4	9.2	38	--	--
MW-5	03/27/06	32.95	13.90	19.05	1100	13	12	4.7	16	8.8	--	--
MW-5	09/27/06	32.95	17.06	15.89	1300	20	11	2.3	15	21	--	--
MW-5	03/27/07	32.95	17.43	15.52	960	15	7.8	2.2	11	14	--	--
MW-5	09/28/07	32.95	18.25	14.70	1300	13	6	2.3	15	8.4	--	--
MW-5	03/26/08	32.95	17.82	15.13	1200	7.6	3.3	1.8	11	2.7	--	--
MW-5	07/28/08	32.95	18.70	14.25	2000	12	4.9	3.2	17	<0.50	--	--
MW-5	01/26/09	32.95	19.25	13.70	1400	7.4	3.3	2.5	11	3.3	--	--
MW-5	08/03/09	32.98	18.62	14.36	1500	17	9	3.5	22	7.3	--	--
MW-5	01/25/10	32.98	18.34	14.64	1600	7.6	3.6	2.4	15	1.7	--	--
MW-5	08/03/10	32.98	18.07	14.91	2200	32	32	10	48	10	--	--
MW-5	02/17/11	32.98	18.05	14.93	1800	33	7.4	<0.50	11	15	--	--
MW-5	08/03/11	32.98	17.57	15.41	2500	58	23	12	34	40	--	--
MW-5	02/07/12	32.98	18.59	14.39	1600	58	11	3.0	25	10	--	--
MW-5	08/09/12	32.98	17.73	15.25	1900	81	18	10	22	19	--	--
MW-5	02/27/13	32.98	17.98	15.00	1300	58	11	2.4	13	8.0	--	--
MW-5	08/15/13	32.98	18.88	14.10	50	24	6.1	2.0	9.2	6.7	--	--
MW-5	02/06/14	32.98	19.63	13.35	1,400	13	7.4	2.3	13	1.8	--	--

Table 2
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B	
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	
800 Harrison Street												
MW-6	10/19/92	--	--	--	3900	420	12	60	28	--	--	
MW-6	12/21/92	32.42	19.17	13.25	2300	370	11	39	15	--	--	
MW-6	04/28/93	32.42	--	--	1200	54	1.5	11	5.3	--	--	
MW-6	07/23/93	32.42	18.17	14.25	580	19	0.99	3.4	2.7	--	--	
MW-6	10/05/93	32.16	18.35	13.81	1400	34	ND	5.3	7.3	--	--	
MW-6	01/03/94	32.16	18.54	13.62	1400	57	ND	8.5	11	--	--	
MW-6	04/02/94	32.16	18.15	14.01	5300	ND	ND	ND	ND	--	--	
MW-6	07/05/94	32.16	17.25	14.91	ND	ND	ND	ND	ND	--	--	
MW-6	10/06/94	32.16	18.85	13.31	11000	ND	ND	ND	ND	--	--	
MW-6	01/02/95	32.16	17.51	14.65	550	18	0.92	2	1.8	--	--	
MW-6	04/03/95	32.16	15.48	16.68	6600	ND	ND	ND	ND	--	--	
MW-6	07/14/95	32.16	16.63	15.53	ND	ND	ND	ND	ND	--	--	
MW-6	10/10/95	32.16	17.68	14.48	ND	81	ND	ND	ND	--	75000	
MW-6	01/03/96	32.16	17.66	14.50	70	9.9	0.58	ND	0.81	--	--	
MW-6	04/10/96	32.16	15.56	16.60	300	258	4.7	0.94	2.7	--	53000	
MW-6	07/09/96	32.16	16.59	15.57	1800	410	ND	12	ND	--	76000	
MW-6	01/24/97	32.16	15.69	16.47	ND	0.8	ND	ND	ND	--	390	
MW-6	07/23/97	32.16	17.53	14.63	5700	1100	240	240	700	--	16000	
MW-6	01/26/98	32.16	15.44	16.72	ND	ND	ND	ND	ND	--	ND	
MW-6	07/03/98	32.16	16.58	15.58	ND	ND	ND	ND	ND	--	ND	
MW-6	01/14/99	32.16	17.02	15.14	ND	ND	ND	ND	ND	--	14	
MW-6	07/15/99	32.16	15.95	16.21	ND	ND	ND	ND	ND	--	2.8	
MW-6	01/07/00	32.16	16.96	15.20	78	24	ND	0.66	17	--	280	
MW-6	07/19/00	32.16	18.04	14.12	ND	ND	1.32	ND	0.974	--	ND	
MW-6	01/02/01	32.16	18.10	14.06	ND	ND	ND	ND	ND	--	ND	
MW-6	05/23/01	32.16	16.42	15.74	ND	ND	ND	ND	ND	--	ND	
MW-6	07/30/01	32.16	16.49	15.67	<50	<0.50	<0.50	<0.50	<0.50	--	<2.5	
MW-6	10/15/01	32.16	16.67	15.49	<50	<0.50	0.62	<0.50	<0.50	--	<5.0	
MW-6	01/14/02	32.16	14.60	17.56	<50	<0.50	<0.50	<0.50	<0.50	--	<2.5	
MW-6	04/15/02	32.16	15.07	17.09	<50	<0.50	<0.50	<0.50	0.73	--	<5.0	
MW-6	07/15/02	32.16	15.56	16.60	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	
MW-6	01/18/03	32.16	15.80	16.36	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	
MW-6	07/11/03	32.16	15.74	16.42	<50	<0.50	<0.50	<0.50	<1.0	<2.0	--	
MW-6	02/04/04	32.16	15.49	16.67	<50	2.6	<0.50	<0.50	<1.0	2.4	--	
MW-6	08/11/04	32.16	15.81	16.35	7900	95	<50	<50	<100	9100	--	
MW-6	03/31/05	32.16	13.70	18.46	<5000	2.5	<0.50	<0.50	<1.0	7600	--	
MW-6	09/30/05	32.16	15.48	16.68	4300	140	37	28	41	5800	--	
MW-6	03/27/06	32.16	13.02	19.14	7200	34	0.66	0.96	18	9900	--	
MW-6	09/27/06	32.16	16.56	15.60	1800	<12	<12	<12	<12	3300	--	
MW-6	03/27/07	32.16	16.73	15.43	1600	2.8	<2.5	<2.5	<2.5	1800	--	
MW-6	09/28/07	32.16	17.75	14.41	830	<5.0	<5.0	<5.0	<5.0	1600	--	
MW-6	03/26/08	32.16	17.31	14.85	940	45	5.9	2	5.3	1300	--	
MW-6	07/28/08	32.16	18.50	13.66	500	<1.0	<1.0	<1.0	<2.0	750	--	
MW-6	01/26/09	32.16	18.46	13.70	570	<0.50	<0.50	<0.50	<1.0	500	--	
MW-6	08/03/09	32.19	18.01	14.18	800	<5.0	<5.0	<5.0	<1.0	690	--	
MW-6	01/25/10	32.19	17.64	14.55	410	4.8	0.63	<0.50	1.4	390	--	
MW-6	08/03/10	32.19	17.48	14.71	480	2	<0.50	<0.50	<1.0	520	--	
MW-6	02/17/11	32.19	17.48	14.71	290	<0.50	<0.50	<0.50	<1.0	130	--	
MW-6	08/03/11	32.19	17.02	15.17	330	<0.50	<0.50	<0.50	<1.0	89	--	
MW-6	02/07/12	32.19	18.02	14.17	450	<0.50	<0.50	<0.50	<1.0	29	--	
MW-6	08/09/12	32.19	17.17	15.02	180	<0.50	<0.50	<0.50	<1.0	10	--	
MW-6	02/27/13	32.19	17.48	14.71	77	<0.50	<0.50	<0.50	<1.0	2.4	--	
MW-6	08/15/13	32.19	18.35	13.84	<50	<0.50	<0.50	<0.50	<1.0	0.82	--	
MW-6	02/06/14	32.19	19.10	13.09	150	<0.50	<0.50	<0.50	<1.0	0.81	--	

Table 2
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)
800 Harrison Street											
MW-7	10/19/92	--	--	--	--	--	--	--	--	--	--
MW-7	04/28/93	32.49	--	--	110	2.8	1.3	1.4	1.7	--	--
MW-7	07/23/93	32.49	18.60	13.89	790	23	3.3	28	5.4	--	--
MW-7	10/05/93	32.20	18.76	13.44	360	10	1.2	0.91	0.99	--	--
MW-7	01/03/94	32.20	18.91	13.29	ND	0.93	ND	0.75	1.9	--	--
MW-7	04/02/94	32.20	18.50	13.70	360	2	ND	ND	0.8	--	--
MW-7	07/05/94	32.20	17.52	14.68	ND	ND	ND	ND	ND	--	--
MW-7	10/06/94	32.20	19.25	12.95	340	5.6	0.85	ND	1.2	--	--
MW-7	01/02/95	32.20	17.67	14.53	ND	ND	ND	ND	ND	--	--
MW-7	04/03/95	32.20	15.81	16.39	570	24	ND	3.4	5.8	--	--
MW-7	07/14/95	32.20	17.05	15.15	ND	14	ND	ND	ND	--	--
MW-7	10/10/95	32.20	18.08	14.12	740	170	ND	ND	ND	--	13000
MW-7	01/03/96	32.20	18.02	14.18	360	16	1.3	2.7	1.4	--	--
MW-7	04/10/96	32.20	15.81	16.39	120	4.1	1.5	ND	0.88	--	3200
MW-7	07/09/96	32.20	16.99	15.21	ND	ND	ND	ND	ND	--	3400
MW-7	01/24/97	32.20	16.08	16.12	ND	16	ND	ND	ND	--	6600
MW-7	07/23/97	32.20	17.99	14.21	ND	16	ND	ND	0.62	--	10000
MW-7	01/26/98	32.20	15.56	16.64	ND	ND	ND	ND	0.56	--	ND
MW-7	07/03/98	32.20	17.04	15.16	ND	ND	ND	ND	ND	--	ND
MW-7	01/14/99	32.20	--	--	--	--	--	--	--	--	--
MW-7	07/15/99	32.20	15.72	16.48	ND	ND	ND	ND	ND	--	290
MW-7	01/07/00	32.20	16.80	15.40	ND	7.7	ND	ND	4.4	--	98
MW-7	07/19/00	32.20	17.88	14.32	ND	ND	1.27	ND	0.979	--	ND
MW-7	01/02/01	32.20	17.97	14.23	ND	ND	ND	ND	ND	--	ND
MW-7	05/23/01	32.20	16.81	15.39	ND	ND	ND	ND	ND	--	ND
MW-7	07/30/01	32.20	16.79	15.41	<50	<0.50	<0.50	<0.50	<0.50	--	<2.5
MW-7	10/15/01	32.20	16.98	15.22	<50	<0.50	0.58	<0.50	<0.50	--	<5.0
MW-7	01/14/02	32.20	14.85	17.35	<50	<0.50	<0.50	<0.50	<0.50	--	<2.5
MW-7	04/15/02	32.20	15.29	16.91	<50	<0.50	<0.50	<0.50	0.7	--	<5.0
MW-7	07/15/02	32.20	15.92	16.28	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50
MW-7	01/18/03	32.20	15.11	17.09	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0
MW-7	07/11/03	32.20	15.89	16.31	<50	<0.50	<0.50	<0.50	<1.0	19	--
MW-7	02/04/04	32.20	15.90	16.30	<50	3.6	<0.50	<0.50	<1.0	3.2	--
MW-7	08/11/04	32.20	16.12	16.08	<5000	120	<50	<50	<100	5100	--
MW-7	03/31/05	32.20	13.99	18.21	<5000	190	<50	<50	<100	8400	--
MW-7	09/30/05	32.20	15.93	16.27	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--
MW-7	03/27/06	32.20	13.40	18.80	2500	160	10	11	26	5600	--
MW-7	09/27/06	32.20	16.96	15.24	2800	180	<12	15	44	4200	--
MW-7	03/27/07	32.20	17.30	14.90	920	66	2.9	3.4	4.5	970	--
MW-7	09/28/07	32.20	18.10	14.10	4000	440	15	17	59	3300	--
MW-7	03/26/08	32.20	17.64	14.56	390	39	3.3	0.85	7.5	96	--
MW-7	07/28/08	32.20	18.50	13.70	64	3.3	<0.50	<0.50	<1.0	8.7	--
MW-7	01/26/09	32.20	18.90	13.30	80	7.9	0.58	<0.50	<1.0	10	--
MW-7	08/03/09	32.22	18.29	13.93	2100	220	14	10	31	750	--
MW-7	01/25/10	32.22	17.49	14.73	490	25	3.5	0.54	6.9	16	--
MW-7	08/03/10	32.22	17.84	14.38	240	45	1.8	1.2	1.7	290	--
MW-7	02/17/11	32.22	17.83	14.39	370	53	2	<0.50	2.1	12	--
MW-7	08/03/11	32.22	17.42	14.80	390	20	1.8	<0.50	1.6	27	--
MW-7	02/07/12	32.22	18.40	13.82	310	25	2	<0.50	3.2	9.0	--
MW-7	08/09/12	32.22	17.53	14.69	280	11	1.2	<0.50	<1.0	24	--
MW-7	02/27/13	32.22	17.85	14.37	<50	<0.50	<0.50	<0.50	<1.0	3.8	--
MW-7	08/15/13	32.22	18.70	13.52	95	11	1.3	<0.50	<1.0	5.0	--
MW-7	02/06/14	32.22	19.45	12.77	790	66	10	2.5	17	47.0	--

Table 2
Historical Groundwater Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	TOC (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)	EPA 8260B						8021B	
					TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	
800 Harrison Street												
MW-8	04/28/93	32.33	--	--	450	18	1.8	1.8	1.4	--	--	
MW-8	07/23/93	32.33	18.45	13.88	260	5.1	ND	0.6	ND	--	--	
MW-8	10/05/93	32.00	18.57	13.43	120	1.7	ND	ND	ND	--	--	
MW-8	01/03/94	32.00	18.73	13.27	ND	ND	ND	ND	ND	--	51	
MW-8	04/02/94	32.00	18.30	13.70	150	1.2	ND	ND	ND	--	--	
MW-8	07/05/94	32.00	17.41	14.59	730	17	ND	1.6	ND	--	--	
MW-8	10/06/94	32.00	18.98	13.02	140	ND	ND	ND	ND	--	--	
MW-8	01/02/95	32.00	17.58	14.42	440	18	0.72	2	1.8	--	--	
MW-8	04/03/95	32.00	15.54	16.46	960	11	ND	ND	ND	--	--	
MW-8	07/14/95	32.00	16.81	15.19	280	4.2	2.6	1.1	3.3	--	--	
MW-8	10/10/95	32.00	17.85	14.15	110	1.3	0.62	0.67	ND	--	170	
MW-8	01/03/96	32.00	17.82	14.18	63	ND	0.51	ND	1.8	--	--	
MW-8	04/10/96	32.00	15.70	16.30	ND	1.1	0.61	ND	ND	--	60	
MW-8	07/09/96	32.00	16.78	15.22	72	1	ND	ND	ND	--	140	
MW-8	01/24/97	32.00	15.79	16.21	ND	ND	ND	ND	ND	--	76	
MW-8	07/23/97	32.00	17.69	14.31	ND	ND	ND	ND	ND	--	270	
MW-8	01/26/98	32.00	15.50	16.50	ND	ND	ND	ND	0.76	--	2.9	
MW-8	07/03/98	32.00	16.80	15.20	ND	ND	ND	ND	ND	--	ND	
MW-8	01/14/99	32.00	17.13	14.87	ND	ND	ND	ND	ND	--	11	
MW-8	07/15/99	32.00	15.85	16.15	ND	ND	ND	ND	ND	--	ND	
MW-8	01/07/00	32.00	16.94	15.06	ND	ND	ND	ND	ND	--	11	
MW-8	07/19/00	32.00	18.06	13.94	ND	ND	2.99	0.521	ND	--	ND	
MW-8	01/02/01	32.00	18.12	13.88	ND	ND	ND	ND	ND	--	ND	
MW-8	05/23/01	32.00	16.96	15.04	ND	ND	ND	ND	ND	--	ND	
MW-8	07/30/01	32.00	16.52	15.48	<50	<0.50	<0.50	<0.50	<0.50	--	2.7	
MW-8	10/15/01	32.00	16.72	15.28	<50	<0.50	0.65	<0.50	<0.50	--	<5.0	
MW-8	01/14/02	32.00	14.53	17.47	<50	<0.50	<0.50	<0.50	<0.50	--	<2.5	
MW-8	04/15/02	32.00	14.96	17.04	<50	<0.50	<0.50	<0.50	<0.50	--	<5.0	
MW-8	07/15/02	32.00	15.60	16.40	<50	<0.50	<0.50	<0.50	<1.0	--	11	
MW-8	01/18/03	32.00	14.78	17.22	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	
MW-8	02/04/04	32.00	15.65	16.35	52	2.3	<0.50	<0.50	<1.0	2.4	--	
MW-8	08/11/04	32.00	15.86	16.14	350	<2.5	<2.5	<2.5	<5.0	310	--	
MW-8	03/31/05	32.00	13.73	18.27	<2000	<0.50	<0.50	<0.50	<1.0	2100	--	
MW-8	09/30/05	32.00	15.94	16.06	1200	<0.50	0.5	<0.50	<1.0	6900	--	
MW-8	03/27/06	32.00	13.13	18.87	460	<0.50	<0.50	<0.50	<1.0	820	--	
MW-8	09/27/06	32.00	16.75	15.25	520	<5.0	<5.0	<5.0	8.2	870	--	
MW-8	03/27/07	32.00	16.87	15.13	1400	<0.50	<0.50	<0.50	<0.50	3600	--	
MW-8	09/28/07	32.00	17.91	14.09	280	<2.5	<2.5	<2.5	<2.5	670	--	
MW-8	03/26/08	32.00	17.45	14.55	110	<0.50	<0.50	<0.50	<1.0	210	--	
MW-8	07/28/08	32.00	18.50	13.50	<50	<0.50	<0.50	<0.50	<1.0	11	--	
MW-8	01/26/09	32.00	18.65	13.35	<50	<0.50	<0.50	<0.50	<1.0	22	--	
MW-8	08/03/09	32.03	18.11	13.92	67	<0.50	<0.50	<0.50	<1.0	64	--	
MW-8	01/25/10	32.03	17.67	14.36	<50	<0.50	<0.50	<0.50	<1.0	10	--	
MW-8	08/03/10	32.03	17.58	14.45	<50	<0.50	<0.50	<0.50	<1.0	10	--	
MW-8	02/17/11	32.03	17.53	14.50	<50	<0.50	<0.50	<0.50	<1.0	2.5	--	
MW-8	08/03/11	32.03	17.18	14.85	<50	<0.50	<0.50	<0.50	<1.0	1.6	--	
MW-8	02/07/12	32.03	18.15	13.88	<50	<0.50	<0.50	<0.50	<1.0	0.75	--	
MW-8	08/09/12	32.03	17.29	14.74	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
MW-8	02/27/13	32.03	17.58	14.45	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
MW-8	08/15/13	32.03	18.46	13.57	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
MW-8	02/06/14	32.03	19.24	12.79	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
Tier 1 ESLs for Groundwater (Residential)					100	1	40	30	20	5	5	
Tier 1 ESLs for Groundwater (Commercial/Industrial)					500	46	130	43	100	1,800	1,800	

Abbreviations:

- TOC Top of casing
 - ft MSL Feet relative to mean sea level
 - ft BTOC Feet below top of casing
 - TPH-g Total petroleum hydrocarbons as gasoline
 - MTBE Methyl tertiary butyl ether
 - NA Not available
 - ND Non-detect
 - Not analyzed
 - <0.0005 Not detected at concentration threshold as shown
 - J Estimated value
 - ESL Table C. Environmental Screening Levels (ESLs), Groundwater (>3meters below ground surface), Groundwater is a Nondrinking Water Resource, CRWQCB-SFBR, Table C, November 2007
- BOLD** Indicates analytical result is above ESL for residential groundwater

Table 3
Soil Boring Details
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Installation Date	Surface Elevation (ft MSL)	Boring Depth (ft bgs)	Boring Diameter (inches)	First Water (ft bgs)	Location
706 Harrison Street						
GP-5	06/24/11	31.16	20.0	2.5	NA	Onsite
GP-6	06/24/11	31.19	20.0	2.5	NA	Onsite
GP-7	06/24/11	30.29	20.0	2.5	NA	Onsite
SB-B	11/28/94	NA	30.0	NA	NA	Onsite
SB-I	12/02/94	NA	27.0	NA	NA	Onsite
726 Harrison Street						
BH-A	08/17/01	NA	25.0	4.0	19.0	Onsite
BH-B	08/17/01	NA	25.0	4.0	19.0	Onsite
BH-C	08/17/01	NA	25.0	4.0	19.0	Onsite
BH-D	07/17/02	NA	24.0	2.0	20.0	Onsite
BH-E	07/17/02	NA	24.0	2.0	20.0	Onsite
BH-F	07/17/02	NA	24.0	2.0	20.0	Onsite
BH-G	07/17/02	NA	24.0	2.0	20.0	Onsite
BH-H	07/17/02	NA	20.0	2.0	18.0	Offsite
GP-3	06/20/11	NA	24.0	2.5	20.0	Onsite
800 Harrison Street						
CPT-1	02/07/07	NA	50.0	NA	NA	Onsite
CPT-2	02/07/07	NA	50.0	NA	NA	Onsite
CPT-3	02/06/07	NA	50.0	NA	NA	Offsite
CPT-4	02/05/07	NA	50.0	NA	NA	Offsite
CPT-5	02/05/07	NA	50.0	NA	NA	Offsite
CPT-6	02/06/07	NA	50.0	NA	NA	Offsite
EB-1	05/29/91	NA	23.0	8.0	22.5	Onsite
EB-2	05/29/91	NA	23.0	8.0	23.0	Onsite
EB-3	03/18/94	NA	20.5	8.5	20.5	Onsite
EB-4	03/18/94	NA	20.5	8.5	20.5	Onsite
EB-5	03/17/94	NA	20.5	8.5	20.5	Onsite
EB-6	03/18/94	NA	20.5	8.5	20.5	Onsite
EB-7	03/17/94	NA	19.5	8.5	19.5	Onsite
EB-8	03/17/94	NA	19.5	8.5	19.5	Onsite
EB-9	03/17/94	NA	20.5	8.5	20.5	Onsite
EB-10	03/17/94	NA	20.5	8.5	20.5	Onsite
EB-11	03/18/94	NA	10.5	3.0	NA	Onsite
EB-12	03/18/94	NA	11.0	3.0	NA	Onsite
GP-1	03/28/12	NA	20.0	2.5	NA	Onsite
GP-2	06/24/11	35.03	20.0	2.5	NA	Onsite

Abbreviations:

ft MSL Feet relative to mean sea level

ft bgs Feet below ground surface

NA Not available

Table 4
Historical Soil Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	Sample Depth (ft bgs)	LUFT GC/MS					EPA 8260B							
			TPPH (mg/kg)	TPH-d (mg/kg)	TPH-g (mg/kg)	TPH-mo (mg/kg)	TOG (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	EDB (mg/kg)	1,2-DCA (mg/kg)	Lead (mg/kg)
706 Harrison Street															
GP-5	06/24/11	5.0	<0.30	NA	NA	NA	NA	<0.0074	<0.0074	<0.0074	<0.015	<0.0074	<0.0074	<0.0074	NA
	06/24/11	10.0	<0.18	NA	NA	NA	NA	<0.0044	<0.0044	<0.0044	<0.0089	<0.0044	<0.0044	<0.0044	NA
	06/24/11	15.0	<0.16	NA	NA	NA	NA	<0.0040	<0.0040	<0.0040	<0.0081	<0.0040	<0.0040	<0.0040	NA
	06/24/11	20.0	2.1	NA	NA	NA	NA	<0.0043	<0.0043	0.0057	<0.0085	0.0099	<0.0043	<0.0043	NA
GP-6	06/24/11	5.0	<0.19	NA	NA	NA	NA	<0.0047	<0.0047	<0.0047	<0.0094	<0.0047	<0.0047	<0.0047	NA
	06/24/11	10.0	<0.17	NA	NA	NA	NA	<0.0043	<0.0043	<0.0043	<0.0086	<0.0043	<0.0043	<0.0043	NA
	06/24/11	15.0	<0.18	NA	NA	NA	NA	<0.0045	<0.0045	<0.0045	<0.0089	<0.0045	<0.0045	<0.0045	NA
GP-7	06/24/11	5.0	<0.23	NA	NA	NA	NA	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	NA
	06/24/11	10.0	<0.19	NA	NA	NA	NA	<0.0048	<0.0048	<0.0048	<0.0096	<0.0048	<0.0048	<0.0048	NA
	06/24/11	15.0	<0.17	NA	NA	NA	NA	<0.0043	<0.0043	<0.0043	<0.0086	<0.0043	<0.0043	<0.0043	NA
MW-1	07/23/93	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND
	07/23/93	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND
	07/23/93	15.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND
	07/23/93	20.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND
MW-2	07/23/93	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND
	07/23/93	10.0	NA	NA	ND	NA	NA	0.059	0.036	0.0061	0.031	NA	NA	NA	ND
	07/23/93	15.0	NA	NA	48	NA	NA	0.56	2.8	1.5	8.8	NA	NA	NA	ND
MW-3	07/23/93	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND
	07/23/93	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND
	07/23/93	15.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND
	07/23/93	20.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND
MW-4	11/28/94	16.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND
	11/28/94	17.5	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND
	11/28/94	26.0	NA	NA	ND/0.021	NA	NA	ND/ND	ND/ND	ND/ND	ND/ND	NA	NA	NA	ND
MW-5	11/30/94	18.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND
MW-6	12/01/94	16.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND
MW-7	12/02/94	16.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND
	12/02/94	18.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND
	12/02/94	26.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND
SB-B	11/28/94	11.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND
	11/28/94	16.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND
	11/28/94	26.0	NA	NA	1.1	NA	NA	0.18	0.054	0.024	0.071	NA	NA	NA	ND
SB-I	12/02/94	11.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND
VW-1	07/23/93	17.0	NA	NA	360	NA	NA	18	40	13	68	NA	NA	NA	ND
VW-2	07/23/93	17.0	NA	NA	6,000	NA	NA	210	890	210	1,200	NA	NA	NA	ND
VW-3	11/28/94	11.0	NA	NA	410	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND
	11/28/94	18.0	NA	NA	14,000	NA	NA	120	620	220	1,100	NA	NA	NA	ND
	11/28/94	26.0	NA	NA	ND	NA	NA	0.059	0.041	0.0028	0.050	NA	NA	NA	ND
VW-4	11/29/94	17.5	NA	NA	15,000	NA	NA	160	700	240	1,200	NA	NA	NA	ND
VW-5	11/30/94	11.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND
	11/30/94	17.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND
	11/30/94	26.0	NA	NA	ND	NA	NA	ND	0.012	ND	ND	NA	NA	NA	ND

Table 4
Historical Soil Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	Sample Depth (ft bgs)	LUFT GC/MS					EPA 8260B							
			TPPH (mg/kg)	TPH-d (mg/kg)	TPH-g (mg/kg)	TPH-mo (mg/kg)	TOG (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	EDB (mg/kg)	1,2-DCA (mg/kg)	Lead (mg/kg)
726 Harrison Street															
AS-1	NA	6.0	NA	NA	740	NA	NA	<0.25	<0.25	3.5	5.1	<0.25	NA	NA	NA
BH-A	NA	11.5	NA	NA	<1.0	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	NA
BH-B	NA	15.0	NA	NA	360	NA	NA	0.55	5.0	3.4	23	0.064	NA	NA	NA
BH-C	NA	10.0	NA	NA	<1.0	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	NA
EW-1	NA	10.0	NA	NA	2,300	NA	NA	0.33	0.27	16	26	<0.25	NA	NA	NA
GP-3	06/20/11	7.0	<0.20	NA	NA	NA	NA	<0.0050	<0.0050	<0.0050	<0.010	0.00087 J	<0.0050	<0.0050	NA
	06/20/11	10.0	<0.20	NA	NA	NA	NA	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	NA
	06/20/11	15.0	<0.20	NA	NA	NA	NA	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	NA
MP-1	06/20/13	5.0	<0.16	NA	NA	NA	NA	<0.0040	<0.0040	<0.0040	<0.0080	<0.0040	<0.0040	<0.0040	NA
	06/20/13	10.0	<0.14	NA	NA	NA	NA	<0.0036	<0.0036	<0.0036	<0.0072	<0.0036	<0.0036	<0.0036	NA
	06/20/13	15.0	<0.14	NA	NA	NA	NA	<0.0036	<0.0036	<0.0036	<0.0072	<0.0036	<0.0036	<0.0036	NA
	06/20/13	20.0	<0.15	NA	NA	NA	NA	<0.0038	<0.0038	<0.0038	<0.0076	<0.0038	<0.0038	<0.0038	NA
	06/20/13	22.0	<0.18	NA	NA	NA	NA	<0.0045	<0.0045	<0.0045	<0.0090	<0.0045	<0.0045	<0.0045	NA
	06/20/13	25.0	<0.14	NA	NA	NA	NA	<0.0035	<0.0035	<0.0035	<0.0070	<0.0035	<0.0035	<0.0035	NA
MPE-1	06/20/13	30.0	<0.14	NA	NA	NA	NA	<0.0034	<0.0034	<0.0034	<0.0068	<0.0034	<0.0034	<0.0034	NA
	06/20/13	5.0	<0.16	NA	NA	NA	NA	<0.0040	<0.0040	<0.0040	<0.0080	<0.0040	<0.0040	<0.0040	NA
	06/20/13	15.0	<0.14	NA	NA	NA	NA	<0.0036	<0.0036	<0.0036	<0.0071	<0.0036	<0.0036	<0.0036	NA
	06/20/13	20.0	0.40	NA	NA	NA	NA	<0.0038	<0.0038	<0.0038	<0.0076	0.0072	<0.0038	<0.0038	NA
	06/20/13	22.0	670	NA	NA	NA	NA	0.73	1.4	3.0	10	1.3	<0.17	<0.17	NA
	06/20/13	25.0	3.9	NA	NA	NA	NA	0.087	0.029	0.029	0.048	0.28	<0.0038	<0.0038	NA
	06/20/13	28.0	1.1	NA	NA	NA	NA	0.041	0.0044	<0.0037	0.012	0.013	<0.0037	<0.0037	NA
06/20/13	30.0	<0.16	NA	NA	NA	NA	<0.0040	<0.0040	<0.0040	<0.0081	<0.0040	<0.0040	<0.0040	NA	
06/20/13	35.0	<4.0	NA	NA	NA	NA	<0.099	<0.099	<0.099	<0.20	<0.099	<0.099	<0.099	NA	
MW-1	NA	14.5	NA	NA	<1.0	NA	NA	0.011	<0.005	<0.005	<0.005	<0.05	NA	NA	NA
	NA	19.5	NA	NA	650	NA	NA	1.2	<0.05	2.2	2.8	<0.05	NA	NA	NA
MW-2	NA	16.0	NA	NA	<1.0	NA	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA
MW-3	NA	16.0	NA	NA	<1.0	NA	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA
MW-4	NA	16.0	NA	NA	<1.0	NA	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA
MW-5	NA	14.0	NA	NA	<1.0	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	NA
MW-6	06/20/11	6.5	<0.20	NA	NA	NA	NA	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	NA
	06/20/11	11.0	<0.20	NA	NA	NA	NA	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	NA
	06/20/11	16.0	0.12 J	NA	NA	NA	NA	<0.0050	<0.0050	<0.0050	<0.010	0.0092	<0.0050	<0.0050	NA
VE-1	NA	9.0	NA	NA	<1.0	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	NA
VE-2	NA	14.0	NA	NA	<1.0	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	NA
VE-3	06/21/13	5.0	<0.18	NA	NA	NA	NA	<0.0044	<0.0044	<0.0044	<0.088	<0.0044	<0.0044	<0.0044	NA
	06/21/13	9.0	1,300	NA	NA	NA	NA	<0.094	<0.094	3.9	1.5	<0.094	<0.094	<0.094	NA
	06/21/13	10.0	350	NA	NA	NA	NA	<0.12	<0.12	1.8	1.9	<0.12	<0.12	<0.12	NA
	06/21/13	15.0	4,700	NA	NA	NA	NA	0.72	<0.093	7.4	13	<0.093	<0.093	<0.093	NA
	06/21/13	16.0	2,900	NA	NA	NA	NA	0.54	<0.098	7.6	13	<0.098	<0.098	<0.098	NA

Table 4
Historical Soil Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	Sample Depth (ft bgs)	LUFT GC/MS					EPA 8260B								
			TPPH (mg/kg)	TPH-d (mg/kg)	TPH-g (mg/kg)	TPH-mo (mg/kg)	TOG (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	EDB (mg/kg)	1,2-DCA (mg/kg)	Lead (mg/kg)	
800 Harrison Street																
EB-1	05/29/91	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	05/29/91	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	05/29/91	15.0	NA	NA	ND	NA	NA	0.0087	ND	ND	ND	NA	NA	NA	NA	
	05/29/91	20.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	05/29/91	22.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
EB-2	05/29/91	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	05/29/91	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	05/29/91	15.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	05/29/91	20.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	05/29/91	22.5	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
EB-3	03/18/94	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	9.5	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	14.5	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	19.5	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
EB-4	03/18/94	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	9.5	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	14.5	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	19.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
EB-5	03/18/94	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	15.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	19.0	NA	NA	310	NA	NA	0.71	2.4	1.3	2.2	NA	NA	NA	NA	
EB-6	03/18/94	4.5	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	9.5	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	14.5	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	19.5	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
EB-7	03/18/94	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	15.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	19.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
EB-8	03/18/94	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	15.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	18.5	NA	NA	21,000	NA	NA	7.0	78	26	140	NA	NA	NA	NA	
EB-9	03/18/94	5.5	NA	ND	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	10.0	NA	ND	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	15.0	NA	ND	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	20.0	NA	ND	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
EB-10	03/18/94	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	15.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	20.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
EB-11	03/18/94	5.0	NA	ND	1.8	NA	NA	ND	0.0091	ND	0.0088	NA	NA	NA	NA	
	03/18/94	6.0	NA	19	3.6	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	10.0	NA	ND	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
EB-12	03/18/94	5.0	NA	ND	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	
	03/18/94	10.5	NA	ND	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA	

Table 4
Historical Soil Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	Sample Depth (ft bgs)	LUFT GC/MS					EPA 8260B							
			TPPH (mg/kg)	TPH-d (mg/kg)	TPH-g (mg/kg)	TPH-mo (mg/kg)	TOG (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	EDB (mg/kg)	1,2-DCA (mg/kg)	Lead (mg/kg)
GP-1	03/28/12	6.0	<0.16	NA	NA	NA	NA	<0.0040	<0.0040	<0.0040	<0.0079	<0.0040	<0.0040	<0.0040	NA
	03/28/12	10.0	<0.18	NA	NA	NA	NA	<0.0045	<0.0045	<0.0045	<0.0090	<0.0045	<0.0045	<0.0045	NA
	03/28/12	14.0	<0.16	NA	NA	<4.0	<50	<0.0040	<0.0040	<0.0040	<0.0079	<0.0040	<0.0040	<0.0040	NA
GP-2	06/24/11	5.0	<0.63	NA	NA	NA	NA	<0.016	<0.016	<0.016	<0.031	<0.016	<0.016	<0.016	NA
	06/24/11	10.0	21	NA	NA	NA	NA	<0.0044	<0.0044	<0.0044	<0.0088	0.013	<0.0044	<0.0044	NA
	06/24/11	14.0	3,200	NA	NA	NA	NA	<0.0044	<0.0044	0.013	0.11	0.028	<0.0044	<0.0044	NA
	06/24/11	17.0	1,000	NA	NA	NA	NA	<0.0044	0.024	0.015	0.098	0.060	<0.0044	<0.0044	NA
MW-1	05/30/91	5.0	NA	2.2	1.1	NA	NA	ND	ND	ND	0.010	NA	NA	NA	NA
	05/30/91	10.0	NA	43	43	NA	NA	ND	0.0059	0.0074	0.43	NA	NA	NA	NA
	05/30/91	15.0	NA	120	250	NA	NA	0.80	0.73	0.91	2.9	NA	NA	NA	NA
	05/30/91	20.0	NA	ND	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	05/30/91	24.0	NA	ND	ND	NA	NA	ND	ND	ND	0.0073	NA	NA	NA	NA
MW-2	05/30/91	5.0	NA	NA	ND	NA	NA	ND	ND	ND	0.0054	NA	NA	NA	NA
	05/30/91	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	05/30/91	15.0	NA	NA	ND	NA	NA	0.015	ND	0.0064	0.025	NA	NA	NA	NA
	05/30/91	20.0	NA	NA	ND	NA	NA	0.0086	ND	ND	ND	NA	NA	NA	NA
	05/30/91	22.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
MW-3	05/30/91	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	05/30/91	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	05/30/91	15.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	05/30/91	20.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	05/30/91	23.0	NA	NA	2.9	NA	NA	0.0079	ND	0.012	0.031	NA	NA	NA	NA
MW-4	10/01/92	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	10/01/92	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	10/01/92	15.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	10/01/92	20.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	10/01/92	22.5	NA	NA	27	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
MW-5	10/01/92	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	10/01/92	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	10/01/92	15.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	10/01/92	20.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	10/01/92	22.0	NA	NA	27	NA	NA	ND	0.0060	ND	0.014	NA	NA	NA	NA
MW-6	10/01/92	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	10/01/92	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	10/01/92	15.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	10/01/92	20.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	10/01/92	21.5	NA	NA	170	NA	NA	ND	0.38	1.8	4.5	NA	NA	NA	NA
MW-7	04/14/93	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	04/14/93	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	04/14/93	15.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	04/14/93	21.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
MW-8	04/14/93	5.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	04/14/93	10.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	04/14/93	15.0	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
	04/14/93	20.5	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	NA	NA
ESLs for Residential Soils			83	-	-	-	-	0.044	2.9	3.3	2.3	0.023	-	-	-
ESLs for Commercial/Industrial Soils			500	-	-	-	-	1.2	9.3	4.7	11	8.4	-	-	-

Table 4
Historical Soil Analytical Data
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	Sample Depth (ft bgs)	LUFT GC/MS					EPA 8260B						
			TPPH (mg/kg)	TPH-d (mg/kg)	TPH-g (mg/kg)	TPH-mo (mg/kg)	TOG (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	EDB (mg/kg)	1,2-DCA (mg/kg)

Abbreviations:

- ft bgs Feet below ground surface
- mg/kg Milligrams per kilogram
- TPPH Total purgeable petroleum hydrocarbons
- TPH-g Total petroleum hydrocarbons as gasoline
- TPH-mo Total petroleum hydrocarbons as motor oil
- TOG Total oil and grease
- MTBE Methyl tertiary butyl ether
- EDB 1,2-Dibromoethane
- 1,2-DCA 1,2-Dichloroethane
- NA Not analyzed
- ND Non-detect
- <0.0005 Not detected at concentration threshold as shown
- J Estimated value
- ESL Table C. Environmental Screening Levels (ESLs), Deep Soils (>3meters below ground surface), Groundwater is a Current or Potential Source of Drinking Water, CRWQCB-SFBR, Table C, November 2007
- BOLD** Indicates analytical result is above ESL for residential soils

Table 5
Analytical Groundwater Data Summary - Biogeochemical Parameters
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	Methane (mg/L)	Alkalinity as CaCO3 (mg/L)	Nitrate as NO3 (mg/L)	Nitrite as NO2 (mg/L)	Sulfate (mg/L)	Non-Volatile Organic Carbon (mg/L)	Comments
706 Harrison Street								
MW-1	8/9/2012	0.28	250	<0.44	<0.17	51	7.3	A01
MW-1	2/6/2014	--	--	--	--	--	--	Parked Car
MW-2	8/9/2012	6.8	500	<0.44	<0.17	<1.0	15	A01, S01
MW-2	2/6/2014	6.5	490	<0.44	<0.17	<1.0	20	A01
MW-3	8/9/2012	<0.0010	130	43	<0.17	61	1.4	
MW-3	2/6/2014	0.0072	110	33	<0.17	37	1.7	
MW-4	8/9/2012	--	--	--	--	--	--	
MW-4	2/6/2014	2.1	440	<0.44	<0.17	9.8	12	A01
MW-5	8/9/2012	<0.0010	150	19	<0.17	49	2.0	
MW-5	2/6/2014	0.0023	160	15	<0.17	51	2.8	
MW-6	8/9/2012	0.0082	140	<0.44	<0.17	27	1.9	
MW-6	2/6/2014	0.0017	150	<0.44	<0.17	38	2.7	
MW-7	8/9/2012	0.0045	230	<0.44	<0.17	49	3.0	
MW-7	2/6/2014	0.03	220	<0.44	<0.17	38	3.6	
726 Harrison Street								
EW-1	2/6/2014	1.20	230	<0.44	<0.17	12	5.00	A01
MW-1	8/9/2012	1.4	290	<0.44	<0.17	16	5.8	
MW-1	2/6/2014	6.30	370	<0.44	<0.17	<1.0	33.00	A01
MW-2	8/9/2012	0.0012	100	66	<0.17	33	0.94	
MW-2	2/6/2014	0.0058	150	38.0	<0.17	38	1.90	
MW-3	8/9/2012	0.0	150	0.6	<0.17	18	1.4	
MW-3	2/6/2014	0.0062	140	<0.44	<0.17	18	1.70	
MW-4	8/9/2012	0.5	320	<0.44	<0.17	13	3.8	
MW-4	2/6/2014	2.40	310	<0.44	<0.17	17	4.00	
MW-5	8/9/2012	4.9	570	<0.44	<0.17	4.6	21	
MW-5	2/6/2014	11.0	430	<0.44	<0.17	<1.0	11.00	A01
MW-6	8/9/2012	0.0048	190	10.0	<0.17	27	0.64	
MW-6	2/6/2014	0.0019	170	3.9	<0.17	24	0.91	

Table 5
Analytical Groundwater Data Summary - Biogeochemical Parameters
Chevron Site ID 351646
800, 726, and 706 Harrison Street, Oakland, California

Sample Name	Sample Date	Methane (mg/L)	Alkalinity as CaCO3 (mg/L)	Nitrate as NO3 (mg/L)	Nitrite as NO2 (mg/L)	Sulfate (mg/L)	Non-Volatile Organic Carbon (mg/L)	Comments
800 Harrison Street								
MW-1	8/9/2012	0.026	69	1.9	<0.17	10	1.6	
MW-1	2/6/2014	0.01	34	1.6	<0.17	7.9	1.10	
MW-2	8/9/2012	0.076	190	19	0.38	130	1.4	
MW-2	2/6/2014	0.0	110	6	<0.17	110.0	0.7	
MW-3	8/9/2012	6.3	290	<0.44	<0.17	3.5	2.9	A01, S01
MW-3	2/6/2014	8.7	420	<0.44	<0.17	4.6	5.1	
MW-4	8/9/2012	0.031	98	4.3	<0.17	22	0.90	
MW-4	2/6/2014	0.0053	81	3.1	<0.17	17	1.3	
MW-5	8/9/2012	2.9	140	<0.44	<0.17	2.5	1.7	A01
MW-5	2/6/2014	3.3	190	<0.44	<0.17	<1.0	2.4	
MW-6	8/9/2012	0.18	130	<0.44	<0.17	16	1.0	A01
MW-6	2/6/2014	1.8	170	<0.44	<0.17	26	2.90	
MW-7	8/9/2012	0.43	180	<0.44	<0.17	17	2.7	A01
MW-7	2/6/2014	1.3	74	<0.44	<0.17	4.3	1.8	
MW-8	8/9/2012	0.0041	130	1.3	<0.17	37	1.6	
MW-8	2/6/2014	0.0035	180	<0.44	<0.17	20	1.5	

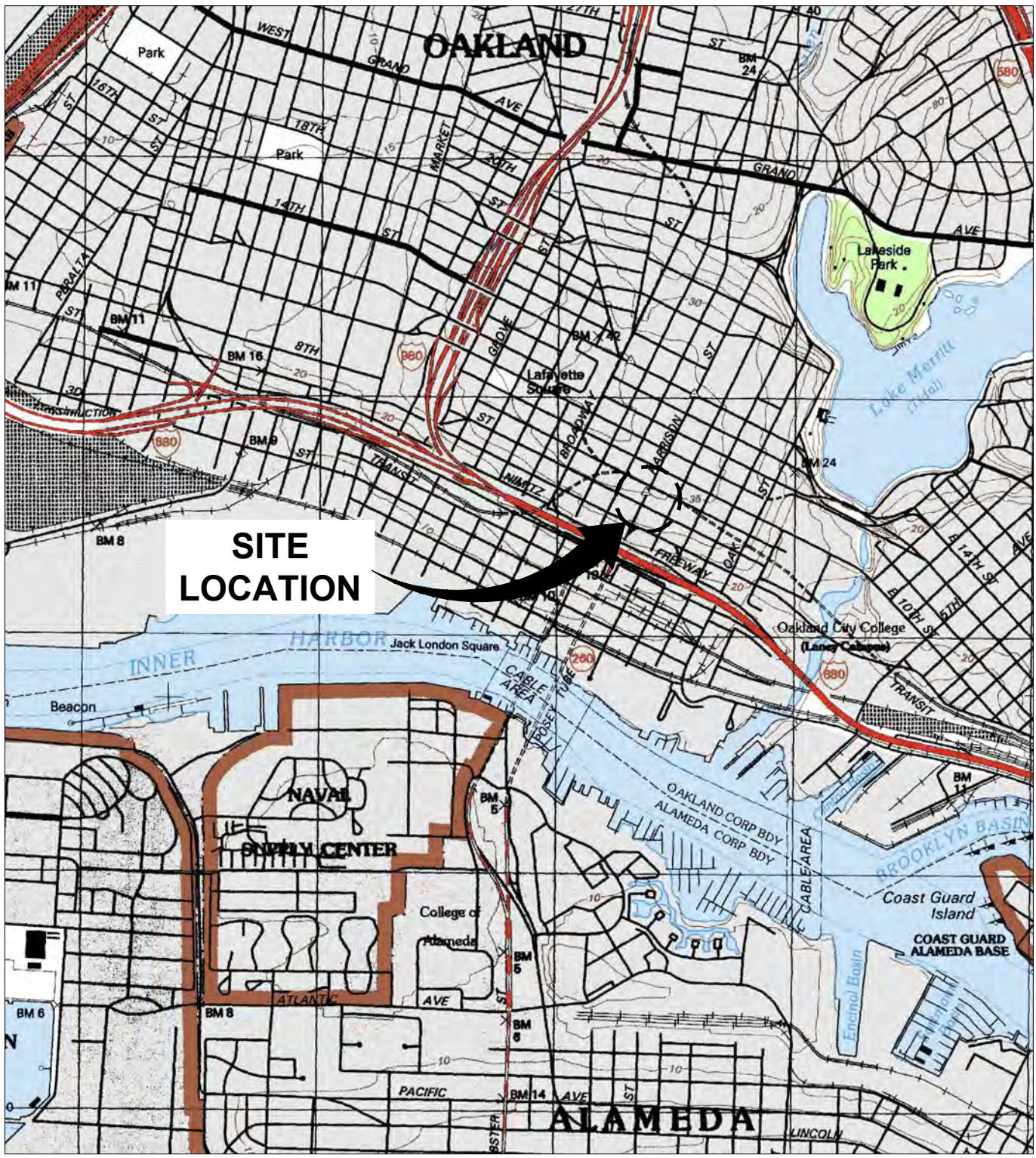
Explanation

- Not analyzed or not sampled
- < Not Detected
- mg/l Milligrams per liter
- CaCO3 Calcium carbonate
- NO3 Nitrate
- NO2 Nitrogen dioxide
- EDC 1,2-Dichloroethane (ethylene dichloride)
- A01 PQL's and MDL's are raised due to sample dilution.
- PQL Practical quantitation limit
- MDL Method detection limit
- S01 Sample result is not within the quantitation range of the method

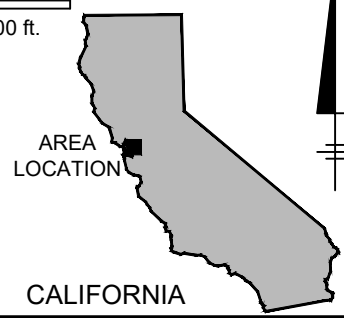
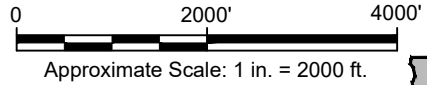
ARCADIS

Figures

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
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REFERENCE: BASE MAP USGS 7.5. MIN. TOPO. QUAD., OAKLAND WEST, CALIFORNIA, 1993.



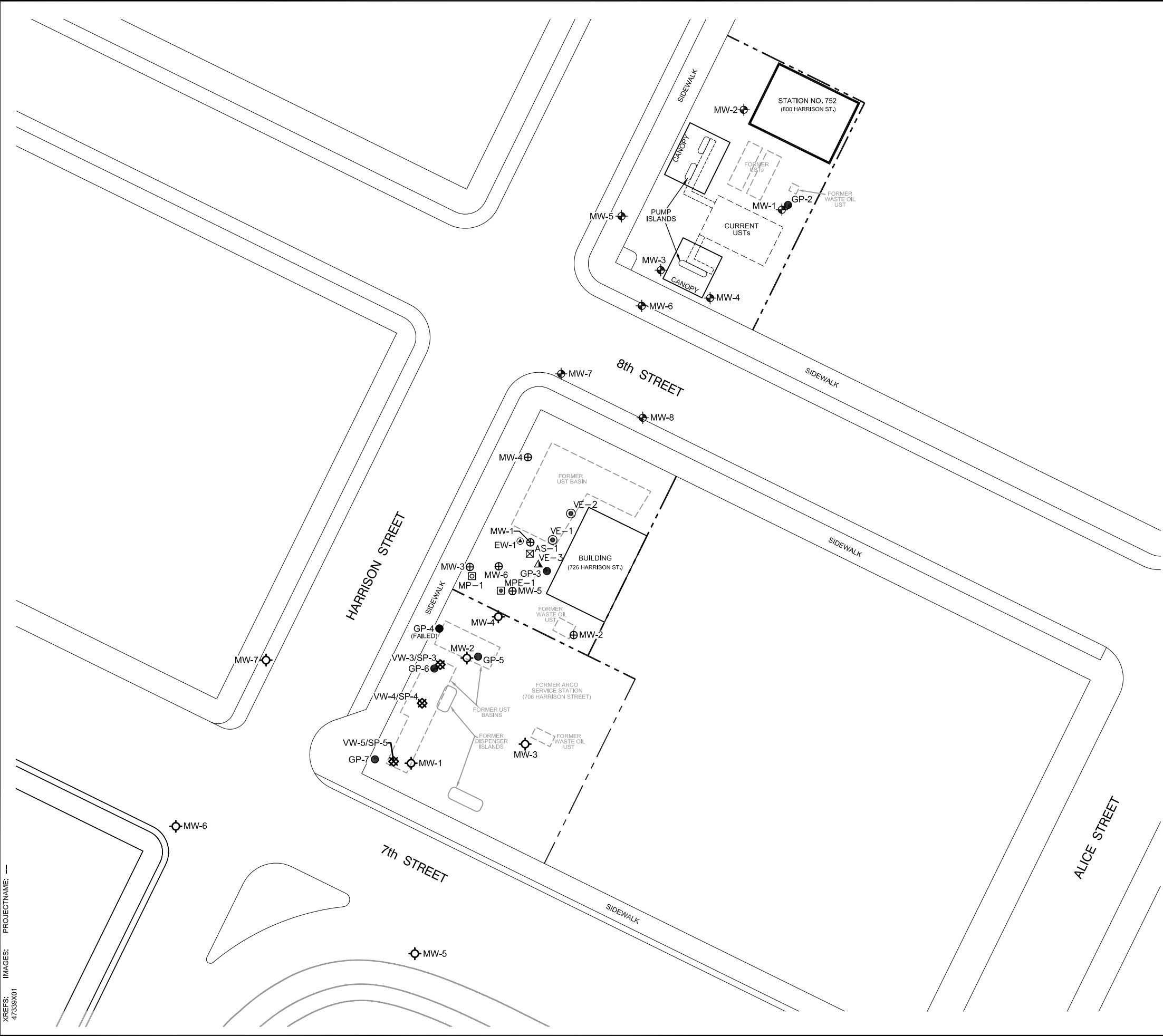
UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

SITE LOCATION MAP



FIGURE
1

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
 G:\ENV\CAD\lakewood+COACT\10047339\2013\1347339B01.dwg LAYOUT: 2_SAVED: 10/22/2013 11:22 AM ACADVER: 18.1S (LMS TECH) PAGES: 10/22/2013 4:16 PM BY: HOEFER, MATTHEW
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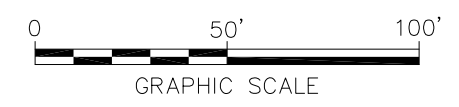


LEGEND

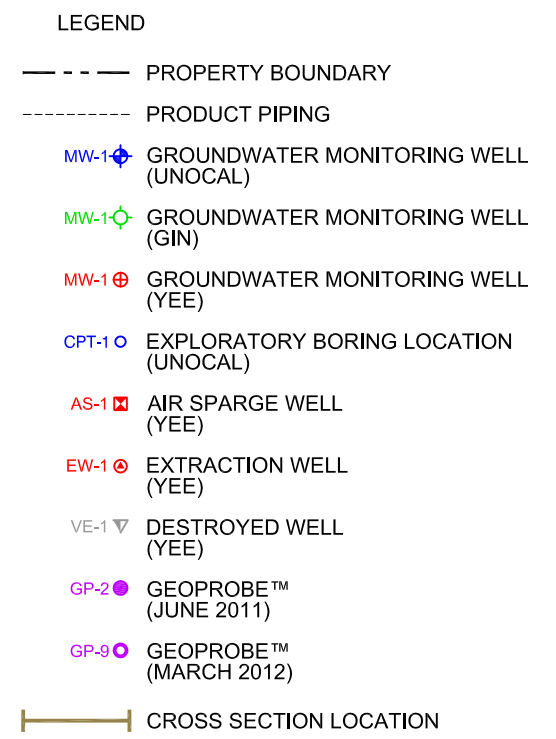
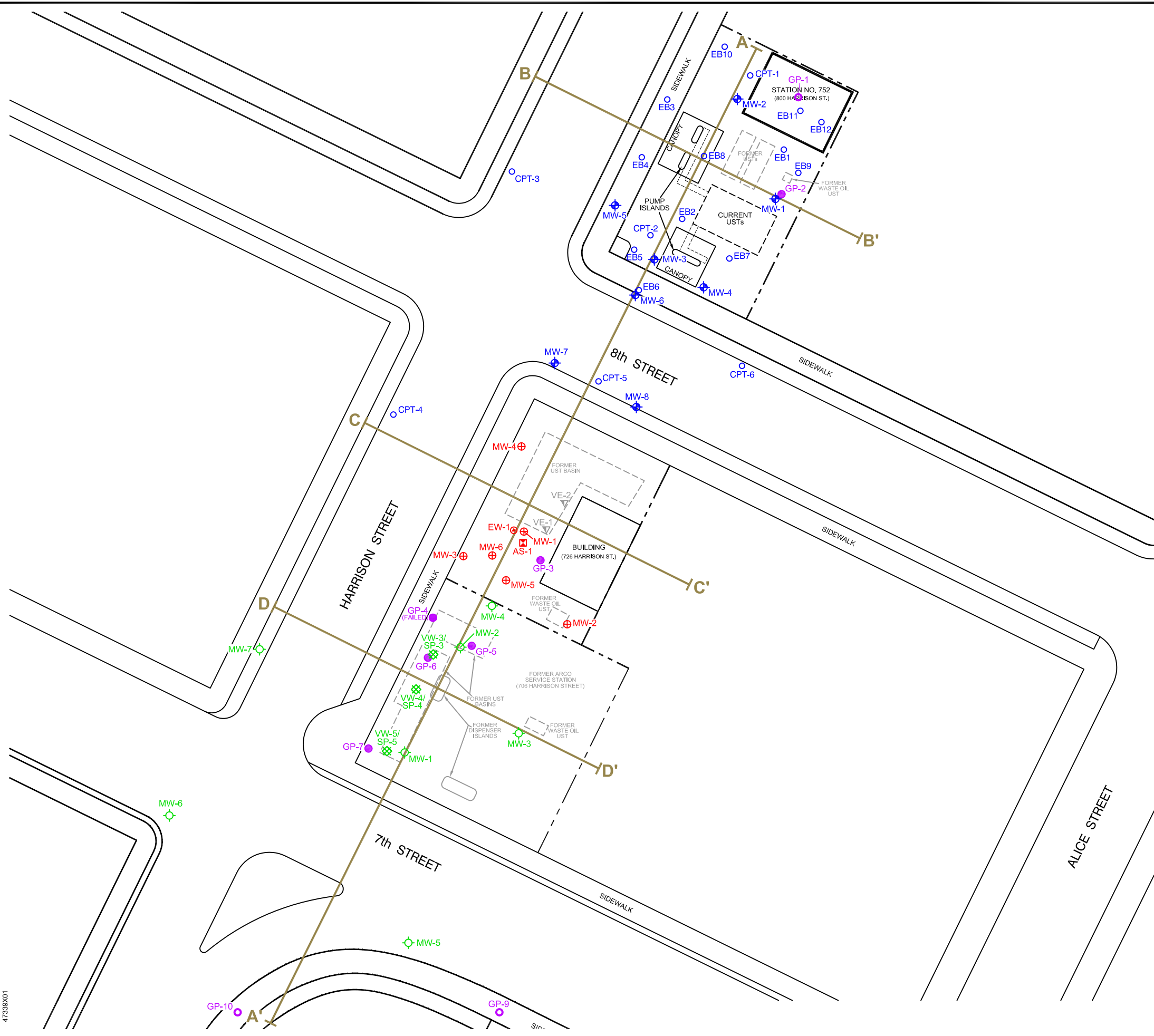
- PROPERTY BOUNDARY
- PRODUCT PIPING
- MW-1 ⊕ GROUNDWATER MONITORING WELL (UNOCAL)
- MW-1 ⊕ GROUNDWATER MONITORING WELL (GIN)
- VW-3/SP-3 ⊗ SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
- MW-1 ⊕ GROUNDWATER MONITORING WELL (YEE)
- AS-1 ⊗ AIR SPARGE WELL (YEE)
- EW-1 ⊕ EXTRACTION WELL (YEE)
- GP-2 ● GEOPROBE™ (JUNE 2011)
- MPE-1 ⊕ MULTI-PHASE EXTRACTION PILOT TEST WELL (PZ-1 IS LOCATED IN THE SAME BOREHOLE)
- MP-1 ⊕ PILOT TEST MONITORING POINT
- VE-1 ⊕ VAPOR EXTRACTION WELL
- VE-3 ▲ PILOT TEST VAPOR EXTRACTION WELL

NOTE:

1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

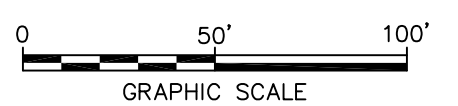


UNION OIL OF CALIFORNIA STATION NO. 0752/YEE/GIN COMMINGLED 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA	
SITE PLAN	
	FIGURE 2



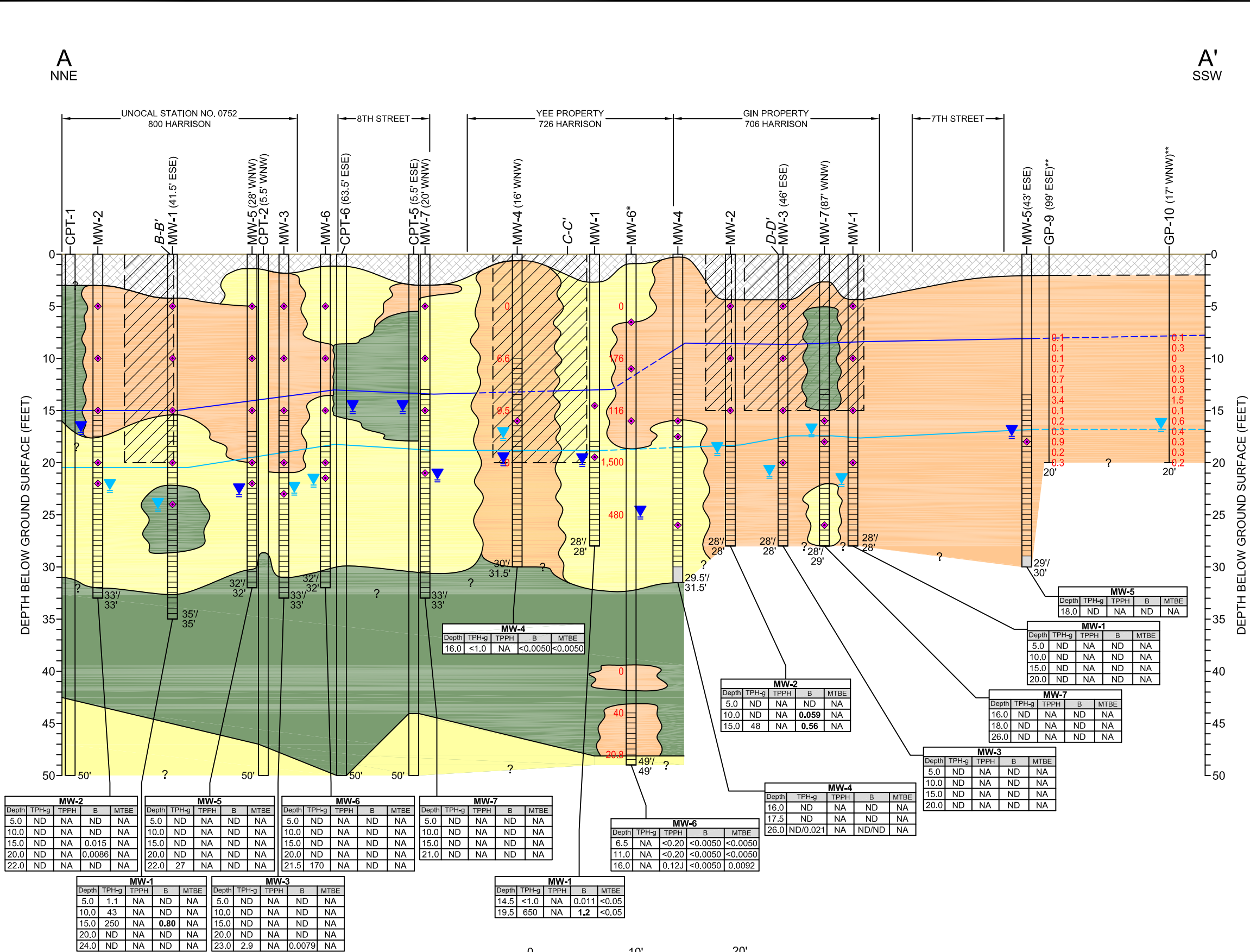
NOTE:

1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.



UNION OIL OF CALIFORNIA STATION NO. 0752/YEE/GIN COMMINGLED 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA	
GEOLOGIC CROSS SECTION LOCATIONS	
	FIGURE 3

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
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 XREFS: IMAGES: PROJECTNAME: 1
 47339X01



LEGEND

- WELL ID (PROJECTED DISTANCE AND DIRECTION FROM CROSS SECTION)
- GROUND SURFACE
- LITHOLOGIC CONTACT (DASHED WHERE INFERRED)
- FIRST WATER
- STATIC WATER
- SOIL SAMPLE LOCATION
- SCREEN INTERVAL
- SUMP
- WELL DEPTH/TOTAL BORING DEPTH (FEET BELOW GROUND SURFACE)
- HISTORICAL HIGH GROUNDWATER ELEVATION (DASHED WHERE INTERPRETED)
- HISTORICAL LOW GROUNDWATER ELEVATION (DASHED WHERE INTERPRETED)
- ** DEEP WELL NOT USED IN HISTORICAL HIGH OR LOW GROUNDWATER ELEVATION
- * SOIL BORING

LITHOLOGY

- FILL MATERIAL
- PERMEABLE SOIL TYPES (SP, SW)
- MEDIUM PERMEABLE SOIL TYPES (SC, SM)
- LOW PERMEABLE SOIL TYPES (CL, ML)
- EXCAVATION AREA

ANALYTICAL RESULTS

- 0.1 PID READING (ppmv)
- PID PHOTOIONIZATION DETECTOR
- TPH-g TOTAL PETROLEUM HYDROCARBONS AS GASOLINE (mg/kg)
- TPPH TOTAL PURGEABLE PETROLEUM HYDROCARBONS (mg/kg)
- B BENZENE (mg/kg)
- MTBE METHYL TERTIARY BUTYL ETHER (mg/kg)
- ppmv PARTS PER MILLION BY VOLUME
- mg/kg MILLIGRAMS PER KILOGRAM
- NA NOT ANALYZED
- ND NON-DETECT
- ND/0.021 CONCENTRATIONS COLLECTED AT MULTIPLE DEPTHS WITHIN TARGET RANGE
- < LESS THAN STATED LABORATORY REPORTING LIMIT
- J ESTIMATED VALUE
- BOLD** RESULT EXCEEDS THE FOLLOWING ENVIRONMENTAL SCREENING LEVELS (ESLs) FOR RESIDENTIAL SOIL:
 TPPH - 83 mg/kg
 BENZENE - 0.044 mg/kg
 MTBE - 0.023 mg/kg

MW-2

Depth	TPH-g	TPPH	B	MTBE
5.0	ND	NA	ND	NA
10.0	ND	NA	ND	NA
15.0	ND	NA	0.015	NA
20.0	ND	NA	0.0086	NA
22.0	ND	NA	ND	NA

MW-5

Depth	TPH-g	TPPH	B	MTBE	
5.0	ND	NA	ND	NA	
10.0	ND	NA	ND	NA	
15.0	ND	NA	ND	NA	
20.0	ND	NA	ND	NA	
22.0	ND	27	NA	ND	NA

MW-6

Depth	TPH-g	TPPH	B	MTBE
5.0	ND	NA	ND	NA
10.0	ND	NA	ND	NA
15.0	ND	NA	ND	NA
20.0	ND	NA	ND	NA
21.5	170	NA	NA	NA

MW-7

Depth	TPH-g	TPPH	B	MTBE
5.0	ND	NA	ND	NA
10.0	ND	NA	ND	NA
15.0	ND	NA	ND	NA
20.0	ND	NA	ND	NA
21.0	ND	NA	ND	NA

MW-6

Depth	TPH-g	TPPH	B	MTBE
6.5	NA	<0.20	<0.0050	<0.0050
11.0	NA	<0.20	<0.0050	<0.0050
16.0	NA	0.12J	<0.0050	0.0092

MW-4

Depth	TPH-g	TPPH	B	MTBE
16.0	ND	NA	ND	NA
17.5	ND	NA	ND	NA
26.0	ND/0.021	NA	ND/ND	NA

MW-3

Depth	TPH-g	TPPH	B	MTBE
5.0	ND	NA	ND	NA
10.0	ND	NA	ND	NA
15.0	ND	NA	ND	NA
20.0	ND	NA	ND	NA

MW-2

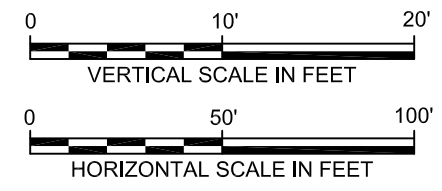
Depth	TPH-g	TPPH	B	MTBE
5.0	ND	NA	ND	NA
10.0	ND	NA	0.059	NA
15.0	48	NA	0.56	NA

MW-1

Depth	TPH-g	TPPH	B	MTBE
5.0	1.1	NA	ND	NA
10.0	43	NA	ND	NA
15.0	250	NA	0.80	NA
20.0	ND	NA	ND	NA
24.0	ND	NA	ND	NA

MW-3

Depth	TPH-g	TPPH	B	MTBE
5.0	ND	NA	ND	NA
10.0	ND	NA	ND	NA
15.0	ND	NA	ND	NA
20.0	ND	NA	ND	NA
23.0	2.9	NA	0.0079	NA

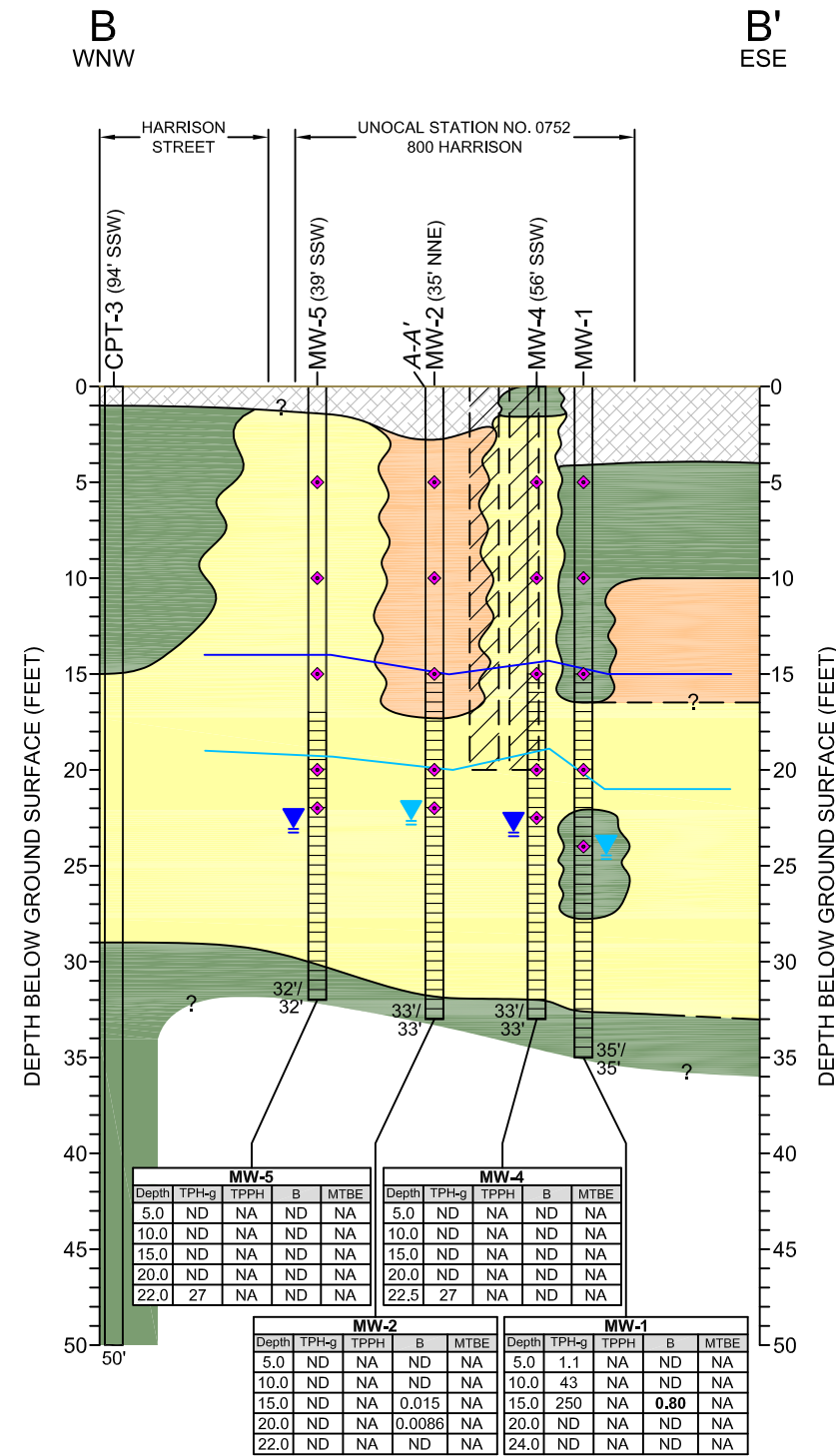


UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

GEOLOGIC CROSS SECTION A-A'

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FIGURE 4



LEGEND

- MW-5 (39' SSW)
- WELL ID (PROJECTED DISTANCE AND DIRECTION FROM CROSS SECTION)
- GROUND SURFACE
- - - LITHOLOGIC CONTACT (DASHED WHERE INFERRED)
- ▲ FIRST WATER
- ◆ STATIC WATER
- ◆ SOIL SAMPLE LOCATION
- ▭ SCREEN INTERVAL
- 32'/32' WELL DEPTH/TOTAL BORING DEPTH (FEET BELOW GROUND SURFACE)
- - - HISTORICAL HIGH GROUNDWATER ELEVATION (DASHED WHERE INTERPRETED)
- - - HISTORICAL LOW GROUNDWATER ELEVATION (DASHED WHERE INTERPRETED)

LITHOLOGY

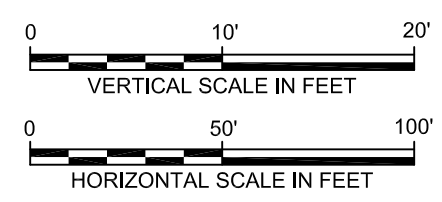
- ▨ FILL MATERIAL
- PERMEABLE SOIL TYPES (SP, SW)
- MEDIUM PERMEABLE SOIL TYPES (SC, SM)
- LOW PERMEABLE SOIL TYPES (CL, ML)
- ▨ EXCAVATION AREA

ANALYTICAL RESULTS

- TPH-g TOTAL PETROLEUM HYDROCARBONS AS GASOLINE (mg/kg)
- TPPH TOTAL PURGEABLE PETROLEUM HYDROCARBONS (mg/kg)
- B BENZENE (mg/kg)
- MTBE METHYL TERTIARY BUTYL ETHER (mg/kg)
- mg/kg MILLIGRAMS PER KILOGRAM
- NA NOT ANALYZED
- ND NON-DETECT
- < LESS THAN STATED LABORATORY REPORTING LIMIT
- RESULT EXCEEDS THE FOLLOWING ENVIRONMENTAL SCREENING LEVELS (ESLs) FOR RESIDENTIAL SOIL:**
 TPH - 83 mg/kg
 BENZENE - 0.044 mg/kg
 MTBE - 0.023 mg/kg

MW-5					MW-4				
Depth	TPH-g	TPPH	B	MTBE	Depth	TPH-g	TPPH	B	MTBE
5.0	ND	NA	ND	NA	5.0	ND	NA	ND	NA
10.0	ND	NA	ND	NA	10.0	ND	NA	ND	NA
15.0	ND	NA	ND	NA	15.0	ND	NA	ND	NA
20.0	ND	NA	ND	NA	20.0	ND	NA	ND	NA
22.0	27	NA	ND	NA	22.5	27	NA	ND	NA

MW-2					MW-1				
Depth	TPH-g	TPPH	B	MTBE	Depth	TPH-g	TPPH	B	MTBE
5.0	ND	NA	ND	NA	5.0	1.1	NA	ND	NA
10.0	ND	NA	ND	NA	10.0	43	NA	ND	NA
15.0	ND	NA	0.015	NA	15.0	250	NA	0.80	NA
20.0	ND	NA	0.0086	NA	20.0	ND	NA	ND	NA
22.0	ND	NA	ND	NA	24.0	ND	NA	ND	NA



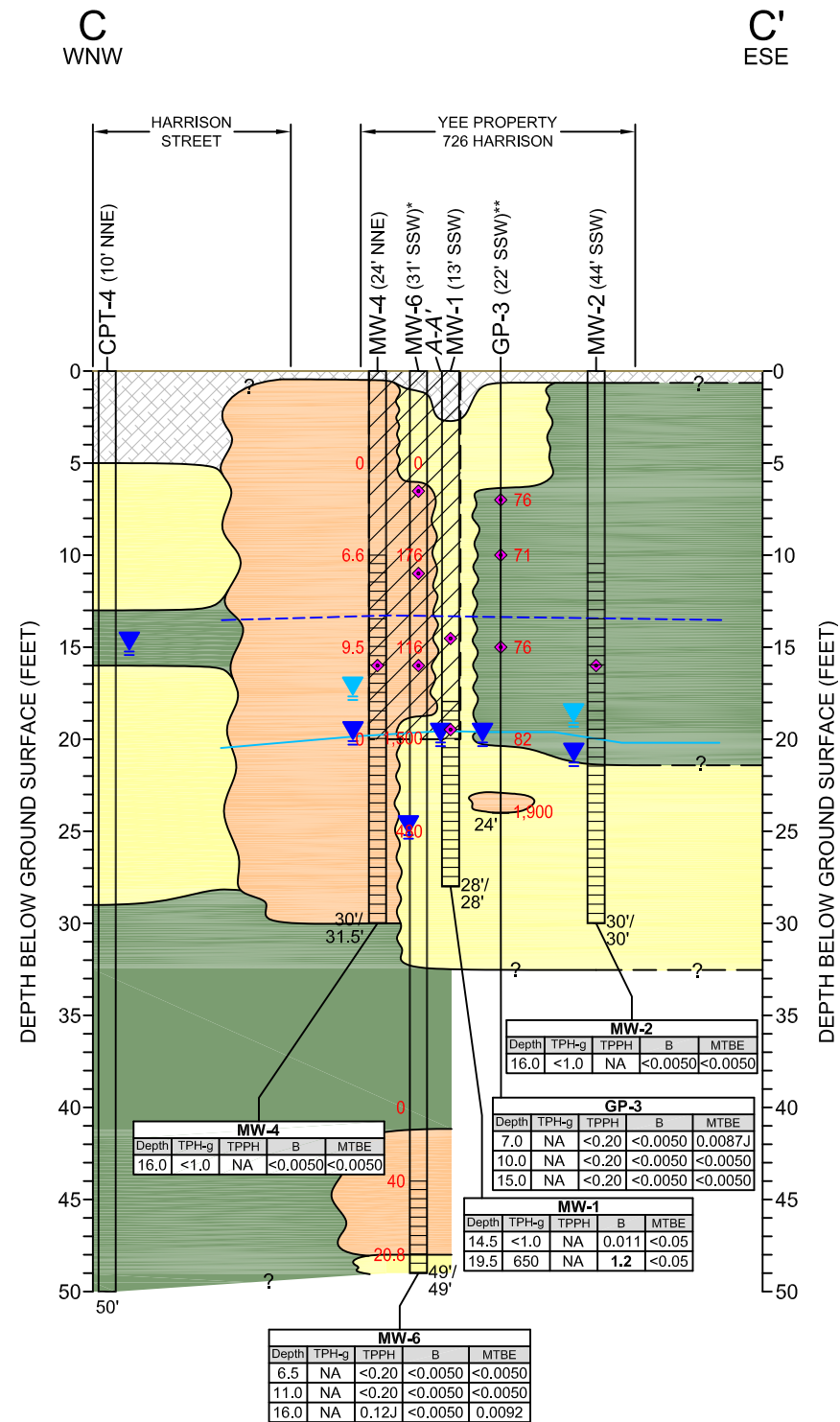
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GEOLOGIC CROSS SECTION B-B'

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FIGURE
5

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
 C:\Users\jharris\Desktop\ENVCAD\B0047339\2012100007\DWG\47339V03.dwg LAYOUT: 6 SAVER: 10/12/2012 3:29 PM ACADVER: 18.1 S (LMS TECH) PAGES: 6 PLOTTED: 10/17/2012 12:56 PM BY: HARRIS, JESSICA
 XREFS: IMAGES: PROJECTNAME: 47339X01



LEGEND

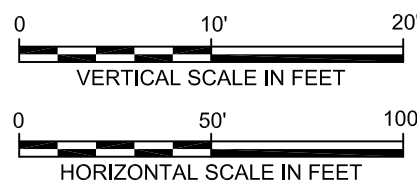
- WELL ID (PROJECTED DISTANCE AND DIRECTION FROM CROSS SECTION)
- GROUND SURFACE
- LITHOLOGIC CONTACT (DASHED WHERE INFERRED)
- FIRST WATER
- STATIC WATER
- SOIL SAMPLE LOCATION
- SCREEN INTERVAL
- WELL DEPTH/TOTAL BORING DEPTH (FEET BELOW GROUND SURFACE)
- HISTORICAL HIGH GROUNDWATER ELEVATION (DASHED WHERE INTERPRETED)
- HISTORICAL LOW GROUNDWATER ELEVATION (DASHED WHERE INTERPRETED)
- ** DEEP WELL NOT USED IN HISTORICAL HIGH OR LOW GROUNDWATER ELEVATION
- * SOIL BORING

LITHOLOGY

- FILL MATERIAL
- PERMEABLE SOIL TYPES (SP, SW)
- MEDIUM PERMEABLE SOIL TYPES (SC, SM)
- LOW PERMEABLE SOIL TYPES (CL, ML)
- EXCAVATION AREA

ANALYTICAL RESULTS

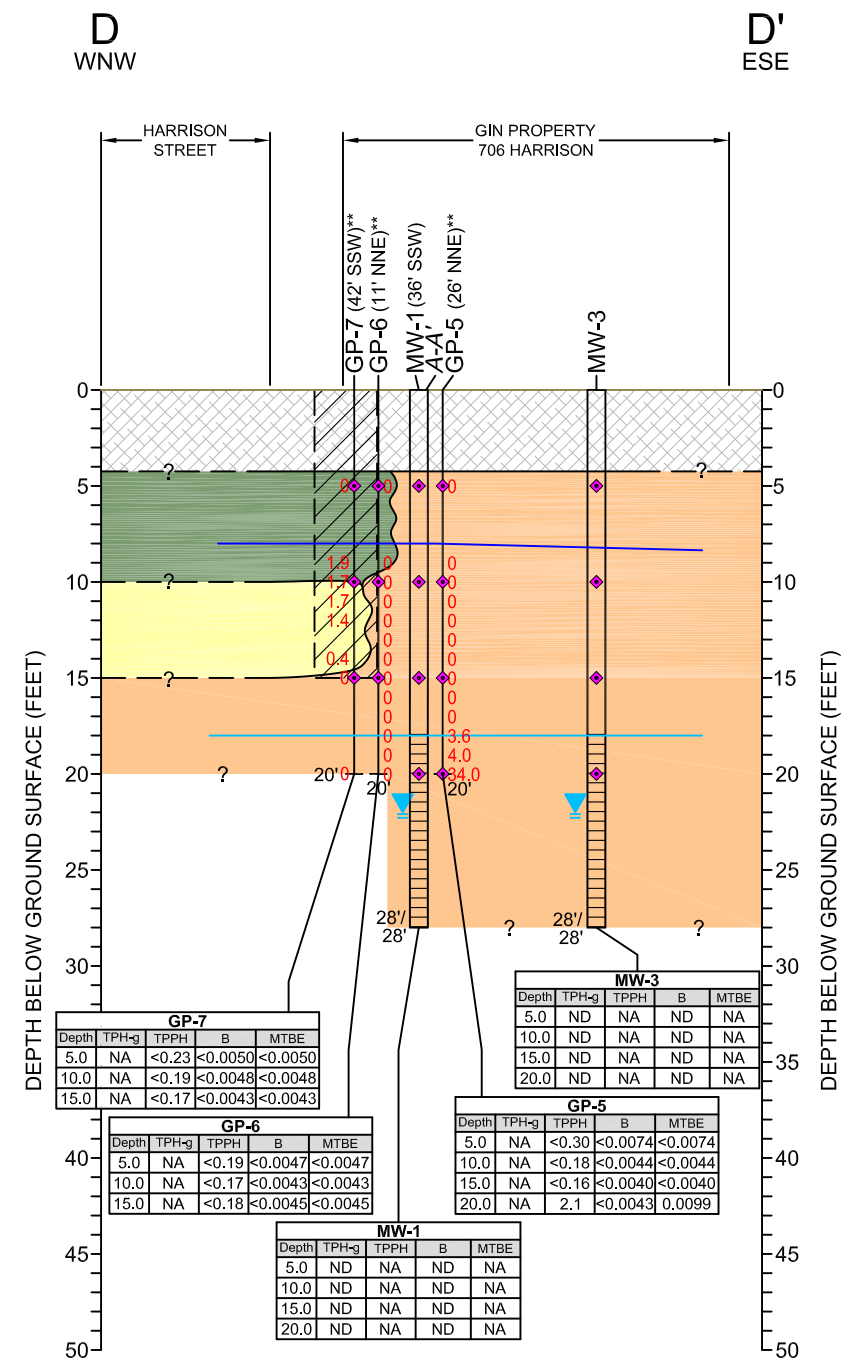
- 6.6 PID READING (ppmv)
- PID PHOTOIONIZATION DETECTOR
- TPH-g TOTAL PETROLEUM HYDROCARBONS AS GASOLINE (mg/kg)
- TPPH TOTAL PURGEABLE PETROLEUM HYDROCARBONS (mg/kg)
- B BENZENE (mg/kg)
- MTBE METHYL TERTIARY BUTYL ETHER (mg/kg)
- ppmv PARTS PER MILLION BY VOLUME
- mg/kg MILLIGRAMS PER KILOGRAM
- NA NOT ANALYZED
- ND NON-DETECT
- < LESS THAN STATED LABORATORY REPORTING LIMIT
- J ESTIMATED VALUE
- BOLD** RESULT EXCEEDS THE FOLLOWING ENVIRONMENTAL SCREENING LEVELS (ESLs) FOR RESIDENTIAL SOIL:
 - TPPH - 83 mg/kg
 - BENZENE - 0.044 mg/kg
 - MTBE - 0.023 mg/kg



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GEOLOGIC CROSS SECTION C-C'





LEGEND

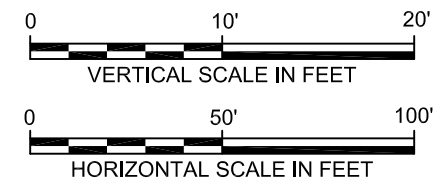
- WELL ID (PROJECTED DISTANCE AND DIRECTION FROM CROSS SECTION)
- GROUND SURFACE
- LITHOLOGIC CONTACT (DASHED WHERE INFERRED)
- FIRST WATER
- STATIC WATER
- SOIL SAMPLE LOCATION
- SCREEN INTERVAL
- WELL DEPTH/TOTAL BORING DEPTH (FEET BELOW GROUND SURFACE)
- HISTORICAL HIGH GROUNDWATER ELEVATION (DASHED WHERE INTERPRETED)
- HISTORICAL LOW GROUNDWATER ELEVATION (DASHED WHERE INTERPRETED)
- ** DEEP WELL NOT USED IN HISTORICAL HIGH OR LOW GROUNDWATER ELEVATION

LITHOLOGY

- FILL MATERIAL
- PERMEABLE SOIL TYPES (SP, SW)
- MEDIUM PERMEABLE SOIL TYPES (SC, SM)
- LOW PERMEABLE SOIL TYPES (CL, ML)
- EXCAVATION AREA

ANALYTICAL RESULTS

- 0.1 PID READING (ppmv)
- PID PHOTOIONIZATION DETECTOR
- TPH-g TOTAL PETROLEUM HYDROCARBONS AS GASOLINE (mg/kg)
- TPPH TOTAL PURGEABLE PETROLEUM HYDROCARBONS (mg/kg)
- B BENZENE (mg/kg)
- MTBE METHYL TERTIARY BUTYL ETHER (mg/kg)
- ppmv PARTS PER MILLION BY VOLUME
- mg/kg MILLIGRAMS PER KILOGRAM
- NA NOT ANALYZED
- ND NON-DETECT
- < LESS THAN STATED LABORATORY REPORTING LIMIT



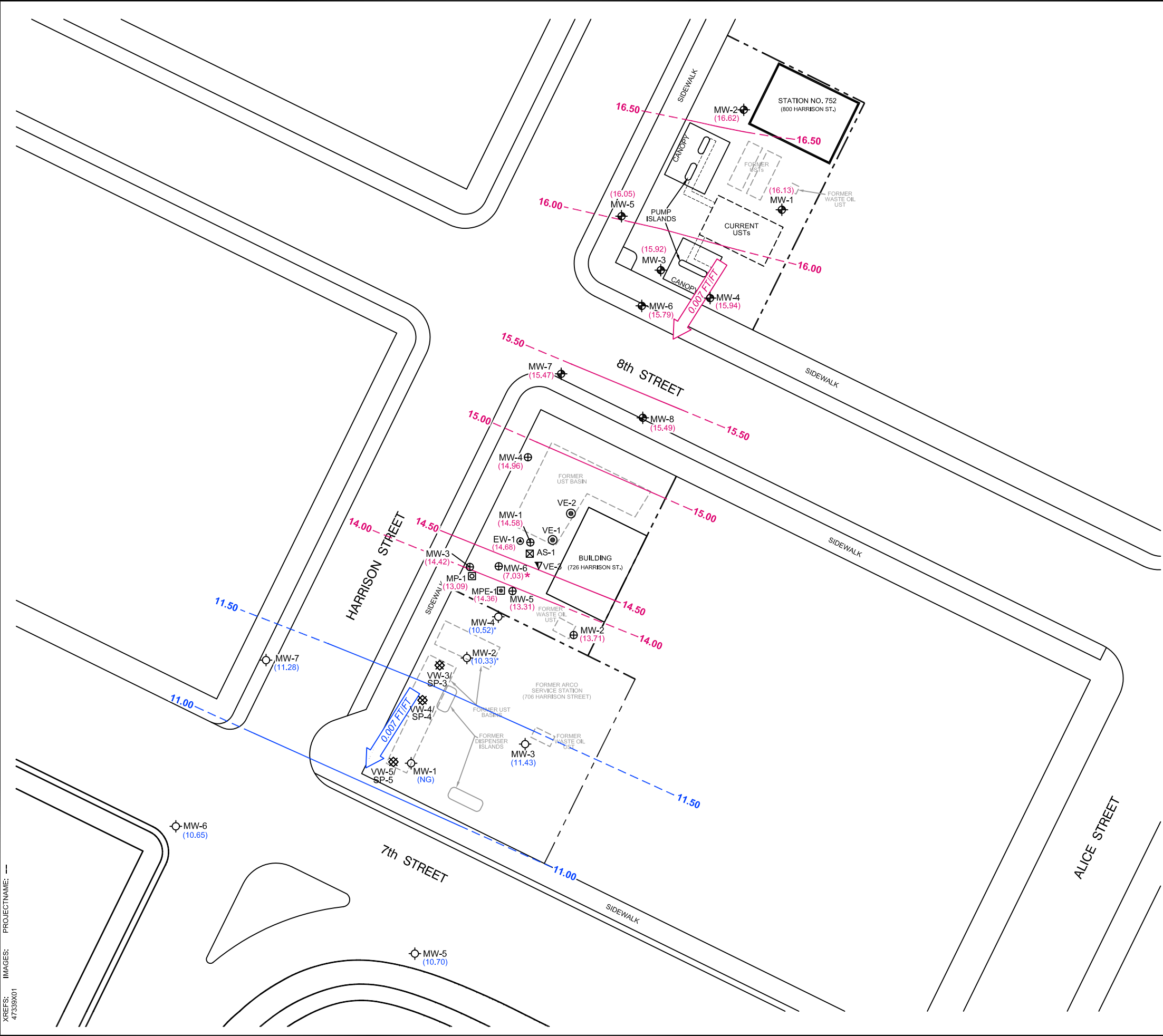
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GEOLOGIC CROSS SECTION D-D'

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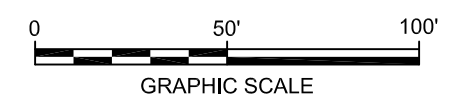
FIGURE 7

CITY: SAN RAFAEL, CA (PETALUMA) DIV: GROUP: ENV/CAD DB: J. HARRIS, R. HUBBATCH, J. HARRIS
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 XREFS: IMAGES: PROJECTNAME: 47339X01



- LEGEND**
- PROPERTY BOUNDARY
 - - - - - PRODUCT PIPING
 - MW-1 ⊕ GROUNDWATER MONITORING WELL (UNOCAL SITE)
 - MW-1 ⊕ GROUNDWATER MONITORING WELL (YEE SITE)
 - EW-1 ⊕ EXTRACTION WELL (YEE SITE)
 - MW-1 ⊕ GROUNDWATER MONITORING WELL (GIN SITE)
 - VW-3/SP-3 ⊗ SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN SITE)
 - MPE-1 ⊕ MULTI-PHASE EXTRACTION PILOT TEST WELL (PZ-1 IS LOCATED IN THE SAME BOREHOLE) (YEE SITE)
 - MP-1 ⊕ PILOT TEST MONITORING POINT (YEE SITE)
 - VE-1 ⊕ VAPOR EXTRACTION WELL (YEE SITE)
 - VE-3 ▲ PILOT TEST VAPOR EXTRACTION WELL (YEE SITE)
 - AS-1 ⊗ AIR SPARGE WELL (YEE SITE)
 - (16.13) GROUNDWATER ELEVATION CONTOUR IN FEET RELATIVE TO MEAN SEA LEVEL (FT MSL)
 - 15.00 GROUNDWATER ELEVATION CONTOUR (FT MSL; DASHED WHERE INFERRED)
 - ← 0.007 FT/FT APPROXIMATE GROUNDWATER FLOW DIRECTION AND GRADIENT (FOOT PER FOOT)
 - (NG) NOT GAUGED
 - * NOT USED IN GROUNDWATER CONTOURING AND GRADIENT CALCULATION

- NOTES:**
1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'. MUIR SURVEY COMPLETED A SURVEY ON 8/21/13.
 2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.
 3. MW-6 IS NOT USED IN THE GROUNDWATER CONTOURS BECAUSE IT IS LOCATED IN A LOWER WATER BEARING ZONE.
 4. GROUNDWATER CONTOURS FOR 800/726 HARRISON STREET SEPARATE FROM 706 HARRISON STREET DUE TO SURVEYING DISCREPANCIES. 706 HARRISON TO BE RE-SURVEYED IN 2014.



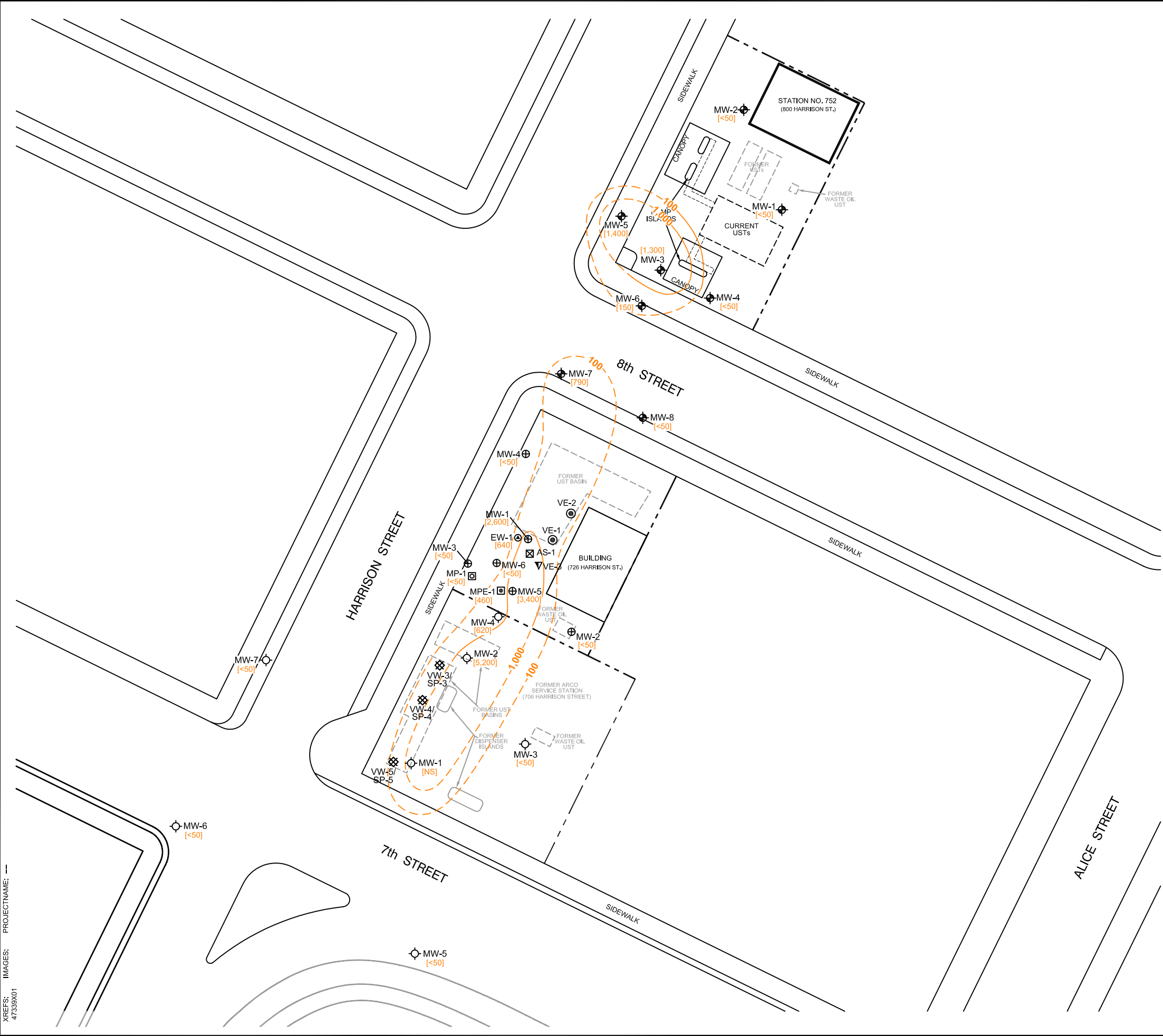
UNION OIL OF CALIFORNIA
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**GROUNDWATER ELEVATION
 CONTOUR MAP**

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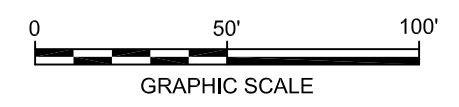
FIGURE
8

CITY: SAN RAFAEL, CA (PETALUMA) DIV(GROUP): ENVCAD DB: J. HARRIS, M. HOFFER, J. HARRIS
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 XREFS: IMAGES: PROJECTNAME: 47339X01



- LEGEND**
- PROPERTY BOUNDARY
 - PRODUCT PIPING
 - MW-1 ⊕ GROUNDWATER MONITORING WELL (UNOCAL SITE)
 - MW-1 ⊕ GROUNDWATER MONITORING WELL (YEE SITE)
 - EW-1 ⊕ EXTRACTION WELL (YEE SITE)
 - MW-1 ⊕ GROUNDWATER MONITORING WELL (GIN SITE)
 - VW-3/SP-3 ⊗ SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN SITE)
 - MPE-1 ⊕ MULTI-PHASE EXTRACTION PILOT TEST WELL (PZ-1 IS LOCATED IN THE SAME BOREHOLE) (YEE SITE)
 - MP-1 ⊕ PILOT TEST MONITORING POINT (YEE SITE)
 - VE-1 ⊕ VAPOR EXTRACTION WELL (YEE SITE)
 - VE-3 ▲ PILOT TEST VAPOR EXTRACTION WELL (YEE SITE)
 - AS-1 ⊗ AIR SPARGE WELL (YEE SITE)
 - [150] TOTAL PURGEABLE PETROLEUM HYDROCARBONS (TPPH) CONCENTRATION IN MICROGRAMS PER LITER (µg/L)
 - 100 ——— TPPH ISOCONCENTRATION CONTOUR (µg/L; DASHED WHERE INFERRED)
 - < DENOTES LESS THAN LABORATORY REPORTING LIMIT
 - [NS] NOT SAMPLED

- NOTES:**
1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.
 3. MW-6 IS NOT USED IN CONTOURING BECAUSE IT IS LOCATED IN A LOWER WATER BEARING ZONE.



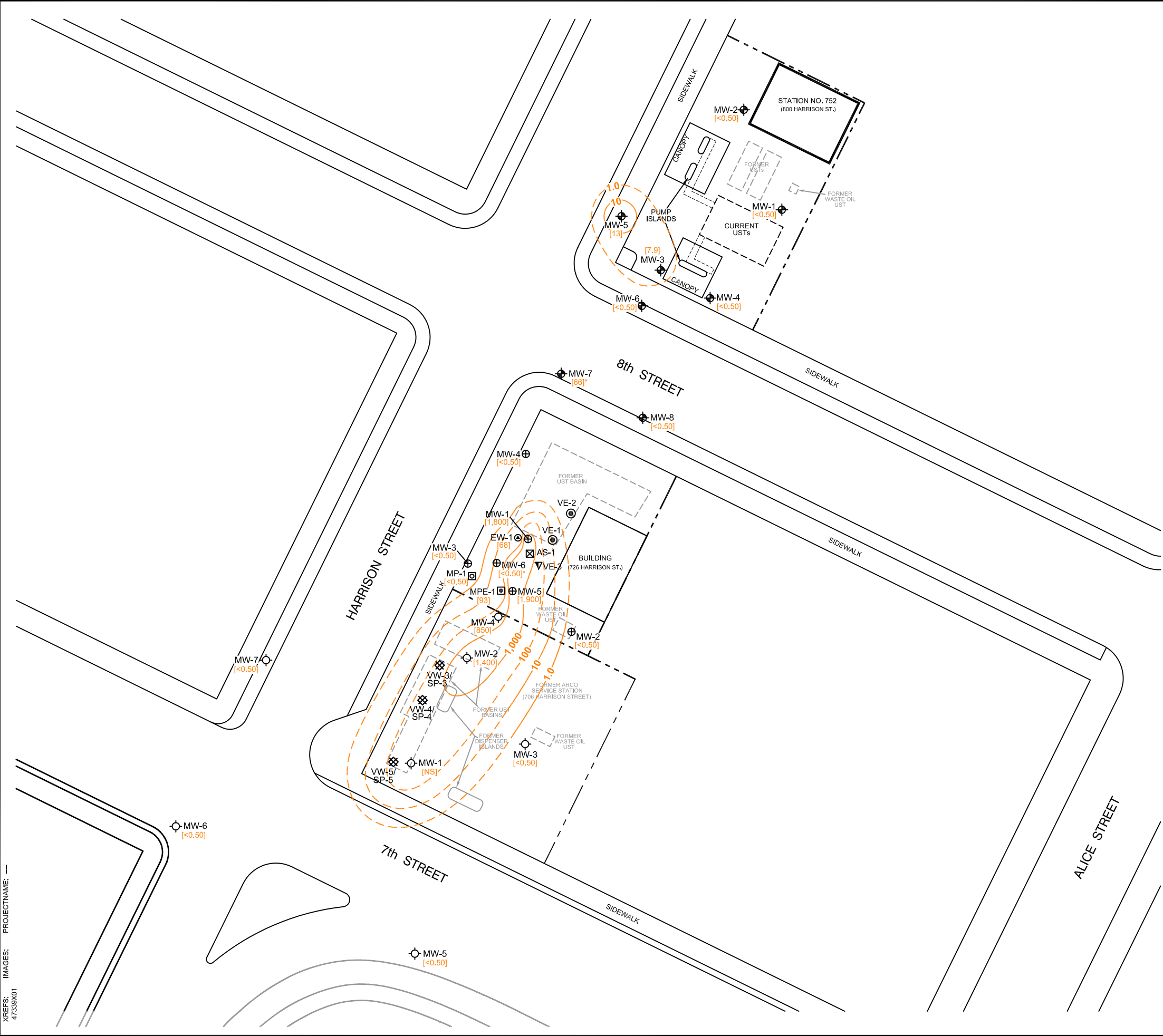
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TPPH CONCENTRATION MAP

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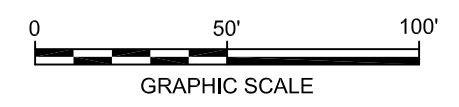
FIGURE
9

CITY: SAN RAFAEL, CA (PETALUMA) DIV(GROUP): ENVCAD DB: J. HARRIS, M. HOFFER, J. HARRIS
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 XREFS: IMAGES: PROJECTNAME: 47339X01



- LEGEND**
- PROPERTY BOUNDARY
 - PRODUCT PIPING
 - MW-1 ⊕ GROUNDWATER MONITORING WELL (UNOCAL SITE)
 - MW-1 ⊕ GROUNDWATER MONITORING WELL (YEE SITE)
 - EW-1 ⊕ EXTRACTION WELL (YEE SITE)
 - MW-1 ⊕ GROUNDWATER MONITORING WELL (GIN SITE)
 - VW-3/SP-3 ⊗ SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN SITE)
 - MPE-1 ⊕ MULTI-PHASE EXTRACTION PILOT TEST WELL (PZ-1 IS LOCATED IN THE SAME BOREHOLE) (YEE SITE)
 - MP-1 ⊕ PILOT TEST MONITORING POINT (YEE SITE)
 - VE-1 ⊕ VAPOR EXTRACTION WELL (YEE SITE)
 - VE-3 ▲ PILOT TEST VAPOR EXTRACTION WELL (YEE SITE)
 - AS-1 ⊗ AIR SPARGE WELL (YEE SITE)
 - [13] BENZENE CONCENTRATION IN MICROGRAMS PER LITER (µg/L)
 - 100 — BENZENE ISOCONCENTRATION CONTOUR (µg/L; DASHED WHERE INFERRED)
 - < DENOTES LESS THAN LABORATORY REPORTING LIMIT
 - [NS] NOT SAMPLED
 - WELL NOT USED IN CONCENTRATION CONTOURING

- NOTES:**
1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.
 3. MW-6 IS NOT USED IN CONTOURING BECAUSE IT IS LOCATED IN A LOWER WATER BEARING ZONE.

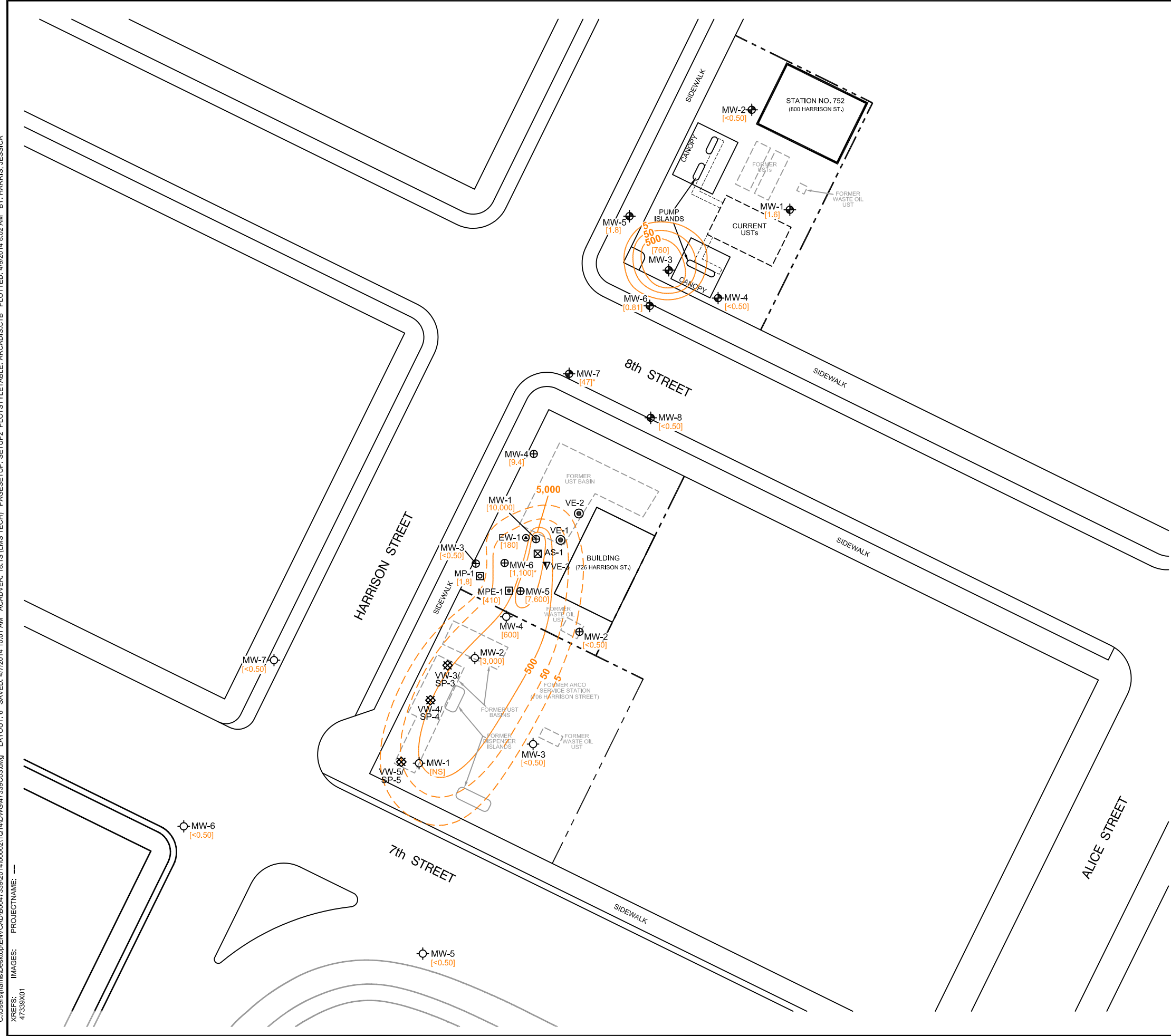


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BENZENE CONCENTRATION MAP

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FIGURE
10

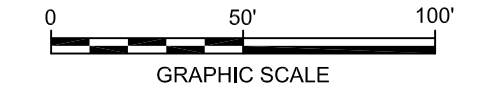


LEGEND

- PROPERTY BOUNDARY
- PRODUCT PIPING
- MW-1 ⊕ GROUNDWATER MONITORING WELL (UNOCAL SITE)
- MW-1 ⊕ GROUNDWATER MONITORING WELL (YEE SITE)
- EW-1 ⊕ EXTRACTION WELL (YEE SITE)
- MW-1 ⊕ GROUNDWATER MONITORING WELL (GIN SITE)
- VW-3/SP-3 ⊗ SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN SITE)
- MPE-1 ⊞ MULTI-PHASE EXTRACTION PILOT TEST WELL (PZ-1 IS LOCATED IN THE SAME BOREHOLE) (YEE SITE)
- MP-1 ⊞ PILOT TEST MONITORING POINT (YEE SITE)
- VE-1 ⊙ VAPOR EXTRACTION WELL (YEE SITE)
- VE-3 ▲ PILOT TEST VAPOR EXTRACTION WELL (YEE SITE)
- AS-1 ⊞ AIR SPARGE WELL (YEE SITE)
- [1.6] METHYL TERTIARY BUTYL ETHER CONCENTRATION IN MICROGRAMS PER LITER (µg/L)
- 500 --- MTBE ISOCONCENTRATION CONTOUR (µg/L; DASHED WHERE INFERRED)
- < DENOTES LESS THAN LABORATORY REPORTING LIMIT
- [NS] NOT SAMPLED
- WELL NOT USED IN CONCENTRATION CONTOURING

NOTES:

1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.
3. MW-6 IS NOT USED IN CONTOURING BECAUSE IT IS LOCATED IN A LOWER WATER BEARING ZONE.

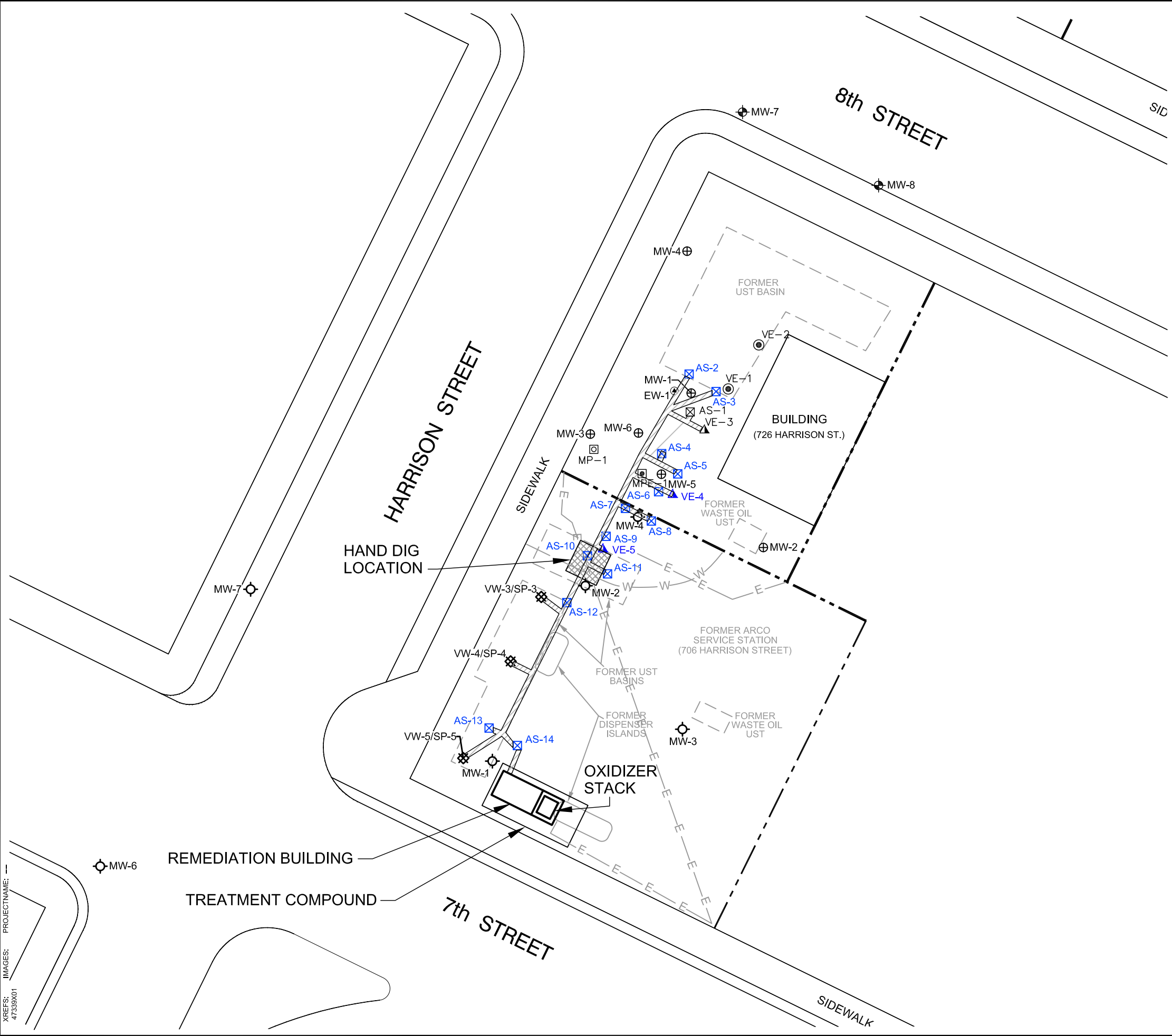


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OAKLAND, CALIFORNIA

MTBE CONCENTRATION MAP

 FIGURE **11**

CITY:(Recd) DIV:(GROUP/Recd) DB:(Recd) LD:(Opt) PIC:(Opt) PNI:(Recd) TMI:(Opt) LYR:(Opt)OFF=REF
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 XREFS: 47339X01
 IMAGES: PROJECTNAME: --

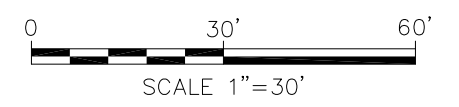


LEGEND

- PROPERTY BOUNDARY
- PRODUCT PIPING
- MW-1 ⊕ GROUNDWATER MONITORING WELL (UNOCAL)
- MW-1 ⊙ GROUNDWATER MONITORING WELL (GIN)
- VW-3/SP-3 ⊗ SOIL VAPOR/SPARGE WELL (GIN)
- MW-1 ⊕ GROUNDWATER MONITORING WELL (YEE)
- AS-1 ⊠ AIR SPARGE WELL (YEE)
- EW-1 ⊙ EXTRACTION WELL (YEE)
- MPE-1 ⊠ MULTI-PHASE EXTRACTION PILOT TEST WELL (PZ-1 IS LOCATED IN THE SAME BOREHOLE)
- MP-1 ⊠ PILOT TEST MONITORING POINT
- VE-1 ⊙ VAPOR EXTRACTION WELL (DESTROYED)
- VE-3 ▲ PILOT TEST VAPOR EXTRACTION WELL
- AS-2 ⊠ PROPOSED AIR SPARGE WELL
- VE-4 ▲ PROPOSED VAPOR EXTRACTION WELL
- ▨ PROPOSED SYSTEM TRENCHING
- W— WATER UTILITY LINE
- E— ELECTRICAL UTILITY LINE

NOTE:

1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.



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**PROPOSED REMEDIATION WELL AND
 TREATMENT ENCLOSURE LOCATIONS**

ARCADIS



Appendix A

Agency Correspondence

-----Original Message-----

From: Wickham, Jerry, Env. Health [<mailto:jerry.wickham@acgov.org>]

Sent: Monday, February 10, 2014 2:02 PM

To: Brandt, Katherine

Cc: TimBishop@chevron.com

Subject: Re: RO231/321/484 Harrison Street Co-mingled Plume

Katherine,

Based on your request, the schedule for submittal of a Remedial Action Plan for the case referenced above is extended to April 18, 2014.

Regards,
Jerry Wickham
Alameda County Environmental Health

Sent from my iPad

On Feb 10, 2014, at 12:29 PM, "Brandt, Katherine" <Katherine.Brandt@arcadis-us.com<<mailto:Katherine.Brandt@arcadis-us.com>>> wrote:

Jerry,

As we discussed on the phone today, ARCADIS and Chevron requests a 30 day extension for the Remedial Action Plan due March 18, 2014.

Thank you
Kathy

Katherine Brandt, P.G. | Geologist, Certified Project Manager | katherine.brandt@arcadis-us.com<<mailto:katherine.brandt@arcadis-us.com>>

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ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

December 2, 2013

RO0000231 Responsible Parties:

Timothy Bishop	Ed Ralston
Chevron Environmental Management Company	Phillips 66 Company
6101 Bollinger Canyon Road	76 Broadway
San Ramon, CA 94583	Sacramento, CA 95818

(Sent via E-mail to:

TimBishop@Chevron.com)

(Sent via E-mail to: Ed.C.Ralston@p66.com)

Muhammad Usman
800 Harrison Street
Oakland, CA 94607

Mahmood M Ali
Armsco, Inc.
P.O. Box 5427
Novato, CA 94948-5427

RO0000321 Responsible Parties:

Peter Yee	Kin Chan
1000 San Antonio Avenue	4328 Edgewood Avenue
Alameda, CA 94501	Oakland, CA 94602-1316

RO0000484 Responsible Parties:

Bo Gin
342 Lester Avenue
Oakland, CA 94606-1317

Subject: Pilot Test Summary Report for Commingled Plume Assessment for Fuel Leak Case No. RO0000231 (GeoTracker Global ID T0600101486), Unocal #0752, 800 Harrison Street, Oakland, CA 94607; Fuel Leak Case No. RO0000321 (GeoTracker Global ID T0600102122), Chan's Service Station/Shell, 726 Harrison Street, Oakland, CA 94607; and Fuel Leak Case No. RO0000484 (GeoTracker Global ID T0600100985), Oakland Auto Parts, 706 Harrison Street, Oakland, CA 94607

Dear Responsible Parties:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above-referenced site including the most recent document entitled, "*Multi-Phase Extraction and Air Sparge/Soil Vapor Extraction Pilot Test Summary Report 800, 726, and 706 Harrison Street, Oakland,*" dated October 9, 2013. The Pilot Test Report, which was prepared on behalf of Chevron Environmental Management Company by ARCADIS, presents results from a pilot test conducted in September 2013.

Based on the results of the pilot test activities, the Pilot Test Report recommends preparation of a Remedial Action Plan. We concur and request that you submit a Remedial Action Plan no later than March 18, 2014.

Responsible Parties
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December 2, 2013
Page 2

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACEH ftp site (Attention: Jerry Wickham), and to the State Water Resources Control Board's GeoTracker website according to the following schedule and file-naming convention:

- **March 18, 2014** – Remedial Action Plan
File to be named: RAP_R_yyyy-mm-dd RO231
- **April 29, 2014** – Semi-annual Groundwater Monitoring Report – First Quarter 2014
File to be named: GWM_R_yyyy-mm-dd RO231

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum ST system, and require your compliance with this request.

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at jerry.wickham@acgov.org. Online case files are available for review at the following website: <http://www.acgov.org/aceh/index.htm>.

Sincerely,

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Attachment: Responsible Party(ies) Legal Requirements/Obligations

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA 94612-2032 (Sent via E-mail to: lgriffin@oaklandnet.com)

Katherine Brandt, ARCADIS, 1900 Powell Street, 11th Floor, Emeryville, CA 94608 (Sent via E-mail to: Katherine.Brandt@arcadis-us.com)

Robert Foss, Conestoga-Rovers & Associates, 5900 Hollis Street, Suite A, Emeryville, CA 94608 2032 (Sent via E-mail to: bfoss@croworld.com)

Responsible Parties
RO0000231
December 2, 2013
Page 3

Robert Kitay, Aqua Science Engineers, Inc., 55 Oak Ct., Suite 220, Danville, CA 94526 (*Sent via E-mail to: rkitay@aquascienceengineers.com*)

Jerry Wickham, ACEH (*Sent via E-mail to: jerry.wickham@acgov.org*)

GeoTracker, eFile

Attachment 1

Responsible Party(ies) Legal Requirements/Obligations

REPORT/DATA REQUESTS

These reports/data are being requested pursuant to Division 7 of the California Water Code (Water Quality), Chapter 6.7 of Division 20 of the California Health and Safety Code (Underground Storage of Hazardous Substances), and Chapter 16 of Division 3 of Title 23 of the California Code of Regulations (Underground Storage Tank Regulations).

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (Local Oversight Program [LOP] for unauthorized releases from petroleum Underground Storage Tanks [USTs], and Site Cleanup Program [SCP] for unauthorized releases of non-petroleum hazardous substances) require submission of reports in electronic format pursuant to Chapter 3 of Division 7, Sections 13195 and 13197.5 of the California Water Code, and Chapter 30, Articles 1 and 2, Sections 3890 to 3895 of Division 3 of Title 23 of the California Code of Regulations (23 CCR). Instructions for submission of electronic documents to the ACEH FTP site are provided on the attached "Electronic Report Upload Instructions."

Submission of reports to the ACEH FTP site is in addition to requirements for electronic submittal of information (ESI) to the State Water Resources Control Board's (SWRCB) Geotracker website. In April 2001, the SWRCB adopted 23 CCR, Division 3, Chapter 16, Article 12, Sections 2729 and 2729.1 (Electronic Submission of Laboratory Data for UST Reports). Article 12 required electronic submittal of analytical laboratory data submitted in a report to a regulatory agency (effective September 1, 2001), and surveyed locations (latitude, longitude and elevation) of groundwater monitoring wells (effective January 1, 2002) in Electronic Deliverable Format (EDF) to Geotracker. Article 12 was subsequently repealed in 2004 and replaced with Article 30 (Electronic Submittal of Information) which expanded the ESI requirements to include electronic submittal of any report or data required by a regulatory agency from a cleanup site. The expanded ESI submittal requirements for petroleum UST sites subject to the requirements of 23 CCR, Division, 3, Chapter 16, Article 11, became effective December 16, 2004. All other electronic submittals required pursuant to Chapter 30 became effective January 1, 2005. Please visit the SWRCB website for more information on these requirements. (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/)

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 7835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, late reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	REVISION DATE: July 25, 2012
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (petroleum UST and SCP) require submission of all reports in electronic form to the county's FTP site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as a **single Portable Document Format (PDF) with no password protection.**
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

- 1) Obtain User Name and Password
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to .loptoxic@acgov.org
 - b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses,** and the **Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
 - a) Using Internet Explorer (IE4+), go to <://alcoftp1.acgov.org>
 - (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
 - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
 - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
 - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
 - a) Send email to .loptoxic@acgov.org notify us that you have placed a report on our ftp site.
 - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
 - c) The subject line of the e-mail must start with the RO# followed by **Report Upload.** (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
 - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.



Appendix B

Historical Site Investigations and
Remedial Actions

Appendix B

Union Oil of California
Station No. 0752/Yee/Gin Co-mingled
706/726/800 Harrison Street
Oakland, California

Site History, Previous Investigations and Remedial Actions

800 Harrison Street (Active Unocal)

In November 1990, two gasoline USTs and one waste oil UST were removed from the site. The tanks consisted of one 10,000 gallon regular unleaded gasoline storage tank, one 10,000 gallon super unleaded gasoline storage tank, and one 280 gallon waste oil tank. The waste oil tank was reported to contain one, 1/8 -inch square hole. Based on confirmation soil sampling during the UST removal, the majority of the source area was the soil beneath the former UST pit.

In August 1995, Kapraelian Engineering, Inc. (KEI) conducted an SVE pilot test. Pilot testing activities were conducted at MW-1 and MW-3, with a maximum applied wellhead vacuum of approximately 50 inH₂O for both tests. No measureable flow was observed after sustained operation at the maximum vacuum. Additional pilot testing was performed at on-site monitoring wells MW-5 and MW-6. No measureable flow was observed after sustained operation at the maximum vacuum (Stantec 2009).

In November 1996, one 1,100- gallon waste oil UST and associated product dispensers piping were removed from the site. No apparent holes or cracks were observed in the waste oil tank, or piping at this time.

Gettler-Ryan Inc., in their April 23, 2001 *Site Conceptual Model for 800 Harrison Street*, referenced the source area leak as a potential UST spill bucket containment failure stating that there were several historically documented maintenance reports in which residual rainwater was noted in the spill tank basin after overflow. The spill bucket containment was repaired in November 2001. Since the repair, hydrocarbon concentrations decreased in the short term, but there have been several additional elevated concentrations observed in 2004, which suggests that the spill bucket containment failure was not likely the single contributing source release.

726 Harrison Street (Former Shell)

In October 1995, four gasoline USTs and one waste UST were removed from the site. The tanks consisted of two 5,000-gallon single-walled bare-steel premium unleaded gasoline storage tanks, one 5,000-gallon single-walled bare-steel plus unleaded gasoline storage tank, one 8,000-gallon single-walled bare-steel regular unleaded gasoline storage tank, and one 1,000-gallon single-walled bare-steel waste oil tank. The State of California UST Permit Applications indicate that the USTs contain no spill or overflow preventative containment equipment for any of the former USTs.

Elevated hydrocarbon concentrations were detected in soil beneath each of the former gasoline USTs. Elevated concentrations of Total Oil and Grease (TOG) were detected in soil beneath the waste oil UST. Approximately 530 tons of impacted soil was removed from the excavations to a maximum depth of 20 feet below ground surface (bgs) in December 1995. Seven confirmation soil samples were collected from the bottom and side walls of the excavation to determine the removal of impacted soil. Two of the seven samples contained elevated concentrations of

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Station No. 0752/Yee/Gin Co-mingled
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petroleum hydrocarbons at the northern and southern portion of the excavation (Aqua Science Engineers, Inc. [ASE] 2007). Over excavation was not possible due the building location to the southeast and the street to the northwest.

In July 1997, a groundwater monitoring well was installed at the southern edge of the former USTs. Groundwater samples from the well contained elevated concentrations of petroleum hydrocarbons. In December 1998, three additional wells were installed along the southern property boundary between 706 and 726 Harrison Street. Newly installed wells (MW-3 and MW-4) contained much lower detections of hydrocarbons. MW-2 did not contain hydrocarbons detected above laboratory detection limits.

In August 2001, ASE installed one extraction well (EW-1), one AS well (AS-1), and two SVE wells (VE-1 and VE-2). A step drawdown test was performed at a pumping rate of 0.5 gallon per minute (gpm). A 640-minute constant rate pumping test was performed on EW-1 at an average flow rate of 0.65 gpm. Major and minor hydraulic conductivities of 20.2 and 5.02 feet per day, respectively, were determined from the constant rate pumping test.

In September 2001, ASE performed an AS/SVE pilot test on VE-1. The vacuum applied to VE-1 ranged from 26 to 54 inH₂O. Approximately 1 to 2 acfm were observed during pilot testing at these operational conditions. The AS pilot test was performed on AS-1 where applied injection pressure ranged from 1 to 5 psi. No flow was observed during the 90 minute pilot test activities (ASE 2001).

706 Harrison Street (Former ARCO)

In January 1991, four 1,000-gallon gasoline USTs, two 6,000-gallon gasoline USTs, and one unknown size waste oil tank were removed from the site. Confirmation soil samples were collected beneath the tanks, and elevated petroleum hydrocarbon concentrations were observed in confirmation samples. In December 1991, the UST pipes were removed and a limited subsurface investigation was performed to resample the former tank pit areas (Conestoga-Rovers and Associates [CRA] 2007).

In February 1993, an over excavation of unknown volume was performed from three excavations in the vicinity of the former UST locations. Limitations during the excavation related to shoring prevented removal of all impacted soil (CRA 2007). Soil samples collected at 16 feet bgs contained elevated concentrations of hydrocarbons.

In July 1993, monitoring wells (MW-1 through MW-3) and soil vapor extraction (SVE) wells (VW-1 and VW-2) were installed. Soil samples collected during the installation contained elevated total petroleum hydrocarbons as gasoline and benzene (6,000 parts per million [ppm] and 210 ppm, respectively). In December 1993, additional soil samples were collected from the former pump island locations containing concentrations of organic lead with a maximum of 17 ppm at 2 feet bgs.

In April 1994, a SVE pilot test was conducted and SVE was determined to be an effective remedial alternative. In November 1994, additional groundwater monitoring wells, SVE wells,

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Union Oil of California
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and air sparge (AS) wells were installed for on-site remediation. Operation the AS/SVE began in May 1998 and continued into February 2001. The SVE portion was shut down but the AS system continued to inject air to increase oxygen concentrations to enhance aerobic biodegradation.

Groundwater samples collected from SVE wells determined that the system was effective and the AS system was shut down.

The Co-mingled Plume Investigation (800, 726, and 706 Harrison Street):

In June 2011, ARCADIS conducted site assessment activities to address data gaps presented in Stantec's Work Plan (Stantec 2011) for the site. ARCADIS oversaw the advancement of four soil borings associated with the 800 and 706 Harrison Street properties (Figure 2). ASE oversaw the installation of one monitoring well and one soil boring associated with 726 Harrison Street with observations by ARCADIS (Figure 2).

Soil concentrations for the site assessment were elevated in soil boring GP-2 located at 800 Harrison Street. Total purgeable petroleum hydrocarbons (TPPH) and methyl tertiary butyl ether (MTBE) were detected at 3,200 milligrams per kilograms (mg/kg) and 0.0060 mg/kg, respectively. Groundwater samples were collected from two locations (GP-3 and MW-6) located on the 726 Harrison Street property. Elevated groundwater concentrations for benzene (1,800 micrograms per liter (µg/L)), toluene (2,000 µg/L), ethylbenzene (1,500 µg/L), xylenes (5,000 µg/L) (collectively BTEX), and MTBE (4,600 µg/L) were from soil boring GP-3.

On March 28, 2012, additional site assessment activities were conducted. ARCADIS oversaw the advancement of three soil borings (GP-1, GP-9 and GP 10) on the 800 Harrison and 640 Harrison Street properties.

800 Harrison Street Summary

Soil borings GP-1 and GP-2 were advanced to a depth of approximately 20 feet bgs to delineate the soil stratigraphy and extent of petroleum hydrocarbon impacts to vadose-zone soil. Soil samples collected from boring GP-2 indicate elevated concentrations for TPPH, toluene, ethylbenzene, xylenes, and MTBE at sample depths ranging from 10 feet to 17 feet bgs. Concentrations were detected above ESLs for two of the five analytes; TPPH and MTBE at sample depths of 14 feet and 17 feet bgs. Soil collected from GP-1 had concentrations below the detection limit for all analyses. Because TOG and Hydraulic Oil were not detected above detection limits, no additional samples were analyzed for Title 22 Metals or SVOCs per the Work Plan (Stantec 2011) specifications. Soil boring GP-1 is located southeast of MW-2 within the smog shop, and soil boring GP-2 is located northeast of MW-1 and southeast of the former USTs.

726 Harrison Street Summary

Soil boring GP-3 was advanced to a depth of approximately 20 feet bgs to delineate the soil stratigraphy and extent of petroleum hydrocarbon impacts to vadose-zone soil. Soil collected

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from GP-3 had concentrations below the detection limit for all analytes except MTBE at 7 feet bgs which had a concentration above the method detection Limit (MDL) but below the ESL.

The soil samples were collected at depths of 6.5, 11, and 16 feet bgs from MW-6. The newly installed well was placed south of EW-1, which previously had the highest detected MTBE groundwater concentrations for the comingled plume. Soil samples were not detected at the 6.5 and 11 feet bgs intervals. Elevated concentrations of TPPH and MTBE were detected at 16 feet bgs but concentrations were below the ESLs.

Groundwater samples were collected from boring GP-3 and from monitoring well MW-6. Concentrations of BTEX and MTBE were detected in excess of the MCL in GP-3 and MTBE was detected at a concentration of 990 micrograms per liter at MW-6. Groundwater was encountered at approximately 20 feet bgs at GP-3 and MW-6.

706 Harrison Street Summary

Soil boring locations GP-5 through GP-7 were advanced and sampled to assess the effectiveness of past site remediation events including several over-excavations to remove impacted hydrocarbon soil and the installation of a SVE and AS well system to remediate the property. Data collected from the assessment work indicates that soil has limited impacts in the vadose-zone. Soil samples collected from soil borings GP-6 located southwest of MW-2 within the former UST basin and GP-7 located in the southwestern corner along the fence line of the property, indicated that all analytes were not detected at concentrations in excess of the MDL. GP-5 located northeast of MW-4 and within the former UST basin, showed concentrations detected above MDLs for TPPH, ethylbenzene and MTBE at 20 feet bgs.

Downgradient Delineation

Groundwater samples were collected from boring GP-9 located from the 640 Harrison Street property. Groundwater samples collected from GP-9 had concentrations below the detection limit for all analytes. Groundwater was encountered at approximately 20 feet bgs.

Appendix B

Union Oil of California
Station No. 0752/Yee/Gin Co-mingled
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Oakland, California

References

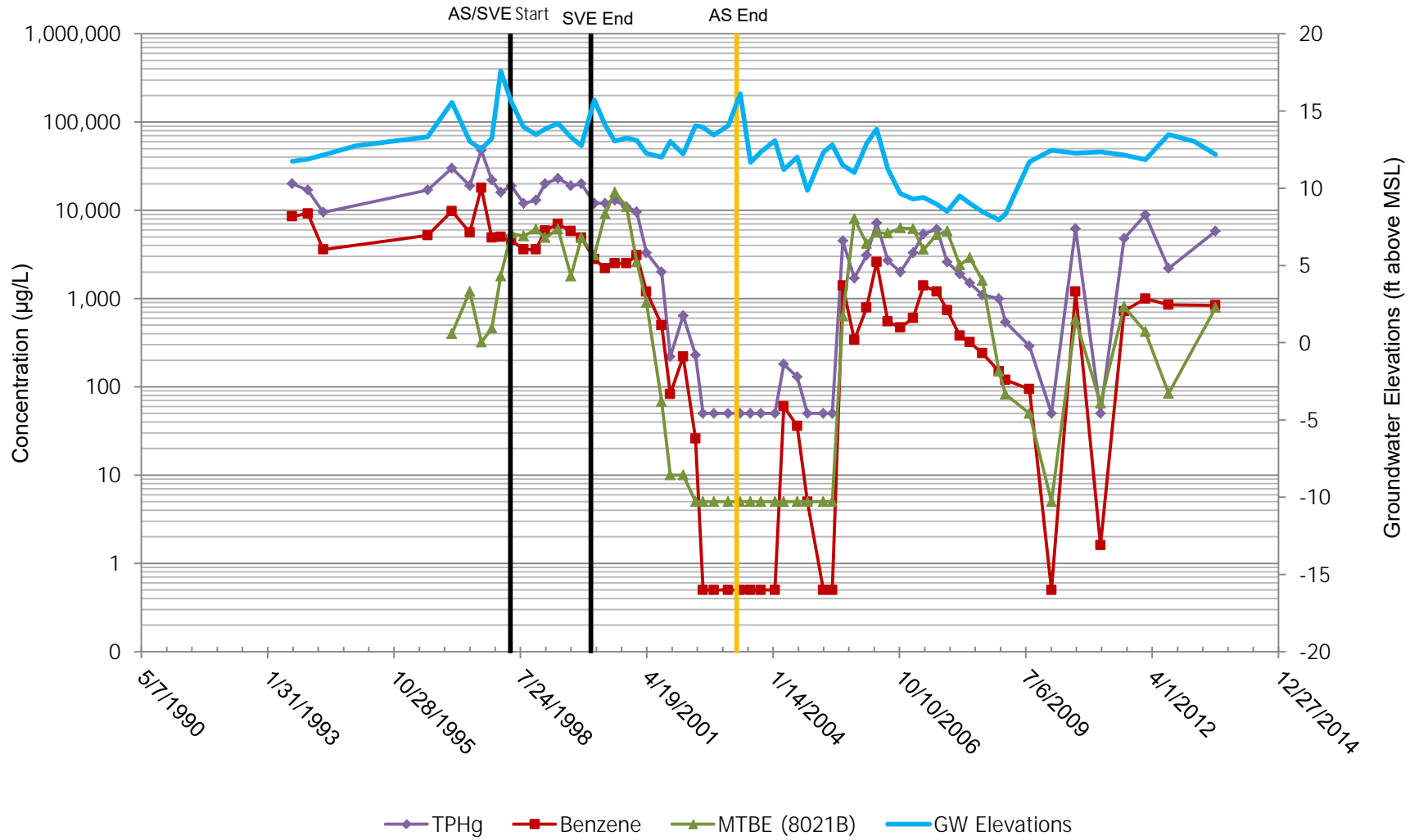
- Aqua Science Engineers, Inc. 2007. "*Subsurface Utility Study, Area Well Study, and Work Plan for Additional Soil and Groundwater Assessment for 726 Harrison Street, Oakland, California.*" December 6.
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- Gettler-Ryan, Inc. 2001. "*Site Conceptual Model for 800 Harrison Street, Oakland, California.*" April 23.
- Stantec Consulting Corporation (Stantec). 2009. "*Site Conceptual Model 800, 726, and 706 Harrison Street Comingled Plume Oakland.*" California, September 30, 2009.
- Stantec. 2011. "*Commingled Plume Assessment Work Plan, 800, 726, and 706 Harrison Street.*" Oakland, California. 2011.
- U.S. Geological Survey. 2000. USGS, R.W, Graymer, Geologic Map and Map Database of the Oakland Metropolitan Area, Alameda, Contra Costa, and San Francisco Counties, California.



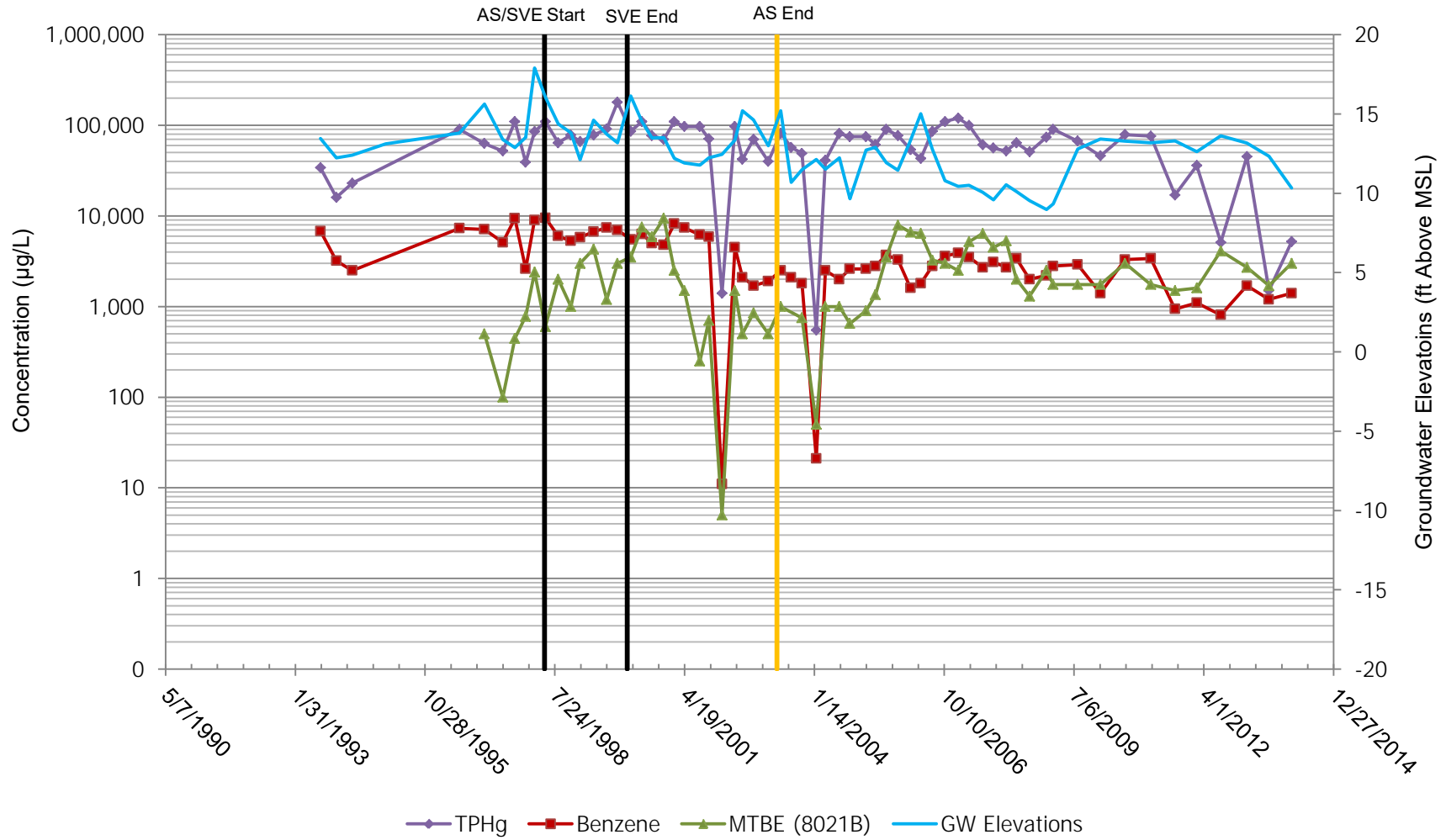
Appendix C

Hydrographs

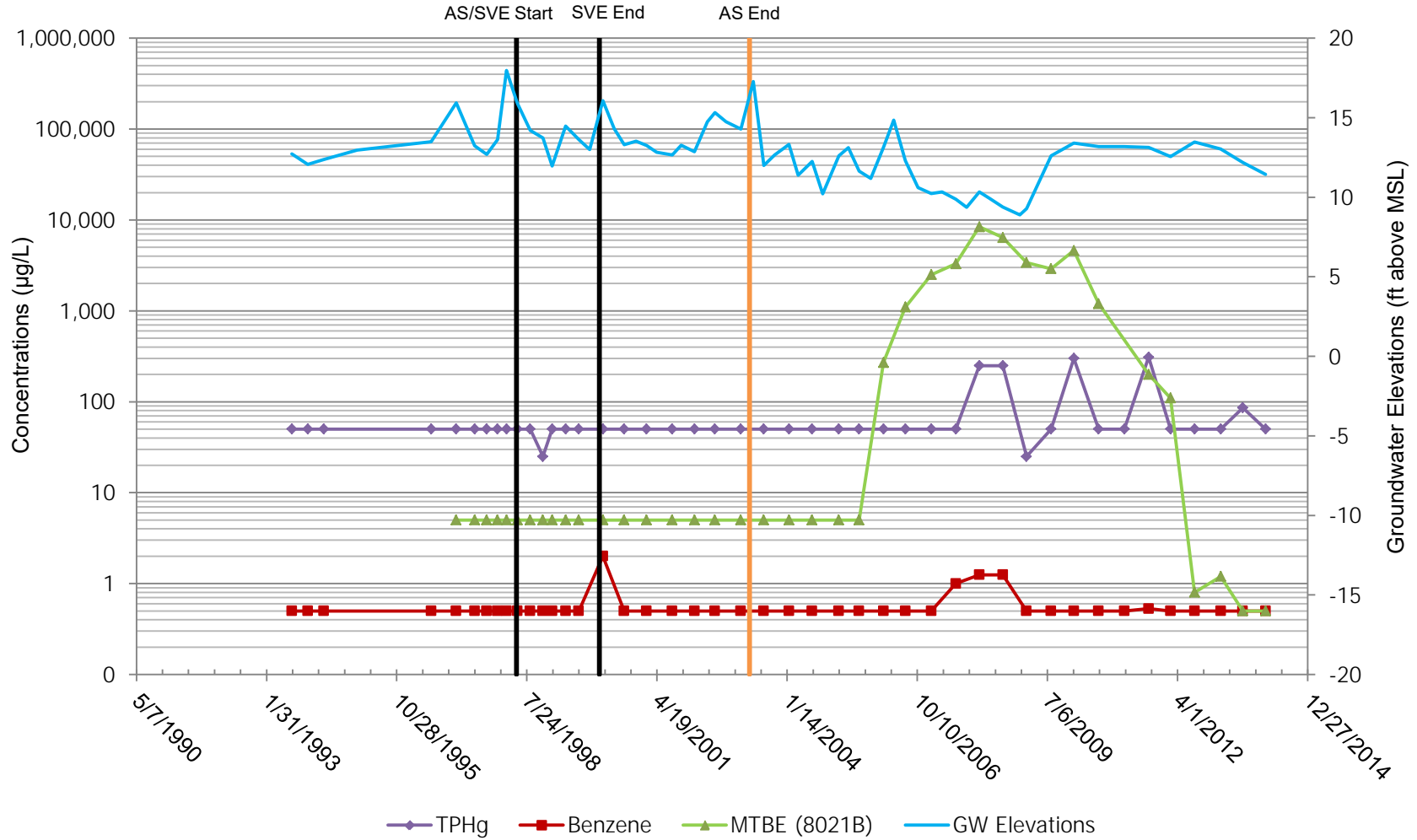
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706 Harrison St,
Oakland, CA



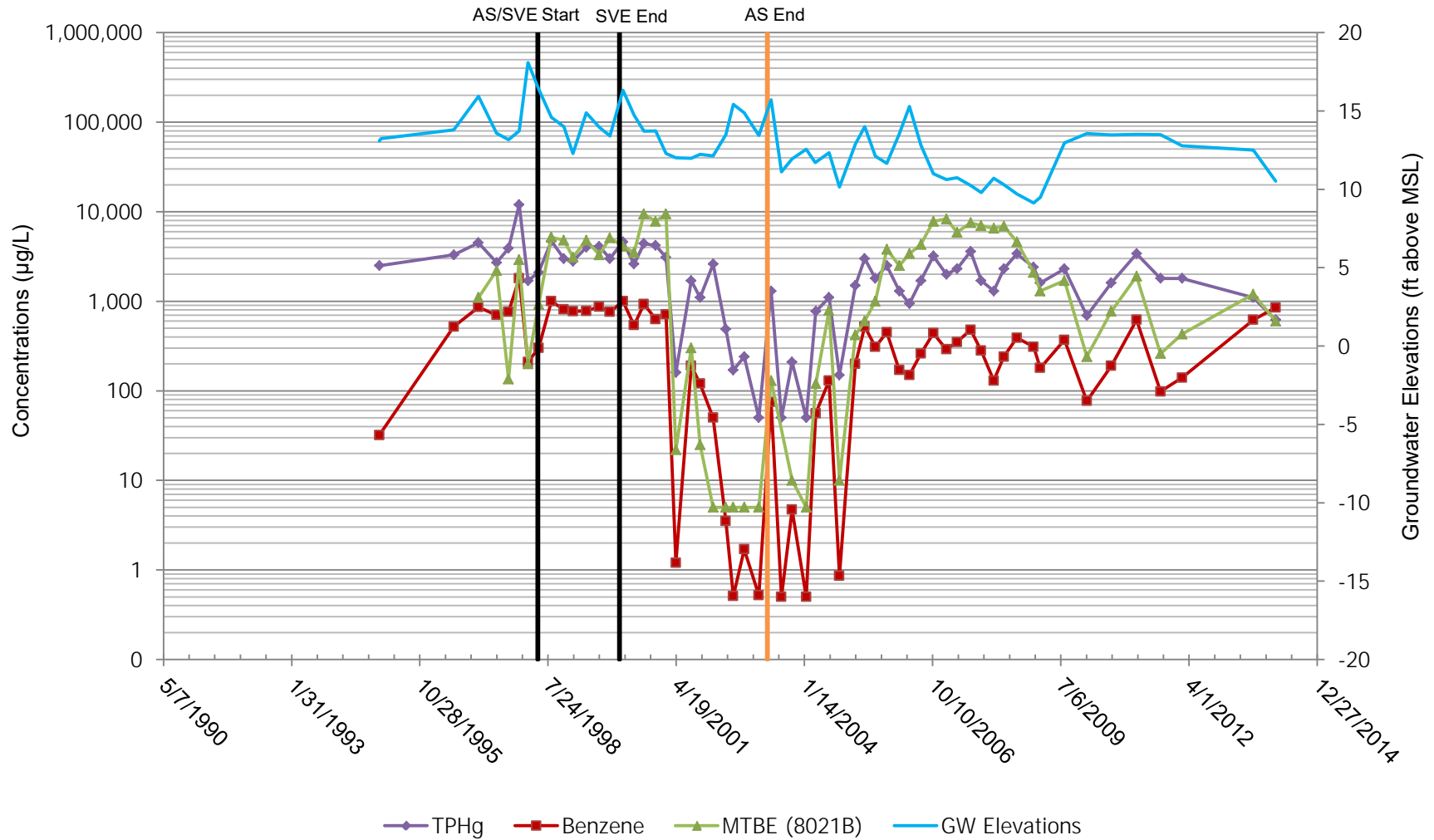
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Oakland CA



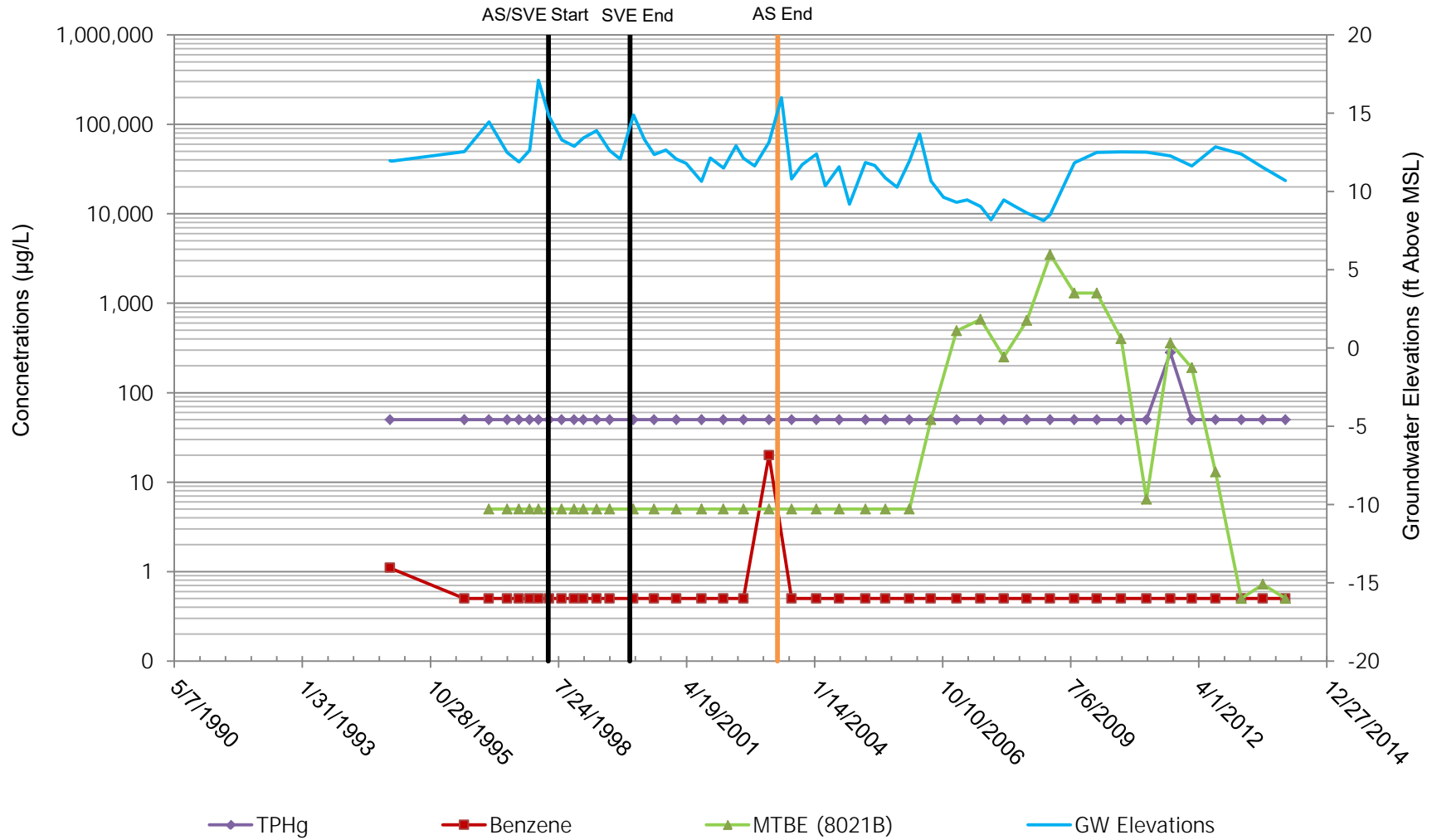
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Gin Property
706 Harrison St,
Oakland CA



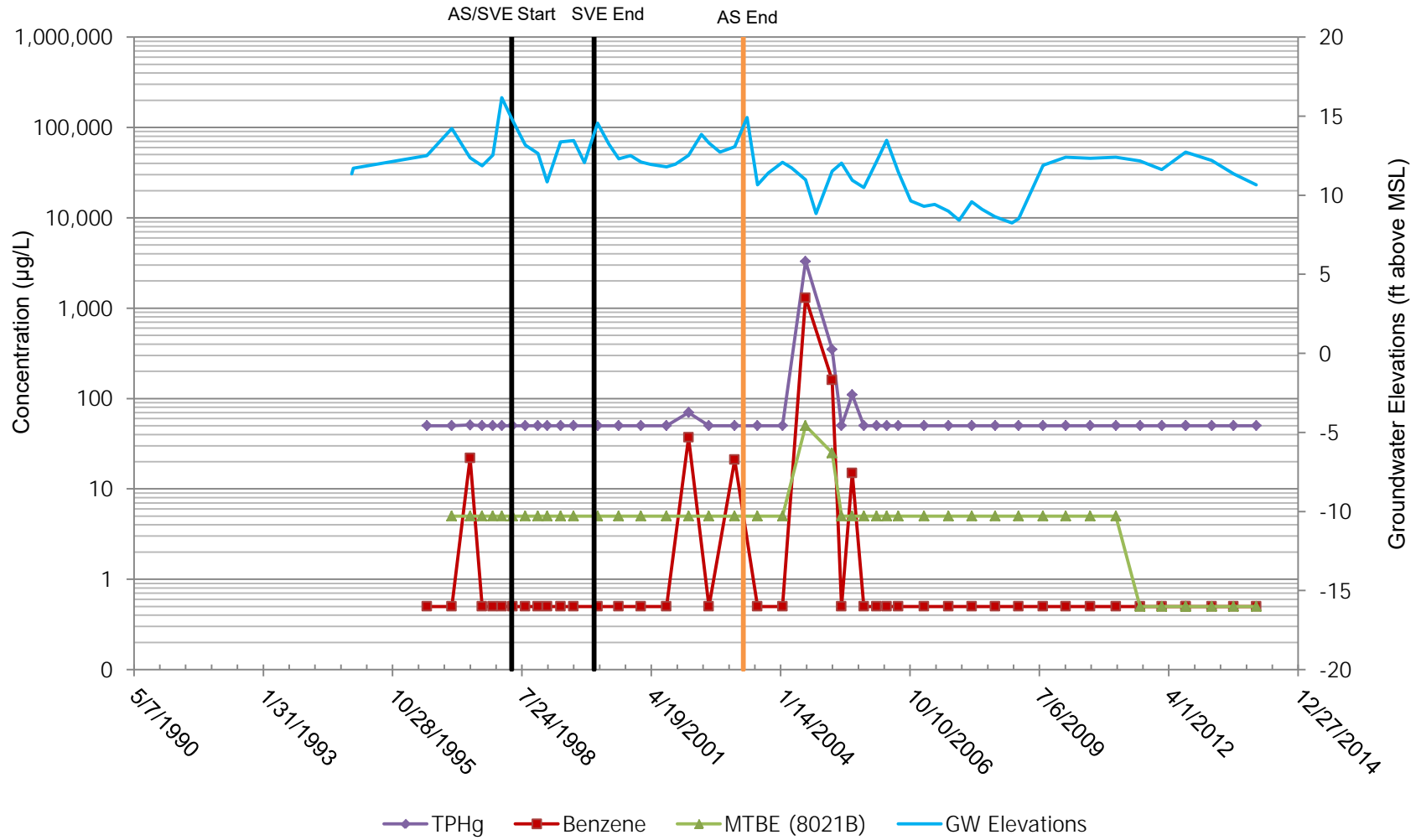
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706 Harrison St,
Oakland CA



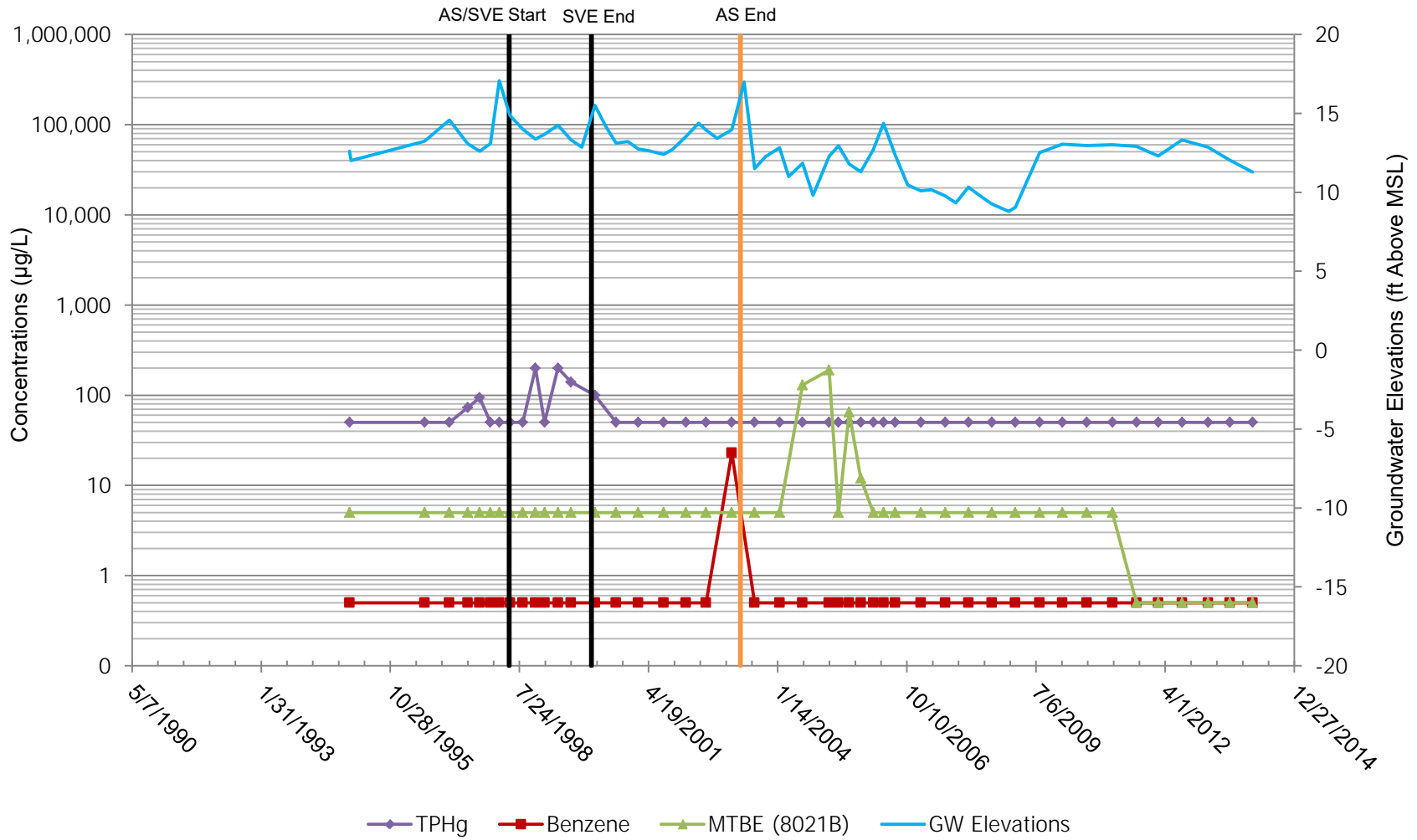
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706 Harrison St,
Oakland, CA



MW-6
Yee Property
706 Harrison St.
Oakland, CA

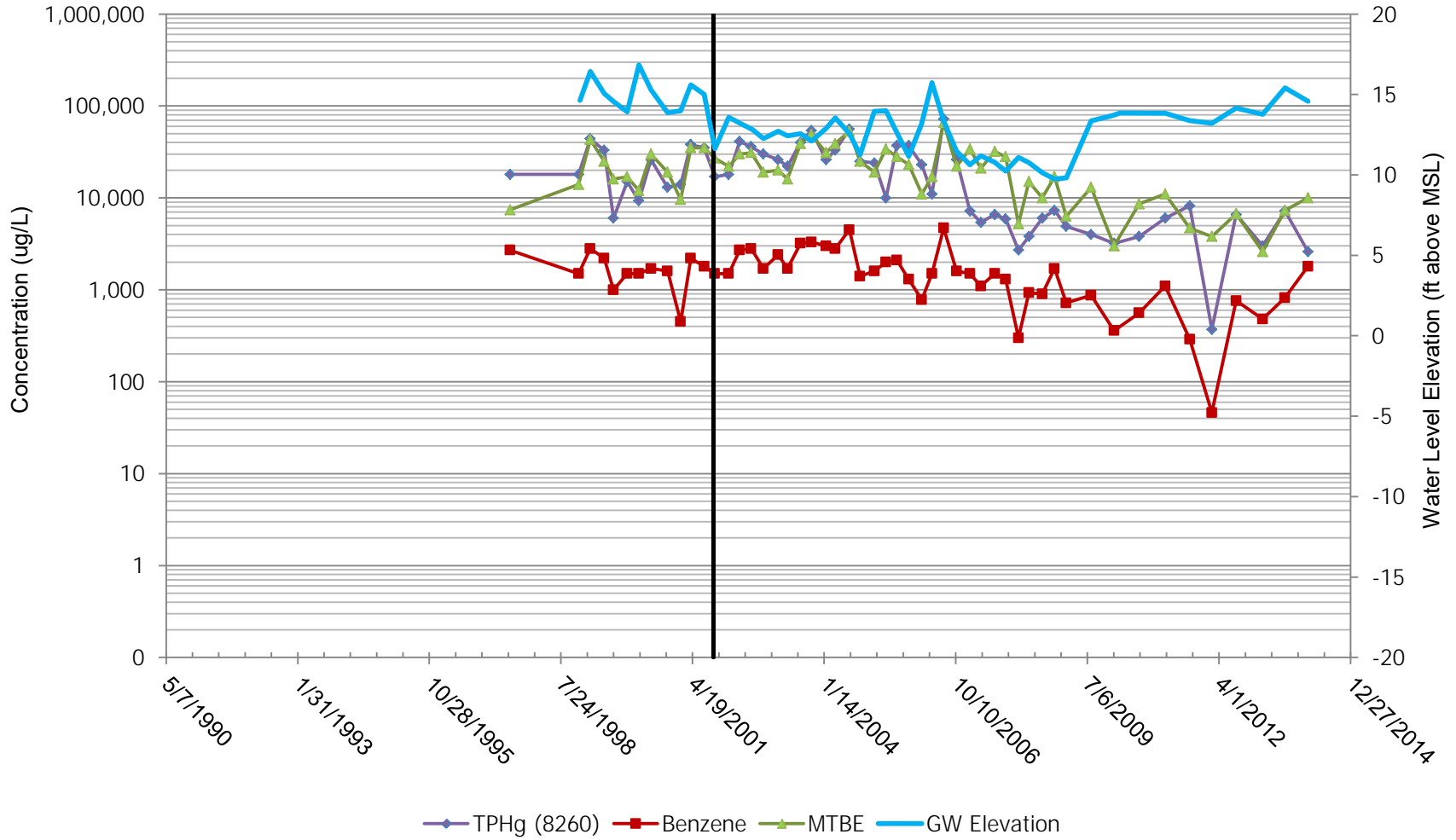


MW-7
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Oakland, CA



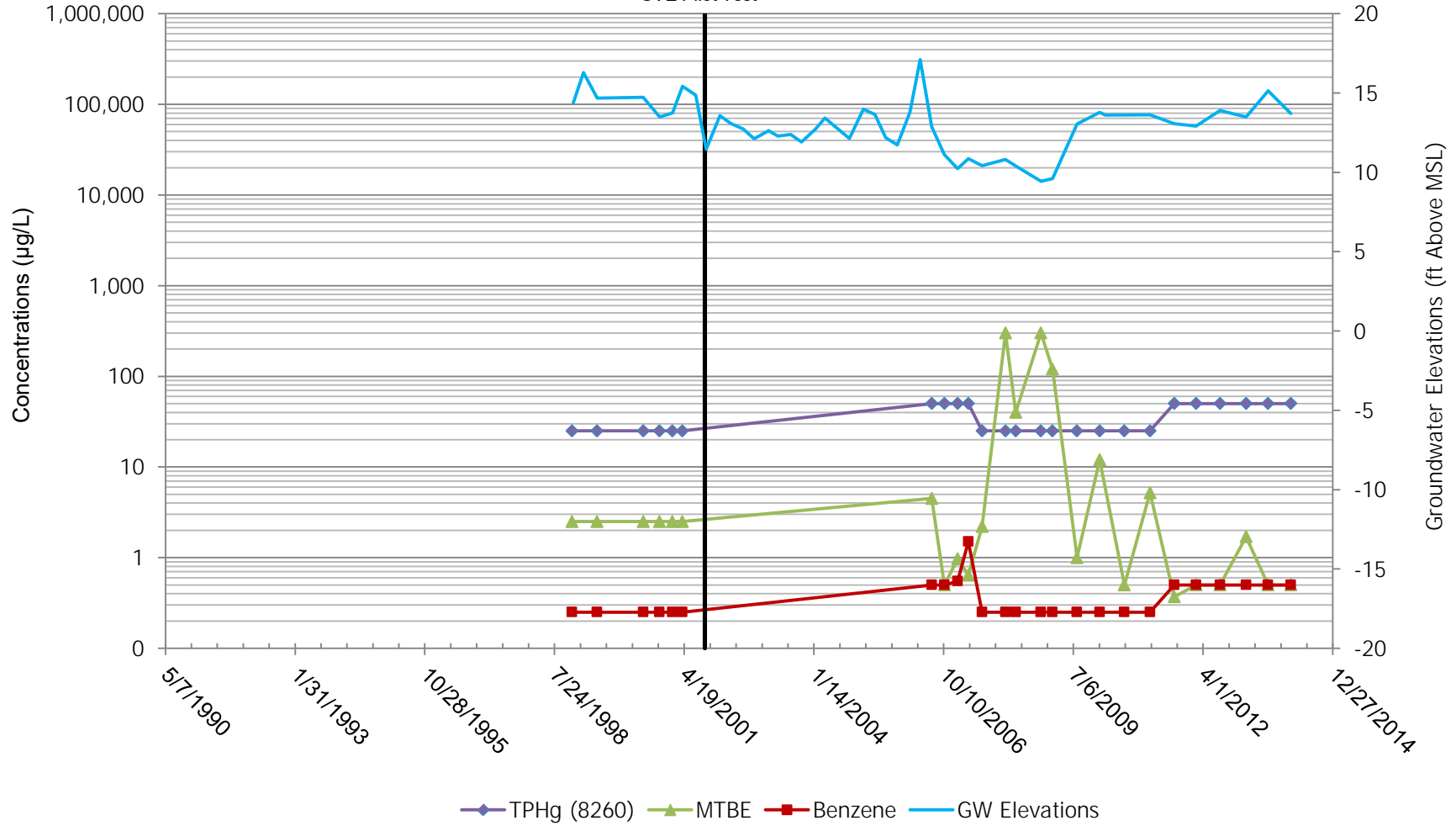
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Yee Property
726 Harrison St.
Oakland, CA

SVE Pilot Test



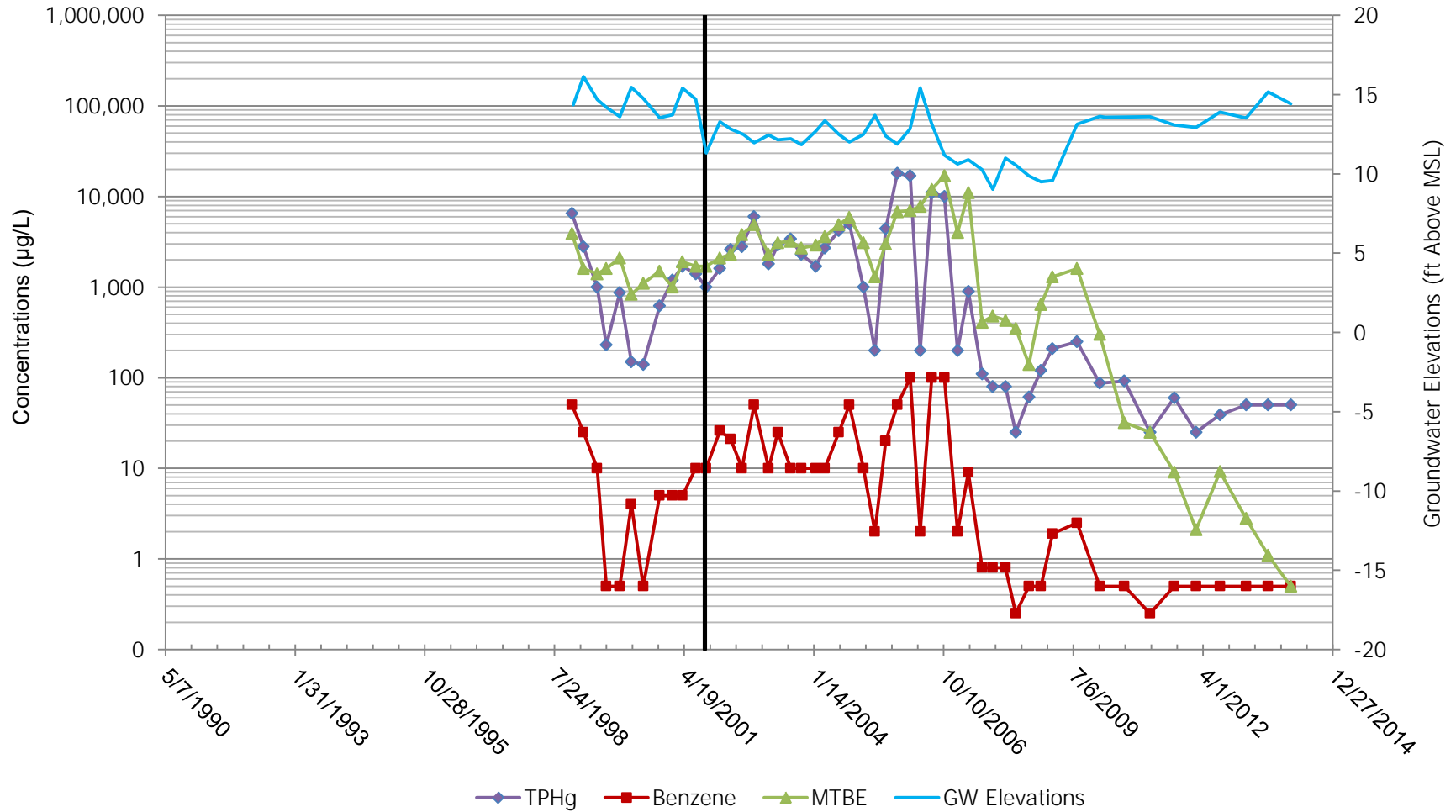
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SVE Pilot Test



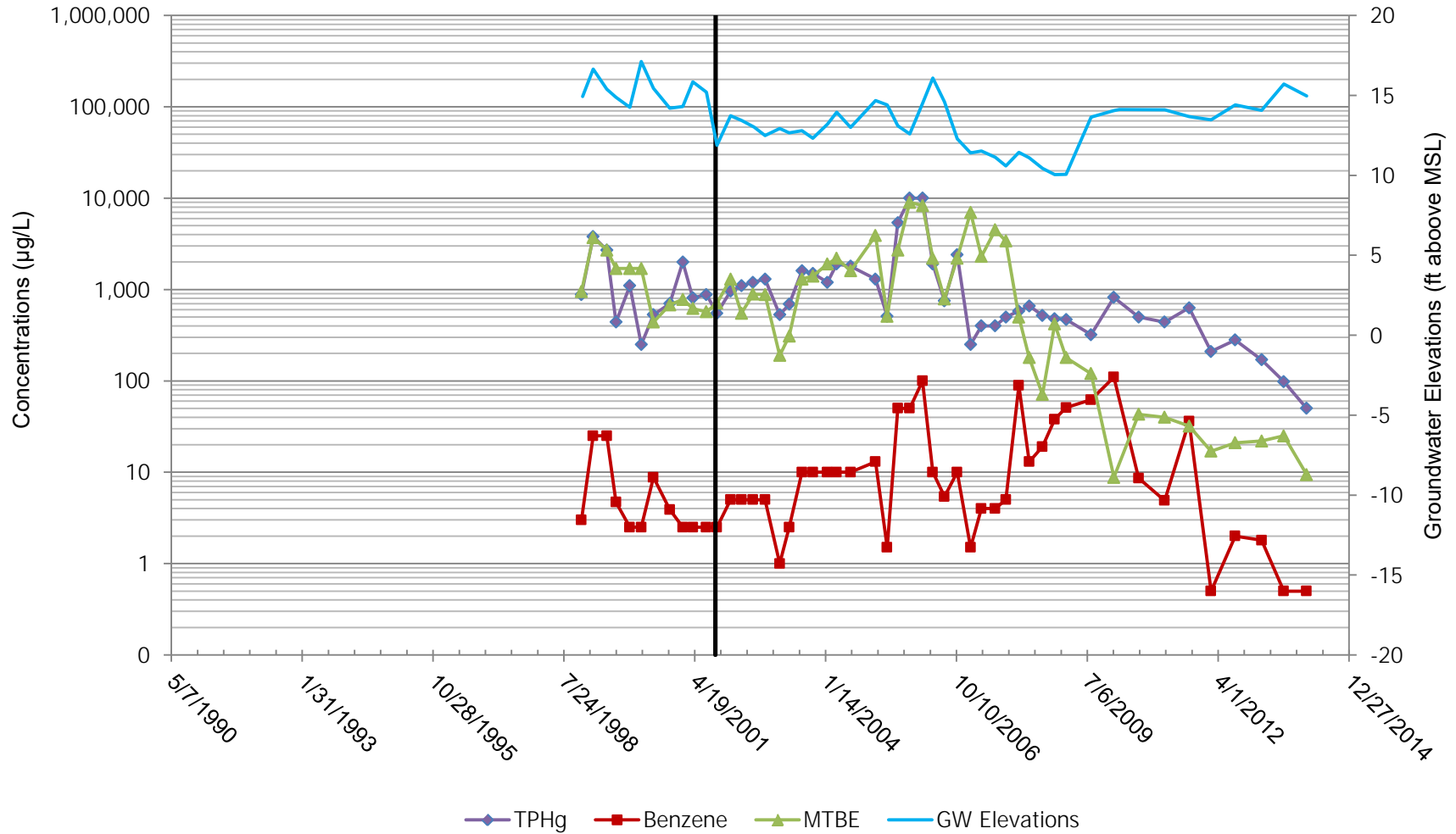
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SVE Pilot Test



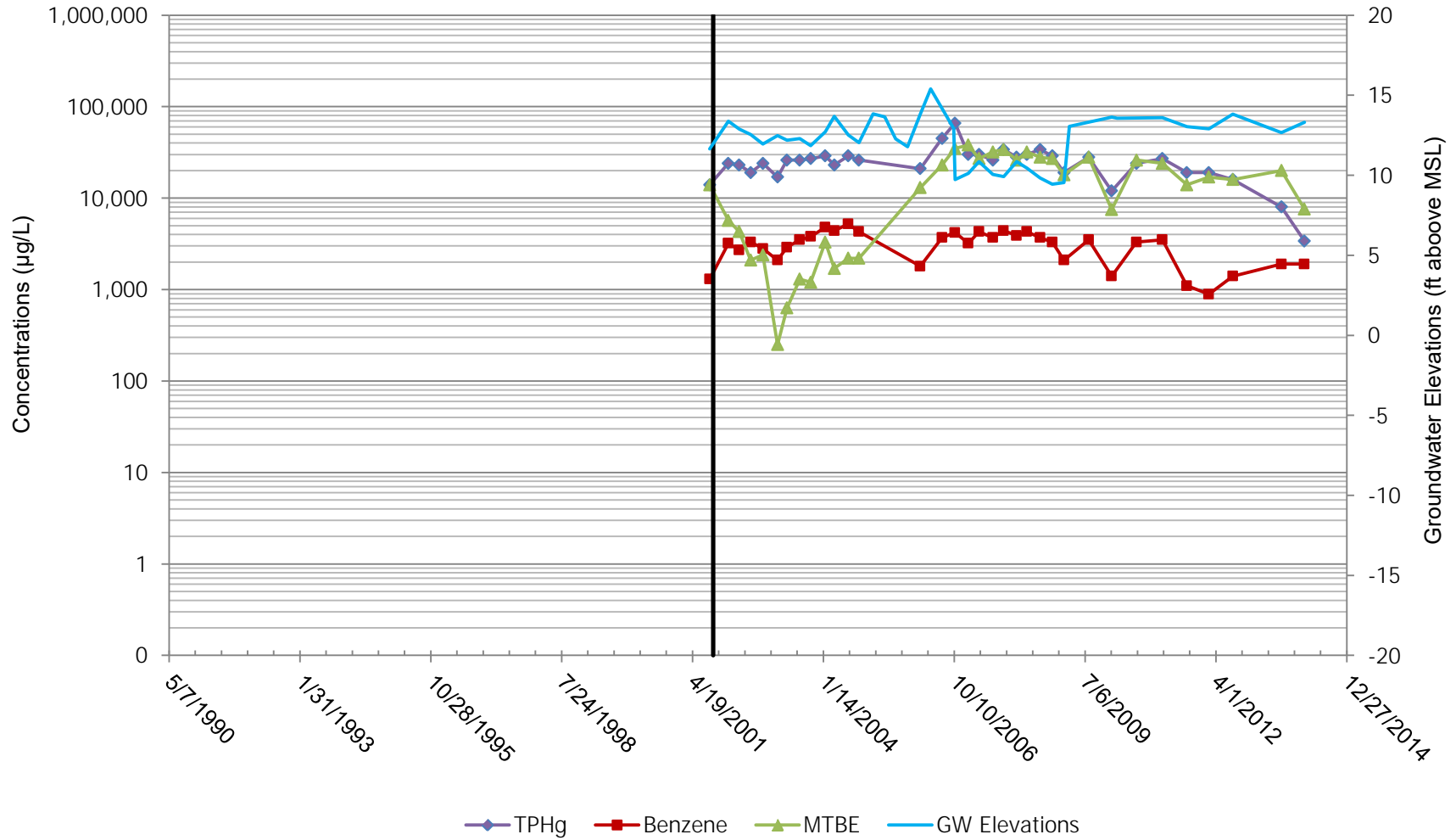
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Oakland, CA

SVE Pilot Test



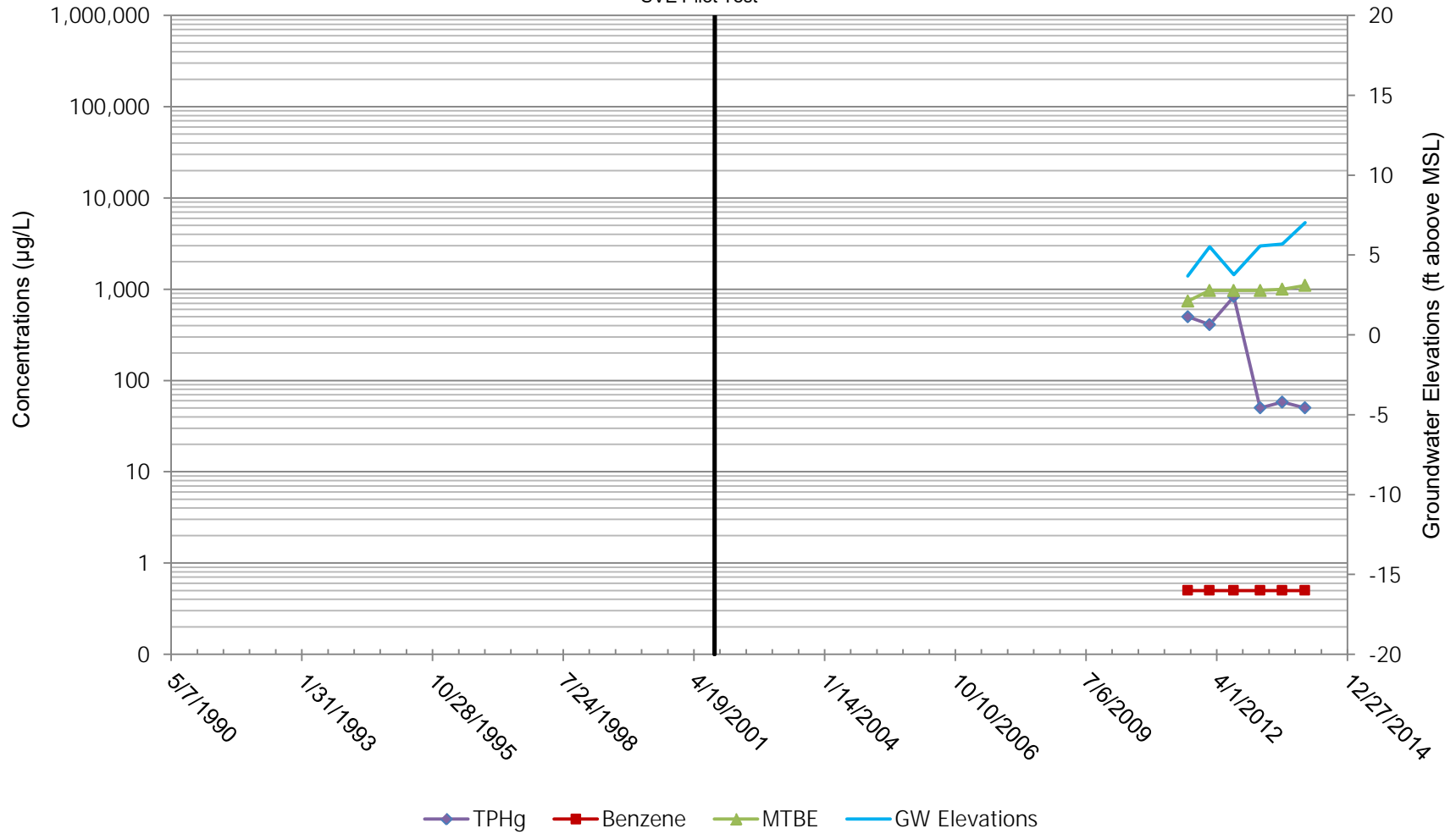
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726 Harrison St.
Oakland, CA

SVE Pilot Test

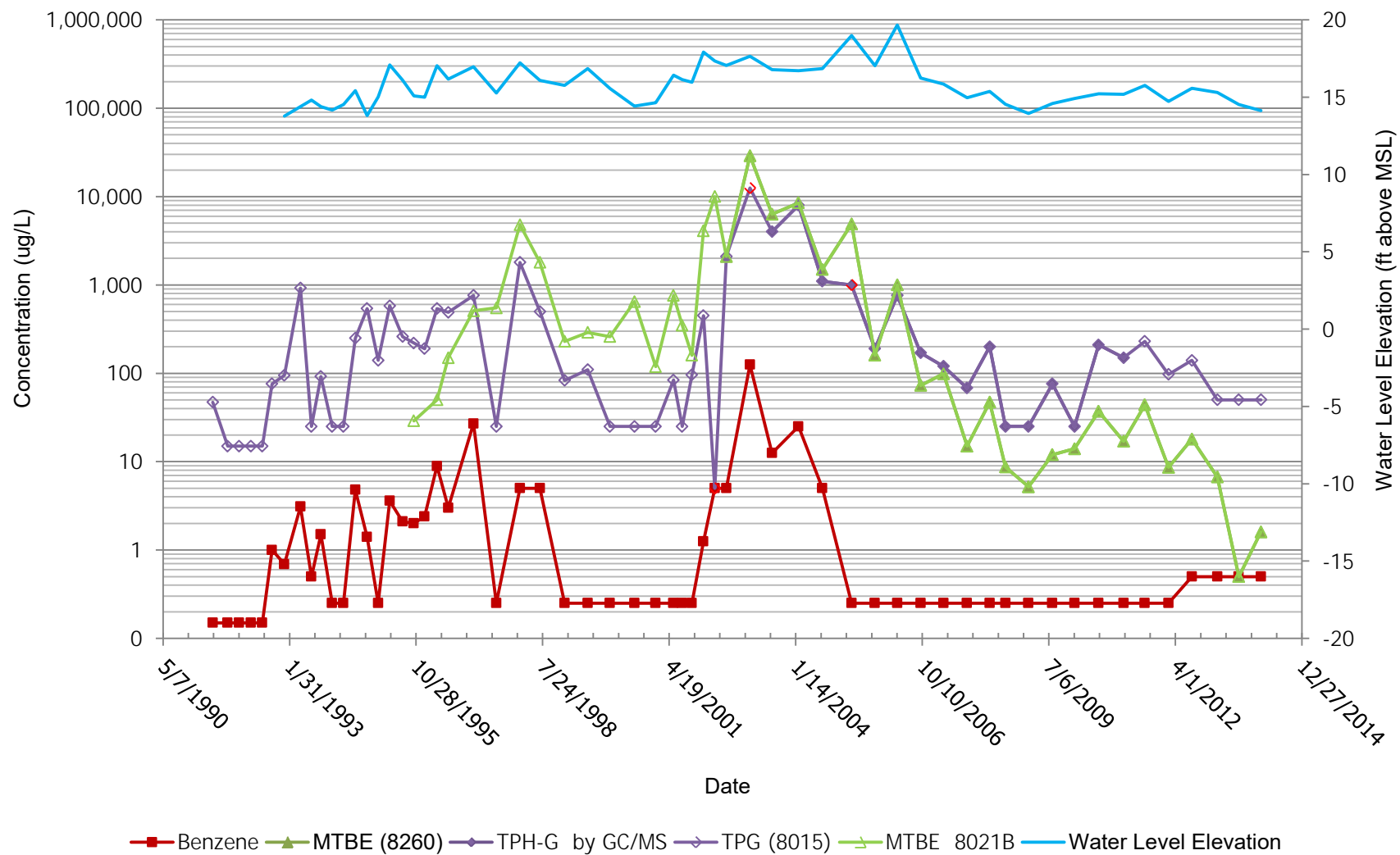


MW-6
Yee Property
726 Harrison St.
Oakland, CA

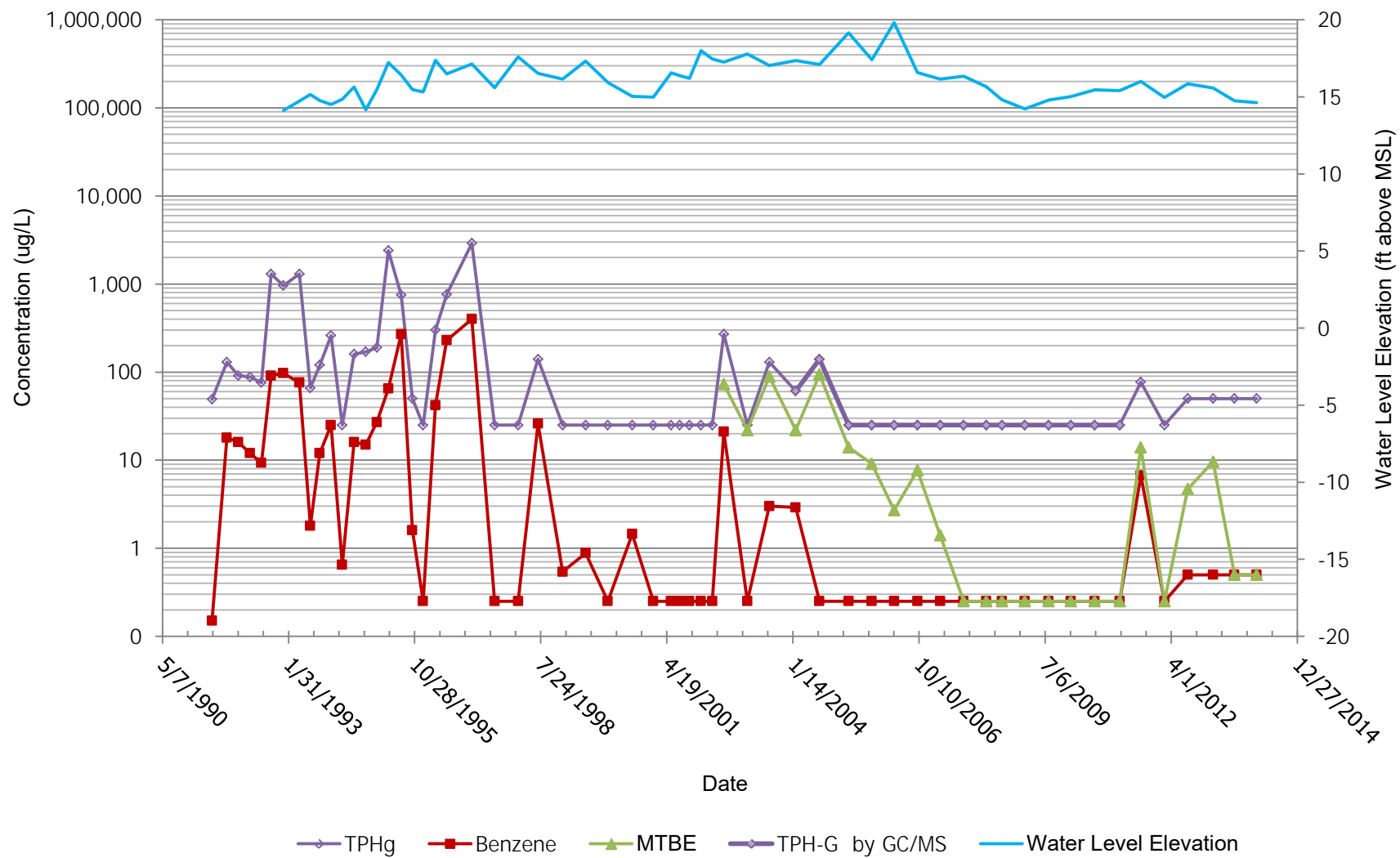
SVE Pilot Test



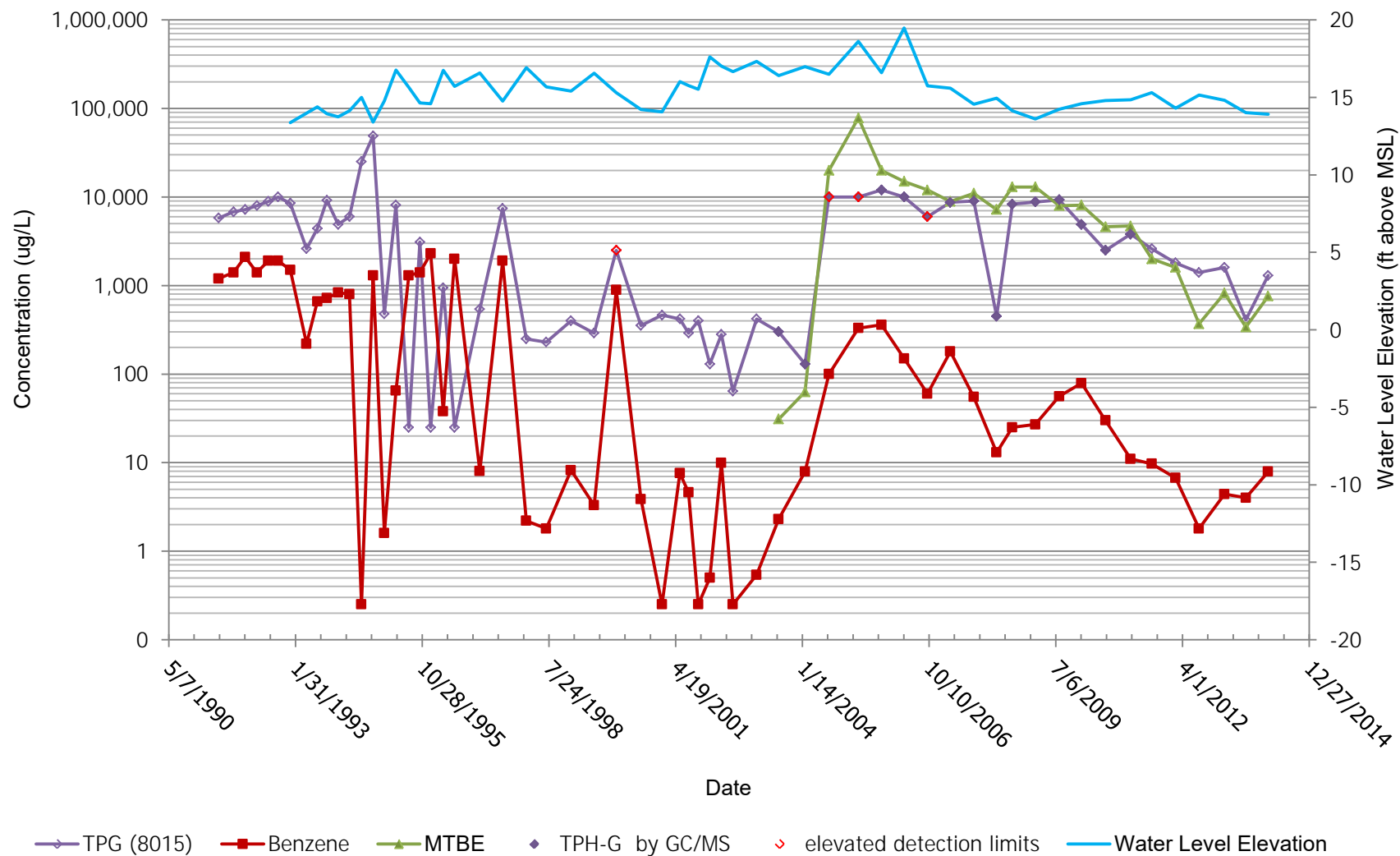
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76 Station 0752
800 Harrison Street
Oakland, California



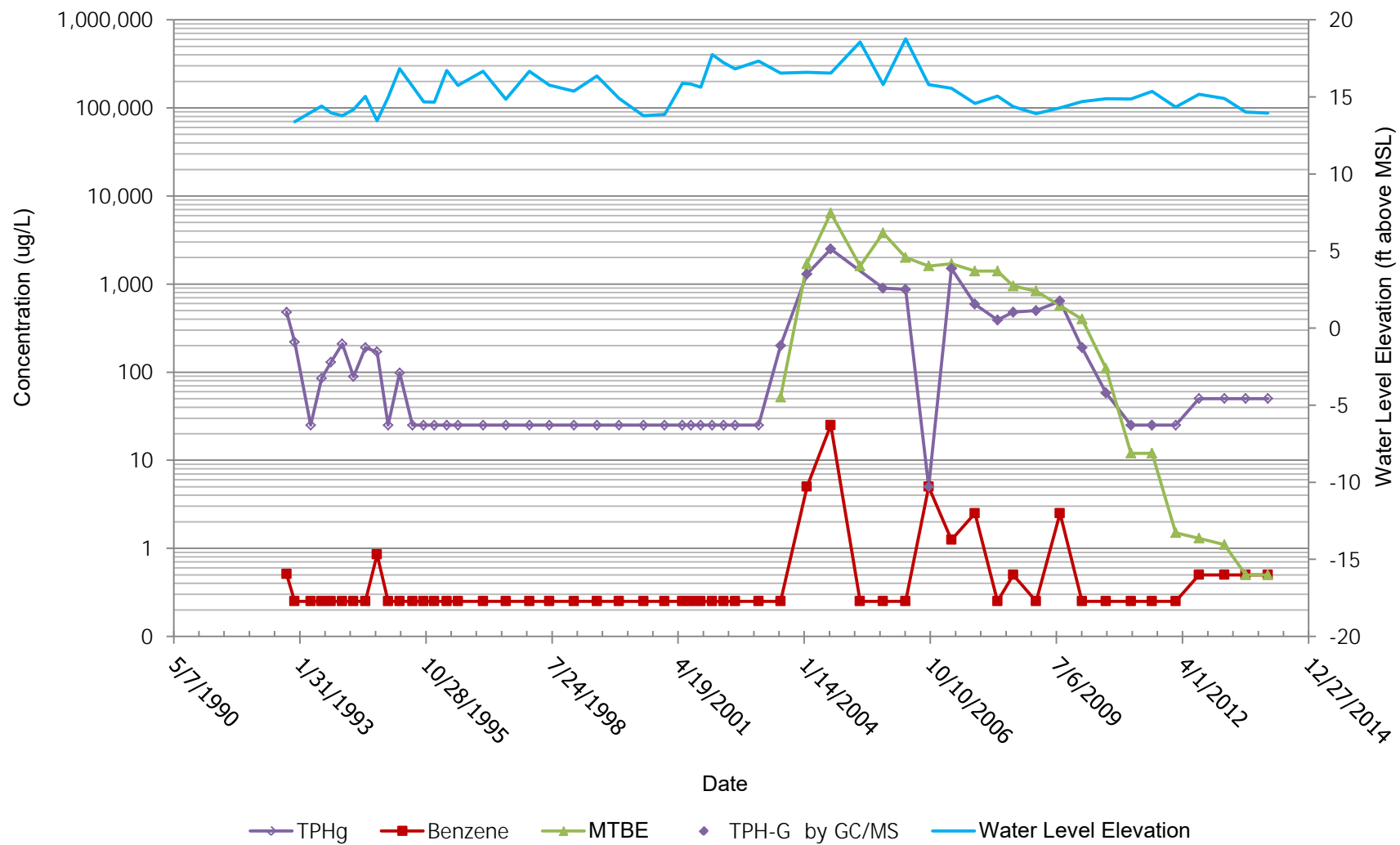
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76 Station 0752
800 Harrison Street
Oakland, California



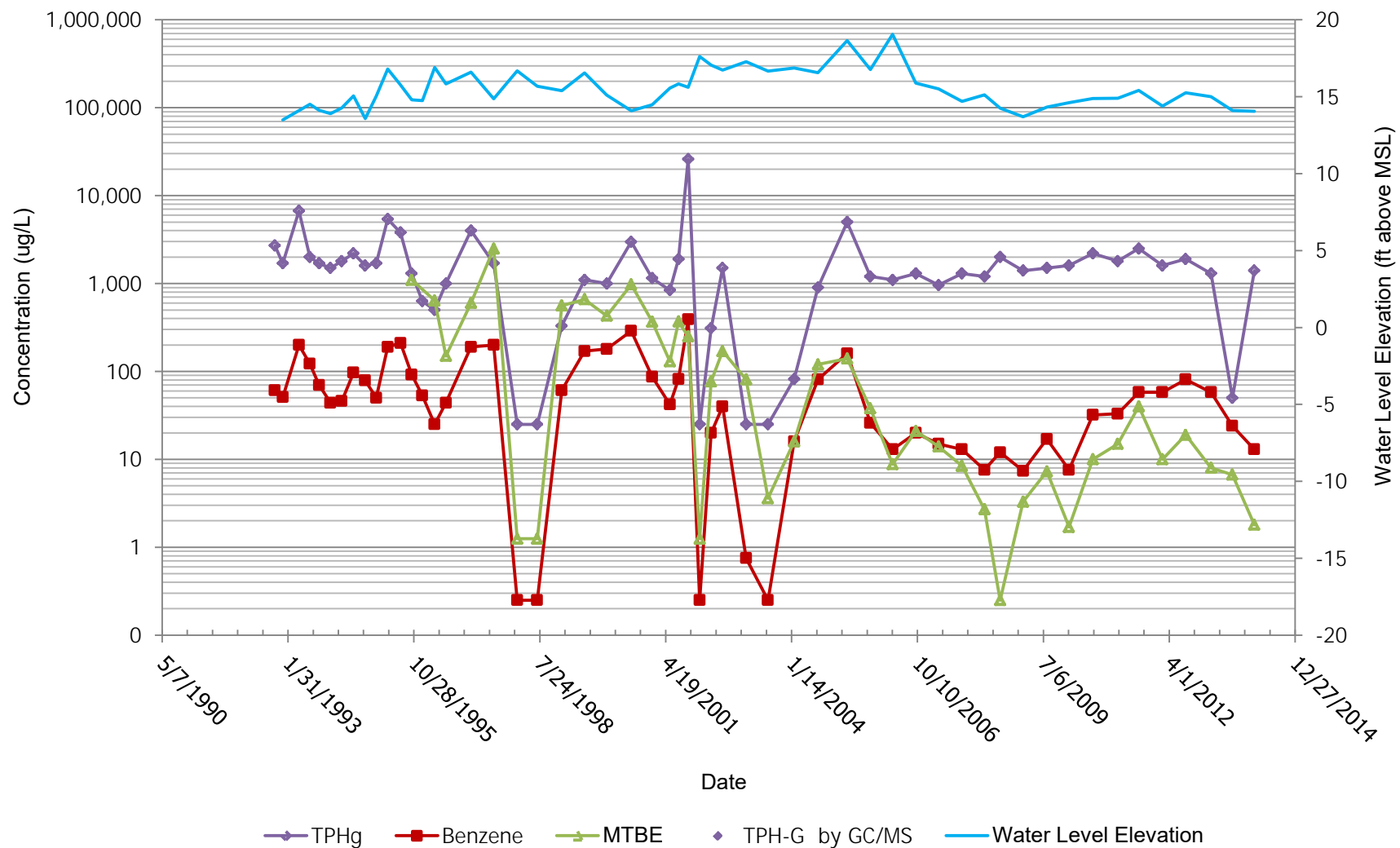
MW-3
76 Station 0752
800 Harrison Street
Oakland, California



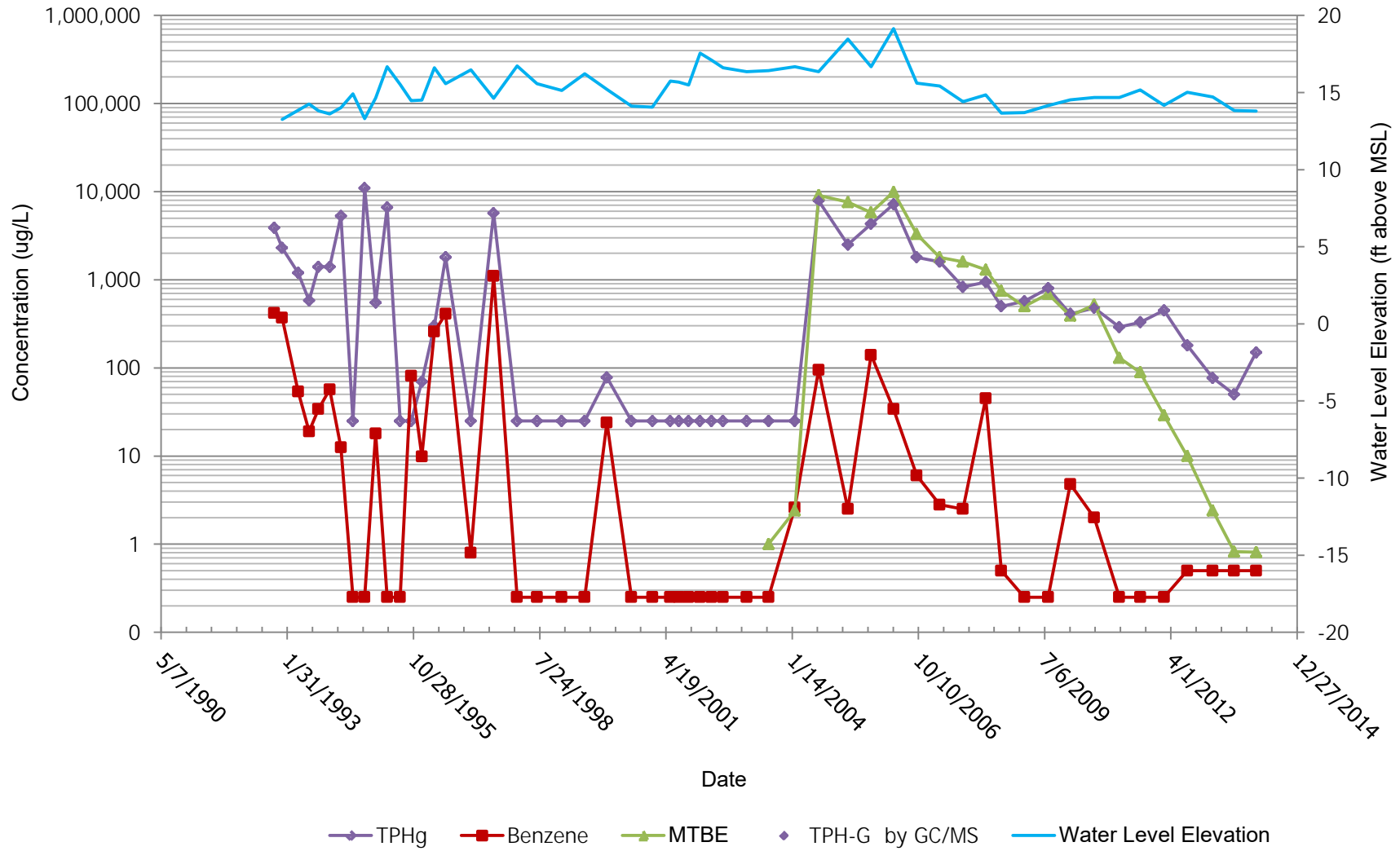
MW-4
76 Station 0752
800 Harrison Street
Oakland, California



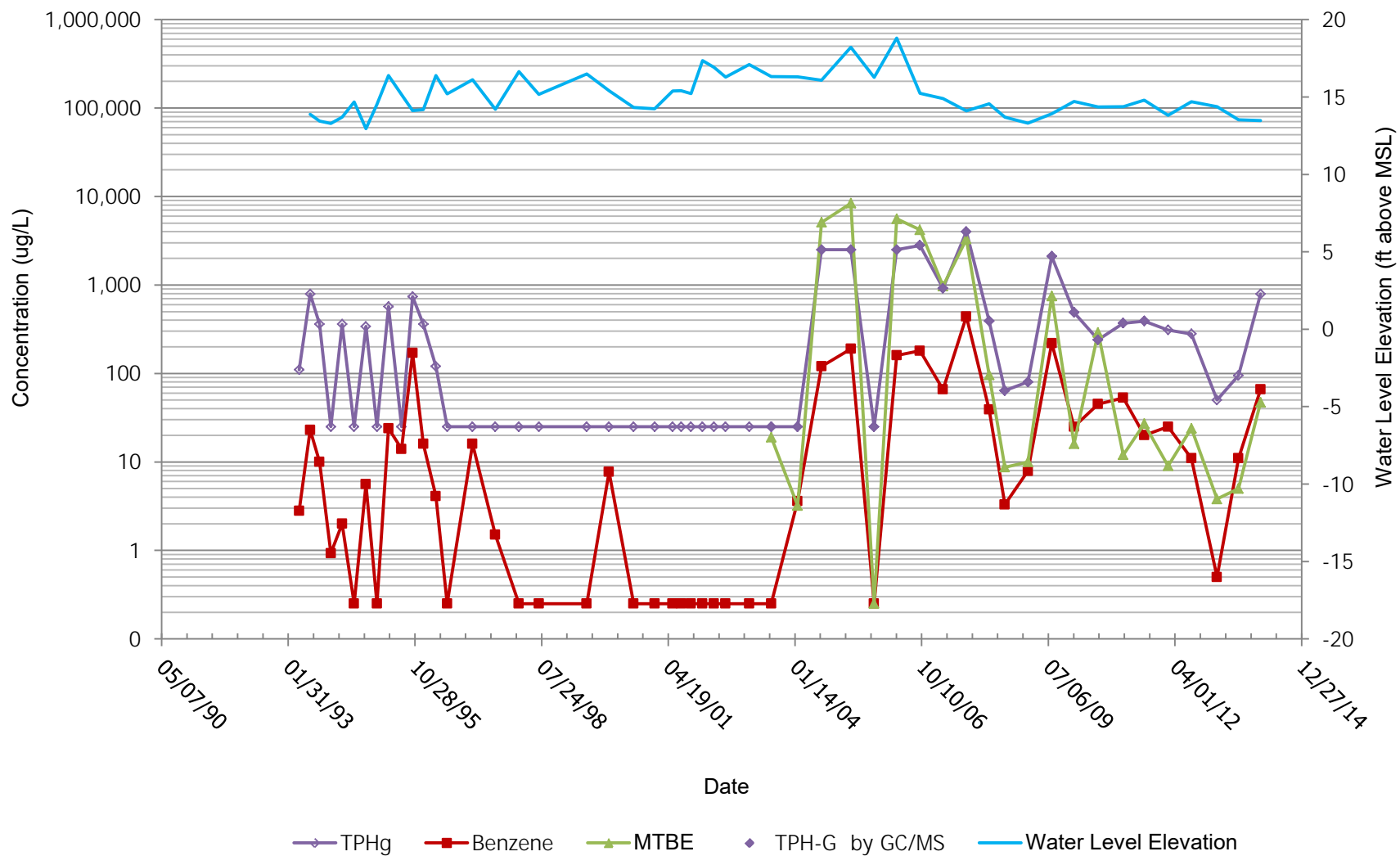
MW-5
76 Station 0752
800 Harrison Street
Oakland, California



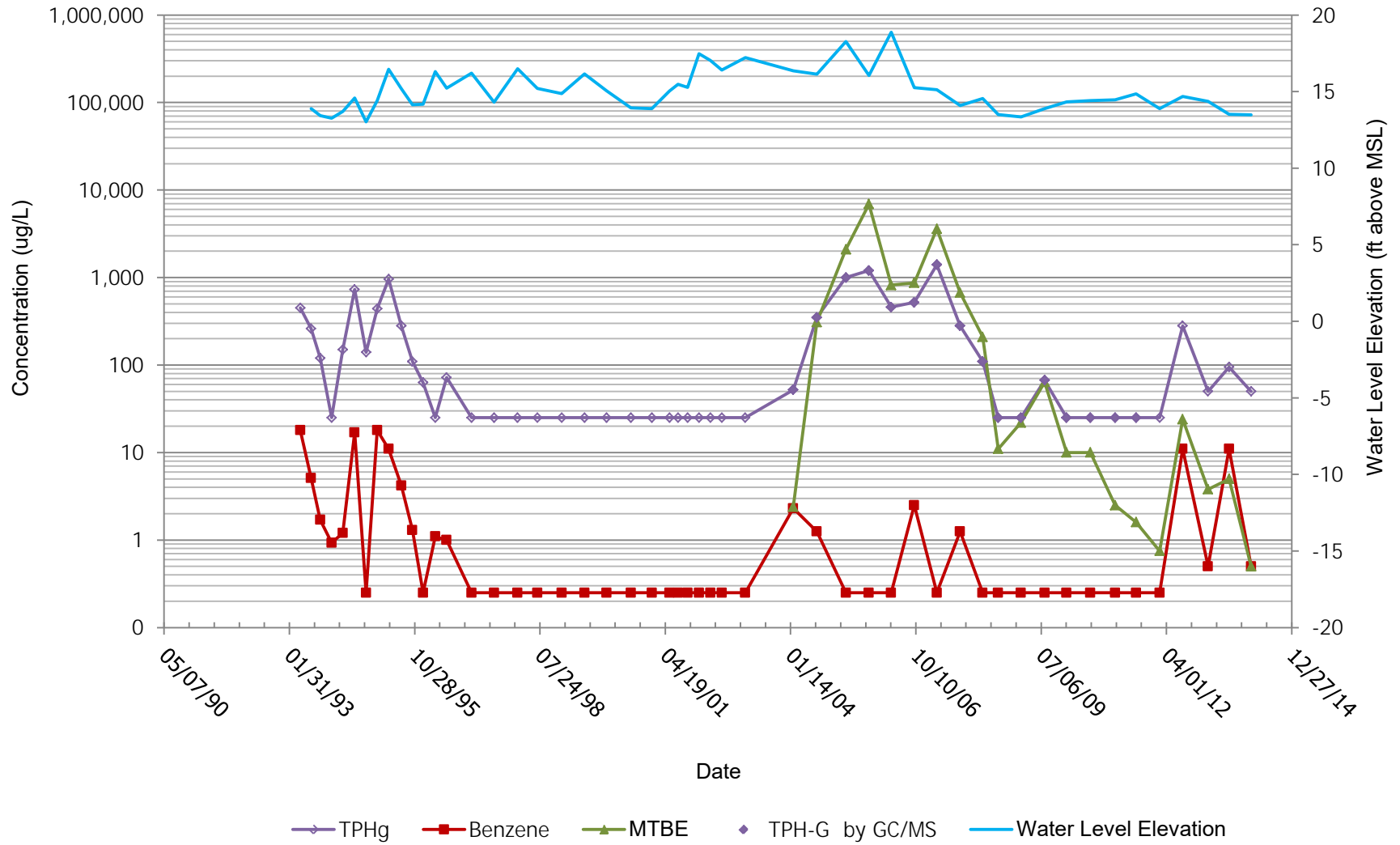
MW-6
76 Station 0752
800 Harrison Street
Oakland, California



MW-7
76 Station 0752
800 Harrison Street
Oakland, California



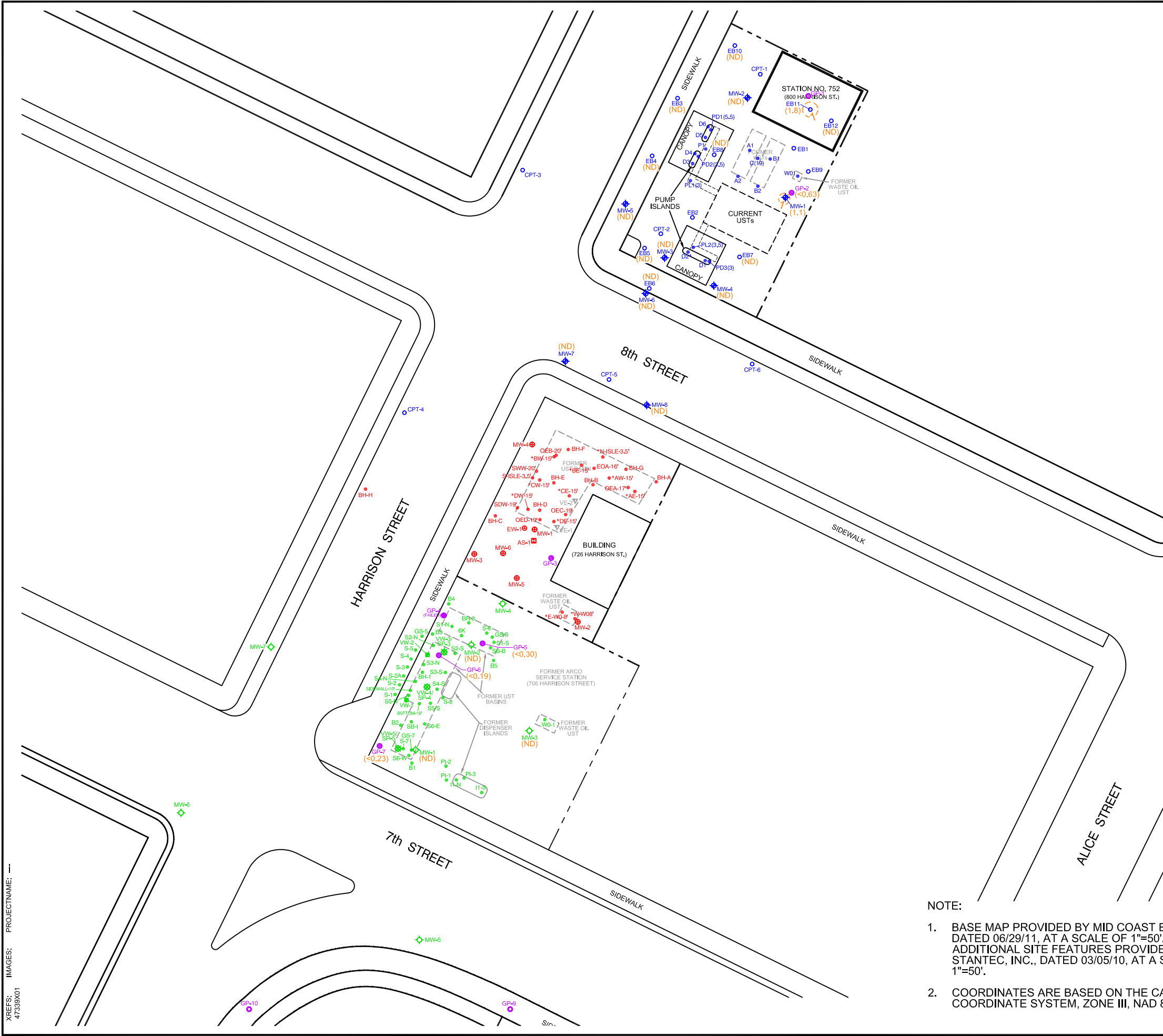
MW-8
76 Station 0752
800 Harrison Street
Oakland, California



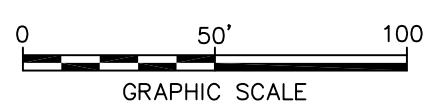


Appendix D

Soil Isopleth Contour Maps

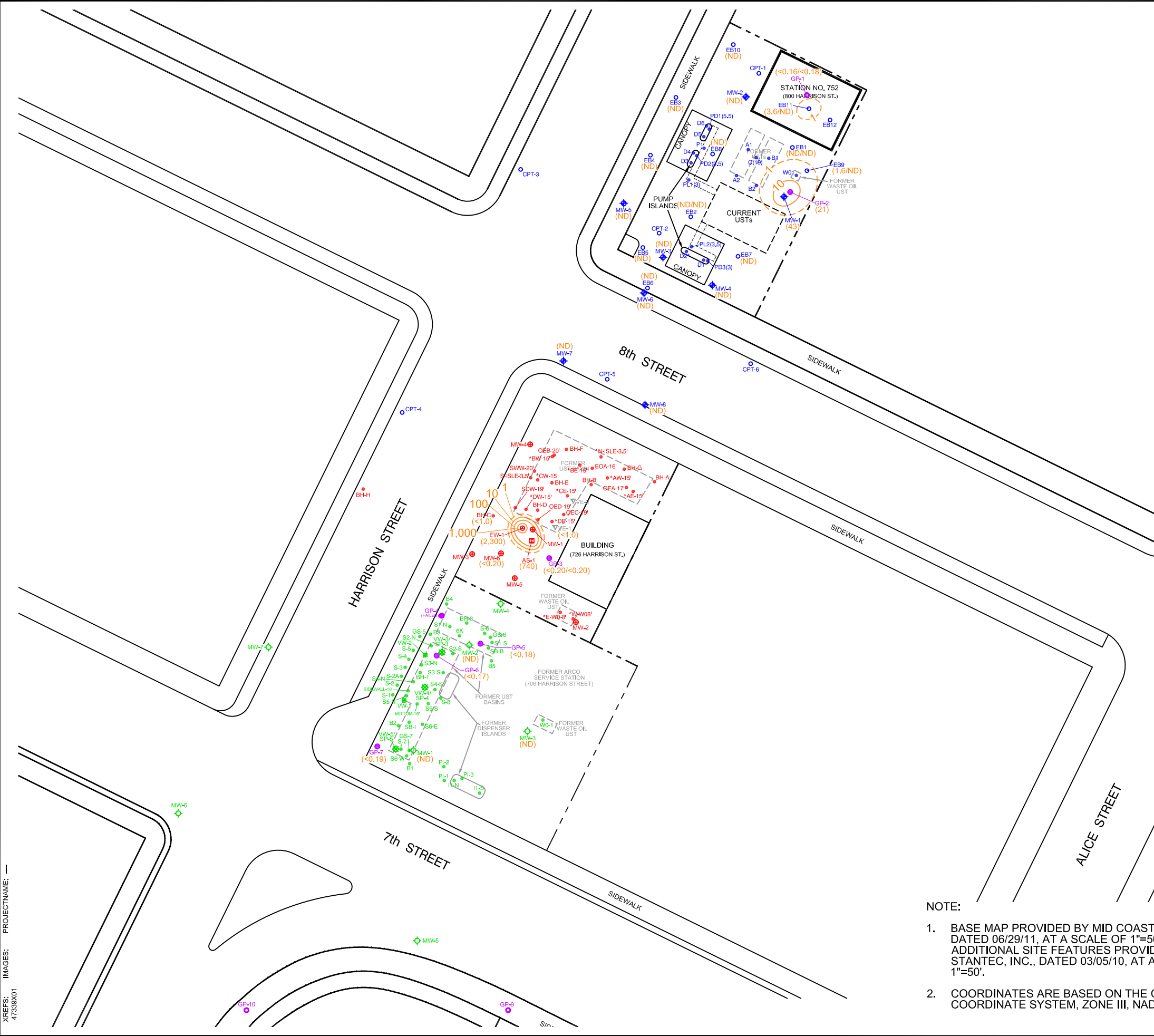


LEGEND	
	PROPERTY BOUNDARY
	PRODUCT PIPING
	MW-1 GROUNDWATER MONITORING WELL (UNOCAL)
	MW-1 GROUNDWATER MONITORING WELL (YEE)
	MW-1 GROUNDWATER MONITORING WELL (GIN)
	B1 SOIL SAMPLE LOCATION (UNOCAL)
	EB1 EXPLORATORY BORING LOCATION (UNOCAL)
	AS-1 AIR SPARGE WELL (YEE)
	EW-1 EXTRACTION WELL (YEE)
	BHA SOIL SAMPLE LOCATION (YEE)
	VE-1 DESTROYED WELL (YEE)
	VW-1 SOIL VAPOR EXTRACTION WELL (GIN)
	VW-3/SP-3 SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
	B1 SOIL SAMPLE LOCATION (GIN)
	GP-2 GEOPROBE™ (JUNE 2011)
	GP-9 GEOPROBE™ (MARCH 2012)
	(1.1) TPH-G/TPPH CONCENTRATION (mg/kg)
	TPH-G/TPPH ISOPLETH CONTOUR (mg/kg; DASHED WHERE INFERRED)
	(ND) NON-DETECT
	< LESS THAN LABORATORY REPORTING LIMIT
	TPH-G TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
	TPPH TOTAL PURGEABLE PETROLEUM HYDROCARBONS
	mg/kg MILLIGRAMS PER KILOGRAM
	BGS BELOW GROUND SURFACE



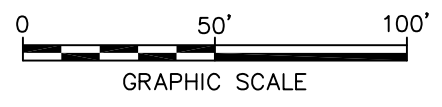
- NOTE:
1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

UNION OIL OF CALIFORNIA STATION NO. 0752/YEE/GIN COMMINGLED 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA	
TPH-G/TPPH SOIL ISOPLETH CONTOUR MAP (0.0'-5.0' BGS)	
	FIGURE 13



LEGEND

- PROPERTY BOUNDARY
- PRODUCT PIPING
- ◆ MW-1 GROUNDWATER MONITORING WELL (UNOCAL)
- MW-1 GROUNDWATER MONITORING WELL (YEE)
- ◆ MW-1 GROUNDWATER MONITORING WELL (GIN)
- B1 SOIL SAMPLE LOCATION (UNOCAL)
- EB1 EXPLORATORY BORING LOCATION (UNOCAL)
- AS-1 AIR SPARGE WELL (YEE)
- EW-1 EXTRACTION WELL (YEE)
- BHA SOIL SAMPLE LOCATION (YEE)
- ▽ VE-1 DESTROYED WELL (YEE)
- VW-1 SOIL VAPOR EXTRACTION WELL (GIN)
- VW-3/SP-3 SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
- B1 SOIL SAMPLE LOCATION (GIN)
- GP-2 GEOPROBE™ (JUNE 2011)
- GP-9 GEOPROBE™ (MARCH 2012)
- (21) TPH-G/TPPH CONCENTRATION (mg/kg)
- (<0.20/<0.20) TPH-G/TPPH CONCENTRATIONS COLLECTED AT MULTIPLE DEPTHS WITHIN TARGET RANGE (mg/kg)
- 1 TPH-G/TPPH ISOPLETH CONTOUR (mg/kg; DASHED WHERE INFERRED)
- (ND) NON-DETECT
- < LESS THAN LABORATORY REPORTING LIMIT
- TPH-G TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
- TPPH TOTAL PURGEABLE PETROLEUM HYDROCARBONS
- mg/kg MILLIGRAMS PER KILOGRAM
- BGS BELOW GROUND SURFACE



- NOTE:
1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

**TPH-G/TPPH SOIL ISOPLETH
 CONTOUR MAP
 (5.0'-10.0' BGS)**


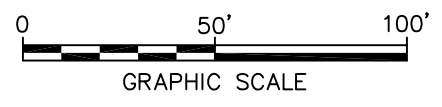


FIGURE
14



- LEGEND**
- PROPERTY BOUNDARY
 - PRODUCT PIPING
 - MW-1 (blue diamond) GROUNDWATER MONITORING WELL (UNOCAL)
 - MW-1 (red circle) GROUNDWATER MONITORING WELL (YEE)
 - MW-1 (green diamond) GROUNDWATER MONITORING WELL (GIN)
 - B1 (blue circle) SOIL SAMPLE LOCATION (UNOCAL)
 - EB1 (blue circle) EXPLORATORY BORING LOCATION (UNOCAL)
 - AS-1 (red square) AIR SPARGE WELL (YEE)
 - EW-1 (red circle) EXTRACTION WELL (YEE)
 - BHA (red circle) SOIL SAMPLE LOCATION (YEE)
 - VE-1 (green inverted triangle) DESTROYED WELL (YEE)
 - VW-1 (green square) SOIL VAPOR EXTRACTION WELL (GIN)
 - VW-3/SP-3 (green square) SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
 - B1 (green circle) SOIL SAMPLE LOCATION (GIN)
 - GP-2 (purple circle) GEOPROBE™ (JUNE 2011)
 - GP-9 (purple circle) GEOPROBE™ (MARCH 2012)
 - (250) (orange circle) TPH-G/TPPH CONCENTRATION (mg/kg)
 - 1 (orange dashed line) TPH-G/TPPH ISOPLETH CONTOUR (mg/kg; DASHED WHERE INFERRED)
 - (ND) (orange circle) NON-DETECT
 - < (orange circle) LESS THAN LABORATORY REPORTING LIMIT
 - TPH-G TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
 - TPPH TOTAL PURGEABLE PETROLEUM HYDROCARBONS
 - mg/kg MILLIGRAMS PER KILOGRAM
 - BGS BELOW GROUND SURFACE



- NOTE:**
- BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 - COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

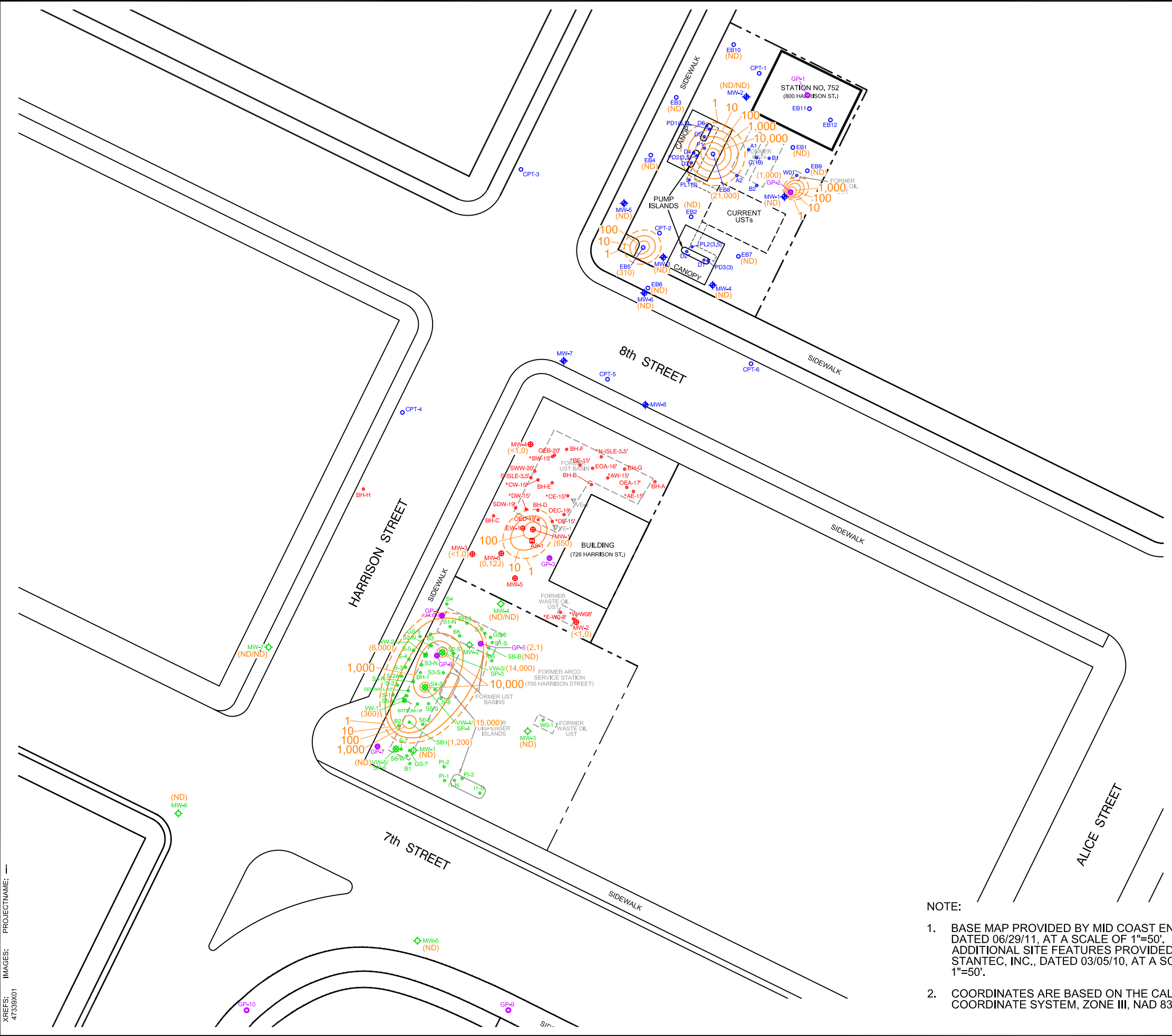
UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

**TPH-G/TPPH SOIL ISOPLETH
 CONTOUR MAP
 (10.0'-15.0' BGS)**

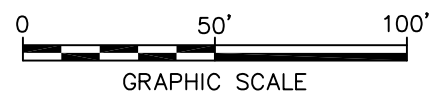
ARCADIS

FIGURE
15

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
 C:\Users\jhamis\Desktop\ENVCAD\B0047339\2012100006\DWG\47339C04.dwg LAYOUT: 16 SAVED: 7/22/2012 3:31 PM ACADVER: 18.1 S (LMS TECH) PAGESETUP: SETUP1 PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 7/22/2012 3:36 PM BY: HARRIS, JESSICA
 XREFS: IMAGES: PROJECTNAME: 47339X01



- LEGEND**
- PROPERTY BOUNDARY
 - - - - PRODUCT PIPING
 - MW-1 ◆ GROUNDWATER MONITORING WELL (UNOCAL)
 - MW-1 ● GROUNDWATER MONITORING WELL (YEE)
 - MW-1 ◆ GROUNDWATER MONITORING WELL (GIN)
 - B1 ● SOIL SAMPLE LOCATION (UNOCAL)
 - EB1 ● EXPLORATORY BORING LOCATION (UNOCAL)
 - AS-1 ■ AIR SPARGE WELL (YEE)
 - EW-1 ● EXTRACTION WELL (YEE)
 - BHA ● SOIL SAMPLE LOCATION (YEE)
 - VE-1 ▼ DESTROYED WELL (YEE)
 - VW-1 ■ SOIL VAPOR EXTRACTION WELL (GIN)
 - VW-3/SP-3 ■ SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
 - B1 ● SOIL SAMPLE LOCATION (GIN)
 - GP-2 ● GEOPROBE™ (JUNE 2011)
 - GP-9 ● GEOPROBE™ (MARCH 2012)
 - (310) TPH-G/TPPH CONCENTRATION (mg/kg)
 - (ND/ND) TPH-G/TPPH CONCENTRATIONS COLLECTED AT MULTIPLE DEPTHS WITHIN TARGET RANGE (mg/kg)
 - 1- - - - TPH-G/TPPH ISOPLETH CONTOUR (mg/kg; DASHED WHERE INFERRED)
 - (ND) NON-DETECT
 - < LESS THAN LABORATORY REPORTING LIMIT
 - J ESTIMATED VALUE; LESS THAN LABORATORY REPORTING LIMIT AND GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT
 - TPH-G TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
 - TPPH TOTAL PURGEABLE PETROLEUM HYDROCARBONS
 - mg/kg MILLIGRAMS PER KILOGRAM
 - BGS BELOW GROUND SURFACE



- NOTE:**
- BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 - COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

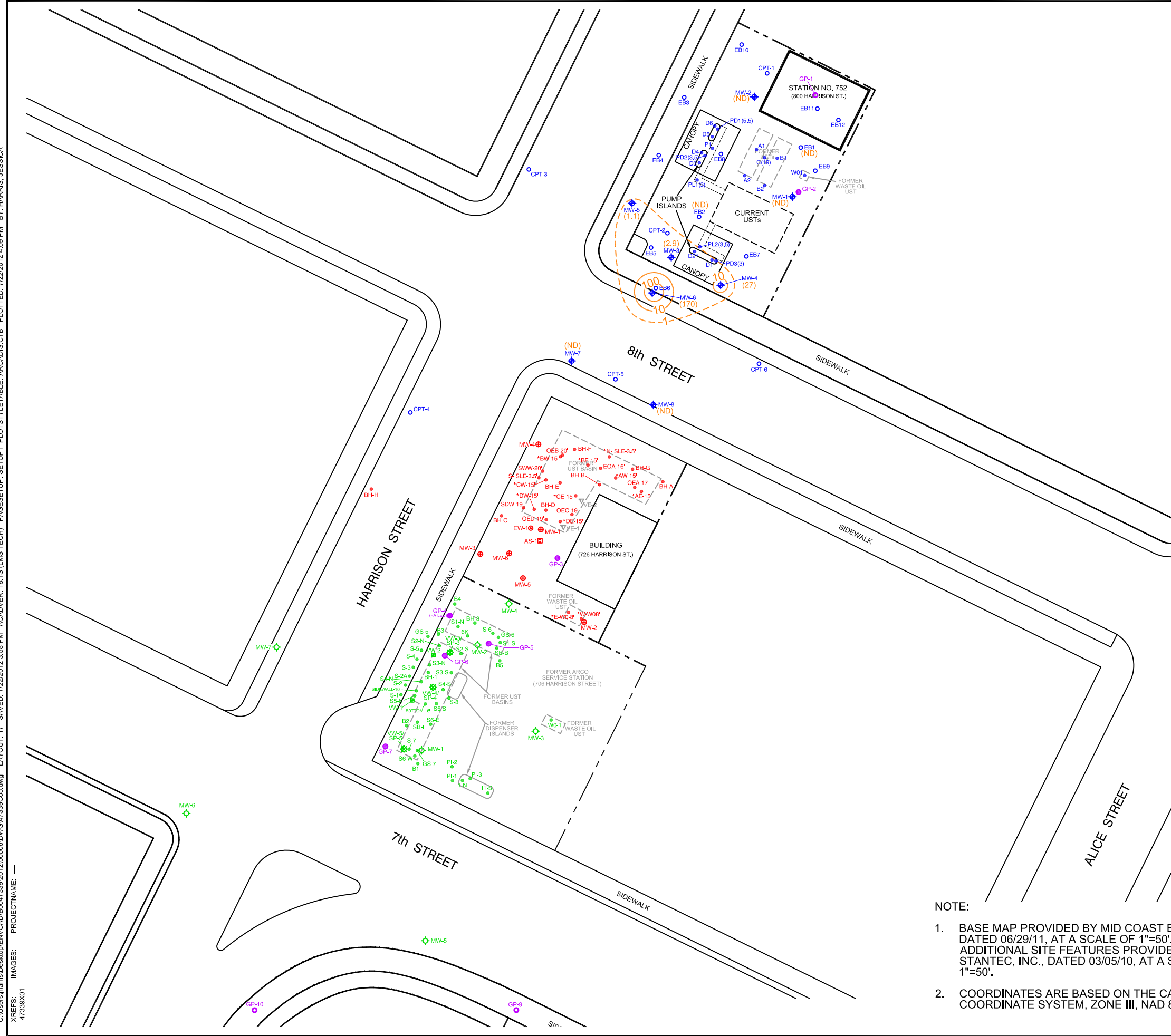
UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

**TPH-G/TPPH SOIL ISOPLETH
 CONTOUR MAP
 (15.0'-20.0' BGS)**

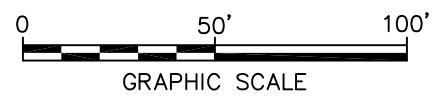
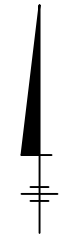
ARCADIS

FIGURE
16

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
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 XREFS: IMAGES: PROJECTNAME: 47339X01



- LEGEND**
- PROPERTY BOUNDARY
 - PRODUCT PIPING
 - MW-1 (blue diamond) GROUNDWATER MONITORING WELL (UNOCAL)
 - MW-1 (red circle) GROUNDWATER MONITORING WELL (YEE)
 - MW-1 (green diamond) GROUNDWATER MONITORING WELL (GIN)
 - B1 (blue circle) SOIL SAMPLE LOCATION (UNOCAL)
 - EB1 (blue circle) EXPLORATORY BORING LOCATION (UNOCAL)
 - AS-1 (red square) AIR SPARGE WELL (YEE)
 - EW-1 (red circle) EXTRACTION WELL (YEE)
 - BHA (red circle) SOIL SAMPLE LOCATION (YEE)
 - VE-1 (green inverted triangle) DESTROYED WELL (YEE)
 - VW-1 (green square) SOIL VAPOR EXTRACTION WELL (GIN)
 - VW-3/SP-3 (green square) SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
 - B1 (green circle) SOIL SAMPLE LOCATION (GIN)
 - GP-2 (purple circle) GEOPROBE™ (JUNE 2011)
 - GP-9 (purple circle) GEOPROBE™ (MARCH 2012)
 - (27) (orange circle) TPH-G/TPPH CONCENTRATION (mg/kg)
 - 1- (dashed orange line) TPH-G/TPPH ISOPLETH CONTOUR (mg/kg; DASHED WHERE INFERRED)
 - (ND) (orange circle) NON-DETECT
 - TPH-G TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
 - TPPH TOTAL PURGEABLE PETROLEUM HYDROCARBONS
 - mg/kg MILLIGRAMS PER KILOGRAM
 - BGS BELOW GROUND SURFACE



- NOTE:**
- BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 - COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

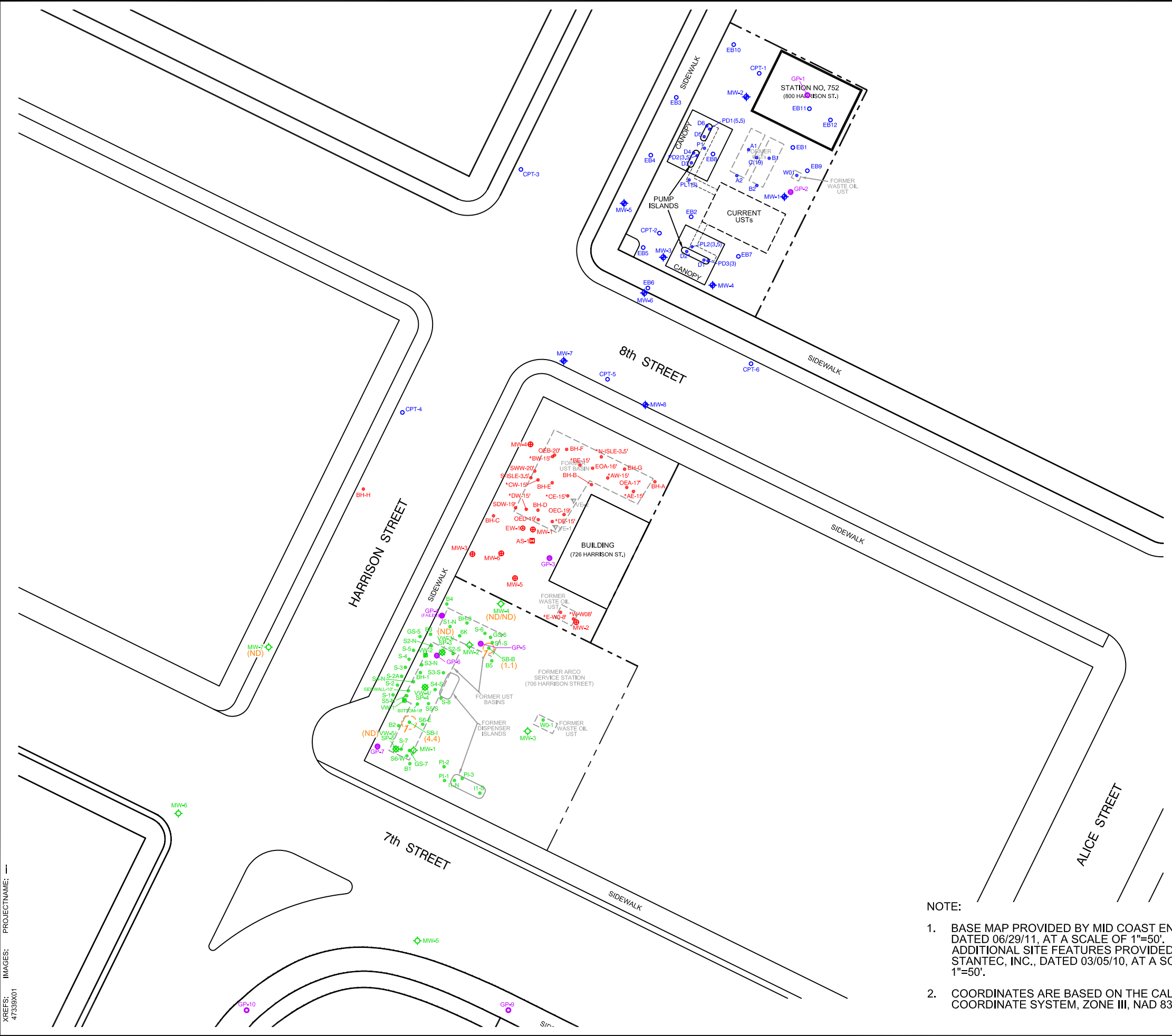
UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

**TPH-G/TPPH SOIL ISOPLETH
 CONTOUR MAP
 (20.0'-25.0' BGS)**

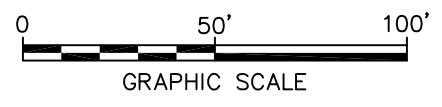
ARCADIS

FIGURE
17

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
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 XREFS: IMAGES: PROJECTNAME: 47339X01



- LEGEND**
- PROPERTY BOUNDARY
 - - - - PRODUCT PIPING
 - MW-1 (blue diamond) GROUNDWATER MONITORING WELL (UNOCAL)
 - MW-1 (red circle) GROUNDWATER MONITORING WELL (YEE)
 - MW-1 (green diamond) GROUNDWATER MONITORING WELL (GIN)
 - B1 (blue circle) SOIL SAMPLE LOCATION (UNOCAL)
 - EB1 (blue circle) EXPLORATORY BORING LOCATION (UNOCAL)
 - AS-1 (red square) AIR SPARGE WELL (YEE)
 - EW-1 (red circle) EXTRACTION WELL (YEE)
 - BHA (red circle) SOIL SAMPLE LOCATION (YEE)
 - VE-1 (black inverted triangle) DESTROYED WELL (YEE)
 - VW-1 (green square) SOIL VAPOR EXTRACTION WELL (GIN)
 - VW-3/SP-3 (green square) SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
 - B1 (green circle) SOIL SAMPLE LOCATION (GIN)
 - GP-2 (purple circle) GEOPROBE™ (JUNE 2011)
 - GP-9 (purple circle) GEOPROBE™ (MARCH 2012)
 - (4.4) TPH-G/TPPH CONCENTRATION (mg/kg)
 - (ND/ND) TPH-G/TPPH CONCENTRATIONS COLLECTED AT MULTIPLE DEPTHS WITHIN TARGET RANGE (mg/kg)
 - TPH-G/TPPH ISOPLETH CONTOUR (mg/kg; DASHED WHERE INFERRED)
 - (ND) NON-DETECT
 - TPH-G TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
 - TPPH TOTAL PURGEABLE PETROLEUM HYDROCARBONS
 - mg/kg MILLIGRAMS PER KILOGRAM
 - BGS BELOW GROUND SURFACE



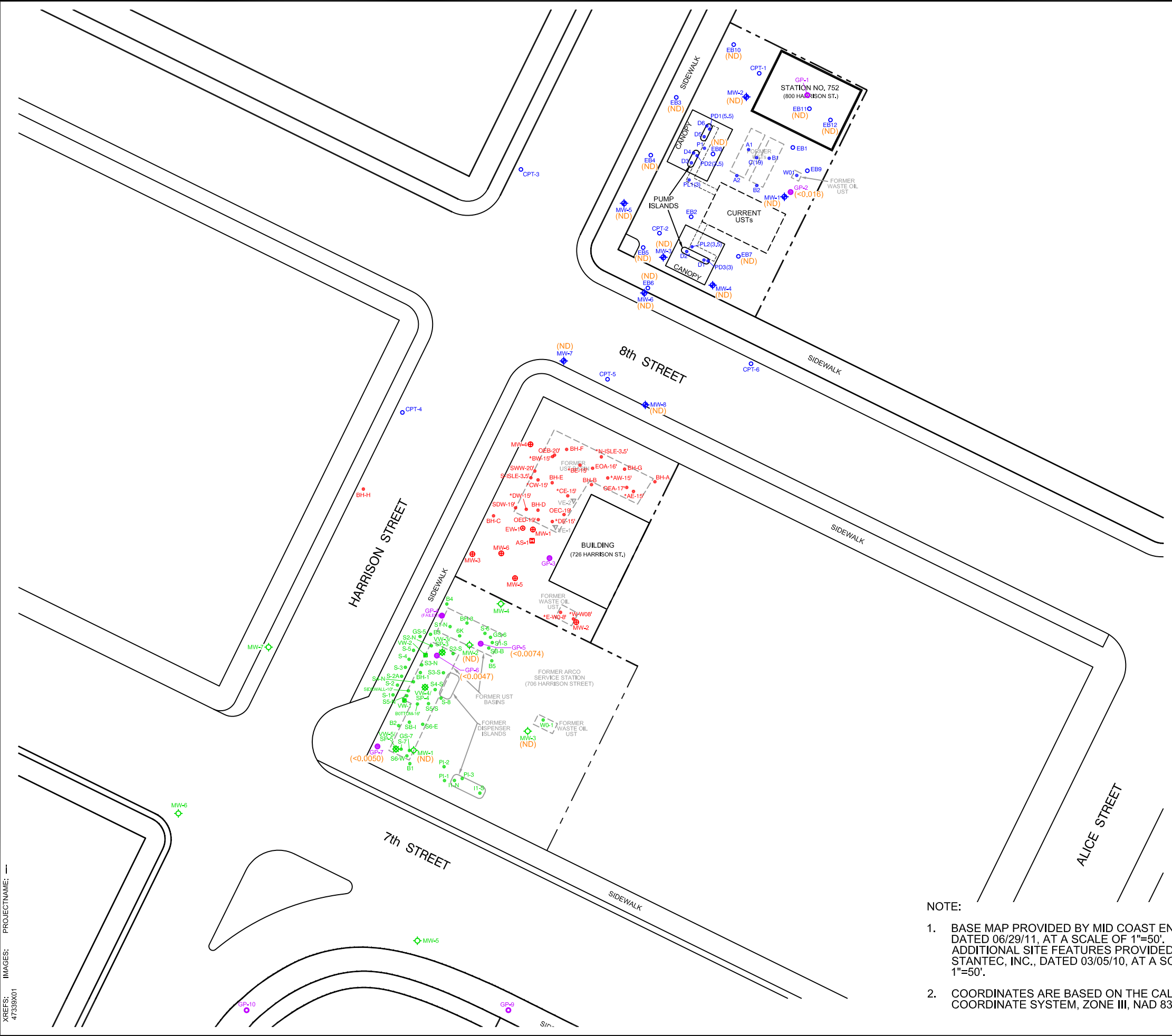
- NOTE:**
- BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 - COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

**TPH-G/TPPH SOIL ISOPLETH
 CONTOUR MAP
 (25.0'-30.0' BGS)**

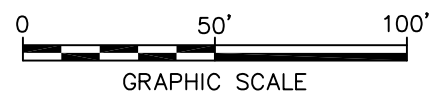
ARCADIS

FIGURE
18



LEGEND

- PROPERTY BOUNDARY
- PRODUCT PIPING
- MW-1 (blue diamond) GROUNDWATER MONITORING WELL (UNOCAL)
- MW-1 (red circle) GROUNDWATER MONITORING WELL (YEE)
- MW-1 (green diamond) GROUNDWATER MONITORING WELL (GIN)
- B1 (blue circle) SOIL SAMPLE LOCATION (UNOCAL)
- EB1 (blue circle) EXPLORATORY BORING LOCATION (UNOCAL)
- AS-1 (red square) AIR SPARGE WELL (YEE)
- EW-1 (red circle) EXTRACTION WELL (YEE)
- BHA (red circle) SOIL SAMPLE LOCATION (YEE)
- VE-1 (red inverted triangle) DESTROYED WELL (YEE)
- VW-1 (green square) SOIL VAPOR EXTRACTION WELL (GIN)
- VW-3/SP-3 (green square) SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
- B1 (green circle) SOIL SAMPLE LOCATION (GIN)
- GP-2 (purple circle) GEOPROBE™ (JUNE 2011)
- GP-9 (purple circle) GEOPROBE™ (MARCH 2012)
- <0.016 (orange) BENZENE CONCENTRATION (mg/kg)
- (ND) NON-DETECT
- < LESS THAN LABORATORY REPORTING LIMIT
- mg/kg MILLIGRAMS PER KILOGRAM
- BGS BELOW GROUND SURFACE



- NOTE:**
- BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 - COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

**BENZENE SOIL ISOPLETH
 CONTOUR MAP
 (0.0'-5.0' BGS)**

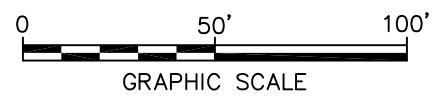
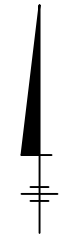
FIGURE
19

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
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XREFS: IMAGES: PROJECTNAME: 47339X01



LEGEND

- PROPERTY BOUNDARY
- - - - - PRODUCT PIPING
- MW-1 (blue diamond) GROUNDWATER MONITORING WELL (UNOCAL)
- MW-1 (red circle) GROUNDWATER MONITORING WELL (YEE)
- MW-1 (green diamond) GROUNDWATER MONITORING WELL (GIN)
- B1 (blue circle) SOIL SAMPLE LOCATION (UNOCAL)
- EB1 (blue circle) EXPLORATORY BORING LOCATION (UNOCAL)
- AS-1 (red square) AIR SPARGE WELL (YEE)
- EW-1 (red circle) EXTRACTION WELL (YEE)
- BHA (red circle) SOIL SAMPLE LOCATION (YEE)
- VE-1 (black inverted triangle) DESTROYED WELL (YEE)
- VW-1 (green square) SOIL VAPOR EXTRACTION WELL (GIN)
- VW-3/SP-3 (green square) SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
- B1 (green circle) SOIL SAMPLE LOCATION (GIN)
- GP-2 (purple circle) GEOPROBE™ (JUNE 2011)
- GP-9 (purple circle) GEOPROBE™ (MARCH 2012)
- (0.33) BENZENE CONCENTRATION (mg/kg)
- (<math><0.0050</math>/<math><0.0050</math>) BENZENE CONCENTRATIONS COLLECTED AT MULTIPLE DEPTHS WITHIN TARGET RANGE (mg/kg)
- (ND) NON-DETECT
- < LESS THAN LABORATORY REPORTING LIMIT
- mg/kg MILLIGRAMS PER KILOGRAM
- BGS BELOW GROUND SURFACE



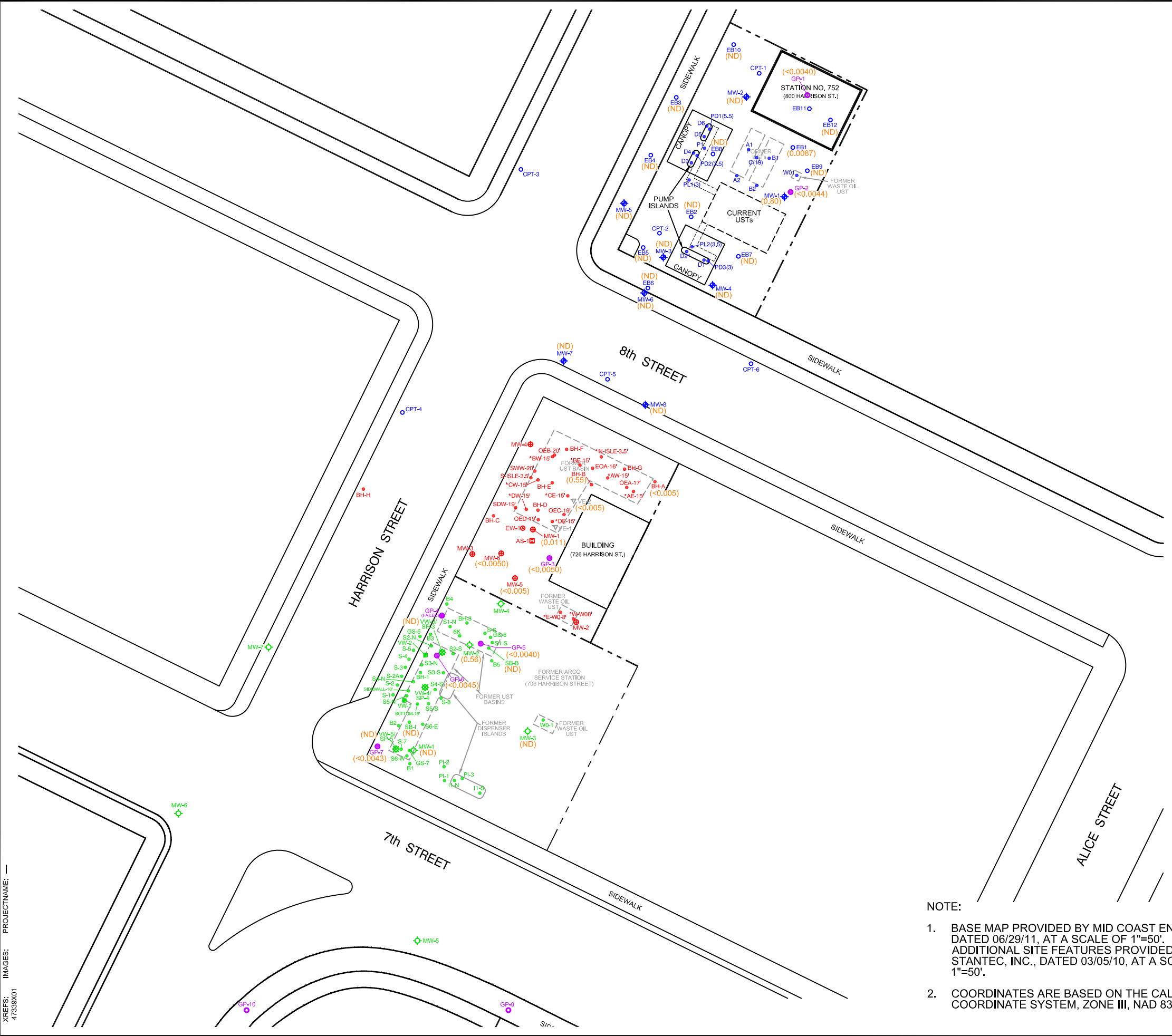
- NOTE:**
1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

UNION OIL OF CALIFORNIA
STATION NO. 0752/YEE/GIN COMMINGLED
706/726/800 HARRISON STREET
OAKLAND, CALIFORNIA

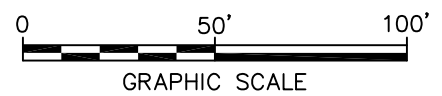
**BENZENE SOIL ISOPLETH
CONTOUR MAP
(5.0'-10.0' BGS)**

FIGURE
20

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
 C:\Users\jharris\Desktop\ENVCAD\B0047339\2012100006\DWG\47339C09.dwg LAYOUT: 21 SAVED: 7/22/2012 4:51 PM ACADVER: 18.1 S (LMS TECH) PAGES: 21 PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 7/22/2012 4:51 PM BY: HARRIS, JESSICA
 XREFS: IMAGES: PROJECTNAME: 47339X01



- LEGEND**
- PROPERTY BOUNDARY
 - PRODUCT PIPING
 - MW-1 ◆ GROUNDWATER MONITORING WELL (UNOCAL)
 - MW-1 ● GROUNDWATER MONITORING WELL (YEE)
 - MW-1 ◆ GROUNDWATER MONITORING WELL (GIN)
 - B1 ● SOIL SAMPLE LOCATION (UNOCAL)
 - EB1 ● EXPLORATORY BORING LOCATION (UNOCAL)
 - AS-1 ■ AIR SPARGE WELL (YEE)
 - EW-1 ● EXTRACTION WELL (YEE)
 - BHA ● SOIL SAMPLE LOCATION (YEE)
 - VE-1 ▼ DESTROYED WELL (YEE)
 - VW-1 ■ SOIL VAPOR EXTRACTION WELL (GIN)
 - VW-3/SP-3 ■ SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
 - B1 ● SOIL SAMPLE LOCATION (GIN)
 - GP-2 ● GEOPROBE™ (JUNE 2011)
 - GP-9 ● GEOPROBE™ (MARCH 2012)
 - (0.011) BENZENE CONCENTRATION (mg/kg)
 - (ND) NON-DETECT
 - < LESS THAN LABORATORY REPORTING LIMIT
 - mg/kg MILLIGRAMS PER KILOGRAM
 - BGS BELOW GROUND SURFACE



- NOTE:**
1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

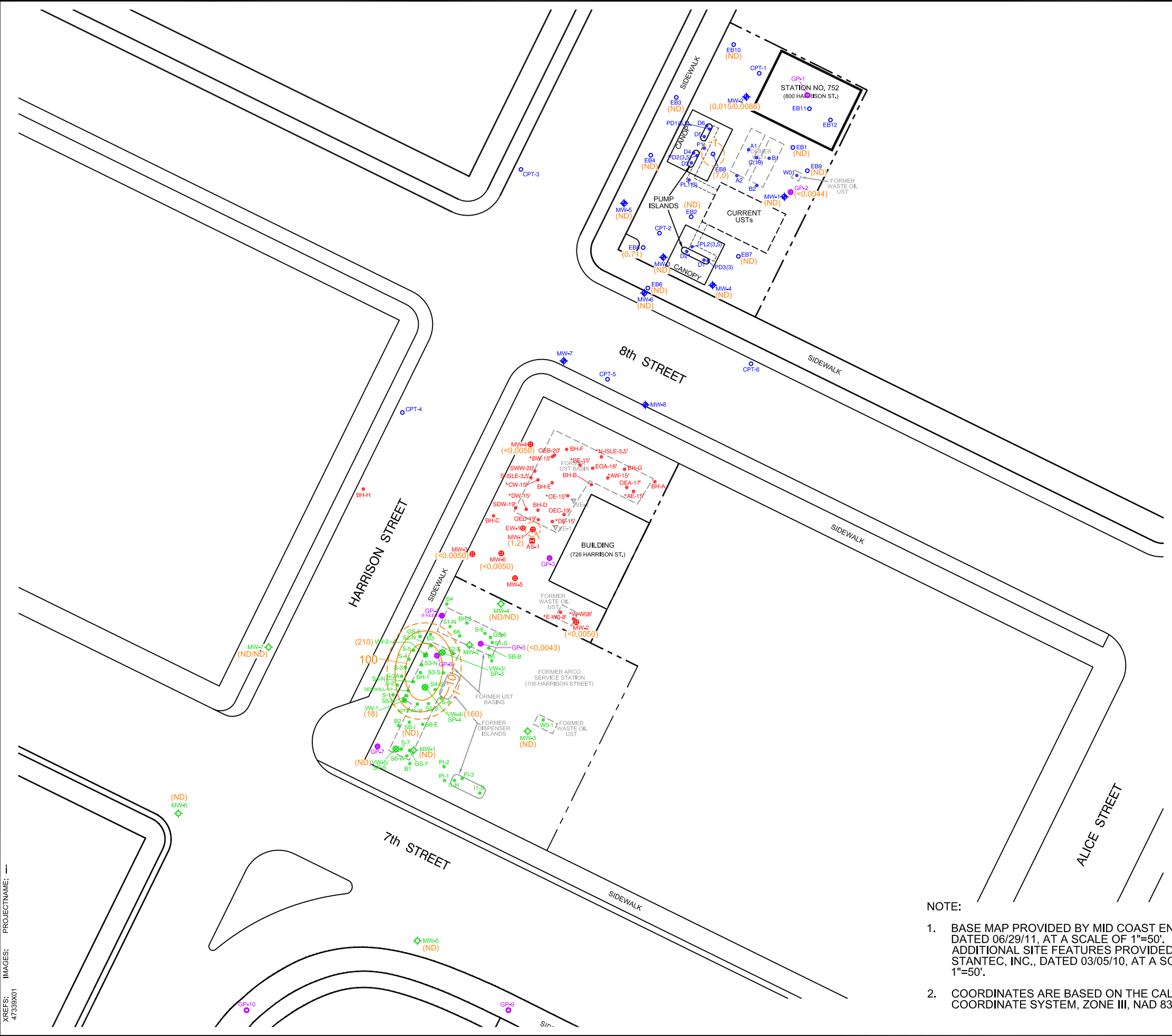
UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

**BENZENE SOIL ISOPLETH
 CONTOUR MAP
 (10.0'-15.0' BGS)**

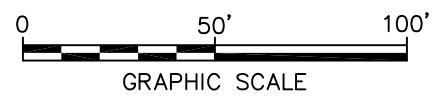
ARCADIS

FIGURE
21

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
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 XREFS: IMAGES: PROJECTNAME: 47339X01



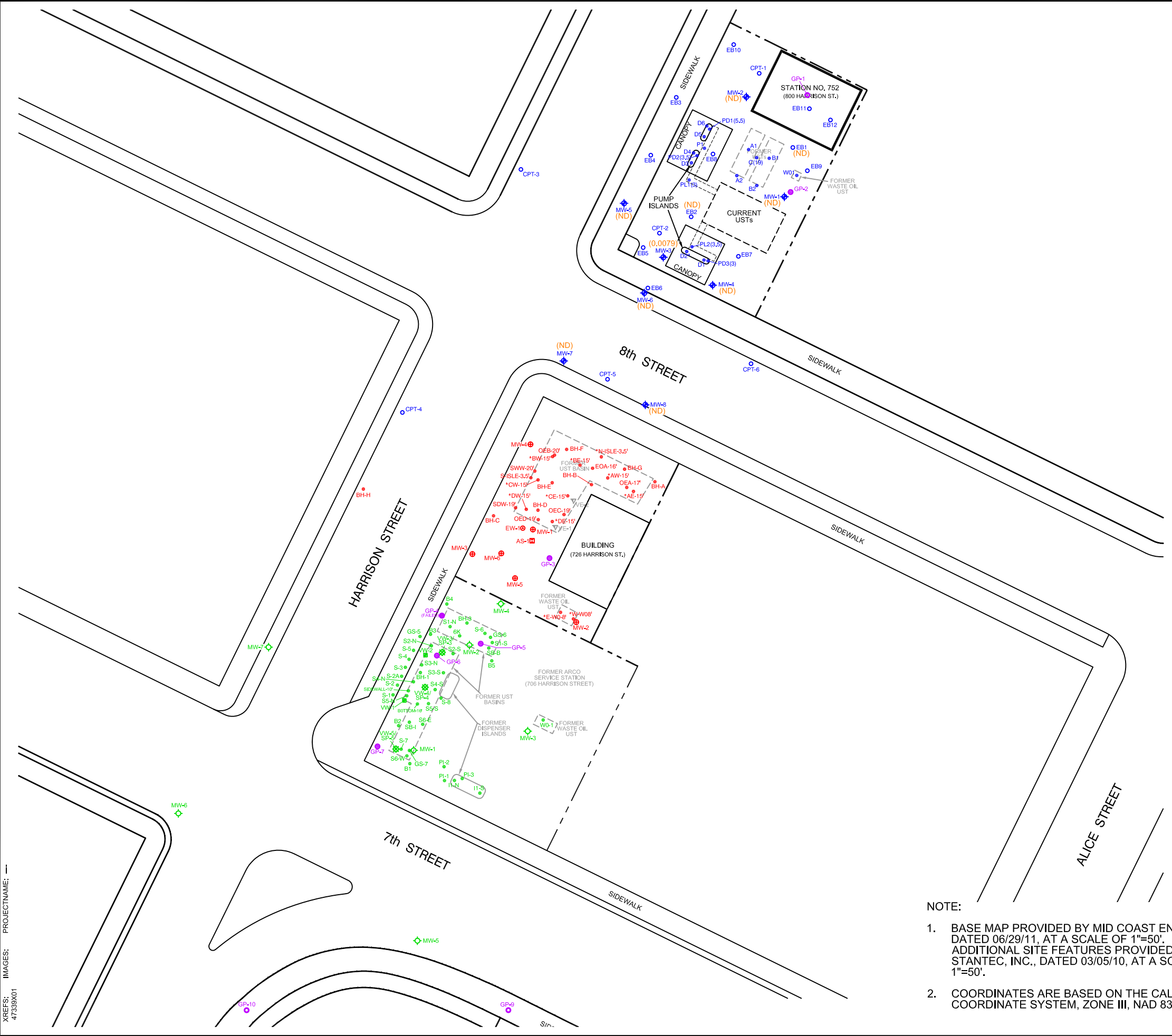
- LEGEND**
- PROPERTY BOUNDARY
 - PRODUCT PIPING
 - MW-1 (blue diamond) GROUNDWATER MONITORING WELL (UNOCAL)
 - MW-1 (red circle) GROUNDWATER MONITORING WELL (YEE)
 - MW-1 (green diamond) GROUNDWATER MONITORING WELL (GIN)
 - B1 (blue circle) SOIL SAMPLE LOCATION (UNOCAL)
 - EB1 (blue circle) EXPLORATORY BORING LOCATION (UNOCAL)
 - AS-1 (red square) AIR SPARGE WELL (YEE)
 - EW-1 (red circle) EXTRACTION WELL (YEE)
 - BHA (red circle) SOIL SAMPLE LOCATION (YEE)
 - VE-1 (black inverted triangle) DESTROYED WELL (YEE)
 - VW-1 (green square) SOIL VAPOR EXTRACTION WELL (GIN)
 - VW-3/SP-3 (green square) SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
 - B1 (green circle) SOIL SAMPLE LOCATION (GIN)
 - GP-2 (purple circle) GEOPROBE™ (JUNE 2011)
 - GP-9 (purple circle) GEOPROBE™ (MARCH 2012)
 - (18) BENZENE CONCENTRATION (mg/kg)
 - (0.015/0.0086) BENZENE CONCENTRATIONS COLLECTED AT MULTIPLE DEPTHS WITHIN TARGET RANGE (mg/kg)
 - 1- (orange dashed line) BENZENE ISOPLETH CONTOUR (mg/kg; DASHED WHERE INFERRED)
 - (ND) NON-DETECT
 - < LESS THAN LABORATORY REPORTING LIMIT
 - mg/kg MILLIGRAMS PER KILOGRAM
 - BGS BELOW GROUND SURFACE



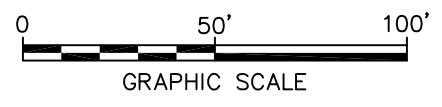
- NOTE:**
- BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 - COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

UNION OIL OF CALIFORNIA STATION NO. 0752/YEE/GIN COMMINGLED 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA	
BENZENE SOIL ISOPLETH CONTOUR MAP (15.0'-20.0' BGS)	
	FIGURE 22

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
 C:\Users\jharris\Desktop\ENVCAD\B0047339\2012100006\DWG\47339C11.dwg LAYOUT: 23 SAVED: 7/22/2012 5:51 PM ACADVER: 18.1 S (LMS TECH) PAGES: 23 PLOTTED: 7/22/2012 5:51 PM BY: HARRIS, JESSICA
 XREFS: IMAGES: PROJECTNAME: 47339X01



- LEGEND**
- PROPERTY BOUNDARY
 - PRODUCT PIPING
 - MW-1 (blue diamond) GROUNDWATER MONITORING WELL (UNOCAL)
 - MW-1 (red circle) GROUNDWATER MONITORING WELL (YEE)
 - MW-1 (green diamond) GROUNDWATER MONITORING WELL (GIN)
 - B1 (blue circle) SOIL SAMPLE LOCATION (UNOCAL)
 - EB1 (blue circle) EXPLORATORY BORING LOCATION (UNOCAL)
 - AS-1 (red square) AIR SPARGE WELL (YEE)
 - EW-1 (red circle) EXTRACTION WELL (YEE)
 - BHA (red circle) SOIL SAMPLE LOCATION (YEE)
 - VE-1 (red inverted triangle) DESTROYED WELL (YEE)
 - VW-1 (green square) SOIL VAPOR EXTRACTION WELL (GIN)
 - VW-3/SP-3 (green square) SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
 - B1 (green circle) SOIL SAMPLE LOCATION (GIN)
 - GP-2 (purple circle) GEOPROBE™ (JUNE 2011)
 - GP-9 (purple circle) GEOPROBE™ (MARCH 2012)
 - (0.0079) BENZENE CONCENTRATION (mg/kg)
 - (ND) NON-DETECT
 - mg/kg MILLIGRAMS PER KILOGRAM
 - BGS BELOW GROUND SURFACE



- NOTE:**
- BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 - COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

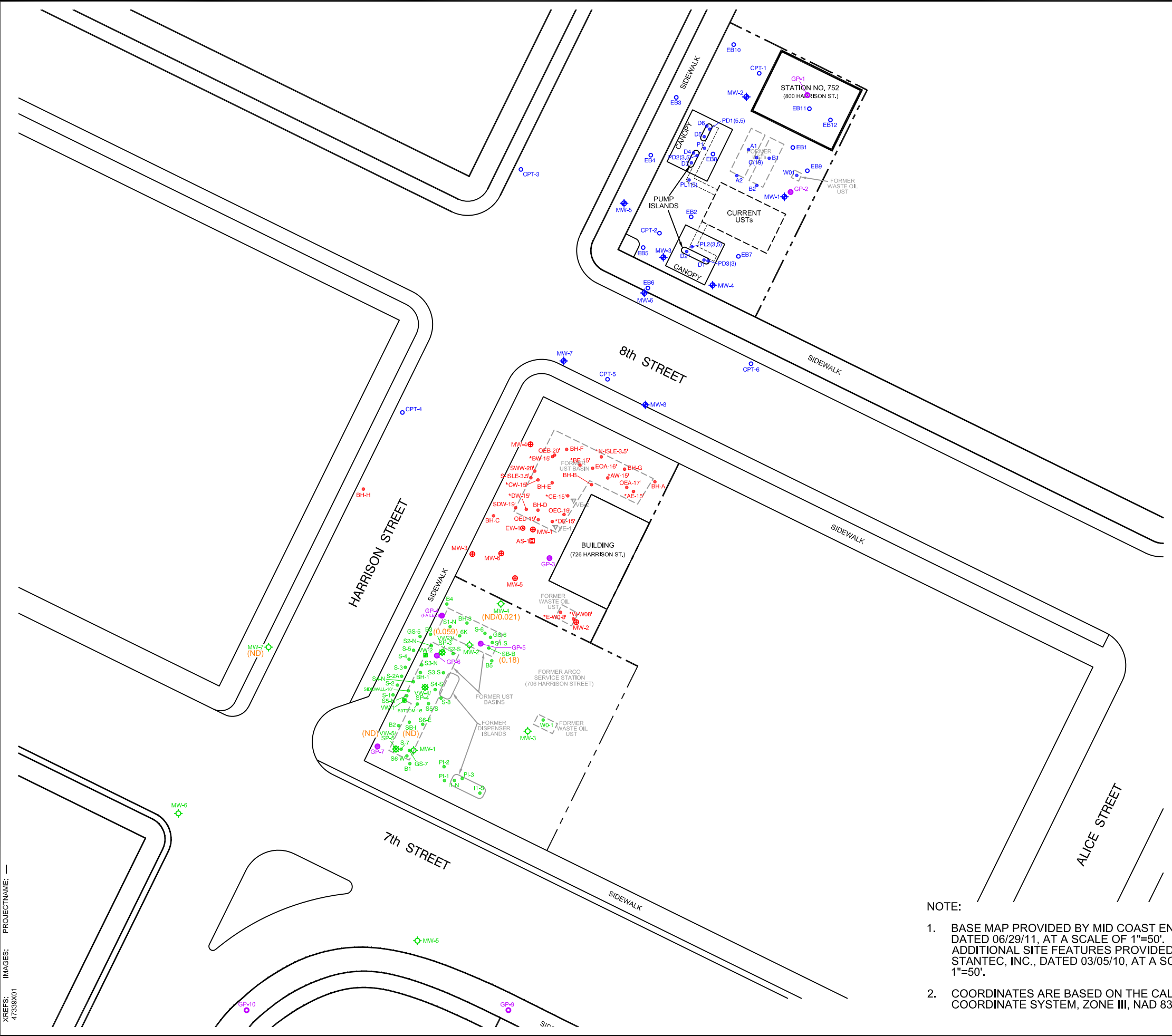
UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

**BENZENE SOIL ISOPLETH
 CONTOUR MAP
 (20.0'-25.0' BGS)**

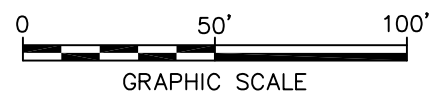
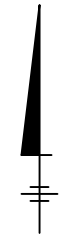
ARCADIS

FIGURE
23

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
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 XREFS: IMAGES: PROJECTNAME: 47339X01



LEGEND	
	PROPERTY BOUNDARY
	PRODUCT PIPING
	MW-1 GROUNDWATER MONITORING WELL (UNOCAL)
	MW-1 GROUNDWATER MONITORING WELL (YEE)
	MW-1 GROUNDWATER MONITORING WELL (GIN)
	B1 SOIL SAMPLE LOCATION (UNOCAL)
	EB1 EXPLORATORY BORING LOCATION (UNOCAL)
	AS-1 AIR SPARGE WELL (YEE)
	EW-1 EXTRACTION WELL (YEE)
	BHA SOIL SAMPLE LOCATION (YEE)
	VE-1 DESTROYED WELL (YEE)
	VW-1 SOIL VAPOR EXTRACTION WELL (GIN)
	VW-3/SP-3 SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
	B1 SOIL SAMPLE LOCATION (GIN)
	GP-2 GEOPROBE™ (JUNE 2011)
	GP-9 GEOPROBE™ (MARCH 2012)
	(0.18) BENZENE CONCENTRATION (mg/kg)
	(ND/0.021) BENZENE CONCENTRATIONS COLLECTED AT MULTIPLE DEPTHS WITHIN TARGET RANGE (mg/kg)
	(ND) NON-DETECT
	mg/kg MILLIGRAMS PER KILOGRAM
	BGS BELOW GROUND SURFACE



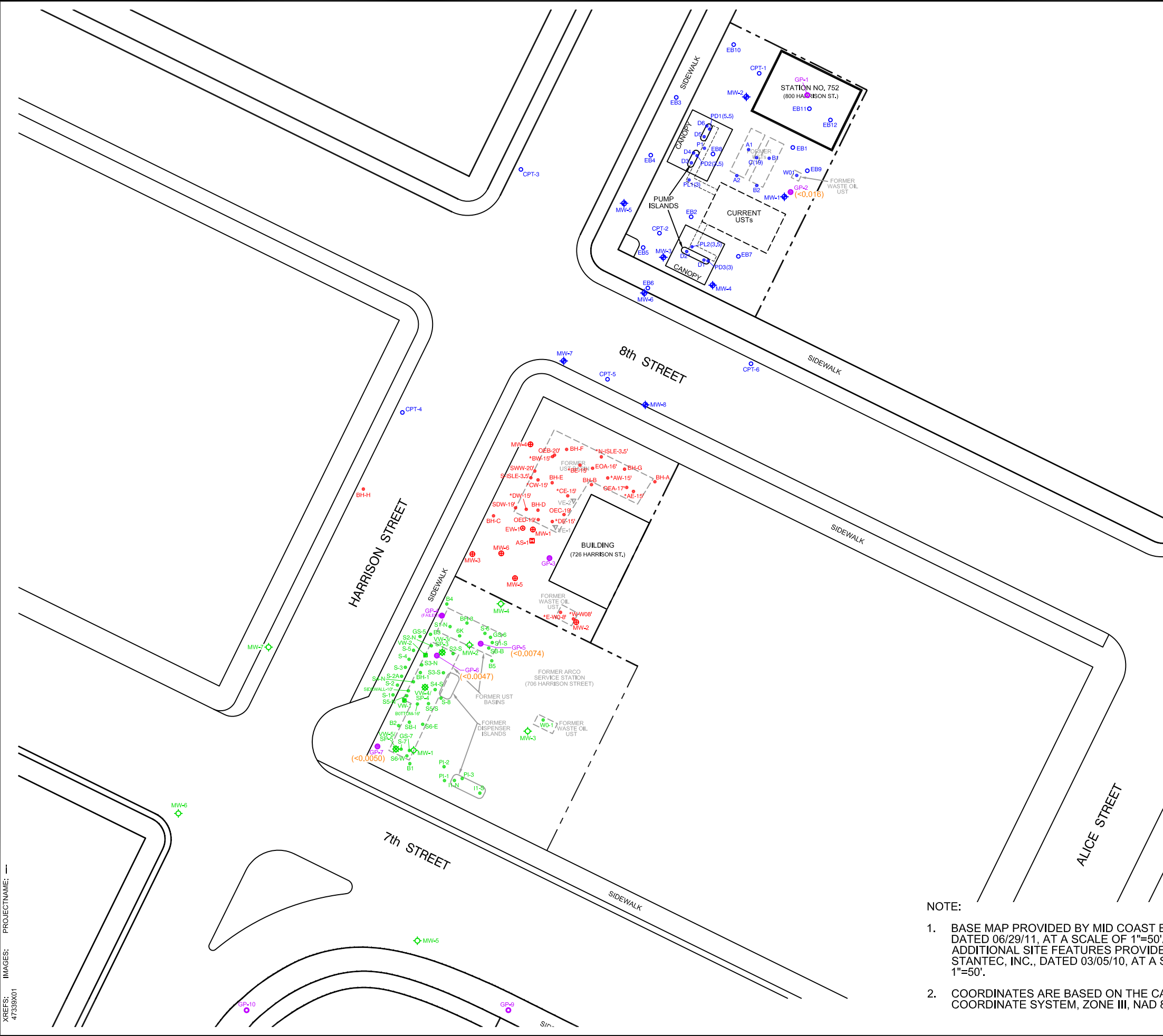
- NOTE:
1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

**BENZENE SOIL ISOPLETH
 CONTOUR MAP
 (25.0'-30.0' BGS)**

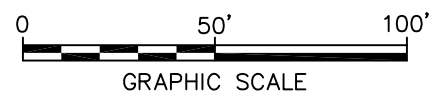
ARCADIS

FIGURE
24



LEGEND

- PROPERTY BOUNDARY
- - - - - PRODUCT PIPING
- MW-1 (blue diamond) GROUNDWATER MONITORING WELL (UNOCAL)
- MW-1 (red circle) GROUNDWATER MONITORING WELL (YEE)
- MW-1 (green diamond) GROUNDWATER MONITORING WELL (GIN)
- B1 (blue circle) SOIL SAMPLE LOCATION (UNOCAL)
- EB1 (blue circle) EXPLORATORY BORING LOCATION (UNOCAL)
- AS-1 (red square) AIR SPARGE WELL (YEE)
- EW-1 (red circle) EXTRACTION WELL (YEE)
- BHA (red circle) SOIL SAMPLE LOCATION (YEE)
- VE-1 (red inverted triangle) DESTROYED WELL (YEE)
- VW-1 (green square) SOIL VAPOR EXTRACTION WELL (GIN)
- VW-3/SP-3 (green square) SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
- B1 (green circle) SOIL SAMPLE LOCATION (GIN)
- GP-2 (purple circle) GEOPROBE™ (JUNE 2011)
- GP-9 (purple circle) GEOPROBE™ (MARCH 2012)
- (<0.0074) (orange) MTBE CONCENTRATION (mg/kg)
- < (orange) LESS THAN LABORATORY REPORTING LIMIT
- MTBE METHYL TERTIARY BUTYL ETHER
- mg/kg MILLIGRAMS PER KILOGRAM
- BGS BELOW GROUND SURFACE



- NOTE:
1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

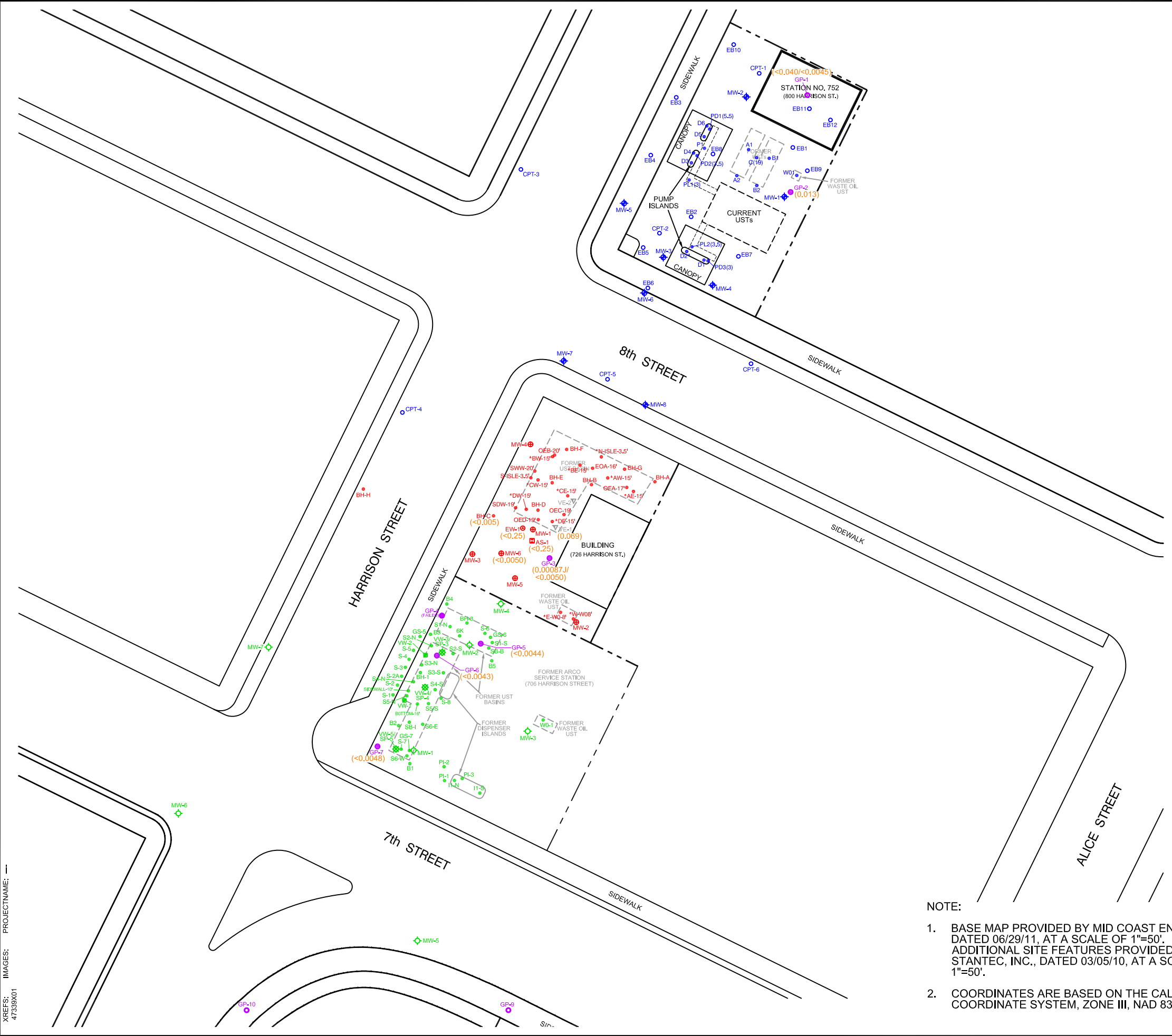
UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

**MTBE SOIL ISOPLETH
 CONTOUR MAP
 (0.0'-5.0' BGS)**

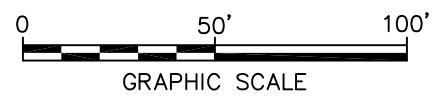
ARCADIS

FIGURE
25

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
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 XREFS: IMAGES: PROJECTNAME: 47339X01



- LEGEND**
- PROPERTY BOUNDARY
 - PRODUCT PIPING
 - MW-1 (blue diamond) GROUNDWATER MONITORING WELL (UNOCAL)
 - MW-1 (red circle) GROUNDWATER MONITORING WELL (YEE)
 - MW-1 (green diamond) GROUNDWATER MONITORING WELL (GIN)
 - B1 (blue circle) SOIL SAMPLE LOCATION (UNOCAL)
 - EB1 (blue circle) EXPLORATORY BORING LOCATION (UNOCAL)
 - AS-1 (red square) AIR SPARGE WELL (YEE)
 - EW-1 (red circle) EXTRACTION WELL (YEE)
 - BHA (red circle) SOIL SAMPLE LOCATION (YEE)
 - VE-1 (inverted triangle) DESTROYED WELL (YEE)
 - VW-1 (green square) SOIL VAPOR EXTRACTION WELL (GIN)
 - VW-3/SP-3 (green square) SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
 - B1 (green circle) SOIL SAMPLE LOCATION (GIN)
 - GP-2 (purple circle) GEOPROBE™ (JUNE 2011)
 - GP-9 (purple circle) GEOPROBE™ (MARCH 2012)
 - (0.0069) MTBE CONCENTRATION (mg/kg)
 - (<0.0040/<0.0045) MTBE CONCENTRATIONS COLLECTED AT MULTIPLE DEPTHS WITHIN TARGET RANGE (mg/kg)
 - < LESS THAN LABORATORY REPORTING LIMIT
 - J ESTIMATED VALUE; LESS THAN LABORATORY REPORTING LIMIT AND GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT
 - MTBE METHYL TERTIARY BUTYL ETHER
 - mg/kg MILLIGRAMS PER KILOGRAM
 - BGS BELOW GROUND SURFACE



- NOTE:**
- BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 - COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

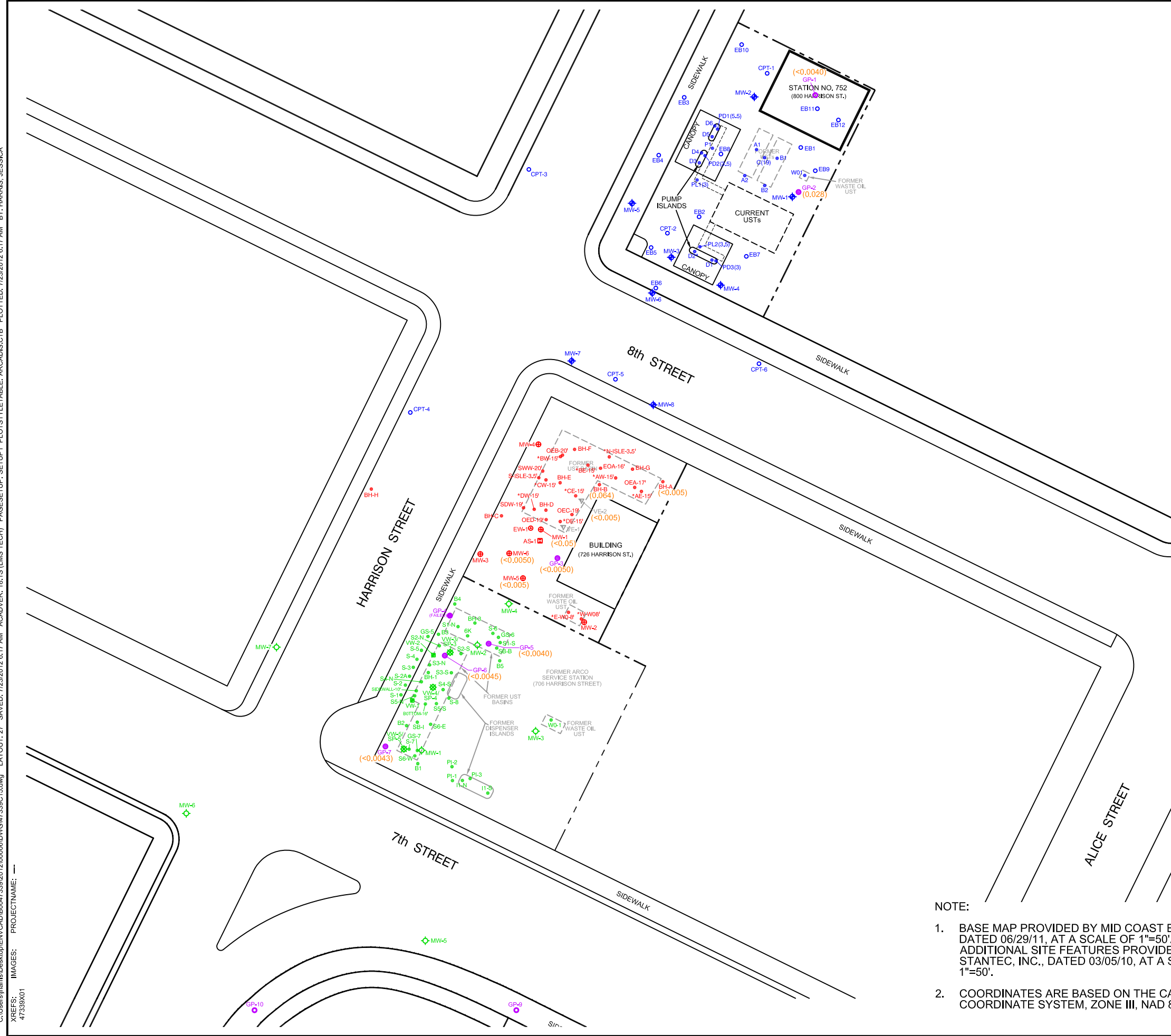
UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

**MTBE SOIL ISOPLETH
 CONTOUR MAP
 (5.0'-10.0' BGS)**

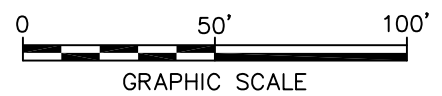
ARCADIS

FIGURE
26

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
 C:\Users\jharris\Desktop\ENVCAD\B0047339\2012100006\DWG\47339C15.dwg LAYOUT: 27 SAVED: 7/23/2012 6:17 AM ACADVER: 18.1 S (LMS TECH) PAGES: 27 PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 7/23/2012 6:17 AM BY: HARRIS, JESSICA
 XREFS: IMAGES: PROJECTNAME: 47339X01



- LEGEND**
- PROPERTY BOUNDARY
 - - - - PRODUCT PIPING
 - MW-1 ◆ GROUNDWATER MONITORING WELL (UNOCAL)
 - MW-1 ● GROUNDWATER MONITORING WELL (YEE)
 - MW-1 ◆ GROUNDWATER MONITORING WELL (GIN)
 - B1 ● SOIL SAMPLE LOCATION (UNOCAL)
 - EB1 ● EXPLORATORY BORING LOCATION (UNOCAL)
 - AS-1 ■ AIR SPARGE WELL (YEE)
 - EW-1 ● EXTRACTION WELL (YEE)
 - BHA ● SOIL SAMPLE LOCATION (YEE)
 - VE-1 ▽ DESTROYED WELL (YEE)
 - VW-1 ■ SOIL VAPOR EXTRACTION WELL (GIN)
 - VW-3/SP-3 ■ SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
 - B1 ● SOIL SAMPLE LOCATION (GIN)
 - GP-2 ● GEOPROBE™ (JUNE 2011)
 - GP-9 ● GEOPROBE™ (MARCH 2012)
 - (0.028) MTBE CONCENTRATION (mg/kg)
 - < LESS THAN LABORATORY REPORTING LIMIT
 - MTBE METHYL TERTIARY BUTYL ETHER
 - mg/kg MILLIGRAMS PER KILOGRAM
 - BGS BELOW GROUND SURFACE



- NOTE:**
1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

**MTBE SOIL ISOPLETH
 CONTOUR MAP
 (10.0'-15.0' BGS)**


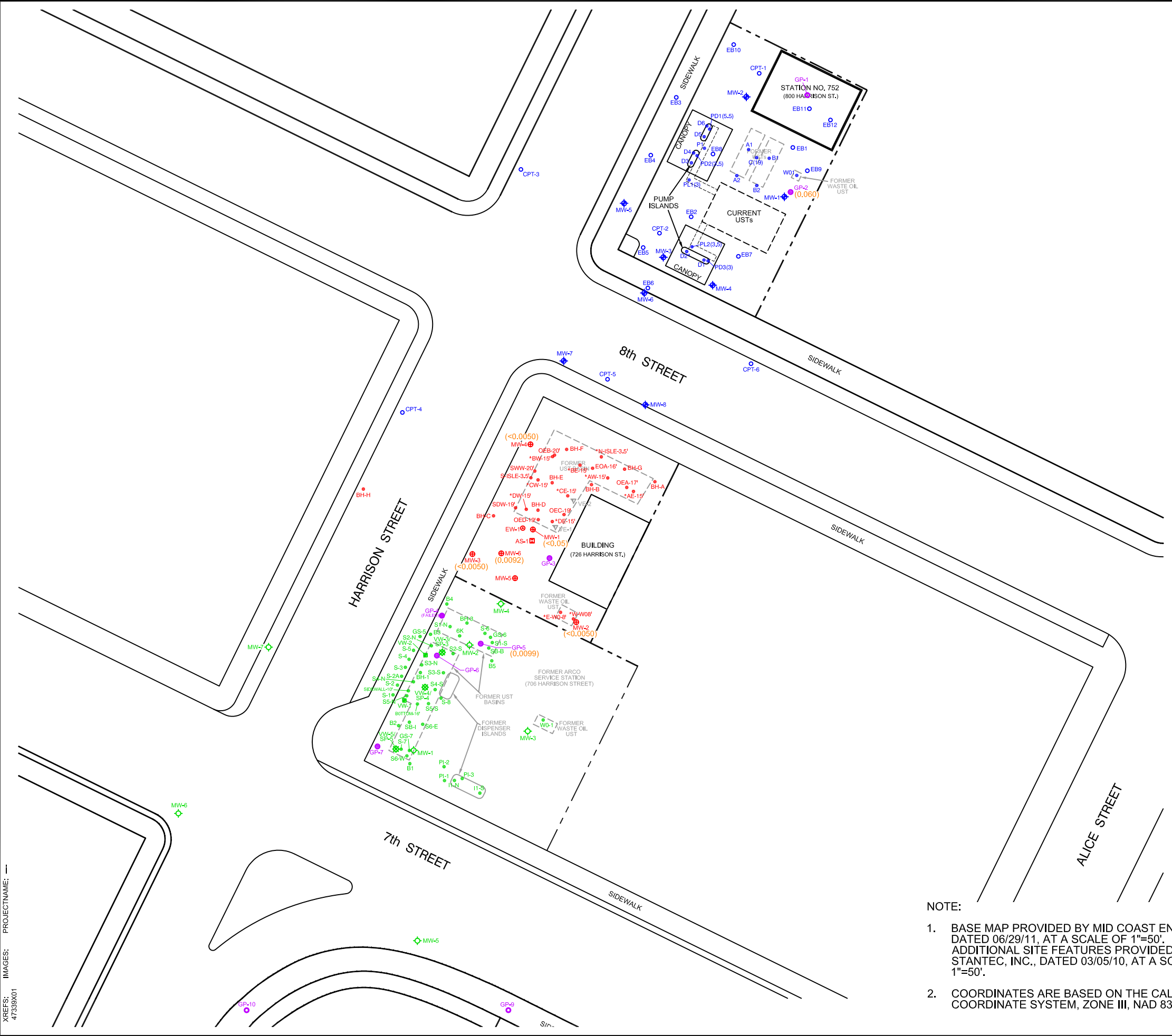
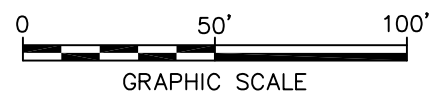


FIGURE
27

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS
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 XREFS: IMAGES: PROJECTNAME: 47339X01



- LEGEND**
- PROPERTY BOUNDARY
 - PRODUCT PIPING
 - MW-1 (blue diamond) GROUNDWATER MONITORING WELL (UNOCAL)
 - MW-1 (red circle) GROUNDWATER MONITORING WELL (YEE)
 - MW-1 (green diamond) GROUNDWATER MONITORING WELL (GIN)
 - B1 (blue circle) SOIL SAMPLE LOCATION (UNOCAL)
 - EB1 (blue circle) EXPLORATORY BORING LOCATION (UNOCAL)
 - AS-1 (red square) AIR SPARGE WELL (YEE)
 - EW-1 (red circle) EXTRACTION WELL (YEE)
 - BHA (red circle) SOIL SAMPLE LOCATION (YEE)
 - VE-1 (red inverted triangle) DESTROYED WELL (YEE)
 - VW-1 (green square) SOIL VAPOR EXTRACTION WELL (GIN)
 - VW-3/SP-3 (green square) SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN)
 - B1 (green circle) SOIL SAMPLE LOCATION (GIN)
 - GP-2 (purple circle) GEOPROBE™ (JUNE 2011)
 - GP-9 (purple circle) GEOPROBE™ (MARCH 2012)
 - (0.060) MTBE CONCENTRATION (mg/kg)
 - < LESS THAN LABORATORY REPORTING LIMIT
 - MTBE METHYL TERTIARY BUTYL ETHER
 - mg/kg MILLIGRAMS PER KILOGRAM
 - BGS BELOW GROUND SURFACE



- NOTE:**
1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

UNION OIL OF CALIFORNIA
 STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET
 OAKLAND, CALIFORNIA

**MTBE SOIL ISOPLETH
 CONTOUR MAP
 (15.0'-20.0' BGS)**

ARCADIS

FIGURE
28



Appendix E

Air Sparge/Soil Vapor Extraction
System Design Package

CITY: LAKEWOOD, CO DIV/GRUP: ENV DB: ENV/CAD G: ENV/CAD/Lakewood-CO/ACT/B0047339/Design/20140205 from rosefile/47339002.dwg LAYOUT: COVER SAVED: 4/17/2014 1:37 PM ACADVER: 18.1S (LMS TECH) PAGES: 18 PAGES: 18 PLOT: 4/17/2014 1:37 PM BY: HOEFER, MATTHEW

CONSTRUCTION DRAWINGS FOR

SOIL VAPOR EXTRACTION AND AIR SPARGE SYSTEM

**UNION OIL COMPANY OF CALIFORNIA
STATION NO. 0752
706/726/800 HARRISON STREET
OAKLAND, CALIFORNIA**

APRIL 2014



LOCATION MAP



CALIFORNIA



ARCADIS U.S., INC.

DRAFT - NOT FOR CONSTRUCTION

KEY CONTACTS:

APPLICANT:
TIMOTHY BISHOP, PROJECT MANAGER
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
MARKETING BUSINESS UNIT
6101 BOLLINGER CANYON ROAD
SAN RAMON, CALIFORNIA 947583
TELEPHONE: 925.790.6463

LANDOWNERS:
706 HARRISON STREET: MR. BO GIN
726 HARRISON STREET: MR. PETER YEE
800 HARRISON STREET: MR. MUHAMMAD USMAN

EQUIPMENT OWNER:
UNION OIL COMPANY OF CALIFORNIA (UNION OIL)
6101 BOLLINGER CANYON ROAD
SAN RAMON, CALIFORNIA 94583
CONTACT: TIMOTHY BISHOP
TELEPHONE: 925.790.6463

PREPARER'S INFORMATION:
ARCADIS U.S., INC. (ARCADIS)
2000 POWELL STREET, SUITE 700
EMERYVILLE, CALIFORNIA 94608

PROPERTY DATA:

PROPERTY ADDRESSES AND PARCEL NUMBER:
PARCEL NUMBER 001-018502600
706 HARRISON STREET
OAKLAND, CALIFORNIA 94607
LAND USE: COMMERCIAL
SURROUNDING LAND USE:
MIXED RESIDENTIAL/COMMERCIAL

PARCEL NUMBER 001-018501400
726 HARRISON STREET
OAKLAND, CALIFORNIA 94607
LAND USE: COMMERCIAL
SURROUNDING LAND USE:
MIXED RESIDENTIAL/COMMERCIAL

PARCEL NUMBER 001-018501300
800 HARRISON STREET
OAKLAND, CALIFORNIA 94607
LAND USE: COMMERCIAL
SURROUNDING LAND USE:
MIXED RESIDENTIAL/COMMERCIAL

INDEX TO DRAWINGS

COVER SHEET

- G-1A CONSTRUCTION NOTES AND SPECIFICATIONS
- G-1B CONSTRUCTION NOTES AND SPECIFICATIONS
- G-1C CONSTRUCTION NOTES AND SPECIFICATIONS
- G-1D CONSTRUCTION NOTES AND SPECIFICATIONS
- G-2 MAJOR EQUIPMENT AND INSTRUMENT LIST

CONSTRUCTION

- C-1 SITE PLAN
- C-2 SITE PLAN WITH PROPOSED REMEDIATION SYSTEM
- C-3 REMEDIATION SYSTEM DETAILS
- C-4 SOIL VAPOR EXTRACTION WELL, VAULT AND WELL HEAD DETAILS
- C-5 AIR SPARGE WELL, VAULT AND WELL HEAD DETAILS
- C-6 TRENCHING DETAILS
- C-7 MANIFOLD CONNECTION DETAILS
- C-8 TREATMENT COMPOUND ELEVATIONS

MECHANICAL

- M-1 LEGEND AND SYMBOLS
- M-2 PROCESS AND INSTRUMENTATION DIAGRAM
- M-3 PLAN VIEW OF EQUIPMENT LAYOUT

ELECTRICAL

- E-1 ELECTRICAL LEGEND AND NOTES
- E-2 ELECTRICAL ONE LINE DIAGRAM

STRUCTURAL

- S-1 TREATMENT ENCLOSURE FOUNDATION AND ANCHOR DETAILS

CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS G:\ENV\CAD\leakwood-coact\BIB\047339\Design\20140205 from roseville\47339\03.dwg LAYOUT: G-1A SAVED: 4/10/2014 4:26 PM ACADVER: 18.15 (LMS TECH) PAGES: 18 PLOTTED: 4/17/2014 1:42 PM BY: HOEFER, MATTHEW XREFS: 47339X00 IMAGES: PROTECTNAME: ---

1.0 INTRODUCTION

1.1 GENERAL

THE ENCLOSED DRAWINGS AND SPECIFICATIONS CONTAIN INFORMATION FOR THE CONSTRUCTION AND INSTALLATION OF A SOIL VAPOR EXTRACTION AND AIR SPARGE SYSTEM (SVE/AS) TREATMENT FACILITY. THE FOLLOWING DRAWINGS DEPICTING THE TREATMENT FACILITY ARE REQUIRED FOR CONSTRUCTION AND INSTALLATION:

Table with 2 columns: DRAWING NO. and TITLE. Lists drawings from G-1A to S-1 including construction notes, site plan, remediation system details, etc.

1.2 DEFINITIONS

CHEVRON: CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ENGINEER: ARCADIS
CONTRACTOR: TO BE DETERMINED BY BID
EQUIPMENT OWNER: UNION OIL COMPANY OF CALIFORNIA

THIS PACKAGE ALSO CONTAINS THE FOLLOWING SPECIFICATIONS REQUIRED FOR CONSTRUCTION AND INSTALLATION:

2.0 GENERAL CONSTRUCTION SPECIFICATIONS

- 2.1 THE CONTRACTOR SHALL REVIEW THE SVE/AS FACILITY DESIGN PLANS...
2.2 ALL MATERIALS USED FOR CONSTRUCTION OF THE SVE/AS FACILITY SHALL BE NEW...
2.3 THE ENGINEER WILL REQUEST A PLAN CHECK, IF APPLICABLE...
2.4 THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL BUILDING PERMITS...
2.5 THE CONTRACTOR SHALL PROVIDE A ONE YEAR WARRANTY ON ALL...
2.6 IN ADDITION TO THE REMEDIATION DESIGN PLANS...
2.7 THE ENGINEER WILL CLEARLY INDICATE IN THE REMEDIATION DESIGN PLANS...
2.8 THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE SITE FREE OF EXCESSIVE DEBRIS...

TO TAKE THE NECESSARY PRECAUTIONS TO CONTROL DUST AND STORMWATER RUNOFF FROM EXCAVATION AND CONSTRUCTION ACTIVITIES.

- 2.9 THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INDEPENDENT LOCATION OF ALL UTILITIES...
2.10 CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR REPAIRING ALL DAMAGE MADE BY THE CONTRACTOR...
2.11 THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO MATCH THE PRE-CONSTRUCTION CONDITIONS...
2.12 UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL ASSIST THE ENGINEER...
2.13 A FINAL INSPECTION WILL BE PERFORMED BY THE ENGINEER AND/OR A CEMC REPRESENTATIVE...
2.14 THE CONTRACTOR SHALL PROVIDE AN ELECTRICIAN FOR A MINIMUM OF TWO DAYS...
2.15 ALL NECESSARY CONSTRUCTION INSPECTIONS SHALL BE OBTAINED AND PAID FOR BY THE CONTRACTOR...
2.16 ALL WORK SHALL BE CONDUCTED UNDER CEMC "PERMIT TO WORK" SYSTEM...
2.17 THE CONTRACTOR SHALL PROVIDE A TECHNICIAN FOR 8 HOURS DURING THE STARTUP...
2.18 THE CONTRACTOR SHALL CONFIRM A CONSTRUCTION SCHEDULE WITH ARCADIS...
2.19 THE PROPOSED CONSTRUCTION SCHEDULE SHALL BE PRESENTED IN A TIMELINE...
3.0 TRENCHING AND BACKFILL
3.1 GENERAL
3.1.1 TRENCHING AND BACKFILL SPECIFICATIONS WILL BE DEVELOPED BY THE ENGINEER...
3.1.2 THE TRENCHING AND BACKFILL SPECIFICATIONS ARE SUBJECT TO APPROVAL...
3.1.3 ALL MECHANIZED EQUIPMENT OPERATION (I.E., BACKHOE, EXCAVATOR, OR OTHER POWERED EQUIPMENT)...
3.2 PAVEMENT CUTTING
3.2.1 EXISTING PAVEMENT SHALL BE SAW CUT TO PROVIDE A NEAT VERTICAL FACE...
3.2.2 THE CONTRACTOR SHALL MAKE EVERY EFFORT TO USE EXISTING PAVEMENT EDGES...

PAVEMENT REMOVED FROM TRENCHES OR OTHER EXCAVATIONS SHALL BE REPLACED TO MATCH THE EXISTING MATERIAL.

- 3.2.3 CONCRETE OR ASPHALT TRENCH CUTS SHALL NOT EXCEED A NOMINAL WIDTH OF 36 INCHES...

3.3 TRENCH EXCAVATION

- 3.3.1 TRENCHES SHALL BE EXCAVATED TO THE SPECIFIED WIDTHS AND DEPTHS SPECIFIED IN THE DESIGN PLANS...
3.3.2 CONTRACTOR SHALL STOP WORK IMMEDIATELY IF PRODUCT PIPING OR TANK FIELD IS ENCOUNTERED...
3.3.3 ALL EXCAVATION ACTIVITIES SHALL BE IN STRICT ACCORDANCE WITH OSHA REGULATIONS...
3.3.4 ALL EXCAVATED SOIL SHALL BE MONITORED BY THE ENGINEER IN ACCORDANCE WITH BAY AREA AIR QUALITY...
3.3.5 THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOADING SOIL INTO TRUCKS...
3.3.6 THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGING EXISTING UNDERGROUND UTILITIES...
3.3.7 THE CONTRACTOR SHALL HAND-EXCAVATE TO EXPOSE ALL EXISTING PRODUCT, VENT, ELECTRICAL CONDUIT...
3.3.8 ONCE ALL EXISTING LINES HAVE BEEN LOCATED, THE TRENCHES SHALL BE NEATLY CUT BY A BACKHOE...
3.3.9 THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY AND INTEGRITY OF TRENCHES...
3.3.10 THE CONTRACTOR SHALL TAKE PRECAUTIONS TO MINIMIZE SURFACE WATER ENTERING EXCAVATIONS...
3.3.11 WHEN REQUIRED BY LOCAL AUTHORITY, THE ENGINEER WILL IMPLEMENT A STORM WATER POLLUTION PREVENTION PLAN...
3.3.12 EXCAVATION SHALL NOT INTERFERE WITH 45-DEGREE ZONE OF INFLUENCE ON ANY EXISTING FOUNDATION...

Footer area containing scale information, revision table, professional engineer details, ARCADIS logo, project name 'CONSTRUCTION NOTES AND SPECIFICATIONS', date 'DRAFT - NOT FOR CONSTRUCTION', and sheet identifier 'G-1A'.

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3.4 BACKFILL

- 3.4.1 TRENCHES SHALL BE BACKFILLED AS SOON AS PRACTICAL AFTER PRESSURE TESTING THE UNDERGROUND PIPE RUNS, AND FOLLOWING ANY REQUIRED INSPECTIONS. TRENCHES SHALL NOT REMAIN OPEN LONGER THAN NECESSARY TO PREVENT SIDEWALL CAVING. IF CAVING IS ANTICIPATED, THE CONTRACTOR SHALL USE A COMMERCIAL SOIL SEALANT/BINDER OR FORMS TO PREVENT CAVING. CHEMICAL SOIL BINDERS/SEALANTS SHALL BE APPROVED BY CEMC.
- 3.4.2 PRIOR TO BACKFILLING, THE CONTRACTOR SHALL CONFIRM THAT THE UNDERGROUND PIPE IS BURIED TO A MINIMUM DEPTH OF 18 INCHES FROM THE TOP OF THE PIPE, UNLESS OTHERWISE NOTED IN THE DESIGN PLANS AND LOCAL BUILDING CODES.
- 3.4.3 UNDERGROUND PIPING SHALL BE BEDDED IN CLEAN SAND, OR THE ENGINEER-APPROVED EQUIVALENT, TO A MINIMUM DEPTH OF 2-INCHES BELOW THE BOTTOM OF THE PIPING AND 2-INCHES ABOVE THE PIPING. THE SAND SHALL BE CLEAN, ROCK-FREE (100 PERCENT PASSING NO. 4 SIEVE), AND FREE OF SILT AND CLAY.
- 3.4.4 TRENCH BACKFILL MATERIAL WILL CONSIST OF CDF SLURRY MIX. BACKFILL MATERIALS SHALL NOT CONTAIN RUBBLE, VEGETATION, TRASH, BOULDERS, OR OTHER DEBRIS.
- 3.4.5 NATIVE SOIL MAY BE USED AS BACKFILL WITH APPROVAL OF CEMC AND THE ENGINEER. IT IS RECOMMENDED THAT NATIVE SOIL BE TESTED FOR GEOTECHNICAL PROPERTIES TO DETERMINE IF THE MATERIAL IS SUITABLE FOR BACKFILL.
- 3.4.6 BACKFILL SOIL SHALL BE COMPACTED TO 95 PERCENT OF THE MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT (BASED ON ASTM D1557) OR IN ACCORDANCE WITH THE LOCAL CODES.
- 3.4.7 CDF MAY BE USED AS BACKFILL MATERIAL WITH THE APPROVAL OF CEMC AND THE ENGINEER. THE CDF SHALL BE 1.5 TO 2 SACK SLURRY. NO COMPACTION TESTING IS REQUIRED FOR CDF.
- 3.4.8 CLASS 2 AGGREGATE BASE SHALL BE PLACED UNDER NEW ASPHALT PAVEMENT. THE AGGREGATE BASE THICKNESS SHOULD EQUIVALENT TO THE EXISTING AGGREGATE BASE THICKNESS OR SIX INCHES WHICHEVER IS GREATER.
- 3.4.9 PRIOR TO PAVING, THE CONTRACTOR SHALL REMOVE ALL VEGETATION, SURPLUS SOIL, RUBBLE, TRASH, DEBRIS AND OTHER MATERIALS AND PROVIDE A FLAT, UNYIELDING SUBGRADE SURFACE FOR PAVING. SATURATED, SOFT OR PUMPING SOILS SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL IN ACCORDANCE THESE SPECIFICATIONS.
- 3.4.10 THE CONTRACTOR SHALL PREPARE THE SUB-GRADE ELEVATION TO MATCH THE BASE OF THE EXISTING PAVEMENT, UNLESS THE ASPHALT RESTORATION DESIGN EXCEEDS EXISTING IN-PLACE ASPHALT DESIGN.

4.0 PIPING

4.1 GENERAL

- 4.1.1 THE LOCAL AUTHORITY, AND BUILDING AND PLUMBING CODES, ALONG WITH ASTM SPECIFICATIONS, SHALL BE USED TO DESIGN THE TYPES OF PIPING AND INSTALLATION METHODS REQUIRED FOR EACH REMEDIATION SITE.
- 4.1.2 ALL PIPING WORK SHALL BE INSTALLED BY TRAINED PERSONNEL OPERATING UNDER A STATE-LICENSED CONTRACTOR.
- 4.1.3 ALL MATERIALS SHALL BE NEW, UNLESS OTHERWISE SPECIFIED IN THE DESIGN PLANS.
- 4.1.4 ALL MATERIALS AND WORK SHALL BE IN ACCORDANCE WITH THE PIPE MANUFACTURER'S SPECIFICATIONS, THE DESIGN PLANS, AND ALL APPLICABLE CODES.
- 4.1.5 ALL PIPING AND PLUMBING SHALL BE PERFORMED BY TRAINED AND COMPETENT PERSONNEL, WHO MEET ALL OF THE REQUIREMENTS DICTATED BY THE LOCAL AUTHORITIES. IN ADDITION, THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THE INSTALLATION OF ANY EQUIPMENT OR MATERIALS WHICH REQUIRE SPECIFIC LICENSING SHALL BE PERFORMED UNDER THE DIRECTION OF THE INDIVIDUAL WHO HOLDS A CURRENT LICENSE FOR SUCH WORK.
- 4.1.6 WHEN CONNECTING TO EXISTING UNDERGROUND PIPING, THE CONTRACTOR SHALL FIRST VERIFY THE EXISTING PIPING PATH. IF THE EXISTING UNDERGROUND PIPING IS TO BE USED FOR CONVEYANCE, THE CONTRACTOR SHALL ALSO FIELD VERIFY THE INTEGRITY OF THE EXISTING PIPE PRIOR TO CONNECTING TO IT.
- 4.1.7 ALL PROCESS PIPING SHALL BE TESTED ACCORDING TO LOCAL SPECIFICATIONS AND WITNESSED BY THE ENGINEER OR THE ENGINEER'S REPRESENTATIVE. NO TESTING WILL BE CONDUCTED THROUGH INSTRUMENTS OR EQUIPMENT. NO VACUUM OR PRESSURE TESTING WILL OCCUR WITHOUT CHEVRON'S APPROVAL.
- 4.1.8 THE PIPE FOR VAPOR LINES SHALL BE SLOPED TOWARDS THE WELLHEADS AT A RATIO OF 1:100 TO AVOID ACCUMULATION OF CONDENSATE IN THE PIPES. IF A

TRENCH DEPTH OF GREATER THAN 4 FEET IS NEEDED TO ACHIEVE A REQUIRED SLOPE, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND IMPLEMENT MEASURES TO ADDRESS POTENTIAL CONDENSATE ACCUMULATION IN THE PIPE AS DIRECTED BY THE ENGINEER.

- 4.1.9 WHERE PIPING IS INSTALLED ABOVE GROUND, PIPE SUPPORTS AND CLAMPS SHALL BE USED TO SUPPORT THE PIPE AT APPROPRIATE INTERVALS TO PREVENT SAG AS SPECIFIED BY THE PIPING MANUFACTURER'S SPECIFICATIONS. WHEN UNISTRUT SUPPORTS ARE USED THE ENDS OF THE SUPPORTS SHALL BE COVERED WITH PLASTIC PROTECTIVE CAPS.
- 4.1.10 THE CONTRACTOR SHALL PAINT ALL ABOVE GROUND PIPING AS APPROPRIATE FOR UV PROTECTION, WHERE REQUIRED BY CODE AND TO IDENTIFY POTENTIAL HAZARDS (I.E.; OVERHEAD PIPING, POTENTIAL TRIP HAZARD). WHEN PAINTING PIPING IS APPLICABLE, THE FOLLOWING SCHEDULE SHALL BE FUSED: "GREY - SOIL VAPOR", "YELLOW - GAS SUPPLY", "AIR LINES - NOT PAINTED".
- 4.1.11 THE CONTRACTOR SHALL LABEL ALL ABOVE GROUND PIPING WITH INDELIBLE OR PERMANENT MARKING INDICATING THE CONTENTS OF THE PIPE (I.E., "GROUNDWATER," "VAPOR," OR "TREATED WATER", COMPRESSED AIR, GAS, ELECTRIC) AND THE FLOW DIRECTION.
- 4.1.12 THE CONTRACTOR SHALL MAKE ALL WELLHEAD CONNECTIONS AS SHOWN IN THE DESIGN PLANS.
- 4.1.13 THE CONTRACTOR WILL IDENTIFY (ID) ALL WELL MANIFOLD PIPING STEEL TAGS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO STAMP THE APPROPRIATE WELL ID'S ON THE STEEL TAGS AND ATTACH THE TAGS WITH CHAINS TO THE CORRESPONDING WELLS AT THE MANIFOLD.
- 4.1.14 THE PIPING MATERIALS SHALL BE SPECIFIED BY THE ENGINEER IN THE DESIGN PLANS. ANY CONFLICTS OR QUESTIONS CONCERNING PIPE MATERIAL COMPATIBILITY, AS DISCOVERED BY THE CONTRACTOR, SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.
- 4.1.15 THE USE OF DISSIMILAR METALS AND ALLOYS IN DIRECT CONTACT WITH EACH OTHER IS PROHIBITED ON ALL PIPE LINES CONTAINING LIQUIDS DUE TO THE POTENTIAL FOR GALVANIC CORROSION. WHERE DISSIMILAR METALS MUST BE JOINED, DI-ELECTRIC UNIONS OR COUPLERS SHALL BE USED.
- 4.1.16 TRACER WIRE TERMINALS WILL BE TAGGED AND IDENTIFIED IN THE EQUIPMENT COMPOUND, AT JUNCTION BOXES, AND WELL BOXES.
- 4.1.17 ALL UNDERGROUND PIPING SHALL BE IDENTIFIED USING TRACER WIRE AND METALLIC TAPE PLACED ABOVE THE PIPING AT THE TOP OF THE BEDDING MATERIAL ABOVE THE PIPING. TRACER WIRE TERMINALS WILL BE TAGGED AND IDENTIFIED IN THE EQUIPMENT COMPOUND, AT JUNCTION BOXES, AND WELL BOXES.
- 4.1.18 THE CONTRACTOR SHALL ENSURE THAT ALL FOREIGN MATERIALS HAVE BEEN REMOVED FROM THE UNDERGROUND PIPING FOLLOWING INSTALLATION AND BEFORE BACKFILLING.
- 4.1.19 ALL ABOVE GROUND PIPING SHALL BE PERMANENTLY LABELED WITH DIRECTIONAL FLOW ARROWS AND LINE CONTENTS AT 5 FOOT INTERVALS. (I.E. KNOCKOUT WATER, SOIL VAPOR, AND PRODUCT)
- 4.1.21 WHERE PIPING IS ROUTED ABOVEGROUND INSIDE THE EQUIPMENT ENCLOSURE, THE PIPING SHALL BE SUPPORTED BY UNI-STRUT PIPE SUPPORT AND CLAMPS. THE UNI-STRUT SUPPORTS SHALL BE FASTENED TO THE WALL OR MOUNTED ON A BASE THAT IS SECURED TO THE GROUND SURFACE AT 10 INCH MINIMUM SPACING.

4.2 POLYVINYL CHLORIDE (PVC) PIPE SPECIFICATIONS

- 4.2.1 ALL UNDERGROUND PVC PROCESS PIPING SHALL BE SCHEDULE 40 (UNLESS NOTED OTHERWISE IN DESIGN DRAWINGS). ALL ABOVEGROUND PVC PROCESS PIPING SHALL BE SCHEDULE 80 (UNLESS NOTED OTHERWISE IN DESIGN DRAWINGS OR REQUIRED BY APPLICABLE CODES).
- 4.2.2 ALL PIPE JOINTS ARE TO BE GLUED USING PVC PRIMER AND PVC SOLVENT CEMENT. CONNECTIONS TO OTHER TYPE OF PIPES ARE TO BE BY FLANGE OR MALE/FEMALE ADAPTERS SPECIFICALLY DESIGNED FOR A TRANSITION FROM PVC PIPE TO A SPECIFIC TYPE OF PIPE (I.E., GALVANIZED STEEL, COPPER).
- 4.2.3 PVC PIPE SHALL NOT BE USED FOR ABOVE GROUND OR UNDERGROUND COMPRESSED AIR SERVICE, OR FOR HIGH TEMPERATURE APPLICATIONS, SUCH AS BLOWER DISCHARGE PIPING.

4.3 GALVANIZED PIPE SPECIFICATIONS

- 4.3.1 GALVANIZED PIPE SHALL BE SCHEDULE 40 HOT-DIP GALVANIZED (HDG) STEEL PER ASTM A53.
- 4.3.2 GALVANIZED PIPE SHALL NOT BE USED TO CONVEY SOIL VAPOR. USE OF GALVANIZED PIPE PRIOR TO CATALYTIC OXIDIZER ABATEMENT SYSTEMS MAY INCREASE RISK OF POISONING THE CATALYTIC CELL MATERIAL. OXIDIZER VENDORS SHOULD BE CONSULTED FOR APPROPRIATE PIPING MATERIAL USE PRIOR TO INSTALLING THE OXIDIZER.

4.4 ABS COMPRESSED AIR PIPE SPECIFICATIONS

- 4.4.1 ABS PIPE AND FITTINGS SHALL BE DURAPLUS™ OR EQUIVALENT AND CAPABLE OF WITHSTANDING CONTINUOUS WORKING PRESSURES GREATER THAN 100 PSI.
- 4.4.2 ABS-COMPRESSED AIR FITTINGS SHALL BE THE SOCKET TYPE, DESIGNED FOR SOLVENT WELDING.
 - FITTINGS SHALL BE DESIGNED AND MANUFACTURED TO WITHSTAND THE CONTINUOUS PRESSURES APPLICABLE TO THE MAXIMUM PRESSURE RATING OF THE PIPE.
 - THE SOLVENT CEMENT SHALL BE ABS SOLVENT CEMENT AND DESIGNED TO WITHSTAND CONTINUOUS PRESSURES UP TO 185 PSI AT 73°F.
- 4.4.3 WHEN TRANSITIONING FROM ABS TO NON-ABS PIPING MATERIAL, THE CONTRACTOR SHALL ENSURE APPROPRIATE TRANSITION FITTINGS ARE USED.

4.5 PRESSURE TESTING

- 4.5.1 ALL PROCESS PIPING SHALL BE PRESSURE TESTED ACCORDING TO LOCAL SPECIFICATIONS AND WITNESSED BY AN ENGINEER OR AN APPROVED REPRESENTATIVE. NO TESTING WILL BE CONDUCTED THROUGH INSTRUMENTS OR EQUIPMENT
- 4.5.2 ALL PVC LINES USED FOR VACUUM WILL BE TESTED AT 5 POUNDS PER SQUARE INCH (PSI) OF PRESSURE AND HELD FOR AN HOUR. IF A PRESSURE DROP OF MORE THAN 1 PSI IS OBSERVED DURING THE HOUR, THE LINE WILL BE INSPECTED AND REPAIRED AS NECESSARY PRIOR TO RETESTING THE LINE.
- 4.5.3 ALL PVC LINES USED FOR WATER WILL BE TESTED AT 5 PSI FOR A PERIOD OF 60 MINUTES. IF A LEAK IS OBSERVED DURING THE HDPE TESTING TIME OR A PRESSURE DROP OF MORE THAN 1 PSI IS NOTED, THE LINE WILL BE INSPECTED AND REPAIRED AS NECESSARY PRIOR TO RETESTING THE LINE.
- 4.5.4 ALL ABS LINES USED FOR COMPRESSED AIR WILL BE TESTED AT 100 PSI FOR A PERIOD OF 60 MINUTES. IF A PRESSURE DROP OF MORE THAN 1 PSI IS OBSERVED DURING THE TESTING TIME, THE LINE WILL BE INSPECTED AND REPAIRED AS NECESSARY PRIOR TO RETESTING THE LINE. A CURING TIME (MINIMUM OF 24 HOURS OR PER THE MATERIAL MANUFACTURER, WHICHEVER IS THE LARGEST), WILL BE FOLLOWED PRIOR TO BEGINNING ANY TESTING ON THE ABS LINES. ONLY THREADED FITTINGS TO BE USED ON THE ABS PIPE AND TRANSITION FITTINGS ARE TO BE METAL REINFORCED.

5.0 ASPHALT PAVEMENT

5.1 GENERAL

- 5.1.1 HOT MIX ASPHALT CONCRETE SHALL NOT BE USED TO RESTORE ASPHALT SURFACES AFFECTED BY CONSTRUCTION ACTIVITIES. EXCEPTION: ASPHALT COLD PATCH MAY BE USED AS A TEMPORARY SURFACE FOR SMALL PAVEMENT PATCHES (NOT TO EXCEED 3 FEET BY 3 FEET) DURING SITE CONSTRUCTION ACTIVITIES. TEMPORARY ASPHALT PATCH MUST BE REMOVED PRIOR TO OR DURING FINAL SITE RESTORATION ACTIVITIES.
- 5.1.2 ASPHALT DRIVEWAYS, PARKING STRIPS, OR OTHER AREAS DESIGNED FOR VEHICULAR AND PEDESTRIAN TRAFFIC SHALL BE RESTORED TO MATCH EXISTING GRADES.
- 5.1.3 THE CONTRACTOR SHALL ASSURE THAT THE SUB-GRADE HAS BEEN PROPERLY PREPARED. NO ASPHALT SHALL BE INSTALLED ON SATURATED, SOFT OR PUMPING SOIL, FROZEN SOIL, ICE, SNOW, OR STANDING WATER.
- 5.1.4 FINISHED SURFACES SHALL BE SMOOTH WITH UNIFORM TEXTURE AND BE FREE OF VOIDS, MOUNDS, RIDGES, DEPRESSIONS, CRACKS, ROLLER MARKS, PITS, OR OTHER IRREGULARITIES (1/4 INCH MAXIMUM OVER 10 FEET STRAIGHT EDGE). EDGES SHALL BE CAPPED OVER AND STRAIGHT. RESTORED PAVEMENT SURFACES NOT MEETING THESE REQUIREMENTS WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

5.2 ASPHALT CONCRETE MATERIALS

- 5.2.1 ASPHALT CONCRETE SHALL BE A HIGH-QUALITY, CONTROLLED HOT MIXTURE OF ASPHALT AND WELL-GRADED QUALITY AGGREGATE, AND COMPACTED INTO A UNIFORMLY DENSE MASS. THE PAVING MATERIALS SHALL CONFORM TO ASTM SPECIFICATION D3515.
- 5.2.2 A TACK COAT BONDING AGENT SHALL BE APPLIED BETWEEN ASPHALT LAYERS, BETWEEN LAYERS OF CONCRETE OR SLURRY AND THE ASPHALT, AND BETWEEN CUT EDGES OF EXISTING ASPHALT TO BOND TO THE NEW ASPHALT TO THE OLD SURFACE. THE TACK COAT MATERIAL SHALL MEET THE SPECIFICATIONS IN ASTM D977 OR D2397 AND BE GRADES SS-1, SS-1H, CSS-1, OR CSS-1H. THE ASPHALT TACK COAT SHALL BE A DILUTED EMULSIFIED ASPHALT MIXTURE OF EQUAL PARTS EMULSION AND CLEAN WATER.
- 5.2.3 THE AGGREGATE USED FOR THE BASE COURSE AND SURFACE MIXTURE SHALL BE CRUSHED STONE, GRAVEL, STONE OR SLAG SCREENINGS, SAND, MINERAL FILLER, OR A COMBINATION OF THESE MATERIALS. UNCRUSHED COARSE AGGREGATE MAY BE USED IN BASE COURSE MIXTURES ONLY.

SCALE(S) AS INDICATED	Professional Engineer's Name	
	Professional Engineer's No.	
THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING.	State	
	Date Signed	Project Mgr.
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Designed by	Drawn by	Checked by
	MTH	



UNION OIL COMPANY OF CALIFORNIA STATION NO. 0752 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA
 CONSTRUCTION DOCUMENTS

CONSTRUCTION NOTES AND SPECIFICATIONS

DRAFT - NOT FOR CONSTRUCTION

ARCADIS Project No. B0047339.0001	G-1B
Date APRIL 2014	
ARCADIS 2000 POWELL STREET SUITE 700 EMERYVILLE, CALIFORNIA 94608	

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- COARSE AND FINE AGGREGATE SHALL CONFORM TO ASTM D692 AND ASTM D1073.
 - MINERAL FILLER SHALL CONFORM TO ASTM D242.
 - IF APPROVED FOR USE BY CHEVRON, SLAG SHALL BE BLAST FURNACE, AIR COOLED SLAG THAT IS NOT LESS THAN 70 POUNDS PER CUBIC FOOT IN MASS.
- 5.2.4 THE LIQUID ASPHALT USED SHALL CONFORM TO ASTM D3381 AND D946, AND SHALL BE THE APPROPRIATE GRADE FOR THE AMBIENT MEAN ANNUAL TEMPERATURE CONDITIONS.
- 5.3 ASPHALT CONCRETE PAVEMENT CONSTRUCTION**
- 5.3.1 PRIOR TO PLACING NEW ASPHALT ADJACENT TO EXISTING PAVEMENT, THE CONTRACTOR SHALL SAW-CUT A CLEAN, STRAIGHT EDGE ALONG THE EXISTING PAVEMENT, AND APPLY TACK COAT TO THE VERTICAL CUT SURFACE. ALL SAW CUT DEBRIS SHALL BE REMOVED FROM THE TRENCH PRIOR TO LAYING THE NEW PAVEMENT.
- 5.3.2 THE TEMPERATURE OF THE ASPHALT MIXTURE SHALL NOT EXCEED 325°F WHEN DISCHARGED FROM THE SPREADER. INITIAL COMPACTION SHALL BE PERFORMED WHEN THE TEMPERATURE OF THE MIXTURE IS ESTIMATED TO BE LESS THAN 250°F. FINAL COMPACTION SHALL BEGIN WITH THE ASPHALT AS HOT AS POSSIBLE, BUT NOT LESS THAN 150°F.
- 5.3.3 THE ASPHALT MIXTURE SHALL BE PLACED IN LIFTS AND COMPACTED TO A MAXIMUM NOMINAL THICKNESS OF 2 INCHES UNTIL THE NEW ASPHALT SURFACE MATCH THE EXISTING SURFACE. THE ASPHALT SHALL BE COMPACTED TO A MINIMUM OF 96 PERCENT OF THE REFERENCE DENSITY.
- 5.3.4 A TACK COAT OF 0.15 GALLON PER SQUARE YARD OF DILUTED EMULSIFIED ASPHALT SHALL BE APPLIED BETWEEN THE BASE COARSE SURFACE AND ASPHALT PAVEMENT. ALL VERTICAL SURFACES, WHICH WILL CONTACT THE NEW ASPHALT PAVING, SHALL BE TACK COATED. THE TACK COAT SHALL BE ALLOWED TO CURE BEFORE ASPHALT PLACEMENT, AND SHALL BE APPLIED ON SURFACES THAT CAN BE COVERED WITH AN ASPHALT MIXTURE DURING THE SAME DAY.
- 5.3.5 THE ASPHALT MIX SHALL BE COMPACTED IMMEDIATELY AFTER PLACEMENT. INITIAL COMPACTION SHALL BE ACCOMPLISHED USING A STEEL WHEEL TANDEM ROLLER, STEEL THREE-WHEELED ROLLER, OR VIBRATORY ROLLER. AS NEEDED, INTERMEDIATE ROLLING WITH A PNEUMATIC TIRE ROLLER SHALL BE DONE IMMEDIATELY BEHIND THE INITIAL ROLLING. IN AREAS TOO SMALL FOR THE ROLLER COMPACTOR, A VIBRATING PLATE COMPACTOR OR HAND TAMPER SHALL BE USED TO ACHIEVE THE REQUIRED COMPACTION. NOTE: THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING TRAFFIC LOADS ON NEWLY ASPHALTED SURFACES UNTIL IT HAS SUFFICIENTLY COOLED TO SUPPORT TRAFFIC.
- 5.3.6 THE CONTRACTOR SHALL RETURN TO THE SITE AFTER ONE WEEK AND APPLY ASPHALT JOINT SEALER TO ALL ASPHALT JOINTS.

6.0 PORTLAND CEMENT CONCRETE PAVEMENT

6.1 GENERAL

- 6.1.1 FINISHED CONCRETE SURFACES SHALL BE TRUE AND EVEN WITH THE EXISTING GRADE (1/4 INCH MAXIMUM OVER 10 FEET STRAIGHT EDGE). THE SURFACE GRADE AND FINISH MUST MATCH THE SURROUNDING AREA. THE FINISHED CONCRETE SHALL BE FREE OF VOIDS, MOUNDS, RIDGES, DEPRESSIONS, CRACKS, OR OTHER IRREGULARITIES. ANY CONCRETE DETERMINED TO BE SUBSTANDARD SHALL BE REMOVED AND REPLACED AT NO COST TO CEMC OR THE ENGINEER.
- 6.1.2 CONCRETE RESTORATION SHALL ONLY OCCUR ALONG VERTICAL FORMS OR SAW CUT WALLS. WHEN POSSIBLE, SAW CUTS SHALL FOLLOW EXISTING JOINTS AND THE LAYOUT EXISTING CONCRETE SURFACE PATTERNS. NEWLY PLACED CONCRETE PAVEMENT SHALL BE PROTECTED FROM VEHICULAR AND PEDESTRIAN TRAFFIC UNTIL IT IS SUITABLY CURED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OF THE CONCRETE PAVEMENT NOT MEETING DESIGN DOCUMENTS AND/OR SPECIFICATIONS.
- 6.1.3 CONCRETE SHALL BE THOROUGHLY MIXED TO ASSURE UNIFORM MIXTURE OF COMPONENTS WITHIN THE MASS.
- 6.1.4 THE SELECTED CONTRACTOR SHALL VERIFY ALL DIMENSIONS FOR CONCRETE RESURFACING REQUIREMENTS.
- 6.1.5 A. THE REQUIREMENTS OF AMERICAN CONCRETE INSTITUTE (ACI) 301, SPECIFICATIONS FOR STRUCTURAL CONCRETE, SHALL APPLY AS MODIFIED HEREIN.
 B. CONCRETE STRENGTH AT 28 DAYS: 3,000 PSI.
 C. TYPE 2 PORTLAND CEMENT, 560 POUNDS PER CUBIC YARD (LB/CU YD) MINIMUM.
 D. AGGREGATE: ASTM C33 SIZE 67 OR 57 (3/4 INCH OR 1 INCH)

- E. REINFORCEMENT: ASTM A615, GRADE 60.
 F. MAXIMUM WATER/CEMENTITIOUS MATERIAL RATIO: 0.45.
 G. SLUMP: 3 INCHES +/- 1 INCH.
 H. SET REINFORCEMENT ON CONCRETE DOBIE BLOCKS WITH EMBEDDED WIRE TIES
 I. WATER SHALL BE POTABLE, AND FREE OF ACIDS, ALKALIES, AND ORGANIC MATERIAL.

6.2 CONCRETE MATERIALS

- 6.2.1 PORTLAND CEMENT SHALL CONFORM TO ASTM C-150 TYPE II.
- 6.2.2 FINE AND COARSE AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C-33 AND SHALL CONFORM TO THE APPROPRIATE ASTM GRADING REQUIREMENT. AGGREGATES SHALL BE CLEAN, HARD AND UNIFORMLY GRADED SAND, CRUSHED ROCK OR GRAVEL, FREE FROM LOAM, CLAY OR ORGANIC MATTER. SOUND AGGREGATE SHALL BE USED AND SHALL HAVE A MAXIMUM DIAMETER OF 1.5-INCHES.
- 6.2.3 WATER SHALL BE POTABLE AND FREE OF ACIDS, ALKALIS, AND ORGANIC MATERIALS.
- 6.2.4 THE CONCRETE MIX SHALL PASS A COMPRESSIVE STRENGTH TEST OF 2,500 PSI AFTER 28 DAYS. IN CERTAIN LOCALITIES, 3,000 PSI COMPRESSIVE STRENGTH CONCRETE IS REQUIRED BY SEISMIC CODE.
- 6.2.5 THE CONCRETE MIX SHALL HAVE A MINIMUM SLUMP OF 3-INCHES AND A MAXIMUM SLUMP OF 4-INCHES.
- 6.2.6 THE CONTRACTOR SHALL SPECIFY THE CONCRETE MIX, AND PROVIDE A COPY OF THE CONCRETE SPECIFICATIONS FOR APPROVAL FROM CEMC AND THE ENGINEER PRIOR TO PLACEMENT, IF REQUESTED. THE NUMBER OF BAGS OF CEMENT PER YARD, COMPRESSIVE STRENGTH, VOLUME OF WATER, SLUMP, TYPE AND WEIGHT OF FINE AND COARSE AGGREGATES, AND TYPE AND AMOUNT OF ADMIXTURES SHALL BE ADDRESSED IN THE SPECIFICATION.

6.3 CONCRETE JOINTS

- 6.3.1 JOINTS SHALL BE PROVIDED IN PAVING WHERE THEY PREVIOUSLY EXISTED AND SHALL BLEND SMOOTHLY WITH THOSE EXISTING JOINTS. AS A GENERAL RULE, JOINT SPACING SHALL NOT EXCEED 15 FEET.
- 6.3.2 THE CONTRACTOR SHALL INSTALL THE SAME TYPE OF JOINT AS THOSE IN EXISTING SLAB.
- 6.3.3 JOINTS SHALL BE PROVIDED ALONG PROPERTY LINES, WHERE ENTRY RAMPS CROSS AND AT CHANGES IN GRADE OR SLOPE
- 6.3.4 SAW CUT CONTROL JOINTS SHALL BE CUT 4 TO 12 HOURS AFTER CONCRETE IS POURED, OTHERWISE USE TOOLED OR PREFORMED JOINT INSERTS.
- 6.3.5 THE CONTRACTOR SHALL USE AQUA CRETE® OR EQUIVALENT SEALANT TO SEAL THE CONCRETE JOINTS. JOINT SURFACES SHALL BE THOROUGHLY CLEANED PRIOR TO APPLYING JOINT COMPOUND.

6.4 CONCRETE PLACEMENT

- 6.4.1 THE CONTRACTOR SHALL ASSURE THAT THE SUB-GRADE HAS BEEN PROPERLY PREPARED. NO CONCRETE SHALL BE POURED ON SOFT, SATURATED OR PUMPING SOIL, FROZEN SOIL, ICE, SNOW, OR STANDING WATER.
- 6.4.2 CONCRETE SHALL BE POURED IN ACCORDANCE WITH COMMONLY ACCEPTED INDUSTRY PRACTICES.
- THE CONTRACTOR SHALL PREVENT OVERWORKING AND AGGREGATE SEGREGATION.
 - THE CONCRETE SHALL BE ADEQUATELY TAMPED OR VIBRATED TO PREVENT VOIDS OR HONEYCOMBING.
 - AREA BETWEEN JOINTS SHALL BE CAST AS ONE CONTINUOUS POUR.
 - CONCRETE CURBS SHALL BE MONOLITHICALLY POURED WITH THE ADJACENT CONCRETE PAVING, UNLESS PRIOR APPROVAL FROM THE ENGINEER IS OBTAINED.
 - THE MAXIMUM ALLOWABLE TRAVEL TIME TO THE SITE IN HOT WEATHER WILL BE 1 HOUR AND 15 MINUTES AND COLD WEATHER WILL BE 2 HOURS.

6.5 CONCRETE FINISHING

- 6.5.1 THE CONTRACTOR SHALL FINISH THE CONCRETE IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES.
- AFTER ALL THE BLEED WATER HAS DISAPPEARED; THE CONTRACTOR SHALL FLOAT THE FLAT SURFACE BY HAND USING A TROWEL.

- AFTER FLOATING, A SOFT CONCRETE FINISH BROOM SHALL BE USED TO FINISH THE SURFACE TO MATCH THE EXISTING CONCRETE FINISH.
- 6.5.2 DRY CEMENT SHALL NOT BE USED TO REMOVE EXCESS WATER FROM THE SURFACE. FINISH WORK MUST BE DELAYED UNTIL THE WATER SHEEN HAS DISAPPEARED.
- 6.5.3 WATER SHALL NOT BE ADDED TO EASE THE FINISHING.
- 6.5.4 CARE SHALL BE USED TO NOT OVERWORK THE SURFACE.
- 6.5.5 CONSTRUCTION/CONTROL JOINTS AND EDGES SHALL BE HAND-TOOLED TO A ¼-INCH RADIUS.

7.0 ELECTRICAL

7.1 GENERAL

- 7.1.1 THE LOCAL AUTHORITY AND BUILDING CODES, INCLUDING THE NATIONAL ELECTRIC CODE (NEC), ARE USED TO DICTATE THE SPECIFIC TYPE OF ELECTRICAL ENCLOSURES AND RACEWAYS THAT ARE REQUIRED FOR USE IN SPECIFIC HAZARDOUS AND NON-HAZARDOUS LOCATIONS.
- 7.1.2 ALL WORK WILL BE PERFORMED IN ACCORDANCE WITH THE NEC. LOCAL CODES WILL GOVERN, BUT ANY DIFFERENCES SHOULD BE POINTED OUT TO THE LOCAL AUTHORITY. ALL WORK SHALL CONFORM TO THE REGULATIONS AND SPECIFICATIONS OF THE LOCAL POWER COMPANY PROVIDING THE SERVICE.
- 7.1.3 ELECTRICAL WORK SHALL ONLY BE CONDUCTED BY AN ELECTRICAL CONTRACTOR WHO IS LICENSED IN THE STATE WHERE THE WORK IS TO BE PERFORMED.

7.2 ELECTRICAL SERVICE

- 7.2.1 THE CONTRACTOR SHALL INSTALL A WEATHER-TIGHT MAIN ELECTRICAL BREAKER/DISCONNECT PANEL LOCATED OUTSIDE THE SVE/AS EQUIPMENT ENCLOSURE AS SHOWN ON THE SITE PLANS. THE MAIN PANEL SHALL HAVE A LOCKABLE DISCONNECT/SHUT-OFF SWITCH. THE CONTRACTOR SHALL INSTALL THE POWER AS REQUIRED BY THE ENGINEER.
- 7.2.2 ALL SERVICE EQUIPMENT SHALL BE ENCLOSED IN A WATER-TIGHT NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION [NEMA] ENCLOSURE, IF EXPOSED TO THE ELEMENTS.
- 7.2.3 THE POWER METER IS TYPICALLY SUPPLIED AND INSTALLED BY THE LOCAL POWER UTILITY COMPANY.
- 7.2.4 IF THREE-PHASE POWER IS REQUIRED AND ONLY SINGLE-PHASE POWER IS AVAILABLE, A PHASE CONVERTER SHALL BE USED FOR THOSE COMPONENTS REQUIRING SUCH SERVICE. THE EQUIPMENT VENDOR SHALL ENSURE THAT ALL ELECTRICAL MOTORS AND CONTROLS ARE RATED FOR CONVERTER USE, AND CAN WITHSTAND THE ADDITIONAL HEAT BUILDUP CAUSED BY PHASE CONVERTER USE.

7.3 ELECTRICAL SERVICE DISCONNECTS

- 7.3.1 THE CONTRACTOR SHALL INSTALL ALL SERVICE DISCONNECT SWITCHES NECESSARY TO SAFELY SHUTDOWN AND LOCKOUT THE SVE/AS EQUIPMENT.
- 7.3.2 AT A MINIMUM, THE SWITCHES SHALL BE CONTAINED IN A WATER-TIGHT NEMA 4 PANEL.
- 7.3.3 THE CONTRACTOR SHALL INSTALL AN EMERGENCY STOP SWITCH ON THE EXTERIOR OF THE COMPOUND.

7.4 ELECTRICAL ABOVE GROUND CONDUITS AND ENCLOSURES

- 7.4.1 THE CONTRACTOR SHALL INSTALL THREADED RIGID GALVANIZED METAL CONDUIT IN ALL ABOVEGROUND INSTALLATIONS, UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.
- 7.4.2 THREADED JOINTS SHALL BE INSTALLED PER LOCAL CODE WITH AT LEAST FIVE THREADS FULLY ENGAGED.
- 7.4.3 ALL COUPLINGS, UNIONS, JUNCTION BOXES, DEVICE BOXES, AND CONDUIT BODIES SHALL HAVE TIGHT JOINTS.
- 7.4.4 IN UNCLASSIFIED AREAS, LIQUID-TIGHT FLEXIBLE NONMETALLIC TUBING MAY BE USED TO MAKE CONNECTIONS TO MOTORS AND OTHER ELECTRICAL EQUIPMENT. THE MAXIMUM LENGTH SHALL NOT EXCEED 18 INCHES.
- 7.5.5 WIRE NUTS OR TWIST-LOCK TERMINATIONS SHALL NOT BE USED FOR GROUND, MOTOR, OR POWER CONNECTIONS.

7.7 ELECTRICAL GROUNDING

- 7.7.1 THE CONDUIT SYSTEM AND NEUTRAL CONDUCTORS SHALL BE GROUNDED IN ACCORDANCE WITH LOCAL CODE. GROUND TESTING SHALL BE DOCUMENTED AND SUBMITTED TO THE ENGINEER.

8.0 CONSTRUCTION DETAILS

SCALE(S) AS INDICATED	Professional Engineer's Name	
	Professional Engineer's No.	
THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING.	State	
	Date Signed	Project Mgr.
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Designed by	Drawn by	Checked by
	MTH	



UNION OIL COMPANY OF CALIFORNIA STATION NO. 0752 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA
 CONSTRUCTION DOCUMENTS

CONSTRUCTION NOTES AND SPECIFICATIONS

DRAFT - NOT FOR CONSTRUCTION

ARCADIS Project No. B0047339.0001
Date APRIL 2014
ARCADIS 2000 POWELL STREET SUITE 700 EMERYVILLE, CALIFORNIA 94608

G-1C

CITY: PETALUMA, CA DIV/GROUP: ENV DE: J. HARRIS LAYOUT: G-ID SAVED: 4/17/2014 1:43 PM ACADVER: 18.1S (LMS TECH) PAGES: 18 PLOTTED: 4/17/2014 1:44 PM BY: HOEFER, MATTHEW
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8.1 EQUIPMENT ENCLOSURE

- 8.1.1 INSTALL TEMPORARY RAILING (TYPE K) AND EQUIPMENT ENCLOSURE AS SHOWN ON THE DESIGN PLANS
- 8.1.2 CONTRACTOR SHALL INSTALL THE FOLLOWING SIGNAGE ON ALL SIDES OF THE EQUIPMENT BUILDING AND INSIDE THE DOOR OF THE REMEDIATION EQUIPMENT BUILDING:
 - DANGER HIGH VOLTAGE
 - NO SMOKING
 - 24-HOUR CONTACT NUMBERS
 - PROPOSITION 65 SIGN
 - NFPA 704 SIGN
 - EMERGENCY CONTACT INFORMATION
- 8.1.3 CONTRACTOR WILL SUPPLY AND INSTALL A YELLOW WALL MOUNT STORAGE BOX, KNOCK PADLOCK, FIRE BLANKET, AND FIRST AID KIT.

9.0 CONSTRUCTION SCHEDULE

- 9.1 THE CONTRACTOR SHALL CONFIRM A CONSTRUCTION SCHEDULE WITH THE ENGINEER LEAST ONE WEEK (5 BUSINESS DAYS) PRIOR TO ANY WORK AT THE SITE.
- 9.2 THE PROPOSED CONSTRUCTION SCHEDULE SHALL BE PRESENTED IN A TIME LINE FORMAT SHOWING ESTIMATED START DATE, DURATION AND COMPLETION TIMES FOR EACH ACTIVITY. ANY DEVIATION FROM THE ORIGINALLY PROPOSED SCHEDULE MUST BE COMMUNICATED TO THE ENGINEER WITHIN 24-HOURS.
- 9.3 THE CONTRACTOR SHALL MAKE PROPER AND TIMELY NOTIFICATION OF ALL WORK AND INSPECTIONS TO REGULATORY OR GOVERNING AGENCIES AS REQUIRED BY BUILDING AND OTHER CONSTRUCTION PERMITS.

10.0 CONTRACTOR SAFETY REQUIREMENTS

- 10.1 THE CONTRACTOR IS RESPONSIBLE FOR THE SAFETY OF HIS PERSONNEL AND SUBCONTRACTOR PERSONNEL. THE CONTRACTOR SHALL CONFORM WITH THE ENGINEER'S AND CEMC BEHAVIOR BASED SAFETY PROGRAM REQUIREMENTS. AT A MINIMUM THE CONTRACTOR SHALL:
 - DEVELOP AND HAVE AVAILABLE SITE SPECIFIC HEALTH AND SAFETY PLAN (HASP) AND JOURNEY MANAGEMENT PLAN (JMP) WHICH CONFORMS TO THE ENGINEER'S AND CEMC STANDARDS.
 - DEVELOP AND HAVE AVAILABLE ON SITE JOB SAFETY ANALYSIS FORMS OUTLINING THE TASKS TO BE PERFORMED, THE JOB STEPS, THE HAZARDS, AND THE MITIGATING PROCEDURES TO MINIMIZE RISK AND MAXIMIZE SAFETY.
 - COMPLETE THE CEMC PERMIT-TO-WORK PROCESSES AND PROCEDURES.
 - CONDUCT AND DOCUMENT A TAILGATE SAFETY MEETING EACH MORNING AND AFTERNOON WHEN SITE WORK IS TO BE PERFORMED.
 - ENSURE COMPLIANCE WITH ALL FEDERAL AND STATE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND LOCAL SAFETY REGULATIONS.
 - MEET REQUIREMENTS OF CEMC SHORT SERVICE EMPLOYEE (SSE) PROCESS.
 - ENSURE THE APPROPRIATE PERSONNEL HAVE RECEIVED DEFENSIVE DRIVING TRAINING.
- 10.2 WORK HOURS SHALL BE DURING DAYLIGHT HOURS ONLY, UNLESS APPROVED BY THE CHEVRON PROJECT MANAGER AND ENGINEER PRIOR TO THE WORK BEING PERFORMED. WEEKEND WORK WILL NOT BE ALLOWED, UNLESS APPROVED BY CHEVRON PROJECT MANAGER AND ENGINEER PRIOR TO THE WORK BEING PERFORMED. WORK HOURS MAY BE DICTATED BY THE LOCAL PLANNING DEPARTMENT OR THE BUILDING PERMIT.
- 10.3 THE CONTRACTOR SHALL HAVE SUFFICIENT QUANTITIES AND QUALITY OF HARD HATS, GOGGLES, SAFETY GLASSES, REFLECTIVE VESTS, AND GLOVES ON SITE TO OUTFIT ALL CONTRACTOR WORKERS, AND PROVIDE FOR A SECURE WORK AREA.
- 10.4 THE CONTRACTOR SHALL SECURE ALL WORK AREAS WITH BARRICADES, SNOW FENCE, OR TEMPORARY CHAIN LINK FENCE TO PROTECT THE WORK AREA FROM INTRUSION BY UNAUTHORIZED VEHICLES OR PEDESTRIANS. WHEN CONDITIONS WARRANT, THE CONTRACTOR SHALL PROVIDE TRAFFIC FLAGGERS IN ADDITION TO BARRICADES TO CONTROL INGRESS AND EGRESS FROM THE WORK AREA. A TRAFFIC CONTROL PLAN SHALL BE INCLUDED IN THE CONTRACTOR HASP.
- 10.5 A PRE-CONSTRUCTION SAFETY MEETING SHALL BE HELD AT THE SITE WITHIN TWO WEEKS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION. THE PRE-

CONSTRUCTION SAFETY MEETING SHALL BE ATTENDED BY CEMC, THE ENGINEER, THE CONTRACTOR, AND OTHER INTERESTED PARTIES.

- IF THE SITE IS AN ACTIVE BUSINESS, THE SITE OWNER/MANAGER MUST BE PRESENT TO DISCUSS IMPACTS TO THE FACILITY ACTIVITIES.
- THE BASIS FOR THE JMP IS TO BE DISCUSSED DURING THE MEETING. INGRESS AND EGRESS FOR EQUIPMENT AND DELIVERIES, EXCLUSION ZONES, IMPACTS ON VEHICLE AND PEDESTRIAN TRAFFIC, AND EMERGENCY RESPONSE ARE TO BE DISCUSSED AND DOCUMENTED DURING THE MEETING.

10.6 THE CONTRACTOR SHALL HAVE ACCESS TO AT LEAST ONE 20-POUND DRY CHEMICAL TYPE-ABC FIRE EXTINGUISHER AT THE SITE, WITH CURRENT INSPECTION TAGS, DURING ALL CONSTRUCTION ACTIVITIES.

10.7 THE CONTRACTOR SHALL CONTAIN LOOSE DEBRIS AND STORE CONSTRUCTION MATERIALS ON A DAILY BASIS MAKE SURE THAT THE WORK AREA IS CLEAN AND ORDERLY PRIOR TO DEPARTURE FROM THE SITE.

11.0 EQUIPMENT

11.1 EQUIPMENT, TO BE PROVIDED TO THE CONTRACTOR BY THE ENGINEER FOR INSTALLATION, IS DESCRIBED ON SHEET M-1, M-2, AND M-3 (PROCESS AND INSTRUMENTATION DIAGRAM) AND IS INCLUDED ON SHEET G-2 (MAJOR EQUIPMENT AND INSTRUMENT LIST). EQUIPMENT NOT EXPLICITLY DETAILED AS SUPPLIED BY THE ENGINEER ON SHEETS M-1, M-2, M-3, AND G-2 SHALL BE SUPPLIED BY THE CONTRACTOR.

11.2 CONTRACTOR TO SUPPLY AND INSTALL A MINIMUM OF TWO (2) 20-POUND CLASS ABC FIRE EXTINGUISHERS IN ALL WEATHER FIRE EXTINGUISHER CABINETS IN ACCORDANCE WITH CEMC REQUIREMENTS AND LOCAL FIRE CODE.

12 SAFETY/CLEANUP

12.1 THE CONTRACTOR SHALL CONDUCT TASK IMPROVEMENT PROCESS (TIP) IN ACCORDANCE WITH ARCADIS POLICY AND PROCEDURES.

12.2 ALL EMPLOYEES OF THE CONTRACTOR SHALL BE CURRENT WITH THEIR 40-HOUR HAZWOPER TRAINING AND 8-HOUR REFRESHER.

12.3 CONTRACTOR SHALL MARK ALL POTENTIAL OVERHEAD AND/OR TRIP HAZARDS IN YELLOW.

12.4 THE CONTRACTOR SHALL HAVE SUFFICIENT QUANTITIES OF PERSONAL PROTECTIVE EQUIPMENT (PPE) AND SAFETY EQUIPMENT ON SITE TO OUTFIT ALL CONTRACTOR AND SUBCONTRACTOR WORKERS, AND PROVIDE FOR A SECURE WORK AREA.

12.5 THE CONTRACTOR SHALL HAVE ACCESS TO AT LEAST ONE FIRST AID KIT, EYEWASH STATION, AND 20-POUND CLASS ABC FIRE EXTINGUISHER, WITH CURRENT INSPECTION TAGS AT THE SITE, DURING ALL CONSTRUCTION ACTIVITIES.

13 INSPECTIONS

13.1 ALL SITE INSPECTIONS REQUIRE A MINIMUM OF 24 HOURS NOTICE BEFORE START OF WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING, FACILITATING, AND OBTAINING ALL REQUIRED INSPECTIONS, INCLUDING CITY OF OAKLAND, ALAMEDA COUNTY.

SCALE(S) AS INDICATED

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Professional Engineer's Name		
Professional Engineer's No.		
State	Date Signed	Project Mgr.
CA		
Designed by	Drawn by	Checked by
	MTH	



ARCADIS U.S., INC.

UNION OIL COMPANY OF CALIFORNIA STATION NO. 0752 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA
CONSTRUCTION DOCUMENTS

CONSTRUCTION NOTES AND SPECIFICATIONS

DRAFT - NOT FOR CONSTRUCTION

ARCADIS Project No. B0047339.0001
Date APRIL 2014
ARCADIS 2000 POWELL STREET SUITE 700 EMERYVILLE, CALIFORNIA 94608

G-1D

CITY: LAKEWOOD, CO DIV/GROUP: ENV DB: ENV/CAD G: ENV/CAD/Lakewood-CO/ACT/B0047339/Design/20140205 from rosefile/47339G02.dwg LAYOUT: G-2 SAVED: 3/28/2014 10:53 AM ACADVER: 18.1S (LMS TECH) PAGES: 18 PAGES: 18 PLOTSTYLETABLE: ARCADIS-DEN.CTB PLOTTED: 3/28/2014 1:03 PM BY: HOEFER, MATTHEW

AS/SVE TREATMENT SYSTEM MAJOR EQUIPMENT AND INSTRUMENT LISTING

ITEM	ITEM DESCRIPTION	QUANTITY	CROSS-REFERENCE		RESPONSIBILITY
			DETAIL NO.	DRAWING NO.	
1.	VAPOR LIQUID SEPARATOR VLW SERIES 90 GALLONS	1	1	M-2	ENGINEER
2.	TRANSFER PUMP: GOULDS 1ST, 1/2 HORSE POWER, 480 VOLTS, 3 PHASE, 60 HZ	1	1	M-2	ENGINEER
3.	PUMP DISCHARGE PRESSURE GAUGE	1	1	M-2	ENGINEER
4.	SVE BLOWER: BUSCH 1502, 300 SCFM	1	1	M-2	ENGINEER
5.	AIR COMPRESSOR	1	1	M-2	ENGINEER
6.	INLET VACUUM GAUGE	1	1	M-2	ENGINEER
7.	AIR FLOW TRANSMITTER	1	1	M-2	ENGINEER
8.	SVE MANIFOLD	1	1,2,3	C-8	ENGINEER
9.	BUSCH ROTARY CLAW COMPRESSOR, MODEL 1107 BP, 65 SCFM AT 23.5 PSI	1	1	M-2	ENGINEER
10.	10 HORSE POWER 480 VOLT, 3 PHASE, 60 HZ TEFC MOTOR	1	1	M-2	ENGINEER
11.	DISCHARGE PRESSURE GAUGE	1	1	M-2	ENGINEER
12.	DISCHARGE TEMPERATURE GAUGE	1	1	M-2	ENGINEER
13.	DISCHARGE MANIFOLD	1	4,5,6	C-8	CONTRACTOR
14.	WELL VAULT, 1' SQUARE TRAFFIC RATED	14	1	C-5	CONTRACTOR
15.	SOLENOID VALVES	3	1	M-2	CONTRACTOR
16.	INTELLISHARE MODEL ECO300 ELECTRIC CATALYTIC OXIDIZER, UP TO 300 SCFM, 480 VOLTS, 3 PHASE	1	1	M-2	ENGINEER
17.	INLET VACUUM GAUGE	1	1	M-2	ENGINEER
17.	SENSAPHONE SKYMETRY WTU-14 WIRELESS TELEMETRY UNIT	1	1	E-2	ENGINEER
18.	NEMA 4U.L.@ 508A DOOR-IN-DOOR SYSTEM CONTROL PANEL, 480 VOLT, 3 PHASE, 60 HZ	1	1	E-2	ENGINEER

EQUIPMENT ENCLOSURE

ITEM	ITEM DESCRIPTION	QUANTITY	CROSS-REFERENCE		RESPONSIBILITY
			DETAIL NO.	DRAWING NO.	
1.	SAFETY DOCUMENT CABINET, LAB SAFETY SUPPLY ITEM # 11620, HAZARD INFORMATION CENTER	1	2,5	C-2	CONTRACTOR
2.	FIRE EXTINGUISHER, 10 LB, CLASS A,B,C	3	2,5	C-2	CONTRACTOR
3.	23.5' X 23.5' 9 GAUGE WIRE CHAIN LINK FENCE. FENCE POSTS TO BE 4' SCHEDULE 40 GALVANIZED STEEL. ENCLOSURE TO INCLUDE ONE 5' SINGLE SWING GATE AND ONE 10' DOUBLE SWING GATE. ALL FENCE POSTS WILL BE CAPPED. 10 FIXED AND 3 REMOVABLE BOLLARDS.	1	1,2,3,4	C-3	CONTRACTOR
4.	EMERGENCY CONTACT INFORMATION SIGN	1	1	C-3	ENGINEER
5.	DANGER HIGH VOLTAGE SIGN	1	2	C-3	CONTRACTOR
6.	EMERGENCY SHUTOFF SIGN	1	1,2	C-3	CONTRACTOR
7.	NFPA 704 SIGN	1	1	C-3	CONTRACTOR
8.	PROPOSITION 65 SIGN	1	1	C-3	CONTRACTOR

WELL SCHEDULE

STATUS	WELL	TOTAL DEPTH (FT BGS)	CASING DIAMETER (IN)	SCREEN INTERVAL (FT BGS)
706 HARRISON ST.				
SVE WELLS				
EXISTING	VW-3	18	2.0	8-18
EXISTING	VW-4	18	2.0	8-18
EXISTING	VW-5	17	2.0	7-17
PROPOSED	VE-5	15	2.0	5-15
AIR SPARGE WELLS				
EXISTING	SP-3	28	1	27-28
EXISTING	SP-5	29.5	1	28.5-29.5
PROPOSED	AS-7	33	2.0	28-30
PROPOSED	AS-8	33	2.0	28-30
PROPOSED	AS-9	33	2.0	28-30
PROPOSED	AS-10	33	2.0	28-30
PROPOSED	AS-11	33	2.0	28-30
PROPOSED	AS-12	33	2.0	28-30
PROPOSED	AS-13	33	2.0	28-30
PROPOSED	AS-14	33	2.0	28-30
726 HARRISON ST.				
SVE WELLS				
EXISTING	VE-3	15	2.0	5-15
PROPOSED	VE-4	15	2.0	5-15
AIR SPARGE WELLS				
EXISTING	AS-1	30	2.0	28-30
PROPOSED	AS-2	33	2.0	28-30
PROPOSED	AS-3	33	2.0	28-30
PROPOSED	AS-4	33	2.0	28-30
PROPOSED	AS-5	33	2.0	28-30
PROPOSED	AS-6	33	2.0	28-30

NOTES:

- ACTUAL WELL DEPTH MAY VARY BASED ON FIELD CONDITIONS.
- ALL AIR SPARGE WELLS WILL BE COMPLETED WITH A 3 FOOT SUMP.

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State	Date Signed	Project Mgr.
CA		
Designed by	Drawn by	Checked by
	MTH	



UNION OIL COMPANY OF CALIFORNIA STATION NO. 0752 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA

CONSTRUCTION DOCUMENTS

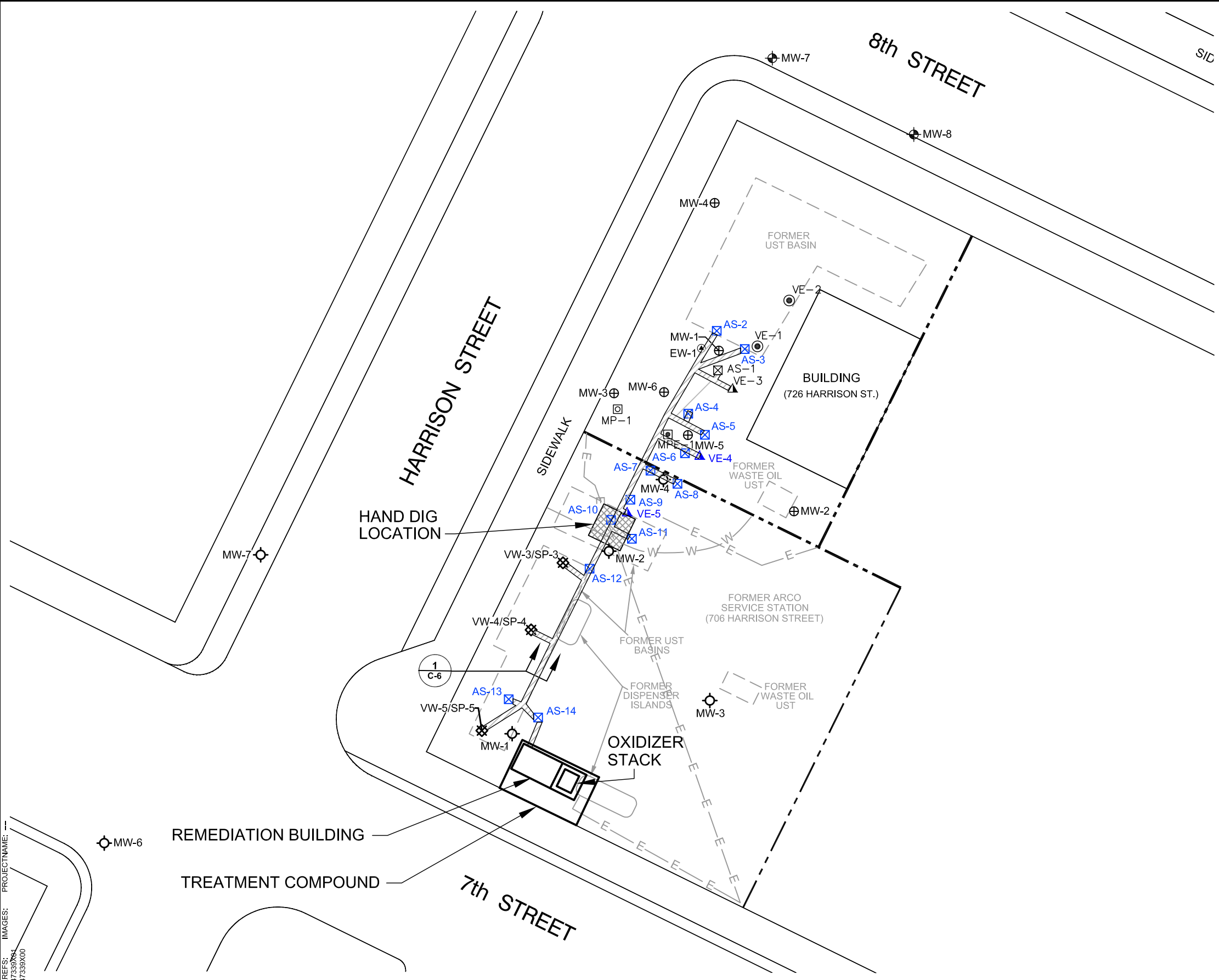
MAJOR EQUIPMENT AND INSTRUMENT LIST

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ARCADIS Project No. B0047339.0001
Date APRIL 2014
ARCADIS 2000 POWELL STREET SUITE 700 EMERYVILLE, CALIFORNIA 94608

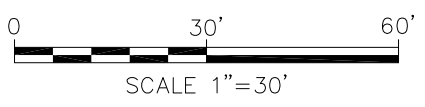
G-2

CITY: LAKEWOOD, CO DIV/GROUP: ENV DB: ENVCAD G:\ENVCAD\Lakewood\COACT\B0047339\Design\20140205 from roseville\47339B23.dwg LAYOUT: C-2 SAVER: 4/16/2014 2:21 PM ACADVER: 18.1S (LIMS TECH) PAGES: 2 OF 2 PLOTTED: 4/16/2014 2:22 PM BY: HOEFER, MATT



- ### LEGEND
- PROPERTY BOUNDARY
 - PRODUCT PIPING
 - MW-1 ⊕ GROUNDWATER MONITORING WELL (UNOCAL)
 - MW-1 ⊗ GROUNDWATER MONITORING WELL (GIN)
 - VW-3/SP-3 ⊗ SOIL VAPOR/SPARGE WELL (GIN)
 - MW-1 ⊕ GROUNDWATER MONITORING WELL (YEE)
 - AS-1 ⊗ AIR SPARGE WELL (YEE)
 - EW-1 ⊕ EXTRACTION WELL (YEE)
 - MPE-1 ⊕ MULTI-PHASE EXTRACTION PILOT TEST WELL (PZ-1 IS LOCATED IN THE SAME BOREHOLE)
 - MP-1 ⊗ PILOT TEST MONITORING POINT
 - VE-1 ⊕ VAPOR EXTRACTION WELL (DESTROYED)
 - VE-3 ⊕ PILOT TEST VAPOR EXTRACTION WELL
 - AS-2 ⊗ PROPOSED AIR SPARGE WELL
 - VE-4 ⊕ PROPOSED VAPOR EXTRACTION WELL
 - ▨ PROPOSED SYSTEM TRENCHING
 - W — WATER UTILITY LINE
 - E — ELECTRICAL UTILITY LINE

- NOTE:
1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.



SCALE(S) AS INDICATED				Professional Engineer's Name		
				Professional Engineer's No.		
	No.	Date	Revisions	By	Ckd	State
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ARCADIS
ARCADIS U.S., INC.

UNION OIL COMPANY OF CALIFORNIA STATION NO. 0752 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA
CONSTRUCTION DOCUMENTS

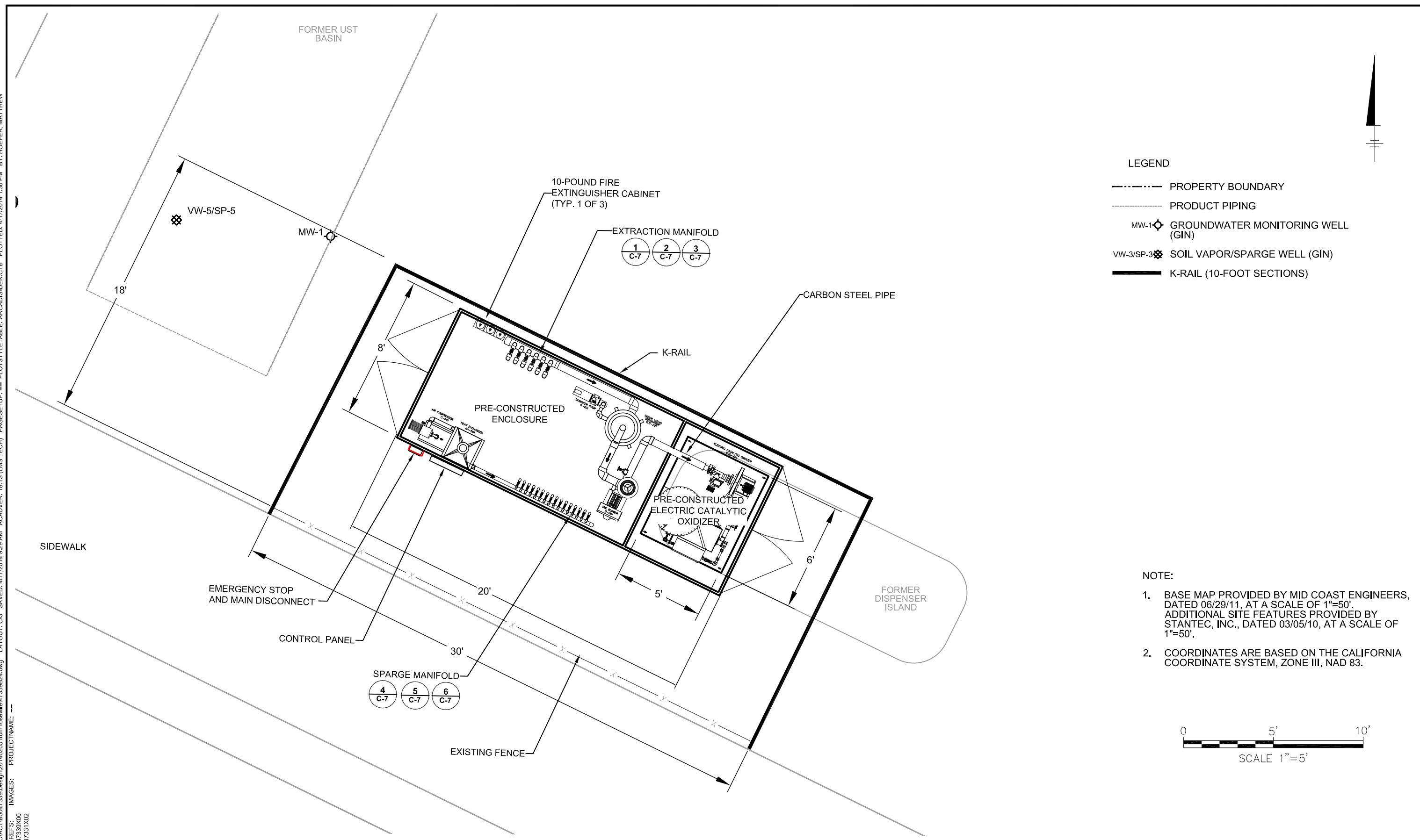
SITE PLAN WITH PROPOSED REMEDIATION SYSTEM

DRAFT - NOT FOR CONSTRUCTION

ARCADIS Project No. B0047339.0001
Date APRIL 2014
ARCADIS 2000 POWELL STREET SUITE 700 EMERYVILLE, CALIFORNIA 94608

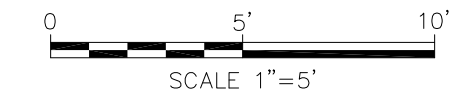
C-2

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 PLOTTED: 4/17/2014 1:38 PM BY: HOEFER, MATTHEW



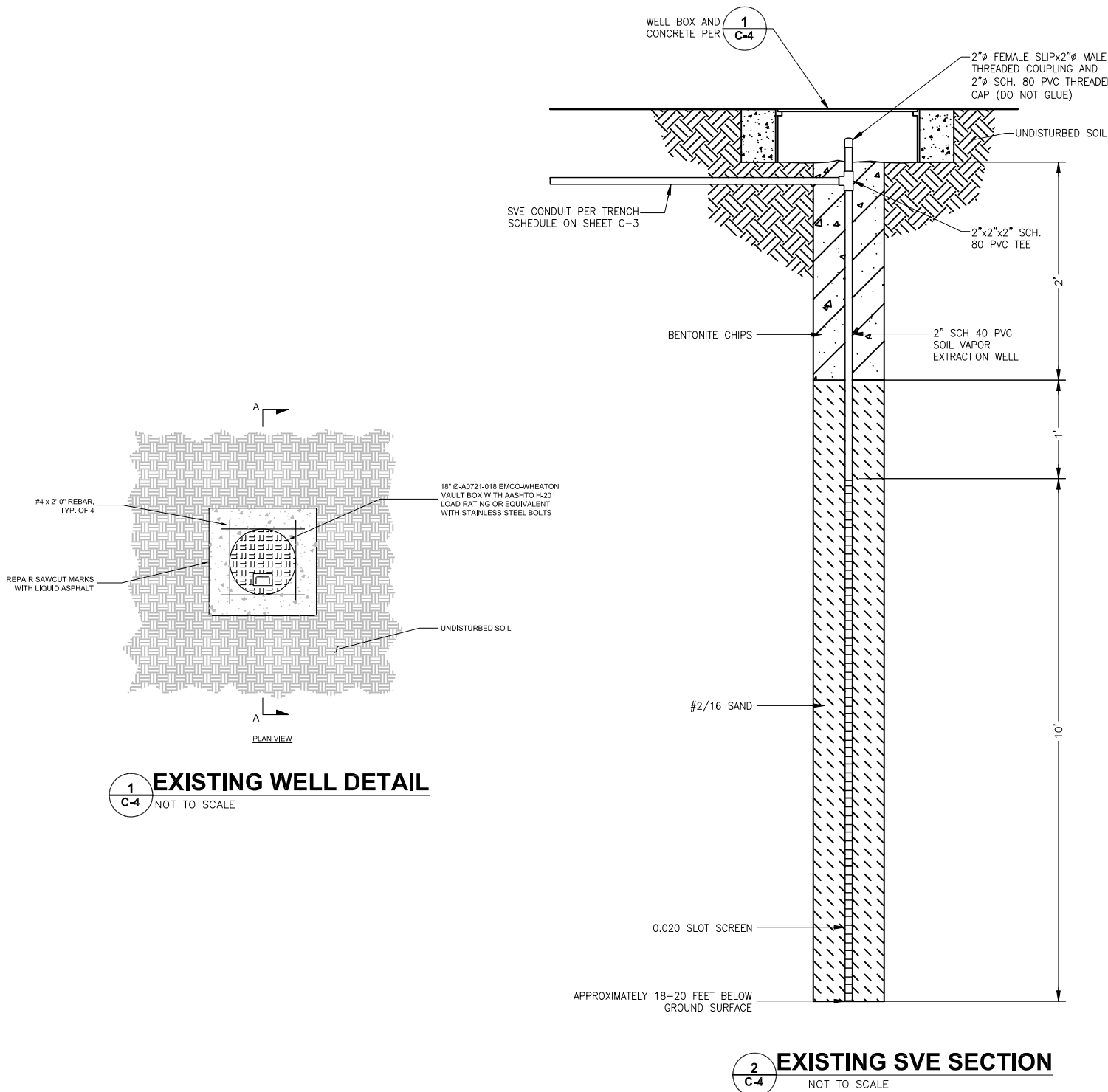
- LEGEND
- PROPERTY BOUNDARY
 - PRODUCT PIPING
 - MW-1 ◯ GROUNDWATER MONITORING WELL (GIN)
 - VW-3/SP-3 ⊗ SOIL VAPOR/SPARGE WELL (GIN)
 - ▬ K-RAIL (10-FOOT SECTIONS)

- NOTE:
1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'.
 2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.



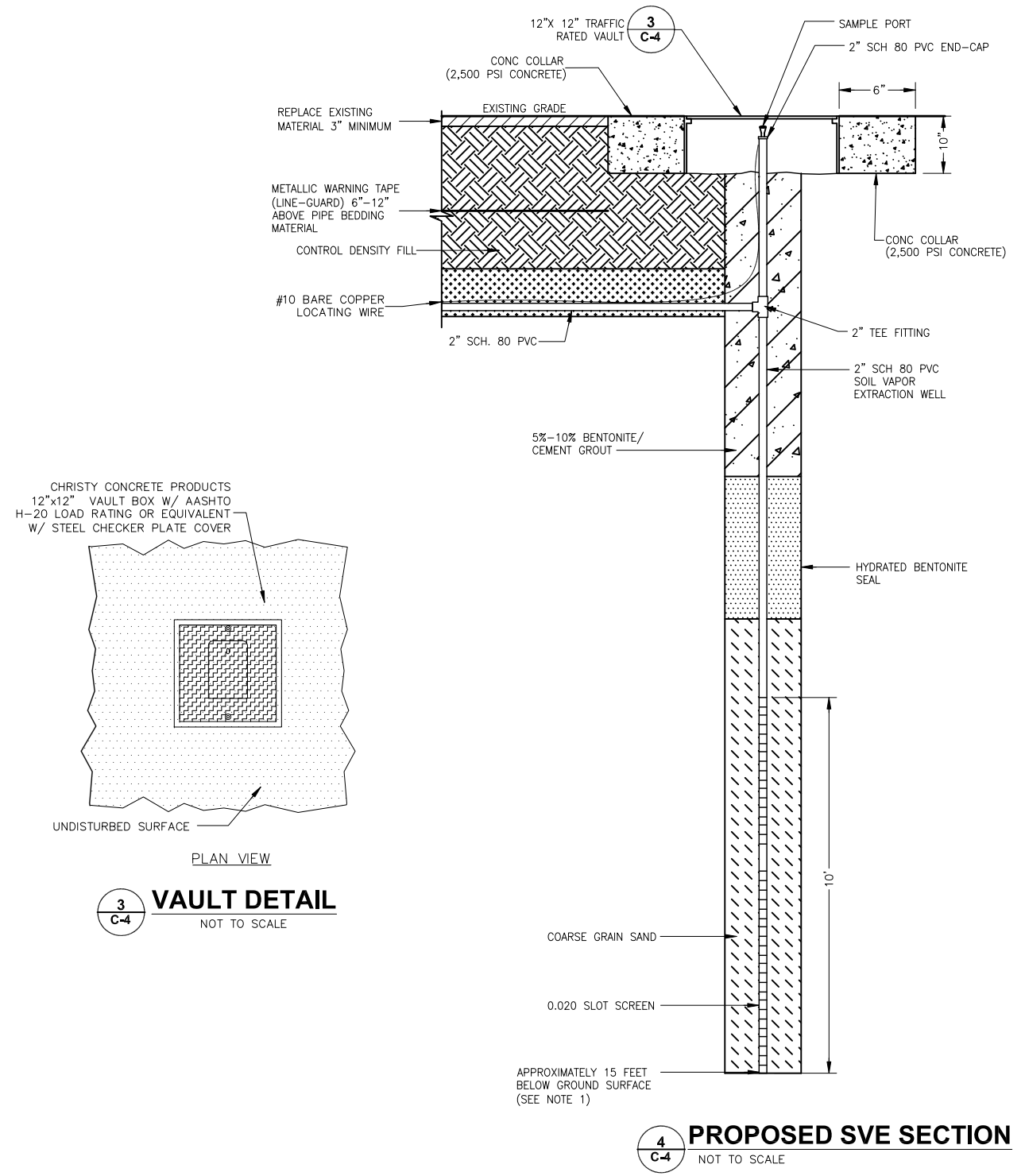
SCALE(S) AS INDICATED THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING.	USE TO VERIFY FIGURE REPRODUCTION SCALE	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>No.</th> <th>Date</th> <th>Revisions</th> <th>By</th> <th>Ckd</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	No.	Date	Revisions	By	Ckd						<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="3">Professional Engineer's Name</td> </tr> <tr> <td colspan="3">Professional Engineer's No.</td> </tr> <tr> <td>State</td> <td>Date Signed</td> <td>Project Mgr.</td> </tr> <tr> <td>CA</td> <td> </td> <td> </td> </tr> <tr> <td>Designed by</td> <td>Drawn by</td> <td>Checked by</td> </tr> <tr> <td> </td> <td>MTH</td> <td> </td> </tr> </table>	Professional Engineer's Name			Professional Engineer's No.			State	Date Signed	Project Mgr.	CA			Designed by	Drawn by	Checked by		MTH		<p>ARCADIS U.S., INC.</p>	UNION OIL COMPANY OF CALIFORNIA STATION NO. 0752 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA CONSTRUCTION DOCUMENTS <h2 style="margin: 0;">REMEDATION SYSTEM DETAILS</h2> <p style="margin: 0;">DRAFT - NOT FOR CONSTRUCTION</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>ARCADIS Project No. B0047339.0001</td> </tr> <tr> <td>Date APRIL 2014</td> </tr> <tr> <td>ARCADIS 2000 POWELL STREET SUITE 700 EMERYVILLE, CALIFORNIA 94608</td> </tr> </table>	ARCADIS Project No. B0047339.0001	Date APRIL 2014	ARCADIS 2000 POWELL STREET SUITE 700 EMERYVILLE, CALIFORNIA 94608	C-3
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CITY: LAKEWOOD, CO DIV/GROUP: ENVCAD DR: J. HARRIS, G. STEINBERGER, J. HARRIS
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1
C-4
EXISTING WELL DETAIL
NOT TO SCALE

2
C-4
EXISTING SVE SECTION
NOT TO SCALE



3
C-4
VAULT DETAIL
NOT TO SCALE

4
C-4
PROPOSED SVE SECTION
NOT TO SCALE

NOTES:
 1. ACTUAL WELL DEPTH MAY VARY BASED ON FIELD CONDITIONS.

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	Professional Engineer's No.				
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		Date Signed			
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	MTH				

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SOIL VAPOR EXTRACTION WELL, VAULT AND WELLHEAD DETAILS
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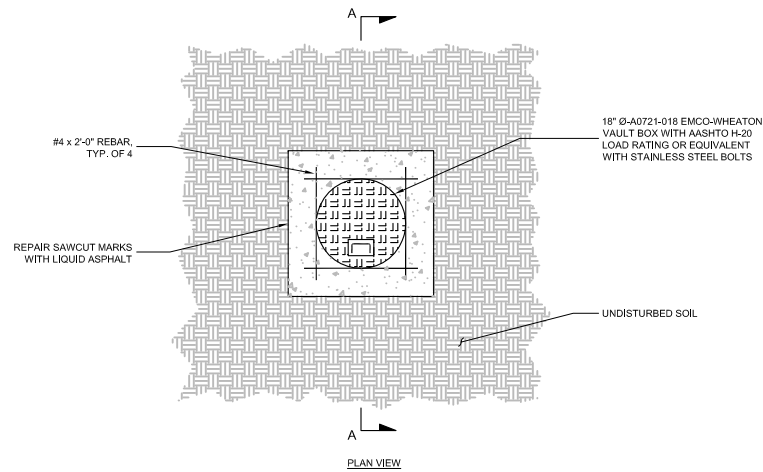
ARCADIS Project No. B0047339.0001
 Date APRIL 2014
 ARCADIS
 2000 POWELL STREET SUITE 700
 EMERYVILLE, CALIFORNIA 94608

C-4

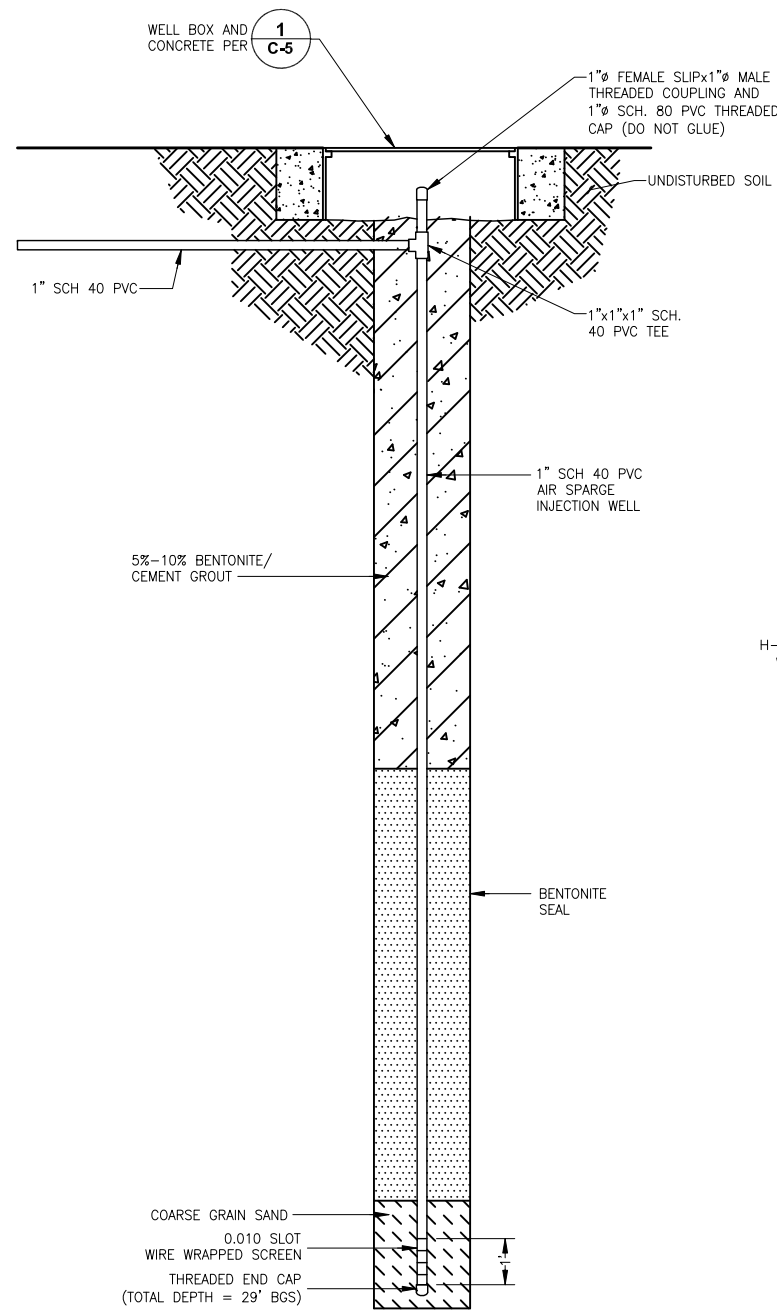
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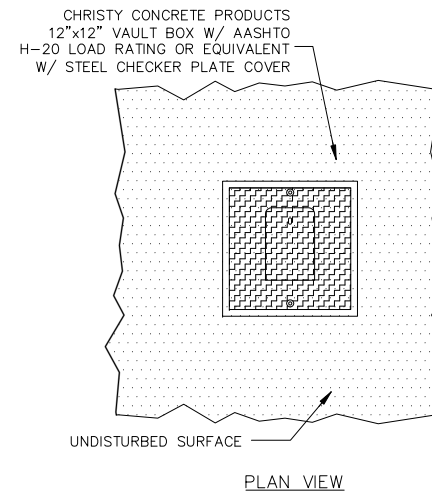
- NOTES:
 1. EXISTING WELL DEPTHS VARY BETWEEN 29.5 TO 35 FEET BELOW GROUND SURFACE.
 2. ACTUAL WELL DEPTH MAY VARY BASED ON FIELD CONDITIONS. THE BOTTOM OF THE SCREEN INTERVAL WILL BE PLACED AT THE CLAY INTERFACE ON THE SUBSURFACE LITHOLOGY.



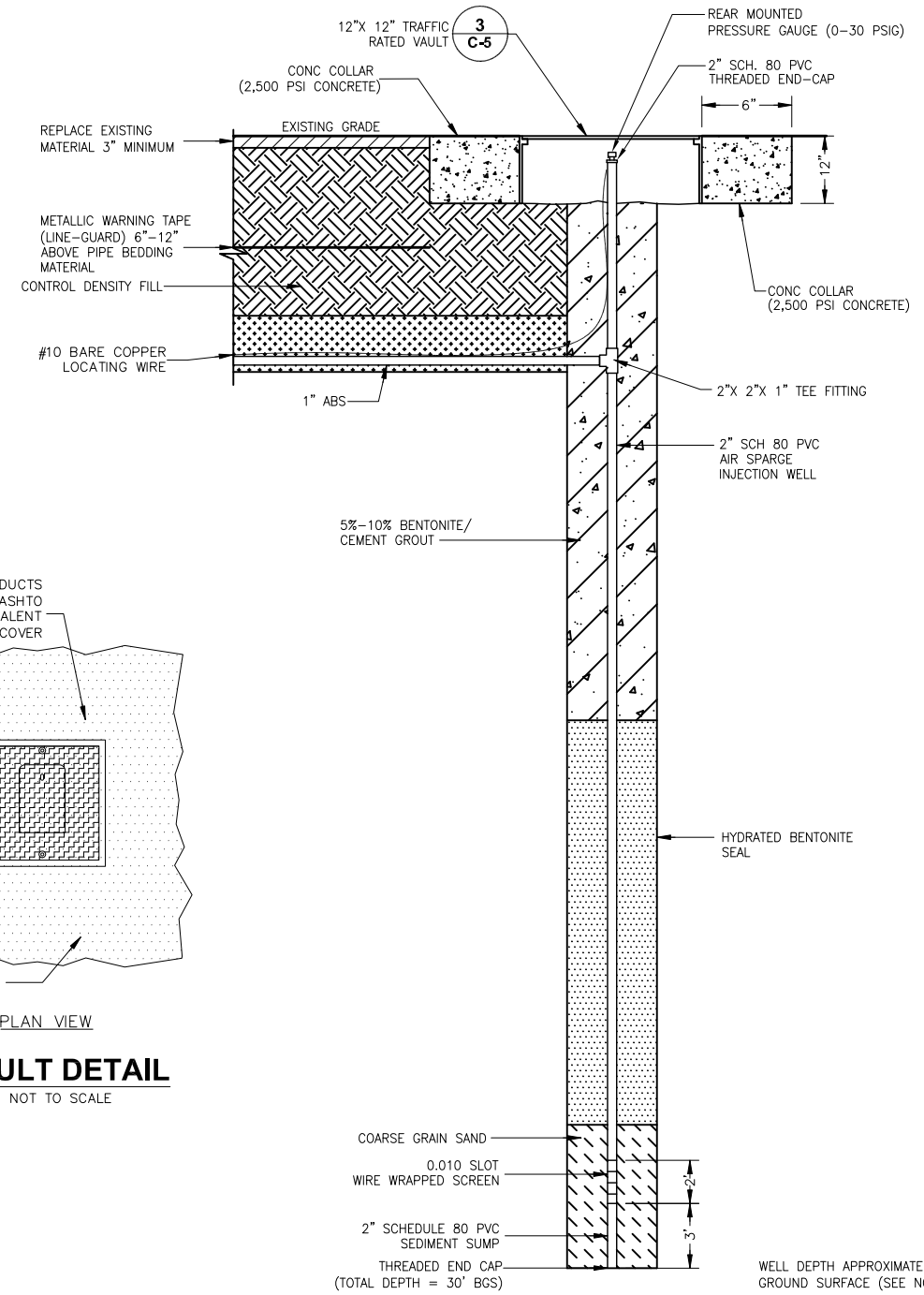
1 EXISTING WELL DETAIL
C-5 NOT TO SCALE



2 EXISTING AS SECTION
C-5 NOT TO SCALE



3 VAULT DETAIL
C-5 NOT TO SCALE



4 PROPOSED AS SECTION
C-5 NOT TO SCALE

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CA		
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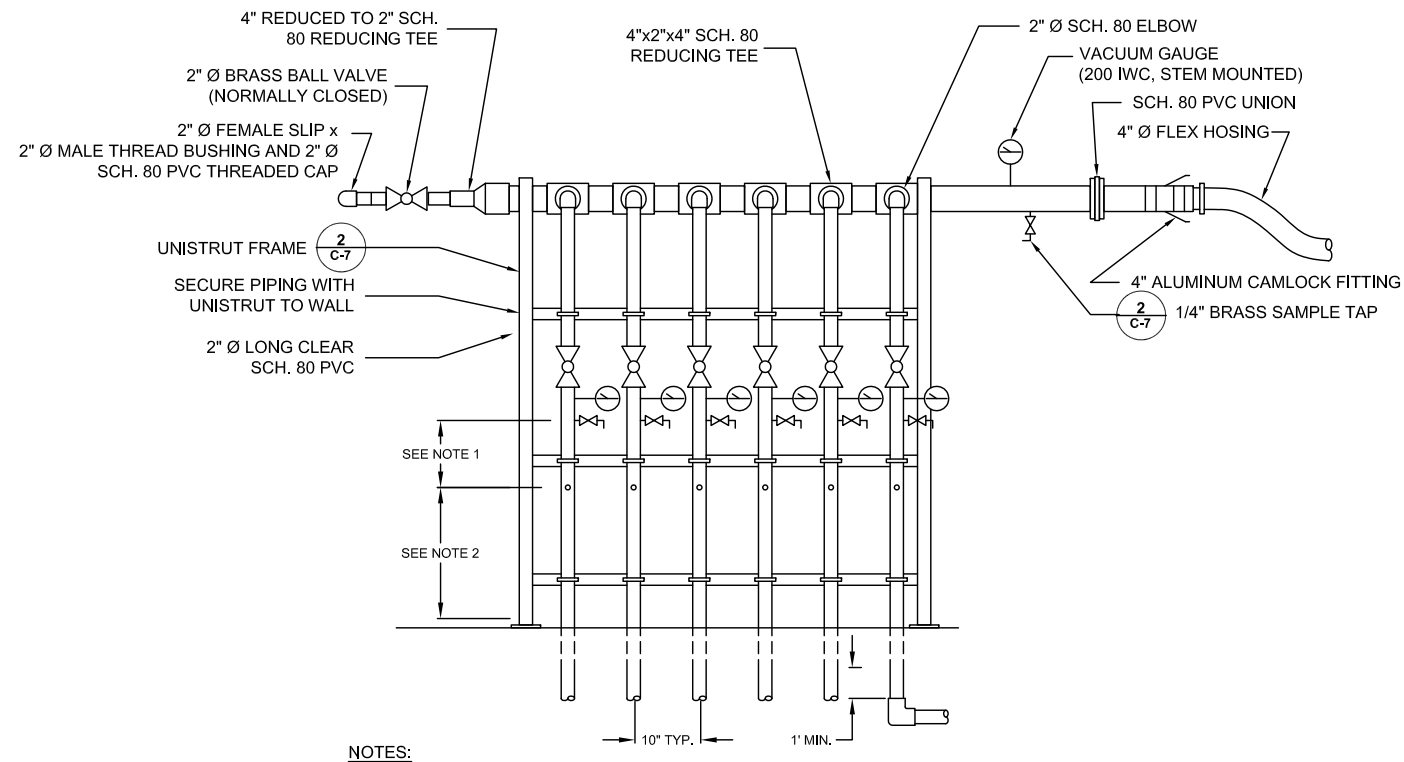
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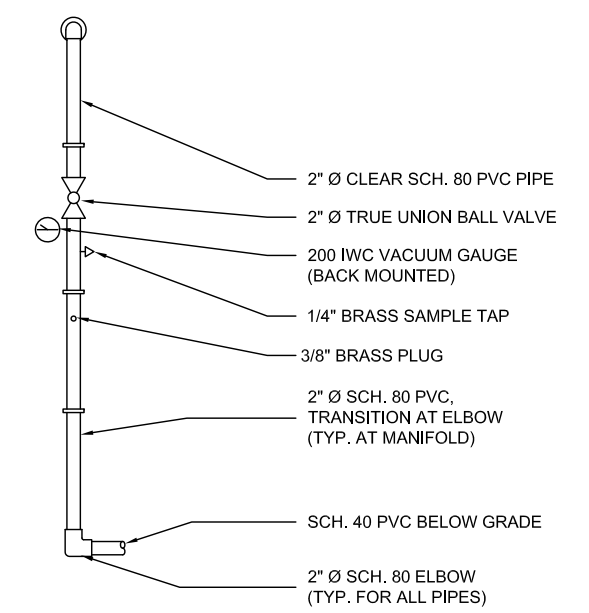
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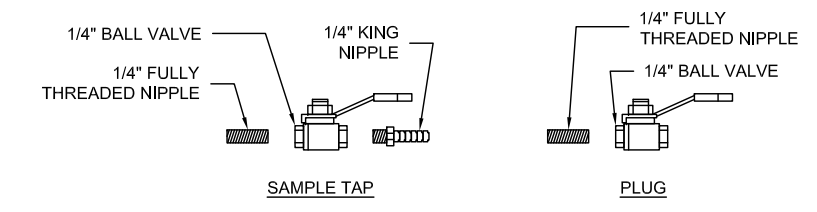


- NOTES:**
- MINIMUM 5 PIPE DIAMETERS WITH NO BENDS, COUPLINGS, FITTINGS OR UNIONS.
 - MINIMUM 10 PIPE DIAMETERS WITH NO BENDS, COUPLINGS, FITTINGS OR UNIONS, MINIMUM 1' ABOVE GROUND.
 - A TOTAL OF 6 SVE LINES ARE SET IN MANIFOLD
 - TWO EXISTING GWE STUBOUTS WILL BE CONVERTED TO SVE PIPING AND ADDED TO SVE MANIFOLDS.

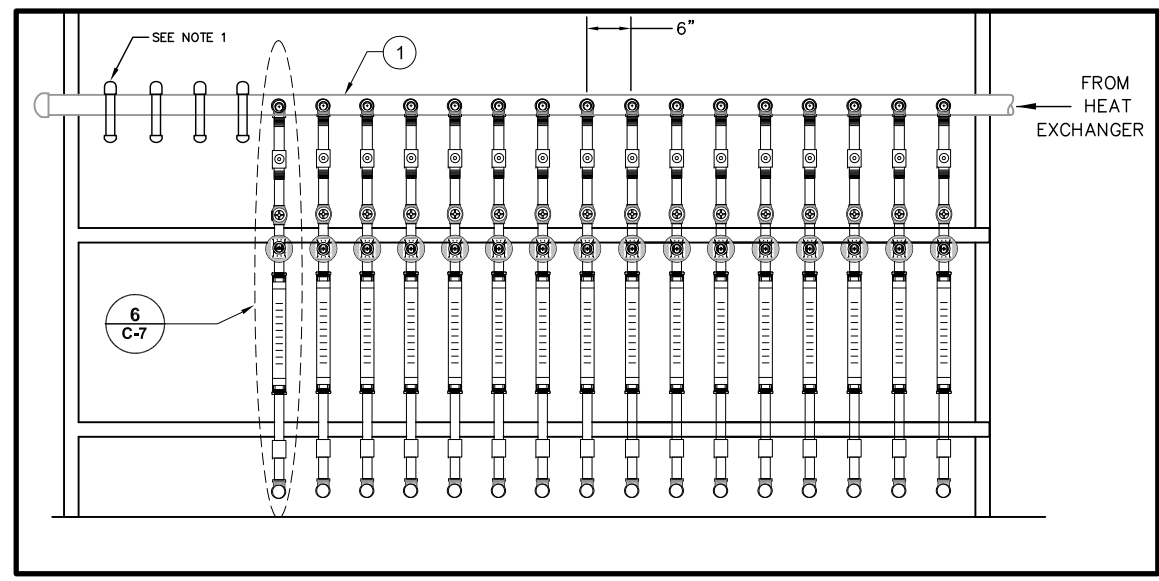
1 SVE PIPING MANIFOLD DETAIL
NOT TO SCALE



2 SVE PIPING MANIFOLD COMPONENTS
NOT TO SCALE

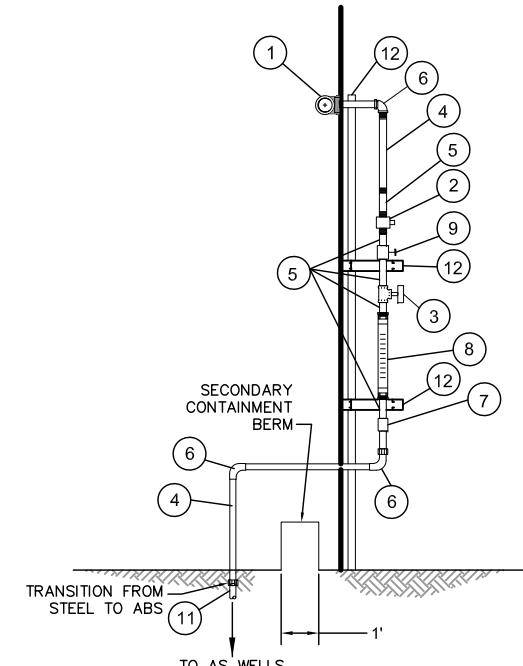


3 SAMPLE PORT AND PLUG DETAIL
NOT TO SCALE

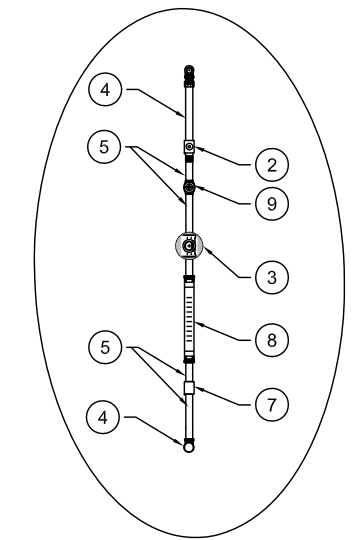


- NOTES:**
- A TOTAL OF 16 AS LINES WILL BE SITUATED IN MANIFOLD, WITH 4 CAPPED STUBOUTS.

4 AS PIPE MANIFOLD
NOT TO SCALE



5 AS MANIFOLD CONNECTION DETAIL
NOT TO SCALE



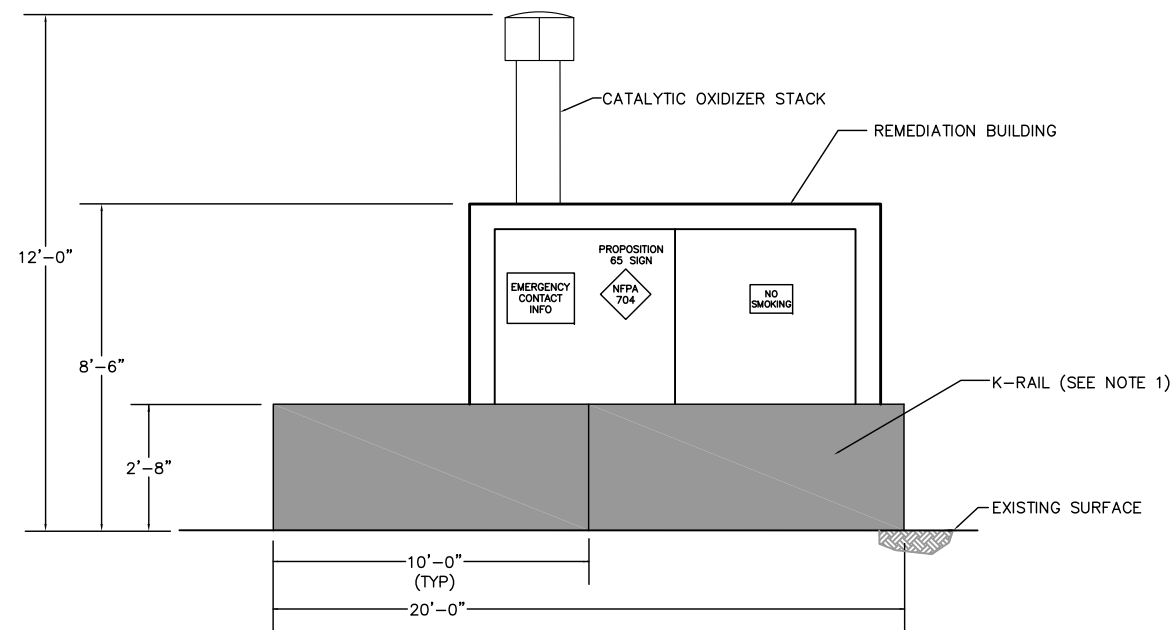
6 AS MANIFOLD COMPONENTS
NOT TO SCALE

- AS MANIFOLD COMPONENTS**
- 2" WELDED STEEL DISTRIBUTION MANIFOLD (MOUNTED ON UNISTRUT)
 - 1" DIRECT-ACTING SOLENOID VALVE
 - PRESSURE GAUGE (0-30 PSIG)
 - 1" SCH 40 GALVANIZED STEEL PIPE
 - 1" X 4" SCH 40 GALVANIZED STEEL NIPPLE
 - 1" 90° SCH 40 GALVANIZED STEEL ELBOW
 - CHECK VALVE
 - VARIABLE AREA IN-LINE FLOW INDICATOR (4-23 SCFM)
 - 1" GATE VALVE
 - 1" ABS 90° ELBOW
 - 1" ABS PIPE
 - UNISTRUT

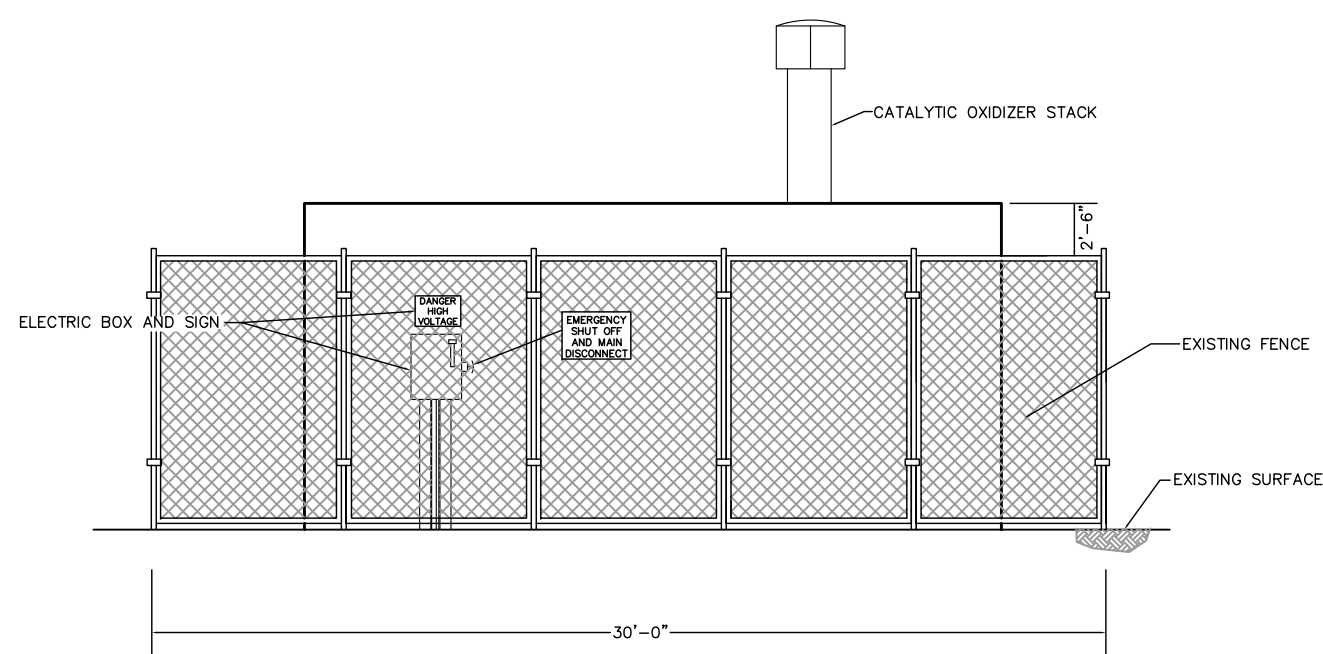
- NOTES:**
- " - INCH/INCHES
 - ' - FOOT/FEET
 - Ø - DIAMETER

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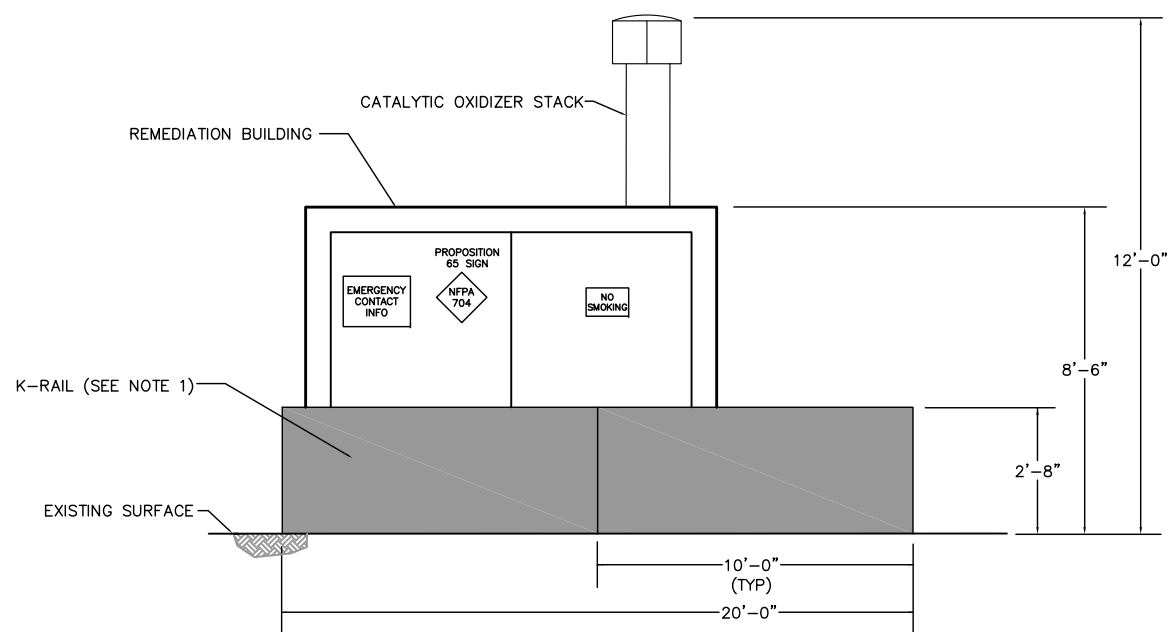
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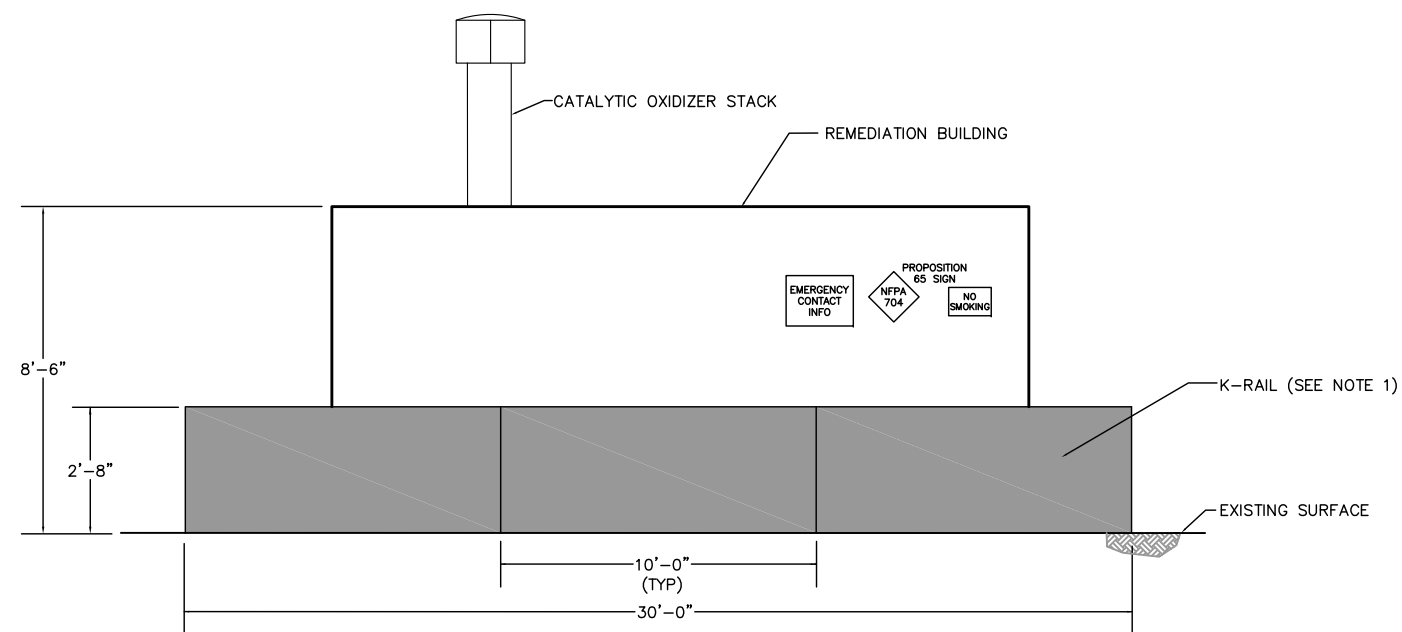
1 **SOUTHEAST ELEVATION**
C-8 NOT TO SCALE



2 **NORTHEAST ELEVATION**
C-8 NOT TO SCALE



3 **NORTHWEST ELEVATION**
C-8 NOT TO SCALE



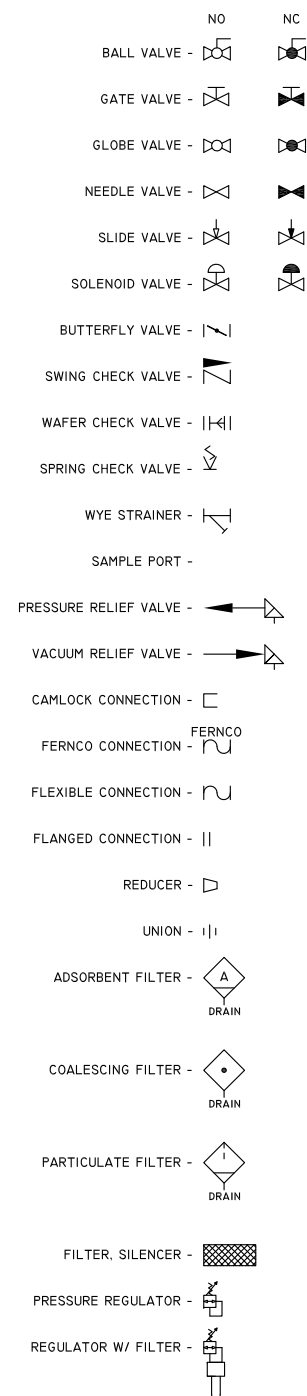
4 **SOUTHEAST ELEVATION**
C-8 NOT TO SCALE

NOTES:
1. STANDARD TEMPORARY RAILING (TYPE K).
32" HIGH X 24" WIDE X 10' LONG.

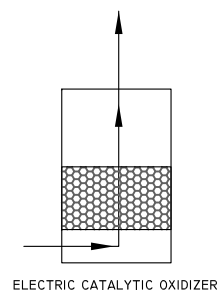
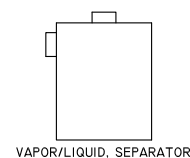
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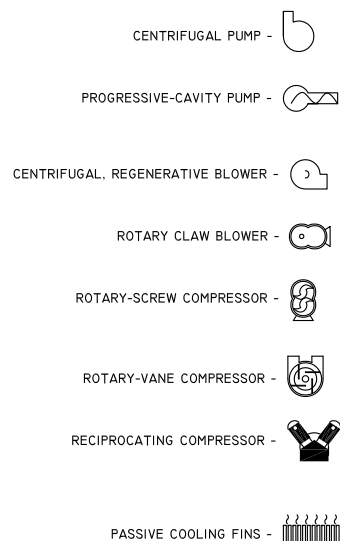
VALVES AND PIPING



EQUIPMENT



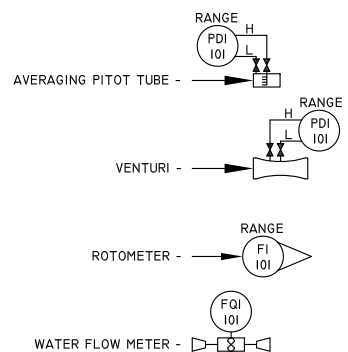
EQUIPMENT



EQUIPMENT

BLD - BUILDING, TRAILER OR SKID
 FLT - FILTER VESSEL
 MFD - MANIFOLD
 OX - OXIDIZER
 TNK - TANK
 VLS - VAPOR/LIQUID SEPARATOR
 VPC - VAPOR-PHASE CARBON VESSEL

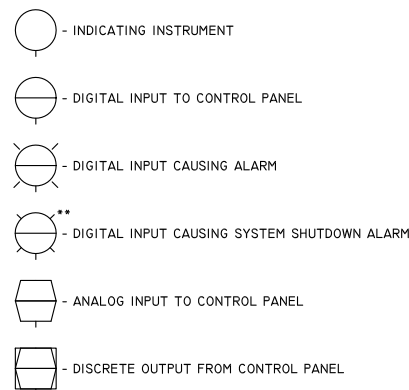
FLOW MEASUREMENT



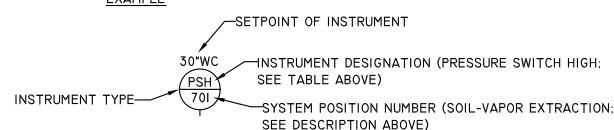
INSTRUMENT DESIGNATION

	INPUT	1ST MODIFIER	2ND MODIFIER	3RD MODIFIER	OUTPUT	1ST MODIFIER	
A							A
B						BLOWER	B
C	CYCLE					COMPRESSOR	C
D		DIFFERENTIAL				AIR DRYER	D
E							E
F	FLOW					FAN	F
G	GAS (LEL)		GAUGE				G
H				HIGH	HAND	HEATER	H
I	CURRENT		INDICATOR				I
J							J
K							K
L	LEVEL			LOW			L
M					MOTORIZED		M
N							N
O							O
P	PRESSURE				PNEUMATIC	PUMP	P
Q		QUANTITY					Q
R							R
S	SPEED		SWITCH		SOLENOID		S
T	TEMPERATURE		TRANSMITTER				T
U							U
V						VALVE	V
W							W
X							X
Y							Y
Z	POSITION						Z

INSTRUMENT IDENTIFICATION



EXAMPLE



SYSTEM POSITION DESIGNATION

100 - VACUUM INLET MANIFOLD
 400 - VAPOR/LIQUID SEPARATOR
 700 - SOIL-VAPOR EXTRACTION
 800 - THERMAL CATALYTIC OXIDIZER
 2200 - AIR SPARGE
 2800 - SPARGE OUTLET MANIFOLD

ABBREVIATIONS:

ABS = ACRYLONITRILE BUTADIENE STYRENE
 AG = ABOVEGROUND
 CP = CONTAINMENT PAD
 CS = CONTAINMENT SUMP
 CV = CHECK VALVE
 DCV = DIGITAL CONTROL VALVE
 EFF = EFFLUENT
 FA = FLAME ARRESTER
 FI = FLOW INDICATOR
 FS = FLOW SWITCH
 HHLS = HIGH-HIGH LEVEL SWITCH
 HLS = HIGH LEVEL SWITCH
 HX = HEAT EXCHANGER
 INF = INFLUENT
 LLS = LOW LEVEL SWITCH
 P = TRANSFER PUMP
 PI = PRESSURE INDICATOR
 PRV = PRESSURE RELIEF VALVE
 PS = PRESSURE SWITCH
 SP = SAMPLE POINT
 SS = STAINLESS STEEL
 SV = SOLENOID VALVE
 SVE = SOIL VAPOR EXTRACTION
 TC = THERMOCOUPLE
 TCO = THERMAL/CATALYTIC OXIDIZER
 TI = TEMPERATURE INDICATOR
 UG = UNDERGROUND
 VI = VACUUM INDICATOR
 VLS = VAPOR/LIQUID SEPARATOR
 VRV = VACUUM RELIEF VALVE

SCALE(S) AS INDICATED

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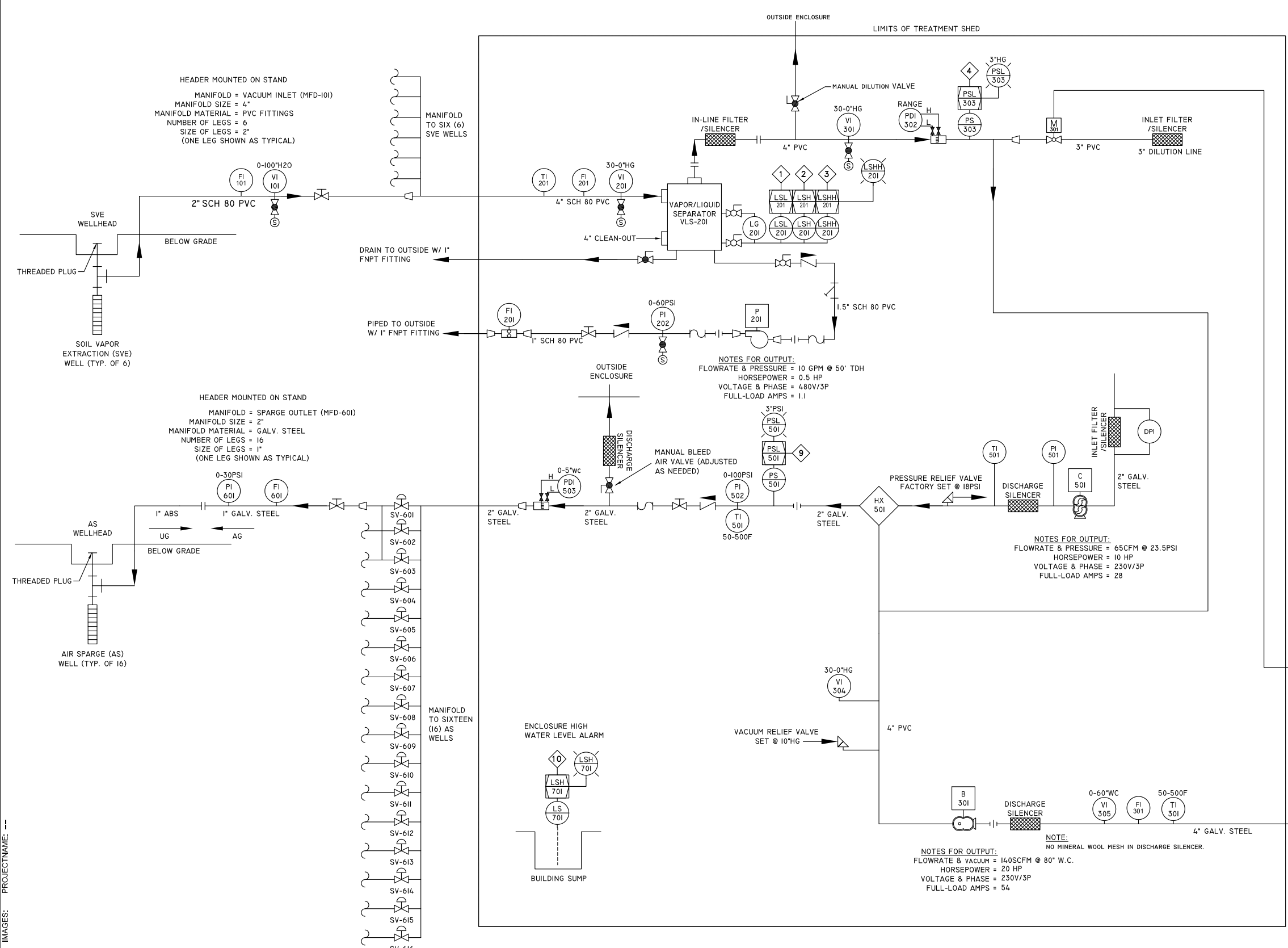
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****BUILDING EQUIPMENT AND CONTROL PANEL****

CONTROL PANEL

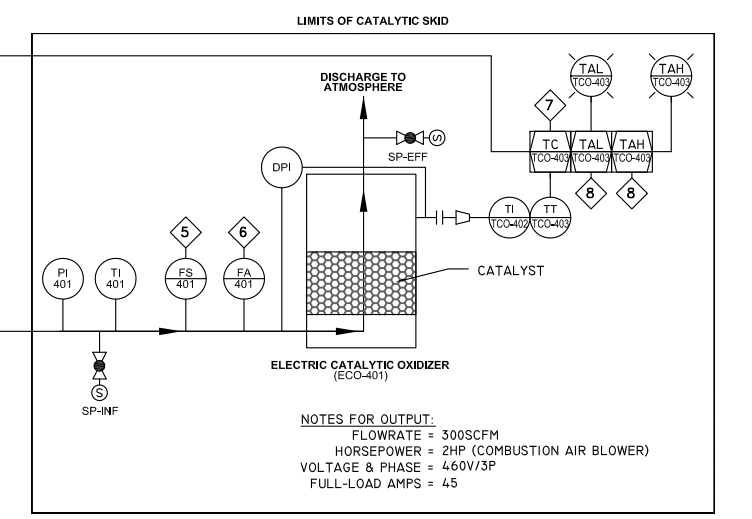
TO BE LOCATED ON TREATMENT SHED. PANEL TO BE A MINIMUM OF 36" FROM ANY HAZARDOUS PROCESS EQUIPMENT, AND A MINIMUM OF 36" ABOVE GRADE.

****WIRING AND SPECIAL PROJECT NOTES****

IS INPUT WIRING TO BE WIRED FOR INDOORS, ACCORDING NEC FOR HAZARDOUS LOCATIONS.

WIRING TO BE CLASS I DIVISION 2, AS PER THE NEC.

- INTERLOCK NOTES:**
- 1 DE-ENERGIZE P-201
 - 2 ENERGIZE P-201
 - 3 HIGH-HIGH LEVEL SWITCH - VLS SHUTS DOWN BLOWER AT HIGH LEVEL, AUTODIALER CALLOUT
 - 4 LOW PRESSURE, AUTODIALER CALLOUT, DISABLES AIR SPARGE BLOWER
 - 5 FLOWSWITCH DISABLES HEATING ELEMENT IF THERE IS NO AIR FLOW, AUTODIALER CALLOUT
 - 6 FLAME ARRESTER PREVENTS UPSTREAM PROPAGATION OF FLAME
 - 7 ELECTRIC CATALYTIC OXIDIZER TEMPERATURE CONTROL VIA ADJUSTMENTS TO MAKE-UP AIR
 - 8 LOW/HIGH TEMPERATURE ALARM, SYSTEM SHUTS DWN, AUTODIALER CALLOUT
 - 9 LOW PRESSURE, AUTODIALER CALLOUT
 - 10 ENCLOSURE HIGH WATER LEVEL ALARM, SYSTEM SHUTDOWN, AUTODIALER CALLOUT



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CA		
Designed by	Drawn by	Checked by
	MTH	



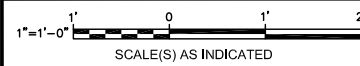
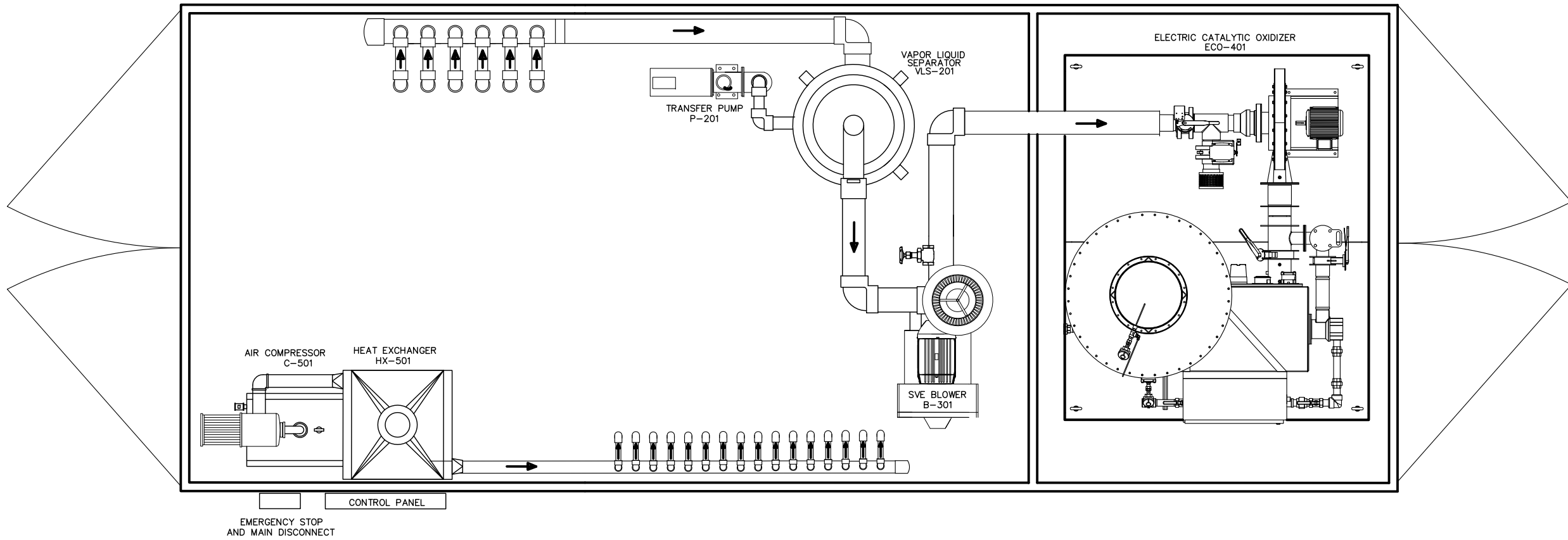
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 CONSTRUCTION DOCUMENTS

PROCESS AND INSTRUMENTATION DIAGRAM

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ARCADIS Project No. B0047339.0001	M-2
Date APRIL 2014	
ARCADIS 2000 POWELL STREET SUITE 700 EMERYVILLE, CALIFORNIA 94608	

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	MTH	



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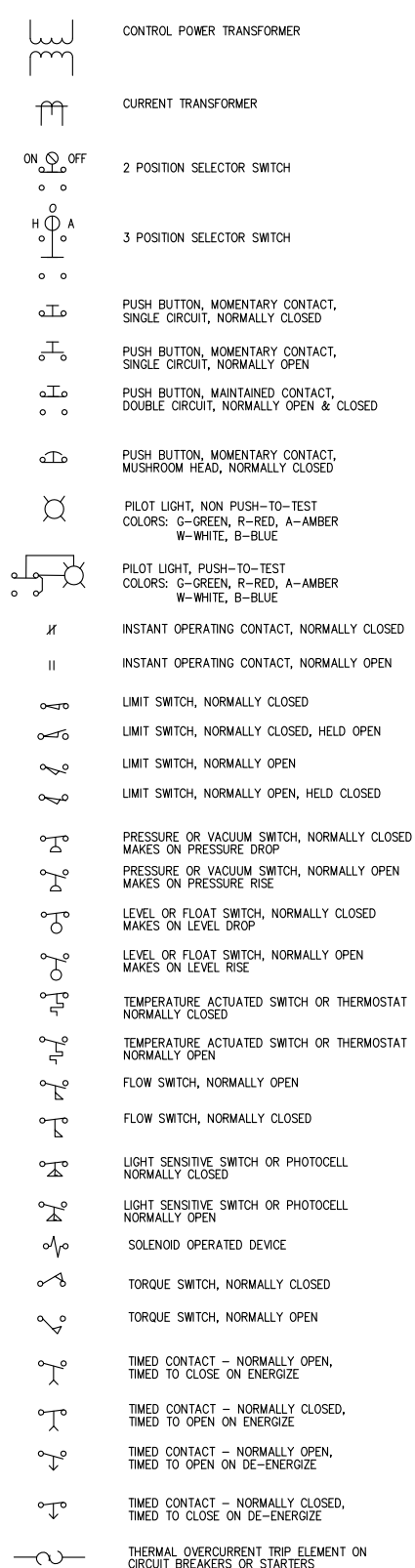
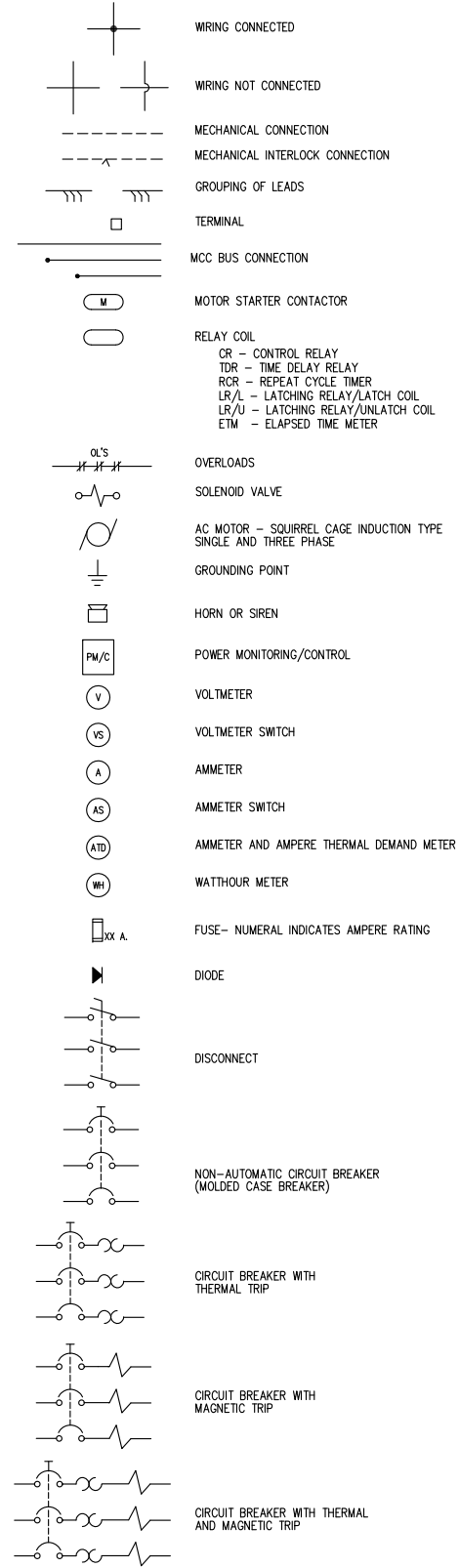
PLAN VIEW OF EQUIPMENT LAYOUT
 DRAFT - NOT FOR CONSTRUCTION
 MECHANICAL

ARCADIS Project No. B0047339.0001
Date APRIL 2014
ARCADIS 2000 POWELL STREET SUITE 700 EMERYVILLE, CALIFORNIA 94608

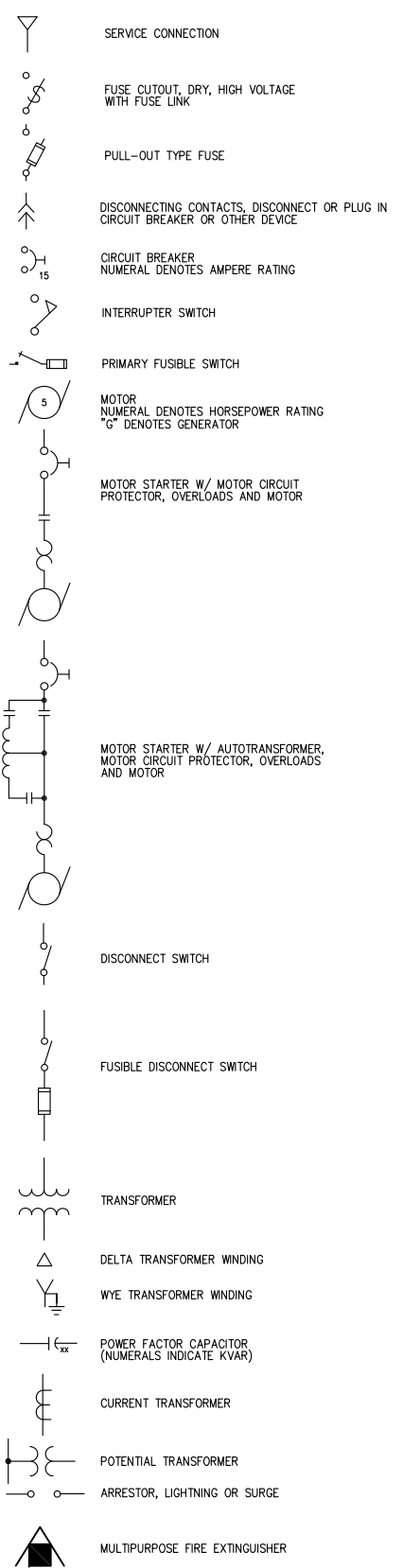
M-3

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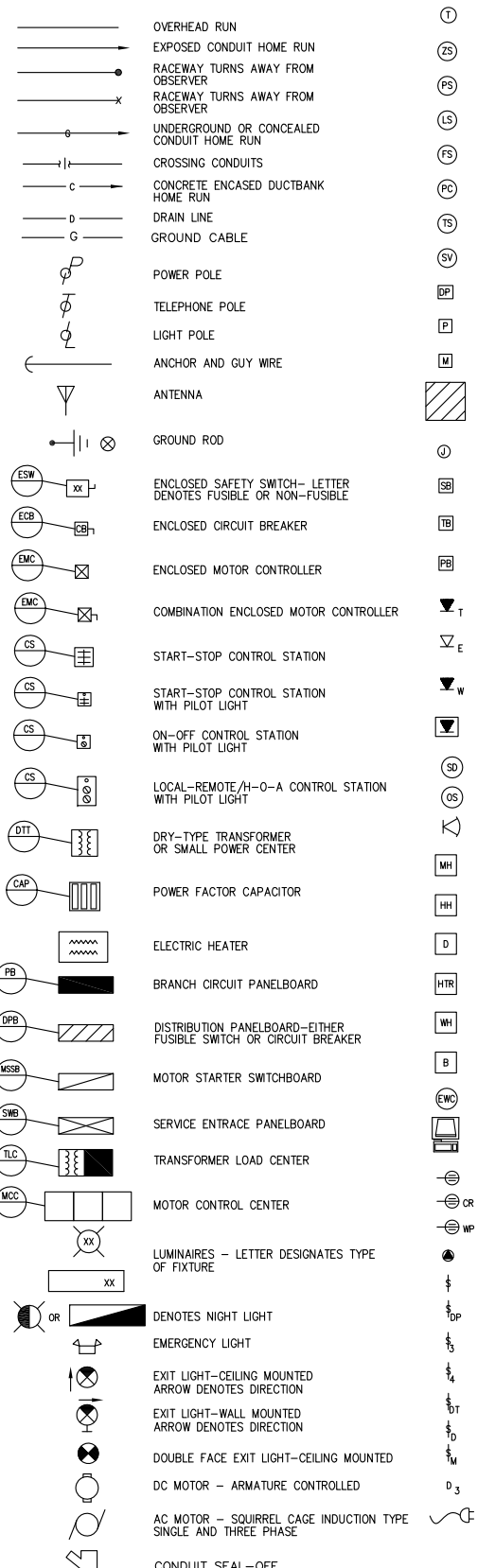
SCHEMATICS



ONE-LINE DIAGRAMS



PLANS



GENERAL NOTES

- 1. THIS IS A GENERAL ELECTRICAL SYMBOLS AND GENERAL NOTES SHEET. SOME SYMBOLS AND/OR NOTES MAY NOT BE USED IN THIS SET OF DRAWINGS.
- 2. LIGHT LINES () DESIGNATE EXISTING CONDITIONS AND EQUIPMENT.
- 3. HEAVY LINES () DESIGNATE PROPOSED WORK OR EQUIPMENT.
- 4. ALL HOMERUNS TO THE LIGHTING PANELS AND MINI POWER CENTERS AND WIRE/CONDUIT RUNS BETWEEN ALL SINGLE PHASE EQUIPMENT (TYPICALLY 1/2 HP MOTORS AND EQUIVALENT LOADS) SHALL BE 2 #12, 1#12 GND.-3/4" C. UNLESS OTHERWISE NOTED.
- 5. ALL HOMERUNS TO THE DISTRIBUTION PANELBOARDS, MOTOR CONTROL CENTERS AND MOTOR STARTER SWITCHBOARDS AND WIRE/CONDUIT RUNS BETWEEN ALL THREE PHASE EQUIPMENT (TYPICALLY 1/2 HP AND LARGER AND EQUIVALENT LOADS) SHALL BE 3 #12, 1 #12 GND.-3/4" C. UNLESS OTHERWISE NOTED.
- 6. ALL HOMERUNS TO THE INSTRUMENTATION PANEL (IP), RMP'S, RTU'S ETC. AND BETWEEN INSTRUMENTATION TYPE EQUIPMENT SHALL BE TWO PAIR #20 AWG SHIELDED CABLE, 1 #12 GND.-3/4" C. UNLESS OTHERWISE NOTED.
- 7. ALL SURFACE MOUNTED AND PENDANT MOUNTED LIGHTING FIXTURES SHALL BE MOUNTED TO AVOID INTERFERENCE WITH OTHER EQUIPMENT IN THE SAME LOCATION.
- 8. ALL TABLES ARE SHOWN FOR REFERENCES ONLY. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PROVIDE ALL OF THE ITEMS SHOWN ON THE INDIVIDUAL DRAWINGS.
- 9. ALL HOMERUNS TO LIGHTING PANELS AND THE HOMERUNS TO THE INSTRUMENTATION PANELS CAN BE COMBINED IN THEIR RESPECTIVE HOMERUN CONDUITS TO MINIMIZE THE TOTAL NUMBER OF CONDUITS ENTERING THE PANEL, PROVIDED THE INTEGRITY OF REDUNDANCY IS MAINTAINED AND PRIOR APPROVAL IS OBTAINED FROM THE ENGINEER. CONTRACTOR MUST DERATE THE CONDUCTORS IN ACCORDANCE WITH MOST RECENT NEC REQUIREMENTS.
- 10. NUMERALS ADJACENT TO RECEPTACLES, LIGHTING FIXTURES, AND MISC. EQUIPMENT DENOTE BRANCH CIRCUIT NUMBERS. e.g. FA 3
- 11. ALL INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND SHALL CONFORM TO THE LATEST EDITIONS OF THE NATIONAL ELECTRICAL CODE, LOCAL ORDINANCE, AND STATE CODES.
- 12. ALL EXPOSED CONDUIT SHALL BE INSTALLED AT RIGHT ANGLES.

WP - WEATHERPROOF
CR - CORROSION RESISTANT
EP - EXPLOSION PROOF
GFI - GROUND FAULT INTERRUPT
T - TWISTLOCK

SCALE(S) AS INDICATED

1" = 10'	1" = 20'	1" = 40'	1" = 80'
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Professional Engineer's Name		
Professional Engineer's No.		
State	Date Signed	Project Mgr.
CA		
Designed by	Drawn by	Checked by
	MTH	

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CONSTRUCTION DOCUMENTS

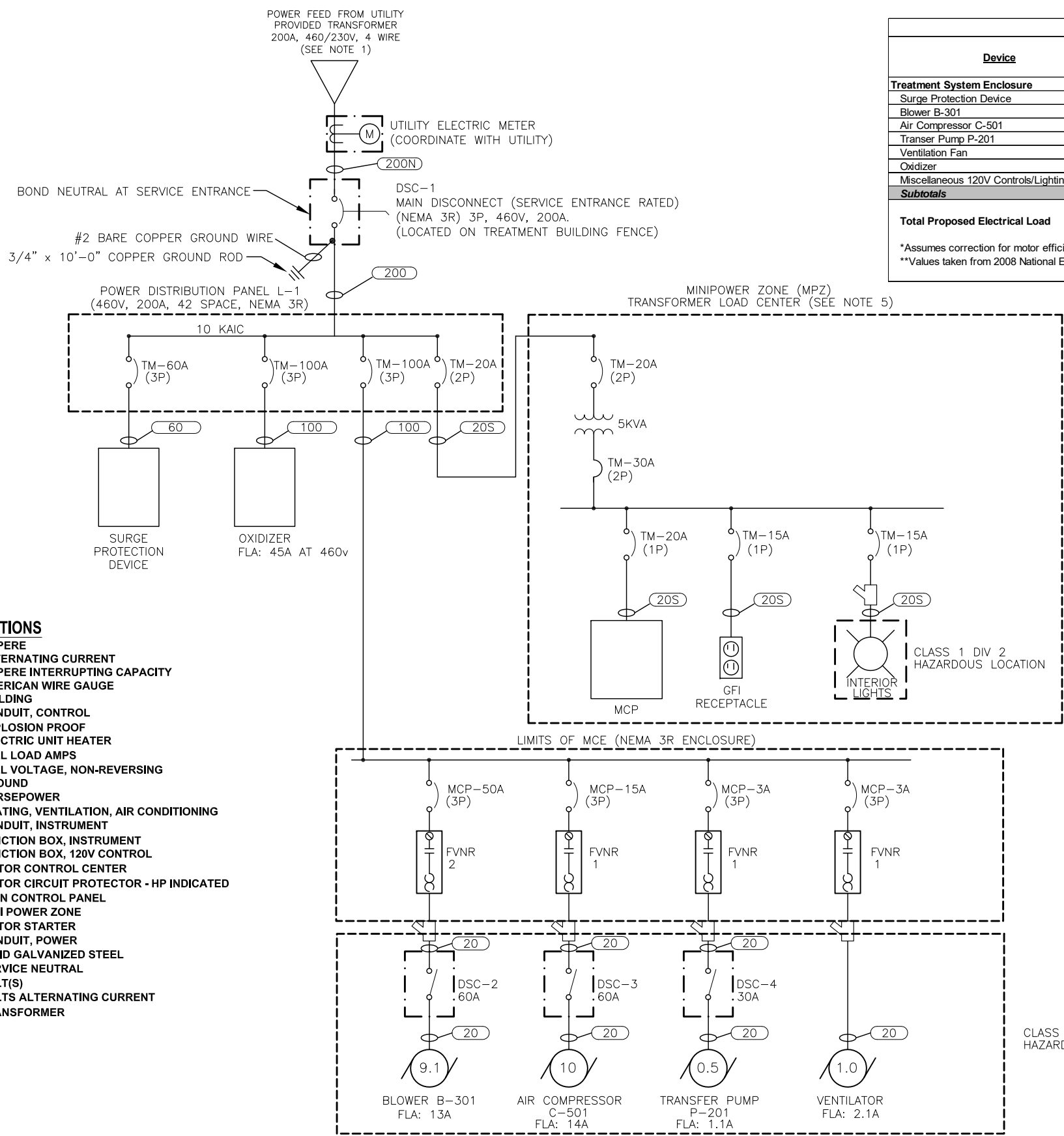
ELECTRICAL LEGEND AND NOTES

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ELECTRICAL

ARCADIS Project No. B0047339.0001
Date APRIL 2014
ARCADIS 2000 POWELL STREET SUITE 700 EMERYVILLE, CALIFORNIA 94608

CITY: LAKEWOOD_CO DIV/GROUP: ENV DE: ENV/CAD G:\ENVCAD\Lakewood-co\ACT\B0047339\Design\20140205 from roseville\47339E02.dwg LAYOUT: E-2_SAVED: 3/28/2014 10:44 AM ACADVER: 18.1S (LMS TECH) PAGES: 18 PAGES: 18 PLOTSTYLETABLE: ARCADIS-DEN.CTB PLOTTED: 3/28/2014 1:16 PM BY: HOEFER, MATTHEW
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ABBREVIATIONS

A, AMP	AMPERE
AC	ALTERNATING CURRENT
AIC	AMPERE INTERRUPTING CAPACITY
AWG	AMERICAN WIRE GAUGE
BLDG	BUILDING
C-X	CONDUIT, CONTROL
EP	EXPLOSION PROOF
EUH	ELECTRIC UNIT HEATER
FLA	FULL LOAD AMPS
FVNR	FULL VOLTAGE, NON-REVERSING
GND	GROUND
HP	HORSEPOWER
HVAC	HEATING, VENTILATION, AIR CONDITIONING
I-X	CONDUIT, INSTRUMENT
JB-IX	JUNCTION BOX, INSTRUMENT
JB-CX	JUNCTION BOX, 120V CONTROL
MCC	MOTOR CONTROL CENTER
MCP-2 HP	MOTOR CIRCUIT PROTECTOR - HP INDICATED
MCP	MAIN CONTROL PANEL
MPZ	MINI POWER ZONE
MS	MOTOR STARTER
P-X	CONDUIT, POWER
RGS	RIGID GALVANIZED STEEL
S.N.	SERVICE NEUTRAL
V	VOLT(S)
VAC	VOLTS ALTERNATING CURRENT
XFMR	TRANSFORMER

LOAD SCHEDULE

Device	Voltage	Phase	HP	Breaker Size	Source Panel	Connected Load - 120V (Amps)**	Connected Load - 460V (Amps)**	kVA	KW
Treatment System Enclosure									
Surge Protection Device	460	3	--	60	L-1	--	--	--	--
Blower B-301	460	3	9.1	15	MCE	--	13.00	10.36	8.80
Air Compressor C-501	460	3	10	15	MCE	--	14.00	11.15	9.48
Transfer Pump P-201	460	3	0.5	3	MCE	--	1.10	0.88	0.74
Ventilation Fan	460	3	1	3	MCE	--	2.10	1.67	1.42
Oxidizer	460	3	1	100	L-1	--	45.00	35.85	30.48
Miscellaneous 120V Controls/Lighting	460	3	N/A	20	L-1	15.00	--	11.95	10.16
Subtotals						15.00	75.20	86.44	61.09
Total Proposed Electrical Load									
								103.97	Running Amps
								129.97	Minimum Amps
								200.00	Main Breaker

*Assumes correction for motor efficiency (calculated at 85%)
 **Values taken from 2008 National Electrical Code (NEC)

CONDUCTOR SCHEDULE

SYMBOL	WIRE		GROUND	CONDUIT	COMMENTS
	QUANTITY	SIZE			
20S	2	12	1#12	3/4"	
20	3	12	1#12	3/4"	
30	3	10	1#10	3/4"	
40	3	8	1#8	1"	Include (3) #12 AWG THHN for 120V controls
50	3	6	1#8	3/4"	
60	3	4	1#8	1"	
100	3	2	1#6	1 1/4"	
200	3	3/0	1#4	2"	
200N	4	3/0	1#4	2"	

NOTES:

- CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY TO PROVIDE NEW 480/277V ELECTRIC SERVICE TO TREATMENT BUILDING.
- POWER DISTRIBUTION PANEL AND MCE TO BE MOUNTED TO OUTSIDE WALL OF TREATMENT ENCLOSURE.
- ALL CONDUITS PENETRATING WALL OF TREATMENT ENCLOSURE SHALL BE INSTALLED IN ACCORDANCE TO CLASS 1 DIV 2 REQUIREMENTS FOR HAZARDOUS LOCATIONS.
- PROVIDE 5KVA MPZ WITH 480V PRIMARY AND 120/240V, 1PH SECONDARY, 10 SINGLE POLE SPACES.

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Professional Engineer's No.		
State	Date Signed	Project Mgr.
CA		
Designed by	Drawn by	Checked by
	MTH	



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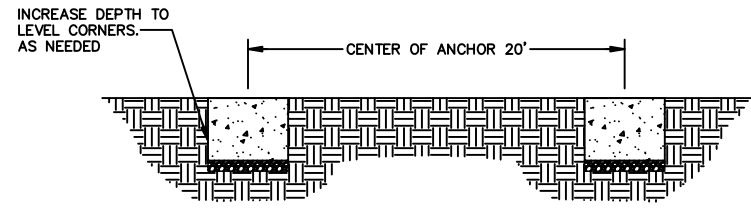
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ELECTRICAL

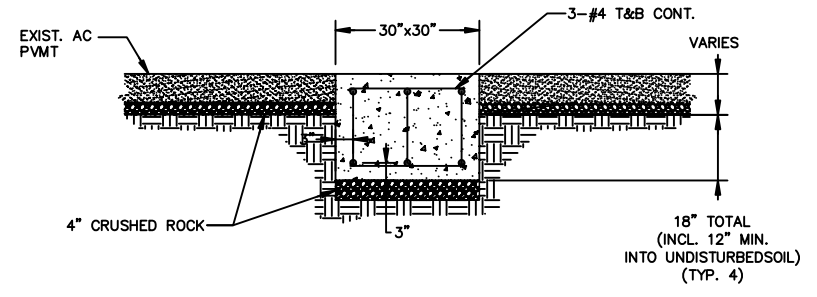
ARCADIS Project No. B0047339.0001
Date APRIL 2014
ARCADIS 2000 POWELL STREET SUITE 700 EMERYVILLE, CALIFORNIA 94608

E-2

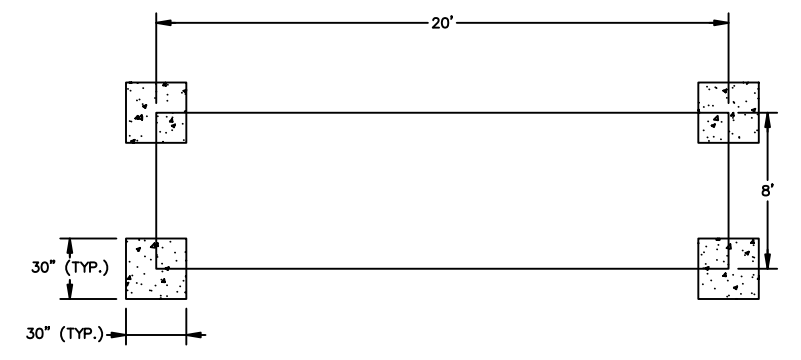
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1
S-1 **SLAB PROFILE**
NOT TO SCALE

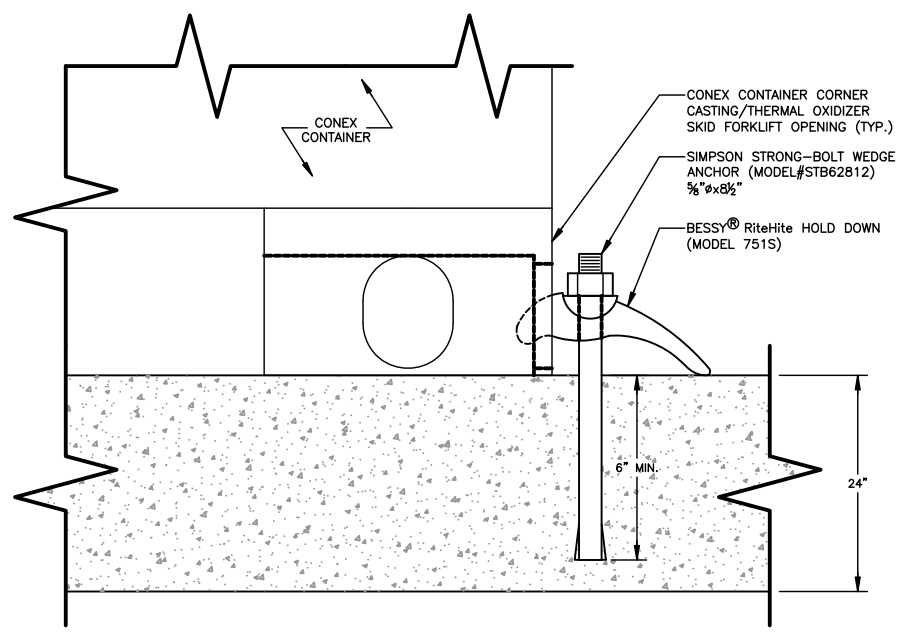


2
S-1 **TYPICAL FOOTING**
NOT TO SCALE



3
S-1 **PLAN VIEW**
NOT TO SCALE

SCOPE: ALTERNATE CONCRETE FOUNDATION FOR ~8'x20' BUILDING
REINFORCEMENT: AS SHOWN
CONCRETE: 4000 PSI TO MIN 12" UNDISTURBED SOIL AT EACH CORNER FOOTING. COMPENSATE FOR SLOPE BY INCREASED FOOTING DEPTH AT LOW END. 8'x20' PERIMETER TO REDUCE INCREMENTAL SETTLING AT DOORS.
ANCHOR: USE 3/8" SIMPSON STRONG-BOLT WEDGE ANCHOR IN ACCORDANCE WITH ICC-ES REPORT 2322 FOR CONCRETE WORK. DRILL AND EMBED THE ALL THREAD RODS A MINIMUM OF 6" INTO CONCRETE FOUNDATIONS. USE 3" SQUARE 1/4" THICK PLATE WASHERS TYPICAL 4 CORNERS.



4
S-1 **CONEX BOX/THERMAL OXIDIZER SKID ANCHOR DETAIL (ELEVATION)**
NOT TO SCALE

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 CONSTRUCTION DOCUMENTS
TREATMENT ENCLOSURE FOUNDATION AND ANCHOR DETAILS
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 STRUCTURAL

ARCADIS Project No. B0047339.0001
 Date APRIL 2014
 ARCADIS
 2000 POWELL STREET SUITE 700
 EMERYVILLE, CALIFORNIA 94608

S-1



Appendix F

ARCADIS Standard Operating
Procedures

Soil Drilling and Sample Collection

Rev. #: 2

Rev Date: March 8, 2011

Approval Signatures

Prepared by: Caron Koff Date: 03/08/2011

Reviewed by: Michael J. Goff Date: 03/08/2011
(Technical Expert)

I. Scope and Application

Overburden drilling is commonly performed using the hollow-stem auger drilling method. Other drilling methods suitable for overburden drilling, which are sometimes necessary due to site-specific geologic conditions, include: drive-and-wash, spun casing, Rotasonic, dual-rotary (Barber Rig), and fluid/mud rotary. Direct-push techniques (e.g., Geoprobe or cone penetrometer) may also be used. The drilling method to be used at a given site will be selected based on site-specific consideration of anticipated drilling depths, site or regional geologic knowledge, types of sampling to be conducted, required sample quality and volume, and cost.

No oils or grease will be used on equipment introduced into the boring (e.g., drill rod, casing, or sampling tools).

II. Personnel Qualifications

The Project Manager (a qualified geologist, environmental scientist, or engineer) will identify the appropriate soil boring locations, depth and soil sample intervals in a written plan.

Personnel responsible for overseeing drilling operations must have at least 16 hours of prior training overseeing drilling activities with an experienced geologist, environmental scientist, or engineer with at least 2 years of prior experience.

III. Equipment List

The following materials will be available during soil boring and sampling activities, as required:

- Site Plan with proposed soil boring/well locations;
- Work Plan or Field Sampling Plan (FSP), and site Health and Safety Plan (HASP);
- personal protective equipment (PPE), as required by the HASP;
- drilling equipment required by the American Society for Testing and Materials (ASTM) D 1586, when performing split-spoon sampling;
- disposable plastic liners, when drilling with direct-push equipment;
- appropriate soil sampling equipment (e.g., stainless steel spatulas, knife);

- equipment cleaning materials;
- appropriate sample containers and labels;
- chain-of-custody forms;
- insulated coolers with ice, when collecting samples requiring preservation by chilling;
- photoionization detector (PID) or flame ionization detector (FID); and
- field notebook and/or personal digital assistant (PDA).

IV. Cautions

Prior to beginning field work, underground utilities in the vicinity of the drilling areas will be identified by one of the following three actions (lines of evidence):

- Contact the State One Call
- Obtain a detailed site utility plan drawn to scale, preferably an “as-built” plan
- Conduct a detailed visual site inspection

In the event that one or more of the above lines of evidence cannot be conducted, or if the accuracy of utility location is questionable, a minimum of one additional line of evidence will be utilized as appropriate or suitable to the conditions. Examples of additional lines of evidence include but are not limited to:

- Private utility locating service
- Research of state, county or municipal utility records and maps including computer drawn maps or geographical information systems (GIS)
- Contact with the utility provider to obtain their utility location records
- Hand augering or digging
- Hydro-knife
- Air-knife
- Radio Frequency Detector (RFD)

- Ground Penetrating Radar (GPR)
- Any other method that may give ample evidence of the presence or location of subgrade utilities.

Overhead power lines also present risks and the following safe clearance must be maintained from them.

Power Line Voltage Phase to Phase (kV)	Minimum Safe Clearance (feet)
50 or below	10
Above 50 to 200	15
Above 200 to 350	20
Above 350 to 500	25
Above 500 to 750	35
Above 750 to 1,000	35

ANSI Standard B30.5-1994, 5-3.4.5

Avoid using drilling fluids or materials that could impact groundwater or soil quality, or could be incompatible with the subsurface conditions.

Water used for drilling and sampling of soil or bedrock, decontamination of drilling/sampling equipment, or grouting boreholes upon completion will be of a quality acceptable for project objectives. Testing of water supply should be considered.

Specifications of materials used for backfilling borehole will be obtained, reviewed and approved to meet project quality objectives.

V. Health and Safety Considerations

Field activities associated with overburden drilling and soil sampling will be performed in accordance with a site-specific HASP, a copy of which will be present on site during such activities.

VI. Procedure

Drilling Procedures

The drilling contractor will be responsible for obtaining accurate and representative samples; informing the supervising geologist of changes in drilling pressure; and

keeping a separate general log of soils encountered, including blow counts (i.e., the number of blows from a soil sampling drive weight [140 pounds] required to drive the split-barrel sampler in 6-inch increments). The term “samples” means soil materials from particular depth intervals, whether or not portions of these materials are submitted for laboratory analysis. Records will also be kept of occurrences of premature refusal due to boulders or construction materials that may have been used as fill. Where a boring cannot be advanced to the desired depth, the boring will be abandoned and an additional boring will be advanced at an adjacent location to obtain the required sample. Where it is desirable to avoid leaving vertical connections between depth intervals, the borehole will be sealed using cement and/or bentonite. Multiple refusals may lead to a decision by the supervising geologist to abandon that sampling location.

Soil Characterization Procedures

Soils encountered while drilling soil borings will be collected using one of the following methods:

- 2-inch split-barrel (split-spoon) sampler, if using the ASTM D 1586 - Standard Test Method for Penetration Test and Split-Barrel Sampling of Soils
- Plastic internal soil sample sleeves if using direct-push drilling.

Soils are typically field screened with an FID or PID at sites where volatile organic compounds are present in the subsurface. Field screening is performed using one of the following methods:

- Upon opening the sampler, the soil is split open and the PID or FID probe is placed in the opening and covered with a gloved hand. Such readings should be obtained at several locations along the length of the sample
- A portion of the collected soil is placed in a jar, which is covered with aluminum foil, sealed, and allowed to warm to room temperature. After warming, the cover is removed, the foil is pieced with the FID or PID probe, and a reading is obtained.

Samples selected for laboratory analysis will be handled, packed, and shipped in accordance with the procedures outlined in the Work Plan, FSP, or Chain-of-Custody, Handling, Packing, and Shipping SOP.

A geologist will be onsite during drilling and sampling operations to describe each soil interval on the soil boring log, including:

- percent recovery;
- structure and degree of sample disturbance;
- soil type;
- color;
- moisture condition;
- density;
- grain-size;
- consistency; and
- other observations, particularly relating to the presence of waste materials

Further details regarding geologic description of soils are presented in the Soil Description SOP.

Particular care will be taken to fully describe any sheens observed, oil saturation, staining, discoloration, evidence of chemical impacts, or unnatural materials.

VII. Waste Management

Water generated during cleaning procedures will be collected and contained onsite in appropriate containers for future analysis and appropriate disposal.

PPE (such as gloves, disposable clothing, and other disposable equipment) resulting from personnel cleaning procedures and soil sampling/handling activities will be placed in plastic bags. These bags will be transferred into appropriately labeled 55-gallon drums or a covered roll-off box for appropriate disposal.

Soil materials will be placed in sealed 55-gallon steel drums or covered roll-off boxes and stored in a secured area. Once full, the material will be analyzed to determine the appropriate disposal method.

VIII. Data Recording and Management

The supervising geologist or scientist will be responsible for documenting drilling events using a bound field notebook and/or PDA to record all relevant information in a clear and concise format. The record of drilling events will include:

- start and finish dates of drilling;
- name and location of project;
- project number, client, and site location;
- sample number and depths;
- blow counts and recovery;
- depth to water;
- type of drilling method;
- drilling equipment specifications, including the diameter of drilling tools;
- documentation of any elevated organic vapor readings;
- names of drillers, inspectors, or other people onsite; and
- weather conditions.

IX. Quality Assurance

Equipment will be cleaned prior to use onsite, between each drilling location, and prior to leaving the site. Drilling equipment and associated tools, including augers, drill rods, sampling equipment, wrenches, and other equipment or tools that may have come in contact with soils and/or waste materials will be cleaned with high-pressure steam-cleaning equipment using a potable water source. The drilling equipment will be cleaned in an area designated by the supervising engineer or geologist that is located outside of the work zone. More elaborate cleaning procedures may be required for reusable soil samplers (split-spoons) when soil samples are obtained for laboratory analysis of chemical constituents.

X. References

American Society of Testing and Materials (ASTM) D 1586 - *Standard Test Method for Penetration Test and Split-Barrel Sampling of Soils.*

Utilities and Structures Checklist

Project: _____
 Project Number: _____
 Date: _____
 Work locations applicable to this clearance checklist: _____

Pre-Field Work

One Call or "811" notified 48-72 hours in advance of work? Yes No
 Utility companies notified during the One Call process See attached ticket

List any other utilities requiring notification: None

Client provided utility maps or "as built" drawings showing utilities? Yes No

Field Work

Markings present: Paint Pin flags/stakes Other None

Subsurface Utility Lines of Evidence Used (3 Minimum):

- One Call/"811"
- Client Provided Maps/Drawings
- Client Clearance
- Interviews: Name(s)/Affiliation(s) _____

Did persons interviewed indicate depths of any utilities in the subsurface?
 Yes, depths provided:
 Did not know or refused to answer

Comments:

- Site Inspection
- GPR
- Air-Knife
- Hydro-Knife
- Public Records/Maps
- Radiofrequency
- Metal Detector
- Handauger
- Potholing
- Probing
- Private Locator: Name and Company: _____
- Marine Locator: Name and Company: _____
- Other: _____

Tips for Successful Utility Location:

1. No excessive turning or downward force of handaugers/shovels, etc.
2. No hammering- no pickaxes-no digging bars-no hurrying or shortcutting
3. Select alternate/backup locations for clearance
4. Utilities may run directly under asphalt/concrete or be > 5 ft depth
5. Be on site when utilizing private utility locators



Site Inspection

During inspections look for the following ("YES" requires follow up investigation):

		Utility color codes				
a)	Natural gas line present (evidence of a gas meter)?	Yellow	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
b)	Evidence of subsurface electric lines :	Red				
	i) Conduits to ground from electric meter?		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	ii) Overhead electric lines absent		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	iii) Light poles, electric devices with no overhead lines?		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
c)	Evidence of water lines:	Blue				
	i) Water meter on site?		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	ii) Fire hydrants in vicinity of work?		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	iii) Irrigation systems?		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
d)	Evidence of sewers or storm drains:	Green				
	i) Restrooms or kitchen on site?		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	ii) Gutter down spouts going into ground		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	iii) Grates in ground in work area		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
e)	Evidence of telecommunication lines:	Orange				
	i) Fiber optic warning signs in areas?		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	ii) Lines from cable boxes running into ground?		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	iii) Conduits from power poles running into ground?		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	iv) Aboveground boxes or housings in work area?		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
f)	Underground storage tanks:					
	i) Tank pit present?		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	ii) Product lines running to dispensers/buildings?		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	iii) Vent present away from tank pit?		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
g)	Proposed excavation markings in work area?	White	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
h)	Other:					
	i) Evidence of linear asphalt or concrete repair		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	ii) Evidence of linear ground subsidence or change in vegetation?		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	iii) Manholes or valve covers in work area?		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	iv) Warning signs ("Call Before you Dig", etc) on or adjacent to site?		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	v) Utility color markings not illustrated in this checklist?		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
i)	Aboveground lines in or near the work area:					
	i) < 50 kV within 10 ft of work area?		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	ii) >50 - 200 kV within 15 ft of work area?		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	iii) >200-350 kV within 20 ft of work area?		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	iv) >350-500 kV within 25 ft of work area?		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	v) >500-750 kV within 35 ft or work area?		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	vi) >750-1000 kV within 45 ft of work area?		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No

Comments:

Do not initiate intrusive work if utilities are suspected to be present in area and are not located, markings are over 14 days old, or if clearance methods provide incomplete or conflicting information. Do not perform intrusive work within 30 inches of a utility marking without hand clearing.

Name and signature of person completing the checklist:

Name: _____
 Signature: _____
 Date: _____

Investigation-Derived Waste Handling and Storage

Rev. #: 2

Rev Date: March 6, 2009

Approval Signatures

Prepared by: Andrew Kamik Date: 3/6/09

Reviewed by: Jim Marsh Date: 3/6/09
(Technical Expert)

I. Scope and Application

The objective of this Standard Operating Procedure (SOP) is to describe the procedures to manage investigation-derived wastes (IDW), both hazardous and non-hazardous, generated during site activities, which may include, but are not limited to - drilling, trenching/excavation, construction, demolition, monitoring well sampling, soil sampling, decontamination and remediation. Please note that this SOP is intended for materials that have been deemed a solid waste as defined by 40 CFR § 261.2 (which may include liquids, solids, and sludges). In some cases, field determinations will be made based on field screening or previous data that materials are not considered a solid waste. IDW may include soil, groundwater, drilling fluids, decontamination liquids, personal protective equipment (PPE), sorbent materials, construction and demolition debris, and disposable sampling materials that may have come in contact with potentially impacted materials. IDW will be collected and staged at the point of generation. Quantities small enough to be containerized in 55-gallon drums will be taken to a designated temporary storage area (discussed in further detail under Drum Storage) onsite pending characterization and disposal. Waste materials will be analyzed for constituents of concern to evaluate proper disposal methods. PPE and disposable sampling equipment will be placed in DOT-approved drums prior to disposal and typically does not require laboratory analysis. This SOP describes the necessary equipment, field procedures, materials, regulatory references, and documentation procedures necessary for proper handling and storage of IDW up to the time it is properly disposed. The procedures for handling IDW are based on the United States Environmental Protection Agency's Guide to Management of Investigation Derived Wastes (USEPA, 1992). IDW is assumed to be contaminated with the site constituents of concern (COCs) until analytical evidence indicates otherwise. IDW will be managed to ensure the protection of human health and the environment and will comply with all applicable or relevant and appropriate requirements (ARAR). The following Laws and Regulations on Hazardous Waste Management are potential ARAR for this site.

State Laws and Regulations

- To Be Determined Based on Location of Site and Location of Treatment, Storage, and/or Disposal Facility (TSDF) to be utilized

Federal Laws and Regulations

- Resource Conservation and Recovery Act (RCRA) 42 USC § 6901-6987
- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) 42 USC § 9601-9675

- Superfund Amendments and Reauthorization Act (SARA)
- Department of Transportation (DOT) Hazardous Materials Transportation

Pending characterization, IDW will be stored appropriately within each area of contamination (AOC). Under RCRA, "storage" is defined as the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed of, or stored elsewhere" (40 CFR § 260.10). The onsite waste staging area will be in a secure and controlled area. Waste characterization can either be based on generator knowledge, such as using materials safety data sheets (MSDS'), or can be based upon analytical results. The laboratory used for waste characterization analysis must have the appropriate state and federal certifications and be approved by ARCADIS and Client. IDW will be classified as RCRA hazardous or non-regulated under RCRA based on the waste characterization.

If IDW is characterized as RCRA hazardous waste, RCRA and DOT requirements must be followed for packaging, labeling, transporting, storing, and record keeping as described in 40 CFR § 262 and 49 CFR § 171-178. Wastes judged to potentially meet the criteria for hazardous wastes shall be stored in DOT approved packaging. Waste material classified as RCRA non-hazardous may be handled and disposed of as an industrial waste.

Liquid wastes judged to potentially meet the criteria for hazardous wastes shall be stored in DOT approved 55 gallon drums or other approved containers that are compatible with the type of material stored therein. Solid materials deemed to potentially meet hazardous criteria will be drummed where practicable. Large quantities of potentially hazardous solid materials must be containerized (such as in a roll-off box) for up to a maximum of 90 or 180 days as described in the Excavated Solids Section. Waste material classified as non-hazardous may be handled and disposed of as an industrial waste and is not subject to the 90-day or 180-day on-site storage limitation.

This is a standard (i.e., typically applicable) operating procedure which may be varied or changed as required, dependent upon site conditions, equipment limitations, or limitations imposed by the procedure. The ultimate procedure employed will be documented in the project work plans or reports. If changes to the sampling procedures are required due to unanticipated field conditions, the changes will be discussed with the Project Manager and Client as soon as practicable and documented in the report.

II. Personnel Qualifications

ARCADIS field sampling personnel will have current health and safety training including 40-hour HAZWOPER training, site supervisor training, site-specific training, first aid, and CPR, as needed. ARCADIS personnel may sign manifests on a case-to-case basis for clients, provided the appropriate agreement is in place between ARCADIS and the client documenting that ARCADIS is not the generator, but is acting as authorized representative for the generator. ARCADIS personnel who sign hazardous waste manifests will have the current DOT hazardous materials transportation training according to 49 CFR § 172.704. ARCADIS field personnel will also comply with client-specific training such as LPS. In addition, ARCADIS field sampling personnel will be versed in the relevant SOPs and possess the required skills and experience necessary to successfully complete the desired field work.

III. Equipment List

The following materials, as required, shall be available for IDW handling and storage:

Appropriate personal protective equipment as specified in the Site Health and Safety Plan

- 55-gallon steel drums, DOT 1A2 or equivalent
- $\frac{3}{4}$ -inch socket wrench
- Hammer
- Leather gloves
- Drum dolly
- Appropriate drum labels (outdoor waterproof self adhesive)
- Polyethylene storage tank
- Appropriate labeling, packing, chain-of-custody forms, and shipping materials as specified in the *Chain-of-Custody SOP* and *Field Sampling Handling, Packing, and Shipping SOP*.
- Indelible ink and/or permanent marking pens
- Plastic sheeting

- Appropriate sample containers, labels, and forms
- Stainless-steel bucket auger
- Stainless steel spatula or knife
- Stainless steel hand spade
- Stainless steel scoop
- Digital camera
- Field logbook.

IV. Cautions

- Filled drums can be very heavy, always use appropriate moving techniques and equipment.
- Similar media will be stored in the same drums to aid in sample analysis and disposal.
- Drum lids must be secured to prevent rainwater from entering the drums.
- Drums containing solid material may not contain any free liquids.
- Waste containers stored for extended periods of time may be subject to deterioration. Drum over packs may be used as secondary containment.
- All drums must be in good condition to prevent potential leakage and facilitate subsequent disposal. Inspect the drums for dents and rust, and verify the drum has a secure lid prior to use.

V. Health and Safety Considerations

- Appropriate personal protective equipment must be worn by all field personnel within the designated work area.
- Air monitoring may be required during certain field activities as required in the Site Health and Safety Plan.

- If excavating in potentially hazardous areas is possible, contingency plans should be developed to address the potential for encountering gross contamination or non-aqueous phase liquids.
- ARCADIS field personnel will be familiar and compliant with Client-specific health and safety requirements such as Chevron's hand safety policy including the prohibition of fixed and/or folding blade knives.

VI. Procedure

Waste storage and handling procedures to be used depend upon the type of generated waste. For this reason, IDW should be stored in a secure location onsite in separate 55-gallon storage drums, solids can be stockpiled onsite (if non-hazardous), and purge water may be stored in polyethylene tanks. Waste materials such as broken sample bottles or equipment containers and wrappings will be stored in 55-gallon drums unless they were not in contact with sample media.

Management of IDW

Minimization of IDW should be considered by the Project Manager during all phases of the project. Site managers may want to consider techniques such as replacing solvent-based cleaners with aqueous-based cleaners for decontamination of equipment, reuse of equipment (where it can be decontaminated), limitation of traffic between exclusion and support zones, and drilling methods and sampling techniques that generate little waste. Alternative drilling and subsurface sampling methods may include the use of small diameter boreholes, as well as borehole testing methods such as a core penetrometer or direct push technique instead of coring (EPA, 1993).

Drum Storage

Drums containing hazardous waste shall be stored in accordance with the requirements of 40 CFR 265 Subpart I (for containers) and 265 Subpart DD (for containment buildings). All 55-gallon drums will be stored at a secure, centralized on-site location that is readily accessible for vehicular pick-up. Drums confirmed as, or believed to contain hazardous waste will be stored over an impervious surface provided with secondary containment. The storage location will, for drums containing liquid, have a containment system that can contain at least the larger of 10% of the aggregate volume of staged materials or 100% of the volume of the largest container. Drums will be closed during storage and be in good condition in accordance with the Guide to Management of Investigation-Derived Wastes (USEPA, 1992).

Hazardous Waste Determination

Waste material must be characterized to determine if it meets any of the federal definitions of hazardous waste as required by 40 CFR § 262.11. If the waste does not meet any of the federal definitions, it must then be established if any state-specific hazardous waste criteria exist/apply.

Generator Status

Once hazardous waste determination has been made, the generator status will be determined. Large quantity generators (LQG) are generators who generate more than 1,000 kilograms of hazardous waste in a calendar month. Small quantity generators (SQG) of hazardous waste are generators who generate greater than 100 kilograms but less than 1,000 kilograms of hazardous waste in a calendar month. Conditionally exempt small quantity generators (CESQG) are generators who generate less than 100 kilograms of hazardous waste per month. Please note that a generator status may change from month to month and that a notice of this change is usually required by the generator's state agency.

Accumulation Time for Hazardous Waste

A LQG may accumulate hazardous waste on site for 90 days or less without a permit and without having interim status provided that such accumulation is in compliance with specifications in 40 CFR § 262.34. A SQG may accumulate hazardous waste on site for 180 days or less without a permit or without having interim status subject to the requirements of 40 CFR § 262.34(d). CESQG requirements are found in 40 CFR § 261.5. **NOTE:** The CESQG and SQG provisions of 40 CFR § 261.5, 262.20(e), 262.42(b) and 262.44 may not be recognized by some states (e.g. Rhode Island).

State-specific regulations must be reviewed and understood prior to the generation of hazardous waste.

Satellite Accumulation of Hazardous Waste

Satellite accumulation (SAA) shall mean the accumulation of as much as fifty-five (55) gallons of hazardous waste, or the accumulation of as much as one quart of acutely hazardous waste, in containers at or near any point of generation where the waste initially accumulates, which is under the control of the operator of the process generating the waste, without a permit or interim status and without complying with the requirements of 40 CFR § 262.34(a) and without any storage time limit, provided that the generator complies with 40 CFR § 262.34(c)(1)(i).

Once more than 55 gallons of hazardous waste accumulates in SAA, the generator has three days to move this waste into storage.

Storage recommendations for hazardous waste include:

- Ignitable Hazardous wastes must be >50 feet from the property line per 40 CFR § 265.176 (LQG generators only).
- Hazardous waste must be stored on a concrete slab (asphalt is acceptable if there are no free liquids in the waste) per 40 CFR § 265.176.
- Drainage must be directed away from the accumulation area.
- Area must be properly vented.
- Area must be secure.

Drum/Container Labeling

Drums will be labeled on both the side and lid of the drum using a permanent marking pen. Old drum labels must be removed to the extent possible, descriptions crossed out should any information remain, and new labels affixed on top of the old labels. Other containers used to store various types of waste (polyethylene tanks, roll-off boxes, end-dump trailers, etc.) will be labeled with an appropriate "Waste Container" or "Testing in Progress" label pending characterization. Drums and containers will be labeled as follows:

- Appropriate waste characterization label (Testing In Progress, Hazardous, or Non-Hazardous)
- Waste generator's name (e.g., client name)
- Project name
- Name and telephone number of ARCADIS project manager
- Composition of contents (e.g., used oil, acetone 40%, toluene 60%)
- Media (e.g., solid, liquid)
- Accumulation start date

- Drum number of total drums as reconciled with the Drum Inventory maintained in the field log book.

IDW containers will remain closed except when adding or removing waste. Immediately upon beginning to place waste into the drum/container, a "Waste Container" or "Testing in Progress" label will be filled out to include the information specified above, and affixed to the container. Once the contents of the container are identified as either non-hazardous or hazardous, the following additional labels will be applied. Containers with waste determined to be non-hazardous will be labeled with a green and white "Non-Hazardous Waste" label over the "Waste Container" label. Containers with waste determined to be hazardous will be stored in an onsite storage area and will be labeled with the "Hazardous Waste" label and affixed over the "Waste Container" label. The ACCUMULATION DATE for the hazardous waste is the date the waste is first placed in the container and is the same date as the date on the "Waste Container" label. DOT hazardous class labels must be applied to all hazardous waste containers for shipment offsite to an approved disposal or recycling facility. In addition a DOT proper shipping name shall be included on the hazardous waste label. The transporter should be equipped with the appropriate DOT placards. However, placarding or offering placards to the initial transporter is the responsibility of the generator per 40 CFR § 262.33.

Inspections and Documentation

All IDW will be documented as generated on a Drum Inventory Log maintained in the field log book. The Drum Inventory will record the generation date, type, quantity, matrix and origin (e.g. Boring-1, Test Pit 3, etc) of materials in every drum, as well as a unique identification number for each drum. The drum inventory will be used during drum pickup to assist with labeling of drums. The drum storage area and any other areas of temporarily staged waste, such as soil/debris piles, will be inspected weekly. The weekly inspections will be recorded in the field notebook or on a Weekly Inspection Log. Digital photographs will be taken upon the initial generation and drumming/staging of waste, and final labeling after characterization to document compliance with labeling and storage protocols, and condition of the container. Evidence of damage, tampering or other discrepancy should be documented photographically.

Emergency Response and Notifications

Specific procedures for responding to site emergencies will be detailed in the HASP. If the generator is designated as a LQG, a Contingency Plan will need to be prepared to include emergency response and notification procedures per 40 CFR § 265 Subpart D. In the event of a fire, explosion, or other release which could threaten human health

outside of the site or when Client or ARCADIS has knowledge of a spill that has reached surface water, Client or ARCADIS must immediately notify the National Response Center (800-424-8802) in accordance with 40 CFR § 262.34. Other notifications to state agencies may also be necessary.

Drilling Soil Cuttings and Muds

Soil cuttings are solid to semi-solid soils generated during trenching activities, subsurface soil sampling, or installation of monitoring wells. Depending on the drilling method, drilling fluids known as "muds" may be used to remove soil cuttings. Drilling fluids flushed from the borehole must be directed into a settling section of a mud pit. This allows reuse of the decanted fluids after removal of the settled sediments. Soil cuttings will be labeled and stored in 55-gallon drums with bolt-sealed lids.

Excavated Solids

Excavated solids may include, but are not limited to soil, fill and construction and demolition debris. Excavated solids may be temporarily stockpiled onsite as long as the material is a RCRA non-hazardous waste and the solids will be treated onsite pursuant to a certified, authorized, or permitted treatment method, or properly disposed off-site. Stockpiled materials characterized as hazardous must be immediately containerized and removed from the site within 90 days of generation (except for soils using satellite accumulation). Excavated solids should be stockpiled and maintained in a secure area onsite. At a minimum, the floor of the stockpile area will be covered with a 20-mil high density polyethylene liner that is supported by a foundation or at least a 60-mil high density polyethylene liner that is not supported by a foundation. The excavated material will not contain free liquids. The owner/operator will provide controls for windblown dispersion, run-on control, and precipitation runoff. The run-on control system will prevent flow onto the active portion of the pile during peak discharge from at least a 25-year storm and the run-off management system will collect and control at least the water volume resulting from a 24-hour, 25-year storm (EPA, 1992). Additionally, the stockpile area will be inspected on a weekly basis and after storm events. Individual states may require that the stockpile be inspected/certified by a licensed professional engineer. Stockpiled material will be covered with a 6-mil polyvinyl chloride (PVC) liner. The stockpile cover will be secured in place with appropriate material (concrete blocks, weights, etc.) to prevent the movement of the cover. Excavated solids may also be placed in roll off containers and covered with a 6-mil PVC liner pending results for waste characterization.

Decontamination Solutions

Decontamination solutions are generated during the decontamination of personal protective equipment and sampling equipment. Decontamination solutions may range from detergents, organic solvents and acids used to decontaminate small field sampling equipment to steam cleaning rinsate used to wash heavy field equipment. These solutions are to be labeled and stored in 55-gallon drums with bolt-sealed lids.

Disposable Equipment

Disposable equipment includes personal protective equipment (tyvek coveralls, gloves, booties and APR cartridges) and disposable sampling equipment such as trowels or disposable bailers. If the media sampled exhibits hazardous characteristics per results of waste characterization sampling, disposable equipment will also be disposed of as a hazardous waste. These materials will be stored onsite in labeled 55-gallon drums pending analytical results for waste characterization.

Purge Water

Purge water includes groundwater generated during well development, groundwater sampling, or aquifer testing. The volume of groundwater generated will dictate the appropriate storage procedure. Monitoring well development and groundwater sampling may generate three well volumes of groundwater or more. This volume will be stored in labeled 55-gallon drums. Aquifer tests may generate significantly greater volumes of groundwater depending on the well yield and the duration of the test. Therefore, large-volume portable polyethylene tanks will be considered for temporary storage pending groundwater-waste characterization.

Purged Water Storage Tank Decontamination and Removal

The following procedures will be used for inspection, cleaning, and offsite removal of storage tanks used for temporary storage of purge water. These procedures are intended to be used for rented portable tanks such as Baker Tanks or Rain for Rent containers. Storage tanks will be made of inert polyethylene materials.

The major steps for preparing a rented tank for return to a vendor include characterizing the purge water, disposing of the purge water, decontaminating the tank, final tank inspection, and mobilization. Decontamination and inspection procedures are describe in further detail below.

- Tank Cleaning: Most vendors require that tanks be free of any sediment and water before returning, a professional cleaning service may be required. Each

specific vendor should be consulted concerning specific requirements for returning tanks.

- Tank Inspection: After emptying the tank, purged water storage tanks should be inspected for debris, chemical staining, and physical damage. The vendors require that tanks be returned in the original condition (i.e., free of sediment, staining and no physical damage).

VII. Waste Characterization Sampling and Shipping

Soil/Solids Characterization

Waste characterization will be conducted in accordance with waste hauler, waste handling facility, and state/federal requirements. In general, RCRA hazardous wastes are those solid wastes determined by a Toxicity Characteristic Leaching Procedure (TCLP) test or to contain levels of certain toxic metals, pesticides, or other organic chemicals above specific federally regulated thresholds. If the one or more of 40 toxic compounds listed in Table I of 40 CFR § 261.24 are detected in the sample at levels above the maximum unregulated concentrations, the waste must be characterized as a toxic hazardous waste. Wastes can also be considered "listed" hazardous waste depending on site-specific processes.

Composite soil samples will be collected at a frequency of one sample per 10 cubic yard basis for stockpiled soil or one per 55-gallon drum for containerized. A four point composite sample will be collected per 10 cubic yards of stockpiled material and for each drum. Sample and composite frequencies may be adjusted in accordance with the waste handling facility's requirements. Waste characterization samples may be analyzed for the TCLP volatile organic compounds (VOCs), TCLP semi-volatile organic compounds (SVOCs), TCLP RCRA metals, and polychlorinated biphenyls, as well as corrosivity (pH), reactivity and flammability (flashpoint). Additional samples may be collected and analyzed by the laboratory on a contingency basis.

Wastewater Characterization

Waste characterization will be conducted in accordance with the requirements of the waste hauler, waste handling facility, and state/federal governments. In general, purge water should be analyzed by methods appropriate for the known contaminants, if any, that have been historically detected in the monitoring wells. Samples will be collected and analyzed in accordance with the requirements of the waste disposal facility.

Wastewater characterization samples may be analyzed for TCLP volatile organic compounds (VOCs), TCLP semi-volatile organic compounds (SVOCs), TCLP RCRA

metals, and polychlorinated biphenyls, as well as corrosivity (pH), reactivity and flammability (flashpoint). Additional samples may be collected and analyzed by the laboratory on a contingency basis.

Sample Handling and Shipping

All samples will be appropriately labeled, packed, and shipped, and the chain-of-custody will be filled out in accordance with the Chain-of-Custody SOP and Field Sampling Handling, Packing, and Shipping SOP and Hazardous Materials Packaging and Shipping SOP.

It should be noted that additional training is required for packaging and shipping of hazardous and/or dangerous materials. Please reference the following ARCADIS intranet team page for more information: <http://team/sites/hazmat/default.aspx>.

Preparing Waste Shipment Documentation (Hazardous and Non-Hazardous)

Waste profiles will be prepared by the ARCADIS PM and forwarded, along with laboratory analytical data to the Client PM for approval/signature. The Client PM will then return the profile to ARCADIS who will then forward to the waste removal contractor for preparation of a manifest. The manifest will be reviewed by ARCADIS prior to forwarding to the Client PM for approval. Upon approval of the manifest, the Client PM will return the original signed manifest directly to the waste contractor or to the ARCADIS PM for forwarding to the waste contractor.

Final drum labeling and pickup will be supervised by an ARCADIS representative who is experienced with waste labeling procedures. The ARCADIS representative will have a copy of the drum inventory maintained in the field book and will reconcile the drum inventory with the profile numbers on the labels and on the manifest. Different profile numbers will be generated for different matrices or materials in the drums. For example, the profile number for drill cuttings will be different than the profile number for purge water. **When there are multiple profiles it is critical that the proper label, with the profile number appropriate to a specific material be affixed to the proper drums.** A copy of the ARCADIS drum inventory will be provided to the waste transporter during drum pickup and to the facility receiving the waste.

VIII. Data Recording and Management

Waste characterization sample handling, packing, and shipping procedures will be documented in accordance with the *Quality Assurance Project Plan*, if one exists. Copies of the chains-of-custody forms will be maintained in the project file.

Following waste characterization, IDW containers will be re-labeled with the appropriate waste hazardous or non-hazardous waste labels and the client will initiate disposal at the appropriate waste disposal facility.

IX. Quality Assurance

The chain-of-custody and sample labels for waste characterization samples will be filled out in accordance with the *Quality Assurance Project Plan*.

X. References

United States Environmental Protection Agency (USEPA). 1992. Guide to Management of Investigation-Derived Wastes. Office of Remedial and Emergency Response. Hazardous Site Control Division. January 1992.


USEPA. 1991. *Guide to Discharging CERCLA Aqueous Wastes to Publicly Owned Treatment Works (POTWs)*. Office of Remedial and Emergency Response. Hazardous Site Control Division OS-220W. March 1991.

Field Equipment Decontamination

Rev. #: 3

Rev Date: April 26, 2010

Approval Signatures

Prepared by: 
Keith Shepherd

Date: 4/26/2010

Reviewed by: 
Richard Murphy (Technical Expert)

Date: 4/26/2010

I. Scope and Application

Equipment decontamination is performed to ensure that sampling equipment that contacts a sample, or monitoring equipment that is brought into contact with environmental media to be sampled, is free from analytes of interest and/or constituents that would interfere with laboratory analysis for analytes of interest. Equipment must be cleaned prior to use for sampling or contact with environmental media to be sampled, and prior to shipment or storage. The effectiveness of the decontamination procedure should be verified by collecting and analyzing equipment blank samples.

The equipment cleaning procedures described herein includes pre-field, in the field, and post-field cleaning of sampling tools which will be conducted at an established equipment decontamination area (EDA) on site (as appropriate). Equipment that may require decontamination at a given site includes: soil sampling tools; groundwater, sediment, and surface-water sampling devices; water testing instruments; down-hole instruments; and other activity-specific sampling equipment. Non-disposable equipment will be cleaned before collecting each sample, between sampling events, and prior to leaving the site. Cleaning procedures for sampling equipment will be monitored by collecting equipment blank samples as specified in the applicable work plan or field sampling plan. Dedicated and/or disposable (not to be re-used) sampling equipment will not require decontamination.

II. Personnel Qualifications

ARCADIS field sampling personnel will have current health and safety training, including 40-hour HAZWOPER training, site supervisor training, and site-specific training, as needed. In addition, ARCADIS field sampling personnel will be versed in the relevant SOPs and possess the skills and experience necessary to successfully complete the desired fieldwork. The project HASP and other documents will identify any other training requirements such as site specific safety training or access control requirements.

III. Equipment List

- health and safety equipment, as required in the site Health and Safety Plan (HASP)
- distilled water

- Non-phosphate detergent such as Alconox or, if sampling for phosphorus phosphorus-containing compounds, Luminox (or equivalent).
- tap water
- rinsate collection plastic containers
- DOT-approved waste shipping container(s), as specified in the work plan or field sampling plan (if decontamination waste is to be shipped for disposal)
- brushes
- large heavy-duty garbage bags
- spray bottles
- (Optional) – Isopropyl alcohol (free of ketones) or methanol
- Ziploc-type bags
- plastic sheeting

IV. Cautions

Rinse equipment thoroughly and allow the equipment to dry before re-use or storage to prevent introducing solvent into sample medium. If manual drying of equipment is required, use clean lint-free material to wipe the equipment dry.

Store decontaminated equipment in a clean, dry environment. Do not store near combustion engine exhausts.

If equipment is damaged to the extent that decontamination is uncertain due to cracks or dents, the equipment should not be used and should be discarded or submitted for repair prior to use for sample collection.

A proper shipping determination will be performed by a DOT-trained individual for cleaning materials shipped by ARCADIS.

V. Health and Safety Considerations

Review the material safety data sheets (MSDS) for the cleaning materials used in decontamination. If solvent is used during decontamination, work in a well-ventilated area and stand upwind while applying solvent to equipment. Apply solvent in a manner that minimizes potential for exposure to workers. Follow health and safety procedures outlined in the HASP.

VI. Procedure

A designated area will be established to clean sampling equipment in the field prior to sample collection. Equipment cleaning areas will be set up within or adjacent to the specific work area, but not at a location exposed to combustion engine exhaust. Detergent solutions will be prepared in clean containers for use in equipment decontamination.

Cleaning Sampling Equipment

1. Wash the equipment/pump with potable water.
2. Wash with detergent solution (Alconox, Liquinox or equivalent) to remove all visible particulate matter and any residual oils or grease.
3. If equipment is very dirty, precleaning with a brush and tap water may be necessary.
4. (Optional) – Flush with isopropyl alcohol (free of ketones) or with methanol. This step is optional but should be considered when sampling in highly impacted media such as non-aqueous phase liquids or if equipment blanks from previous sampling events showed the potential for cross contamination of organics.
5. Rinse with distilled/deionized water.

Decontaminating Submersible Pumps

Submersible pumps may be used during well development, groundwater sampling, or other investigative activities. The pumps will be cleaned and flushed before and between uses. This cleaning process will consist of an external detergent solution wash and tap water rinse, a flush of detergent solution through the pump, followed

by a flush of potable water through the pump. Flushing will be accomplished by using an appropriate container filled with detergent solution and another contained filled with potable water. The pump will run long enough to effectively flush the pump housing and hose (unless new, disposable hose is used). Caution should be exercised to avoid contact with the pump casing and water in the container while the pump is running (do not use metal drums or garbage cans) to avoid electric shock. Disconnect the pump from the power source before handling. The pump and hose should be placed on or in clean polyethylene sheeting to avoid contact with the ground surface.

VII. Waste Management

Equipment decontamination rinsate will be managed in conjunction with all other waste produced during the field sampling effort. Waste management procedures are outlined in the work plan or Waste Management Plan (WMP).

VIII. Data Recording and Management

Equipment cleaning and decontamination will be noted in the field notebook. Information will include the type of equipment cleaned, the decontamination location and any deviations from this SOP. Specific factors that should be noted include solvent used (if any), and source of water.

Any unusual field conditions should be noted if there is potential to impact the efficiency of the decontamination or subsequent sample collection.

An inventory of the solvents brought on site and used and removed from the site will be maintained in the files. Records will be maintained for any solvents used in decontamination, including lot number and expiration date.

Containers with decontamination fluids will be labeled.

IX. Quality Assurance

Equipment blanks should be collected to verify that the decontamination procedures are effective in minimizing potential for cross contamination. The equipment blank is prepared by pouring deionized water over the clean and dry tools and collecting the deionized water into appropriate sample containers. Equipment blanks should be analyzed for the same set of parameters that are performed on the field samples collected with the equipment that was cleaned. Equipment blanks are collected per equipment set, which represents all of the tools needed to collect a specific sample.

X. References

USEPA Region 9, Field Sampling Guidance #1230, Sampling Equipment Decontamination.

USEPA Region 1, Low Stress (low flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells.

Standard Groundwater Sampling for Monitoring Wells

Rev. #: 1

Rev Date: July 16, 2008

Approval Signatures

Prepared by: *Sonja A Cadde* Date: 7/16/08

Reviewed by: *[Signature]* Date: 7/16/08
(Technical Expert)

I. Scope and Application

This Standard Operating Procedure (SOP) describes the procedures to be used to collect groundwater samples using traditional purging and sampling techniques. For low-flow purging techniques, please refer to the Low Flow Purging SOP. Monitoring wells must be developed after installation at least 1 week prior to groundwater sample collection. Monitoring wells will not be sampled until the well has been developed. During precipitation events, groundwater sampling will be discontinued until precipitation ceases or a cover has been erected over the sampling area and monitoring well.

Both filtered and unfiltered groundwater samples may be collected using this SOP. Filtered samples may be obtained using a 1.0-, 0.45-, or 0.1-micron disposable filter.

II. Personnel Qualifications

ARCADIS personnel directing, supervising, or leading groundwater sample collection activities should have a minimum of 2 years of previous groundwater sampling experience. Field employees with less than 6 months of experience should be accompanied by a supervisor (as described above) to ensure that proper sample collection techniques are employed.

III. Equipment List

The following materials shall be available, as required, during groundwater sampling:

- site plan of monitoring well locations and site Field Sampling Plan (FSP);
- appropriate health and safety equipment, as specified in the site Health and Safety Plan (HASP);
- photoionization detector (PID) or flame ionization detector (FID), as needed, in accordance with the HASP;
- monitoring well construction logs or tables and historical water level information, if available;
- dedicated plastic sheeting or other clean surface to prevent sample contact with the ground;
- if bailers are to be used in sampling:

- appropriate dedicated bottom-loading, bottom-emptying bailers (i.e., polyvinyl chloride [PVC], Teflon, or stainless steel);
 - polypropylene rope;
- if submersible pumps are to be used in sampling:
 - dedicated tubing and other equipment necessary for purging;
 - generator or battery for operation of pumps, if required;
 - a pump selected in accordance with the FSP or Work Plan (parameter-specific [e.g., submersible, bladder, peristaltic]);
- graduated buckets to measure purge water;
- water-level or oil/water interface probe, in accordance with the FSP or Work Plan;
- conductivity/temperature/pH meter;
- down-hole dissolved oxygen meter, oxidation reduction potential meter, and/or turbidity meter, if specified in the FSP;
- water sample containers appropriate for the analytical method(s) with preservative, as needed (parameter-specific);
- filter, as needed, in accordance with the analytical method and parameter;
- appropriate blanks (trip blank supplied by the laboratory), as specified in the FSP;
- Ziploc-type freezer bags for use as ice containers;
- appropriate transport containers (coolers) with ice and appropriate labeling, packing, and shipping materials;
- appropriate groundwater sampling log (example attached);
- chain-of-custody forms;
- site map with well locations and groundwater contour maps;

- keys to wells and contingent bolt cutters for rusted locks and replacement keyed-alike locks; and
- drums or other containers for purge water, as specified by the site investigation derived waste (IDW) management plan.

IV. Cautions

If heavy precipitation occurs and no cover over the sampling area and monitoring well can be erected, sampling must be discontinued until adequate cover is provided. Rain water could contaminate groundwater samples.

Remember that field logs and some forms are considered to be legal documents. All field logs and forms should therefore be filled out in indelible ink.

It may be necessary to field filter some parameters (e.g., metals) prior to collection, depending on preservation, analytical method, and project quality objectives.

Check monitoring well logs for use of bentonite pellets. Make note of potential use of bentonite pellets on the groundwater sampling log. Coated bentonite pellets have been found to contaminate monitoring wells with elevated levels of acetone.

Store and/or stage empty and full sample containers and coolers out of direct sunlight.

To mitigate potential cross-contamination, groundwater samples are to be collected in a pre-determined order from least impacted to more impacted based on previous analytical data. If no analytical data are available, samples are to be collected in the following order:

1. First sample the upgradient well(s).
2. Next, sample the well located furthest downgradient of the interpreted or known source.
3. The remaining wells should be progressively sampled in order from downgradient to upgradient, such that the wells closest to the interpreted or known source are sampled last.

Be careful not to over-tighten lids with Teflon liners or septa (e.g., 40 mL vials). Over-tightening can impair the integrity of the seal.

V. Health and Safety Considerations

If thunder or lightning is present, discontinue sampling until 30 minutes have passed after the last occurrence of thunder or lightning.

VI. Procedure

The procedures to sample monitoring wells will be as follows:

1. Don safety equipment, as required in the HASP. Depending on site-specific security and safety considerations, this often must be done prior to entering the work area.
2. Review equipment list (Section III above) to confirm that the appropriate equipment has been acquired.
3. Record site and monitoring well identification on the groundwater sampling log, along with date, arrival time, and weather conditions. Also identify the personnel present, equipment utilized, and other relevant data requested on the log.
4. Label all sample containers with indelible ink.
5. Place plastic sheeting adjacent to the well for use as a clean work area, if conditions allow. Otherwise, prevent sampling equipment from contacting the ground or other surface that could compromise sample integrity.
6. Remove lock from well and if rusted or broken, replace with a new brass keyed-alike lock.
7. Unlock and open the well cover while standing upwind of the well. Remove well cap and place on the plastic sheeting.
8. Set the sampling device, meters, and other sampling equipment on the plastic sheeting. If a dedicated sampling device stored in the well is to be used, this may also be set temporarily on the plastic sheeting, for convenience. However, if a dedicated sampling device is stored below the water table, removing it may compromise water-level data, so water level measurements should be taken prior to removing the device.
9. Obtain a water-level depth and bottom-of-well depth using an electric well probe and record on the groundwater sampling log using indelible ink. Clean the probe(s) after each use in accord with the FSP or the equipment

decontamination SOP.

Note: Water levels may be measured at all wells prior to initiating any sampling activities, depending on FSP requirements.

10. Calculate the number of gallons of water in the well using the length of water column (in feet). Record the well volume on the groundwater sampling log using indelible ink.
11. Remove the required purge volume of water from the well (measure purge water volume in measuring buckets). The required purge volume will be three to five well volumes (the water column in the well screen and casing) unless the well runs dry, in which case, the water that comes into the well will be sampled (USEPA, 1996). In any case, the pumping rate will be decreased during sampling to limit the potential for volatilization of organics potentially present in the groundwater.
12. Field parameter measurements will be periodically collected in accord with FSP specifications. The typical time intervals of field parameter measurement are (1) after each well volume removed, and (2) before sampling. If the field parameters are being measured above-ground (rather than with a downhole probe), then the final pre-sampling parameter measurement should be collected at the reduced flow rate to be used during sampling. The physical appearance of the purged water should be noted on the groundwater sampling log. In addition, water level measurements should be collected and recorded to verify that the well purging is in accord with the guidelines set forth in the previous step.
13. Unless otherwise specified by the applicable regulatory agencies, all purge water will be contained. Contained purge water will be managed in accordance with the FSP or Work Plan. If historical concentrations in the well are less than federal or state regulated concentrations appropriate for current land use, *and permission has been granted by the oversight regulatory agency* to dispose of clean purge water on the ground next to the well(s), then purge water will be allowed to infiltrate into the ground surface downgradient from the monitoring well after the well is sampled.
14. After the appropriate purge volume of groundwater in the well has been removed, or if the well has been bailed dry and allowed to recover, obtain the groundwater sample needed for analysis with the dedicated bailer or from the dedicated sampling tubing, pour the groundwater directly from the sampling device into the appropriate container in the order of volatilization sensitivity of

the parameters sampled, and tightly screw on the cap (snug, but not too tight). The suggested order for sample parameter collection, based on volatilization sensitivity, is presented below:

- a. volatile organic compounds (VOCs);
 - b. semi-volatile organic compounds (SVOCs);
 - c. polychlorinated biphenyls (PCBs)/pesticides;
 - d. metals; and
 - e. wet chemistry.
15. When sampling for volatiles, water samples will be collected directly from the bailer or dedicated tubing into 40 mL vials with Teflon-lined septa.
 16. For other analytical samples, sample containers for each analyte type should be filled in the order specified by the FSP. If a bailer is used, then the sample for dissolved metals and/or filtered PCBs should either be placed directly from the bailer into a pressure filter apparatus or pumped directly from the bailer with a peristaltic pump, through an in-line filter, into the pre-preserved sample bottle. If dedicated sample tubing is used, then the filter should be installed in-line just prior to filtered sample collection.
 17. If sampling for total and filtered metals and/or PCBs, a filtered and unfiltered sample will be collected. Sample filtration for the filtered sample will be performed in the field utilizing a pump prior to preservation. Attach (clamp) a new 1.0-, 0.45-, or 0.1-micron filter to the discharge tubing of the pump (note the filter flow direction). Turn the pump on and allow 100 mL (or manufacturer recommended amount) of fluid through the filter before sample collection. Dispense the filtered liquid directly into the laboratory sample bottles. If bailers are used for purging and sampling, a proper volume of purge water will be placed in a disposable or decontaminated polyethylene container and pumped through the filter and into the sample container using a peristaltic pump.
 18. Place the custody seal around the cap and the sampler container, if required. Note the time on the sample label. Secure with packing material and maintain at approximately 4°C on wet ice contained in double Ziploc-type freezer bags during storage in an insulated, durable transport container.
 19. Replace the well cap and lock well, or install a new lock if needed.

20. Record the time sampling procedures were completed on the appropriate field logs (using indelible ink).
21. Complete the procedures for chain-of-custody, handling, packing, and shipping. Chain-of-custody forms should be filled out and checked against the labels on the sample containers progressively after each sample is collected.
22. Place all disposable sampling materials (such as plastic sheeting, disposable tubing or bailers, and health and safety equipment) in appropriate containers.
23. If new locks were installed, forward copies of the keys to the client Project Manager (PM) and ARCADIS PM at the end of the sampling activities.

VII. Waste Management

Purge water will be managed as specified in the FSP or Work Plan, and according to state and/or federal requirements. Personal protective equipment (PPE) and decontaminated fluids will be contained separately and staged at the sampling location. Containers must be labeled at the time of collection. Labels will include date, location(s), site name, city, state, and description of matrix contained (e.g., soil, groundwater, PPE). General guidelines for IDW management are set forth in a separate IDW management SOP.

VIII. Data Recording and Management

Initial field logs and chain-of-custody records will be transmitted to the ARCADIS PM at the end of each day unless otherwise directed by the PM. The groundwater team leader retains copies of the groundwater sampling logs. All field data should be recorded in indelible ink.

IX. Quality Assurance

Field-derived quality assurance blanks will be collected as specified in the FSP, depending on the project quality objectives. Typically, field rinse blanks will be collected when non-dedicated equipment is used during groundwater sampling. Field rinse blanks will be used to confirm that decontamination procedures are sufficient and samples are representative of site conditions. Trip blanks for VOCs, which aid in the detection of contaminants from other media, sources, or the container itself, will be kept with the coolers and the sample containers throughout the sampling activities.

X. References

USEPA. 1986. RCRA Groundwater Monitoring Technical Enforcement Guidance Document (September 1986).

USEPA. 1991. Handbook Groundwater, Volume ii Methodology, Office of Research and Development, Washington, DC. USEPN62S, /6-90/016b (July, 1991).

U.S. Geological Survey (USGS). 1977. National Handbook of Recommended Methods for Water-Data Acquisition: USGS Office of Water Data Coordination. Reston, Virginia.



Brittany Steward

Project Manager, Chevron Environmental Management Company

November 20, 2018

Mr. Jonathan E. Sanders
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Re: Commingled Plume #0068
Air Sparge / Soil-Vapor Extraction System Construction and Startup Report
706 / 726 / 800 Harrison St, Oakland, CA 94607
Fuel Leak Case No: RO0000484 / RO0000321 / RO0000231

I have read and acknowledge the content, recommendations and/or conclusions contained in the attached document or report submitted on my behalf to the SWRCB's GeoTracker website.

The information in this report is accurate to the best of my knowledge. This report was prepared by Arcadis, upon whose assistance and advice I have relied.

Sincerely,

A handwritten signature in cursive script that reads "B. Steward".

Brittany Steward
Project Manager

Attachment: *Air Sparge / Soil-Vapor Extraction System Construction and Startup Report* by Arcadis

Chevron Environmental Management Company

AIR SPARGE/SOIL-VAPOR EXTRACTION SYSTEM CONSTRUCTION AND START-UP REPORT

Union Oil Company of California Station No. 0752
706/726/800 Harrison Street
Oakland, California

November 15, 2018

AIR SPARGE/SOIL- VAPOR EXTRACTION SYSTEM CONSTRUCTION AND START-UP REPORT



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Project Engineer



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Union Oil Company of California Station
No. 0752
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B0047339.ST16

Date:
November 15, 2018

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TABLES

Table 1 Well Construction Details

FIGURES

Figure 1 Site Location Map

APPENDICES

Appendix A As-Built System Design Drawings

Appendix B Permits

Appendix C AS/SVE Operational Data

Appendix D SVE Sample Laboratory Reports

Appendix E Sample O&M Field Forms

ACRONYMS AND ABBREVIATIONS

Arcadis	Arcadis U.S., Inc.
ARCO	Atlantic Richfield Company
AS	air sparge
AWS	air/water separator
BAAQMD	Bay Area Air Quality Management District
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, xylene
Cornerstone	Cornerstone Environmental Contractors
ECAT	electric catalytic oxidizer
EMC	Chevron Environmental Management Company, for itself, and as Attorney-in-Fact for Union Oil Company of California
EPA	Environmental Protection Agency
in H ₂ O	inch(es) of water
in Hg	inch(es) of mercury
MtBE	methyl tertiary butyl ether
MRT	Mobile Remediation Trailer
PG&E	Pacific Gas & Electric
PID	photo ionization detector
PLC	programmable logic controller
ppmV	parts per million by volume
psig	pounds per square inch gauge
PTO	Authority to Construct/Permit to Operate
PVC	polyvinyl chloride
RAP	Remedial Action Plan
ROI	radius of influence
SCADA	supervisory control and data acquisition
scfm	standard cubic feet per minute
SOP	standard operating procedures
Site	Union Oil Company of California Station No. 0752 at 700/726/800 Harrison Street, Oakland

AS/SVE SYSTEM CONSTRUCTION AND START-UP REPORT

SVE	soil vapor extraction
TEFC	totally enclosed fan-cooled
TPHg	Total Purgeable Hydrocarbons as Gasoline
Union Oil	76 Station
UST	underground storage tank
VOC	volatile organic compound
Water Board	California Water Resources Control Board

1 INTRODUCTION

On behalf of Chevron Environmental Management Company, for itself, and as Attorney-in-Fact for Union Oil Company of California (hereinafter “EMC”), Arcadis U.S. Inc. (Arcadis) has prepared this Construction and Start-up Report for the Air Sparge/Soil-Vapor Extraction (AS/SVE) System at Chevron Facility #351646 / Union Oil Company of California Station No. 0752 located at 706/726/800 Harrison Street, Oakland, California (the Site). A Site location map is provided as Figure 1.

The AS/SVE System was constructed in accordance with *Remedial Action Plan* (RAP) dated April 18, 2014 and two subsequent *RAP Addendum's* dated July 1, 2014 and December 2, 2016, respectively. Further modifications to the remediation system were discussed and approved during phone conversations between the Responsible Parties, Alameda County Department of Environmental Health (ACDEH) and the California Water Resources Control Board (Water Board). The AS/SVE system was installed by Cornerstone Environmental Contractors Inc. (Cornerstone) under permits approved by the City of Oakland.

The AS/SVE System start-up was performed in accordance with the RAP, Arcadis' *Remediation Performance Evaluation and Monitoring Plan* dated February 10, 2015, ACDEH's subsequent conditions of approval provided in ACDEH's Directive Letter dated March 11, 2015, as well as the Bay Area Quality Management District (BAAQMD) Permit to Operate (PTO) for Plant No. 21947 (included in Appendix A).

1.1 Site Description

The Site consists of three properties located in a mixed commercial and residential area at 706, 726, and 800 Harrison Street, in Oakland, California (Figure 1). All property locations and boundaries are shown on Sheet C-2 of Appendix A.

The 706 Harrison Street Property is a former Atlantic Richfield Company (ARCO) service station owned by Mr. Bo Gin. This property currently consists of an asphalt parking lot with the AS/SVE system located in the southwest corner. Former facilities at the 706 Harrison Street Property included four 1,000-gallon and two 6,000-gallon fuel underground storage tanks (USTs), one steel waste oil UST, product line piping, pump islands, and a station building. The USTs and associated piping were removed in January 1991 (Cambria Environmental Technology, Inc. 1995).

The property located at 726 Harrison Street is a former Shell service station owned by Mr. Peter Yee. This property currently contains an asphalt parking lot and one building. Former facilities at the 726 Harrison Street Property included three 4,000-gallon USTs, one 8,000-gallon fuel UST, one steel 1,000-gallon waste oil UST, product line piping, pump islands, and a station building. The USTs and associated piping were removed in October 1995 (Aqua Science Engineers, Inc. 2001).

The property located at 800 Harrison Street is an active 76 Station (Union Oil) owned by Mr. Muhammad Usman. Current station facilities include a single-story convenience store, three product dispenser islands under two canopies, and two 12,000-gallon double-wall poly-steel gasoline USTs.

2 AS/SVE DESIGN AND COMPONENTS

2.1 Air Sparge System

The Air Sparge (AS) system will be used to inject air into the saturated zone to volatilize and enhance biodegradation of hydrocarbon constituents in shallow groundwater at the Site. The AS system will also be operated in a manner to facilitate bulk water movement in the capillary fringe, thereby desorbing mass from smear zone soil and dissolving it into the aqueous phase. AS treatment will consist of continuously cycled (i.e., pulsed) AS wells operating in zones.

2.1.1 AS Well Configuration and Network

The AS well network consists of 17 sparge wells. SP-3, SP-4, and SP-5 were part of a previously operated remediation system and reincorporated into the current AS/SVE system. These wells are constructed of 1-inch diameter schedule 40 polyvinyl chloride (PVC) pipe. Total depth of these wells varies from 28 to 29.5 feet below ground surface (bgs) with a 1-foot screened section at the bottom. AS-1 through AS-14 were constructed using 2-inch schedule 80 PVC pipe. Total depth of these wells varies from 33 to 35 feet bgs with a 3-foot sump at the bottom and a 2-foot screened interval located directly above the sump. AS well construction details are included in Table 1.

2.1.2 AS System Components

The AS compressor is a Becker model DTLF400 rotary screw compressor, powered by a 30-horsepower totally enclosed fan-cooled (TEFC) motor, capable of delivering approximately 230 standard cubic feet per minute (scfm) of injection air at a discharge pressure of 25 psi.

The AS system is operated by a control panel equipped with a programmable logic controller (PLC). This PLC allows the operator to set the order and duration of the AS zones. The AS system is also equipped with pressure relief valves, a high temperature switch, an emergency E-stop button, and is interlocked with the operation of the soil vapor extraction system.

An AS manifold is located in the treatment enclosure and each AS well has a dedicated pipe run (i.e., lateral). The AS manifold includes flow control valves for individual well performance optimization and balanced pulsed air delivery among the various zones and phases of operation. In addition, instrumentation and controls to facilitate performance monitoring and well field optimization functions for each well are located at the manifold. Details for the AS manifold configuration, trenching details, and wellhead connections are presented in the As-built AS/SVE System Design Drawings included in Appendix A.

2.2 Soil Vapor Extraction System

The Soil Vapor Extraction (SVE) system is used to volatilize any residual hydrocarbon constituents that are adsorbed to capillary fringe and overlying vadose zone soil. SVE will also capture vapors emitted during AS operation and promote secondary treatment of soil via enhanced biodegradation through the transfer/recharge of oxygen to subsurface pore spaces near the groundwater surface and within

contaminant smear zones. Periodic performance monitoring will be conducted to quantify contaminant mass removal rates and qualitatively assess system effectiveness.

2.2.1 SVE Well Configuration and network

The SVE well network consists of 6 extraction wells (VW-3, VW-4, VW-5, VE-3, VE-4, and VE-5). The “VW” wells were part of a previously operated remediation system and reincorporated into the current AS/SVE system. All wells are constructed of 2-inch diameter schedule 40 PVC pipe. Total depth of the SVE wells varies from 15 to 18 feet bgs with a 10-foot screened section at the bottom. SVE well construction details are included in Table 1.

2.2.2 SVE System Components

The SVE system is equipped with two Busch 1502 rotary claw blowers, each powered by a 20-horsepower TEFC motor and variable frequency drive, and capable of extraction air flow rates of 215 scfm at a vacuum of 22 inches of mercury. Only one blower is anticipated to be used at a time. Extracted vapors are treated with an electric catalytic oxidizer (ECAT). Extracted water and entrained moisture collected in the air/water separator (AWS) tank will be allowed to accumulate in the AWS tank until being transferred to a 55-gallon drum utilizing the in-line transfer pump.

The SVE system is operated with a control panel equipped with a touchscreen supervisory control and data acquisition (SCADA) system and PLC. The SCADA system is equipped with a cellular modem which allows for remote access and operational control. The SVE system is also equipped with various pressure, vacuum, and temperature switches that will automatically shutdown the SVE system if operational setpoints are exceeded.

An SVE manifold is located in the treatment enclosure and each SVE well has a dedicated lateral. Each lateral is equipped with a control valve, vacuum gauge and sample/monitoring port to facilitate performance monitoring and wellfield optimization. Details for the SVE manifold configuration, trenching details, and wellhead connections are presented in the As-built AS/SVE System Design Drawings included in Appendix A.

3 AS/SVE SYSTEM CONSTRUCTION

3.1 Pre-construction Activities

Prior to construction activities, the AS/SVE system design was submitted to the City of Oakland Planning and Building Departments, and an approved building permit was procured by Cornerstone. Once the building permit was received, a private utility locate was conducted at the Site to identify potential conflicts with underground utilities in anticipation of trenching and intrusive excavation activities. The local electrical service provider (PG&E) was also consulted prior to the implementation of construction to finalize the electrical service trench layout and specifications and connection details.

An Authority to Construct/Permit to Operate (PTO) was obtained from BAAQMD (Appendix B) prior to system installation activities. The PTO has several requirements that must be met to keep the AS/SVE system in operational compliance. Pertinent operational requirements of the PTO include the following:

- The soil vapor flow rate from the SVE system shall not exceed 300 scfm.
- The electric oxidizer shall not operate below 600-degree Fahrenheit.
- The abatement efficiency of the electric oxidizer shall be maintained at a minimum of:
 - 98.5% by weight for inlet volatile organic compound (VOC) concentrations greater than or equal to 2,000 parts per million by volume (ppmV),
 - 97% by weight for inlet VOC concentrations below 2,000 ppmV and greater than 200 ppmV,
 - 90% by weight for inlet VOC concentrations below 200 ppmV.
- The minimum abatement efficiency shall be waived if outlet VOC concentrations are shown to be less than 10 ppmV.
- The SVE system shall be equipped with a continuous measuring and temperature recording instrumentation.

3.2 Construction Activities

Under Arcadis supervision, Cornerstone began the AS/SVE system construction on June 26, 2017. Construction activities continued through August 31, 2017 and included saw cutting asphalt, excavating conveyance trenches, installing AS and SVE well boxes, placing and connecting conveyance piping to AS and SVE wells, pressure testing conveyance piping, completing trench backfill with concrete slurry and an asphalt grade finish, building AS and SVE Manifolds, installing an electrical service panel with protective bollards, and installing an 8-foot chain link fence compound enclosure.

The AS Shed and SVE Mobile Remediation Trailer (MRT) were delivered to the Site and installed on August 22 and 23, 2017. These pieces of equipment were previously used on other EMC managed remediation projects in Northern California and were chosen based on the technical specifications outlined in the RAP and favorable operational history. The electrical service meter was installed by PG&E on September 26, 2017.

4 AS/SVE SYSTEM START-UP AND OPTIMIZATION

4.1 Initial Startup and Troubleshooting

Following final electrical connection activities, the AS/SVE system was started in order to confirm proper operation as part of the initial “shakedown” phase. Shakedown consists of functional testing of system components and alarms to document electrical, mechanical, and control system operability. The objectives of shakedown are to confirm functionality and adjust operational setpoints and alarms as needed to ensure the system operates according to the criteria established during the remedial design phase. Initial testing also supports identification of potential repairs or modifications to system infrastructure that may be required prior to full-scale startup. Functional AS/SVE system testing activities included:

- Testing all pumps, blowers, and mechanical equipment
- Testing all valves and appurtenances
- Completing hydrostatic pressure and leak testing of the treatment system conveyance, tanks, and vessels
- Calibrating and testing all instrumentation, switches, indicators, and transmitters
- Testing the function and integrity of electrical systems
- Testing and reviewing the programming, integration, operation, and displays
- Testing all alarms, interlocks, setpoints, and delays
- Testing the remote access and alarm condition callouts.

While system troubleshooting efforts were underway, a caseworker for the Leaking Underground Storage Tank (LUST) Trust Fund contacted the project team and asked that the AS/SVE system not be started until a meeting could be conducted with all stakeholders to determine if active remediation was the correct path forward for the project. All system repairs and modifications ceased at this time.

In May 2018, the request to startup the AS/SVE system was granted. System repairs, reprogramming, and troubleshooting activities resumed in June of 2018 and routine operation of the AS/SVE system started on September 6, 2018.

4.2 Routine Operation

On September 6, 2018, Arcadis started continuous operation of the SVE system. System startup was conducted in several stages to collect performance data at the system and at extraction well locations under various operating scenarios. The objective of varying the operating conditions was to establish operational ranges (e.g., flowrate, applied vacuum, dilution percentage) that would effectively maximize system effectiveness for full-scale operations and collection of data.

AS/SVE SYSTEM CONSTRUCTION AND START-UP REPORT

Consistent operation of the SVE system and extraction well network was established, and the AS system was brought online October 11, 2018. All operational data collected to-date for the AS/SVE system is presented in Appendix C.

During startup and routine system operation, concentrations of total VOCs were recorded at the catalytic oxidizer influent and the effluent stack using a photo ionization detector (PID), measured as hexane, as required by the BAAQMD permit conditions (Appendix B). In addition, monthly compliance vapor grab samples were collected and analyzed for Total Purgeable Hydrocarbons as Gasoline (TPHg), benzene, toluene, ethylbenzene, xylene, (collectively known as BTEX), and methyl tertiary butyl ether (MtBE), via Environmental Protection Agency (EPA) Method TO-15. Results from PID monitoring, mass removal calculations, and destruction efficiency is included in Table 1 of the operational data. Analytical vapor data are included in Table 4 of the operational tables and laboratory reports are included in Appendix D.

A summary of operational data and key points is as follows:

- SVE system vacuum was initially set to 13.5 inches of mercury (in Hg) but has steadily been reduced to 6 in Hg by increasing the amount of dilution air in the process flow. The reduction of applied system vacuum was driven by two factors. The higher vacuum caused a significant amount of water to be extracted from SVE wells VW-3, VW-4, and VW-5. Reducing the vacuum allowed VW-3 to be brought back online. VW-4 and VW-5 remain closed at this time. It was also noted that the operating temperature of the ECAT was fluctuating due to an oxygen deficient process air mixture. The additional dilution air stabilized oxidizer operations.
- Current operational SVE wells include: VW-3, VE-3, VE-4, and VW-5. Current operational AS wells include AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, and AS-12.
- With the current well configuration and operational setpoints; the post-dilution (Influent-2) extraction air flow rate and VOC concentrations are approximately 150 scfm and 1,700 ppmV, respectively. Data collected from the pre-dilution (Influent-1) sample point has been inconsistent or unobtainable due to the high operating vacuum and equipment limitations. Arcadis is working to modify the equipment for better data collection in the future.
- Individual SVE well flows have ranged from 18.6 acfm (VE-5) to 70 acfm (VE-4) and VOC concentrations have ranged from 17.2 ppmV (VE-4) to 4,430 ppmV (VE-3). SVE well monitoring data is included in Table 2 of Appendix C.
- The final certified laboratory analytical report for the initial compliance samples was received on September 19, 2018, and indicated effluent concentrations in compliance with the conditions of the BAAQMD PTO. Effluent concentrations of TPHg were reported at 2.100 ppmV, ethylbenzene at 0.011 ppmV, and total xylenes at 0.022 ppmV. Benzene, Toluene, and MtBE were reported at non-detect values (reporting limit of 0.005 ppmV).
- The AS system is currently cycling through four zones of operation. The current zone configuration is as follows:
 - Zone 1: AS-1, AS-2, and AS-3
 - Zone 2: AS-4, AS-5, AS-6, AS-7, and AS-8
 - Zone 3: AS-9, AS-10, and AS-11

AS/SVE SYSTEM CONSTRUCTION AND START-UP REPORT

- Zone 4: AS-12
- AS-5 and AS-11 were closed after limited operation due to potential short circuiting to nearby monitoring wells. Arcadis will continue to investigate this issue.
- The AS system injects air into each zone for 5 minutes with 5 minutes of non-operational lag time between closing the Zone 4 wells and opening the Zone 1 wells. Current injection pressures and flow rates for the individual wells range from 9 to 15 pounds per square inch gauge (psig) and 2 to 6 acfm, respectively.

4.3 Radius of Influence Monitoring

On October 5, 2018, Arcadis conducted a preliminary SVE radius of influence (ROI) monitoring event. To perform this study, each SVE well (VW-3 and VW-3 through VW-5) was operated in-turn and used as the only extraction well. After one hour of operation, the other SVE wells were measured for induced vacuum at the respective wellheads using a sample port and digital manometer. The only extraction well to show the influence of induced vacuum was VE-3 at 1.1 inches of water (in H₂O) when VE-4 was used as the extraction well with 193.7 in H₂O of applied vacuum. The linear distance from VE-3 to VE-4 is approximately 20 feet.

Arcadis does not consider the results of this preliminary ROI monitoring event to be fully indicative of the functional ROI of the SVE system. Additional ROI monitoring will be implemented using the extraction well network and nearby existing groundwater monitoring wells as induced vacuum measuring points. The extraction wells will also be allowed to operate longer in order to ensure that the maximum induced vacuum can equilibrate in the subsurface.

Influence of the AS system will be evaluated by comparing current and future water quality data collected during groundwater monitoring events with similar historical data. Specific water quality parameters to be evaluated include dissolved oxygen and oxygen reduction potential.

5 ONGOING OPERATION AND MAINTENANCE

The AS/SVE system is scheduled to operate continuously, 24 hours a day, seven days a week until remedial goals are achieved. Throughout system operation, performance and compliance will be monitored and optimized by a technician under the direction of an Arcadis Professional Engineer, following the standard operating procedures (SOPs) for O&M of the AS/SVE system.

5.1 Data Collection

During routine O&M visits, various data will be collected to evaluate the system's efficiency and to optimize system performance including: hour meter readings, utility meter readings, system dilution valve opening, flow rates, temperature, pressure, vacuum, vapor concentrations, and maintenance activities. Data will be collected from the AS and SVE systems as well as from individual wells. The measurements will be documented on field data sheets and copies of these records will be maintained per BAAQMD requirements. O&M visits will be conducted at a minimum on a monthly basis to monitor and collect data, provide site maintenance and ensure efficient operation of the system.

5.2 System Optimization

Performance monitoring for the AS/SVE system is intended to evaluate the pneumatic and hydraulic responses to remedy implementation in the treatment area, as well as monitor the long-term effect of continuous operations on various media. Operational adjustments will be continuously implemented to maintain the highest possible rate of VOC mass removal. Evaluation of the long-term effect of AS/SVE operations on various media and VOC concentration trends at monitoring locations will be provided in subsequent reports.

5.3 Shut-Down Criteria

Soil vapor extraction well vapor field concentration data will be evaluated on a monthly basis at a minimum to maximize efficiency of the system. Extraction efforts will focus on extraction wells with the highest mass removal rates, relative to the well system. The AS/SVE system will operate until asymptotic overall system mass removal rates are reached or mass removal rates below 10 pounds per day (lbs./day) are achieved. When the system reaches shut-down criteria, the system will be evaluated, and recommendations will be presented to the ACDEH. Upon completion of the remediation project, Arcadis shall notify the BAAQMD Engineering Division within two weeks of decommissioning the operation.

6 CONCLUSIONS AND RECOMMENDATIONS

The AS/SVE system is now fully operational and is functioning in compliance with the operational permit and in alignment with the design parameters as described in the RAP. The current operational focus remains on ensuring proper and consistent operation of the system components. As system operation progresses, the focus will move to optimization as described above and more efficient operation. Remedial progress reports shall be provided to the ACDEH on a quarterly basis and will include updates on operational and performance data, including runtime and laboratory and mass removal data. The progress reports will detail AS/SVE system decision making and modifications. During quarters in which routine groundwater monitoring reports are also submitted, remedial progress updates will be included within the routine groundwater monitoring reports.

7 REFERENCES

Alameda County Department of Environmental Health. 2015. Directive Letter. March.

Arcadis. 2014A. Remedial Action Plan. April.

Arcadis. 2014B. Remedial Action Plan Addendum. July.

Arcadis. 2015. Remediation Performance Evaluation and Monitoring Plan. February.

Arcadis. 2016. Second Remedial Action Plan Addendum. December.

TABLES



Table 1
Well Construction Details
Chevron Facility #351646
706/726/800 Harrison Street
Oakland, California

Well ID	Completion Date	Total Depth (feet bgs)	Screen Interval (feet bgs)	Borehole Diameter (inches)	Casing Diameter (inches)
726 Harrison Street					
AS-1	8/16/2001	30	28-30	8.0	2
AS-2	10/7/2014	33	28-30	8.5	2
AS-3	10/13/2014	33	28-30	8.5	2
AS-4	10/6/2014	35	30-32	8.5	2
AS-5	10/3/2014	35	30-32	8.5	2
AS-6	10/2/2014	35	30-32	8.5	2
VE-3	6/19/13	15	5-15	8	2
VE-4	10/2/2014	15	5-15	8.5	2
706 Harrison Street					
SP-3	7/22/93	28	27-28	6.0	1
SP-4	7/22/93	29.5	28.5-29.5	6.0	1
SP-5	7/22/93	29.5	28.5-29.5	6.0	1
AS-7	10/9/2014	33	28-30	8.5	2
AS-8	10/9/2014	33	28-30	8.5	2
AS-9	10/13/2014	33	28-30	8.5	2
AS-10	10/10/2014	33	28-30	8.5	2
AS-12	10/10/2014	33	28-30	8.5	2
AS-13	12/9/2015	38.5	33.5 - 35.5	8.0	2
AS-14	12/8/2015	40.5	35.5 - 37.5	8.0	2
VW-3	7/22/93	18	8-18	8.0	2
VW-4	7/22/93	18	8-18	8.0	2
VW-5	7/22/93	17	7-17	8.0	2
VE-5	10/9/2014	15	5-15	8.5	2

Notes:

AS = air sparge

SV = soil vapor

VE = vapor extraction

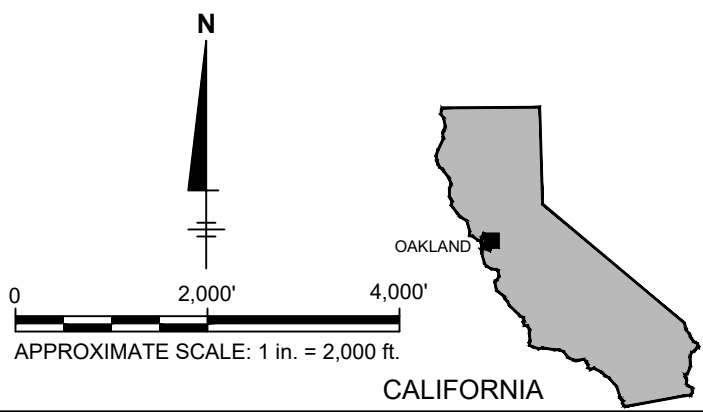
bgs = below ground surface

FIGURES





REFERENCE: BASE MAP USGS 7.5 MIN. TOPO. QUAD., OAKLAND WEST, CALIFORNIA, 2012.



APPROXIMATE SCALE: 1 in. = 2,000 ft.

UNION OIL OF CALIFORNIA STATION NO. 0752/YEE/GIN COMMINGLED
706/726/800 HARRISON STREET OAKLAND, CALIFORNIA
**AS/SVE SYSTEM CONSTRUCTION AND
START-UP REPORT**

SITE LOCATION MAP



FIGURE
1

APPENDIX A

As-Built System Design Drawings



AS-BUILT DRAWINGS FOR

SOIL-VAPOR EXTRACTION AND AIR SPARGE SYSTEM

KEY CONTACTS:

APPLICANT:
TIMOTHY BISHOP, PROJECT MANAGER
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
MARKETING BUSINESS UNIT
6101 BOLLINGER CANYON ROAD
SAN RAMON, CALIFORNIA 947583
TELEPHONE: 925.790.6463

LANDOWNERS:
706 HARRISON STREET: MR. BO GIN
726 HARRISON STREET: MR. PETER YEE
800 HARRISON STREET: MR. MUHAMMAD USMAN

EQUIPMENT OWNER:
UNION OIL COMPANY OF CALIFORNIA (UNION OIL)
6101 BOLLINGER CANYON ROAD
SAN RAMON, CALIFORNIA 94583
CONTACT: TIMOTHY BISHOP
TELEPHONE: 925.790.6463

PREPARER'S INFORMATION:
ARCADIS U.S., INC. (ARCADIS)
2999 OAK ROAD, SUITE 300
WALNUT CREEK, CALIFORNIA 94597

PROPERTY DATA:

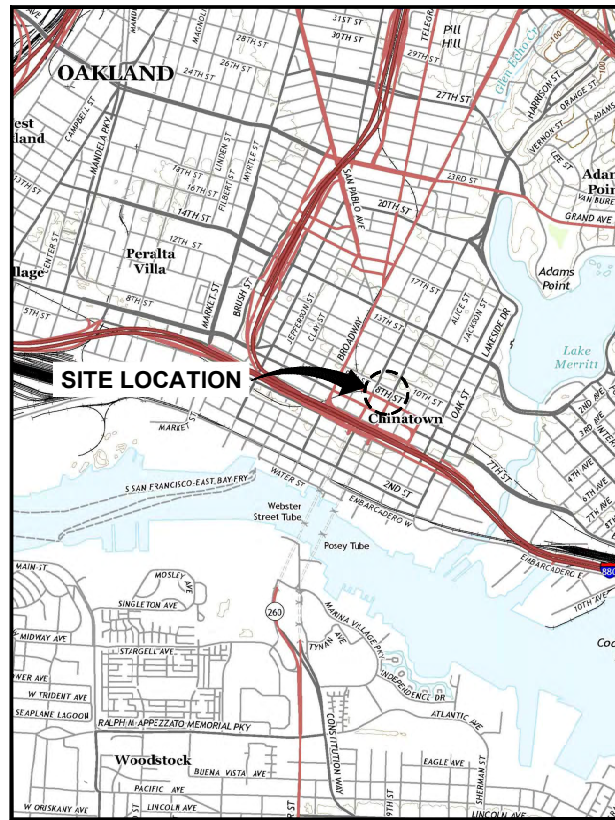
PROPERTY ADDRESSES AND PARCEL NUMBER:
PARCEL NUMBER 001-018502600
706 HARRISON STREET
OAKLAND, CALIFORNIA 94607
LAND USE: COMMERCIAL
SURROUNDING LAND USE:
MIXED RESIDENTIAL/COMMERCIAL

PARCEL NUMBER 001-018501400
726 HARRISON STREET
OAKLAND, CALIFORNIA 94607
LAND USE: COMMERCIAL
SURROUNDING LAND USE:
MIXED RESIDENTIAL/COMMERCIAL

PARCEL NUMBER 001-018501300
800 HARRISON STREET
OAKLAND, CALIFORNIA 94607
LAND USE: COMMERCIAL
SURROUNDING LAND USE:
MIXED RESIDENTIAL/COMMERCIAL

**UNION OIL COMPANY OF CALIFORNIA
STATION NO. 0752
706/726/800 HARRISON STREET
OAKLAND, CALIFORNIA**

SEPTEMBER 2017



REFERENCE: BASE MAP USGS 7.5 MINUTE QUADRANGLE, OAKLAND WEST, CALIFORNIA, 2015.

LOCATION MAP
0 2000' 4000'
GRAPHIC SCALE



ARCADIS U.S., INC.

INDEX TO DRAWINGS

COVER SHEET

- G-1A CONSTRUCTION NOTES AND SPECIFICATIONS
- G-1B CONSTRUCTION NOTES AND SPECIFICATIONS
- G-2 MAJOR EQUIPMENT AND INSTRUMENT LIST

CONSTRUCTION

- C-1 SITE PLAN
- C-2 SITE PLAN WITH PROPOSED REMEDIATION SYSTEM
- C-3 REMEDIATION SYSTEM DETAILS
- C-4 SOIL VAPOR EXTRACTION WELL, VAULT AND WELL HEAD DETAILS
- C-5 AIR SPARGE WELL, VAULT AND WELL HEAD DETAILS
- C-6 TRENCHING DETAILS
- C-7 MANIFOLD CONNECTION DETAILS
- C-8 CHAIN-LINK FENCE DETAILS

MECHANICAL

- M-1 PROCESS AND INSTRUMENTATION DIAGRAM

ELECTRICAL

- E-1 ELECTRICAL ONE LINE DIAGRAM

CITY: SAN RAFAEL, CA DIV/GROUP: ENV/CAD DB: M. HOFFER, J. HARRIS
C:\Users\jharris\OneDrive - ARCADIS\BIM 360 Docs\CHEVRON\CORPORATION\NCA_351646\System Trenching\2018\B0047339_331\601-DWG\351646 As-Built - G-1A_G-1B.dwg LAYOUT: G-1A G-1A G-1B.dwg ACADVER: 21.05 (LMS TECH) PAGES: 21.05 (LMS TECH) PAGES: 21.05 (LMS TECH) PAGES: 21.05 (LMS TECH) PAGES: 21.05 (LMS TECH) PAGES: 21.05 (LMS TECH)
ARCADIS:PHX.CTB PLOTTED: 10/30/2018 2:57 PM BY: HARRIS, JESS
XREFS: 47339X00
IMAGES: jbrockman_stamp.exp.sg.jpg
PROJEC TNAME: ---
THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING.

1.0 INTRODUCTION

1.1 GENERAL

THE ENCLOSED DRAWINGS AND SPECIFICATIONS CONTAIN INFORMATION FOR THE CONSTRUCTION AND INSTALLATION OF A SOIL VAPOR EXTRACTION (SVE) AND AIR SPARGE (AS) TREATMENT FACILITY. THE FOLLOWING DRAWINGS DEPICT THE TREATMENT FACILITY:

DRAWING NO.	TITLE
G-1A	CONSTRUCTION NOTES AND SPECIFICATIONS
G-1B	CONSTRUCTION NOTES AND SPECIFICATIONS
G-2	MAJOR EQUIPMENT AND INSTRUMENT LIST
C-1	SITE PLAN
C-2	SITE PLAN WITH PROPOSED REMEDIATION SYSTEM
C-3	REMEDATION SYSTEM DETAILS
C-4	SOIL VAPOR EXTRACTION WELL, VAULT AND WELL HEAD DETAILS
C-5	AIR SPARGE WELL, VAULT AND WELL HEAD DETAILS
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C-7	MANIFOLD CONNECTION DETAILS
M-1	LEGEND AND SYMBOLS
M-2	PROCESS AND INSTRUMENTATION DIAGRAM
E-1	ELECTRICAL ONE LINE DIAGRAM

1.2 DEFINITIONS

CHEVRON: CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY (CEMC)
ENGINEER: ARCADIS
CONTRACTOR: TO BE DETERMINED BY BID
EQUIPMENT OWNER: UNION OIL COMPANY OF CALIFORNIA

THIS PACKAGE ALSO CONTAINS THE FOLLOWING SPECIFICATIONS REQUIRED FOR CONSTRUCTION AND INSTALLATION:

2.0 GENERAL CONSTRUCTION SPECIFICATIONS

- THE CONTRACTOR SHALL REVIEW THE SVE/AS FACILITY DESIGN PLANS, AND FIELD VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY.
- ALL MATERIALS USED FOR CONSTRUCTION OF THE SVE/AS FACILITY SHALL BE NEW UNLESS OTHERWISE NOTED.
- THE ENGINEER WILL REQUEST A PLAN CHECK, IF APPLICABLE. THE ENGINEER SHALL APPLY FOR AND OBTAIN ALL DISCHARGE PERMITS FOR TREATED WATER AND AIR, AS APPLICABLE. THE ENGINEER WILL OBTAIN THE REQUIRED WELL INSTALLATION PERMITS.
- THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL BUILDING PERMITS. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY INSPECTIONS, INCLUDING ROUGH ELECTRICAL, MECHANICAL, CIVIL, OR OTHER APPLICABLE INSPECTIONS, AND OBTAIN A FINAL SIGNED OFF INSPECTION CARD FROM THE LOCAL AUTHORITY.
- THE CONTRACTOR SHALL PROVIDE A ONE YEAR WARRANTY ON ALL CONTRACTOR-PROVIDED MATERIALS AND SUPPLIES. THE CONTRACTOR SHALL PROVIDE A WARRANTY ON WORKMANSHIP FOR A PERIOD OF NOT LESS THAN ONE YEAR. ALL DEFECTS IN CONTRACTOR SUPPLIED AND INSTALLED MATERIALS AND SUPPLIES SHALL BE REPAIRED AT CONTRACTOR EXPENSE.
- IN ADDITION TO THE REMEDIATION DESIGN PLANS, THE ENGINEER WILL SUPPLY THE CONTRACTOR WITH MANUFACTURER'S EQUIPMENT HANDLING AND INSTALLATION PROCEDURES. THE CONTRACTOR WILL INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND INSTRUMENTS.
- THE ENGINEER WILL CLEARLY INDICATE IN THE REMEDIATION DESIGN PLANS THE ITEMS TO BE PROVIDED BY CEMC, THE ENGINEER AND OTHERS. ALL OTHER ITEMS AND EQUIPMENT NOT CLEARLY INDICATED AS PROVIDED BY OTHERS IN THE REMEDIATION DESIGN PLANS SHALL BE PROVIDED BY AND INSTALLED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE SITE FREE OF EXCESSIVE DEBRIS AND WASTE DURING CONSTRUCTION. THE CONTRACTOR IS TO TAKE THE NECESSARY PRECAUTIONS TO CONTROL DUST AND STORMWATER RUNOFF FROM EXCAVATION AND CONSTRUCTION ACTIVITIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INDEPENDENT LOCATION OF ALL UTILITIES AND SHALL TAKE APPROPRIATE MEASURES TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL FORMALLY CONTACT THE REGIONAL UNDERGROUND UTILITY NOTIFICATION SERVICE, SUCH AS THE UNDERGROUND SERVICE ALERT (USA), ONE CALL, AND OBTAIN ALL NECESSARY CLEARANCES BEFORE BREAKING GROUND. SHOULD ANY UTILITIES, INCLUDING BUT NOT LIMITED TO, ELECTRICAL CONDUITS, TELEPHONE LINES, WATER LINES, SEWER, OR STORM DRAIN LINES BE DAMAGED DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE AFFECTED PARTIES AND COMPLETING REPAIRS, IF APPLICABLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REPAIR COSTS.
- CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR REPAIRING ALL DAMAGE MADE BY THE CONTRACTOR TO MONITORING WELLS, WELL SEALS, MANHOLE BOXES, AND ALL ABOVE GROUND STRUCTURES AS THE RESULT OF ACCIDENT OR NEGLIGENCE.
- THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO MATCH THE PRE-CONSTRUCTION CONDITIONS AND THE SURROUNDING AREA. THIS INCLUDES DISTURBED LAWNS, TREES, SHRUBS, PLANTINGS, FENCES, SIDEWALKS, AND OTHER STRUCTURES.
- UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL ASSIST THE ENGINEER IN PREPARING "AS-BUILT" DRAWINGS (RED LINES). THE "AS-BUILT" DRAWINGS SHALL SHOW THE ACTUAL CONSTRUCTION DETAILS, INCLUDING FINAL TRENCH AND WELL LOCATIONS, COMPOUND LAYOUT, AND PIPING DETAILS.
- A FINAL INSPECTION WILL BE PERFORMED BY THE ENGINEER AND/OR A CEMC REPRESENTATIVE. ALL ITEMS NOT MEETING THE SPECIFICATIONS AND THE REMEDIATION DESIGN PLANS SHALL BE PROMPTLY REPAIRED AND/OR REPLACED BY THE CONTRACTOR AT NO EXPENSE TO CEMC.
- THE CONTRACTOR SHALL PROVIDE AN ELECTRICIAN FOR A MINIMUM OF TWO DAYS FOR THE STARTUP OF THE EQUIPMENT, UNLESS THIS WORK CAN BE SAFELY ACCOMPLISHED IN LESS TIME. THE ELECTRICIAN SHALL BE PREPARED TO DEMONSTRATE PROPER MOTOR ROTOR PROPER CONNECTIONS OF EQUIPMENT TO CIRCUIT BREAKERS, AND BE AVAILABLE TO TROUBLESHOOT ELECTRICAL PROBLEMS WITH THE SYSTEM.
- ALL NECESSARY CONSTRUCTION INSPECTIONS SHALL BE OBTAINED AND PAID FOR BY THE CONTRACTOR, INCLUDING INSPECTIONS FOR ELECTRICAL, MECHANICAL, AND CIVIL CONSTRUCTION. THE ENGINEER WILL OBTAIN THE REQUIRED WELL INSTALLATION PERMITS.

- ALL WORK SHALL BE CONDUCTED UNDER CEMC "PERMIT TO WORK" SYSTEM. CONTRACTOR WILL NOT CONDUCT ANY WORK WITHOUT A VALID PERMIT TO WORK.
- THE CONTRACTOR SHALL PROVIDE A TECHNICIAN FOR A MINIMUM OF 8 HOURS DURING THE STARTUP OF THE SVE/AS REMEDIATION SYSTEM.
- THE CONTRACTOR SHALL CONFIRM A CONSTRUCTION SCHEDULE WITH ARCADIS AT LEAST 14 DAYS PRIOR TO ANY WORK AT THE SITE.
- THE PROPOSED CONSTRUCTION SCHEDULE SHALL BE PRESENTED IN A TIMELINE FORMAT SHOWING ESTIMATED START DATE, DURATION, AND COMPLETION TIMES FOR EACH ACTIVITY. ANY DEVIATION FROM THE ORIGINALLY PROPOSED SCHEDULE MUST BE COMMUNICATED TO ARCADIS WITHIN 24 HOURS.

3.0 TRENCHING AND BACKFILL

3.1 GENERAL

- ENGINEER, AND BE PRESENTED IN THE DESIGN PLANS.
- THE TRENCHING AND BACKFILL SPECIFICATIONS ARE SUBJECT TO APPROVAL BY THE LOCAL AUTHORITY DURING PLANNING AND BUILDING DEPARTMENT PERMIT REVIEWS.
- ALL MECHANIZED EQUIPMENT OPERATION (i.e., BACKHOE, EXCAVATOR, OR OTHER POWERED EQUIPMENT) SHALL BE PERFORMED BY COMPETENT PERSONNEL AND/OR PERSONS LICENSED TO PERFORM SUCH WORK. ALL CONSTRUCTION SHALL BE PERFORMED BY TRAINED PERSONNEL OPERATING UNDER A LICENSED CONTRACTOR.

3.2 PAVEMENT CUTTING

- EXISTING PAVEMENT SHALL BE SAW CUT TO PROVIDE A NEAT VERTICAL FACE FOR REPAVING. WHEN WET-CUTTING, BEST MANAGEMENT PRACTICES (BMPs) SHALL BE IMPLEMENTED TO PREVENT CUTTING WATER FROM ENTERING STORM DRAINS OR MIGRATING FROM THE SITE.
- THE CONTRACTOR SHALL MAKE EVERY EFFORT TO USE EXISTING PAVEMENT EDGES AND JOINTS WHEN SAW CUTTING TO REDUCE UNNECESSARY CUTS. PAVEMENT REMOVED FROM TRENCHES OR OTHER EXCAVATIONS SHALL BE REPLACED TO MATCH THE EXISTING MATERIAL.
- CONCRETE OR ASPHALT TRENCH CUTS SHALL NOT EXCEED A NOMINAL WIDTH OF 36 INCHES, AND SHALL BE NOT LESS THAN 18 INCHES WIDE (NOMINAL) UNLESS SPECIFIED OTHERWISE IN THE DESIGN PLANS. TRENCHES SHALL BE CUT TO THE MINIMUM WIDTH NECESSARY TO ACCOMMODATE ALL PIPING SHOWN IN THE DESIGN PLANS.

3.3 TRENCH EXCAVATION

- TRENCHES SHALL BE EXCAVATED TO THE SPECIFIED WIDTHS AND DEPTHS SPECIFIED IN THE DESIGN PLANS. ANY DEVIATION FROM THE TRENCHING PLANS SHALL BE BY THE ENGINEER BEFORE WORK COMMENCES. ALL DEVIATIONS SHALL BE DOCUMENTED ON THE AS-BUILT DRAWINGS.
- CONTRACTOR SHALL STOP WORK IMMEDIATELY IF PRODUCT PIPING OR TANK FIELD IS ENCOUNTERED DURING EXCAVATION. FURTHER EXCAVATION SHALL NOT BE CONDUCTED WITHOUT THE APPROVAL OF CEMC AND ENGINEER.
- ALL EXCAVATION ACTIVITIES SHALL BE IN STRICT ACCORDANCE WITH OSHA REGULATIONS AND ALL FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.
- ALL EXCAVATED SOIL SHALL BE MONITORED BY THE ENGINEER IN ACCORDANCE WITH BAY AREA AIR QUALITY MANAGEMENT DISTRICT (BAQMD) REGULATION 8 - RULE 40). IF HYDROCARBON IMPACTED SOIL IS DETECTED, THE SOIL SHALL BE STOCKPILED IN AN AREA DESIGNATED BY THE ENGINEER. THE IMPACTED SOIL SHALL BE PLACED ON 6 MIL THICK PLASTIC SHEETING AND SECURELY COVERED USING A MINIMUM OF 6 MIL THICK PLASTIC SHEETING. ALTERNATIVELY, IMPACTED SOIL MAY BE PLACED IN PROPERLY LABELED DOT-APPROVED 55 GALLON STEEL DRUMS OR ROLL-OFF BINS. THE ENGINEER SHALL BE RESPONSIBLE FOR SAMPLING AND CHEMICALLY ANALYZING THE EXCAVATED SOIL FOR HYDROCARBONS FOR WASTE PROFILING. CEMC WILL BE RESPONSIBLE FOR DISPOSAL/TREATMENT OF HYDROCARBON IMPACTED SOIL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOADING SOIL INTO TRUCKS AND OFF-SITE DISPOSAL OR RECYCLING OF ALL HYDROCARBON-FREE SOIL AND CONSTRUCTION DEBRIS.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGING EXISTING UNDERGROUND UTILITIES, PIPING, AND UNDERGROUND STRUCTURES DURING EXCAVATION ACTIVITIES.
- THE CONTRACTOR SHALL HAND-EXCAVATE TO EXPOSE ALL EXISTING PRODUCT, WENT, ELECTRICAL CONDUIT, WATER, AND SEWER LINES BEFORE EXCAVATING WITH MECHANICAL EQUIPMENT.
- ONCE ALL EXISTING LINES HAVE BEEN LOCATED, THE TRENCHES SHALL BE NEATLY CUT BY A BACKHOE, EXCAVATOR, BOBCAT, OR OTHER APPROVED METHOD TO PROVIDE A SQUARE CUT TRENCH.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY AND INTEGRITY OF TRENCHES AND TRENCH PLATES PLACED OVER OPEN TRENCHES DURING WORKING AND NON-WORKING HOURS. IF TRENCHES MUST REMAIN OPEN AFTER NORMAL WORK HOURS THE CONTRACTOR SHALL IMPLEMENT THE FOLLOWING MEASURES:
 - ACTIVE TRAFFIC AREAS - OPEN TRENCHES SHALL BE COVERED BY STEEL TRENCH PLATES CAPABLE OF SUPPORTING VEHICULAR TRAFFIC. TRENCH PLATES ARE TO BE PLACED SO THAT THERE ARE NO GAPS BETWEEN PLATES. THE EDGES OF THE PLATES SHALL BE SECURED WITH TEMPORARY ASPHALT PATCH TO MINIMIZE DISPLACEMENT BY VEHICLES CROSSING THE PLATES.
 - NON-TRAFFIC AREAS - OPEN TRENCHES SHALL BE COVERED BY STEEL TRENCH PLATES (NON-SKID PLATES IN FREQUENTLY USED PEDESTRIAN AREAS) OR 1/2-INCH THICK PLYWOOD.
- THE CONTRACTOR SHALL TAKE PRECAUTIONS TO MINIMIZE SURFACE WATER ENTERING EXCAVATIONS AND PREVENTING OVERSATURATION OF TRENCHES.
- WHEN REQUIRED BY LOCAL AUTHORITY, THE ENGINEER WILL IMPLEMENT A STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR SHALL STRICTLY FOLLOW THE REQUIREMENTS OF THE SWPPP. IF NO SWPPP IS REQUIRED, THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES TO ENSURE THAT ALL STORM WATER RUNOFF FROM CONSTRUCTION DEBRIS, EXCAVATED SOIL, OR DISTURBED SURFACES WILL NOT TO ENTER A STORM DRAIN OR RUNOFF OF THE SITE.
- EXCAVATION SHALL NOT INTERFERE WITH 45-DEGREE ZONE OF INFLUENCE ON ANY EXISTING FOUNDATION OR FOOTING. EXISTING FOOTINGS OR FOUNDATIONS THAT MAY BE AFFECTED BY ANY EXCAVATION SHALL BE UNDERPINNED ADEQUATELY OR OTHERWISE PROTECTED AGAINST SETTLEMENT AND SHALL BE PROTECTED AGAINST LATERAL MOVEMENT PER APPLICABLE BUILDING CODE. CONTRACTOR TO NOTIFY ENGINEER IF EXCAVATION COMES WITHIN 5 FEET OF EXISTING STRUCTURES.

3.4 BACKFILL

- TRENCHES SHALL BE BACKFILLED AS SOON AS PRACTICAL AFTER PRESSURE TESTING THE UNDERGROUND PIPE RUNS, AND FOLLOWING ANY REQUIRED INSPECTIONS. TRENCHES SHALL NOT REMAIN OPEN LONGER THAN NECESSARY TO PREVENT SIDEWALL CAVING. IF CAVING IS ANTICIPATED, THE CONTRACTOR SHALL USE A COMMERCIAL SOIL SEALANT/BINDER OR FORMS TO PREVENT CAVING. CHEMICAL SOIL BINDERS/SEALANTS SHALL BE APPROVED BY CEMC.
- PRIOR TO BACKFILLING, THE CONTRACTOR SHALL CONFIRM THAT THE UNDERGROUND PIPE IS BURIED TO A MINIMUM DEPTH OF 18 INCHES FROM THE TOP OF THE PIPE, UNLESS OTHERWISE NOTED IN THE DESIGN PLANS AND LOCAL BUILDING CODES.
- UNDERGROUND PIPING SHALL BE BEDDED IN CLEAN SAND, OR THE ENGINEER-APPROVED EQUIVALENT, TO A MINIMUM DEPTH OF 2-INCHES BELOW THE BOTTOM OF THE PIPING AND 2-INCHES ABOVE THE PIPING. THE SAND SHALL BE CLEAN, ROCK-FREE (100 PERCENT PASSING NO. 4 SIEVE), AND FREE OF SILT AND CLAY.
- TRENCH BACKFILL MATERIAL WILL CONSIST OF CDF SLURRY MIX. BACKFILL MATERIALS SHALL NOT CONTAIN RUBBLE, VEGETATION, TRASH, BOULDERS, OR OTHER DEBRIS.
- NATIVE SOIL MAY BE USED AS BACKFILL WITH APPROVAL OF CEMC AND THE ENGINEER. IT IS RECOMMENDED THAT NATIVE SOIL BE TESTED FOR GEOTECHNICAL PROPERTIES TO DETERMINE IF THE MATERIAL IS SUITABLE FOR BACKFILL.
- BACKFILL SOIL SHALL BE COMPACTED TO 95 PERCENT OF THE MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT (BASED ON ASTM D1557) OR IN ACCORDANCE WITH THE LOCAL CODES.
- PDF MAY BE USED AS BACKFILL MATERIAL WITH THE APPROVAL OF CEMC AND THE ENGINEER. THE CDF SHALL BE 1.5 TO 2 SACK SLURRY. NO COMPACTION TESTING IS REQUIRED FOR CDF.
- CLASS 2 AGGREGATE BASE SHALL BE PLACED UNDER NEW ASPHALT PAVEMENT. THE AGGREGATE BASE THICKNESS SHOULD EQUIVALENT TO THE EXISTING AGGREGATE BASE THICKNESS OR SIX INCHES WHICHEVER IS GREATER.
- PRIOR TO PAVING, THE CONTRACTOR SHALL REMOVE ALL VEGETATION, SURPLUS SOIL, RUBBLE, TRASH, DEBRIS AND OTHER MATERIALS AND PROVIDE A FLAT, UNYIELDING SUBGRADE SURFACE FOR PAVING, SATURATED, SOFT OR PUMPING SOILS SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL IN ACCORDANCE THESE SPECIFICATIONS.
- THE CONTRACTOR SHALL PREPARE THE SUB-GRADE ELEVATION TO MATCH THE BASE OF THE EXISTING PAVEMENT, UNLESS THE ASPHALT RESTORATION DESIGN EXCEEDS EXISTING IN-PLACE ASPHALT DESIGN.

4.0 PIPING

4.1 GENERAL

- THE LOCAL AUTHORITY, AND BUILDING AND PLUMBING CODES, ALONG WITH ASTM SPECIFICATIONS, SHALL BE USED TO DESIGN THE TYPES OF PIPING AND INSTALLATION METHODS REQUIRED FOR EACH REMEDIATION SITE.
- ALL PIPING WORK SHALL BE INSTALLED BY TRAINED PERSONNEL OPERATING UNDER A STATE-LICENSED CONTRACTOR.
- ALL MATERIALS SHALL BE NEW, UNLESS OTHERWISE SPECIFIED IN THE DESIGN PLANS.
- ALL MATERIALS AND WORK SHALL BE IN ACCORDANCE WITH THE PIPE MANUFACTURER'S SPECIFICATIONS, THE DESIGN PLANS, AND ALL APPLICABLE CODES.
- ALL PIPING AND PLUMBING SHALL BE PERFORMED BY TRAINED AND COMPETENT PERSONNEL, WHO MEET ALL OF THE REQUIREMENTS DICTATED BY THE LOCAL AUTHORITIES. IN ADDITION, THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THE INSTALLATION OF ANY EQUIPMENT OR MATERIALS WHICH REQUIRE SPECIFIC LICENSING SHALL BE PERFORMED UNDER THE DIRECTION OF THE INDIVIDUAL WHO HOLDS A CURRENT LICENSE FOR SUCH WORK.
- WHEN CONNECTING TO EXISTING UNDERGROUND PIPING, THE CONTRACTOR SHALL FIRST VERIFY THE EXISTING PIPING PATH. IF THE EXISTING UNDERGROUND PIPING IS TO BE USED FOR CONVEYANCE, THE CONTRACTOR SHALL ALSO FIELD VERIFY THE INTEGRITY OF THE EXISTING PIPE PRIOR TO CONNECTING TO IT.
- ALL PROCESS PIPING SHALL BE TESTED ACCORDING TO LOCAL SPECIFICATIONS AND WITNESSED BY THE ENGINEER OR THE ENGINEER'S REPRESENTATIVE. NO TESTING WILL BE CONDUCTED THROUGH INSTRUMENTS OR EQUIPMENT. NO VACUUM OR PRESSURE TESTING WILL OCCUR WITHOUT CHEVRON'S APPROVAL.
- THE PIPE FOR VAPOR LINES SHALL BE SLOPED TOWARDS THE WELLHEADS AT A RATIO OF 1:100 TO AVOID ACCUMULATION OF CONDENSATE IN THE PIPES. IF A TRENCH DEPTH OF GREATER THAN 4 FEET IS NEEDED TO ACHIEVE A REQUIRED SLOPE, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND IMPLEMENT MEASURES TO ADDRESS POTENTIAL CONDENSATE ACCUMULATION IN THE PIPE AS DIRECTED BY THE ENGINEER.
- WHERE PIPING IS INSTALLED ABOVE GROUND, PIPE SUPPORTS AND CLAMPS SHALL BE USED TO SUPPORT THE PIPE AT APPROPRIATE INTERVALS TO PREVENT SAG AS SPECIFIED BY THE PIPING MANUFACTURER'S SPECIFICATIONS. WHEN UNISTRUT SUPPORTS ARE USED THE ENDS OF THE SUPPORTS SHALL BE COVERED WITH PLASTIC PROTECTIVE CAPS.
- THE CONTRACTOR SHALL PAINT ALL ABOVE GROUND PIPING AS APPROPRIATE FOR UV PROTECTION, WHEN REQUIRED BY CODE AND TO IDENTIFY POTENTIAL HAZARDS (i.e., OVERHEAD PIPING, POTENTIAL TRIP HAZARD). WHEN PAINTING PIPING IS APPLICABLE, THE FOLLOWING SCHEDULE SHALL BE FUSED: "GREY - SOIL VAPOR", "YELLOW - GAS SUPPLY", "AIR LINES - NOT PAINTED".
- THE CONTRACTOR SHALL LABEL ALL ABOVE GROUND PIPING WITH INDELEIBLE OR PERMANENT MARKING INDICATING THE CONTENTS OF THE PIPE (i.e., "GROUNDWATER," "VAPOR," OR "TREATED WATER", COMPRESSED AIR, GAS, ELECTRIC) AND THE FLOW DIRECTION.
- THE CONTRACTOR SHALL MAKE ALL WELLHEAD CONNECTIONS AS SHOWN IN THE DESIGN PLANS.
- THE CONTRACTOR WILL IDENTIFY (ID) ALL WELL MANIFOLD PIPING STEEL TAGS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO STAMP THE APPROPRIATE WELL IDS ON THE STEEL TAGS AND ATTACH THE TAGS WITH CHAINS TO THE CORRESPONDING WELLS AT THE MANIFOLD.
- THE PIPING MATERIALS SHALL BE SPECIFIED BY THE ENGINEER IN THE DESIGN PLANS. ANY CONFLICTS OR QUESTIONS CONCERNING PIPE MATERIAL COMPATIBILITY, AS DISCOVERED BY THE CONTRACTOR, SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.
- THE USE OF DISSIMILAR METALS AND ALLOYS IN DIRECT CONTACT WITH EACH OTHER IS PROHIBITED ON ALL PIPE LINES CONTAINING LIQUIDS DUE TO THE POTENTIAL FOR GALVANIC CORROSION. WHERE DISSIMILAR METALS MUST BE JOINED, DI-ELECTRIC UNIONS OR COUPLERS SHALL BE USED.

16. TRACER WIRE TERMINALS WILL BE TAGGED AND IDENTIFIED IN THE EQUIPMENT COMPOUND, AT JUNCTION BOXES, AND WELL BOXES.

17. ALL UNDERGROUND PIPING SHALL BE IDENTIFIED USING TRACER WIRE AND METALLIC TAPE PLACED ABOVE THE PIPING AT THE TOP OF THE BEDDING MATERIAL ABOVE THE PIPING. TRACER WIRE TERMINALS WILL BE TAGGED AND IDENTIFIED IN THE EQUIPMENT COMPOUND, AT JUNCTION BOXES, AND WELL BOXES.

18. THE CONTRACTOR SHALL ENSURE THAT ALL FOREIGN MATERIALS HAVE BEEN REMOVED FROM THE UNDERGROUND PIPING FOLLOWING INSTALLATION AND BEFORE BACKFILLING.

19. ALL ABOVE GROUND PIPING SHALL BE PERMANENTLY LABELED WITH DIRECTIONAL FLOW ARROWS AND LINE CONTENTS AT 5 FOOT INTERVALS. (i.e., KNOCKOUT WATER, SOIL VAPOR, AND COMPRESSED AIR)

20. WHERE PIPING IS ROUTED ABOVEGROUND INSIDE THE EQUIPMENT ENCLOSURE, THE PIPING SHALL BE SUPPORTED BY UNI-STRUT PIPE SUPPORT AND CLAMPS. THE UNI-STRUT SUPPORTS SHALL BE FASTENED TO THE WALL OR MOUNTED ON A BASE THAT IS SECURED TO THE GROUND SURFACE AT 10 INCH MINIMUM SPACING.

4.2 POLYVINYL CHLORIDE (PVC) PIPE SPECIFICATIONS

1. ALL UNDERGROUND PVC PROCESS PIPING SHALL BE SCHEDULE 40 (UNLESS NOTED OTHERWISE IN DESIGN DRAWINGS). ALL ABOVEGROUND PVC PROCESS PIPING SHALL BE SCHEDULE 80 (UNLESS NOTED OTHERWISE IN DESIGN DRAWINGS OR REQUIRED BY APPLICABLE CODES).

2. ALL PIPE JOINTS ARE TO BE GLUED USING PVC PRIMER AND PVC SOLVENT CEMENT. CONNECTIONS TO OTHER TYPE OF PIPES ARE TO BE BY FLANGE OR MALE/FEMALE ADAPTERS SPECIFICALLY DESIGNED FOR A TRANSITION FROM PVC PIPE TO A SPECIFIC TYPE OF PIPE (i.e., GALVANIZED STEEL, COPPER).

3. PVC PIPE SHALL NOT BE USED FOR ABOVE GROUND OR UNDERGROUND COMPRESSED AIR SERVICE, OR FOR HIGH TEMPERATURE APPLICATIONS, SUCH AS BLOWER DISCHARGE PIPING.

4.3 GALVANIZED PIPE SPECIFICATIONS

1. GALVANIZED PIPE SHALL BE SCHEDULE 40 HOT-DIP GALVANIZED (HDG) STEEL PER ASTM A53.

2. GALVANIZED PIPE SHALL NOT BE USED TO CONVEY SOIL VAPOR. USE OF GALVANIZED PIPE PRIOR TO CATALYTIC OXIDIZER ABATEMENT SYSTEMS MAY INCREASE RISK OF POISONING THE CATALYTIC CELL MATERIAL. OXIDIZER VENDORS SHOULD BE CONSULTED FOR APPROPRIATE PIPING MATERIAL USE PRIOR TO INSTALLING THE OXIDIZER.

4.4 ABS COMPRESSED AIR PIPE SPECIFICATIONS

1. ABS PIPE AND FITTINGS SHALL BE DURAPLUS™ OR EQUIVALENT AND CAPABLE OF WITHSTANDING CONTINUOUS WORKING PRESSURES GREATER THAN 100 PSI.

2. ABS-COMPRESSED AIR FITTINGS SHALL BE THE SOCKET TYPE, DESIGNED FOR SOLVENT WELDING.

• FITTINGS SHALL BE DESIGNED AND MANUFACTURED TO WITHSTAND THE CONTINUOUS PRESSURES APPLICABLE TO THE MAXIMUM PRESSURE RATING OF THE PIPE.

• THE SOLVENT CEMENT SHALL BE ABS SOLVENT CEMENT AND DESIGNED TO WITHSTAND CONTINUOUS PRESSURES UP TO 185 PSI AT 73° F.

3. WHEN TRANSITIONING FROM ABS TO NON-ABS PIPING MATERIAL, THE CONTRACTOR SHALL ENSURE APPROPRIATE TRANSITION FITTINGS ARE USED.

4.5 PRESSURE TESTING

1. ALL PROCESS PIPING SHALL BE PRESSURE TESTED ACCORDING TO LOCAL SPECIFICATIONS AND WITNESSED BY AN ENGINEER OR AN APPROVED REPRESENTATIVE. NO TESTING WILL BE CONDUCTED THROUGH INSTRUMENTS OR EQUIPMENT.

2. ALL PVC LINES USED FOR VACUUM WILL BE TESTED AT 5 POUNDS PER SQUARE INCH (PSI) OF PRESSURE AND HELD FOR AN HOUR. IF A PRESSURE DROP OF MORE THAN 1 PSI IS OBSERVED DURING THE HOUR, THE LINE WILL BE INSPECTED AND REPAIRED AS NECESSARY PRIOR TO RETESTING THE LINE.

3. ALL PVC LINES USED FOR WATER WILL BE TESTED AT 5 PSI FOR A PERIOD OF 60 MINUTES. IF A LEAK IS OBSERVED DURING THE HDPE TESTING TIME OR A PRESSURE DROP OF MORE THAN 1 PSI IS NOTED, THE LINE WILL BE INSPECTED AND REPAIRED AS NECESSARY PRIOR TO RETESTING THE LINE.

4. ALL ABS LINES USED FOR COMPRESSED AIR WILL BE TESTED AT 100 PSI FOR A PERIOD OF 60 MINUTES. IF A PRESSURE DROP OF MORE THAN 1 PSI IS OBSERVED DURING THE TESTING TIME, THE LINE WILL BE INSPECTED AND REPAIRED AS NECESSARY PRIOR TO RETESTING THE LINE. A CURING TIME (MINIMUM OF 24 HOURS OR PER THE MATERIAL MANUFACTURER, WHICHEVER IS THE LARGEST), WILL BE FOLLOWED PRIOR TO BEGINNING ANY TESTING ON THE ABS LINES. ONLY THREADED FITTINGS TO BE USED ON THE ABS PIPE AND TRANSITION FITTINGS ARE TO BE METAL REINFORCED.

5.0 ASPHALT PAVEMENT

5.1 GENERAL

1. HOT MIX ASPHALT CONCRETE SHALL NOT BE USED TO RESTORE ASPHALT SURFACES AFFECTED BY CONSTRUCTION ACTIVITIES. EXCEPTION: ASPHALT COLD PATCH MAY BE USED AS A TEMPORARY SURFACE FOR SMALL PAVEMENT PATCHES (NOT TO EXCEED 3 FEET BY 3 FEET) DURING SITE CONSTRUCTION ACTIVITIES. TEMPORARY ASPHALT PATCH MUST BE REMOVED PRIOR TO OR DURING FINAL SITE RESTORATION ACTIVITIES.

2. ASPHALT DRIVEWAYS, PARKING STRIPS, OR OTHER AREAS DESIGNED FOR VEHICULAR AND PEDESTRIAN TRAFFIC SHALL BE RESTORED TO MATCH EXISTING GRADES.

3. THE CONTRACTOR SHALL ASSURE THAT THE SUB-GRADE HAS BEEN PROPERLY PREPARED. NO ASPHALT SHALL BE INSTALLED ON SATURATED, SOFT OR PUMPING SOIL, FROZEN SOIL, ICE, SNOW, OR STANDING WATER.

4. FINISHED SURFACES SHALL CONFORM TO EXISTING EDGES AND BE SMOOTH WITH UNIFORM TEXTURE AND BE FREE OF VOIDS, MOUNDS, RIDGES, DEPRESSIONS, CRACKS, ROLLER MARKS, PITS, OR OTHER IRREGULARITIES (1/4 INCH MAXIMUM OVER 10 FEET STRAIGHT EDGE). EDGES SHALL BE CAPPED OVER AND STRAIGHT. RESTORED PAVEMENT SURFACES NOT MEETING THESE REQUIREMENTS WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

No.	Date	Revisions	By	Ckd

Designed by	Drawn by	Checked by
	MTHJLH	



Design & Consultancy
for natural and
built assets

ARCADIS U.S., INC.

UNION OIL COMPANY OF CALIFORNIA STATION NO. 0752 • 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA
AS-BUILT DOCUMENTS

CONSTRUCTION NOTES AND SPECIFICATIONS

ARCADIS Project No. B0047339.5T16.00003
Date SEPTEMBER 2017
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- 5.2 ASPHALT CONCRETE MATERIALS
1. ASPHALT CONCRETE SHALL BE A HIGH-QUALITY, CONTROLLED HOT MIXTURE OF ASPHALT AND WELL-GRADED QUALITY AGGREGATE, AND COMPACTED INTO A UNIFORMLY DENSE MASS. THE PAVING MATERIALS SHALL CONFORM TO ASTM SPECIFICATION D3515.
 2. A TACK COAT BONDING AGENT SHALL BE APPLIED BETWEEN ASPHALT LAYERS, BETWEEN LAYERS OF CONCRETE OR SLURRY AND THE ASPHALT, AND BETWEEN CUT EDGES OF EXISTING ASPHALT TO BOND TO THE NEW ASPHALT TO THE OLD SURFACE. THE TACK COAT MATERIAL SHALL MEET THE SPECIFICATIONS IN ASTM D977 OR D2397 AND BE GRADES SS-1, SS-1H, CSS-1, OR CSS-1H. THE ASPHALT TACK COAT SHALL BE A DILUTED EMULSIFIED ASPHALT MIXTURE OF EQUAL PARTS EMULSION AND CLEAN WATER.
 3. THE AGGREGATE USED FOR THE BASE COURSE AND SURFACE MIXTURE SHALL BE CRUSHED STONE, GRAVEL, STONE OR SLAG SCREENINGS, SAND, MINERAL FILLER, OR A COMBINATION OF THESE MATERIALS. UNCRUSHED COARSE AGGREGATE MAY BE USED IN BASE COURSE MIXTURES ONLY.
 - COARSE AND FINE AGGREGATE SHALL CONFORM TO ASTM D692 AND ASTM D1073.
 - MINERAL FILLER SHALL CONFORM TO ASTM D242.
 - IF APPROVED FOR USE BY CHEVRON, SLAG SHALL BE BLAST FURNACE, AIR COOLED SLAG THAT IS NOT LESS THAN 70 POUNDS PER CUBIC FOOT IN MASS.
 4. THE LIQUID ASPHALT USED SHALL CONFORM TO ASTM D3381 AND D946, AND SHALL BE THE APPROPRIATE GRADE FOR THE AMBIENT MEAN ANNUAL TEMPERATURE CONDITIONS.
- 5.3 ASPHALT CONCRETE PAVEMENT CONSTRUCTION
1. PRIOR TO PLACING NEW ASPHALT ADJACENT TO EXISTING PAVEMENT, THE CONTRACTOR SHALL SAW-CUT A CLEAN, STRAIGHT EDGE ALONG THE EXISTING PAVEMENT, AND APPLY TACK COAT TO THE VERTICAL CUT SURFACE. ALL SAW CUT DEBRIS SHALL BE REMOVED FROM THE TRENCH PRIOR TO LAYING THE NEW PAVEMENT.
 2. THE TEMPERATURE OF THE ASPHALT MIXTURE SHALL NOT EXCEED 325° F WHEN DISCHARGED FROM THE SPREADER. INITIAL COMPACTION SHALL BE PERFORMED WHEN THE TEMPERATURE OF THE MIXTURE IS ESTIMATED TO BE LESS THAN 250° F. FINAL COMPACTION SHALL BEGIN WITH THE ASPHALT AS HOT AS POSSIBLE, BUT NOT LESS THAN 150° F.
 3. THE ASPHALT MIXTURE SHALL BE PLACED IN LIFTS AND COMPACTED TO A MAXIMUM NOMINAL THICKNESS OF 2 INCHES UNTIL THE NEW ASPHALT SURFACE MATCH THE EXISTING SURFACE. THE ASPHALT SHALL BE COMPACTED TO A MINIMUM OF 96 PERCENT OF THE REFERENCE DENSITY.
 4. A TACK COAT OF 0.15 GALLON PER SQUARE YARD OF DILUTED EMULSIFIED ASPHALT SHALL BE APPLIED BETWEEN THE BASE COARSE SURFACE AND ASPHALT PAVEMENT. ALL VERTICAL SURFACES, WHICH WILL CONTACT THE NEW ASPHALT PAVING, SHALL BE TACK COATED. THE TACK COAT SHALL BE ALLOWED TO CURE BEFORE ASPHALT PLACEMENT, AND SHALL BE APPLIED ON SURFACES THAT CAN BE COVERED WITH AN ASPHALT MIXTURE DURING THE SAME DAY.
 5. THE ASPHALT MIX SHALL BE COMPACTED IMMEDIATELY AFTER PLACEMENT. INITIAL COMPACTION SHALL BE ACCOMPLISHED USING A STEEL WHEEL TANDEM ROLLER, STEEL THREE-WHEELED ROLLER, OR VIBRATORY ROLLER. AS NEEDED, INTERMEDIATE ROLLING WITH A PNEUMATIC TIRE ROLLER SHALL BE DONE IMMEDIATELY BEHIND THE INITIAL ROLLING. IN AREAS TOO SMALL FOR THE ROLLER COMPACTOR, A VIBRATING PLATE COMPACTOR OR HAND TAMPER SHALL BE USED TO ACHIEVE THE REQUIRED COMPACTION. NOTE: THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING TRAFFIC LOADS ON NEWLY ASPHALTED SURFACES UNTIL IT HAS SUFFICIENTLY COOLED TO SUPPORT TRAFFIC.
 6. THE CONTRACTOR SHALL RETURN TO THE SITE AFTER ONE WEEK AND APPLY ASPHALT JOINT SEALER TO ALL ASPHALT JOINTS.

6.0 PORTLAND CEMENT CONCRETE PAVEMENT

- 6.1 GENERAL
1. FINISHED CONCRETE SURFACES SHALL BE TRUE AND EVEN WITH THE EXISTING GRADE (1/4 INCH MAXIMUM OVER 10 FEET STRAIGHT EDGE). THE SURFACE GRADE AND FINISH MUST MATCH THE SURROUNDING AREA. THE FINISHED CONCRETE SHALL BE FREE OF VOIDS, MOUNDS, RIDGES, DEPRESSIONS, CRACKS, OR OTHER IRREGULARITIES. ANY CONCRETE DETERMINED TO BE SUBSTANDARD SHALL BE REMOVED AND REPLACED AT NO COST TO CEMC OR THE ENGINEER.
 2. CONCRETE RESTORATION SHALL ONLY OCCUR ALONG VERTICAL FORMS OR SAW CUT WALLS. WHEN POSSIBLE, SAW CUTS SHALL FOLLOW EXISTING JOINTS AND THE LAYOUT EXISTING CONCRETE SURFACE PATTERNS. NEWLY PLACED CONCRETE PAVEMENT SHALL BE PROTECTED FROM VEHICULAR AND PEDESTRIAN TRAFFIC UNTIL IT IS SUITABLY CURED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OF THE CONCRETE PAVEMENT NOT MEETING DESIGN DOCUMENTS AND/OR SPECIFICATIONS.
 3. CONCRETE SHALL BE THOROUGHLY MIXED TO ASSURE UNIFORM MIXTURE OF COMPONENTS WITHIN THE MASS.
 4. THE SELECTED CONTRACTOR SHALL VERIFY ALL DIMENSIONS FOR CONCRETE RESURFACING REQUIREMENTS.
 5. A. THE REQUIREMENTS OF AMERICAN CONCRETE INSTITUTE (ACI) 301, SPECIFICATIONS FOR STRUCTURAL CONCRETE, SHALL APPLY AS MODIFIED HEREIN.
 B. CONCRETE STRENGTH AT 28 DAYS: 3,000 PSI.
 C. TYPE 2 PORTLAND CEMENT, 560 POUNDS PER CUBIC YARD (LB/CU YD) MINIMUM.
 D. AGGREGATE: ASTM C33 SIZE 67 OR 57 (3/4 INCH OR 1 INCH)
 E. REINFORCEMENT: ASTM A615, GRADE 60.
 F. MAXIMUM WATER/CEMENTITIOUS MATERIAL RATIO: 0.45.
 G. SLUMP: 3 INCHES +/- 1 INCH.
 H. SET REINFORCEMENT ON CONCRETE DOBIE BLOCKS WITH EMBEDDED WIRE TIES.
 I. WATER SHALL BE POTABLE, AND FREE OF ACIDS, ALKALIES, AND ORGANIC MATERIAL.

- 6.2 CONCRETE MATERIALS
1. PORTLAND CEMENT SHALL CONFORM TO ASTM C-150 TYPE II.
 2. FINE AND COARSE AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C-33 AND SHALL CONFORM TO THE APPROPRIATE ASTM GRADING REQUIREMENT. AGGREGATES SHALL BE CLEAN, HARD AND UNIFORMLY GRADED SAND, CRUSHED ROCK OR GRAVEL, FREE FROM LOAM, CLAY OR ORGANIC MATTER. SOUND AGGREGATE SHALL BE USED AND SHALL HAVE A MAXIMUM DIAMETER OF 1.5-INCHES.
 3. WATER SHALL BE POTABLE AND FREE OF ACIDS, ALKALIS, AND ORGANIC MATERIALS.
 4. THE CONCRETE MIX SHALL PASS A COMPRESSIVE STRENGTH TEST OF 2,500 PSI AFTER 28 DAYS. IN CERTAIN LOCALITIES, 3,000 PSI COMPRESSIVE STRENGTH CONCRETE IS REQUIRED BY SEISMIC CODE.
 5. THE CONCRETE MIX SHALL HAVE A MINIMUM SLUMP OF 3-INCHES AND A MAXIMUM SLUMP OF 4-INCHES.
 6. THE CONTRACTOR SHALL SPECIFY THE CONCRETE MIX, AND PROVIDE A COPY OF THE CONCRETE SPECIFICATIONS FOR APPROVAL FROM CEMC AND THE ENGINEER PRIOR TO PLACEMENT. IF REQUESTED, THE NUMBER OF BAGS OF CEMENT PER YARD, COMPRESSIVE STRENGTH, VOLUME OF WATER, SLUMP, TYPE AND WEIGHT OF FINE AND COARSE AGGREGATES, AND TYPE AND AMOUNT OF ADMIXTURES SHALL BE ADDRESSED IN THE SPECIFICATION.
- 6.3 CONCRETE JOINTS
1. JOINTS SHALL BE PROVIDED IN PAVING WHERE THEY PREVIOUSLY EXISTED AND SHALL BLEND SMOOTHLY WITH THOSE EXISTING JOINTS. AS A GENERAL RULE, JOINT SPACING SHALL NOT EXCEED 15 FEET.
 2. THE CONTRACTOR SHALL INSTALL THE SAME TYPE OF JOINT AS THOSE IN EXISTING SLAB.
 3. JOINTS SHALL BE PROVIDED ALONG PROPERTY LINES, WHERE ENTRY RAMPS CROSS AND AT CHANGES IN GRADE OR SLOPE.
 4. SAW CUT CONTROL JOINTS SHALL BE CUT 4 TO 12 HOURS AFTER CONCRETE IS POURED, OTHERWISE USE TOOLED OR PREFORMED JOINT INSERTS.
 5. THE CONTRACTOR SHALL USE AQUA CRETE® OR EQUIVALENT SEALANT TO SEAL THE CONCRETE JOINTS. JOINT SURFACES SHALL BE THOROUGHLY CLEANED PRIOR TO APPLYING JOINT COMPOUND.
- 6.4 CONCRETE PLACEMENT
1. THE CONTRACTOR SHALL ASSURE THAT THE SUB-GRADE HAS BEEN PROPERLY PREPARED. NO CONCRETE SHALL BE POURED ON SOFT, SATURATED OR PUMPING SOIL, FROZEN SOIL, ICE, SNOW, OR STANDING WATER.
 2. CONCRETE SHALL BE POURED IN ACCORDANCE WITH COMMONLY ACCEPTED INDUSTRY PRACTICES.
 - THE CONTRACTOR SHALL PREVENT OVERWORKING AND AGGREGATE SEGREGATION.
 - THE CONCRETE SHALL BE ADEQUATELY TAMPED OR VIBRATED TO PREVENT VOIDS OR HONEYCOMBING.
 - AREA BETWEEN JOINTS SHALL BE CAST AS ONE CONTINUOUS POUR.
 - CONCRETE CURBS SHALL BE MONOLITHICALLY POURED WITH THE ADJACENT CONCRETE PAVING, UNLESS PRIOR APPROVAL FROM THE ENGINEER IS OBTAINED.
 - THE MAXIMUM ALLOWABLE TRAVEL TIME TO THE SITE IN HOT WEATHER WILL BE 1 HOUR AND 15 MINUTES AND COLD WEATHER WILL BE 2 HOURS.
- 6.5 CONCRETE FINISHING
1. THE CONTRACTOR SHALL FINISH THE CONCRETE IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES.
 - AFTER ALL THE BLEED WATER HAS DISAPPEARED, THE CONTRACTOR SHALL FLOAT THE FLAT SURFACE BY HAND USING A TROWEL.
 - AFTER FLOATING, A SOFT CONCRETE FINISH BROOM SHALL BE USED TO FINISH THE SURFACE TO MATCH THE EXISTING CONCRETE FINISH.
 2. DRY CEMENT SHALL NOT BE USED TO REMOVE EXCESS WATER FROM THE SURFACE. FINISH WORK MUST BE DELAYED UNTIL THE WATER SHEEN HAS DISAPPEARED.
 3. WATER SHALL NOT BE ADDED TO EASE THE FINISHING.
 4. CARE SHALL BE USED TO NOT OVERWORK THE SURFACE.
 5. CONSTRUCTION/CONTROL JOINTS AND EDGES SHALL BE HAND-TOOLED TO A 1/4-INCH RADIUS.

7.0 ELECTRICAL

- 7.1 GENERAL
1. THE LOCAL AUTHORITY AND BUILDING CODES, INCLUDING THE NATIONAL ELECTRIC CODE (NEC), ARE USED TO DICTATE THE SPECIFIC TYPE OF ELECTRICAL ENCLOSURES AND RACEWAYS THAT ARE REQUIRED FOR USE IN SPECIFIC HAZARDOUS AND NON-HAZARDOUS LOCATIONS.
 2. ALL WORK WILL BE PERFORMED IN ACCORDANCE WITH THE NEC, LOCAL CODES WILL GOVERN, BUT ANY DIFFERENCES SHOULD BE POINTED OUT TO THE LOCAL AUTHORITY. ALL WORK SHALL CONFORM TO THE REGULATIONS AND SPECIFICATIONS OF THE LOCAL POWER COMPANY PROVIDING THE SERVICE.
 3. ELECTRICAL WORK SHALL ONLY BE CONDUCTED BY AN ELECTRICAL CONTRACTOR WHO IS LICENSED IN THE STATE WHERE THE WORK IS TO BE PERFORMED.
- 7.2 ELECTRICAL SERVICE
1. THE CONTRACTOR SHALL INSTALL A WEATHER-TIGHT MAIN ELECTRICAL BREAKER/DISCONNECT PANEL LOCATED OUTSIDE THE SVE/AS EQUIPMENT ENCLOSURE AS SHOWN ON THE SITE PLANS. THE MAIN PANEL SHALL HAVE A LOCKABLE DISCONNECT/SHUT-OFF SWITCH. THE CONTRACTOR SHALL INSTALL THE POWER AS REQUIRED BY THE ENGINEER.
 2. ALL SERVICE EQUIPMENT SHALL BE ENCLOSED IN A WATER-TIGHT NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA) ENCLOSURE, IF EXPOSED TO THE ELEMENTS.
 3. THE POWER METER IS TYPICALLY SUPPLIED AND INSTALLED BY THE LOCAL POWER UTILITY COMPANY.

4. IF THREE-PHASE POWER IS REQUIRED AND ONLY SINGLE-PHASE POWER IS AVAILABLE, A PHASE CONVERTER SHALL BE USED FOR THOSE COMPONENTS REQUIRING SUCH SERVICE. THE EQUIPMENT VENDOR SHALL ENSURE THAT ALL ELECTRICAL MOTORS AND CONTROLS ARE RATED FOR CONVERTER USE, AND CAN WITHSTAND THE ADDITIONAL HEAT BUILDUP CAUSED BY PHASE CONVERTER USE.
- 7.3 ELECTRICAL SERVICE DISCONNECTS
 1. THE CONTRACTOR SHALL INSTALL ALL SERVICE DISCONNECT SWITCHES NECESSARY TO SAFELY SHUTDOWN AND LOCKOUT THE SVE/AS EQUIPMENT.
 2. AT A MINIMUM, THE SWITCHES SHALL BE CONTAINED IN A WATER-TIGHT NEMA 4 PANEL.
 3. THE CONTRACTOR SHALL INSTALL AN EMERGENCY STOP SWITCH ON THE EXTERIOR OF THE COMPOUND.
 - 7.4 ELECTRICAL ABOVE GROUND CONDUITS AND ENCLOSURES
 1. THE CONTRACTOR SHALL INSTALL THREADED RIGID GALVANIZED METAL CONDUIT IN ALL ABOVEGROUND INSTALLATIONS, UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.
 2. THREADED JOINTS SHALL BE INSTALLED PER LOCAL CODE WITH AT LEAST FIVE THREADS FULLY ENGAGED.
 3. ALL COUPLINGS, UNIONS, JUNCTION BOXES, DEVICE BOXES, AND CONDUIT BODIES SHALL HAVE TIGHT JOINTS.
 4. IN UNCLASSIFIED AREAS, LIQUID-TIGHT FLEXIBLE NONMETALLIC TUBING MAY BE USED TO MAKE CONNECTIONS TO MOTORS AND OTHER ELECTRICAL EQUIPMENT. THE MAXIMUM LENGTH SHALL NOT EXCEED 18 INCHES.
 5. WIRE NUTS OR TWIST-LOCK TERMINATIONS SHALL NOT BE USED FOR GROUND, MOTOR, OR POWER CONNECTIONS.
 - 7.5 ELECTRICAL GROUNDING
 1. THE CONDUIT SYSTEM AND NEUTRAL CONDUCTORS SHALL BE GROUNDED IN ACCORDANCE WITH LOCAL CODE. GROUND TESTING SHALL BE DOCUMENTED AND SUBMITTED TO THE ENGINEER.

8.0 CONSTRUCTION DETAILS

- 8.1 EQUIPMENT ENCLOSURE
1. INSTALL FENCING, BOLLARDS, AND EQUIPMENT ENCLOSURE AS SHOWN ON THE DESIGN PLANS.
 2. CONTRACTOR SHALL INSTALL THE FOLLOWING SIGNAGE ON ALL SIDES OF THE EQUIPMENT BUILDING AND INSIDE THE DOOR OF THE REMEDIATION EQUIPMENT BUILDING:
 - DANGER HIGH VOLTAGE
 - NO SMOKING
 - 24-HOUR CONTACT NUMBERS
 - PROPOSITION 65 SIGN
 - NFPA 704 SIGN
 - EMERGENCY CONTACT INFORMATION
 3. CONTRACTOR WILL SUPPLY AND INSTALL A YELLOW WALL MOUNT STORAGE BOX, KNOCK PADLOCK, FIRE BLANKET, AND FIRST AID KIT.

9.0 CONSTRUCTION SCHEDULE

1. THE CONTRACTOR SHALL CONFIRM A CONSTRUCTION SCHEDULE WITH THE ENGINEER AT LEAST ONE WEEK (5 BUSINESS DAYS) PRIOR TO ANY WORK AT THE SITE.
2. THE PROPOSED CONSTRUCTION SCHEDULE SHALL BE PRESENTED IN A TIME LINE FORMAT SHOWING ESTIMATED START DATE, DURATION AND COMPLETION TIMES FOR EACH ACTIVITY. ANY DEVIATION FROM THE ORIGINALLY PROPOSED SCHEDULE MUST BE COMMUNICATED TO THE ENGINEER WITHIN 24-HOURS.
3. THE CONTRACTOR SHALL MAKE PROPER AND TIMELY NOTIFICATION OF ALL WORK AND INSPECTIONS TO REGULATORY OR GOVERNING AGENCIES AS REQUIRED BY BUILDING AND OTHER CONSTRUCTION PERMITS.

10.0 CONTRACTOR SAFETY REQUIREMENTS

1. THE CONTRACTOR IS RESPONSIBLE FOR THE SAFETY OF HIS PERSONNEL AND SUBCONTRACTOR PERSONNEL. THE CONTRACTOR SHALL CONFORM WITH THE ENGINEER'S AND CEMC BEHAVIOR BASED SAFETY PROGRAM REQUIREMENTS. AT A MINIMUM THE CONTRACTOR SHALL:
 - DEVELOP AND HAVE AVAILABLE SITE SPECIFIC HEALTH AND SAFETY PLAN (HASP) AND JOURNEY MANAGEMENT PLAN (JMP) WHICH CONFORMS TO THE ENGINEER'S AND CEMC STANDARDS. CEMC REPRESENTATIVE WILL REVIEW HASP AND JMP PRIOR TO START OF FIELD WORK.
 - DEVELOP AND HAVE AVAILABLE ON SITE JOB SAFETY ANALYSIS (JSA) FORMS OUTLINING THE TASKS TO BE PERFORMED, THE JOB STEPS, THE HAZARDS, AND THE MITIGATING PROCEDURES TO MINIMIZE RISK AND MAXIMIZE SAFETY. CEMC REPRESENTATIVE WILL REVIEW JSAs PRIOR TO START OF FIELD WORK.
 - COMPLETE THE CEMC PERMIT-TO-WORK PROCESSES AND PROCEDURES.
 - CONDUCT AND DOCUMENT A TAILGATE SAFETY MEETING EACH MORNING AND AFTERNOON WHEN SITE WORK IS TO BE PERFORMED.
 - ENSURE COMPLIANCE WITH ALL FEDERAL AND STATE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND LOCAL SAFETY REGULATIONS.
 - MEET REQUIREMENTS OF CEMC SHORT SERVICE EMPLOYEE (SSE) PROCESS.
 - ENSURE THE APPROPRIATE PERSONNEL HAVE RECEIVED DEFENSIVE DRIVING TRAINING.
2. WORK HOURS SHALL BE DURING DAYLIGHT HOURS ONLY, UNLESS APPROVED BY THE CEMC PROJECT MANAGER AND ENGINEER PRIOR TO THE WORK BEING PERFORMED. WEEKEND WORK WILL NOT BE ALLOWED, UNLESS APPROVED BY CHEVRON PROJECT MANAGER AND ENGINEER PRIOR TO THE WORK BEING PERFORMED. WORK HOURS MAY BE DICTATED BY THE LOCAL PLANNING DEPARTMENT OR THE BUILDING PERMIT.
3. THE CONTRACTOR SHALL HAVE SUFFICIENT QUANTITIES AND QUALITY OF HARD HATS, GOGGLES, SAFETY GLASSES, REFLECTIVE VESTS, AND GLOVES ON SITE TO OUTFIT ALL CONTRACTOR WORKERS, AND PROVIDE FOR A SECURE WORK AREA.

4. THE CONTRACTOR SHALL SECURE ALL WORK AREAS WITH BARRICADES, SNOW FENCE, OR TEMPORARY CHAIN LINK FENCE TO PROTECT THE WORK AREA FROM INTRUSION BY UNAUTHORIZED VEHICLES OR PEDESTRIANS. WHEN CONDITIONS WARRANT, THE CONTRACTOR SHALL PROVIDE TRAFFIC FLAGGERS IN ADDITION TO BARRICADES TO CONTROL INGRESS AND EGRESS FROM THE WORK AREA. A TRAFFIC CONTROL PLAN SHALL BE INCLUDED IN THE CONTRACTOR HASP.
5. A PRE-CONSTRUCTION SAFETY MEETING SHALL BE HELD AT THE SITE WITHIN TWO WEEKS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION. THE PRE-CONSTRUCTION SAFETY MEETING SHALL BE ATTENDED BY CEMC, THE ENGINEER, THE CONTRACTOR, AND OTHER INTERESTED PARTIES.
 - AS THE SITE IS AN ACTIVE BUSINESS, THE SITE OWNER/MANAGER MUST BE PRESENT TO DISCUSS IMPACTS TO THE FACILITY ACTIVITIES.
 - THE BASIS FOR THE JMP IS TO BE DISCUSSED DURING THE MEETING. INGRESS AND EGRESS FOR EQUIPMENT AND DELIVERIES, EXCLUSION ZONES, IMPACTS ON VEHICLE AND PEDESTRIAN TRAFFIC, AND EMERGENCY RESPONSE ARE TO BE DISCUSSED AND DOCUMENTED DURING THE MEETING.
6. THE CONTRACTOR SHALL HAVE ACCESS TO AT LEAST ONE 20-POUND DRY CHEMICAL TYPE-ABC FIRE EXTINGUISHER AT THE SITE, WITH CURRENT INSPECTION TAGS, DURING ALL CONSTRUCTION ACTIVITIES.
7. THE CONTRACTOR SHALL CONTAIN LOOSE DEBRIS AND STORE CONSTRUCTION MATERIALS ON A DAILY BASIS MAKE SURE THAT THE WORK AREA IS CLEAN AND ORDERLY PRIOR TO DEPARTURE FROM THE SITE.

11.0 EQUIPMENT

1. EQUIPMENT TO BE PROVIDED TO THE CONTRACTOR BY THE ENGINEER FOR INSTALLATION, IS DESCRIBED ON SHEET M-1, M-2, AND M-3 (PROCESS AND INSTRUMENTATION DIAGRAM) AND IS INCLUDED ON SHEET G-2 (MAJOR EQUIPMENT AND INSTRUMENT LIST). EQUIPMENT NOT EXPLICITLY DETAILED AS SUPPLIED BY THE ENGINEER ON SHEETS M-1, M-2, M-3, AND G-2 SHALL BE SUPPLIED BY THE CONTRACTOR.
2. CONTRACTOR TO SUPPLY AND INSTALL A MINIMUM OF TWO (2) 20-POUND CLASS ABC FIRE EXTINGUISHERS IN ALL WEATHER FIRE EXTINGUISHER CABINETS IN ACCORDANCE WITH CEMC REQUIREMENTS AND LOCAL FIRE CODE.

12.0 SAFETY/CLEANUP

1. THE CONTRACTOR SHALL CONDUCT TASK IMPROVEMENT PROCESS (TIP) IN ACCORDANCE WITH ARCADIS POLICY AND PROCEDURES.
2. ALL EMPLOYEES OF THE CONTRACTOR SHALL BE CURRENT WITH THEIR 40- HOUR HAZWOPER TRAINING AND 8-HOUR REFRESHER.
3. CONTRACTOR SHALL MARK ALL POTENTIAL OVERHEAD AND/OR TRIP HAZARDS IN YELLOW.
4. THE CONTRACTOR SHALL HAVE SUFFICIENT QUANTITIES OF PERSONAL PROTECTIVE EQUIPMENT (PPE) AND SAFETY EQUIPMENT ON SITE TO OUTFIT ALL CONTRACTOR AND SUBCONTRACTOR WORKERS, AND PROVIDE FOR A SECURE WORK AREA.
5. THE CONTRACTOR SHALL HAVE ACCESS TO AT LEAST ONE FIRST AID KIT, EYEWASH STATION, AND 20-POUND CLASS ABC FIRE EXTINGUISHER, WITH CURRENT INSPECTION TAGS AT THE SITE, DURING ALL CONSTRUCTION ACTIVITIES.

13.0 INSPECTIONS

1. ALL SITE INSPECTIONS REQUIRE A MINIMUM OF 24 HOURS NOTICE BEFORE START OF WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING, FACILITATING, AND OBTAINING ALL REQUIRED INSPECTIONS, INCLUDING CITY OF OAKLAND, ALAMEDA COUNTY.

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING.	USE TO VERIFY FIGURE REPRODUCTION SCALE	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> </tr> <tr> <td>No.</td> <td>Date</td> <td colspan="2">Revisions</td> <td>By</td> <td>Ckd</td> <td colspan="2"></td> </tr> <tr> <td colspan="8" style="text-align: center; font-size: small;">THIS DRAWING IS THE PROPERTY OF THE ARCADIS ENTITY IDENTIFIED IN THE TITLE BLOCK AND MAY NOT BE REUSED OR ALTERED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN PERMISSION OF SAME.</td> </tr> </table>									No.	Date	Revisions		By	Ckd			THIS DRAWING IS THE PROPERTY OF THE ARCADIS ENTITY IDENTIFIED IN THE TITLE BLOCK AND MAY NOT BE REUSED OR ALTERED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN PERMISSION OF SAME.								<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="3" style="text-align: center;">Professional Engineer's Name JESSE BROCKMAN</td> </tr> <tr> <td colspan="3" style="text-align: center;">Professional Engineer's No. C81811</td> </tr> <tr> <td style="width: 33%;">State CA</td> <td style="width: 33%;">Date Signed</td> <td style="width: 33%;">Project Mgr.</td> </tr> <tr> <td>Designed by</td> <td>Drawn by MTHJLH</td> <td>Checked by</td> </tr> </table>	Professional Engineer's Name JESSE BROCKMAN			Professional Engineer's No. C81811			State CA	Date Signed	Project Mgr.	Designed by	Drawn by MTHJLH	Checked by	<p>ARCADIS U.S., INC.</p>	UNION OIL COMPANY OF CALIFORNIA STATION NO. 0752 • 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA AS-BUILT DOCUMENTS <h2 style="margin: 0;">CONSTRUCTION NOTES AND SPECIFICATIONS</h2>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: x-small;">ARCADIS Project No. B0047339.ST16.00003</td> </tr> <tr> <td style="font-size: x-small;">Date SEPTEMBER 2017</td> </tr> <tr> <td style="font-size: x-small;">ARCADIS 2999 OAK ROAD SUITE 300 WALNUT CREEK, CALIFORNIA TEL. 925.274.1100</td> </tr> </table>	ARCADIS Project No. B0047339.ST16.00003	Date SEPTEMBER 2017	ARCADIS 2999 OAK ROAD SUITE 300 WALNUT CREEK, CALIFORNIA TEL. 925.274.1100	G-1B
No.	Date	Revisions		By	Ckd																																									
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EQUIPMENT AND INSTRUMENT LIST

ITEM	ITEM DESCRIPTION	QUANTITY	DRAWING NO.	RESPONSIBILITY
1	SVE REMEDIATION TRAILER	1	C-3, M-1	ENGINEER
2	AIR SPARGE SKID	1	C-3, M-1	CONTRACTOR
3	SVE MANIFOLD	1	C-7	CONTRACTOR
4	AS MANIFOLD	1	C-7	CONTRACTOR
5	CHAIN-LINK FENCE	1	C-8	CONTRACTOR
6	E-STOP BUTTON	2	C-8	CONTRACTOR
7	PANIC BAR EXIT DEVICE	1	C-8	CONTRACTOR
8	20-POUND CLASS ABC FIRE EXTINGUISHER	2	---	CONTRACTOR
9	SAFETY SIGNS AS OUTLINED ON SHEET G-1D	6	G-1D	CONTRACTOR

WELL SCHEDULE

WELL	TOTAL DEPTH (FT BGS)	CASING DIAMETER (IN)	SCREEN INTERVAL (FT BGS)
706 HARRISON ST.			
SVE WELLS			
VW-3	18	2.0	8-18
VW-4	18	2.0	8-18
VW-5	17	2.0	7-17
VE-5	15	2.0	5-15
AIR SPARGE WELLS			
SP-3	28	1	27-28
SP-5	29.5	1	28.5-29.5
AS-7	33	2.0	28-30
AS-8	33	2.0	28-30
AS-9	33	2.0	28-30
AS-10	33	2.0	28-30
AS-11	34	2.0	29-31
AS-12	33	2.0	28-30
AS-13	33	2.0	28-30
AS-14	33	2.0	28-30
726 HARRISON ST.			
SVE WELLS			
VE-3	15	2.0	5-15
VE-4	15	2.0	5-15
AIR SPARGE WELLS			
AS-1	30	2.0	28-30
AS-2	33	2.0	28-30
AS-3	33	2.0	28-30
AS-4	35	2.0	30-32
AS-5	35	2.0	30-32
AS-6	35	2.0	30-32

<p>THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING.</p> <p>USE TO VERIFY FIGURE REPRODUCTION SCALE</p>	<p>Professional Engineer's Name JESSE BROCKMAN</p> <p>Professional Engineer's No. CB1811</p> <p>State CA Date Signed Project Mgr.</p> <p>Designed by Drawn by MTHJLH Checked by</p>	<p>ARCADIS U.S., INC.</p>	<p>UNION OIL COMPANY OF CALIFORNIA STATION NO. 0752 • 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA</p> <p>AS-BUILT DOCUMENTS</p> <h2 style="margin: 0;">MAJOR EQUIPMENT AND INSTRUMENT LIST</h2>	<p>ARCADIS Project No. B0047339.ST16.00003</p> <p>Date SEPTEMBER 2017</p> <p>ARCADIS 2999 OAK ROAD SUITE 300 WALNUT CREEK, CALIFORNIA TEL. 925.274.1100</p>	G-2
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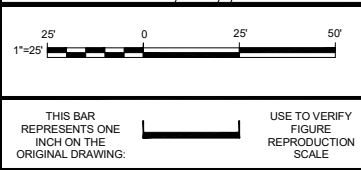


LEGEND

- PROPERTY BOUNDARY
- MW-1 GROUNDWATER MONITORING WELL (UNOCAL)
- MW-1 GROUNDWATER MONITORING WELL (GIN)
- VW-3/SP-3 SOIL VAPOR/SPARGE WELL (GIN)
- MW-1 GROUNDWATER MONITORING WELL (YEE)
- AS-1 AIR SPARGE WELL
- EW-1 EXTRACTION WELL (YEE)
- MPE-1 MULTI-PHASE EXTRACTION PILOT TEST WELL (PZ-1 IS LOCATED IN THE SAME BOREHOLE)
- MP-1 PILOT TEST MONITORING POINT
- VE-1 VAPOR EXTRACTION WELL (DESTROYED)
- VE-3 PILOT TEST VAPOR EXTRACTION WELL
- VE-4 VAPOR EXTRACTION WELL

NOTES:

1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'. WELL LOCATIONS AND SELECT SITE FEATURES SURVEYED 8/28/17 BY MUIR CONSULTING, INC.
2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.



No.	Date	Revisions	By	Ckd

Professional Engineer's Name
JESSE BROCKMAN
 Professional Engineer's No.
 CB1811
 State CA Date Signed Project Mgr.
 Designed by Drawn by MTHJLH Checked by

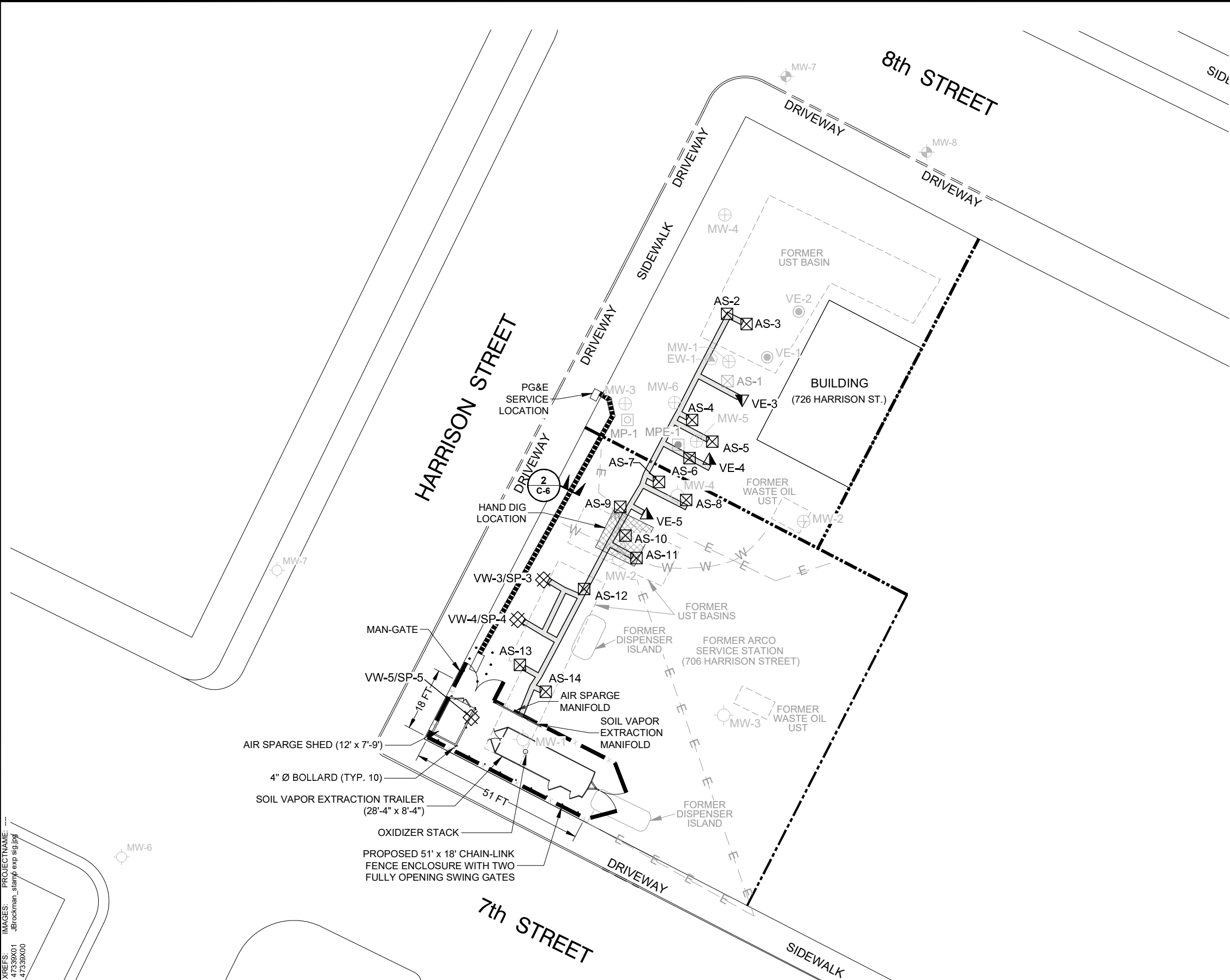
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 AS-BUILT DOCUMENTS
SITE PLAN

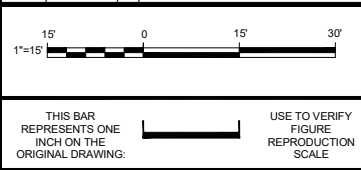
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 B0047339.ST16.00003
 Date
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 XREFS: IMAGES: jbrockman_stamp_exp.sldjpg 47339X01 47339X00
 PROJECT NAME: 7/23/2018



- LEGEND**
- PROPERTY BOUNDARY
 - MW-1 GROUNDWATER MONITORING WELL (UNOCAL)
 - MW-1 GROUNDWATER MONITORING WELL (GIN)
 - VW-3/SP-3 SOIL VAPOR/SPARGE WELL (GIN)
 - MW-1 GROUNDWATER MONITORING WELL (YEE)
 - AS-1 AIR SPARGE WELL
 - EW-1 EXTRACTION WELL (YEE)
 - MPE-1 MULTI-PHASE EXTRACTION PILOT TEST WELL (PZ-1 IS LOCATED IN THE SAME BOREHOLE)
 - MP-1 PILOT TEST MONITORING POINT
 - VE-1 VAPOR EXTRACTION WELL (DESTROYED)
 - VE-3 PILOT TEST VAPOR EXTRACTION WELL
 - VE-4 VAPOR EXTRACTION WELL
 - PROPOSED SYSTEM TRENCHING
 - W--- WATER UTILITY LINE
 - E--- ELECTRICAL UTILITY LINE
 - ELECTRIC UTILITY TRENCH

- NOTES:**
- BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'. WELL LOCATIONS AND SELECT SITE FEATURES SURVEYED 8/28/17 BY MUIR CONSULTING, INC.
 - COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.



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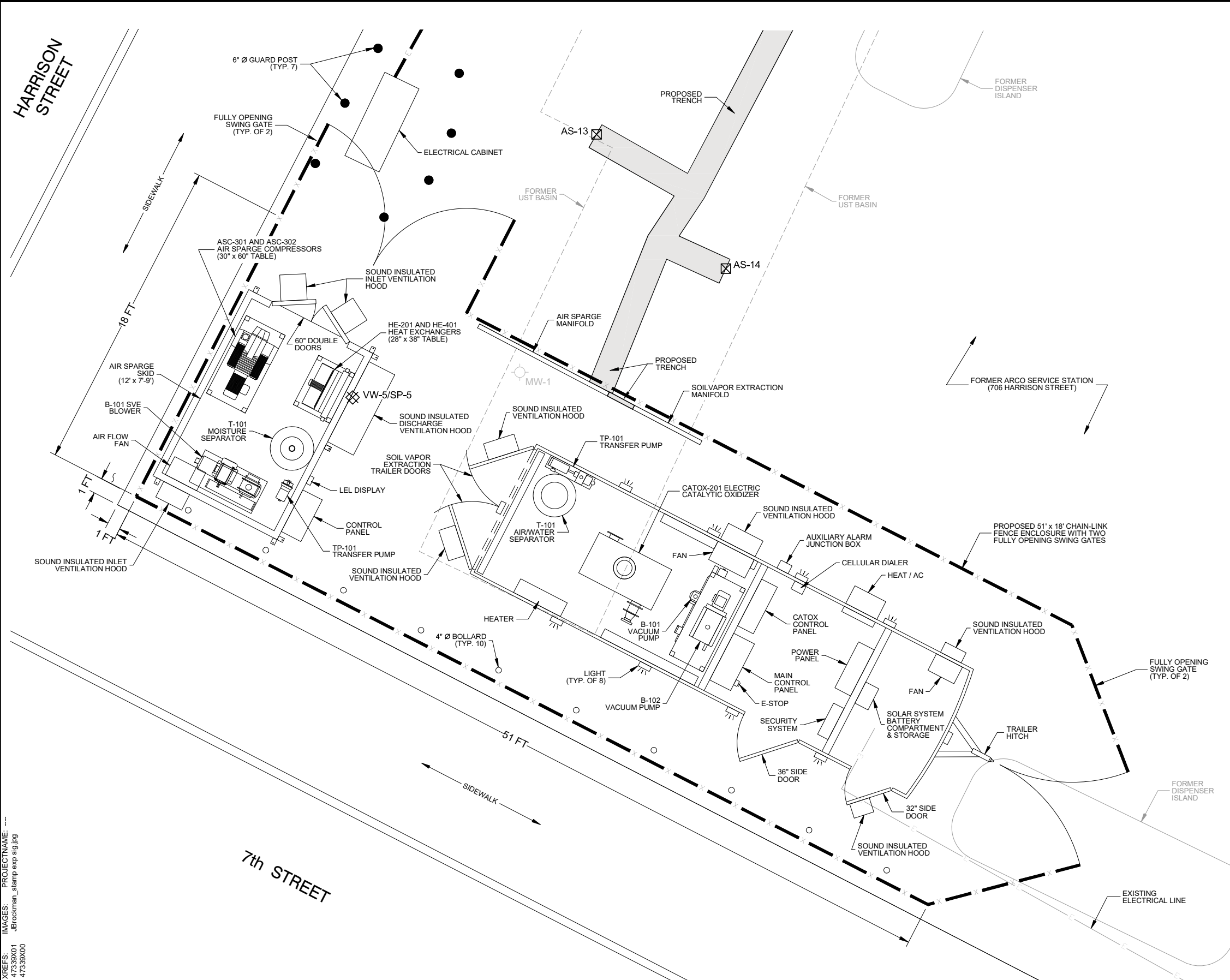
Professional Engineer's Name JESSE BROCKMAN		
Professional Engineer's No. CB1811		
State CA	Date Signed	Project Mgr.
Designed by	Drawn by MTHJLH	Checked by

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 AS-BUILT DOCUMENTS
SITE PLAN WITH PROPOSED REMEDIATION SYSTEM

ARCADIS Project No. B0047339.ST16.00003
Date SEPTEMBER 2017
ARCADIS 2999 OAK ROAD SUITE 300 WALNUT CREEK, CALIFORNIA TEL. 925.274.1100

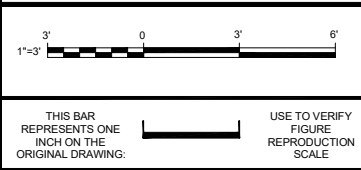
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- LEGEND**
- MW-1 GROUNDWATER MONITORING WELL (GIN)
 - VW-5/SP-5 SOIL VAPOR/SPURGE WELL (GIN)
 - AS-13 AIR SPARGE WELL
 - PROPOSED SYSTEM TRENCHING
 - EXISTING ELECTRICAL UTILITY LINE
 - PROPOSED ELECTRICAL UTILITY LINE
 - PROPOSED FENCE

- NOTES:**
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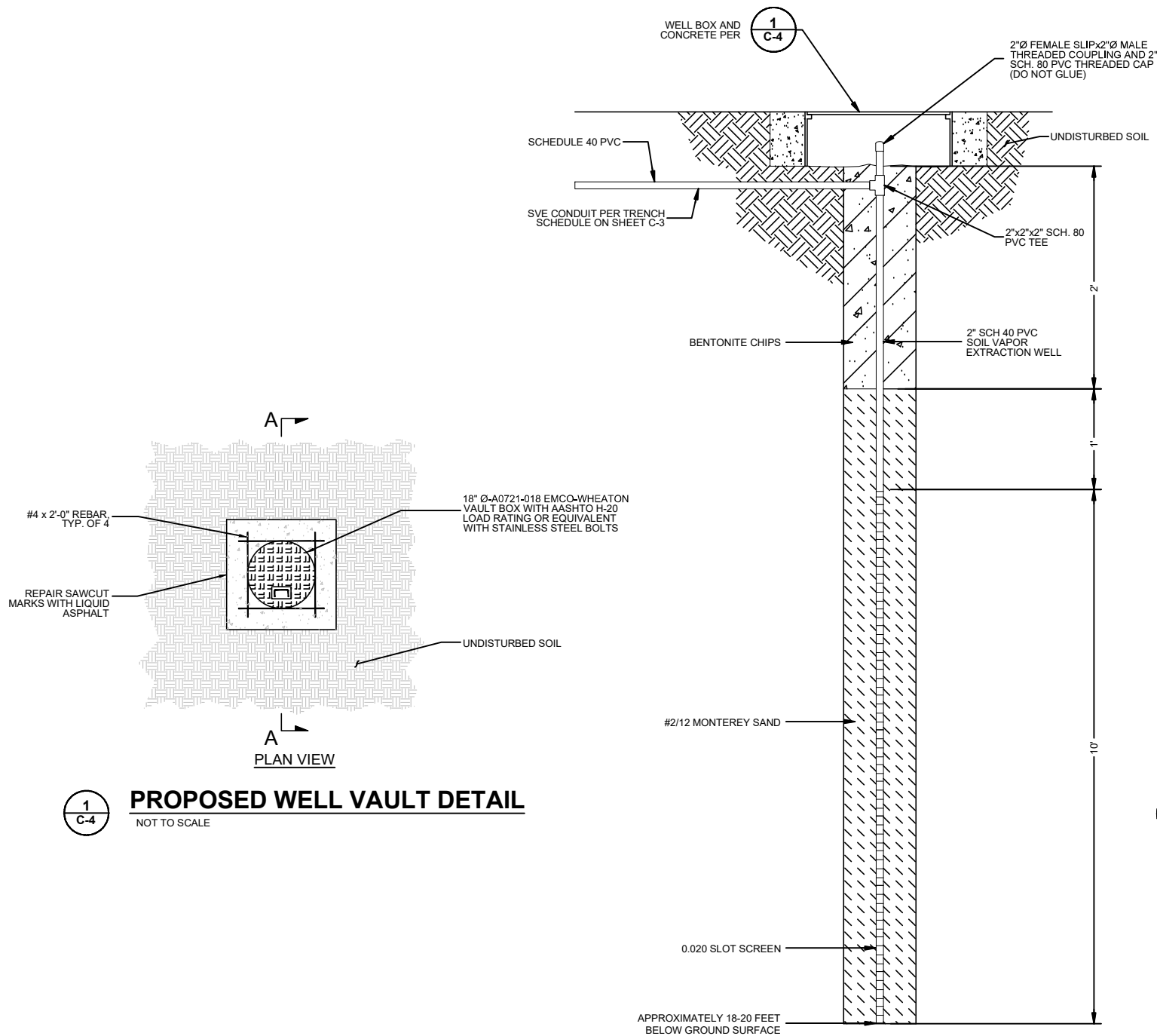
ARCADIS Design & Consultancy for natural and built assets
 ARCADIS U.S., INC.

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 AS-BUILT DOCUMENTS
REMEDIATION SYSTEM DETAILS

ARCADIS Project No. B0047339.ST16.00003
Date SEPTEMBER 2017
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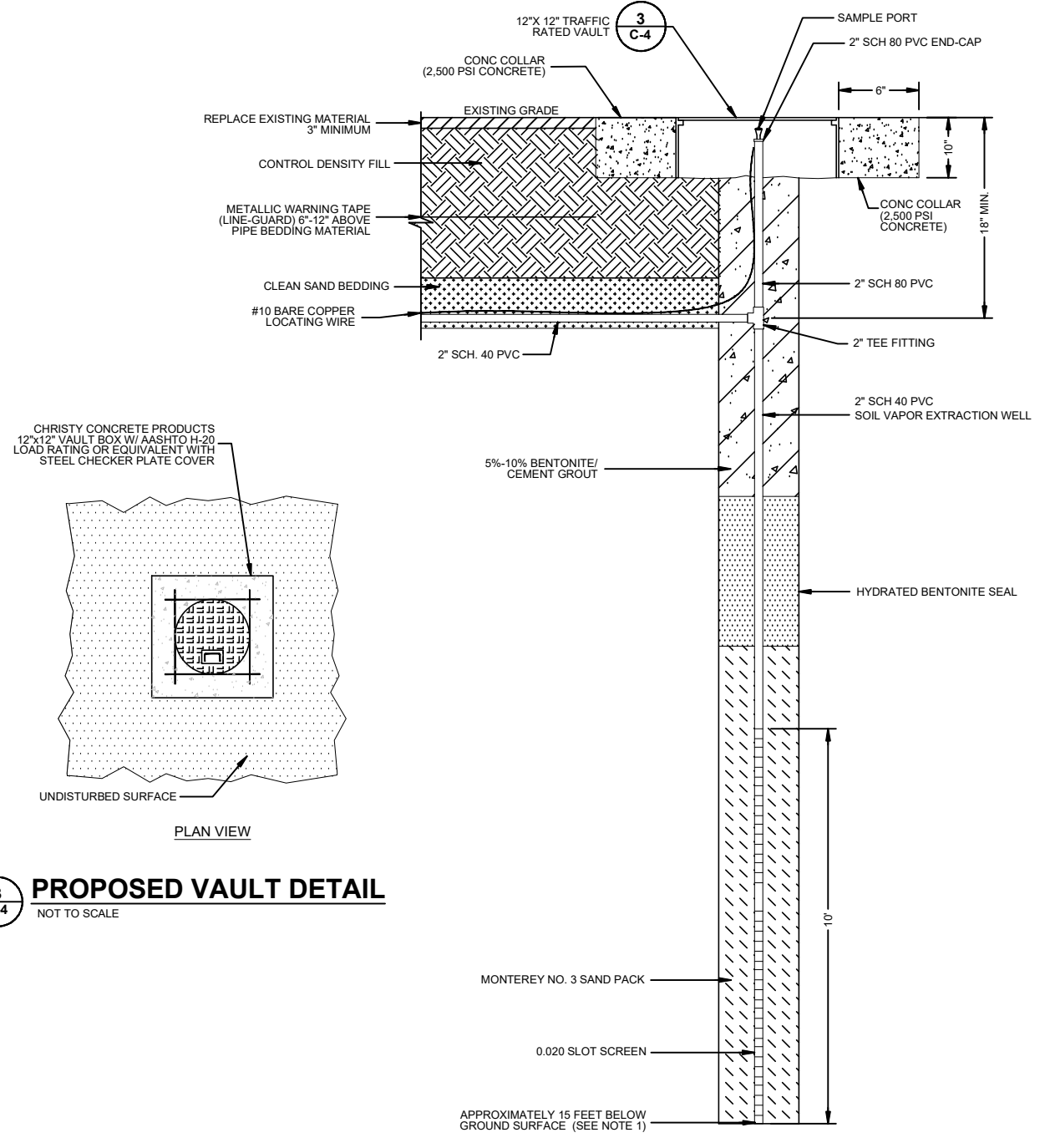
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1 C-4 PROPOSED WELL VAULT DETAIL
 NOT TO SCALE

2 C-4 EXISTING SVE WELL SECTION (VE-3, VW-4, VW-5)
 NOT TO SCALE



3 C-4 PROPOSED VAULT DETAIL
 NOT TO SCALE

4 C-4 EXISTING SVE WELL SECTION (VE-4, VE-5)
 NOT TO SCALE

NOTES:
 1. ACTUAL WELL DEPTH MAY VARY BASED ON FIELD CONDITIONS.

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USE TO VERIFY FIGURE REPRODUCTION SCALE

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Designed by	Drawn by MTHJLH	Checked by



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 AS-BUILT DOCUMENTS

SOIL VAPOR EXTRACTION WELL, VAULT AND WELLHEAD DETAILS

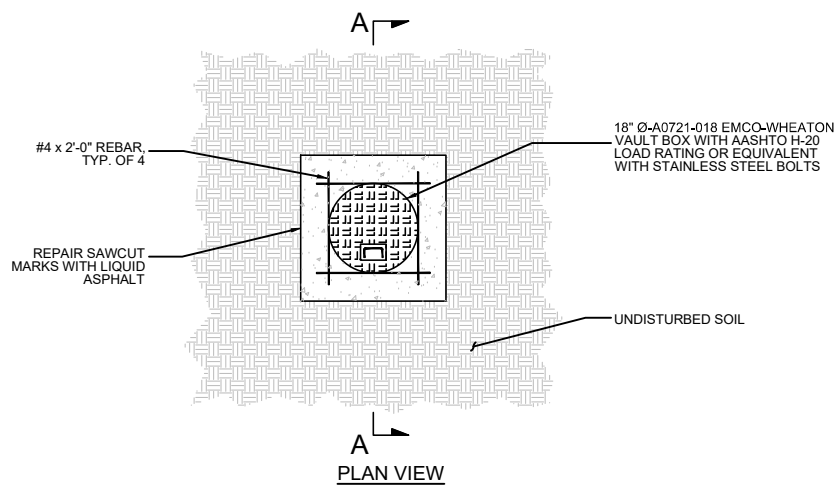
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Date
SEPTEMBER 2017

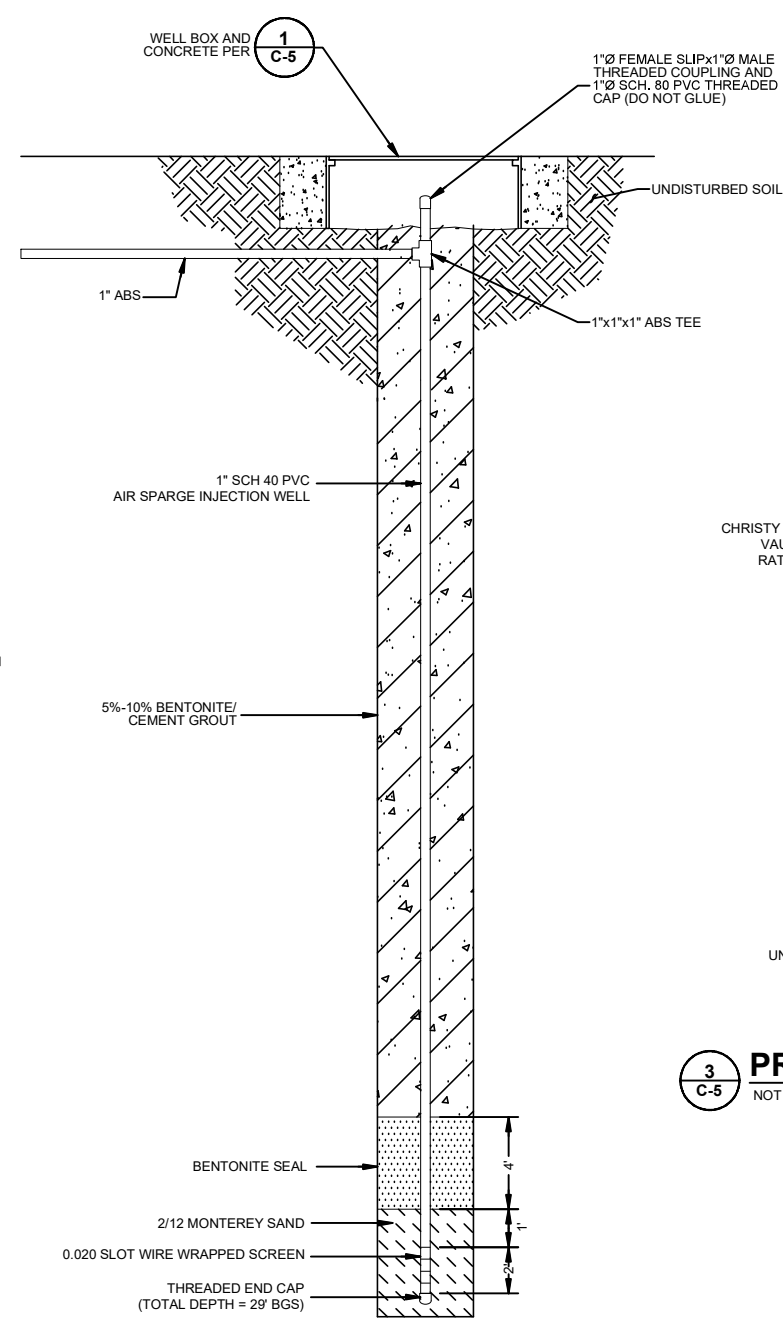
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2999 OAK ROAD
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WALNUT CREEK, CALIFORNIA
TEL. 925.274.1100

C-4

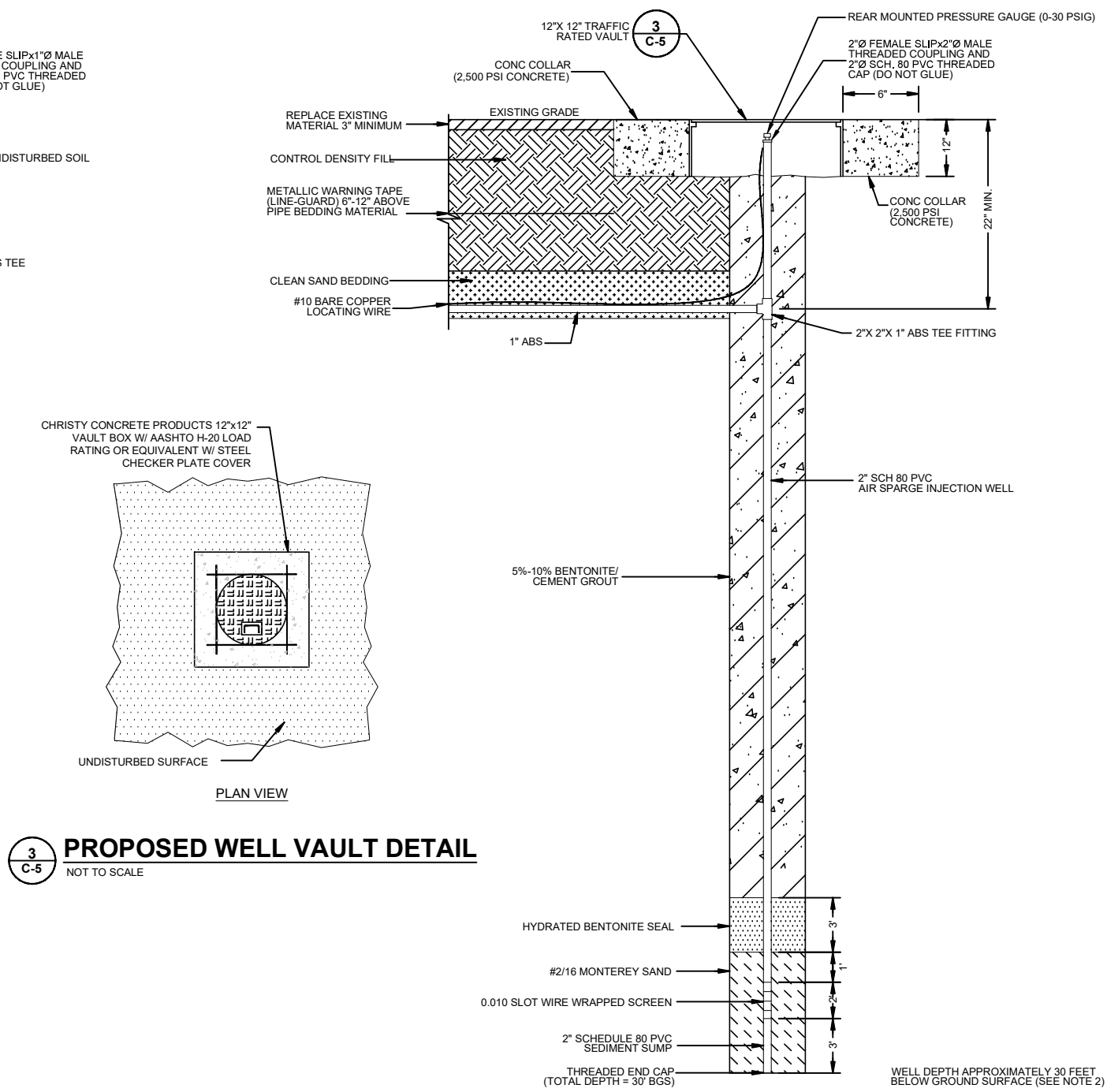
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1
C-5
EXISTING WELL VAULT DETAIL
NOT TO SCALE



2
C-5
AS WELL SECTION (AS-1)
NOT TO SCALE

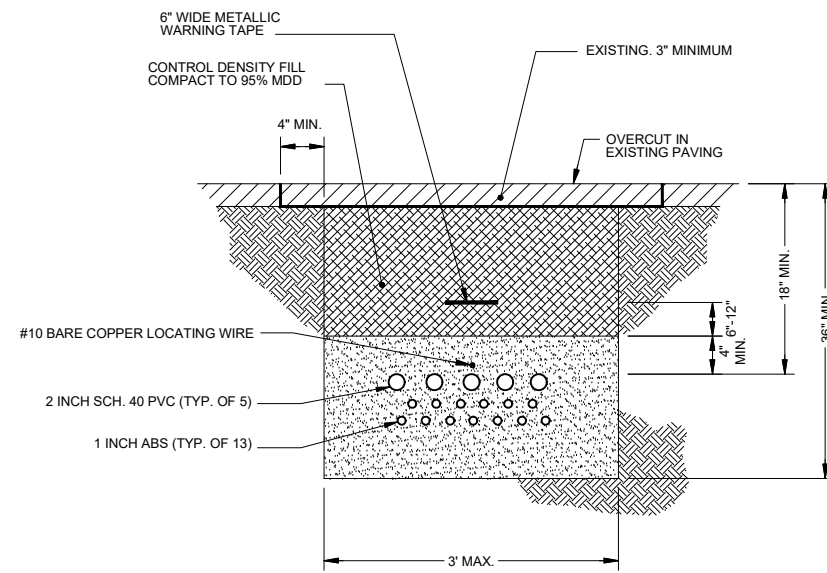


3
C-5
PROPOSED WELL VAULT DETAIL
NOT TO SCALE

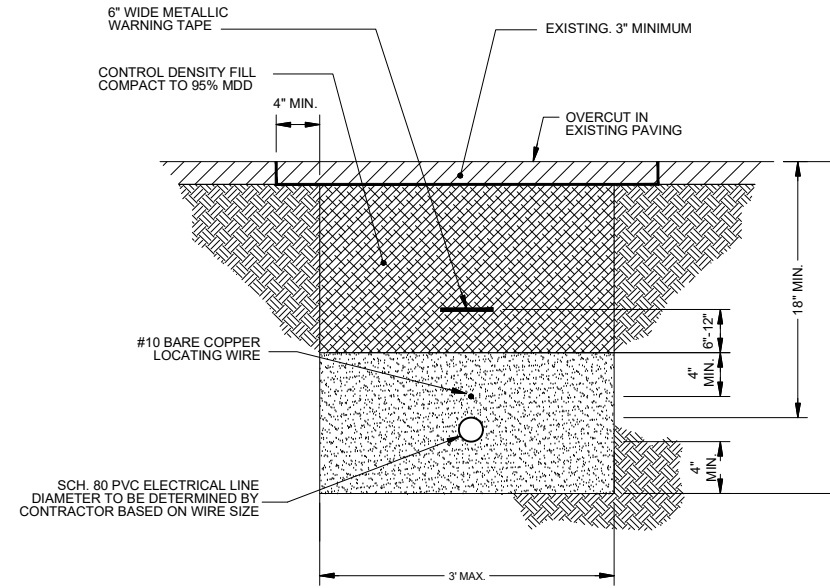
4
C-5
AS WELL SECTION (AS-2 THROUGH AS-12)
NOT TO SCALE

- NOTES:
- EXISTING WELL DEPTHS VARY BETWEEN 29.5 TO 35 FEET BELOW GROUND SURFACE.
 - ACTUAL WELL DEPTH MAY VARY BASED ON FIELD CONDITIONS. THE BOTTOM OF THE SCREEN INTERVAL WILL BE PLACED AT THE CLAY INTERFACE ON THE SUBSURFACE LITHOLOGY.

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING.	USE TO VERIFY FIGURE REPRODUCTION SCALE.	Professional Engineer's Name JESSE BROCKMAN		UNION OIL COMPANY OF CALIFORNIA STATION NO. 0752 • 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA AS-BUILT DOCUMENTS	ARCADIS Project No. B0047339.ST16.00003	C-5
		Professional Engineer's No. C81811				
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1
C-6
MULTIPLE AS/SVE PIPING TRENCH DETAILS (TYP.)
 NOT TO SCALE



2
C-6
ELECTRICAL TRENCH DETAILS
 NOT TO SCALE

- NOTE:
 1. SEE SHEETS G-1A, G-1B, G-1C AND THE GREENBOOK FOR ADDITIONAL NOTES AND SPECIFICATIONS.

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Professional Engineer's Name JESSE BROCKMAN		
Professional Engineer's No. CB1811		
State CA	Date Signed	Project Mgr.
Designed by	Drawn by MTHJLH	Checked by



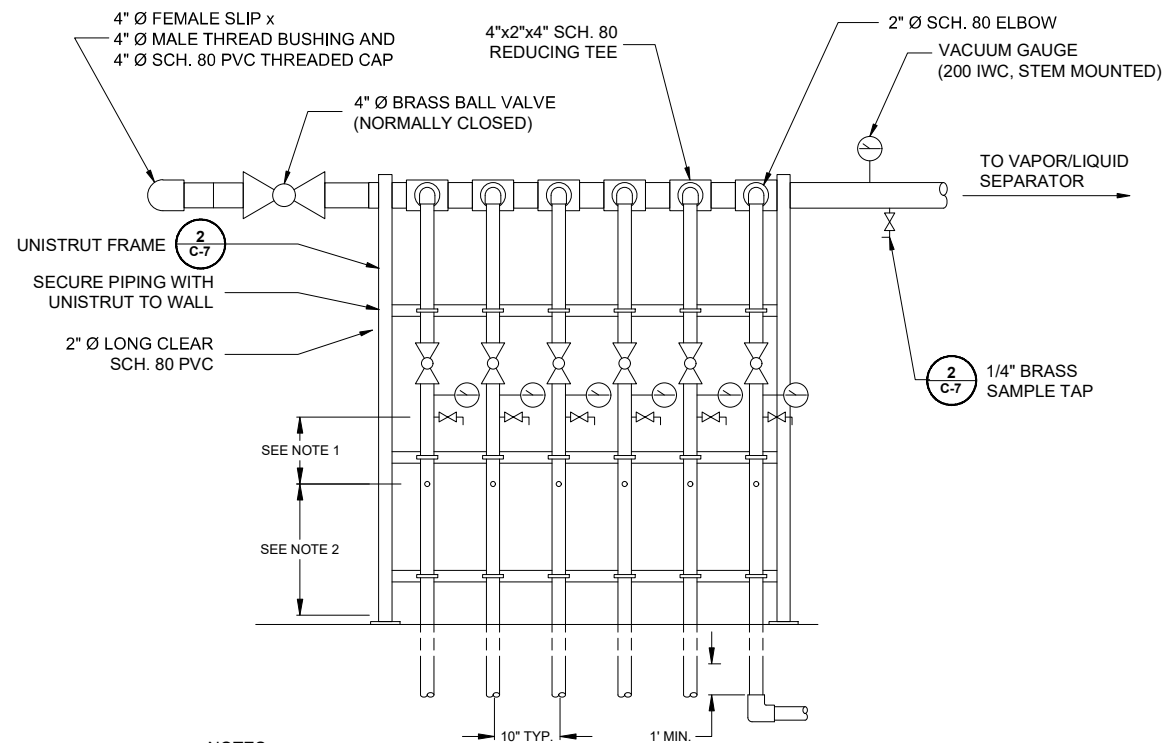
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 AS-BUILT DOCUMENTS

TRENCHING DETAILS

ARCADIS Project No. B0047339.ST16.00003
Date SEPTEMBER 2017
ARCADIS 2999 OAK ROAD SUITE 300 WALNUT CREEK, CALIFORNIA TEL: 925.274.1100

C-6

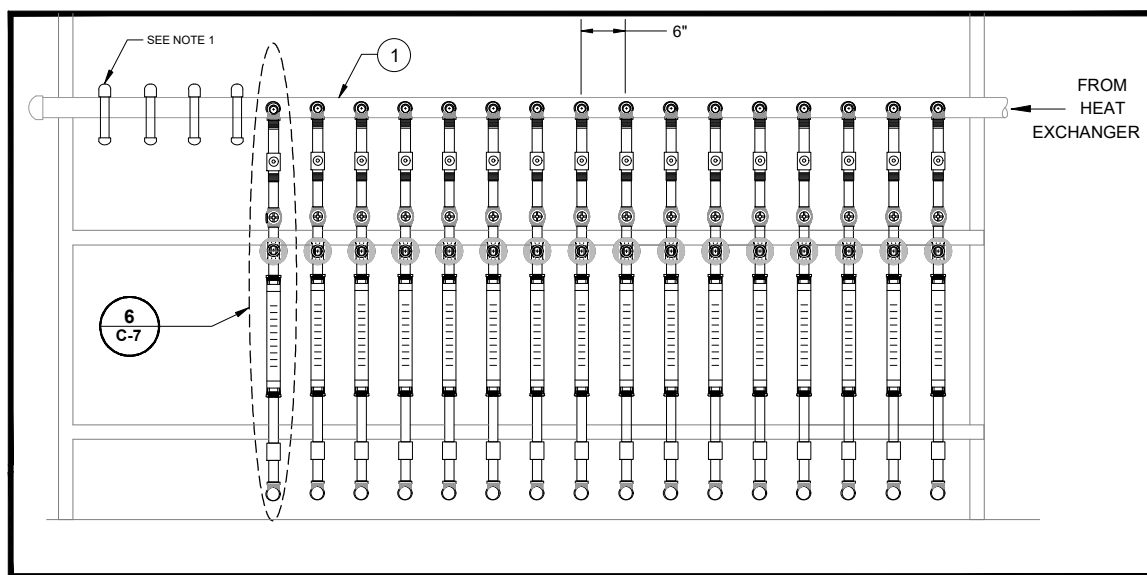
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 PLOTTED: 10/30/2018 2:47 PM BY: HARRIS, JESS
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NOTES:

1. MINIMUM 5 PIPE DIAMETERS WITH NO BENDS, COUPLINGS, FITTINGS OR UNIONS.
2. MINIMUM 10 PIPE DIAMETERS WITH NO BENDS, COUPLINGS, FITTINGS OR UNIONS, MINIMUM 1' ABOVE GROUND.
3. A TOTAL OF 6 SVE LINES ARE SET IN MANIFOLD
4. TWO EXISTING GWE STUBOUTS WILL BE CONVERTED TO SVE PIPING AND ADDED TO SVE MANIFOLDS.

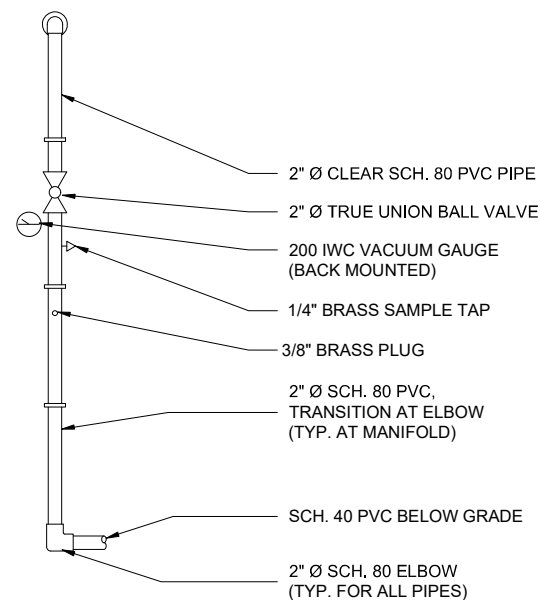
1 SVE PIPING MANIFOLD DETAIL
NOT TO SCALE



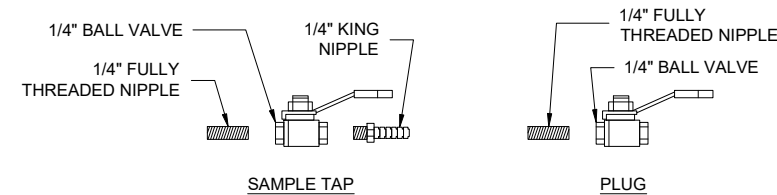
NOTES:

1. A TOTAL OF 16 AS LINES WILL BE SITUATED IN MANIFOLD.

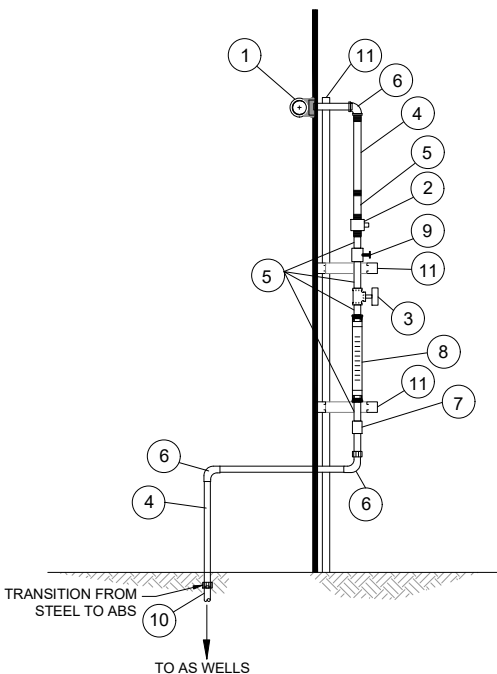
4 AS PIPE MANIFOLD
NOT TO SCALE



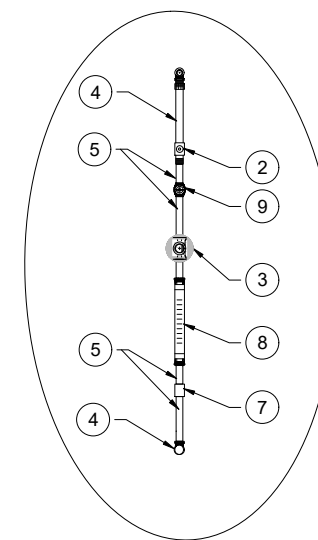
2 SVE PIPING MANIFOLD COMPONENTS
NOT TO SCALE



3 SAMPLE PORT AND PLUG DETAIL
NOT TO SCALE



5 AS MANIFOLD CONNECTION DETAIL
NOT TO SCALE



6 AS MANIFOLD COMPONENTS
NOT TO SCALE

AS MANIFOLD COMPONENTS

- (1): 2" WELDED STEEL DISTRIBUTION MANIFOLD (MOUNTED ON UNISTRUT)
- (2): 1" DIRECT-ACTING SOLENOID VALVE
- (3): PRESSURE GAUGE (0-30 PSIG)
- (4): 1" SCH 40 GALVANIZED STEEL PIPE
- (5): 1" X 4" SCH 40 GALVANIZED STEEL NIPPLE
- (6): 1" 90° SCH 40 GALVANIZED STEEL ELBOW
- (7): CHECK VALVE
- (8): VARIABLE AREA IN-LINE FLOW INDICATOR (4-23 SCFM)
- (9): 1" GATE VALVE
- (10): 1" ABS PIPE
- (11): UNISTRUT

NOTES:
 " - INCH/INCHES
 ' - FOOT/FEET
 Ø - DIAMETER

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Professional Engineer's Name JESSE BROCKMAN		
Professional Engineer's No. CB1811		
State CA	Date Signed	Project Mgr.
Designed by	Drawn by MTHJLH	Checked by

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Professional Engineer's No. CB1811		
State CA	Date Signed	Project Mgr.
Designed by	Drawn by MTHJLH	Checked by

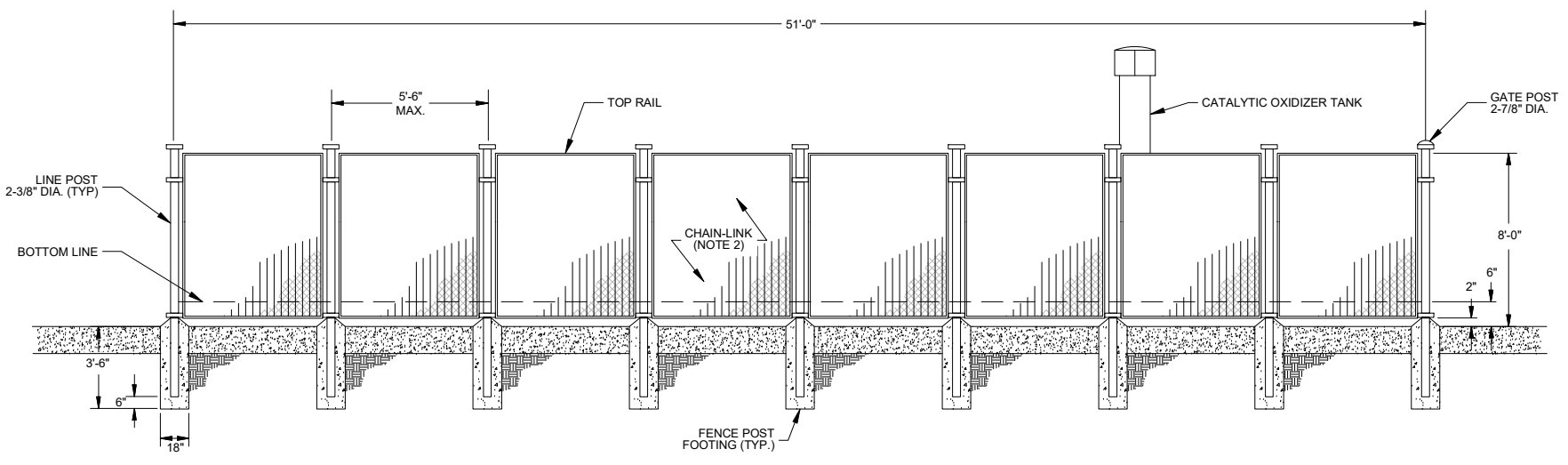
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 ARCADIS U.S., INC.

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 AS-BUILT DOCUMENTS
MANIFOLD CONNECTION DETAILS

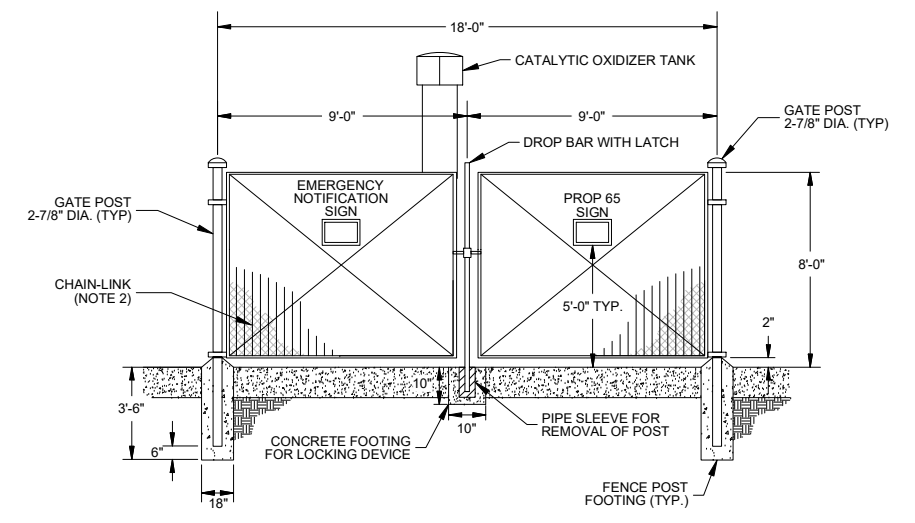
ARCADIS Project No. B0047339.ST16.00003
Date SEPTEMBER 2017
ARCADIS 2999 OAK ROAD SUITE 300 WALNUT CREEK, CALIFORNIA TEL. 925.274.1100

C-7

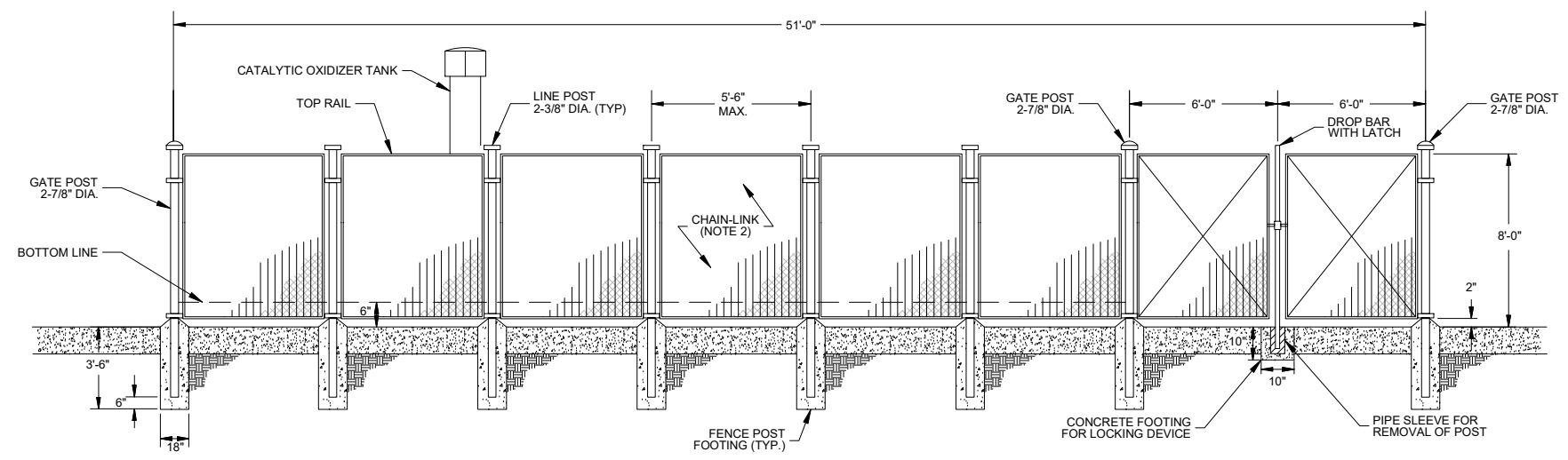
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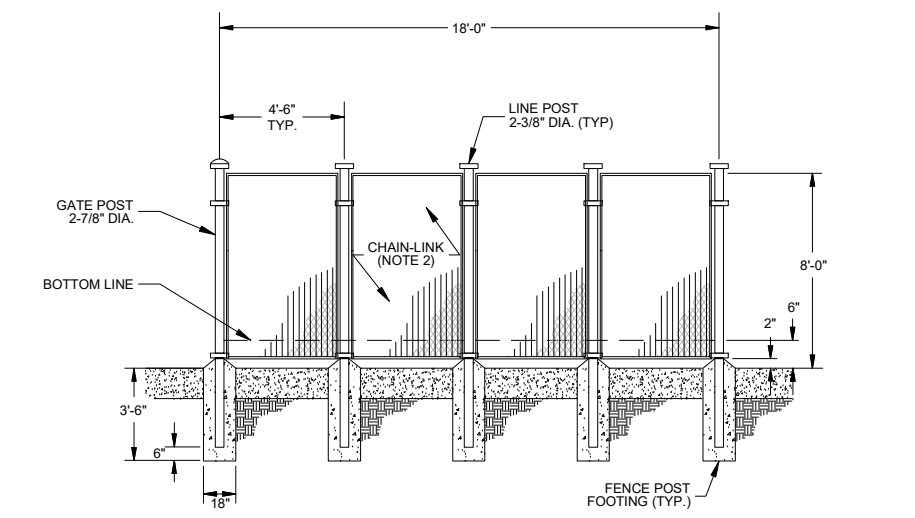
1 SOUTH ELEVATION
 NOT TO SCALE



2 EAST ELEVATION
 NOT TO SCALE



3 NORTH ELEVATION
 NOT TO SCALE



4 WEST ELEVATION
 NOT TO SCALE

- NOTES:**
1. PROVIDE POST CAP FOR GATE POSTS, CORNER POSTS, AND LINE POSTS.
 2. FENCING AND GATE SHALL BE 8 FEET HIGH, #9 GAUGE - 2" MESH GALVANIZED, CHAIN-LINK, PERMANENT CONSTRUCTION WITH PREINSTALLED WHITE VINYL SECURITY SLATS.

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Professional Engineer's Name JESSE BROCKMAN		
Professional Engineer's No. CB1811		
State CA	Date Signed	Project Mgr.
Designed by	Drawn by MTHJLH	Checked by

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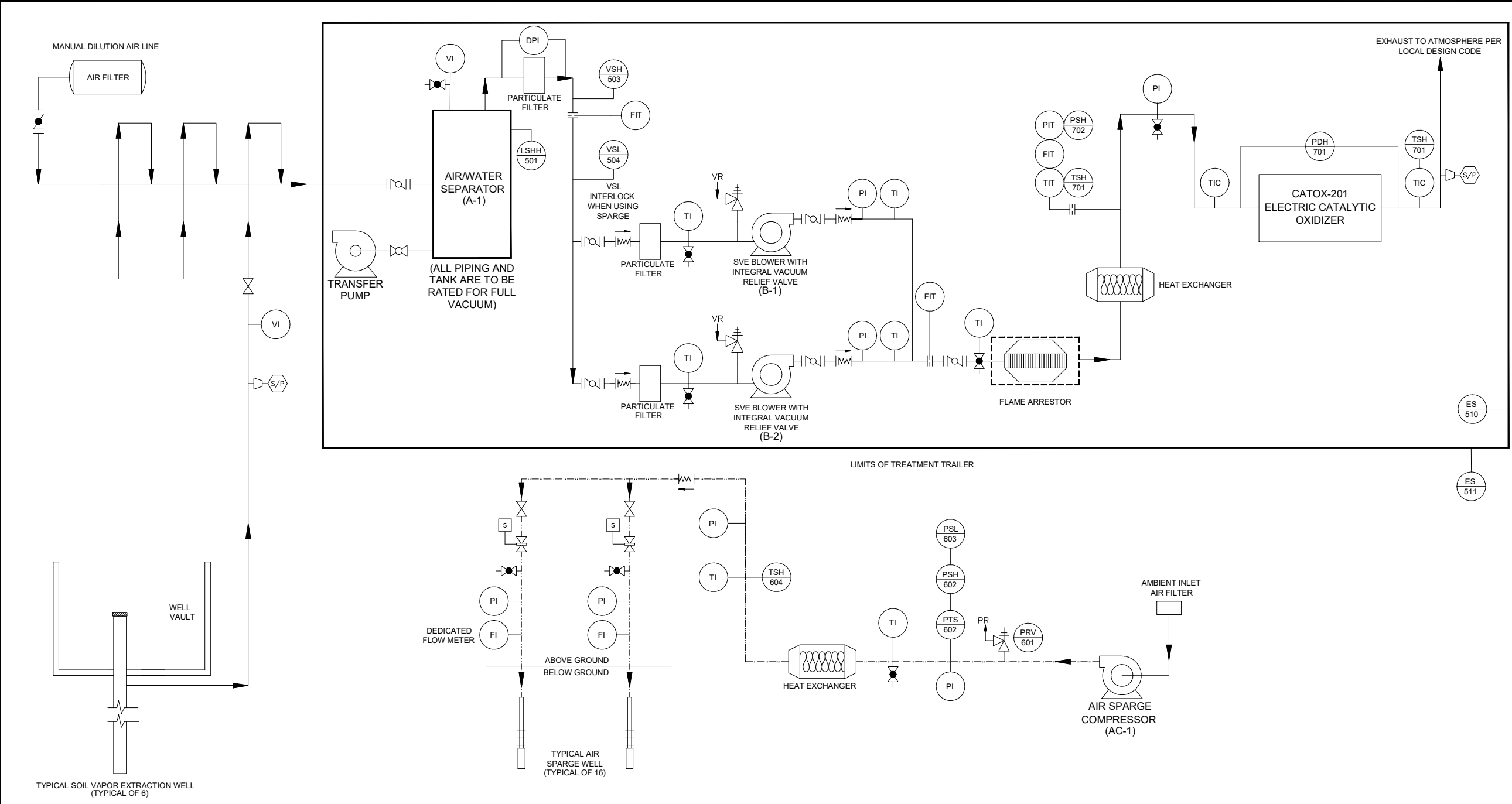
AS-BUILT DOCUMENTS

CHAIN-LINK FENCE DETAILS

ARCADIS Project No. B0047339.ST16.00003
Date SEPTEMBER 2017
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C-8

CITY: SAN RAFAEL, CA DIV/GROUP: ENV/CAD DB: M. HOEFER, J. HARRIS
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 PLOTTED: 10/30/2018 2:51 PM BY: HARRIS, JESS



- PRIMARY EQUIPMENT SYMBOLS**
- VACUUM BLOWER
 - AIR FILTER
 - FLAME ARRESTOR
 - HEAT EXCHANGER
- FITTINGS SYMBOLS**
- REDUCER
 - FLOW METER
- VALVE SYMBOLS**
- GATE (NORMALLY OPEN)
 - BALL (NORMALLY OPEN)
 - BALL (NORMALLY CLOSED)
 - BUTTERFLY (NORM. OPEN)
 - BUTTERFLY (NORM. CLOSED)
 - SPRING CHECK
 - SOLENOID (NORMALLY CLOSED; FAIL CLOSED)
 - VACUUM RELIEF
 - PRESSURE RELIEF
 - SAMPLE PORT (NORMALLY CLOSED)

CONTROL UNIT	FUNCTION
LSHH 501	LEVEL SWITCH/ALARM HIGH HIGH: TURNS OFF ALL SYSTEMS
VSH 503	VACUUM SWITCH/ALARM HIGH HIGH: TURNS OFF ALL SYSTEMS
VSL 504	VACUUM SWITCH/ALARM LOW: TURNS OFF ALL SYSTEMS INTERLOCK WHEN USING SPARGE SYSTEM

ALL HIGH HIGH OR LEL LEVEL SWITCHES ARE MANUAL RESET

CONTROL UNIT	FUNCTION
ES 510	EMERGENCY STOP SWITCH (INTERNAL): TURNS OFF ALL SYSTEMS
ES 511	EMERGENCY STOP SWITCH (EXTERNAL): TURNS OFF ALL SYSTEMS

CONTROL UNIT	FUNCTION
PRV 601	PRESSURE RELIEF VALVE: RELIEVES PRESSURE FROM LINE
PSH 602	PRESSURE SWITCH/ALARM HIGH: TURNS OFF ALL SYSTEMS
PSL 603	PRESSURE SWITCH/ALARM LOW: TURNS OFF ALL SYSTEMS
TSH 604	TEMPERATURE SWITCH/ALARM HIGH HIGH: TURNS OFF ALL SYSTEMS

CONTROL UNIT	FUNCTION
TSH 701	TEMPERATURE SWITCH/ALARM HIGH: TURNS OFF ALL SYSTEMS
PSH 702	PRESSURE SWITCH/ALARM HIGH: TURNS OFF ALL SYSTEMS
PDH 701	PRESSURE DIFFERENTIAL HIGH: TURNS OFF ALL SYSTEMS

CONTROL UNIT	FUNCTION
--------------	----------

ABBREVIATIONS

DPI	DIFFERENTIAL PRESSURE INDICATOR
DPT	DIFFERENTIAL PRESSURE TRANSMITTER
ES	EMERGENCY STOP
FE	FLOW ELEMENT
FI	FLOW INDICATOR
FIR	FLOW INDICATOR RECORDER
FIT	FLOW INDICATOR AND TOTALIZER
HS	HAND SWITCH (HAND, OFF, AUTO or ON, OFF)
LAHH	LEVEL ALARM HIGH HIGH
LAH	LEVEL ALARM HIGH
LAL	LEVEL ALARM LOW
LI	LEVEL INDICATOR
LSHH	LEVEL SWITCH HIGH HIGH
LSH	LEVEL SWITCH HIGH
LSL	LEVEL SWITCH LOW
PAH	PRESSURE ALARM HIGH
PI	PRESSURE INDICATOR
PS	PRESSURE TRANSMITTING SWITCH
TAD	TELEPHONE AUTOMATIC DIALER
TAH	TEMPERATURE ALARM HIGH
TE	TEMPERATURE ELEMENT
TI	TEMPERATURE INDICATOR
TIC	TEMPERATURE INDICATOR CONTROLLER
TIR	TEMPERATURE INDICATOR RECORDER
TS	TEMPERATURE SWITCH
VSD	VARIABLE SPEED DRIVE

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Professional Engineer's Name
JESSE BROCKMAN
 Professional Engineer's No.
 CB1811
 State
 CA
 Date Signed
 Project Mgr.

Designed by
 MTHJLH
 Drawn by
 Checked by

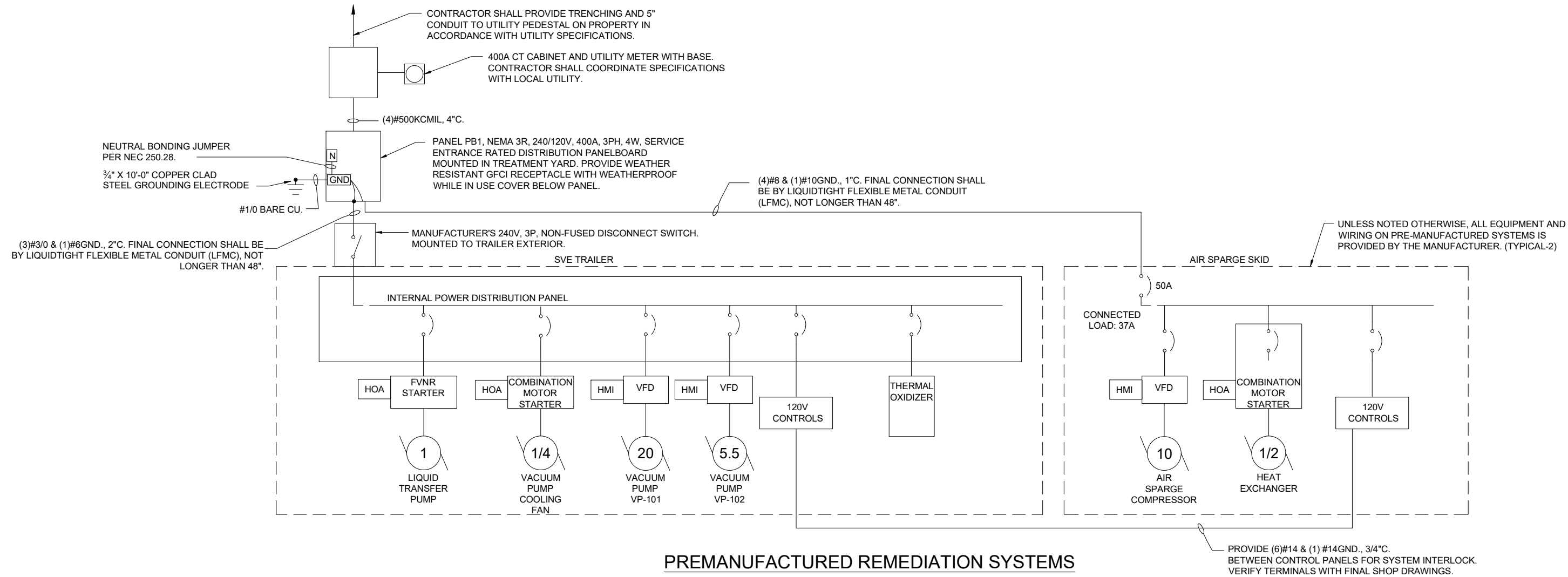


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 AS-BUILT DOCUMENTS
PROCESS AND INSTRUMENTATION DIAGRAM

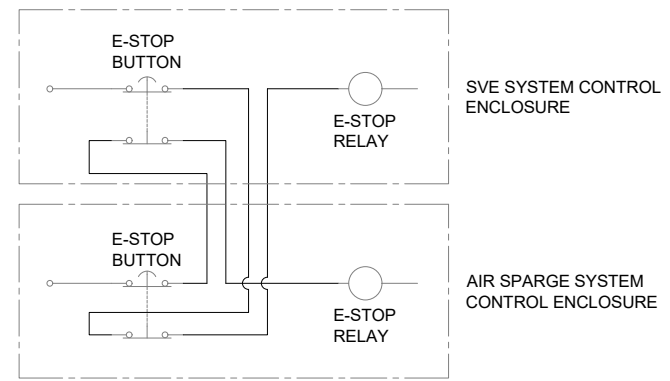
ARCADIS Project No.
 B0047339.ST16.00003
 Date
 SEPTEMBER 2017
 ARCADIS
 2999 OAK ROAD
 SUITE 300
 WALNUT CREEK, CALIFORNIA
 TEL. 925.274.1100

M-1

CITY: SAN RAFAEL, CA DIV/GROUP: EN/CAD DB: M. HOEFER, J. HARRIS
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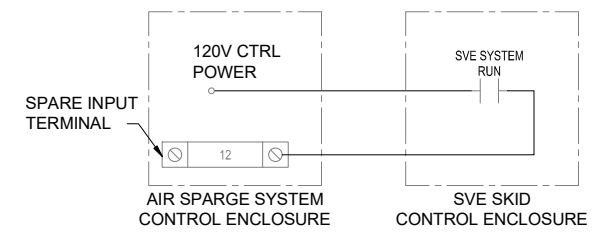


PREMANUFACTURED REMEDIATION SYSTEMS



EMERGENCY STOP INTERCONNECTION DIAGRAM

DIAGRAM NOTE:
 CONTRACTOR SHALL PROVIDE INTERCONNECTING CONDUIT AND WIRE. REPLACE MANUFACTURER'S E-STOP BUTTONS WITH MULTI-POLE UNITS IF NEEDED.



OPERATING CONTROL INTERCONNECTION DIAGRAM

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Professional Engineer's Name DAVID GERDEMAN		
Professional Engineer's No. E18285		
State CA	Date Signed	Project Mgr.
Designed by DRG	Drawn by MTHJLH	Checked by DRG

ARCADIS Design & Consultancy for natural and built assets

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ELECTRICAL ONE LINE DIAGRAM

ARCADIS Project No. B0047339.ST16.00003
Date SEPTEMBER 2017
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E-1

APPENDIX B

Permits





December 18, 2017

BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Chevron Environmental Management Company
2300 Clayton Rd, Suite #400
Concord, CA 94520

Attention: Jesse Brockman

ALAMEDA COUNTY
Pauline Russo Cutter
Scott Haggerty
Rebecca Kaplan
Nate Miley

Application Number: 25427
Plant Number: 21947
Equipment Location:
706 Harrison Street
Oakland, CA 94607

CONTRA COSTA COUNTY
John Gioia
David E. Hudson
(Vice Chair)
Karen Mitchoff
Mark Ross

Dear Applicant:

Enclosed is your Permit to Operate the following:

MARIN COUNTY
Katie Rice
(Secretary)

- S-1 Soil Vapor Extraction System, 300 scfm vacuum blower
abated by
- A-1 SVE Abatement System, Electric Catalytic Oxidizer/Carbon Adsorption or two Carbon Vessels

NAPA COUNTY
Brad Wagenknecht

The equipment described above is subject to condition no. 26078.

SAN FRANCISCO COUNTY
Hillary Ronen
Jeff Sheehy

In accordance with Regulation 2-1-411.2, you must sign your Permit to Operate. All Permits should be posted in a clearly visible and accessible place on or near the equipment to be operated, or kept available for inspection at any time. Operation of this equipment in violation of District Regulations or any permit conditions is subject to penalty action.

SAN MATEO COUNTY
David J. Canepa
Carole Groom
Doug Kim

In the absence of specific permit conditions to the contrary, the throughputs, fuel and material consumption, capacities, and hours of operation described in your permit application will be considered maximum allowable limits. A new permit will be required before any increase in these parameters, or change in raw material handled may be made.


SANTA CLARA COUNTY
Margaret Abe-Koga
Cindy Chavez
Liz Kniss
(Chair)
Rod G. Sinks

Please include your permit number with any correspondence with the District. If you have any questions on this matter please call Flora W Chan, Air Quality Engineer II at (415) 749-4630.

SOLANO COUNTY
Pete Sanchez
James Sperring

Very truly yours,

SONOMA COUNTY
Teresa Barrett
Shirlee Zane

by 
Air Quality Engineering Manager
Acting Director of Engineering

Jack P. Broadbent
EXECUTIVE OFFICER/APCO

FWC
Enclosure



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

PERMIT TO OPERATE

PLANT No. 21947

SOURCE No. 1

Chevron Environmental Management Company

706 Harrison Street, Oakland, CA 94607

IS HEREBY GRANTED A PERMIT TO OPERATE THE FOLLOWING EQUIPMENT

Soil Vapor Extraction System, 300 scfm vacuum blower

abated by

A-1 SVE Abatement System
SVE Abatement System, Electric Catalytic Oxidizer/Carbon Adsorption or two Carbon Vessels

Subject to attached condition no. 26078.¹

ACTING DIRECTOR
ENGINEERING DIVISION

Permit Issue Date December 18, 2017
Reported Start Up Date December 6, 2017
Permit Expiration Date December 6, 2018

By Sanjeev Kambhij

Right of Entry

The Air Pollution Control Officer of the Bay Area Air Quality Management District, the Chairman of the California Air Resources Board, the Regional Administrator of the Environmental Protection Agency, and/or their designees, upon presentation of credentials, shall be granted the right of entry to any premises on which an air pollution source is located for the purposes of: i) the inspection of the source ii) the sampling of materials used at the source iii) the conduction of an emissions source test iv) the inspection of any records required by District rule or permit condition.

Permit Expiration

In accordance with Regulation 3-408, a Permit to Operate is valid for 12 months from the date of issuance or other time period as approved by the APCO. Use of this Permit to Operate is authorized by the District until the later of: the Permit Expiration Date or the Permit Renewal Date. Permit to operate fees will be prorated as described in Regulation 3-402 when the permit is renewed.

This permit does not authorize violation of the rules and regulations of the BAAQMD or the Health and Safety Code of the State of California. District regulations may be viewed on line at www.baaqmd.gov. This permit is not transferable to another person without approval from the District. It is the responsibility of the permit holder to have knowledge of and be in compliance with all District Rules and Regulations.

1. Compliance with conditions contained in this permit does not mean that the permit holder is currently in compliance with District Rules and Regulations.

Permit Holder Must Sign Here _____



Plant Name: Chevron Environmental Management Company

Source No. 1 Soil Vapor Extraction System, 300 scfm vacuum blower

Condition No. 26078

Plant No. 21947

Application No. 25427

1. The owner/operator shall abate the Precursor Organic Compound (POC) emissions from Source S-1 by A-1, SVE Abatement System, consisting of either an Electric Catalytic Oxidizer, or two (200 lbs minimum capacity) Activated Carbon Vessels during all periods of operation. Start-up and subsequent operation of each abatement device shall take place only after written notification of same has been received by the District's Engineering Division. The owner/operator shall operate the sources such that the soil vapor flow rate from S-1 shall not exceed 300 scfm.
[Basis: Cumulative Increase, Regulation 8-47-301 and 302, TBACT]
2. The owner/operator shall operate A-1 Electric Catalytic Oxidizer such that the POC abatement efficiency shall be maintained at a minimum of 98.5% by weight for inlet POC concentrations greater than or equal to 2000 ppmv (measured as hexane). For inlet concentrations below 2000 ppmv and greater than or equal to 200 ppmv, a minimum abatement efficiency of 97% shall be maintained by the owner/operator. For inlet concentrations below 200 ppmv, a minimum abatement efficiency of 90% shall be maintained by the owner/operator. The minimum abatement efficiency shall be waived if outlet POC concentrations are shown to be less than 10 ppmv (measured as hexane). In no event shall the owner/operator emit benzene emissions to the atmosphere exceeding 0.078 pounds per day. [Basis: Cumulative Increase, Regulation. 2-5, TBACT]
3. While operating the Electric Catalytic Oxidizer, the owner/operator shall not operate A-1 below a minimum operating temperature of 600 degrees Fahrenheit. [Basis: Cumulative Increase, Regulation 2-5, TBACT]
4. To determine compliance with part 3, the owner/operator shall equip the A-1 Electric Catalytic Oxidizer with continuous measuring and temperature recording instrumentation. The owner/operator shall collect and maintain the temperature data from the temperature recorder in a file which shall be available for District inspection for a period of at least 2 years following the date on which such data are recorded. [Basis: Regulation 1-523]
5. To determine compliance with part 3, within ten days after start-up of the Electric Catalytic Oxidizer, the owner/operator of this source shall:
 - a. Analyze inlet gas stream to determine the flow rate and concentration of POC present.



Plant Name: Chevron Environmental Management Company

Source No. 1 Soil Vapor Extraction System, 300 scfm vacuum blower

Condition No. 26078

Plant No. 21947

Application No. 25427

- b. Analyze exhaust gas to determine the flow rate, and the concentration of benzene and POC present.
 - c. Calculate the benzene emission rate in pounds per day based on the exhaust gas analysis and the operating exhaust flow rate. The owner/operator shall decrease the soil vapor flow rate, if necessary to demonstrate compliance with part 2.
 - d. Calculate the POC abatement efficiency based on the inlet and exhaust gas analysis. For the purpose of determining compliance with part 2, the owner/operator shall report the POC concentration as hexane.
 - e. Submit to the District's Engineering Division the test results and emission calculations within one month from the testing date. The owner/operator shall analyze samples according to modified EPA test methods 8015 and 8020 or their equivalent to determine the concentrations of POC and benzene.
[Basis: Cumulative Increase, Regulation 2-5, TBACT]
6. The owner/operator of this source shall maintain the following records for each month of operation of the Electric Catalytic Oxidizer:
- a. Days and hours of operation.
 - b. Each emission test, analysis or monitoring results logged in for the day of operation they were taken.
 - c. Total throughput of soil vapor from source S-1 in Standard Cubic Feet.
- Such records shall be retained and made available for inspection by the District for two years following the date the data is recorded. [Basis: Regulation 1-523]
7. The owner/operator shall use a portable analyzer to take NOx and CO emission readings during the start-up. The results shall be submitted to the Engineering Division within 30 days of start-up.
8. During operation of the Activated Carbon Vessels, the owner/operator of this source shall monitor with a photo-ionization detector (PID), flame-ionization detector (FID), or other method approved in writing by the District's Source Test Manager at the following locations:
- a. At the inlet to the second to last carbon vessel in series.
 - b. At the inlet to the last carbon vessel in series.
 - c. At the outlet of the carbon vessel that is last in series prior to venting to the atmosphere.

When using an FID to monitor breakthrough, readings may



Plant Name: Chevron Environmental Management Company

Source No. 1 Soil Vapor Extraction System, 300 scfm vacuum blower

Condition No. 26078

Plant No. 21947

Application No. 25427

be taken with and without a carbon filter tip fitted on the FID probe. Concentrations measured with the Carbon filter tip in place shall be considered methane for the purpose of these permit conditions. [Basis: Cumulative Increase, Regulation 2-5, TBACT]

9. The owner/operator shall record these monitor readings in a monitoring log at the time they are taken. The owner/operator shall use the monitoring results to estimate the frequency of Carbon change-out necessary to maintain compliance with parts 11 and 12, and shall be conducted on a daily basis. The owner/operator of this source may propose for District review, based on actual measurements taken at the site during operation of the source, that the monitoring schedule be changed based on the decline in organic emissions and/or the demonstrated breakthrough rates of the carbon vessels. Written approval by the District's Engineering Division must be received by the owner/operator prior to a change to the monitoring schedule. [Basis: Cumulative Increase, Regulation 2-5, TBACT]
10. The owner/operator shall immediately change out the second to last Carbon vessel with unspent carbon upon breakthrough, defined as the detection at its outlet of the higher of the following:
 - a. 10 % of the inlet stream concentration to the carbon bed.
 - b. 10 ppmv (measured as hexane).[Basis: Cumulative Increase, Regulation 2-5, TBACT]
11. The owner/operator shall immediately change out the last carbon vessel with unspent Carbon upon detection at its outlet of 10 ppmv (measured as hexane). [Basis: Cumulative Increase, Regulation 2-5, TBACT]
12. The owner/operator of this source shall maintain the following information for each month of operation of the Activated Carbon Vessels:
 - a. Hours and time of operation.
 - b. Each emission test, analysis or monitoring results logged in for the day of operation they were taken.
 - c. The number of Carbon vessels removed from service.
 - d. Total throughput of soil vapor from source S-1 in Standard Cubic Feet.

Such records shall be retained and made available for inspection by the District for two years following the date the data is recorded. [Basis: Regulation 1-523]
13. The owner/operator shall report any non-compliance with these conditions to the Compliance and Enforcement



Plant Name: Chevron Environmental Management Company

Source No. 1 Soil Vapor Extraction System, 300 scfm vacuum blower

Condition No. 26078

Plant No. 21947

Application No. 25427

Division at the time that it is first discovered. The owner/operator shall detail the corrective action taken and include the data showing the exceedance as well as the time of occurrence in the submittal. [Basis: Cumulative Increase; Regulation 2-5, TBACT]

14. The owner/operator shall maintain a file containing all measurements, records and other data that are required to be collected pursuant to the various provisions of this conditional Authority to Construct/Permit to Operate. All measurements, records and data required to be maintained by the owner/operator shall be retained for at least two years following the date the data is recorded. [Basis: Regulation 1-523]
15. Upon final completion of the remediation project, the operator of Sources S-1 shall notify the Engineering Division within two weeks of decommissioning the operation. [Basis: Cumulative Increase, Regulation 2-5, TBACT]

End of Conditions

APPENDIX C

AS/SVE Operational Data



Date and Time	Operations					AS System Parameters				SVE Blower		SVE System Parameters										PID Readings and VOC Mass Removal						Comments	
	System Status Upon Arrival	System Status Upon Departure	Operational Hours	Uptime (%)	System Configuration (% Open)	AC Hours	Pre HX Temp (deg F)	Post HX Temp (deg F)	Discharge Pressure (psi)	VFD-1 Speed (Hz)	VFD-1 Hours	Manifold/Influent 1 Flow (acfm)	Manifold/Influent 1 Temp (deg. F)	Manifold/Influent 1 Vacuum (in WC)	Pre KO/Influent 1 Vacuum (in Hg)	Manual Dilution (% Open)	Blower 1 Inlet Vacuum (in Hg)	Influent 2 Flow (scfm)	Influent 2 Temp (deg. F)	Influent 2 Pressure (in WC)	CatOx Inlet Temp (deg F)	CatOx Outlet Temp (deg F)	Influent 1 Concentration (ppmV)	Influent 2 Concentration (ppmV)	Effluent Concentration (ppmV)	Mass Removal Rate (lbs/day)	Cumulative Mass Removed (lbs)		Destruction Efficiency
9/6/2018 11:55	Off	On	95	---	VW-3, VE-3, VE-4, VE-5	---	---	---	---	40	95	---	75.0	190	13.5	8%	13.5	91	160.0	2.7	706	857	---	1015.0	4.8	29.1	0.0	100%	Routine Operation Startup
9/13/2018 15:00	On	On	265	100%	VW-3, VE-3, VE-4, VE-5	---	---	---	---	40	265	---	79.0	---	9.0	10%	9.0	126	149.3	4.6	696	712	141.4	59.6	0.4	2.4	16.7	99%	VE-5 and VW-3 pulling water, reduced vac.
10/5/2018 13:00	Off	On	724	87%	VW-3, VE-3, VE-4, VE-5	---	---	---	---	40	724	---	76.0	---	9.0	8%	9.0	125	150.3	4.6	648	665	373.3	486.0	0.0	19.2	384.7	100%	System off upon arrival, restarted.
10/11/2018 12:00	On	Off	864	100%	VW-3, VE-3, VE-4, VE-5, AS-1, AS-2, AS-3, AS-7, AS-8, AS-9, AS-10, AS-11, AS-12	---	205	90	20	40	864	112.0	75.1	---	9.0	8%	9.0	130	143.0	5.5	637	882	390.1	401.0	2.9	16.4	480.3	99%	Started AS. Water coming from MW-5, turned off AS-4, AS-5, and AS-6. Smoke coming from CatOx, turned system off.
10/18/2018 13:15	Off	On	869	3%	VW-3, VE-3, VE-4, VE-5, AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	4630	110	70	12	40	869	83.0	67.0	---	7.0	20%	7.0	153	131.0	6.8	655	904	---	282.0	3.5	13.5	483.2	99%	No Influent 1 or well concentrations collected, AS-5 turned off.
10/23/2018 16:00	Off	On	871	2%	VW-3, VE-3, VE-4, VE-5, AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	4632	---	---	---	40	871	91.0	---	---	6.0	20%	6.0	156	130.0	7.9	640	840	---	406.0	0.8	20.0	484.8	100%	Off upon arrival due to high temp alarm, samples taken.
11/2/2018 16:00	Off	On	876	2%	VW-3, VE-3, VE-4, VE-5, AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	4636	---	---	---	40	876	---	---	---	6.0	20%	6.0	175	125.0	4.5	625	925	---	---	---	---	---	---	Off upon arrival due to power outage.

Abbreviations:

% = percent
 kWh = kilowatt hours
 kW = kilowatt
 Hz = Hertz
 acfm = actual cubic feet per minute
 deg. F = degrees Fahrenheit
 inWC = inches water column
 inHg = inches mercury
 scfm = standard cubic feet per minute
 PID = photo ionization detector, calibrated with 100 ppmv hexane. A carbon tip is not used for readings.
 VOC = volatile organic compound
 ppmV = parts per million by volume
 lbs = pounds
 --- = not measured/not applicable

Operating Permit: Authority to Construct (ATC), Plant No. 21947, Application No. 25427.

Permit Operational Conditions:
 1. The soil vapor flow from the source shall not exceed 300 scfm. (Item 1)
 2. Electric Catalytic Oxidizer Abatement Efficiency:
 -98.5% for inlet concentrations >2000ppmV
 -97% for inlet concentrations <2000ppmV and >200ppmV
 -90% for inlet concentrations <200ppmV
 -destruction efficiency is waived if effluent concentrations <10ppmV
 -benzene emission rate <0.078 lbs/day
 3. Electric Catalytic Oxidizer to operate at a minimum of 600 degrees Fahrenheit

Calculations:

Destruction Efficiency %

$$= \left(1 - \frac{\text{Effluent PID, ppmV}}{\text{Influent 2 PID, ppmV}} \right) 100$$

Mass Removal Rate

$$\frac{\text{lbs}}{\text{day}} = \left(\frac{\text{MW g}}{1 \text{ mol}} \right) \left(\frac{1 \text{ lb}}{453.6 \text{ g}} \right) \left(\frac{1 \text{ mol}}{24.46 \text{ L}} \right) \left(\frac{1 \text{ L}}{0.03531 \text{ std cu ft}} \right) \left(\frac{\text{CONC ppmV}}{1 \times 10^6 / \text{ppmV}} \right) (\text{SCFM})(1440 \text{ min})$$

Where:

MW = molecular weight of hexane, 86.18 g/mol
 g = grams
 mol = 1 mole of gas
 L = Liters volume at STP (77 deg.F and 29.92 inWC)
 std cu ft = standard cubic feet

Date and Time	System Configuration (% Open)	VE-3							VE-4						
		Manifold % Open	Manifold Temp (Deg F)	Manifold Flow (acfm)	Manifold Flow (scfm)	Manifold PID (VOC-ppmV)	Manifold Vacuum (inWC)	Relative Humidity (%)	Manifold % Open	Manifold Temp (Deg F)	Manifold Flow (acfm)	Manifold Flow (scfm)	Manifold PID (VOC-ppmV)	Manifold Vacuum (inWC)	Relative Humidity (%)
9/6/18 11:55	VW-3, VE-3, VE-4, VE-5	100%	78.6	23.2	9.7	---	180	35%	100%	76.7	41.9	17.5	---	180	36%
9/13/18 15:00	VW-3, VE-3, VE-4, VE-5	100%	73.1	25.8	7.1	371.4	120	44%	100%	72.7	57.1	15.7	17.2	120	42%
10/5/18 13:00	VW-3, VE-3, VE-4, VE-5	100%	74.6	31.0	8.5	4430.0	120	45%	100%	76.2	70.0	19.9	71.3	125	43%
10/11/18 12:00	VW-3, VE-3, VE-4, VE-5	100%	71.3	30.0	7.9	396.0	115	47%	100%	72.0	66.0	17.5	445.0	116	47%
10/18/18 13:15	VW-3, VE-3, VE-4, VE-5	100%	70.9	21.4	3.3	---	70	48%	100%	72.0	51.0	7.8	---	70.0	49%

Abbreviations:
 scfm = standard cubic feet per minute
 PID = photo ionization detector
 ppmv = parts per million by volume
 inWC = inches water column
 deg. F = degrees Fahrenheit
 acfm = actual cubic feet per minute
 VOC = volatile organic compound
 --- = not measured/not applicable

Convert ACFM to SCFM

$$SCFM = ACFM \left(\frac{P_{actual} - (RH \times P_{sat})}{P_{std}} \right) \times \frac{T_{std}}{T_{actual}}$$

Where:
 SCFM = standard cubic feet per minute
 ACFM = actual cubic feet per minute
 P_{actual} = measured pressure (psia) = 0.036(manifold pressure)
 P_{std} = standard absolute air pressure (psia) = 14.696
 P_{sat} = water saturation at actual temperature (psi) = 0.43 psi for 75 deg F
 T_{actual} = actual air temperature (degree Rankine) = T deg.F + 459.67
 T_{std} = standard temperature (degree Rankine) = 520
 RH = relative humidity (%)

Date and Time	System Configuration (% Open)	VE-5							VW-3						
		Manifold % Open	Manifold Temp (Deg F)	Manifold Flow (acfm)	Manifold Flow (scfm)	Manifold PID (VOC-ppmV)	Manifold Vacuum (inWC)	Relative Humidity (%)	Manifold % Open	Manifold Temp (Deg F)	Manifold Flow (acfm)	Manifold Flow (scfm)	Manifold PID (VOC-ppmV)	Manifold Vacuum (inWC)	Relative Humidity (%)
9/6/18 11:55	VW-3, VE-3, VE-4, VE-5	100%	76.6	---	---	---	180	36%	100%	75.2	57.0	24.4	---	180	37%
9/13/18 15:00	VW-3, VE-3, VE-4, VE-5	100%	71.2	---	---	36.2	120	46%	100%	71.9	44.6	12.8	55.5	120	46%
10/5/18 13:00	VW-3, VE-3, VE-4, VE-5	100%	76.4	18.6	5.5	146.7	125	42%	100%	76.8	---	---	1311.0	125	42%
10/11/18 12:00	VW-3, VE-3, VE-4, VE-5	100%	72.3	26.0	7.2	403.0	115	49%	100%	72.8	22.0	6.1	198.5	116	43%
10/18/18 13:15	VW-3, VE-3, VE-4, VE-5	100%	72	23.6	4.0	---	70	48%	100%	72.9	27.3	4.6	---	70	48%

Abbreviations:
 scfm = standard cubic feet per minute
 PID = photo ionization detector
 ppmv = parts per million by volume
 inWC = inches water column
 deg. F = degrees Fahrenheit
 acfm = actual cubic feet per minute
 VOC = volatile organic compound
 --- = not measured/not applicable

Date and Time	System Configuration (% Open)	VW-4							VW-5						
		Manifold % Open	Manifold Temp (Deg F)	Manifold Flow (acfm)	Manifold Flow (scfm)	Manifold PID (VOC-ppmV)	Manifold Vacuum (inWC)	Relative Humidity (%)	Manifold % Open	Manifold Temp (Deg F)	Manifold Flow (acfm)	Manifold Flow (scfm)	Manifold PID (VOC-ppmV)	Manifold Vacuum (inWC)	Relative Humidity (%)
9/6/18 11:55	VW-3, VE-3, VE-4, VE-5	0%	---	---	---	---	---	---	0%	---	---	---	---	---	---
9/13/18 15:00	VW-3, VE-3, VE-4, VE-5	0%	---	---	---	---	---	---	0%	---	---	---	---	---	---
10/5/18 13:00	VW-3, VE-3, VE-4, VE-5	0%	---	---	---	---	---	---	0%	---	---	---	---	---	---
10/11/18 12:00	VW-3, VE-3, VE-4, VE-5	0%	---	---	---	---	---	---	0%	---	---	---	---	---	---
10/18/18 13:15	VW-3, VE-3, VE-4, VE-5	0%	---	---	---	---	---	---	0%	---	---	---	---	---	---

Abbreviations:
 scfm = standard cubic feet per minute
 PID = photo ionization detector
 ppmv = parts per million by volume
 inWC = inches water column
 deg. F = degrees Fahrenheit
 acfm = actual cubic feet per minute
 VOC = volatile organic compound
 --- = not measured/not applicable

Date and Time	System Configuration (% Open)	Comments
9/6/18 11:55	VW-3, VE-3, VE-4, VE-5	Routine Operation Startup
9/13/18 15:00	VW-3, VE-3, VE-4, VE-5	VE-5 and VW-3 pulling water, reduced vac.
10/5/18 13:00	VW-3, VE-3, VE-4, VE-5	
10/11/18 12:00	VW-3, VE-3, VE-4, VE-5	
10/18/18 13:15	VW-3, VE-3, VE-4, VE-5	

Abbreviations:

scfm = standard cubic feet per minute
 PID = photo ionization detector
 ppmv = parts per million by volume
 inWC = inches water column
 deg. F = degrees Fahrenheit
 acfm = actual cubic feet per minute
 VOC = volatile organic compound
 --- = not measured/not applicable

Date and Time	System Configuration (% Open)	AS-1				AS-2				AS-3				AS-4			
		Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)
10/11/18 12:00	AS-1, AS-2, AS-3, AS-7, AS-8, AS-9, AS-10, AS-11, AS-12	Open	6	17.0	6.0	Open	12	17.0	7.0	Open	7	16.0	14.5	Open/Closed	0	17.5	---
10/18/18 13:15	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Open	3	15.0	---	Open	5	15.0	---	Open	3	14.0	---	Open	2	11.0	---

Abbreviations:
 acfm = actual cubic feet per minute
 psi = pounds per square inch
 --- = not measured/not applicable

Date and Time	System Configuration (% Open)	AS-5				AS-6				AS-7				AS-8			
		Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)
10/11/18 12:00	AS-1, AS-2, AS-3, AS-7, AS-8, AS-9, AS-10, AS-11, AS-12	Open/Closed	8	19.5	---	Open/Closed	14	19.5	---	Open	10	19.0	---	Open	10	20.0	---
10/18/18 13:15	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	Open	4	11.0	---	Open	3	11.0	---	Open	3	11.0	---

Abbreviations:
 acfm = actual cubic feet per minute
 psi = pounds per square inch
 --- = not measured/not applicable

Date and Time	System Configuration (% Open)	AS-9				AS-10				AS-11				AS-12			
		Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)
10/11/18 12:00	AS-1, AS-2, AS-3, AS-7, AS-8, AS-9, AS-10, AS-11, AS-12	Open	11	17.0	---	Open	13	18.5	---	Closed	---	---	---	Open	5	12.0	---
10/18/18 13:15	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Open	4	10.0	---	Open	4	10.0	---	Closed	---	---	---	Open	6	9.0	---

Abbreviations:
 acfm = actual cubic feet per minute
 psi = pounds per square inch
 --- = not measured/not applicable

Date and Time	System Configuration (% Open)	AS-13				AS-14				SP-3				SP-4			
		Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)
10/11/18 12:00	AS-1, AS-2, AS-3, AS-7, AS-8, AS-9, AS-10, AS-11, AS-12	Closed	---	---	---	Closed	---	---	---	Closed	---	---	---	Closed	---	---	---
10/18/18 13:15	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	Closed	---	---	---	Closed	---	---	---	Closed	---	---	---

Abbreviations:
 acfm = actual cubic feet per minute
 psi = pounds per square inch
 --- = not measured/not applicable

Date and Time	System Configuration (% Open)	SP-5				Comments
		Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	
10/11/18 12:00	AS-1, AS-2, AS-3, AS-7, AS-8, AS-9, AS-10, AS-11, AS-12	Closed	---	---	---	AS-11 shutdown for broken flowmeter, AS-4, 5, and 6 shutdown for causing water to leak from MW-5. Not all wellhead readings collected prior to shutting system down for SVE malfunction.
10/18/18 13:15	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	AS-5 turned off.

Abbreviations:
 acfm = actual cubic feet per minute
 psi = pounds per square inch
 --- = not measured/not applicable

SVE SYSTEM INFLUENT

Date	Period Hours of Operation	Average Influent 2 Flow (scfm)	Concentrations						TPHg Removal			Benzene Removal		
			TPHg (ppmV)	B (ppmV)	T (ppmV)	E (ppmV)	X (ppmV)	MTBE (ppmV)	Period (lbs)	Cumulative (lbs)	Rate (lbs/day)	Period (lbs)	Cumulative (lbs)	Rate (lbs/day)
9/13/2018	170	108.5	29.0	0.089	0.230	0.062	0.160	<0.050	8.2	8.2	1.2	0.0	0.0	0.0
10/23/2018	606	141.0	320.0	0.130	<0.050	<0.050	<0.10	<0.050	419.6	427.8	16.6	0.1	0.1	0.0
Total Recovered Mass (lbs) Removed to Date:									427.8			0.1		

SVE SYSTEM EFFLUENT

Date	Period Hours of Operation	Average Effluent Flow (scfm)	Concentrations						TPHg Emissions			Benzene Emissions			Destruction Efficiency (%)
			TPHg (ppmV)	B (ppmV)	T (ppmV)	E (ppmV)	X (ppmV)	MTBE (ppmV)	Period (lbs)	Cumulative (lbs)	Rate (lbs/day)	Period (lbs)	Cumulative (lbs)	Rate (lbs/day)	
9/13/2018	170	108.5	2.10	<0.005	<0.005	0.011	0.022	<0.005	0.6	0.6	0.1	0.0	0.0	0.000	93%
10/23/2018	606	141.0	1.10	<0.005	<0.005	<0.005	<0.010	<0.005	1.4	2.0	0.1	0.0	0.0	0.000	100%

Definitions:

lbs = pounds
 ppmV = Parts per million by volume
 scfm = Standard cubic feet per minute
 B = Benzene Benzene
 T = Toluene Toluene
 E = Ethylbenzene Ethylbenzene
 X = Total Xylenes Total Xylenes
 MtBE = Methyl tertiary-butyl ether
 TPHg = Total purgeable hydrocarbons as gasoline
 --- = Data not available
 < = Less than stated laboratory method reporting limit

Calculations:

Mass Removal/Emission Rate

$$\frac{lbs}{day} = \left(\frac{MW \text{ g}}{1 \text{ mol}} \right) \left(\frac{1 \text{ lb}}{453.6 \text{ g}} \right) \left(\frac{1 \text{ mol}}{24.46 \text{ L}} \right) \left(\frac{1 \text{ L}}{0.03531 \text{ std cu ft}} \right) \left(\frac{CONC \text{ ppmV}}{1 \times 10^6 / \text{ppmV}} \right) (SCFM)(1440 \text{ min})$$

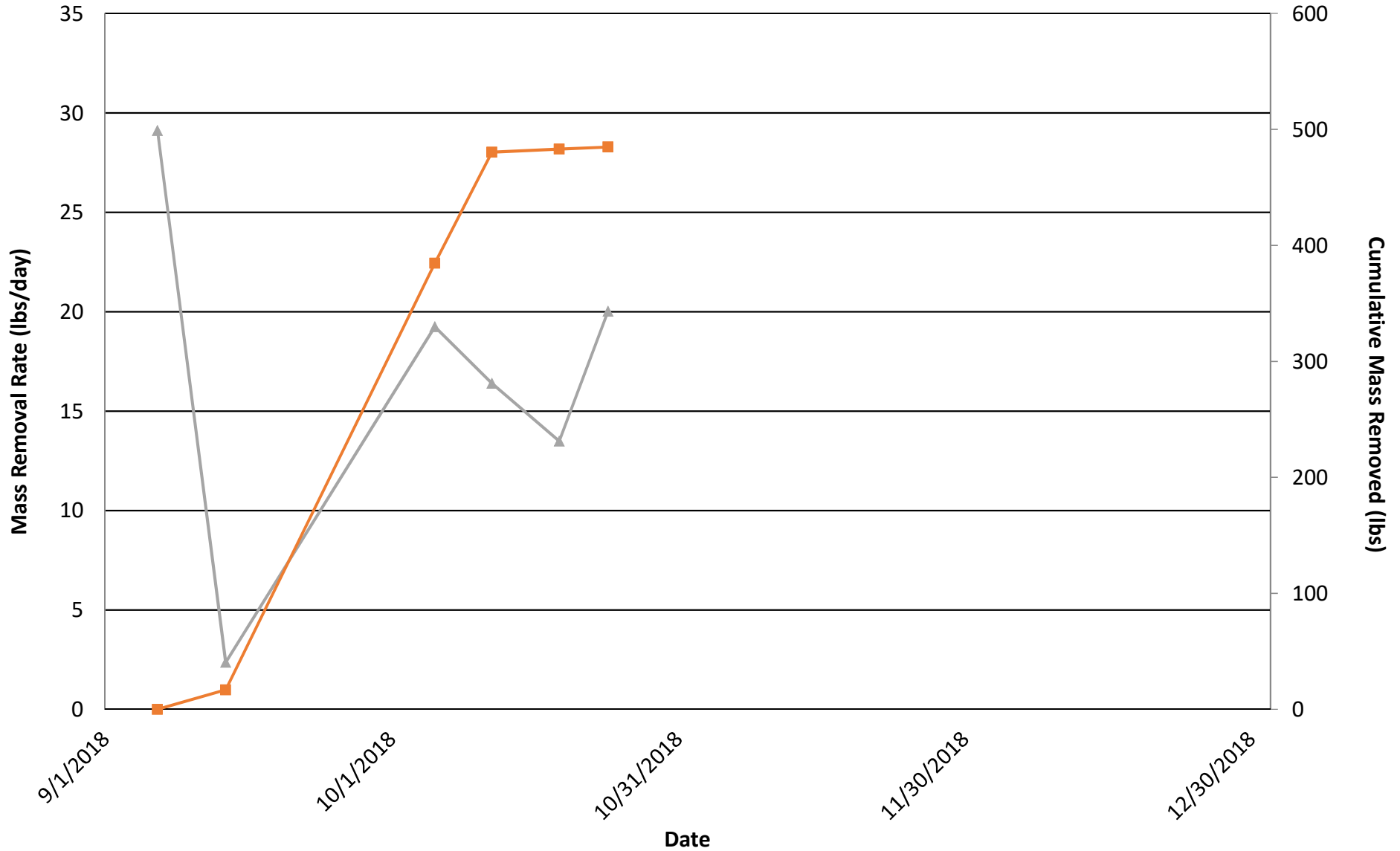
Where:

MW = molecular weight
 g = grams
 mol = 1 mole of gas
 L = Liters volume at STP (77 deg.F and 29.92 inWC)
 std cu ft = standard cubic feet

Molecular Weights:

TPHg 100.00
 Benzene 78.77

**VOC MASS REMOVAL RATE AND
CUMULATIVE MASS REMOVED VERSUS TIME**
Soil Vapor Extraction - Air Sparge System
706 Harrison Street
Oakland, CA



Notes
lbs/hr = pounds per hour
lbs = pounds

▲ Mass Removal Rate
■ Cumulative Mass Removed

APPENDIX D

SVE Sample Laboratory Reports





Date of Report: 09/19/2018

Carl Edwards

Arcadis- San Jose

6296 San Ignacio Ave, Suite C&D

San Jose, CA 95119

Client Project: 351646

BCL Project: 0752

BCL Work Order: 1828850

Invoice ID: B316519

Enclosed are the results of analyses for samples received by the laboratory on 9/14/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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BC Laboratories, Inc.

Environmental Testing Laboratory Since 1949

Chain of Custody

4100 Atlas Court Bakersfield, Ca. 93308 (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

Client/Company Name: **ARCADIS** Report Attention: **JESSE BROCKMAN** Phone: **916-548-9599** FAX: **916-548-9599**

Address: **2300 CLAYTON RD, SUITE 400, COLLEAD, CA 94520** City: **COLLEAD** State: **CA** Zip: **94520**

Project Information: **356646 - 706 MILLISON ST, COLLEAD** BCL Quote #: **70-15**

How would you like your completed results sent? E-Mail Fax EDD Mail Only

QC Request: STD Level II Level III Level IV Level V Level VI Level VII Level VIII Level IX Level X Level XI Level XII Level XIII Level XIV Level XV Level XVI Level XVII Level XVIII Level XIX Level XX Level XXI Level XXII Level XXIII Level XXIV Level XXV Level XXVI Level XXVII Level XXVIII Level XXIX Level XXX Level XXXI Level XXXII Level XXXIII Level XXXIV Level XXXV Level XXXVI Level XXXVII Level XXXVIII Level XXXIX Level XL Level XLI Level XLII Level XLIII Level XLIV Level XLV Level XLVI Level XLVII Level XLVIII Level XLIX Level L Level LI Level LII Level LIII Level LIV Level LV Level LVI Level LVII Level LVIII Level LIX Level LX Level LXI Level LXII Level LXIII Level LXIV Level LXV Level LXVI Level LXVII Level LXVIII Level LXIX Level LXX Level LXXI Level LXXII Level LXXIII Level LXXIV Level LXXV Level LXXVI Level LXXVII Level LXXVIII Level LXXIX Level LXXX Level LXXXI Level LXXXII Level LXXXIII Level LXXXIV Level LXXXV Level LXXXVI Level LXXXVII Level LXXXVIII Level LXXXIX Level XL

Matrix Types: **RAW** = Raw Surface Water **CFW** = Clarified Finished Water **CWW** = Chlorinated Waste Water **BW** = Bottled Water **RGW** = Raw Ground Water **FW** = Finished Water **WW** = Waste Water **SW** = Storm Water **DW** = Drinking Water **SO** = Solid **A=ALC**

Sample Name Printed / Signature: **Jesse Brockman**

Sample #	Matrix	Sample Description / Location	Sampled Date	Time	Received by (Signature and Printed Name)	Date	Time	Company
1	A	WJ-2	9/15/10	14:25	Jesse Brockman	9/16/10	9:00	ARCADIS
2	A	EFF	9/16/10	14:20	Jose Barcena	9/16/10	15:00	ARCADIS
					Jose Barcena	9/16/10	15:00	ARCADIS

Comments / Station Code: **AWAY FOR TRK-G, BTEX, ATDSE.**

Received by (Signature and Printed Name): **Jose Barcena** Date: **9/16/10** Time: **15:00** Company: **ARCADIS**

Received by (Signature and Printed Name): **Jose Barcena** Date: **9/16/10** Time: **15:00** Company: **ARCADIS**

Received by (Signature and Printed Name): **Jose Barcena** Date: **9/16/10** Time: **15:00** Company: **ARCADIS**

Shipping Method: **CAO UPS GSO WALK-IN SVC FED EX OTHER**

Relinquished by: (Signature and Printed Name) **Jesse Brockman** Date: **9/16/10** Time: **15:00** Company: **ARCADIS**

Relinquished by: (Signature and Printed Name) **Jose Barcena** Date: **9/16/10** Time: **15:00** Company: **ARCADIS**

Received by Lab by: (Signature and Printed Name) **Jose Barcena** Date: **9/16/10** Time: **15:00** Company: **ARCADIS**

Shipping Method: **CAO UPS GSO WALK-IN SVC FED EX OTHER**

REL. 9/14/10 JMS

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 1828850

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S _____

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____

Intact? Yes No Intact? Yes No

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO

Emissivity: _____ Container: Tedlar Thermometer ID: _____

Temperature: (A) Low °C / (C) Temp °C

Date/Time: 9/14/2015 Analyst Init: BSP

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁴										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/08/080										
QT EPA 515.1/0150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 3015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: CSH Date/Time: 9/14 2015 Rev 21 05/23/2016

A = Actual / C = Corrected

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 09/19/2018 16:12
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

1828850-01	COC Number: ---	Receive Date: 09/14/2018 20:45
	Project Number: 0752	Sampling Date: 09/13/2018 14:25
	Sampling Location: ---	Sample Depth: ---
	Sampling Point: INF-2-A-180913	Lab Matrix: Air
	Sampled By: ARRC	Sample Type: Vapor or Air
		Delivery Work Order:
		Global ID:
		Location ID (FieldPoint): INF
		Matrix: AX
		Sample QC Type (SACode): CS
		Cooler ID:

1828850-02	COC Number: ---	Receive Date: 09/14/2018 20:45
	Project Number: 0752	Sampling Date: 09/13/2018 14:20
	Sampling Location: ---	Sample Depth: ---
	Sampling Point: EFF-A-180913	Lab Matrix: Air
	Sampled By: ARRC	Sample Type: Vapor or Air
		Delivery Work Order:
		Global ID:
		Location ID (FieldPoint): EFF
		Matrix: AX
		Sample QC Type (SACode): CS
		Cooler ID:

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 09/19/2018 16:12
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

BCL Sample ID: 1828850-01		Client Sample Name: 0752, INF-2-A-180913, 9/13/2018 2:25:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Acetone	ND	ppbv	100		EPA-TO-15	ND	A01	1
Acrylonitrile	ND	ppbv	100		EPA-TO-15	ND	A01	1
Allyl chloride	ND	ppbv	50		EPA-TO-15	ND	A01	1
t-Amyl Methyl ether	ND	ppbv	100		EPA-TO-15	ND	A01	1
Benzene	89	ppbv	50		EPA-TO-15	ND	A01	1
Benzyl chloride	ND	ppbv	100		EPA-TO-15	ND	A01	1
Bromodichloromethane	ND	ppbv	50		EPA-TO-15	ND	A01	1
Bromoform	ND	ppbv	50		EPA-TO-15	ND	A01	1
Bromomethane	ND	ppbv	50		EPA-TO-15	ND	A01	1
1,3-Butadiene	ND	ppbv	50		EPA-TO-15	ND	A01	1
t-Butyl alcohol	ND	ppbv	100		EPA-TO-15	ND	A01	1
Carbon disulfide	ND	ppbv	50		EPA-TO-15	ND	A01	1
Carbon tetrachloride	ND	ppbv	50		EPA-TO-15	ND	A01	1
Chlorobenzene	ND	ppbv	50		EPA-TO-15	ND	A01	1
Chloroethane	ND	ppbv	50		EPA-TO-15	ND	A01	1
Chloroform	ND	ppbv	50		EPA-TO-15	ND	A01	1
Chloromethane	ND	ppbv	50		EPA-TO-15	ND	A01	1
Cyclohexane	ND	ppbv	50		EPA-TO-15	ND	A01	1
Dibromochloromethane	ND	ppbv	50		EPA-TO-15	ND	A01	1
1,2-Dibromo-3-chloropropane	ND	ppbv	50		EPA-TO-15	ND	A01	1
1,2-Dibromoethane	ND	ppbv	50		EPA-TO-15	ND	A01	1
Dibromomethane	ND	ppbv	50		EPA-TO-15	ND	A01	1
1,2-Dichlorobenzene	ND	ppbv	50		EPA-TO-15	ND	A01	1
1,3-Dichlorobenzene	ND	ppbv	50		EPA-TO-15	ND	A01	1
1,4-Dichlorobenzene	ND	ppbv	50		EPA-TO-15	ND	A01	1
Dichlorodifluoromethane	ND	ppbv	50		EPA-TO-15	ND	A01	1
1,1-Dichloroethane	ND	ppbv	50		EPA-TO-15	ND	A01	1
1,2-Dichloroethane	ND	ppbv	50		EPA-TO-15	ND	A01	1
1,1-Dichloroethene	ND	ppbv	50		EPA-TO-15	ND	A01	1
cis-1,2-Dichloroethene	ND	ppbv	50		EPA-TO-15	ND	A01	1
trans-1,2-Dichloroethene	ND	ppbv	50		EPA-TO-15	ND	A01	1
1,2-Dichloropropane	ND	ppbv	50		EPA-TO-15	ND	A01	1
cis-1,3-Dichloropropene	ND	ppbv	50		EPA-TO-15	ND	A01	1

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 09/19/2018 16:12
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

Table with columns: BCL Sample ID, Client Sample Name, Constituent, Result, Units, PQL, MDL, Method, MB Bias, Lab Quals, Run #. Lists various compounds like trans-1,3-Dichloropropene, Ethylbenzene, Isopropyl alcohol, Toluene, etc.

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 09/19/2018 16:12
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

BCL Sample ID: 1828850-01		Client Sample Name: 0752, INF-2-A-180913, 9/13/2018 2:25:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Trichloroethene	ND	ppbv	50		EPA-TO-15	ND	A01	1
Trichlorofluoromethane	ND	ppbv	50		EPA-TO-15	ND	A01	1
1,2,3-Trichloropropane	ND	ppbv	50		EPA-TO-15	ND	A01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ppbv	50		EPA-TO-15	ND	A01	1
1,2,4-Trimethylbenzene	60	ppbv	50		EPA-TO-15	ND	A01	1
1,3,5-Trimethylbenzene	ND	ppbv	50		EPA-TO-15	ND	A01	1
Vinyl acetate	ND	ppbv	50		EPA-TO-15	ND	A01	1
Vinyl bromide	ND	ppbv	50		EPA-TO-15	ND	A01	1
Vinyl chloride	ND	ppbv	50		EPA-TO-15	ND	A01	1
p- & m-Xylenes	130	ppbv	50		EPA-TO-15	ND	A01	1
o-Xylene	ND	ppbv	50		EPA-TO-15	ND	A01	1
Total Xylenes	160	ppbv	100		EPA-TO-15	ND	A01	1
TPH - Gasoline	29000	ppbv	5000		EPA-TO-15	ND	A01	1
4-Bromofluorobenzene (Surrogate)	90.6	%	70 - 130 (LCL - UCL)		EPA-TO-15			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-TO-15	09/17/18 08:43	09/17/18 20:35	BEP	MS-A1	100	B024790

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 09/19/2018 16:12
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

BCL Sample ID: 1828850-02	Client Sample Name: 0752, EFF-A-180913, 9/13/2018 2:20:00PM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Acetone	ND	ppbv	10		EPA-TO-15	ND	A01	1
Acrylonitrile	ND	ppbv	10		EPA-TO-15	ND	A01	1
Allyl chloride	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
t-Amyl Methyl ether	ND	ppbv	10		EPA-TO-15	ND	A01	1
Benzene	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Benzyl chloride	ND	ppbv	10		EPA-TO-15	ND	A01	1
Bromodichloromethane	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Bromoform	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Bromomethane	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
1,3-Butadiene	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
t-Butyl alcohol	ND	ppbv	10		EPA-TO-15	ND	A01	1
Carbon disulfide	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Carbon tetrachloride	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Chlorobenzene	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Chloroethane	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Chloroform	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Chloromethane	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Cyclohexane	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Dibromochloromethane	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
1,2-Dibromo-3-chloropropane	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
1,2-Dibromoethane	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Dibromomethane	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
1,2-Dichlorobenzene	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
1,3-Dichlorobenzene	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
1,4-Dichlorobenzene	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Dichlorodifluoromethane	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
1,1-Dichloroethane	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
1,2-Dichloroethane	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
1,1-Dichloroethene	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
cis-1,2-Dichloroethene	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
trans-1,2-Dichloroethene	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
1,2-Dichloropropane	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
cis-1,3-Dichloropropene	ND	ppbv	5.0		EPA-TO-15	ND	A01	1

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 09/19/2018 16:12
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

Table with 2 columns: BCL Sample ID (1828850-02) and Client Sample Name (0752, EFF-A-180913, 9/13/2018 2:20:00PM)

Main data table with columns: Constituent, Result, Units, PQL, MDL, Method, MB Bias, Lab Quals, Run #. Lists various compounds like trans-1,3-Dichloropropene, Ethylbenzene, etc.

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6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 09/19/2018 16:12
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

BCL Sample ID: 1828850-02		Client Sample Name: 0752, EFF-A-180913, 9/13/2018 2:20:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Trichloroethene	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Trichlorofluoromethane	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
1,2,3-Trichloropropane	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
1,2,4-Trimethylbenzene	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
1,3,5-Trimethylbenzene	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Vinyl acetate	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Vinyl bromide	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Vinyl chloride	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
p- & m-Xylenes	22	ppbv	5.0		EPA-TO-15	ND	A01	1
o-Xylene	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Total Xylenes	22	ppbv	10		EPA-TO-15	ND	A01	1
TPH - Gasoline	2100	ppbv	500		EPA-TO-15	ND	A01	1
4-Bromofluorobenzene (Surrogate)	90.6	%	70 - 130 (LCL - UCL)		EPA-TO-15			1

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-TO-15	09/17/18 08:43	09/17/18 19:59		BEP	MS-A1	10	B024790

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6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 09/19/2018 16:12
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B024790						
Acetone	B024790-BLK1	ND	ppbv	1.0		
Acrylonitrile	B024790-BLK1	ND	ppbv	1.0		
Allyl chloride	B024790-BLK1	ND	ppbv	0.50		
t-Amyl Methyl ether	B024790-BLK1	ND	ppbv	1.0		
Benzene	B024790-BLK1	ND	ppbv	0.50		
Benzyl chloride	B024790-BLK1	ND	ppbv	1.0		
Bromodichloromethane	B024790-BLK1	ND	ppbv	0.50		
Bromoform	B024790-BLK1	ND	ppbv	0.50		
Bromomethane	B024790-BLK1	ND	ppbv	0.50		
1,3-Butadiene	B024790-BLK1	ND	ppbv	0.50		
t-Butyl alcohol	B024790-BLK1	ND	ppbv	1.0		
Carbon disulfide	B024790-BLK1	ND	ppbv	0.50		
Carbon tetrachloride	B024790-BLK1	ND	ppbv	0.50		
Chlorobenzene	B024790-BLK1	ND	ppbv	0.50		
Chloroethane	B024790-BLK1	ND	ppbv	0.50		
Chloroform	B024790-BLK1	ND	ppbv	0.50		
Chloromethane	B024790-BLK1	ND	ppbv	0.50		
Cyclohexane	B024790-BLK1	ND	ppbv	0.50		
Dibromochloromethane	B024790-BLK1	ND	ppbv	0.50		
1,2-Dibromo-3-chloropropane	B024790-BLK1	ND	ppbv	0.50		
1,2-Dibromoethane	B024790-BLK1	ND	ppbv	0.50		
Dibromomethane	B024790-BLK1	ND	ppbv	0.50		
1,2-Dichlorobenzene	B024790-BLK1	ND	ppbv	0.50		
1,3-Dichlorobenzene	B024790-BLK1	ND	ppbv	0.50		
1,4-Dichlorobenzene	B024790-BLK1	ND	ppbv	0.50		
Dichlorodifluoromethane	B024790-BLK1	ND	ppbv	0.50		
1,1-Dichloroethane	B024790-BLK1	ND	ppbv	0.50		
1,2-Dichloroethane	B024790-BLK1	ND	ppbv	0.50		
1,1-Dichloroethene	B024790-BLK1	ND	ppbv	0.50		
cis-1,2-Dichloroethene	B024790-BLK1	ND	ppbv	0.50		
trans-1,2-Dichloroethene	B024790-BLK1	ND	ppbv	0.50		
1,2-Dichloropropane	B024790-BLK1	ND	ppbv	0.50		
cis-1,3-Dichloropropene	B024790-BLK1	ND	ppbv	0.50		
trans-1,3-Dichloropropene	B024790-BLK1	ND	ppbv	0.50		

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San Jose, CA 95119

Reported: 09/19/2018 16:12
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B024790						
1,2-Dichloro-1,1,2,2-tetrafluoroethane	B024790-BLK1	ND	ppbv	0.50		
Diisopropyl ether	B024790-BLK1	ND	ppbv	1.0		
1,4-Dioxane	B024790-BLK1	ND	ppbv	0.50		
Ethanol	B024790-BLK1	ND	ppbv	1.0		
Ethyl acetate	B024790-BLK1	ND	ppbv	0.50		
Ethylbenzene	B024790-BLK1	ND	ppbv	0.50		
1-Ethyl-4-methylbenzene	B024790-BLK1	ND	ppbv	0.50		
Ethyl t-butyl ether	B024790-BLK1	ND	ppbv	1.0		
n-Heptane	B024790-BLK1	ND	ppbv	0.50		
Hexachlorobutadiene	B024790-BLK1	ND	ppbv	0.50		
Hexachloroethane	B024790-BLK1	ND	ppbv	1.0		
Hexane	B024790-BLK1	ND	ppbv	1.0		
2-Hexanone	B024790-BLK1	ND	ppbv	0.50		
Isooctane	B024790-BLK1	ND	ppbv	0.50		
Isopropyl alcohol	B024790-BLK1	ND	ppbv	0.50		
Methylene chloride	B024790-BLK1	ND	ppbv	0.50		
Methyl ethyl ketone	B024790-BLK1	ND	ppbv	0.50		
Methyl iodide	B024790-BLK1	ND	ppbv	1.0		
Methyl isobutyl ketone	B024790-BLK1	ND	ppbv	0.50		
Methyl t-butyl ether	B024790-BLK1	ND	ppbv	0.50		
Naphthalene	B024790-BLK1	ND	ppbv	0.50		
Propylene	B024790-BLK1	ND	ppbv	0.50		
Styrene	B024790-BLK1	ND	ppbv	0.50		
1,1,1,2-Tetrachloroethane	B024790-BLK1	ND	ppbv	0.50		
1,1,2,2-Tetrachloroethane	B024790-BLK1	ND	ppbv	0.50		
Tetrachloroethene	B024790-BLK1	ND	ppbv	0.50		
1,1,1,2-Tetrafluoroethane	B024790-BLK1	ND	ppbv	5.0		
Tetrahydrofuran	B024790-BLK1	ND	ppbv	0.50		
Toluene	B024790-BLK1	ND	ppbv	0.50		
1,2,4-Trichlorobenzene	B024790-BLK1	ND	ppbv	1.0		
1,1,1-Trichloroethane	B024790-BLK1	ND	ppbv	0.50		
1,1,2-Trichloroethane	B024790-BLK1	ND	ppbv	0.50		
Trichloroethene	B024790-BLK1	ND	ppbv	0.50		
Trichlorofluoromethane	B024790-BLK1	ND	ppbv	0.50		

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 09/19/2018 16:12
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B024790						
1,2,3-Trichloropropane	B024790-BLK1	ND	ppbv	0.50		
1,1,2-Trichloro-1,2,2-trifluoroethane	B024790-BLK1	ND	ppbv	0.50		
1,2,4-Trimethylbenzene	B024790-BLK1	ND	ppbv	0.50		
1,3,5-Trimethylbenzene	B024790-BLK1	ND	ppbv	0.50		
Vinyl acetate	B024790-BLK1	ND	ppbv	0.50		
Vinyl bromide	B024790-BLK1	ND	ppbv	0.50		
Vinyl chloride	B024790-BLK1	ND	ppbv	0.50		
p- & m-Xylenes	B024790-BLK1	ND	ppbv	0.50		
o-Xylene	B024790-BLK1	ND	ppbv	0.50		
Total Xylenes	B024790-BLK1	ND	ppbv	1.0		
TPH - Gasoline	B024790-BLK1	ND	ppbv	50		
4-Bromofluorobenzene (Surrogate)	B024790-BLK1	73.5	%	70 - 130 (LCL - UCL)		

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6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 09/19/2018 16:12
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B024790										
Benzene	B024790-BS1	LCS	5.5420	5.0000	ppbv	111		70 - 130		
	B024790-BSD1	LCSD	5.5950	5.0000	ppbv	112	1.0	70 - 130	30	
Chloroform	B024790-BS1	LCS	5.6820	5.0000	ppbv	114		70 - 130		
	B024790-BSD1	LCSD	5.6750	5.0000	ppbv	114	0.1	70 - 130	30	
Ethylbenzene	B024790-BS1	LCS	6.2150	5.0000	ppbv	124		70 - 130		
	B024790-BSD1	LCSD	5.9890	5.0000	ppbv	120	3.7	70 - 130	30	
Tetrachloroethene	B024790-BS1	LCS	5.0930	5.0000	ppbv	102		70 - 130		
	B024790-BSD1	LCSD	5.2350	5.0000	ppbv	105	2.7	70 - 130	30	
Toluene	B024790-BS1	LCS	5.4980	5.0000	ppbv	110		70 - 130		
	B024790-BSD1	LCSD	6.1680	5.0000	ppbv	123	11.5	70 - 130	30	
Trichloroethene	B024790-BS1	LCS	4.8470	5.0000	ppbv	96.9		70 - 130		
	B024790-BSD1	LCSD	5.0840	5.0000	ppbv	102	4.8	70 - 130	30	
Trichlorofluoromethane	B024790-BS1	LCS	5.8240	5.0000	ppbv	116		70 - 130		
	B024790-BSD1	LCSD	5.6800	5.0000	ppbv	114	2.5	70 - 130	30	
1,1,2-Trichloro-1,2,2-trifluoroethane	B024790-BS1	LCS	5.0520	5.0000	ppbv	101		70 - 130		
	B024790-BSD1	LCSD	5.3970	5.0000	ppbv	108	6.6	70 - 130	30	
p- & m-Xylenes	B024790-BS1	LCS	11.837	10.000	ppbv	118		70 - 130		
	B024790-BSD1	LCSD	11.925	10.000	ppbv	119	0.7	70 - 130	30	
o-Xylene	B024790-BS1	LCS	6.6370	5.0000	ppbv	133		70 - 130		
	B024790-BSD1	LCSD	6.7070	5.0000	ppbv	134	1.0	70 - 130	30	
Total Xylenes	B024790-BS1	LCS	18.474	15.000	ppbv	123		70 - 130		
	B024790-BSD1	LCSD	18.632	15.000	ppbv	124	0.9	70 - 130	30	
4-Bromofluorobenzene (Surrogate)	B024790-BS1	LCS	11.4	10.0	ppbv	114		70 - 130		
	B024790-BSD1	LCSD	11.5	10.0	ppbv	115	0.1	70 - 130		

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 09/19/2018 16:12
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Notes And Definitions

- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A01 Detection and quantitation limits are raised due to sample dilution.



Date of Report: 11/09/2018

Jeff Schrupp

Arcadis- San Jose

6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Client Project: 351646
BCL Project: 0752
BCL Work Order: 1833580
Invoice ID: B321616

Enclosed are the results of analyses for samples received by the laboratory on 10/24/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Chain of Custody Form

Report To: **Client:** A-E analysis **Project #:** 80047339 - ST16
Attn: Jeff Schnupp **Project Name:** 351646
Street Address: 2300 Clayton Rd, Ste 400 706 Parrisen, Oakland
City, State, Zip: Concord, CA 94520 **Sampler(s):** Jeff Schnupp
Phone: **Fax:**
Email: jeff_schnupp@acelabs.com
Work Order #: B-33580

Analysis Requested
 Please refer to the back of this form for completion instructions and method legend.

Sample #	Description	Date Sampled	Time Sampled	Global ID (Needed for EDF)	EDF Required? Geotracker	Send Copy to State of CA? (EDT)	1. Relinquished By	Date	Time	2. Relinquished By	Date	Time	3. Relinquished By	Date	Time
2	EFF -1	10/23/18	1530	X	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Jeff Schnupp	10/24/18	1140	Jeff Schnupp	10/24/18	1140	Jeff Schnupp	10/24/18	1140
2	INFF-2	10/23/18	1545	X	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Jeff Schnupp	10/24/18	1530	Jeff Schnupp	10/24/18	1530	Jeff Schnupp	10/24/18	1530

Sample Matrix
 Waste Water Other
 Ground Water
 Drinking Water
 Sludge
 Soil A

Result Request **Surcharge
 STD 5 Day** 2 Day** 1 Day**
(10 Day)

Comments:
 (Blank)

CHK BY: [Signature] **DISTRIBUTION:** [Signature]
SUB-OUT: [Signature]

System # (Needed for EDT)

1. Received By: [Signature] **Date:** 10/24/18 **Time:** 1140
2. Received By: [Signature] **Date:** 10/24/18 **Time:** 1530
3. Received By: [Signature] **Date:** 10/24/18 **Time:** 1530

BC Laboratories, Inc. - 4100 Atlas Ct. - Bakersfield, CA 93308 - 661.327.4911 - Fax: 661.327.1918 - www.bclabs.com

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 2 Of 2

Submission #: 18-33580

SHIPPING INFORMATION: Fed Ex, UPS, Ontrac, Hand Delivery, BC Lab Field Service. SHIPPING CONTAINER: Ice Chest, None, Box, Other. FREE LIQUID: YES, NO, W/S.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Ice Chest, Containers. Intact? Yes/No.

All samples received? Yes/No. All samples containers intact? Yes/No. Description(s) match COC? Yes/No.

COC Received: YES/NO. Emissivity, Container: Tedlar, Thermometer ID, Date/Time: 10/24/2016, Analyst Init: EML.

SAMPLE CONTAINERS vs SAMPLE NUMBERS table header

Table with columns for Sample Containers and Sample Numbers (1-10). Rows include various container types like QT PE UNPRES, INORGANIC CHEMICAL METALS, etc. Handwritten 'AB' is present in the Tedlar Bag row.

Comments: Sample Numbering Completed By: EML Date/Time: 10-24-18 2316 Rev 21 05/23/2016

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 11/09/2018 3:34
Project: 0752
Project Number: 351646
Project Manager: Jeff Schrupp

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

1833580-01	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: EFF-A-181023 Sampled By: ATCJ	Receive Date: 10/24/2018 22:40 Sampling Date: 10/23/2018 15:30 Sample Depth: --- Lab Matrix: Air Sample Type: Vapor or Air Delivery Work Order: Global ID: Location ID (FieldPoint): EFF Matrix: AX Sample QC Type (SACode): CS Cooler ID:
-------------------	--	---

1833580-02	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: INF-2-A-181023 Sampled By: ATCJ	Receive Date: 10/24/2018 22:40 Sampling Date: 10/23/2018 15:45 Sample Depth: --- Lab Matrix: Air Sample Type: Vapor or Air Delivery Work Order: Global ID: Location ID (FieldPoint): INF Matrix: AX Sample QC Type (SACode): CS Cooler ID:
-------------------	--	---

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 11/09/2018 3:34
Project: 0752
Project Number: 351646
Project Manager: Jeff Schrupp

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

BCL Sample ID: 1833580-01	Client Sample Name: 0752, EFF-A-181023, 10/23/2018 3:30:00PM							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Ethylbenzene	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Methyl t-butyl ether	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Toluene	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Total Xylenes	ND	ppbv	10		EPA-TO-15	ND	A01	1
TPH - Gasoline	1100	ppbv	500		EPA-TO-15	ND	A01	1
4-Bromofluorobenzene (Surrogate)	77.3	%	70 - 130 (LCL - UCL)		EPA-TO-15			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-TO-15	10/25/18 08:14	10/25/18 19:52	BEP	MS-A1	10	B028301

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 11/09/2018 3:34
Project: 0752
Project Number: 351646
Project Manager: Jeff Schrupp

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

BCL Sample ID: 1833580-02	Client Sample Name: 0752, INF-2-A-181023, 10/23/2018 3:45:00PM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	130	ppbv	50		EPA-TO-15	ND	A01	1
Ethylbenzene	ND	ppbv	50		EPA-TO-15	ND	A01	1
Methyl t-butyl ether	ND	ppbv	50		EPA-TO-15	ND	A01	1
Toluene	ND	ppbv	50		EPA-TO-15	ND	A01	1
Total Xylenes	ND	ppbv	100		EPA-TO-15	ND	A01	1
TPH - Gasoline	320000	ppbv	100000		EPA-TO-15	ND	A01	2
4-Bromofluorobenzene (Surrogate)	94.8	%	70 - 130 (LCL - UCL)		EPA-TO-15			1
4-Bromofluorobenzene (Surrogate)	72.4	%	70 - 130 (LCL - UCL)		EPA-TO-15			2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-TO-15	10/25/18 08:14	10/25/18 20:59	BEP	MS-A1	100	B028301
2	EPA-TO-15	10/25/18 08:14	10/25/18 20:23	BEP	MS-A1	2000	B028301

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Arcadis- San Jose
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San Jose, CA 95119

Reported: 11/09/2018 3:34
Project: 0752
Project Number: 351646
Project Manager: Jeff Schrupp

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B028301						
Benzene	B028301-BLK1	ND	ppbv	0.50		
Ethylbenzene	B028301-BLK1	ND	ppbv	0.50		
Methyl t-butyl ether	B028301-BLK1	ND	ppbv	0.50		
Toluene	B028301-BLK1	ND	ppbv	0.50		
Total Xylenes	B028301-BLK1	ND	ppbv	1.0		
TPH - Gasoline	B028301-BLK1	ND	ppbv	50		
4-Bromofluorobenzene (Surrogate)	B028301-BLK1	64.4	%		70 - 130 (LCL - UCL)	

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6296 San Ignacio Ave, Suite C&D
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Reported: 11/09/2018 3:34
Project: 0752
Project Number: 351646
Project Manager: Jeff Schrupp

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B028301										
Benzene	B028301-BS1	LCS	4.5810	5.0000	ppbv	91.6		70 - 130		
	B028301-BSD1	LCSD	4.4340	5.0000	ppbv	88.7	3.3	70 - 130		30
Ethylbenzene	B028301-BS1	LCS	4.7880	5.0000	ppbv	95.8		70 - 130		
	B028301-BSD1	LCSD	4.7600	5.0000	ppbv	95.2	0.6	70 - 130		30
Toluene	B028301-BS1	LCS	4.7700	5.0000	ppbv	95.4		70 - 130		
	B028301-BSD1	LCSD	4.7730	5.0000	ppbv	95.5	0.1	70 - 130		30
Total Xylenes	B028301-BS1	LCS	15.096	15.000	ppbv	101		70 - 130		
	B028301-BSD1	LCSD	15.216	15.000	ppbv	101	0.8	70 - 130		30
4-Bromofluorobenzene (Surrogate)	B028301-BS1	LCS	9.82	10.0	ppbv	98.2		70 - 130		
	B028301-BSD1	LCSD	9.69	10.0	ppbv	96.9	1.4	70 - 130		

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San Jose, CA 95119

Reported: 11/09/2018 3:34
Project: 0752
Project Number: 351646
Project Manager: Jeff Schrupp

Notes And Definitions

- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A01 Detection and quantitation limits are raised due to sample dilution.

APPENDIX E

Sample O&M Forms



SITE MAINTENANCE SCOPE OF WORK

PM	Thomas Kendig	Project #	B0047339
Engineer	Jesse Brockman	Weather, wind velocity/direction, temperature	
Technician			
Date	_____	Arrival Time	Departure Time

WORK TASKS TO BE COMPLETED

- Review HASP, conduct tailgate, and discuss SOW with Engineer
- Report any unusual situations
- Review OM&M plan and document visit in site entry log
- Calibrate PID and/or FID
- Perform maintenance and alarm testing per schedule and document items performed
- Collect system data readings and confirm permit conditions as follows:
 - Collect AS/SVE system readings in SVE System and AS System (in OM&M plan)
 - Record relevant data into system summary below and confirm permit compliance
 - Collect AS/SVE monitoring data on appropriate form if requested by Engineer
 - Collect response well data if requested by Engineer
- Review Compliance Checklist
- Call Thomas Kendig or Jesse Brockman**

SUMMARY OF SYSTEM STATUS AND COMPLIANCE READINGS

SYSTEM SCREEN READINGS

	Arrival	Departure	
SVE Status			on/off
AS Status			on/off
Alarms			
VFD-1 Speed			Hz
VFD-1 Hours			hrs.
VFD-2 Speed			Hz
VFD-2 Hours			hrs.
AC Hours			hrs.
Electric Service Meter			kwh

AS FIELD READINGS

	Arrival	Departure	
Pre Heat Exchanger Temp			°F
Post Heat Exchanger Temp			°F
Discharge Press			psi

Operational AS Wells:

706 Harrison <input type="checkbox"/> SP-3 <input type="checkbox"/> AS-10 <input type="checkbox"/> SP-5 <input type="checkbox"/> AS-11 <input type="checkbox"/> AS-7 <input type="checkbox"/> AS-12 <input type="checkbox"/> AS-8 <input type="checkbox"/> AS-13 <input type="checkbox"/> AS-9 <input type="checkbox"/> AS-14	726 Harrison <input type="checkbox"/> AS-1 <input type="checkbox"/> AS-2 <input type="checkbox"/> AS-3 <input type="checkbox"/> AS-4 <input type="checkbox"/> AS-5 <input type="checkbox"/> AS-6
---	---

SVE FIELD READINGS

	Arrival	Departure	
Manifold/Inf 1 Flow (Header)			acfm
Manifold/Inf 1 Temp (Header)			°F
Manifold/Inf 1 Vac (Header)			inWC
Inf 1 Vac (Gauge)			inHg
Man. Dil. (Valve Turns/12)			% open
B-1 Vac (Blower Inlet)			inHg
B-2 Vac (Blower Inlet)			inHg
Inf 2 Flow (FIT102)			scfm
Inf 2 Temp (TIT102)			°F
Inf 2 Press (PIT102)			inWC
CatOx Inlet Temp (TIT201)			°F
CatOx Outlet Temp (TIT202)			°F
CatOx Inlet SP (Ox Panel)			°F
CatOx Outlet SP (Ox Panel)			°F
Inf 1 Conc			ppmv
Inf 2 Conc			ppmv
Eff Conc			ppmv

Operational SVE Wells:

706 Harrison <input type="checkbox"/> VW-3 <input type="checkbox"/> VW-5 <input type="checkbox"/> VW-4 <input type="checkbox"/> VE-5	726 Harrison <input type="checkbox"/> VE-3 <input type="checkbox"/> VE-4
---	---

Equipment

	Make	Model	Calibrated to:
FID/PID (circle one)			
Velocicalc			

Notes:

COMPLIANCE CHECKLIST

- | | |
|--|---|
| <input type="checkbox"/> Permits onsite
<input type="checkbox"/> System in proper working condition
<input type="checkbox"/> Records maintained onsite (OMM log)
<input type="checkbox"/> Monthly SVE sampling
<input type="checkbox"/> Vaults are secure
<input type="checkbox"/> Compound is secure
<input type="checkbox"/> AS/SVE system alarms tested | <input type="checkbox"/> Effluent flowrate <300 SCFM
<input type="checkbox"/> Oxidizer temperature >600 deg F
<input type="checkbox"/> CatOx Destruction Efficiency measured as hexane(check one) <ul style="list-style-type: none"> <input type="checkbox"/> 98.5% if inlet ≥2000 ppmv <input type="checkbox"/> 97% if inlet <2000 ppmv and ≥200 ppmv <input type="checkbox"/> 90% if inlet <200 ppmv <input type="checkbox"/> No requirement if outlet is <10 ppmv |
|--|---|

DATA SHEETS & LOGS COMPLETED

- SVE Well Operational Data AS Well Operational Data Other _____

Date and Time	Well ID	% Open	Temp (F)	Flowrate (cfm)	PID (ppm)	Manifold Vacuum (in WC)	Relative Humidity (%)	Comments
---------------	---------	--------	----------	----------------	-----------	-------------------------	-----------------------	----------

726 HARRISON STREET

	VE-3							
	VE-4							

706 HARRISON STREET

	VE-5							
	VW-3							
	VW-4							
	VW-5							

Note: Multiple rounds of readings are not necessarily required, but extra fields are provided to do so.

Technician

Date _____

Date and Time	Valve #	Well ID	Valve Position	Flow (cfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Comments
---------------	---------	---------	----------------	------------	-------------------------	-------------------------	----------

726 HARRISON STREET

		AS-1					
		AS-2					
		AS-3					
		AS-4					
		AS-5					
		AS-6					

706 HARRISON STREET

		AS-7					
		AS-8					
		AS-9					
		AS-10					
		AS-11					
		AS-12					
		AS-13					
		AS-14					
		SP-3					
		SP-4					
		SP-5					

Technician _____

Date _____

Arcadis U.S., Inc.

2300 Clayton Road

Suite 400

Concord, California 94520

Tel 925 274 1100

Fax 925 726 0121

www.arcadis.com

A decorative graphic consisting of three thin orange lines. One line is horizontal, extending across the bottom of the page. Two other lines are diagonal, starting from the bottom left and extending towards the top right, crossing the horizontal line.



Brittany Steward

Project Manager, Chevron Environmental Management Company

April 10, 2019

Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: 76 Station No. 1156 (351645)
Semi-Annual
4276 MacArthur Boulevard, Oakland, California
Fuel Leak Case No.:RO0000409

I have read and acknowledge the content, recommendations and/or conclusions contained in the attached document or report submitted on my behalf to the SWRCB's GeoTracker website.

The information in this report is accurate to the best of my knowledge. This report was prepared by Arcadis, upon whose assistance and advice I have relied.

Sincerely,

Digitally signed by ckqv, Brittany Steward
DN: ou=Chevron PKI, cn=ckqv, cn=Brittany
Steward, email=bsteward@chevron.com
Date: 2019.04.10 16:01:21 -07'00'

Brittany Steward
Project Manager

Attachment: *Semi-Annual Status Report, First Quarter 2019* by Arcadis

Brittany Steward
Chevron Environmental Management Company
6001 Bollinger Canyon Road, C2114, San Ramon, CA 94583
Tel 925 842 6103 Mobile 925 786 0317
bsteward@chevron.com

Mr. Jonathan Sanders
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject:
Semi-Annual Groundwater Monitoring Report, First Quarter 2019 Submittal.

ENVIRONMENT

Dear Mr. Sanders:

On behalf of Chevron Environmental Management Company's (EMC's) affiliate, Union Oil Company of California ("Union Oil"), Arcadis U.S., Inc. (Arcadis) is submitting the enclosed Semi-Annual Groundwater Monitoring Report for the following facility:

Date:

April 10, 2019

Contact:

Katherine Szymanowski

<u>Facility No.</u>	<u>Case No.</u>	<u>Location</u>
0752/YEE/GIN Comingled Plume	RO0000231	706/726/800 Harrison St Oakland, California

Phone:

510.596.9675

Email:

Katherine.Szymanowski@
arcadis.com

If you have any questions or comments regarding the contents of this document, please contact Ms. Katherine Szymanowski of Arcadis at 510.596.9675 or by e-mail at Katherine.Szymanowski@arcadis.com.

Our ref:

YC335135.1646

Sincerely,

Arcadis U.S., Inc.



Katherine Szymanowski, P.G.
Senior Geologist



Mr. Jonathan Sanders

April 10, 2019



Copies:

Ms. Cherie McCaulou, CRWQCB – San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612 (Geotracker)

Mr. James Kiernan, EMC (electronic copy only)

Mr. Muhammad Usman and Mr. Mahmood M. Ali, Property Owners - 800 Harrison Street, Oakland, California

Mr. Peter Yee and Mr. Kin Chan, 726 Harrison Street Property Owners

Mr. Bo Gin, 706 Harrison Street Property Owner – 342 Lester Avenue, Oakland, California 94606

UNION OIL OF CALIFORNIA
SEMI-ANNUAL GROUNDWATER MONITORING REPORT
FIRST QUARTER 2019
April 10, 2019

Facility No.: 0752/Yee/Gin Address: 706/726/800 Harrison Street, Oakland, California
Comingled Plume

Consulting Company/Contact Person/Phone No.: Arcadis / Katherine Szymanowski / 510.596.9675
Primary Agency/Contact Person/Regulatory ID No.: Alameda County Department of Environmental Health
(ACDEH) / Mr. Jonathan E. Sanders / Case No. RO0000231

WORK PERFORMED DURING THIS REPORTING PERIOD (First Quarter 2019):

Gettler-Ryan, Inc. (G-R) conducted groundwater monitoring and sampling on February 7, 2019. Field data sheets and general procedures are included as **Attachment A**. Eight (8) groundwater monitoring wells (MW-1 through MW-8) associated with Unocal station #0752 located at 800 Harrison Street were gauged and sampled, five (5) wells (MW-2, MW-3, MW-4, MW-5 and MW-7) associated with 706 Harrison Street (GIN) were gauged and sampled, and nine (9) wells (MW-1 through MW-6, EW-1, MP-1, MPE-1) associated with 726 Harrison Street (YEE) were gauged and sampled during this monitoring event. Wells MW-1 and MW-6 associated with 706 Harrison were not accessible during this event as MW-1 was located underneath a trailer and G-R was unable to locate well MW-6. MW-1 (located at 706 Harrison) was removed from the scope since the system trailer is parked over this well. Well raising will be performed at well MW-6 so that sampling can continue at this well.

Groundwater samples were analyzed for total purgeable petroleum hydrocarbons (TPPH) by Environmental Protection Agency (EPA) Method 8260B-GC/MS; benzene, toluene, ethylbenzene, and total xylenes (BTEX, collectively), and methyl tert-butyl ether (MTBE) by EPA Method 8260B.

The site location map, site plan, and the groundwater elevation contour map are presented on **Figures 1** through **3**, respectively. Concentration maps for TPPH, benzene, and MTBE are on **Figures 4** through **6**, respectively. Current groundwater gauging and analytical results are summarized in **Table 1**, historical groundwater gauging and analytical results are summarized in **Table 2**, and historical groundwater data for 800 Harrison Street is included as **Attachment B**. A copy of the laboratory analytical report and chain-of-custody documentation is included as **Attachment C**.

In August 2013, Muir Consulting, Inc. (Muir) completed a survey of all the well locations for 726 Harrison Street. The updated survey elevations are presented in **Tables 1** and **2**. A survey discrepancy prevented the conversion of the elevations for 706 Harrison Street. Therefore, the elevations for 706 Harrison remained the same for this quarter's groundwater contouring and are presented on the groundwater contour map separately.

In accordance with the approved *Remedial Action Plan* (RAP) and *RAP Addendum*, an Air Sparge/Soil Vapor Extraction (AS/SVE) system was installed between June and August 2017 to address the elevated concentrations at 706 and 726 Harrison Street. The system was turned on September 6, 2018. Details of first Quarter 2019 system operation are included in Attachment D.

WORK PROPOSED FOR THE NEXT REPORTING PERIOD (Second and Third Quarters 2019):

1. Perform groundwater monitoring and related reporting.
2. System startup, if required.

Current Phase of Project:	<u>Groundwater Monitoring/ Remediation</u>
Site Use:	<u>Active 76 branded service station/parking lots (YEE/GIN)</u>
Frequency of Sampling:	<u>Groundwater – Semi-Annually</u>
Frequency of Monitoring:	<u>Groundwater – Semi-Annually</u>
Are Separate-Phase Hydrocarbons (SPH) Present On-Site:	<u>No</u>
Cumulative SPH Recovered to Date:	<u>None</u>
SPH Recovered This Quarter:	<u>None</u>
Bulk Soil Removed to Date:	<u>Approximately 550 cubic yards</u>
Bulk Soil Removed this Quarter:	<u>None</u>

UNION OIL OF CALIFORNIA
SEMI-ANNUAL GROUNDWATER MONITORING REPORT
FIRST QUARTER 2019
April 10, 2019

Facility No.: 0752/Yee/Gin Address: 706/726/800 Harrison Street, Oakland, California
Comingled Plume

Water Wells or Surface Waters within a 2000' Radius and Their Respective Directions: There are no surface water bodies within a 2000' radius of the site. San Francisco Bay is located approximately 3000' southwest of the site.

Groundwater Use Designation: Potential Drinking Water Source – Santa Clara Valley – East Bay Plain

Current Remediation Techniques: AS/SVE

Permits for Discharge (No.): None

Approximate Depth to Groundwater (at 800 Harrison Street [Unocal 0752] and 726 Harrison Street): 18.24 (Unocal 0752 MW-6) – 25.93 (726 Harrison MW-6) feet below top of casing

Measured Estimated

Approximate Groundwater Elevation (at 800 Harrison Street [Unocal 0752] and 726 Harrison Street): 8.60 (726 Harrison MW-6) – 17.46 (Unocal 0752 MW-2) feet relative to mean sea level

Measured Estimated

Approximate Depth to Groundwater (at 706 Harrison Street): 16.26 (MW-5) – 18.87 (MW-4) feet below top of casing

Measured Estimated

Approximate Groundwater Elevation (at 706 Harrison Street): 11.81 (MW-5) – 12.34 (MW-3) feet relative to mean sea level

Measured Estimated

Groundwater Gradient (at 800 Harrison Street): 0.007 ft/ft (Magnitude) South/southwest (Direction)

Groundwater Gradient (at 726 Harrison Street): 0.008 ft/ft (Magnitude) south/southwest (Direction)

Groundwater Gradient (at 706 Harrison Street): 0.005 ft/ft (Magnitude) south/southwest (Direction)

UNION OIL OF CALIFORNIA
SEMI-ANNUAL GROUNDWATER MONITORING REPORT
FIRST QUARTER 2019
April 10, 2019

Facility No.: 0752/Yee/Gin Address: 706/726/800 Harrison Street, Oakland, California
Comingled Plume

DISCUSSION:

Groundwater conditions during the current event generally were consistent with previous events. All constituents of concern (COCs) remained non-detect in the groundwater samples collected from well MW-2 and MW-4 at 800 Harrison Street, MW-2 at 726 Harrison Street, and MW-3, MW-5 and MW-7 at 706 Harrison Street.

706 Harrison Street:

The maximum dissolved concentrations of TPPH (31,000 micrograms per liter [$\mu\text{g/L}$]), toluene (63 $\mu\text{g/L}$), total xylenes (7,800 $\mu\text{g/L}$), and MTBE (120 $\mu\text{g/L}$) were detected in the sample collected from MW-2. Benzene and ethylbenzene were not detected above laboratory reporting limits in any of the samples collected from the wells at 706 Harrison Street. The constituents detected in the samples collected this event from the wells sampled at 706 Harrison Street decreased moderately to significantly since the last sampling event or remained non-detect above laboratory reporting limits.

726 Harrison Street:

The maximum dissolved concentrations of TPPH (10,000 $\mu\text{g/L}$), benzene (190 $\mu\text{g/L}$), ethylbenzene (27 $\mu\text{g/L}$), total xylenes (380 $\mu\text{g/L}$) and MTBE (5,000 $\mu\text{g/L}$) were detected in the sample collected from MW-1. Toluene was only detected above laboratory detection limits in monitoring well EW-1 at a concentration of 7.3 $\mu\text{g/L}$. The current concentrations of total xylenes and MTBE were at historic highs in wells EW-1. Additionally, the concentrations of TPPH and total xylenes were at historic highs in well MW-1. Concentrations of TPPH, total xylenes, and MTBE were also at historic highs in well MW-3. Concentrations of COCs in the samples collected from well MPE-1, MW-2, MW-4, MW-5; and benzene, toluene, and ethylbenzene in the sample collected from well MW-1 and MTBE in MW-6 decreased slightly to moderately from the last sampling event or remained non-detect above laboratory reporting limits.

800 Harrison Street:

The maximum dissolved concentration of TPPH (1,400 $\mu\text{g/L}$), ethylbenzene (1.0 $\mu\text{g/L}$), and MTBE (8.0 $\mu\text{g/L}$) were detected in the sample collected from MW-3. The maximum concentration of benzene was detected in well MW-7 (3.5 $\mu\text{g/L}$). Toluene and total xylenes detected only in monitoring well MW-5 at concentrations of 2.0 $\mu\text{g/L}$ and 3.6 $\mu\text{g/L}$, respectively. Concentrations decreased slightly to moderately or remained non-detect above laboratory reporting limits since the last sampling event with the exception of TPPH in well MW-1, benzene and MTBE in well MW-3, TPPH in MW-6, and TPPH in MW-8. The current concentration of TPPH in well MW-8 (1,000 $\mu\text{g/L}$) is a historic high at this well.

Groundwater elevations at the site for 726 and 800 Harrison Street vary by approximately 5 feet, due to a low groundwater elevation at MW-6 at 726 Harrison Street. Well MW-6 at 726 Harrison Street is not used in calculating the hydraulic gradient as it is located in a lower water bearing zone. The groundwater elevations at the remaining wells at 800 and 726 Harrison Street create a gentle hydraulic gradient of 0.007 feet per foot (ft/ft) and 0.008 ft/ft, respectively, with a south/southwest direction. Groundwater elevations at the wells at 706 Harrison Street create a relatively gentle hydraulic gradient of 0.005 ft/ft in a south/southwest direction.

CONCLUSIONS AND RECOMMENDATIONS:

The concentrations of COCs detected during the current event at 706, 726, and 800 Harrison Street were generally consistent with previous results. However, historical highs of select COCs were observed in several wells. Arcadis recommends continued semi-annual monitoring to further evaluate groundwater quality and concentration trends. In accordance with the approved RAP and RAP Addendum, the AS/SVE system to address the residual impacts was installed in 2017 and started in September 2018. Arcadis recommends system optimization be performed once weather allows increased operation without significant groundwater recovery.

UNION OIL OF CALIFORNIA
SEMI-ANNUAL GROUNDWATER MONITORING REPORT
FIRST QUARTER 2019
April 10, 2019

Facility No.: 0752/Yee/Gin Address: 706/726/800 Harrison Street, Oakland, California
Comingled Plume

ATTACHMENTS:

- Figure 1: Site Location Map
- Figure 2: Site Plan
- Figure 3: Groundwater Elevation Contour Map
- Figure 4: TPPH Isoconcentration Map
- Figure 5: Benzene Isoconcentration Map
- Figure 6: MTBE Isoconcentration Map

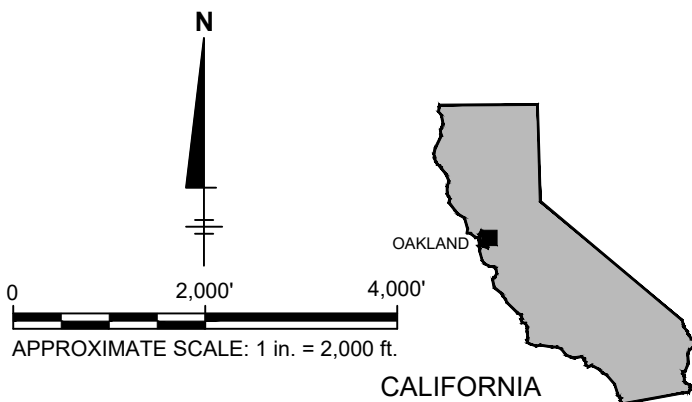
- Table 1: Current Groundwater Gauging and Analytical Results
- Table 2: Historical Groundwater Gauging and Analytical Results
- Table 2A: Historical Additional Groundwater Analytical Results – MNA Parameters
- Table 2B: Historical Additional Groundwater Analytical Results – Metals

- Attachment A: Field Data Sheets and General Procedures
- Attachment B: Historical Groundwater Results from TRC
- Attachment C: Laboratory Report and Chain-of-Custody Documentation
- Attachment D: Remediation Progress Report


Figures

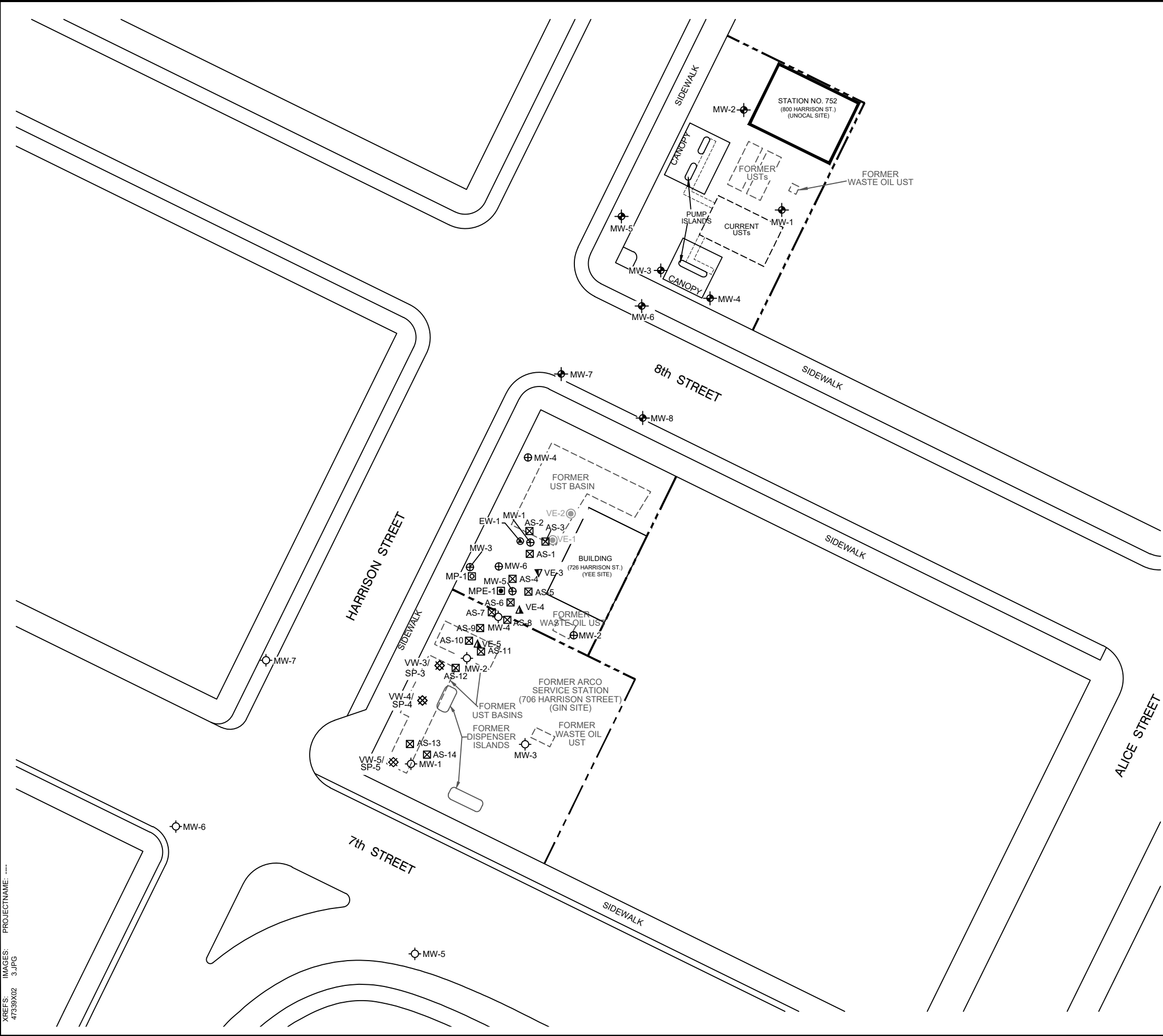


REFERENCE: BASE MAP USGS 7.5. MIN. TOPO. QUAD., OAKLAND WEST, CALIFORNIA, 2012.



APPROXIMATE SCALE: 1 in. = 2,000 ft.

UNION OIL OF CALIFORNIA STATION NO. 0752/YEE/GIN COMMINGLED 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA SEMI-ANNUAL SITE STATUS REPORT FIRST QUARTER 2019	
SITE LOCATION MAP	
 ARCADIS <small>Design & Consultancy for national and built assets</small>	FIGURE 1



LEGEND

- PROPERTY BOUNDARY
- PRODUCT PIPING
- MW-1-⊕ GROUNDWATER MONITORING WELL (UNOCAL SITE)
- MW-1-⊙ GROUNDWATER MONITORING WELL (GIN SITE)
- VW-3/SP-3-⊗ SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN SITE)
- MW-1-⊕ GROUNDWATER MONITORING WELL (YEE SITE)
- AS-1-⊠ AIR SPARGE WELL (YEE SITE)
- EW-1-⊕ EXTRACTION WELL (YEE SITE)
- MPE-1-⊕ MULTI-PHASE EXTRACTION PILOT TEST WELL (PZ-1 IS LOCATED IN THE SAME BOREHOLE) (YEE SITE)
- MP-1-⊕ PILOT TEST MONITORING POINT (YEE SITE)
- VE-1-⊙ VAPOR EXTRACTION WELL (DESTROYED)
- VE-3-▽ PILOT TEST VAPOR EXTRACTION WELL (YEE SITE)
- VE-4-▲ VAPOR EXTRACTION WELL

NOTES:

1. BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'. MUIR SURVEY COMPLETED A SURVEY ON 8/21/13.
2. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.

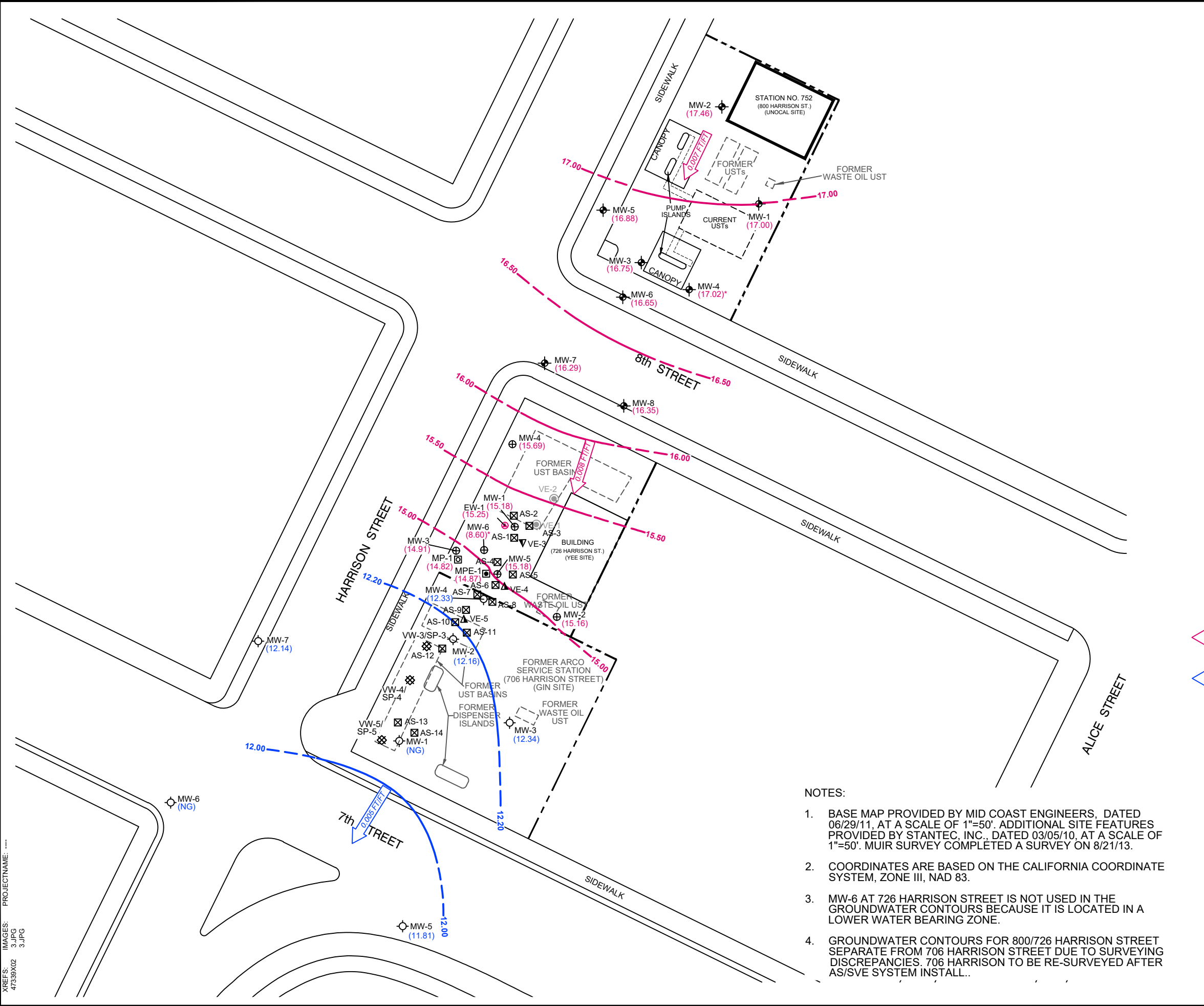


UNION OIL OF CALIFORNIA STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA
SEMI-ANNUAL SITE STATUS REPORT
FIRST QUARTER 2019

SITE PLAN



CITY: SAN RAFAEL, CA (PETALUMA) DIV: GROUP: ENV/CAD, DB: J. HARRIS, R. HUBATCH, J. HARRIS
 C:\Users\chub4677\OneDrive - ARCADIS\BIM 360 Docs\CHEVRON CORPORATION\76PP_351646\GMR35165_1646\01-DWG\351646_Fig 3_GWE Contour Map.dwg LAYOUT: 3 SAVED: 3/22/2019 10:38 AM ACADVER: 23.05 (LMS TECH) PAGES: 1 OF 1 PLOTSETUP: --- PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 4/2/2019 4:35 PM BY: CHUTIA, BARAKHA
 XREFS: IMAGES: PROJECTNAME: 47339X02 3.JPG 3.JPG



LEGEND

- PROPERTY BOUNDARY
- PRODUCT PIPING
- MW-1 ⊕ GROUNDWATER MONITORING WELL (UNOCAL SITE)
- MW-1 ⊕ GROUNDWATER MONITORING WELL (YEE SITE)
- EW-1 ⊕ EXTRACTION WELL (YEE SITE)
- MW-1 ⊕ GROUNDWATER MONITORING WELL (GIN SITE)
- VW-3/SP-3 ⊗ SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN SITE)
- MPE-1 ⊕ MULTI-PHASE EXTRACTION PILOT TEST WELL (PZ-1 IS LOCATED IN THE SAME BOREHOLE) (YEE SITE)
- MP-1 ⊕ PILOT TEST MONITORING POINT (YEE SITE)
- VE-1 ⊕ VAPOR EXTRACTION WELL (DESTROYED)
- VE-3 ▼ PILOT TEST VAPOR EXTRACTION WELL (YEE SITE)
- VE-4 ▲ VAPOR EXTRACTION WELL
- AS-1 ⊗ AIR SPARGE WELL (YEE SITE)
- (17.46) GROUNDWATER ELEVATION CONTOUR IN FEET RELATIVE TO MEAN SEA LEVEL (FT MSL) (UNOCAL SITE)
- (15.69) GROUNDWATER ELEVATION CONTOUR IN FEET RELATIVE TO MEAN SEA LEVEL (FT MSL) (YEE SITE)
- (12.34) GROUNDWATER ELEVATION CONTOUR IN FEET RELATIVE TO MEAN SEA LEVEL (FT MSL) (GIN SITE)
- GROUNDWATER ELEVATION CONTOUR (FT MSL; DASHED WHERE INFERRED) (UNOCAL AND YEE SITE)
- GROUNDWATER ELEVATION CONTOUR (FT MSL; DASHED WHERE INFERRED) (GIN SITE)
- ← 0.007 FT/FT APPROXIMATE GROUNDWATER FLOW DIRECTION AND GRADIENT (FEET PER FOOT) (UNOCAL AND YEE SITE)
- ← 0.005 FT/FT APPROXIMATE GROUNDWATER FLOW DIRECTION AND GRADIENT (FEET PER FOOT) (GIN SITE)
- (NG) NOT GAUGED
- * NOT USED IN CONTOURING

0 50' 100'
 APPROXIMATE SCALE: 1 in. = 50 ft.

- NOTES:**
- BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'. MUIR SURVEY COMPLETED A SURVEY ON 8/21/13.
 - COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.
 - MW-6 AT 726 HARRISON STREET IS NOT USED IN THE GROUNDWATER CONTOURS BECAUSE IT IS LOCATED IN A LOWER WATER BEARING ZONE.
 - GROUNDWATER CONTOURS FOR 800/726 HARRISON STREET SEPARATE FROM 706 HARRISON STREET DUE TO SURVEYING DISCREPANCIES. 706 HARRISON TO BE RE-SURVEYED AFTER AS/SVE SYSTEM INSTALL..

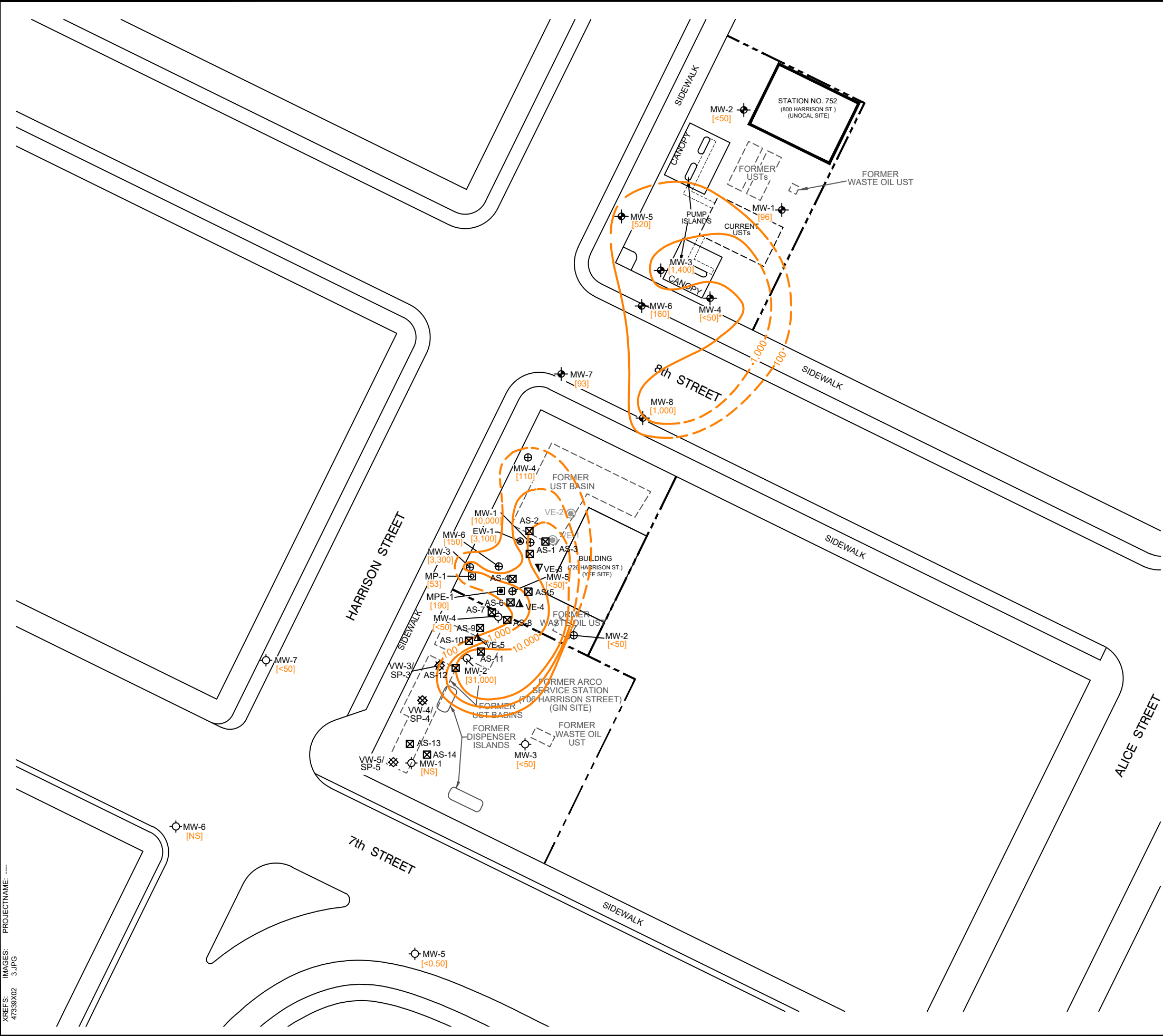
UNION OIL OF CALIFORNIA STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA
SEMI-ANNUAL SITE STATUS REPORT
FIRST QUARTER 2019

GROUNDWATER ELEVATION CONTOUR MAP

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 for natural and built assets

FIGURE **3**

CITY: SAN RAFAEL, CA (PETALUMA) DIV/GROUP: ENV/CAD DB: J. HARRIS, R. HUBATCH, J. HARRIS
 C:\Users\chutia\OneDrive - ARCADIS\BIM\360 Docs\CHEV/IRON CORPORATION\76PP_351646\GMR35165_164601-DWG\351646_Fig 4_TPPH Isoconcentration Map.dwg LAYOUT: 3 SAVED: 3/22/2019 10:31 AM ACADVER: 23.05 (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: ARCADIS.CTB
 PLOTTED: 4/4/2019 4:39 PM BY: CHUTIA, BARAKHA
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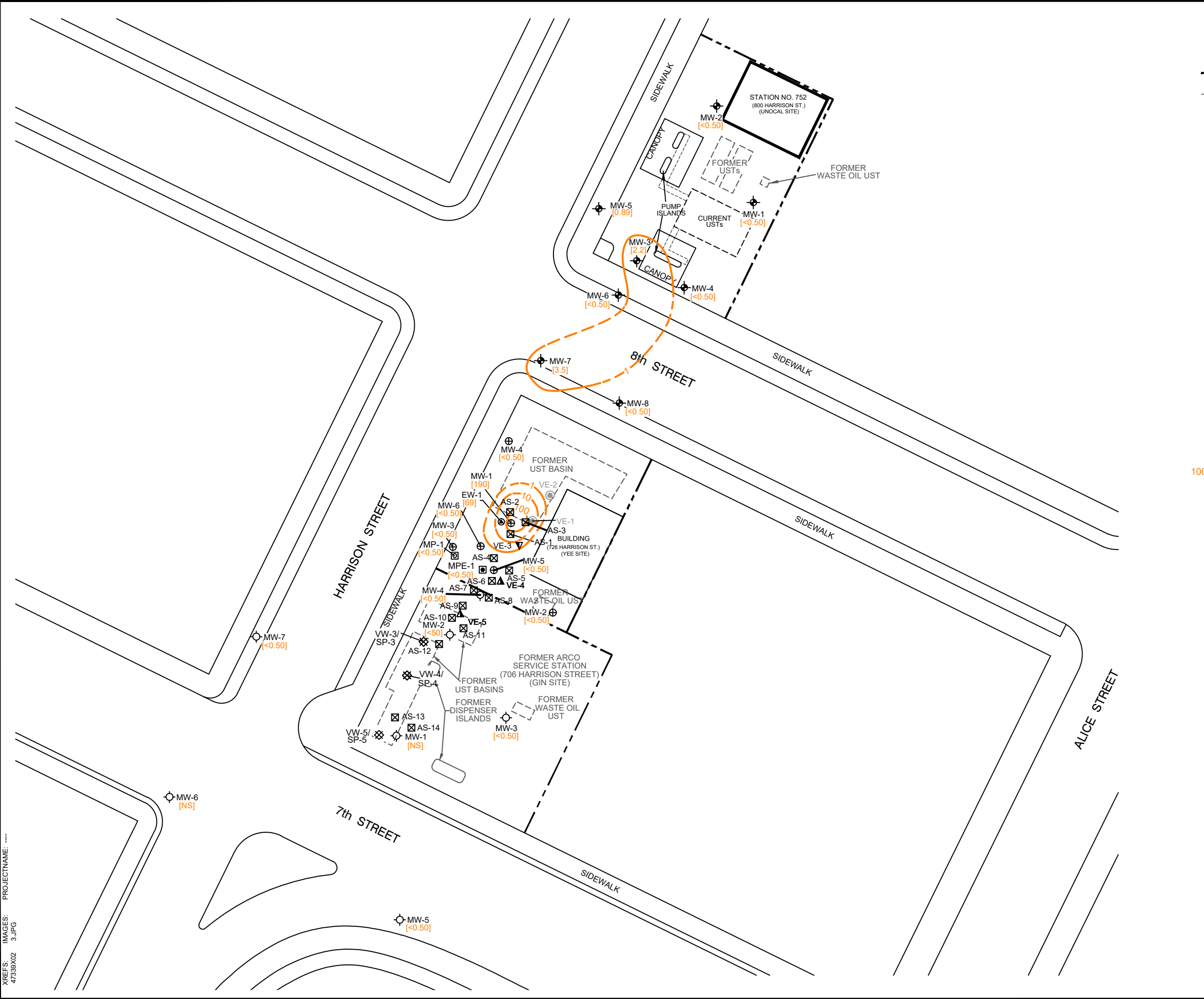
- LEGEND**
- PROPERTY BOUNDARY
 - PRODUCT PIPING
 - MW-1-⊕ GROUNDWATER MONITORING WELL (UNOCAL SITE)
 - MW-1-⊙ GROUNDWATER MONITORING WELL (GIN SITE)
 - VW-3/SP-3-⊗ SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN SITE)
 - MW-1-⊕ GROUNDWATER MONITORING WELL (YEE SITE)
 - AS-1-⊠ AIR SPARGE WELL (YEE SITE)
 - EW-1-⊕ EXTRACTION WELL (YEE SITE)
 - MPE-1-⊠ MULTI-PHASE EXTRACTION PILOT TEST WELL (PZ-1 IS LOCATED IN THE SAME BOREHOLE) (YEE SITE)
 - MP-1-⊠ PILOT TEST MONITORING POINT (YEE SITE)
 - VE-1-⊙ VAPOR EXTRACTION WELL (DESTROYED)
 - VE-3-▽ PILOT TEST VAPOR EXTRACTION WELL (YEE SITE)
 - VE-4-▲ VAPOR EXTRACTION WELL
 - [31,000] TOTAL PURGEABLE PETROLEUM HYDROCARBONS (TPPH) CONCENTRATION IN MICROGRAMS PER LITER ($\mu\text{g/L}$)
 - 100,000- - - - - TPPH ISOCONCENTRATION CONTOUR ($\mu\text{g/L}$; DASHED WHERE INFERRED)
 - <math><50</math> DENOTES LESS THAN LABORATORY REPORTING LIMIT
 - [NS] NOT SAMPLED
 - * NOT USED IN ISOCONTOUR MAP

- NOTES:**
- BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'. MUIR SURVEY COMPLETED A SURVEY ON 8/21/13.
 - COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.
- 0 50' 100'
 APPROXIMATE SCALE: 1 in. = 50 ft.

UNION OIL OF CALIFORNIA STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA
SEMI-ANNUAL SITE STATUS REPORT
FIRST QUARTER 2019

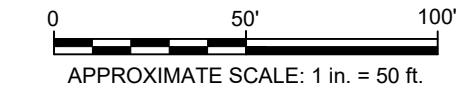
TPPH ISOCONCENTRATION MAP





- LEGEND**
- PROPERTY BOUNDARY
 - PRODUCT PIPING
 - MW-1-⊕ GROUNDWATER MONITORING WELL (UNOCAL SITE)
 - MW-1-⊙ GROUNDWATER MONITORING WELL (GIN SITE)
 - VW-3/SP-3⊗ SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN SITE)
 - MW-1-⊕ GROUNDWATER MONITORING WELL (YEE SITE)
 - AS-1⊠ AIR SPARGE WELL (YEE SITE)
 - EW-1-⊕ EXTRACTION WELL (YEE SITE)
 - MPE-1⊠ MULTI-PHASE EXTRACTION PILOT TEST WELL (PZ-1 IS LOCATED IN THE SAME BOREHOLE) (YEE SITE)
 - MP-1⊠ PILOT TEST MONITORING POINT (YEE SITE)
 - VE-1-⊙ VAPOR EXTRACTION WELL (DESTROYED)
 - VE-3-▽ PILOT TEST VAPOR EXTRACTION WELL (YEE SITE)
 - VE-4-▲ VAPOR EXTRACTION WELL
 - [190] BENZENE CONCENTRATION IN MICROGRAMS PER LITER (µg/L)
 - 100 --- BENZENE ISOCONCENTRATION CONTOUR (µg/L; DASHED WHERE INFERRED)
 - < DENOTES LESS THAN LABORATORY REPORTING LIMIT
 - [NS] NOT SAMPLED
 - J ESTIMATED VALUE

- NOTES:**
- BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'. MUIR SURVEY COMPLETED A SURVEY ON 8/21/13.
 - COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.



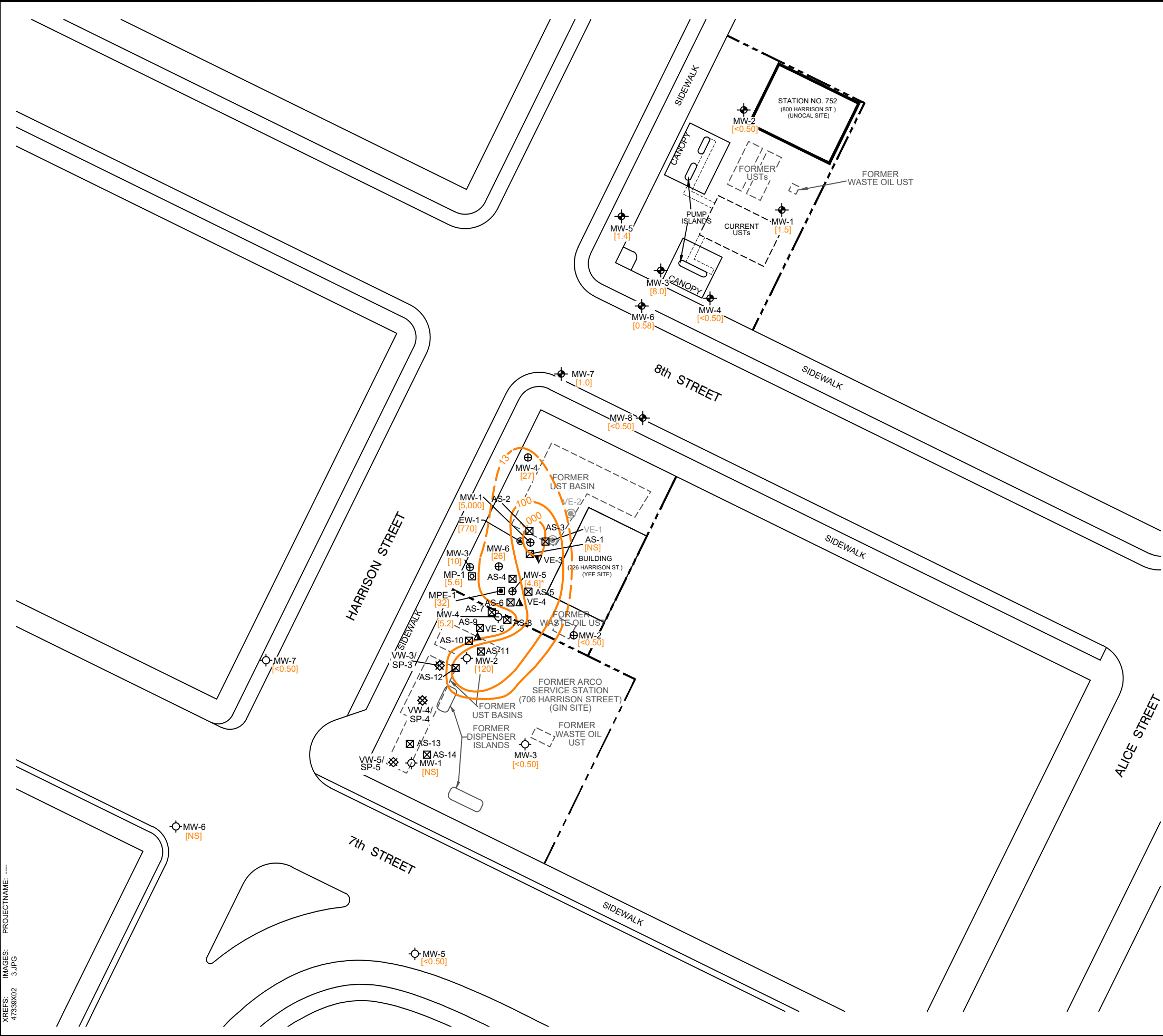
UNION OIL OF CALIFORNIA STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA
SEMI-ANNUAL SITE STATUS REPORT
FIRST QUARTER 2019

BENZENE ISOCONCENTRATION MAP

ARCADIS Design & Consultancy
 for natural and built assets

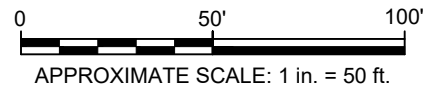
FIGURE **5**

CITY: SAN RAFAEL, CA (PETALUMA) DIV: GROUP, ENVICAD, DB, J. HARRIS, R. HUBATCH, J. HARRIS
 C:\Users\chub4677\OneDrive - ARCADIS\BIM\360 Docs\CHEVRON CORPORATION\78PP_351646\GMR351646_Fig 6_MTBE Isoconcentration Map.dwg LAYOUT: 3 SAVED: 3/22/2019 10:31 AM ACADIVER: 23.05 (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: ARCADIS.CTB
 PLOTTED: 4/4/2019 4:47 PM BY: CHUTIA, BARAKHA
 XREFS: IMAGES: 3.JPG PROJECTNAME: ---



- LEGEND**
- PROPERTY BOUNDARY
 - PRODUCT PIPING
 - MW-1 [Symbol] GROUNDWATER MONITORING WELL (UNOCAL SITE)
 - MW-1 [Symbol] GROUNDWATER MONITORING WELL (GIN SITE)
 - VW-3/SP-3 [Symbol] SOIL VAPOR/SPARGE WELL (UNABLE TO LOCATE) (GIN SITE)
 - MW-1 [Symbol] GROUNDWATER MONITORING WELL (YEE SITE)
 - AS-1 [Symbol] AIR SPARGE WELL (YEE SITE)
 - EW-1 [Symbol] EXTRACTION WELL (YEE SITE)
 - MPE-1 [Symbol] MULTI-PHASE EXTRACTION PILOT TEST WELL (PZ-1 IS LOCATED IN THE SAME BOREHOLE) (YEE SITE)
 - AS-1 [Symbol] PILOT TEST MONITORING POINT (YEE SITE)
 - VE-1 [Symbol] VAPOR EXTRACTION WELL (DESTROYED)
 - VE-3 [Symbol] PILOT TEST VAPOR EXTRACTION WELL (YEE SITE)
 - VE-4 [Symbol] VAPOR EXTRACTION WELL
 - [5,000] METHYL TERTIARY BUTYL ETHER (MTBE) CONCENTRATION IN MICROGRAMS PER LITER (µg/L)
 - 1,000 --- MTBE ISOCONCENTRATION CONTOUR (µg/L; DASHED WHERE INFERRED)
 - < DENOTES LESS THAN LABORATORY REPORTING LIMIT
 - [NS] NOT SAMPLED
 - NOT USED IN ISOCONTOUR MAP

- NOTES:**
- BASE MAP PROVIDED BY MID COAST ENGINEERS, DATED 06/29/11, AT A SCALE OF 1"=50'. ADDITIONAL SITE FEATURES PROVIDED BY STANTEC, INC., DATED 03/05/10, AT A SCALE OF 1"=50'. MUIR SURVEY COMPLETED A SURVEY ON 8/21/13.
 - COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.



UNION OIL OF CALIFORNIA STATION NO. 0752/YEE/GIN COMMINGLED
 706/726/800 HARRISON STREET OAKLAND, CALIFORNIA
SEMI-ANNUAL SITE STATUS REPORT
FIRST QUARTER 2019

MTBE ISOCONCENTRATION MAP



Tables

Table 1
Current Groundwater Gauging and Analytical Results
76 Station 0752/YEE/GIN Comingled Plume
706/726/800 Harrison Street Oakland, California

Well ID	Date Sampled	TOC Elevation (feet)	DTW (feet btoc)	LPH Thickness (feet)	GW Elevation (feet AMSL)	Previous Quarter GWE (feet AMSL)	Change in Elevation (feet)	TPPH (8260B-GC/MS)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	EDB	EDC	Ethanol	Comments
800 Harrison Street																	
MW-1	2/7/2019	37.22	20.22	0.00	17.00	17.16	-0.16	96	<0.50	<0.50	<0.50	<1.0	1.5	--	--	--	
MW-2	2/7/2019	37.44	19.98	0.00	17.46	17.66	-0.20	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-3	2/7/2019	35.88	19.13	0.00	16.75	16.90	-0.15	1,400	2.2	<1.0	1.0	<2.0	8.0	--	--	--	A01
MW-4	2/7/2019	35.42	18.40	0.00	17.02	16.94	0.08	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-5	2/7/2019	35.68	18.80	0.00	16.88	17.01	-0.13	520	0.89	2.0	0.61	3.6	1.4	--	--	--	
MW-6	2/7/2019	34.89	18.24	0.00	16.65	16.76	-0.11	160	<0.50	<0.50	<0.50	<1.0	0.58	--	--	--	
MW-7	2/7/2019	34.92	18.63	0.00	16.29	16.43	-0.14	93	3.5	<0.50	<0.50	<1.0	1.0	--	--	--	
MW-8	2/7/2019	34.73	18.38	0.00	16.35	16.46	-0.11	1,000	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
706 Harrison Street																	
MW-1	2/7/2019	29.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Unable to access/removed from scope
MW-2	2/7/2019	30.53	18.37	0.00	12.16	12.48	-0.32	31,000	<50	63	<50	7,800	120	--	--	--	A01
MW-3	2/7/2019	29.79	17.45	0.00	12.34	12.34	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-4	2/7/2019	31.20	18.87	0.00	12.33	12.32	0.01	<50	<0.50	<0.50	<0.50	<1.0	5.2	--	--	--	
MW-5	2/7/2019	28.07	16.26	0.00	11.81	11.58	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-6	2/7/2019	29.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Unable to locate
MW-7	2/7/2019	29.70	17.56	0.00	12.14	12.13	0.01	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
726 Harrison Street																	
AS-1	2/7/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-1	2/7/2019	34.37	19.12	0.00	15.25	15.58	-0.33	3,100	69	7.3	8.3	210	770	--	--	--	A01
MP-1	2/7/2019	34.16	19.34	0.00	14.82	15.27	--	53	<0.50	<0.50	<0.50	1.1	5.6	--	--	--	
MPE-1	2/7/2019	34.36	19.49	0.00	14.87	15.27	-0.40	190	<0.50	<0.50	<0.50	6.4	32	--	--	--	
MW-1	2/7/2019	34.45	19.27	0.00	15.18	15.49	-0.31	10,000	190	<25	27	380	5,000	--	--	--	A01
MW-2	2/7/2019	34.91	19.75	0.00	15.16	15.26	-0.10	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-3	2/7/2019	34.12	19.21	0.00	14.91	15.33	-0.42	3,300	<0.50	<0.50	<0.50	160	10	--	--	--	A01
MW-4	2/7/2019	35.05	19.36	0.00	15.69	15.89	-0.20	110	<0.50	<0.50	<0.50	<1.0	27	--	--	--	
MW-5	2/7/2019	34.76	19.58	0.00	15.18	15.51	-0.33	<50	<0.50	<0.50	<0.50	<1.0	4.6	--	--	--	
MW-6	2/7/2019	34.53	25.93	0.00	8.60	8.38	0.22	150	<0.50	<0.50	<0.50	<1.0	26	--	--	--	

Table 1
Current Groundwater Gauging and Analytical Results
76 Station 0752/YEE/GIN Comingled Plume
706/726/800 Harrison Street Oakland, California

Notes

Analytical results given in micrograms per liter.
Muir Consulting, Inc. completed a survey of 726 Harrison well locations on August 21, 2013. Elevation data for 800 Harrison Street was converted by using the National Geodetic Survey (NGS) online conversion calculator located from NAV29 to NAV88. The 706 Harrison Street data was not converted due to discrepancies with the data.
EPA Method 8260B for Volatile Organic Compounds.

Standard Abbreviations

--	not analyzed, measured, or collected
<	not detected at or above laboratory detection limit (Practical Quantitation Limit [PQL])
TOC	top of casing (surveyed reference elevation)
AMSL	above mean sealevel
DTW	depth to water
btoc	below top of casing
LPH	liquid-phase hydrocarbons
GW	groundwater
GWE	groundwater elevation
GC/MS	gas chromatography-mass spectrometry for TPPH
A01	PQLs and Method Detection Limits (MDLs) are raised due to sample dilution

Analytes

TPPH	total purgeable petroleum hydrocarbons (C6-C12)
MTBE	methyl tertiary butyl ether
EDB	1,2-dibromoethane
EDC	1,2-dichloroethane (same as ethylene dichloride)

Table 2
Historical Groundwater Gauging and Analytical Results
76 Station 0752/YEE/GIN Comingled Plume
706/726/800 Harrison Street Oakland, California

Well ID	Date Sampled	TOC Elevation (feet AMSL)	DTW (feet btoc)	LPH Thickness (feet)	GW Elevation (feet AMSL)	Previous Quarter GWE (feet AMSL)	Change in Elevation (feet)	TPPH (8260B-GC/MS)	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Ethanol	Comments
800 Harrison Street																	
MW-1	2/7/2012	34.72	20.00	0.00	14.72	15.22	-0.50	97	<0.50	<0.50	<0.50	<1.0	8.6	<0.50	<0.50	--	
MW-1	8/9/2012	34.72	19.14	0.00	15.58	14.72	0.86	140	<0.50	<0.50	<0.50	<1.0	18	<0.50	<0.50	<250	
MW-1	2/27/2013	34.72	19.41	0.00	15.31	15.58	-0.27	50	<0.50	<0.50	<0.50	<1.0	6.7	<0.50	<0.50	<250	
MW-1	8/15/2013	37.22	20.20	0.00	17.02	15.31	1.71	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-1	2/6/2014	37.22	21.09	0.00	16.13	17.02	-0.89	<50	<0.50	<0.50	<0.50	<1.0	1.6	<0.50	<0.50	<250	
MW-1	8/14/2014	37.22	20.98	0.00	16.24	16.13	0.11	<50	<0.50	<0.50	<0.50	<1.0	2	--	--	--	
MW-1	2/17/2015	37.22	20.03	0.00	17.19	16.24	0.95	110	<0.50	<0.50	<0.50	<1.0	5.0	--	--	--	
MW-1	8/6/2015	37.22	20.83	0.00	16.39	17.19	-0.80	67	<0.50	<0.50	<0.50	<1.0	1.1	--	--	--	
MW-1	2/11/2016	37.22	20.18	0.00	17.04	16.39	0.65	150	<0.50	<0.50	<0.50	<1.0	1.1	--	--	--	
MW-1	8/19/2016	37.22	20.38	0.00	16.84	17.04	-0.20	110	<0.50	<0.50	<0.50	<1.0	2.2	--	--	--	
MW-1	2/17/2017	37.22	17.45	0.00	19.77	16.84	2.93	710	<0.50	<0.50	0.9	3.0	70.0	--	--	--	
MW-1	8/17/2017	37.22	19.08	0.00	18.14	19.77	-1.63	300	<0.50	<0.50	<0.50	<1.0	26.0	--	--	--	
MW-1	2/9/2018	37.22	19.92	0.00	17.30	18.14	-0.84	150	<0.50	<0.50	<0.50	<1.0	2.1	--	--	--	
MW-1	8/2/2018	37.22	20.06	0.00	17.16	17.30	-0.14	75	<0.50	<0.50	0.13 J	<1.0	1.8	--	--	--	
MW-1	2/7/2019	37.22	20.22	0.00	17.00	17.16	-0.16	96	<0.50	<0.50	<0.50	<1.0	1.5	--	--	--	
MW-2	2/7/2012	34.74	19.77	0.00	14.97	15.42	-0.45	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	--	
MW-2	8/9/2012	34.74	18.89	0.00	15.85	14.97	0.88	<50	<0.50	<0.50	<0.50	<1.0	4.7	<0.50	<0.50	<250	
MW-2	2/27/2013	34.74	19.16	0.00	15.58	15.85	-0.27	<50	<0.50	<0.50	<0.50	<1.0	9.6	<0.50	<0.50	<250	
MW-2	8/15/2013	37.44	19.99	0.00	17.45	15.58	1.87	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-2	2/6/2014	37.44	20.82	0.00	16.62	17.45	-0.83	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-2	8/14/2014	37.44	20.68	0.00	16.76	16.62	0.14	<50	<0.50	<0.50	<0.50	<1.0	<0.05	--	--	--	
MW-2	2/17/2015	37.44	19.79	0.00	17.65	16.76	0.89	57	<0.50	<0.50	<0.50	<1.0	1.4	--	--	--	
MW-2	8/6/2015	37.44	20.54	0.00	16.90	17.65	-0.75	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-2	2/11/2016	37.44	19.99	0.00	17.45	16.90	0.55	93	<0.50	<0.50	<0.50	<1.0	1.2	--	--	--	
MW-2	8/19/2016	37.44	20.10	0.00	17.34	17.45	-0.11	<50	<0.50	<0.50	<0.50	<1.0	1.3	--	--	--	
MW-2	2/17/2017	37.44	17.52	0.00	19.92	17.34	2.58	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-2	8/17/2017	37.44	19.78	0.00	17.66	19.92	-2.26	570	130	0.79	1.3	1.1	38.0	--	--	--	A01
MW-2	2/9/2018	37.44	19.64	0.00	17.80	17.66	0.14	<50	<0.50	<0.50	<0.50	<1.0	0.76	--	--	--	
MW-2	8/2/2018	37.44	19.78	0.00	17.66	17.80	-0.14	12 J	<0.50	<0.50	<0.50	<1.0	0.42 J	--	--	--	
MW-2	2/7/2019	37.44	19.98	0.00	17.46	17.66	-0.20	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-3	2/7/2012	33.18	18.88	0.00	14.30	14.88	-0.58	1,800	6.7	<1.0	1.9	<2.0	1,600	<0.50	<0.50	--	A01
MW-3	8/9/2012	33.18	18.02	0.00	15.16	14.30	0.86	1,400	1.8	<0.50	1.5	<1.0	370	<0.50	<0.50	<250	A01
MW-3	2/27/2013	33.18	18.36	0.00	14.82	15.16	-0.34	1,600	4.4	0.69	2.8	<1.0	820	<0.50	<0.50	<250	A01
MW-3	8/15/2013	35.88	19.17	0.00	16.71	14.82	1.89	410	4.0	<0.50	1.4	<1.0	340	<0.50	<0.50	<250	A01
MW-3	2/6/2014	35.88	19.96	0.00	15.92	16.71	-0.79	1,300	7.9	0.87	1.7	5.2	760	<0.50	<0.50	<250	A01
MW-3	8/14/2014	35.88	19.30	0.00	16.58	15.92	0.66	1,800	9.8	1.5	2.3	3.7	490	--	--	--	A01
MW-3	2/17/2015	35.88	18.88	0.00	17.00	16.58	0.42	1,900	6.7	2.2	2.2	3.2	60	--	--	--	A01, S09
MW-3	8/6/2015	35.88	19.73	0.00	16.15	17.00	-0.85	2,100	7.6	1.8	3.5	4.2	130	--	--	--	A01, S09
MW-3	2/11/2016	35.88	18.97	0.00	16.91	16.15	0.76	2,500	9.3	1.9	3.1	3.7	54	--	--	--	
MW-3	8/19/2016	35.88	19.28	0.00	16.60	16.91	-0.31	1,300	5.0	1.3	2.1	2.4	46	--	--	--	A01
MW-3	2/17/2017	35.88	16.07	0.00	19.81	16.60	3.21	1,500	4.6	0.67	0.93	1	25	--	--	--	Sheen present on water
MW-3	8/17/2017	35.88	18.07	0.00	17.81	19.81	-2.00	1,700	2.0	0.61	1.1	1.4	12	--	--	--	
MW-3	2/9/2018	35.88	18.83	0.00	17.05	17.81	-0.76	3,000	2.0	0.94	1.6	2.0	6.5	--	--	--	A01
MW-3	8/2/2018	35.88	18.98	0.00	16.90	17.05	-0.15	2,100	0.78	0.80	1.1	1.6	6.7	--	--	--	A01
MW-3	2/7/2019	35.88	19.13	0.00	16.75	16.90	-0.15	1,400	2.2	<1.0	1.0	<2.0	8.0	--	--	--	A01
MW-4	2/7/2012	32.72	18.38	0.00	14.34	14.87	-0.53	<50	<0.50	<0.50	<0.50	<1.0	1.5	<0.50	<0.50	--	
MW-4	8/9/2012	32.72	17.55	0.00	15.17	14.34	0.83	<50	<0.50	<0.50	<0.50	<1.0	1.3	<0.50	<0.50	<250	
MW-4	2/27/2013	32.72	17.83	0.00	14.89	15.17	-0.28	<50	<0.50	<0.50	<0.50	<1.0	1.1	<0.50	<0.50	<250	
MW-4	8/15/2013	35.42	18.70	0.00	16.72	14.89	1.83	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-4	2/6/2014	35.42	19.48	0.00	15.94	16.72	-0.78	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-4	8/14/2014	35.42	19.33	0.00	16.09	15.94	0.15	<50	<0.50	<0.50	<0.50	<1.0	<0.05	--	--	--	
MW-4	2/17/2015	35.42	18.40	0.00	17.02	16.09	0.93	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-4	8/6/2015	35.42	19.24	0.00	16.18	17.02	-0.84	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-4	2/11/2016	35.42	18.53	0.00	16.89	16.18	0.71	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-4	8/19/2016	35.42	18.77	0.00	16.65	16.89	-0.24	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-4	2/17/2017	35.42	15.53	0.00	19.89	16.65	3.24	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-4	8/17/2017	35.42	17.55	0.00	17.87	19.89	-2.02	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-4	2/9/2018	35.42	18.37	0.00	17.05	17.87	-0.82	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-4	8/2/2018	35.42	18.48	0.00	16.94	17.05	-0.11	<50	<0.50	<0.50	<0.50	<1.0	0.31 J	--	--	--	
MW-4	2/7/2019	35.42	18.40	0.00	17.02	16.94	0.08	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	

Table 2
Historical Groundwater Gauging and Analytical Results
76 Station 0752/YEE/GIN Comingled Plume
706/726/800 Harrison Street Oakland, California

Well ID	Date Sampled	TOC Elevation (feet AMSL)	DTW (feet btoc)	LPH Thickness (feet)	GW Elevation (feet AMSL)	Previous Quarter GWE (feet AMSL)	Change in Elevation (feet)	TPPH (8260B-GC/MS)	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Ethanol	Comments
MW-5	2/7/2012	32.98	18.59	0.00	14.39	14.93	-0.54	1,600	58	11	3.0	25	10	<0.50	<0.50	--	A01
MW-5	8/9/2012	32.98	17.73	0.00	15.25	14.39	0.86	1,900	81	18	10	22	19	<0.50	<0.50	<250	A01
MW-5	2/27/2013	32.98	17.98	0.00	15.00	15.25	-0.25	1,300	58	11	2.4	13	8.0	<0.50	<0.50	<250	
MW-5	8/15/2013	35.68	18.88	0.00	16.80	15.00	1.80	50	24	6.1	2.0	9.2	6.7	<0.50	<0.50	<250	
MW-5	2/6/2014	35.68	19.63	0.00	16.05	16.80	-0.75	1,400	13	7.4	2.3	13	1.8	<0.50	<0.50	<250	
MW-5	8/14/2014	35.68	19.48	0.00	16.20	16.05	0.15	1,300	7.2	5.8	2.2	10	1.0	--	--	--	A01
MW-5	2/17/2015	35.68	18.58	0.00	17.10	16.20	0.90	1,200	4.6	4.3	2.4	8.0	<0.50	--	--	--	
MW-5	8/6/2015	35.68	19.38	0.00	16.30	17.10	-0.80	890	4.6	3.2	1.2	5.5	1.7	--	--	--	
MW-5	2/11/2016	35.68	18.77	0.00	16.91	16.30	0.61	810	1.0	2.1	0.8	2.6	<0.50	--	--	--	
MW-5	8/19/2016	35.68	18.97	0.00	16.71	16.91	-0.20	920	7.5	2.2	1.1	5.4	2.1	--	--	--	
MW-5	2/17/2017	35.68	16.94	0.00	18.74	16.71	2.03	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-5	8/17/2017	35.68	17.73	0.00	17.95	18.74	-0.79	600	20.0	3	1.7	5.7	3.1	--	--	--	
MW-5	2/9/2018	35.68	18.53	0.00	17.15	17.95	-0.80	1,500	2.9	4.2	1.4	7.2	1.2	--	--	--	
MW-5	8/2/2018	35.68	18.67	0.00	17.01	17.15	-0.14	2,500	15.0	7.2	2.1	15	3.7	--	--	--	
MW-5	2/7/2019	35.68	18.80	0.00	16.88	17.01	-0.13	520	0.89	2.0	0.61	3.6	1.4	--	--	--	
MW-6	2/7/2012	32.19	18.02	0.00	14.17	14.71	-0.54	450	<0.50	<0.50	<0.50	<1.0	29	<0.50	<0.50	--	
MW-6	8/9/2012	32.19	17.17	0.00	15.02	14.17	0.85	180	<0.50	<0.50	<0.50	<1.0	10	<0.50	<0.50	<250	
MW-6	2/27/2013	32.19	17.48	0.00	14.71	15.02	-0.31	77	<0.50	<0.50	<0.50	<1.0	2.4	<0.50	<0.50	<250	
MW-6	8/15/2013	34.89	18.35	0.00	16.54	14.71	1.83	<50	<0.50	<0.50	<0.50	<1.0	0.82	<0.50	<0.50	<250	
MW-6	2/6/2014	34.89	19.10	0.00	15.79	16.54	-0.75	150	<0.50	<0.50	<0.50	<1.0	0.81	<0.50	<0.50	<250	
MW-6	8/14/2014	34.89	18.93	0.00	15.96	15.79	0.17	150	<0.50	<0.50	<0.50	<1.0	<0.05	--	--	--	
MW-6	2/17/2015	34.89	18.03	0.00	16.86	15.96	0.90	65	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-6	8/6/2015	34.89	18.85	0.00	16.04	16.86	-0.82	180	<0.50	<0.50	<0.50	<1.0	1.4	--	--	--	
MW-6	2/11/2016	34.89	18.14	0.00	16.75	16.04	0.71	240	<0.50	<0.50	<0.50	<1.0	0.7	--	--	--	
MW-6	8/19/2016	34.89	18.42	0.00	16.47	16.75	-0.28	91	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-6	2/17/2017	34.89	15.10	0.00	19.79	16.47	3.32	91	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-6	8/17/2017	34.89	17.23	0.00	17.66	19.79	-2.13	56	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-6	2/9/2018	34.89	18.00	0.00	16.89	17.66	-0.77	160	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-6	8/2/2018	34.89	18.13	0.00	16.76	16.89	-0.13	140	<0.50	<0.50	<0.50	<1.0	0.34 J	--	--	--	
MW-6	2/7/2019	34.89	18.24	0.00	16.65	16.76	-0.11	160	<0.50	<0.50	<0.50	<1.0	0.58	--	--	--	
MW-7	2/7/2012	32.22	18.40	0.00	13.82	14.39	-0.57	310	25	2	<0.50	3.2	9.0	<0.50	<0.50	--	
MW-7	8/9/2012	32.22	17.53	0.00	14.69	13.82	0.87	280	11	1.2	<0.50	<1.0	24	<0.50	<0.50	<250	
MW-7	2/27/2013	32.22	17.85	0.00	14.37	14.69	-0.32	<50	<0.50	<0.50	<0.50	<1.0	3.8	<0.50	<0.50	<250	
MW-7	8/15/2013	34.92	18.70	0.00	16.22	14.37	1.85	95	11	1.3	<0.50	<1.0	5.0	<0.50	<0.50	<250	
MW-7	2/6/2014	34.92	19.45	0.00	15.47	16.22	-0.75	790	66	10	2.5	17	47	<0.50	<0.50	<250	
MW-7	8/14/2014	34.92	19.27	0.00	15.65	15.47	0.18	580	96	5.6	2.5	13	12	--	--	--	A01
MW-7	2/17/2015	34.92	18.25	0.00	16.67	15.65	1.02	350	36	2.8	2.1	1.2	10	--	--	--	A01
MW-7	8/6/2015	34.92	19.16	0.00	15.76	16.67	-0.91	330	31	2.8	0.72	3.6	14	--	--	--	
MW-7	2/11/2016	34.92	18.45	0.00	16.47	15.76	0.71	320	10	1.2	0.6	2.4	6	--	--	--	
MW-7	8/19/2016	34.92	18.78	0.00	16.14	16.47	-0.33	88	16	0.7	<0.50	<1.0	4.5	--	--	--	
MW-7	2/17/2017	34.92	15.93	0.00	18.99	16.14	2.85	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-7	8/17/2017	34.92	17.66	0.00	17.26	18.99	-1.73	<50	<0.50	<0.50	<0.50	<1.0	1.3	--	--	--	
MW-7	2/9/2018	34.92	18.34	0.00	16.58	17.26	-0.68	<50	<0.50	<0.50	<0.50	<1.0	5.4	--	--	--	
MW-7	8/2/2018	30.53	18.05	0.00	12.48	12.68	-0.20	37000	1,700	4,000	2,000	10,000	1,300	--	--	--	
MW-7	2/7/2019	34.92	18.63	0.00	16.29	16.43	-0.14	93	3.5	<0.50	<0.50	<1.0	1.0	--	--	--	
MW-8	2/7/2012	32.03	18.15	0.00	13.88	14.50	-0.62	<50	<0.50	<0.50	<0.50	<1.0	0.75	<0.50	<0.50	--	
MW-8	8/9/2012	32.03	17.29	0.00	14.74	13.88	0.86	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-8	2/27/2013	32.03	17.58	0.00	14.45	14.74	-0.29	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-8	8/15/2013	34.73	18.46	0.00	16.27	14.45	1.82	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-8	2/6/2014	34.73	19.24	0.00	15.49	16.27	-0.78	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-8	8/14/2014	34.73	19.06	0.00	15.67	15.49	0.18	<50	<0.50	<0.50	<0.50	<1.0	<0.05	--	--	--	
MW-8	2/17/2015	34.73	18.04	0.00	16.69	15.67	1.02	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-8	8/6/2015	34.73	18.96	0.00	15.77	16.69	-0.92	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-8	2/11/2016	34.73	18.18	0.00	16.55	15.77	0.78	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-8	8/19/2016	34.73	18.55	0.00	16.18	16.55	-0.37	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-8	2/17/2017	34.73	15.34	0.00	19.39	16.18	3.21	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-8	8/17/2017	34.73	17.42	0.00	17.31	19.39	-2.08	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-8	2/9/2018	34.73	18.10	0.00	16.63	17.31	-0.68	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-8	8/2/2018	34.73	18.27	0.00	16.46	16.63	-0.17	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-8	2/7/2019	34.73	18.38	0.00	16.35	16.46	-0.11	1,000	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	

Table 2
Historical Groundwater Gauging and Analytical Results
76 Station 0752/YEE/GIN Comingled Plume
706/726/800 Harrison Street Oakland, California

Well ID	Date Sampled	TOC Elevation (feet AMSL)	DTW (feet btoc)	LPH Thickness (feet)	GW Elevation (feet AMSL)	Previous Quarter GWE (feet AMSL)	Change in Elevation (feet)	TPPH (8260B-GC/MS)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	EDB	EDC	Ethanol	Comments
706 Harrison Street																	
MW-1	2/7/2012	29.17	17.33	0.00	11.84	15.22	-3.38	8,900	1,000	260	230	610	420	<0.50	<0.50	--	A01
MW-1	8/9/2012	29.17	16.58	0.00	12.59	11.84	0.75	2,200	850	110	42	120	84	<5.0	<5.0	<2,500	A01
MW-1	2/27/2013	29.17	17.03	0.00	12.14	12.59	-0.45	--	--	--	--	--	--	--	--	--	Unable to access, parked over
MW-1	8/15/2013	29.17	17.89	0.00	11.28	12.14	-0.86	5,800	840	100	93	160	790	<5.0	<5.0	<2,500	A01
MW-1	2/6/2014	29.17	--	0.00	--	--	--	--	--	--	--	--	--	--	--	--	Unable to access, parked over
MW-1	8/14/2014	29.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Unable to access, accident
MW-1	2/17/2015	29.17	17.30	0.00	11.87	--	--	550	260	3.7	7.0	4.1	15	--	--	--	A01
MW-1	8/6/2015	29.17	--	0.00	--	11.87	--	--	--	--	--	--	--	--	--	--	Unable to access, parked over
MW-1	2/11/2016	29.17	17.37	0.00	11.80	--	--	250	86	3.6	5.6	8.8	9	--	--	--	A01
MW-1	8/19/2016	29.17	17.90	0.00	11.27	11.80	-0.53	1,600	820	30	12	95	33	--	--	--	A01
MW-1	2/17/2017	29.17	13.95	0.00	15.22	11.27	3.95	<50	<0.50	<0.50	<1.0	<0.50	--	--	--	--	A01
MW-1	8/17/2017	29.17	17.07	0.00	12.10	15.22	-3.12	1,000	1100	31	39	66	9	--	--	--	A01
MW-1	2/9/2018	29.17	--	--	--	12.10	--	--	--	--	--	--	--	--	--	--	Located in compound under trailer, unable to
MW-1	8/2/2018	29.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	unable to access/removed from scope
MW-1	2/7/2019	29.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	unable to access/removed from scope
MW-2	2/7/2012	30.53	17.90	0.00	12.63	15.42	-2.79	36,000	1,100	3,600	990	4,200	1,600	<5.0	<5.0	--	A01
MW-2	8/9/2012	30.53	16.90	0.00	13.63	12.63	1.00	5,100	810	1,800	440	1,900	4,100	<50	<50	<25,000	A01
MW-2	2/27/2013	30.53	17.36	0.00	13.17	13.63	-0.46	45,000	1,700	2,500	1,200	4,900	2,700	<50	1.0	<250	A01
MW-2	8/15/2013	30.53	18.20	0.00	12.33	13.17	-0.84	1,500	1,200	5,600	820	4,400	1,700	<5.0	<5.0	<2,500	A01
MW-2	2/6/2014	30.53	20.20	0.00	10.33	12.33	-2.00	5,200	1,400	5,200	1,300	5,000	3,000	<0.50	<0.50	<250	A01
MW-2	8/14/2014	30.53	18.70	0.00	11.83	10.33	1.50	31,000	1,200	1,800	1,000	4,300	2,400	--	--	--	A01
MW-2	2/17/2015	30.53	17.66	0.00	12.87	11.83	1.04	28,000	1,200	4,600	1,300	5,600	1,900	--	--	--	A01
MW-2	8/6/2015	30.53	18.65	0.00	11.88	12.87	-0.99	37,000	1,900	6,700	1,900	8,700	3,800	--	--	--	A01
MW-2	2/11/2016	30.53	17.69	0.00	12.84	11.88	0.96	42,000	680	2,400	550	2,200	1,600	--	--	--	A01
MW-2	8/19/2016	30.53	18.22	0.00	12.31	12.84	-0.53	47,000	1,400	3,100	1,500	8,700	3,600	--	--	--	A01
MW-2	2/17/2017	30.53	14.37	0.00	16.16	12.31	3.85	22,000	910	1,400	1,100	4,100	1,900	--	--	--	A01
MW-2	8/17/2017	30.53	17.35	0.00	13.18	16.16	-2.98	44,000	1,400	2,700	1,800	8,200	2,600	--	--	--	A01, Sheen present in Water
MW-2	2/9/2018	30.53	17.85	0.00	12.68	13.18	-0.50	1,400	1,400	4,500	1,800	6,700	1,600	--	--	--	A01
MW-2	8/2/2018	30.53	18.05	0.00	12.48	12.68	-0.20	37,000	1,700	4,000	2,000	10,000	1,300	--	--	--	A01
MW-2	2/7/2019	30.53	18.37	0.00	12.16	12.48	-0.32	31,000	<50	63	<50	7,800	120	--	--	--	A01
MW-3	2/7/2012	29.79	17.23	0.00	12.56	14.88	-2.32	<50	<0.50	<0.50	<0.50	<1.0	110	<0.50	<0.50	--	A01
MW-3	8/9/2012	29.79	16.32	0.00	13.47	12.56	0.91	<50	<0.50	<0.50	<0.50	<1.0	0.80	<0.50	<0.50	<250	A01
MW-3	2/27/2013	29.79	16.75	0.00	13.04	13.47	-0.43	<50	<0.50	<0.50	<0.50	<1.0	1.2	<0.50	<0.50	<250	A01
MW-3	8/15/2013	29.79	17.60	0.00	12.19	13.04	-0.85	86	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	A01
MW-3	2/6/2014	29.79	18.36	0.00	11.43	12.19	-0.76	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	A01
MW-3	8/14/2014	29.79	18.07	0.00	11.72	11.43	0.29	<50	<0.50	<0.50	<0.50	<1.0	<0.05	--	--	--	A01
MW-3	2/17/2015	29.79	17.00	0.00	12.79	11.72	1.07	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	A01
MW-3	8/6/2015	29.79	18.03	0.00	11.76	12.79	-1.03	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	A01
MW-3	2/11/2016	29.79	17.00	0.00	12.79	11.76	1.03	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	A01
MW-3	8/19/2016	29.79	17.64	0.00	12.15	12.79	-0.64	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	A01
MW-3	2/17/2017	29.79	13.59	0.00	16.20	12.15	4.05	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	A01
MW-3	8/17/2017	29.79	16.72	0.00	13.07	16.20	-3.13	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	A01
MW-3	2/9/2018	29.79	17.24	0.00	12.55	13.07	-0.52	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	A01
MW-3	8/2/2018	29.79	17.45	0.00	12.34	12.55	-0.21	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	A01
MW-3	2/7/2019	29.79	17.45	0.00	12.34	12.34	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	A01
MW-4	2/7/2012	31.20	18.43	0.00	12.77	14.87	-2.10	1,800	140	15	21	32	430	<0.50	<0.50	--	A01
MW-4	8/9/2012	31.20	--	--	--	12.77	--	--	--	--	--	--	--	--	--	--	Unable to access, parked over
MW-4	2/27/2013	31.20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Unable to access, parked over
MW-4	8/15/2013	31.20	18.70	0.00	12.50	--	--	1,100	620	38	62	67	1,200	<2.5	<2.5	<1,200	A01
MW-4	2/6/2014	31.20	20.68	0.00	10.52	12.50	--	620	850	29	54	62	600	<0.50	<0.50	<250	A01
MW-4	8/14/2014	31.20	19.17	0.00	12.03	10.52	--	3,200	210	47	72	100	480	--	--	--	A01
MW-4	2/17/2015	31.20	--	--	--	12.03	--	--	--	--	--	--	--	--	--	--	Unable to access, parked over
MW-4	8/6/2015	31.20	19.11	0.00	12.09	--	--	4,800	1900	94	67	110	1,200	--	--	--	A01, S09
MW-4	2/11/2016	31.20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Unable to access, parked over
MW-4	8/19/2016	31.20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Unable to access, parked over
MW-4	2/17/2017	31.20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Unable to access, parked over
MW-4	8/17/2017	31.20	17.77	0.00	13.43	--	--	1,200	370	7.1	24	18	66	--	--	--	A01
MW-4	2/9/2018	31.20	18.33	0.00	12.87	13.43	--	5,000	930	62	140	140	470	--	--	--	A01
MW-4	10/12/2018	31.20	18.88	0.00	12.32	12.87	-0.55	2,300	640	38	77	110	740	--	--	--	Unable to access during August 2018 sampling event, resampled in October 2018
MW-4	2/7/2019	31.20	18.87	0.00	12.33	12.32	0.01	<50	<0.50	<0.50	<0.50	<1.0	5.2	--	--	--	A01

Table 2
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76 Station 0752/YEE/GIN Comingled Plume
706/726/800 Harrison Street Oakland, California

Well ID	Date Sampled	TOC Elevation (feet AMSL)	DTW (feet btoc)	LPH Thickness (feet)	GW Elevation (feet AMSL)	Previous Quarter GWE (feet AMSL)	Change in Elevation (feet)	TPPH (8260B-GC/MS)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	EDB	EDC	Ethanol	Comments
MW-5	2/7/2012	28.07	16.45	0.00	11.62	14.93	-3.31	<50	<0.50	<0.50	<0.50	1.6	190	<0.50	<0.50	--	A01
MW-5	8/9/2012	28.07	15.22	0.00	12.85	11.62	1.23	<50	<0.50	<0.50	<0.50	<1.0	13	<0.50	<0.50	<250	
MW-5	2/27/2013	28.07	15.68	0.00	12.39	12.85	-0.46	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-5	8/15/2013	28.07	16.55	0.00	11.52	12.39	-0.87	<50	<0.50	<0.50	<0.50	<1.0	0.72	<0.50	<0.50	<250	
MW-5	2/6/2014	28.07	17.37	0.00	10.70	11.52	-0.82	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-5	8/14/2014	28.07	17.01	0.00	11.06	10.70	0.36	<50	<0.50	<0.50	<0.50	<1.0	<0.05	--	--	--	
MW-5	2/17/2015	28.07	15.97	0.00	12.10	11.06	1.04	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-5	8/6/2015	28.07	17.10	0.00	10.97	12.10	-1.13	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-5	2/11/2016	28.07	15.92	0.00	12.15	10.97	1.18	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-5	8/19/2016	28.07	16.60	0.00	11.47	12.15	-0.68	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-5	2/17/2017	28.07	12.53	0.00	15.54	11.47	4.07	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-5	8/17/2017	28.07	15.80	0.00	12.27	15.54	-3.27	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-5	2/9/2018	28.07	--	--	--	12.27	--	--	--	--	--	--	--	--	--	--	Unable to access, traffic control not on site
MW-5	8/2/2018	28.07	16.49	0.00	11.58	--	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-5	2/7/2019	28.07	16.26	0.00	11.81	11.58	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-6	2/7/2012	29.13	17.51	0.00	11.62	14.71	-3.09	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	--	
MW-6	8/9/2012	29.13	16.41	0.00	12.72	11.62	1.10	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-6	2/27/2013	29.13	16.93	0.00	12.20	12.72	-0.52	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-6	8/15/2013	29.13	17.78	0.00	11.35	12.20	-0.85	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-6	2/6/2014	29.13	18.48	0.00	10.65	11.35	-0.70	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-6	8/14/2014	29.13	18.24	0.00	10.89	10.65	0.24	<50	<0.50	<0.50	<0.50	<1.0	<0.05	--	--	--	S05
MW-6	2/17/2015	29.13	17.22	0.00	11.91	10.89	1.02	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-6	8/6/2015	29.13	--	--	--	11.91	--	--	--	--	--	--	--	--	--	--	Paved Over
MW-6	2/11/2016	29.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Paved Over
MW-6	8/19/2016	29.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Paved Over
MW-6	2/17/2017	29.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Paved over
MW-6	8/17/2017	29.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Paved over
MW-6	2/9/2018	29.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Unable to locate
MW-6	8/2/2018	29.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Unable to locate
MW-6	2/7/2019	29.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Unable to locate
MW-7	2/7/2012	29.70	17.40	0.00	12.30	14.39	-2.09	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	--	
MW-7	8/9/2012	29.70	16.38	0.00	13.32	12.30	1.02	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-7	2/27/2013	29.70	16.83	0.00	12.87	13.32	-0.45	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-7	8/15/2013	29.70	17.67	0.00	12.03	12.87	-0.84	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-7	2/6/2014	29.70	18.42	0.00	11.28	12.03	-0.75	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	
MW-7	8/14/2014	29.70	18.15	0.00	11.55	11.28	0.27	<50	<0.50	<0.50	<0.50	<1.0	<0.05	--	--	--	
MW-7	2/17/2015	29.70	17.16	0.00	12.54	11.55	0.99	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-7	8/6/2015	29.70	18.11	0.00	11.59	12.54	-0.95	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-7	2/11/2016	29.70	17.27	0.00	12.43	11.59	0.84	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-7	8/19/2016	29.70	17.66	0.00	12.04	12.43	-0.39	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-7	2/17/2017	29.70	14.24	0.00	15.46	12.04	3.42	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-7	8/17/2017	29.70	16.86	0.00	12.84	15.46	-2.62	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-7	2/9/2018	29.70	17.40	0.00	12.30	12.84	-0.54	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-7	8/2/2018	29.70	17.57	0.00	12.13	12.30	-0.17	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MW-7	2/7/2019	29.70	17.56	0.00	12.14	12.13	0.01	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
SP-3	2/27/2013	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-3	8/14/2014	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-3	2/17/2015	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-3	8/6/2015	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-3	2/11/2016	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-3	8/19/2016	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-3	2/17/2017	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-3	8/17/2017	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-3	2/9/2018	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-3	8/2/2018	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-3	2/7/2019	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate

Table 2
Historical Groundwater Gauging and Analytical Results
76 Station 0752/YEE/GIN Comingled Plume
706/726/800 Harrison Street Oakland, California

Well ID	Date Sampled	TOC Elevation (feet AMSL)	DTW (feet btoc)	LPH Thickness (feet)	GW Elevation (feet AMSL)	Previous Quarter GWE (feet AMSL)	Change in Elevation (feet)	TPPH (8260B-GC/MS)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	EDB	EDC	Ethanol	Comments
SP-4	2/27/2013	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-4	8/14/2014	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-4	2/17/2015	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-4	8/6/2015	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-4	2/11/2016	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-4	8/19/2016	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-4	2/17/2017	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-4	8/17/2017	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-4	2/9/2018	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-4	8/2/2018	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to locate
SP-4	8/2/2018	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to locate
SP-5	2/27/2013	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-5	8/14/2014	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-5	2/17/2015	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-5	8/6/2015	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-5	2/11/2016	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-5	8/19/2016	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-5	2/17/2017	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-5	8/17/2017	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-5	2/9/2018	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to Locate
SP-5	8/2/2018	*--	--	--	*--	--	--	--	--	--	--	--	--	--	--	--	Unable to locate
726 Harrison Street																	
AS-1	8/15/2013	34.50	18.17	0.00	16.33	--	--	--	--	--	--	--	--	--	--	--	
AS-1	8/14/2014	34.50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
AS-1	2/17/2015	34.50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
AS-1	8/6/2015	34.50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
AS-1	2/11/2016	34.50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
AS-1	8/19/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
AS-1	2/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
AS-1	8/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
AS-1	2/9/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
AS-1	8/2/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
AS-1	2/7/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-1	2/27/2013	*--	18.17	0.00	*--	--	--	960	180	6.0	3.6	12	170	<0.50	<0.50	<250	A01
EW-1	8/15/2013	34.37	18.98	0.00	15.39	--	--	290	67	1.7	1.3	3.3	57	<0.50	<0.50	<250	
EW-1	2/6/2014	34.37	19.69	0.00	14.68	15.39	-0.71	640	68	1.2	7.9	7.0	180	<0.50	<0.50	<250	A01
EW-1	8/14/2014	34.37	19.48	0.00	14.89	14.68	0.21	8,000	63	7.5	83	57.0	340	--	--	--	A01
EW-1	2/17/2015	34.37	18.45	0.00	15.92	14.89	1.03	1,200	27	3.3	5.0	5.2	180	--	--	--	A01
EW-1	8/6/2015	34.37	19.45	0.00	14.92	15.92	-1.00	1,900	180	8.2	58.0	41.0	590	--	--	--	A01
EW-1	2/11/2016	34.37	18.60	0.00	15.77	14.92	0.85	890	19	1.2	1.8	1.8	160	--	--	--	
EW-1	8/19/2016	34.37	19.05	0.00	15.32	15.77	-0.45	1,300	91	3.6	33.0	20.0	340	--	--	--	A01
EW-1	2/17/2017	34.37	15.38	0.00	18.99	15.32	3.67	530	24	1.2	1.2	2.6	64	--	--	--	
EW-1	8/17/2017	34.37	18.04	0.00	16.33	18.99	-2.66	340	17	<1.0	<1.0	2.1	110	--	--	--	A01
EW-1	2/9/2018	34.37	18.62	0.00	15.75	16.33	-0.58	510	9.0	<1.0	<1.0	2.1	36	--	--	--	A01
EW-1	8/2/2018	34.37	18.79	0.00	15.58	15.75	-0.17	420	20	0.47 J	0.49 J	1.9	47	--	--	--	
EW-1	2/7/2019	34.37	19.12	0.00	15.25	15.58	-0.33	3,100	69	7.3	8.3	210	770	--	--	--	A01
MP-1	8/15/2013	34.16	19.03	0.00	15.13	--	--	<50	<0.50	<0.50	<0.50	<1.0	2.4	<0.50	<0.50	<250	
MP-1	2/6/2014	34.16	21.07	0.00	13.09	15.13	-2.04	<50	<0.50	<0.50	<0.50	<1.0	1.8	<0.50	<0.50	<250	
MP-1	8/14/2014	34.16	19.56	0.00	14.60	13.09	1.51	93	<0.50	<0.50	<0.50	<1.0	1.6	--	--	--	
MP-1	2/17/2015	34.16	--	--	--	14.60	--	--	--	--	--	--	--	--	--	--	Unable to access, parked over
MP-1	8/6/2015	34.16	19.49	0.00	14.67	--	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MP-1	2/11/2016	34.16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MP-1	8/19/2016	34.16	19.10	--	15.06	--	--	58	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	Unable to access, parked over
MP-1	2/17/2017	34.16	15.47	0.00	18.69	15.06	3.63	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MP-1	8/17/2017	34.16	--	--	--	18.69	--	--	--	--	--	--	--	--	--	--	Unable to access, parked over
MP-1	2/9/2018	34.16	18.70	0.00	15.46	--	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	
MP-1	8/2/2018	34.16	18.89	0.00	15.27	15.46	--	51	0.14 J	<0.50	<0.50	<1.0	5.6	--	--	--	
MP-1	2/7/2019	34.16	19.34	0.00	14.82	15.27	--	53	<0.50	<0.50	<0.50	1.1	5.6	--	--	--	

Table 2
Historical Groundwater Gauging and Analytical Results
76 Station 0752/YEE/GIN Comingled Plume
706/726/800 Harrison Street Oakland, California

Well ID	Date Sampled	TOC Elevation (feet AMSL)	DTW (feet btoc)	LPH Thickness (feet)	GW Elevation (feet AMSL)	Previous Quarter GWE (feet AMSL)	Change in Elevation (feet)	TPPH (8260B-GC/MS)	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Ethanol	Comments
MPE-1	8/15/2013	34.36	19.24	0.00	15.12	--	--	820	110	23	17	45	610	<0.50	<0.50	<250	A01
MPE-1	2/6/2014	34.36	20.00	0.00	14.36	15.12	-0.76	460	93	24	13	29	410	<0.50	<0.50	<250	A01
MPE-1	8/14/2014	34.36	19.78	0.00	14.58	14.36	0.22	150	24	1.7	3.2	5.5	470	--	--	--	A01
MPE-1	2/17/2015	34.36	18.70	0.00	15.66	14.58	1.08	4,400	540	30	87	89	3,400	--	--	--	A01
MPE-1	8/6/2015	34.36	19.72	0.00	14.64	15.66	-1.02	2,100	400	30	51	37	2,600	--	--	--	A01
MPE-1	2/11/2016	34.36	18.83	0.00	15.53	14.64	0.89	1,600	180	14	21	24	320	--	--	--	A01
MPE-1	8/19/2016	34.36	19.32	0.00	15.04	15.53	-0.49	4,600	640	38	110	100	2,400	--	--	--	A01
MPE-1	2/17/2017	34.36	15.58	0.00	18.78	15.04	3.74	1,900	620	18	88	66	1,600	--	--	--	A01
MPE-1	8/17/2017	34.36	18.34	0.00	16.02	18.78	-2.76	4,500	850	98	160	200	1,100	--	--	--	A01
MPE-1	2/9/2018	34.36	18.92	0.00	15.44	16.02	-0.58	3,600	500	52	130	120	910	--	--	--	A01
MPE-1	8/2/2018	34.36	19.09	0.00	15.27	15.44	-0.17	2,900	610	36	120	80	1,200	--	--	--	A01
MPE-1	2/7/2019	34.36	19.49	0.00	14.87	15.27	-0.40	190	<0.50	<0.50	<0.50	6.4	32	--	--	--	A01
MW-1	2/7/2012	31.98	18.77	0.00	13.21	15.22	-2.01	370	46	1.7	4.2	4.5	3,800	<0.50	<0.50	--	A01
MW-1	8/9/2012	31.98	17.82	0.00	14.16	13.21	0.95	6,600	760	27	58	60	6,700	<0.50	<0.50	--	A01
MW-1	2/27/2013	31.98	18.21	0.00	13.77	14.16	-0.39	3,000	480	26	52	56	2,600	<0.50	<0.50	<250	A01
MW-1	8/15/2013	34.45	19.03	0.00	15.42	13.77	1.65	7,200	820	50	65	99	7,300	<5.0	<5.0	<2,500	A01
MW-1	2/6/2014	34.45	19.87	0.00	14.58	15.42	-0.84	2,600	1,800	86	400	250	10,000	<0.50	<0.50	<250	A01
MW-1	8/14/2014	34.45	19.67	0.00	14.78	14.58	0.20	9,100	1,700	53	340	320	7,600	--	--	--	A01
MW-1	2/17/2015	34.45	17.84	0.00	16.61	14.78	1.83	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	A01
MW-1	8/6/2015	34.45	19.63	0.00	14.82	16.61	-1.79	14,000	2,600	100	370	340	6,600	--	--	--	A01
MW-1	2/11/2016	34.45	18.83	0.00	15.62	14.82	0.80	2,800	510	20	68	72	1,400	--	--	--	A01
MW-1	8/19/2016	34.45	19.20	0.00	15.25	15.62	-0.37	5,500	1,200	23	110	110	2,900	--	--	--	A01
MW-1	2/17/2017	34.45	15.48	0.00	18.97	15.25	3.72	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	A01
MW-1	8/17/2017	34.45	18.20	0.00	16.25	18.97	-2.72	4,900	1,100	27	60	82	2,700	--	--	--	A01
MW-1	2/9/2018	34.45	18.80	0.00	15.65	16.25	-0.60	3,400	530	27	31	57	1,000	--	--	--	A01
MW-1	8/2/2018	34.45	18.96	0.00	15.49	15.65	-0.16	8,000	2,300	49	110	150	1,600	--	--	--	A01
MW-1	2/7/2019	34.45	19.27	0.00	15.18	15.49	-0.31	10,000	190	<25	27	380	5,000	--	--	--	A01
MW-2	2/7/2012	32.44	19.52	0.00	12.92	15.42	-2.50	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	--	J
MW-2	8/9/2012	32.44	18.55	0.00	13.89	12.92	0.97	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	--	J
MW-2	2/27/2013	32.44	18.95	0.00	13.49	13.89	-0.40	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	J
MW-2	8/15/2013	34.91	19.77	0.00	15.14	13.49	1.65	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	J
MW-2	2/6/2014	34.91	21.20	0.00	13.71	15.14	-1.43	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	J
MW-2	8/14/2014	34.91	20.28	0.00	14.63	13.71	0.92	<50	<0.50	<0.50	<0.50	<1.0	<0.05	--	--	--	J
MW-2	2/17/2015	34.91	19.15	0.00	15.76	14.63	1.13	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	J
MW-2	8/6/2015	34.91	20.23	0.00	14.68	15.76	-1.08	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	J
MW-2	2/11/2016	34.91	19.29	0.00	15.62	14.68	0.94	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	J
MW-2	8/19/2016	34.91	19.84	0.00	15.07	15.62	-0.55	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	J
MW-2	2/17/2017	34.91	15.95	0.00	18.96	15.07	3.89	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	J
MW-2	8/17/2017	34.91	18.83	0.00	16.08	18.96	-2.88	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	J
MW-2	2/9/2018	34.91	19.44	0.00	15.47	16.08	-0.61	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	J
MW-2	8/2/2018	34.91	19.65	0.00	15.26	15.47	-0.21	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	J
MW-2	2/7/2019	34.91	19.75	0.00	15.16	15.26	-0.10	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	J
MW-3	2/7/2012	31.64	18.71	0.00	12.93	14.88	-1.95	25	<0.50	<0.50	<0.50	<1.0	2.1	<0.50	<0.50	--	J
MW-3	8/9/2012	31.64	17.74	0.00	13.90	12.93	0.97	39	<0.50	<0.50	<0.50	<1.0	9.2	<0.50	<0.50	--	J
MW-3	2/27/2013	31.64	18.12	0.00	13.52	13.90	-0.38	<50	<0.50	<0.50	<0.50	<1.0	2.8	<0.50	<0.50	<250	J
MW-3	8/15/2013	34.12	18.95	0.00	15.17	13.52	1.65	<50	<0.50	<0.50	<0.50	<1.0	1.1	<0.50	<0.50	<250	J
MW-3	2/6/2014	34.12	19.70	0.00	14.42	15.17	-0.75	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<250	J
MW-3	8/14/2014	34.12	19.48	0.00	14.64	14.42	0.22	<50	<0.50	<0.50	<0.50	<1.0	<0.05	--	--	--	J
MW-3	2/17/2015	34.12	18.46	0.00	15.66	14.64	1.02	<50	<0.50	<0.50	<0.50	<1.0	1.3	--	--	--	J
MW-3	8/6/2015	34.12	19.41	0.00	14.71	15.66	-0.95	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	J
MW-3	2/11/2016	34.12	18.59	0.00	15.53	14.71	0.82	<50	<0.50	<0.50	<0.50	<1.0	0.7	--	--	--	J
MW-3	8/19/2016	34.12	19.02	0.00	15.10	15.53	-0.43	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	J
MW-3	2/17/2017	34.12	15.33	0.00	18.79	15.10	3.69	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--	J
MW-3	8/17/2017	34.12	18.02	0.00	16.10	18.79	-2.69	<50	<0.50	<0.50	<0.50	<1.0	1.4	--	--	--	J
MW-3	2/9/2018	34.12	18.63	0.00	15.49	16.10	-0.61	<50	<0.50	<0.50	<0.50	<1.0	2.4	--	--	--	J
MW-3	8/2/2018	34.12	18.79	0.00	15.33	15.49	-0.16	15.1	<0.50	<0.50	<0.50	<1.0	1.3	--	--	--	J
MW-3	2/7/2019	34.12	19.21	0.00	14.91	15.33	-0.42	3,300	<0.50	<0.50	<0.50	160	10	--	--	--	A01

Table 2
Historical Groundwater Gauging and Analytical Results
76 Station 0752/YEE/GIN Comingled Plume
706/726/800 Harrison Street Oakland, California

Well ID	Date Sampled	TOC Elevation (feet AMSL)	DTW (feet btoc)	LPH Thickness (feet)	GW Elevation (feet AMSL)	Previous Quarter GWE (feet AMSL)	Change in Elevation (feet)	TPPH (8260B-GC/MS)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	EDB	EDC	Ethanol	Comments
MW-4	2/7/2012	32.56	19.09	0.00	13.47	14.87	-1.40	210	<0.50	<0.50	<0.50	<1.0	17	<0.50	<0.50	--	
MW-4	8/9/2012	32.56	18.16	0.00	14.40	13.47	0.93	280	2	<0.50	<0.50	<1.0	21	<0.50	<0.50	--	
MW-4	2/27/2013	32.56	18.50	0.00	14.06	14.40	-0.34	170	1.8	<0.50	<0.50	<1.0	22	<0.50	<0.50	<250	
MW-4	8/15/2013	35.05	19.34	0.00	15.71	14.06	1.65	98	<0.50	<0.50	<0.50	<1.0	25	<0.50	<0.50	<250	
MW-4	2/6/2014	35.05	20.09	0.00	14.96	15.71	-0.75	<50	<0.50	<0.50	<0.50	<1.0	9.4	<0.50	<0.50	<250	
MW-4	8/14/2014	35.05	19.90	0.00	15.15	14.96	0.19	160	0.7	<0.50	<0.50	<1.0	9.4	--	--	--	
MW-4	2/17/2015	35.05	18.85	0.00	16.20	15.15	1.05	180	<0.50	<0.50	<0.50	<1.0	12	--	--	--	
MW-4	8/6/2015	35.05	19.81	0.00	15.24	16.20	-0.96	210	<0.50	<0.50	<0.50	<1.0	12	--	--	--	
MW-4	2/11/2016	35.05	18.83	0.00	16.22	12.09	4.13	170	0.59	<0.50	<0.50	<1.0	3	--	--	--	
MW-4	8/19/2016	35.05	19.40	0.00	15.65	16.22	-0.57	94	<0.50	<0.50	<0.50	<1.0	3	--	--	--	
MW-4	2/17/2017	35.05	16.00	0.00	19.05	15.65	3.40	110	<0.50	<0.50	<0.50	<1.0	28	--	--	--	
MW-4	8/17/2017	35.05	18.31	0.00	16.74	19.05	-2.31	1300	59	4.6	1.5	8.8	51	--	--	--	A01
MW-4	2/9/2018	35.05	18.99	0.00	16.06	16.74	-0.68	210	0.72	<0.50	<0.50	<1.0	5.9	--	--	--	
MW-4	8/2/2018	35.05	19.16	0.00	15.89	16.06	-0.17	190	0.37J	<0.50	<0.50	<1.0	10	--	--	--	
MW-4	2/7/2019	35.05	19.36	0.00	15.69	15.89	-0.20	110	<0.50	<0.50	<0.50	<1.0	27	--	--	--	
MW-5	2/7/2012	32.06	19.16	0.00	12.90	14.93	-2.03	19,000	890	410	360	990	17,000	<6.2	<6.2	--	A01
MW-5	8/9/2012	32.06	18.24	0.00	13.82	12.90	0.92	16,000	1,400	580	470	960	16,000	<5.0	<5.0	--	A01
MW-5	2/27/2013	32.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Unable to access, parked over
MW-5	8/15/2013	34.76	19.40	0.00	15.36	--	--	8,000	1,900	590	390	1,100	20,000	<0.50	<0.50	<250	A01
MW-5	2/6/2014	34.76	21.45	0.00	13.31	15.36	-2.05	3,400	1,900	150	240	220	7,600	<0.50	<0.50	<250	A01
MW-5	8/14/2014	34.76	19.92	0.00	14.84	13.31	1.53	2,100	720	150	260	370	7,300	--	--	--	A01
MW-5	2/17/2015	34.76	18.92	0.00	15.84	14.84	1.00	16,000	1,600	360	390	950	5,300	--	--	--	A01
MW-5	8/6/2015	34.76	19.87	0.00	14.89	15.84	-0.95	9,500	2,700	380	500	900	3,800	--	--	--	A01
MW-5	2/11/2016	34.76	18.98	0.00	15.78	14.89	0.89	4,300	820	83	130	180	1,400	--	--	--	A01
MW-5	8/19/2016	34.76	19.48	0.00	15.28	15.78	-0.50	13,000	2,100	200	350	640	4,500	--	--	--	A01
MW-5	2/17/2017	34.76	15.70	0.00	19.06	15.28	3.78	3,500	1,200	150	140	270	1,200	--	--	--	A01
MW-5	8/17/2017	34.76	18.48	0.00	16.28	19.06	-2.78	14,000	2,500	460	500	1,200	3,800	--	--	--	A01
MW-5	2/9/2018	34.76	19.08	0.00	15.68	16.28	-0.60	17,000	1,900	380	630	1,200	4,900	--	--	--	A01
MW-5	8/2/2018	34.76	19.25	0.00	15.51	15.68	-0.17	18,000	3,200	470	770	1,300	4,700	--	--	--	A01
MW-5	2/7/2019	34.76	19.58	0.00	15.18	15.51	-0.33	<50	<0.50	<0.50	<0.50	<1.0	4.6	--	--	--	
MW-6	2/7/2012	32.04	26.53	0.00	5.51	14.71	-9.20	410	<0.50	<0.50	<0.50	<1.0	970	<0.50	0.79	--	A01
MW-6	8/9/2012	32.04	28.27	0.00	3.77	5.51	-1.74	830	<0.50	<0.50	<0.50	<1.0	970	<0.50	1.2	--	A01
MW-6	2/27/2013	32.04	26.48	0.00	5.56	3.77	1.79	<50	<0.50	<0.50	<0.50	<1.0	970	<0.50	0.70	<250	A01
MW-6	8/15/2013	34.53	28.85	0.00	5.68	5.56	0.12	58	<0.50	<0.50	<0.50	<1.0	1,000	<0.50	0.79	<250	A01
MW-6	2/6/2014	34.53	27.50	0.00	7.03	5.68	1.35	<50	<0.50	<0.50	<0.50	<1.0	1,100	<0.50	<0.50	<250	A01
MW-6	8/14/2014	34.53	27.92	0.00	6.61	7.03	-0.42	<50	<0.50	<0.50	<0.50	<1.0	900	--	--	--	A01
MW-6	2/17/2015	34.53	25.64	0.00	8.89	6.61	2.28	490	<0.50	<0.50	<0.50	<1.0	850	--	--	--	A01, A90
MW-6	8/6/2015	34.53	26.80	0.00	7.73	8.89	-1.16	340	<0.50	<0.50	<0.50	<1.0	300	--	--	--	A01
MW-6	2/11/2016	34.53	25.69	0.00	8.84	7.73	1.11	160	<0.50	<0.50	<0.50	<1.0	160	--	--	--	A01, A90
MW-6	8/19/2016	34.53	26.58	0.00	7.95	8.84	-0.89	130	<0.50	<0.50	<0.50	<1.0	140	--	--	--	A01, A90
MW-6	2/17/2017	34.53	23.77	0.00	10.76	7.95	2.81	<50	<0.50	<0.50	<0.50	<1.0	100	--	--	--	A01
MW-6	8/17/2017	34.53	25.97	0.00	8.56	10.76	-2.20	55	<0.50	<0.50	<0.50	<1.0	84	--	--	--	A90
MW-6	2/9/2018	34.53	26.10	0.00	8.43	8.56	-0.13	<50	<0.50	<0.50	<0.50	<1.0	34	--	--	--	
MW-6	8/2/2018	34.53	26.15	0.00	8.38	8.43	-0.05	22J	<0.50	<0.50	<0.50	<1.0	32	--	--	--	
MW-6	2/7/2019	34.53	25.93	0.00	8.60	8.38	0.22	150	<0.50	<0.50	<0.50	<1.0	26	--	--	--	

Table 2
Historical Groundwater Gauging and Analytical Results
76 Station 0752/YEE/GIN Comingled Plume
706/726/800 Harrison Street Oakland, California

Notes

Analytical results given in micrograms per liter.

Muir Consulting, Inc. completed a survey of 726 Harrison well locations on August 21, 2013. Elevation data for 800 Harrison Street was converted by using the National Geodetic Survey (NGS) online conversion calculator located from NAV29 to NAV88. The 706 Harrison Street data was not converted due to discrepancies with the data.

EPA Method 8260B for Volatile Organic Compounds.

Standard Abbreviations

--	not analyzed, measured, or collected
*--	not surveyed
<	not detected at or above laboratory detection limit (Practical Quantitation Limit [PQL])
AMSL	above mean sealevel
btoc	below top of casing
DTW	depth to water
GC/MS	gas chromatography–mass spectrometry for TPPH
GW	groundwater
GWE	groundwater elevation
J	estimated value
LPH	liquid-phase hydrocarbons
TOC	top of casing (surveyed reference elevation)
µg/L	micrograms per liter (approx. equivalent to parts per billion, ppb)
**	Survey completed 8/21/2013
8260B	EPA Method 8260B for Volatile Organic Compounds
A01	PQLs and Method Detection Limits (MDLs) are raised due to sample dilution
A90	TPPH does not exhibit a "gasoline" pattern, TPPH is entirely due to MTBE
S05	the sample holding time was exceeded
S09	the surrogate recovery on the sample was not within the control limits

Analytes

TPPH	total purgeable petroleum hydrocarbons
MTBE	methyl tertiary butyl ether
EDB	1,2-dibromoethane
EDC	1,2-dichloroethane (same as ethylene dichloride)

Table 2A
Historical Additional Groundwater Analytical Results - MNA Parameters
76 Station 0752/YEE/GIN Comingled Plume
706/726/800 Harrison Street Oakland, California

Well ID	Date Sampled	Methane	Alkalinity as CaCO3	Nitrate as NO3	Nitrite as NO2	Sulfate	Non-Volatile Organic Carbon	Comments
800 Harrison Street								
MW-1	8/9/2012	0.026	69	1.9	<0.17	10	1.6	
MW-1	2/27/2013	0.0019	56	1.2	<0.17	9.0	0.87	
MW-1	8/15/2013	<0.0010	45	1.9	<0.17	12	0.75	
MW-1	2/6/2014	0.010	34	1.6	<0.17	7.9	1.1	
MW-1	8/14/2014	0.0035	37	2.0	<0.17	9.4	--	
MW-2	8/9/2012	0.076	190	19	0.38	130	1.4	
MW-2	2/27/2013	0.055	320	16	0.24	160	2.1	
MW-2	8/15/2013	<0.0010	68	10	<0.17	60	0.88	
MW-2	2/6/2014	0.014	110	6.4	<0.17	110	0.70	
MW-2	8/14/2014	0.0060	120	1.0	<0.17	79	--	
MW-3	8/9/2012	6.3	290	<0.44	<0.17	3.5	2.9	A01, S01
MW-3	2/27/2013	4.4	390	<0.44	<0.17	4.5	4	A01
MW-3	8/15/2013	1.6	230	<0.44	<0.17	11	3.7	A01
MW-3	2/6/2014	8.7	420	<0.44	<0.17	4.6	5.1	
MW-3	8/14/2014	17	450	0.55	<0.17	2.2	--	A01
MW-4	8/9/2012	0.031	98	4.3	<0.17	22	0.90	
MW-4	2/27/2013	0.0023	130	9.7	<0.17	25	0.89	
MW-4	8/15/2013	0.0017	68	2.2	<0.17	14	1.2	
MW-4	2/6/2014	0.0053	81	3.1	<0.17	17	1.3	
MW-4	8/14/2014	0.0016	84	4.4	<0.17	24	--	
MW-5	8/9/2012	2.9	140	<0.44	<0.17	2.5	1.7	A01
MW-5	2/27/2013	1.9	200	<0.44	<0.17	24	2.1	A01
MW-5	8/15/2013	0.0040	150	<0.44	<0.17	7.4	2.9	
MW-5	2/6/2014	3.3	190	<0.44	<0.17	<1.0	2.4	
MW-5	8/14/2014	0.79	170	<0.44	<0.17	<1.0	--	A01
MW-6	8/9/2012	0.18	130	<0.44	<0.17	16	1.0	A01
MW-6	2/27/2013	0.19	99	0.45	<0.17	13	0.75	
MW-6	8/15/2013	<0.0010	110	0.71	<0.17	13	2.0	
MW-6	2/6/2014	1.8	170	<0.44	<0.17	26	2.9	
MW-6	8/14/2014	<0.0010	140	<0.44	<0.17	25	--	
MW-7	8/9/2012	0.43	180	<0.44	<0.17	17	2.7	A01
MW-7	2/27/2013	0.13	140	<0.44	<0.17	38	1.1	
MW-7	8/15/2013	<0.0010	100	<0.44	<0.17	17	2.1	
MW-7	2/6/2014	1.3	74	<0.44	<0.17	4.3	1.8	
MW-7	8/14/2014	0.44	73	<0.44	<0.17	4.3	--	A01
MW-8	8/9/2012	0.0041	130	1.3	<0.17	37	1.6	
MW-8	2/27/2013	0.0027	190	<0.44	<0.17	49	2.7	
MW-8	8/15/2013	<0.0010	98	1.0	<0.17	17	1.9	
MW-8	2/6/2014	0.0035	180	<0.44	<0.17	20	1.5	
MW-8	8/14/2014	0.0059	200	<0.44	<0.17	28	--	

Table 2A
Historical Additional Groundwater Analytical Results - MNA Parameters
76 Station 0752/YEE/GIN Comingled Plume
706/726/800 Harrison Street Oakland, California

Well ID	Date Sampled	Methane	Alkalinity as CaCO3	Nitrate as NO3	Nitrite as NO2	Sulfate	Non-Volatile Organic Carbon	Comments
706 Harrison Street								
MW-1	8/9/2012	0.28	250	<0.44	<0.17	51	7.3	A01
MW-1	2/27/2013	--	--	--	--	--	--	Parked Car
MW-1	8/15/2013	0.32	430	<0.44	<0.17	34	12	A01
MW-1	2/6/2014	--	--	--	--	--	--	Parked Car
MW-1	8/14/2014	--	--	--	--	--	--	Car Accident
MW-2	8/9/2012	6.8	500	<0.44	<0.17	<1.0	15	A01, S01
MW-2	2/27/2013	4.9	530	<0.44	<0.17	4.1	16	A01, A10
MW-2	8/15/2013	3.3	520	<0.44	<0.17	<1.0	24	A01
MW-2	2/6/2014	6.5	490	<0.44	<0.17	<1.0	20	A01
MW-2	8/14/2014	18.0	520	<0.44	<0.17	<1.0	--	A01
MW-3	8/9/2012	<0.0010	130	43	<0.17	61	1.4	
MW-3	2/27/2013	0.0029	130	39	<0.17	52	1.1	
MW-3	8/15/2013	0.0036	120	34	<0.17	44	1.4	
MW-3	2/6/2014	0.0072	110	33	<0.17	37	1.7	
MW-3	8/14/2014	0.0018	110	38	<0.17	42	--	
MW-4	8/9/2012	--	--	--	--	--	--	Parked Car
MW-4	2/27/2013	--	--	--	--	--	--	Parked Car
MW-4	8/15/2013	0.45	510	<0.44	<0.17	4.0	15	A01
MW-4	2/6/2014	2.1	440	<0.44	<0.17	9.8	12	A01
MW-4	8/14/2014	1.6	480	<0.44	<0.17	3.8	--	
MW-5	8/9/2012	<0.0010	150	19	<0.17	49	2.0	
MW-5	2/27/2013	0.0026	150	17	<0.17	46	2.1	
MW-5	8/15/2013	0.0010	150	19	<0.17	51	2.6	
MW-5	2/6/2014	0.0023	160	15	<0.17	51	2.8	
MW-5	8/14/2014	0.0010	160	16	<0.17	55	--	
MW-6	8/9/2012	0.0082	140	<0.44	<0.17	27	1.9	
MW-6	2/27/2013	0.0019	190	<0.44	<0.17	60	2.4	
MW-6	8/15/2013	<0.0010	180	<0.44	<0.17	62	3.4	
MW-6	2/6/2014	0.0017	150	<0.44	<0.17	38	2.7	
MW-6	8/14/2014	<0.0010	150	<0.44	<0.17	36	--	
MW-7	8/9/2012	0.0045	230	<0.44	<0.17	49	3.0	
MW-7	2/27/2013	0.0012	260	<0.44	<0.17	56	3.4	
MW-7	8/15/2013	<0.0010	250	<0.44	<0.17	58	4.4	
MW-7	2/6/2014	0.030	220	<0.44	<0.17	38	3.6	
MW-7	8/14/2014	0.023	230	<0.44	<0.17	48	--	
SP-3	2/27/2013	--	--	--	--	--	--	Unable to Locate
SP-3	8/14/2014	--	--	--	--	--	--	Unable to Locate
SP-4	2/27/2013	--	--	--	--	--	--	Unable to Locate
SP-4	8/14/2014	--	--	--	--	--	--	Unable to Locate
SP-5	2/27/2013	--	--	--	--	--	--	Unable to Locate
SP-5	8/14/2014	--	--	--	--	--	--	Unable to Locate

Table 2A
Historical Additional Groundwater Analytical Results - MNA Parameters
76 Station 0752/YEE/GIN Comingled Plume
706/726/800 Harrison Street Oakland, California

Well ID	Date Sampled	Methane	Alkalinity as CaCO3	Nitrate as NO3	Nitrite as NO2	Sulfate	Non-Volatile Organic Carbon	Comments
726 Harrison Street								
AS-1	8/15/2013	--	--	--	--	--	--	
AS-1	8/14/2014	--	--	--	--	--	--	
EW-1	2/27/2013	0.91	210	0.5	<0.17	10	3.2	A01
EW-1	8/15/2013	<0.0010	150	1.1	<0.17	13	2.5	
EW-1	2/6/2014	1.2 A01	230	<0.44	<0.17	12	5.0	
EW-1	8/14/2014	0.57	220	<0.44	<0.17	2.8	--	A01
MP-1	8/15/2013	0.51	230	<0.44	<0.17	14	6.4	
MP-1	8/14/2014	--	--	--	--	--	--	
MPE-1	8/15/2013	<0.0010	82	66	<0.17	27	1.1	
MPE-1	8/14/2014	--	--	--	--	--	--	
MW-1	8/9/2012	--	--	--	--	--	--	
MW-1	2/27/2013	0.51	230	<0.44	<0.17	14	6.4	
MW-1	8/15/2013	1.7	430	<0.44	<0.17	<1.0	29	A01
MW-1	2/6/2014	6.3	370	<0.44	<0.17	<1.0	33	A01
MW-1	8/14/2014	2.0	380	<0.44	<0.17	<1.0	--	A01
MW-2	8/9/2012	--	--	--	--	--	--	
MW-2	2/27/2013	<0.0010	82	66	<0.17	27	1.1	
MW-2	8/15/2013	0.0021	97	62	<0.17	32	2.6	
MW-2	2/6/2014	0.0058	150	38	<0.17	38	1.9	
MW-2	8/14/2014	0.0016	130	47	<0.17	41	--	
MW-3	8/9/2012	--	--	--	--	--	--	
MW-3	2/27/2013	0.0012	160	<0.44	<0.17	22	2.0	
MW-3	8/15/2013	<0.0010	160	<0.44	<0.17	19	1.9	
MW-3	2/6/2014	0.0062	140	<0.44	<0.17	18	1.7	
MW-3	8/14/2014	<0.0010	140	<0.44	<0.17	13	--	
MW-4	8/9/2012	--	--	--	--	--	--	
MW-4	2/27/2013	0.32	400	<0.44	<0.17	13	4.8	
MW-4	8/15/2013	<0.0010	290	<0.44	<0.17	15	3.9	
MW-4	2/6/2014	2.4	310	<0.44	<0.17	17	4.0	
MW-4	8/14/2014	0.21	300	<0.44	<0.17	17	--	A01
MW-5	8/9/2012	--	--	--	--	--	--	
MW-5	2/27/2013	--	--	--	--	--	--	Parked Car
MW-5	8/15/2013	2.2	670	<0.44	<0.17	<1.0	28	A01
MW-5	2/6/2014	11	430	<0.44	<0.17	<1.0	11	A01
MW-5	8/14/2014	1.7	440	<0.44	<0.17	<1.0	--	A01
MW-6	8/9/2012	--	--	--	--	--	--	
MW-6	2/27/2013	0.0033	170	6.2	<0.17	25	0.70	
MW-6	8/15/2013	0.0051	180	6.3	<0.17	26	7.4	A01
MW-6	2/6/2014	0.0019	170	3.9	<0.17	24	0.91	
MW-6	8/14/2014	0.0015	170	4.3	<0.17	26	--	

Table 2A
Historical Additional Groundwater Analytical Results - MNA Parameters
76 Station 0752/YEE/GIN Comingled Plume
706/726/800 Harrison Street Oakland, California

Notes

Analytical results given in milligrams per liter.

Standard Abbreviations

--	not analyzed, measured, or collected
<	not detected at or above laboratory detection limit
mg/l	milligrams per liter (approx. equivalent to parts per million, ppm)
A01	PQL's and MDL's are raised due to sample dilution
A10	PQL's and MDL's were raised due to matrix interference
S01	sample result is not within the quantitation range of the method

Analytes

CaCO3	calcium carbonate
NO3	nitrate
NO2	nitrogen dioxide
EDC	1,2-dichloroethane (same as ethylene dichloride)
PQL	practical quantitation limit
MDL	method detection limit

Table 2B
Historical Additional Groundwater Analytical Results - Metals
76 Station 0752/YEE/GIN Comingled Plume
706/726/800 Harrison Street Oakland, California

Well ID	Sampled	Cadmium	Dissolved Chromium	Dissolved Iron	Lead	Nickel	Zinc	Comments
800 Harrison Street								
MW-1	2/7/2012	<10	<10	--	<50	<10	<10	
MW-1	8/9/2012	<10	<10	<50	<50	<10	<10	
MW-1	2/27/2013	<10	<10	<50	<50	<10	<10	
MW-1	8/15/2013	<10	<10	52	<50	<10	<10	
MW-1	2/6/2014	<10	<10	56	<50	<10	14	
MW-1	8/14/2014	<10	<10	<50	<50	<10	<10	
MW-2	2/7/2012	--	--	--	--	--	--	
MW-2	8/9/2012	--	--	2,200	--	--	--	
MW-2	2/27/2013	--	--	56	--	--	--	
MW-2	8/15/2013	--	--	<50	--	--	--	
MW-2	2/6/2014	--	--	<50	--	--	--	
MW-2	8/14/2014	<10	<10	<50	<50	<10	<10	
MW-3	2/7/2012	--	--	--	--	--	--	
MW-3	8/9/2012	--	--	5,700	--	--	--	
MW-3	2/27/2013	--	--	8,400	--	--	--	
MW-3	8/15/2013	--	--	4,200	--	--	--	
MW-3	2/6/2014	--	--	2,600	--	--	--	
MW-3	8/14/2014	<10	<10	810	<50	<10	<10	
MW-4	2/7/2012	--	--	--	--	--	--	
MW-4	8/9/2012	--	--	<50	--	--	--	
MW-4	2/27/2013	--	--	<50	--	--	--	
MW-4	8/15/2013	--	--	61	--	--	--	
MW-4	2/6/2014	--	--	480	--	--	--	
MW-4	8/14/2014	<10	<10	<50	<50	<10	<10	
MW-5	2/7/2012	--	--	--	--	--	--	
MW-5	8/9/2012	--	--	860	--	--	--	
MW-5	2/27/2013	--	--	860	--	--	--	
MW-5	8/15/2013	--	--	580	--	--	--	
MW-5	2/6/2014	--	--	410	--	--	--	
MW-5	8/14/2014	<10	<10	160	<50	<10	<10	
MW-6	2/7/2012	--	--	--	--	--	--	
MW-6	8/9/2012	--	--	160	--	--	--	
MW-6	2/27/2013	--	--	<50	--	--	--	
MW-6	8/15/2013	--	--	100	--	--	--	
MW-6	2/6/2014	--	--	110	--	--	--	
MW-6	8/14/2014	<10	<10	<50	<50	<10	<10	

Table 2B
Historical Additional Groundwater Analytical Results - Metals
76 Station 0752/YEE/GIN Comingled Plume
706/726/800 Harrison Street Oakland, California

Well ID	Sampled	Cadmium	Dissolved Chromium	Dissolved Iron	Lead	Nickel	Zinc	Comments
MW-7	2/7/2012	--	--	--	--	--	--	
MW-7	8/9/2012	--	--	670	--	--	--	
MW-7	2/27/2013	--	--	1,000	--	--	--	
MW-7	8/15/2013	--	--	260	--	--	--	
MW-7	2/6/2014	--	--	480	--	--	--	
MW-7	8/14/2014	<10	<10	<50	<50	<10	<10	
MW-8	2/7/2012	--	--	--	--	--	--	
MW-8	8/9/2012	--	--	680	--	--	--	
MW-8	2/27/2013	--	--	1,400	--	--	--	
MW-8	8/15/2013	--	--	71	--	--	--	
MW-8	2/6/2014	--	--	130	--	--	--	
MW-8	8/14/2014	<10	<10	<50	<50	<10	<10	
706 Harrison Street								
MW-1	8/9/2012	--	--	830	--	--	--	
MW-1	2/27/2013	--	--	--	--	--	--	Parked Car
MW-1	8/15/2013	--	--	3,100	--	--	--	
MW-1	2/6/2014	--	--	--	--	--	--	Parked Car
MW-1	8/14/2014	--	--	--	--	--	--	
MW-2	8/9/2012	--	--	6,900	--	--	--	
MW-2	2/27/2013	--	--	9,500	--	--	--	
MW-2	8/15/2013	--	--	7,800	--	--	--	
MW-2	2/6/2014	--	--	4,600	--	--	--	
MW-2	8/14/2014	<10	<10	3,600	<50	<10	<10	
MW-3	8/9/2012	--	--	<50	--	--	--	
MW-3	2/27/2013	--	--	<50	--	--	--	
MW-3	8/15/2013	--	--	<50	--	--	--	
MW-3	2/6/2014	--	--	<50	--	--	--	
MW-3	8/14/2014	<10	<10	<50	<50	<10	<10	
MW-4	8/9/2012	--	--	--	--	--	--	
MW-4	2/27/2013	--	--	--	--	--	--	Parked Car
MW-4	8/15/2013	--	--	3,300	--	--	--	
MW-4	2/6/2014	--	--	340	--	--	--	
MW-4	8/14/2014	<10	<10	180	<50	<10	<10	
MW-5	8/9/2012	--	--	<50	--	--	--	
MW-5	2/27/2013	--	--	<50	--	--	--	
MW-5	8/15/2013	--	--	<50	--	--	--	
MW-5	2/6/2014	--	--	<50	--	--	--	
MW-5	8/14/2014	<10	<10	<50	<50	<10	<10	

Table 2B
Historical Additional Groundwater Analytical Results - Metals
76 Station 0752/YEE/GIN Comingled Plume
706/726/800 Harrison Street Oakland, California

Well ID	Sampled	Cadmium	Dissolved Chromium	Dissolved Iron	Lead	Nickel	Zinc	Comments
MW-6	8/9/2012	--	--	<50	--	--	--	
MW-6	2/27/2013	--	--	94	--	--	--	
MW-6	8/15/2013	--	--	120	--	--	--	
MW-6	2/6/2014	--	--	75	--	--	--	
MW-6	8/14/2014	<10	<10	<50	<50	<10	<10	
MW-7	8/9/2012	--	--	860	--	--	--	
MW-7	2/27/2013	--	--	2,600	--	--	--	
MW-7	8/15/2013	--	--	340	--	--	--	
MW-7	2/6/2014	--	--	760	--	--	--	
MW-7	8/14/2014	<10	<10	1,200	<50	<10	<10	
SP-3	2/27/2013	--	--	--	--	--	--	Unable to Locate
SP-3	8/14/2014	--	--	--	--	--	--	Unable to Locate
SP-4	2/27/2013	--	--	--	--	--	--	Unable to Locate
SP-4	8/14/2014	--	--	--	--	--	--	Unable to Locate
SP-5	2/27/2013	--	--	--	--	--	--	Unable to Locate
SP-5	8/14/2014	--	--	--	--	--	--	Unable to Locate
726 Harrison Street								
AS-1	8/15/2013	--	--	--	--	--	--	
AS-1	8/14/2014	--	--	--	--	--	--	
EW-1	2/27/2013	--	--	3,100	--	--	--	
EW-1	8/15/2013	--	--	1,300	--	--	--	
EW-1	2/6/2014	--	--	1,700	--	--	--	
EW-1	8/14/2014	<10	<10	2,600	<50	<10	<10	
MP-1	8/15/2013	--	--	3,500	--	--	--	
MP-1	8/14/2014	<10	<10	--	<50	<10	<10	
MPE-1	8/15/2013	--	--	<50	--	--	--	
MPE-1	8/14/2014	<10	<10	--	<50	<10	<10	
MW-1	8/9/2012	--	--	--	--	--	--	
MW-1	2/27/2013	--	--	2,000	--	--	--	
MW-1	8/15/2013	--	--	3,500	--	--	--	
MW-1	2/6/2014	--	--	950	--	--	--	
MW-1	8/14/2014	<10	<10	1,900	<50	<10	<10	

Table 2B
Historical Additional Groundwater Analytical Results - Metals
76 Station 0752/YEE/GIN Comingled Plume
706/726/800 Harrison Street Oakland, California

Well ID	Sampled	Cadmium	Dissolved Chromium	Dissolved Iron	Lead	Nickel	Zinc	Comments
MW-2	8/9/2012	--	--	--	--	--	--	
MW-2	2/27/2013	--	--	<50	--	--	--	
MW-2	8/15/2013	--	--	<50	--	--	--	
MW-2	2/6/2014	--	--	<50	--	--	--	
MW-2	8/14/2014	<10	<10	<50	<50	<10	<10	
MW-3	8/9/2012	--	--	--	--	--	--	
MW-3	2/27/2013	--	--	<50	--	--	--	
MW-3	8/15/2013	--	--	110	--	--	--	
MW-3	2/6/2014	--	--	<50	--	--	--	
MW-3	8/14/2014	<10	<10	<50	<50	<10	<10	
MW-4	8/9/2012	--	--	--	--	--	--	
MW-4	2/27/2013	--	--	4,300	--	--	--	
MW-4	8/15/2013	--	--	1,300	--	--	--	
MW-4	2/6/2014	--	--	<50	--	--	--	
MW-4	8/14/2014	<10	<10	380	<50	<10	<10	
MW-5	8/9/2012	--	--	--	--	--	--	
MW-5	2/27/2013	--	--	--	--	--	--	Parked Car
MW-5	8/15/2013	--	--	7,300	--	--	--	
MW-5	2/6/2014	--	--	4,200	--	--	--	
MW-5	8/14/2014	<10	<10	1,200	<50	<10	<10	
MW-6	8/9/2012	--	--	--	--	--	--	
MW-6	2/27/2013	--	--	<50	--	--	--	
MW-6	8/15/2013	--	--	<50	--	--	--	
MW-6	2/6/2014	--	--	<50	--	--	--	
MW-6	8/14/2014	<10	<10	<50	<50	<10	<10	

Notes

Analytical results given in micrograms per liter.

Attachment A

Field Data Sheets and General Procedures



GETTLER-RYAN Inc.

TRANSMITTAL

February 14, 2019
G-R #17155647

TO: Ms. Katherine Szymanowski
Arcadis
2300 Clayton Road, Suite 400
Concord, CA 94520

FROM: Deanna L. Harding
Project Manager
Gettler-Ryan Inc.
6805 Sierra Court, Suite G
Dublin, California 94568

RE: **Chevron Facility**
#351646/0752
800 Harrison Street
Oakland, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package First Semi Annual Event of February 7, 2019

COMMENTS:

Pursuant to your request, we are providing you with copies of the above referenced data for your use.

Please provide us the updated historical data prior to the next monitoring and sampling event for our field use.

Please feel free to contact me if you have any comments/questions.

trans/351646

WELL CONDITION STATUS SHEET

Client/
 Facility #: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job #: 17155647
 Event Date: 2-7-19
 Sampler: ML

WELL ID	Vault Frame Condition	Gasket/O-Ring (M) Missing (R) Replaced	Bolts (M) Missing (R) Replaced	Bolt Flanges B=Broken S=Stripped R=Retaped RK=Repair Kit	Apron Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) Inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y/N	REPLACE CAP Y/N	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Y/N
A-MW-5	OK	NA	→	→	OK	→	→	NO	NO	CHRISTX	
A-MW-6	UTL										
A-MW-7	OK	NA	→	→	OK	→	→	NO	NO	CHRISTX	
S-MW-1	OK	→	→	3-S	OK	→	→	✓	✓	B.L./8"/3	
S-MW-3	OK	→	→	2-S	OK	→	→	YES	YES	MORRISON/8"/2	
S-MW-4	OK	→	→	2-S	OK	→	→	NO	NO	--	
S-MW-6	OK	→	→	2-S	OK	→	→	↓	↓	MORRISON/12"/12	
S-EW-1	OK	→	→	2-S	OK	→	→	↓	↓	--	
DRUMS PRESENT ONSITE? Y/N		#:		ARE DRUMS PROPERLY LABELED? Y/N				LOCATION OF DRUMS:			

Comments _____

STANDARD OPERATING PROCEDURE GROUNDWATER SAMPLING

Gettler-Ryan Inc. (GR) field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. All work is performed in accordance with the GR Health & Safety Plan and all client-specific programs. The scope of work and type of analysis to be performed is determined prior to commencing field work.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, all depth to water level measurements are collected with a static water level indicator and are also recorded in the field notes, prior to purging and sampling any wells. Total well depths are measured annually.

After water levels are collected and prior to sampling, if purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, peristaltic or Grundfos), or disposable bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging (additional parameters such as dissolved oxygen, oxidation reduction potential, turbidity may also be measured, depending on specific scope of work.). Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards, as directed by the scope of work. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Chevron Environmental Management Company, the purge water and decontamination water generated during sampling activities is transported by Clean Harbors Environmental Services to Seaport Environmental located in Redwood City, California.



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752 Job Number: 17155647
 Site Address: 800 Harrison Street Event Date: 2-7-19 (inclusive)
 City: Oakland, CA Sampler: AW

Well ID: A-MW-2 Date Monitored: 2-7-19
 Well Diameter: 11 @ 14 1/6 in.
 Total Depth: 24.80 ft.
 Depth to Water: 18.37 ft. Check if water column is less than 0.50 ft.
6.43 xVF .17 = 1.09 x3 case volume = Estimated Purge Volume 3.5 gal
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.65

Volume	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
Factor (VF)	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

Purge Equipment:
 Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ ltr
 Amt Removed from Well: _____ ltr
 Water Removed: _____ ltr

Start Time (purge): 0640 Weather Conditions: Dark
 Sample Time/Date: 0705 / 2-7-19 Water Color: Cloudy Odor: Oil N Strong
 Approx. Flow Rate: _____ gpm. Sediment Description: Cloudy
 Did well de-water? N If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 1933

Time (2400 hr.)	Volume (gal)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (° F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
<u>0645</u>	<u>1.5</u>	<u>7.19</u>	<u>395</u>	<u>18.3</u>	PRE: <u>1.3</u>	PRE: <u>95</u>	PRE: <u>416</u>
<u>0650</u>	<u>2.5</u>	<u>7.09</u>	<u>414</u>	<u>18.4</u>			
<u>0655</u>	<u>3.5</u>	<u>7.04</u>	<u>436</u>	<u>18.5</u>	POST: <u>1.3</u>	POST: <u>114</u>	POST: <u>399</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>A-MW-2</u>	<u>3</u> x voa vial	YES	HCL	BC LABS	TPPH(8260)/BTEX+MTBE(8260)

COMMENTS: _____

Add/Replaced Gasket: _____ Add/Replaced Bolt or FRK: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752 Job Number: 17155647
 Site Address: 800 Harrison Street Event Date: 2-7-99 (inclusive)
 City: Oakland, CA Sampler: AW

Well ID: A-MW-3 Date Monitored: 2-7-99
 Well Diameter: 1 1/2" / 1 5/8" in.
 Total Depth: 25.90 ft.
 Depth to Water: 17.45 ft. Check if water column is less than 0.50 ft.
8.45 xVF .17 = 1.43 x3 case volume = Estimated Purge Volume: 4.5 gal.
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 19.14

Volume	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
Factor (VF)	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

Purge Equipment:
 Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ ltr
 Amt Removed from Well: _____ ltr
 Water Removed: _____ ltr

Start Time (purge): 0600 Weather Conditions: Dark
 Sample Time/Date: 0625 / 2-7-99 Water Color: Cloudy Odor: Y / D
 Approx. Flow Rate: _____ gpm. Sediment Description: Cloudy
 Did well de-water? N If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 18.77

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (°C / F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
<u>0605</u>	<u>1.5</u>	<u>7.19</u>	<u>295</u>	<u>16.7</u>	<u>PRE: 1.2</u>	<u>PRE: 90</u>	<u>PRE: 240</u>
<u>0610</u>	<u>3.0</u>	<u>7.23</u>	<u>314</u>	<u>16.8</u>			
<u>0615</u>	<u>4.5</u>	<u>7.25</u>	<u>330</u>	<u>16.8</u>	<u>POST: 1.2</u>	<u>POST: 101</u>	<u>POST: 277</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>A-MW-3</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPPH(8260)/BTEX+MTBE(8260)</u>

COMMENTS: _____

Add/Replaced Gasket: _____ Add/Replaced Bolt or FRK: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752 Job Number: 17155647
 Site Address: 800 Harrison Street Event Date: 2-7-19 (inclusive)
 City: Oakland, CA Sampler: AW

Well ID: A-mw-4 Date Monitored: 2-7-19
 Well Diameter: 1 1/2 / 4 / 6 in.
 Total Depth: 28.16 ft
 Depth to Water: 18.87 ft Check if water column is less than 0.50 ft.
9.29 xVF .17 = 1.57 x3 case volume = Estimated Purge Volume 5.0 gal.
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 20.72

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Purge Equipment:
 Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ ltr
 Amt Removed from Well: _____ ltr
 Water Removed: _____ ltr

Start Time (purge): 0720 Weather Conditions: Dawn
 Sample Time/Date: 0750 / 2-7-19 Water Color: clear Odor: Y / 10
 Approx. Flow Rate: _____ gpm. Sediment Description: clear
 Did well de-water? N If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 20.49

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (°C / F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
<u>0725</u>	<u>1.5</u>	<u>7.18</u>	<u>168.1</u>	<u>18.5</u>	PRE: <u>1.2</u>	PRE: <u>88</u>	PRE: <u>190</u>
<u>0730</u>	<u>3.0</u>	<u>7.24</u>	<u>174.8</u>	<u>18.6</u>			
<u>0735</u>	<u>5.0</u>	<u>7.30</u>	<u>177.5</u>	<u>18.6</u>	POST: <u>1.3</u>	POST: <u>114</u>	POST: <u>211</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>A-mw-4</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPPH(8260)/BTEX+MTBE(8260)</u>

COMMENTS: _____

Add/Replaced Gasket: _____ Add/Replaced Bolt or FRK: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 17155647
 Event Date: 2-7-19 (inclusive)
 Sampler: ML

Well ID: A-MW-5
 Well Diameter: 1 1/2" 4 1/6 in.
 Total Depth: 28.17 ft.
 Depth to Water: 16.26 ft.

Date Monitored: 2-7-19

Volume	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
Factor (VF)	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

Depth to Water Check if water column is less than 0.50 ft.
 $11.91 \times VF .17 = 2.10$ x3 case volume = Estimated Purge Volume: 6 gal.
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 18.64

Purge Equipment:
 Disposable Bailer X
 Stainless Steel Bailer _____
 Stack Pump _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer X
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ ltr
Amt Removed from Well: _____ ltr
Water Removed: _____ ltr

Start Time (purge): 0600 Weather Conditions: CLEAR
 Sample Time/Date: 0630 12-7-19 Water Color: CLOUDY Odor: Y 10
 Approx. Flow Rate: _____ gpm. Sediment Description: light
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 17.21

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS/mS µmhos/cm)	Temperature (°C / °F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
<u>0606</u>	<u>2</u>	<u>7.21</u>	<u>269</u>	<u>10.8</u>	PRE: <u>1.4</u>	PRE: <u>46</u>	PRE: <u>51.3</u>
<u>0612</u>	<u>4</u>	<u>7.23</u>	<u>276</u>	<u>17.1</u>			
<u>0618</u>	<u>6</u>	<u>7.28</u>	<u>280</u>	<u>17.3</u>	POST: <u>1.6</u>	POST: <u>57</u>	POST: <u>49.7</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>A-MW-5</u>	<u>3</u> x voa vial	YES	HCL	BC LABS	TPPH(8260)/BTEX+MTBE(8260)

COMMENTS: _____

Add/Replaced Gasket: _____ Add/Replaced Bolt or FRK: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 17155647
 Event Date: 2-7-19 (inclusive)
 Sampler: ML

Well ID: A-MW-6
 Well Diameter: 112/416 in.
 Total Depth: _____ ft.
 Depth to Water: _____ ft.

Date Monitored: _____

Volume	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
Factor (VF)	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

Check if water column is less than 0.50 ft.

_____ x VF _____ = _____ x3 case volume = Estimated Purge Volume: _____ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: _____

Purge Equipment:

Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer _____
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ ltr
 Amt Removed from Well: _____ ltr
 Water Removed: _____ ltr

Start Time (purge): _____ Weather Conditions: _____
 Sample Time/Date: _____ / _____ Water Color: _____ Odor: Y / N _____
 Approx. Flow Rate: _____ gpm. Sediment Description: _____
 Did well de-water? _____ If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: _____

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
_____	_____	_____	_____	_____	PRE: _____	PRE: _____	PRE: _____
_____	_____	_____	_____	_____	POST: _____	POST: _____	POST: _____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
_____	x voa vial	YES	HCL	BC LABS	TPPH(8260)/BTEX+MTBE(8260)
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: UTL

Add/Replaced Gasket: _____ Add/Replaced Bolt or FRK: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 17155647
 Event Date: 2-7-19 (inclusive)
 Sampler: ML

Well ID: A-MW-7
 Well Diameter: 11 1/2" / 4 1/6 in.
 Total Depth: 27.62 ft.
 Depth to Water: 17.56 ft.

Date Monitored: 2-7-19

Volume	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
Factor (VF)	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

Check if water column is less than 0.50 ft.
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 19.57
 xVF 1.7 = 1.7 x3 case volume = Estimated Purge Volume: 5.1 gal.

Purge Equipment:
 Disposable Bailer: X
 Stainless Steel Bailer: _____
 Stack Pump: _____
 Peristaltic Pump: _____
 QED Bladder Pump: _____
 Other: _____

Sampling Equipment:
 Disposable Bailer: X
 Pressure Bailer: _____
 Metal Filters: _____
 Peristaltic Pump: _____
 QED Bladder Pump: _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ ltr
 Amt Removed from Well: _____ ltr
 Water Removed: _____ ltr

Start Time (purge): 0655 Weather Conditions: Sunny
 Sample Time/Date: 0725 / 2-7-19 Water Color: BROWN Odor: Y1N
 Approx. Flow Rate: _____ gpm. Sediment Description: light
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 18-16

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS/mS / µmhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
<u>0701</u>	<u>2</u>	<u>7.32</u>	<u>692</u>	<u>16.4</u>	<u>PRE: 1.3</u>	<u>PRE: 41</u>	<u>PRE: 56.1</u>
<u>0707</u>	<u>4</u>	<u>7.39</u>	<u>701</u>	<u>16.7</u>			
<u>0712</u>	<u>5.5</u>	<u>7.41</u>	<u>703</u>	<u>16.8</u>	<u>POST: 1.7</u>	<u>POST: 49</u>	<u>POST: 72.2</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>A-MW-7</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPPH(8260)/BTEX+MTBE(8260)</u>

COMMENTS: _____

Add/Replaced Gasket: _____ Add/Replaced Bolt or FRK: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 17155647
 Event Date: 2-7-19 (inclusive)
 Sampler: HW

Well ID: SP-3
 Well Diameter: 1 1/2 / 4 / 6 in.
 Total Depth: _____ ft.
 Depth to Water: _____ ft.

Date Monitored: 2-7-19

Volume	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
Factor (VF)	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

Check if water column is less than 0.50 ft.

_____ x VF _____ = _____ x3 case volume = Estimated Purge Volume _____ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: _____

Purge Equipment:

Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer _____
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft.
 Depth to Water: _____ ft.
 Hydrocarbon Thickness: _____ ft.
 Visual Confirmation/Description: _____
 Skimmer / Absorbent Sock (circle one)
 Amt Removed from Skimmer: _____ ltr
 Amt Removed from Well: _____ ltr
 Water Removed: _____ ltr

Start Time (purge): _____ Weather Conditions: _____
 Sample Time/Date: _____ / _____ Water Color: _____ Odor: Y / N _____
 Approx. Flow Rate: _____ gpm. Sediment Description: _____
 Did well de-water? _____ If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: _____

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
_____	_____	_____	_____	_____	PRE: _____	PRE: _____	PRE: _____
_____	_____	_____	_____	_____	POST: _____	POST: _____	POST: _____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	x voa, vial	YES	HCL	BC LABS	TPPH(8260)/BTEX+MTBE(8260)

COMMENTS: WTL

Add/Replaced Gasket: _____ Add/Replaced Bolt or FRK: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 17155647
 Event Date: 2/7/19 (inclusive)
 Sampler: AW

Well ID: SP-4
 Well Diameter: 1 1/2 / 4 / 6 in.
 Total Depth: _____ ft.
 Depth to Water: _____ ft.

Date Monitored: _____

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Check if water column is less than 0.50 ft.

xVF _____ = _____ x3 case volume = Estimated Purge Volume: _____ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: _____

Purge Equipment:

Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer _____
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbent Sock (circle one)
 Amt Removed from Skimmer: _____ ltr
 Amt Removed from Well: _____ ltr
 Water Removed: _____ ltr

Start Time (purge): _____

Weather Conditions: _____

Sample Time/Date: _____ / _____

Water Color: _____ Odor: Y / N _____

Approx. Flow Rate: _____ gpm.

Sediment Description: _____

Did well de-water? _____ If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: _____

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
_____	_____	_____	_____	_____	PRE: _____	PRE: _____	PRE: _____
_____	_____	_____	_____	_____	POST: _____	POST: _____	POST: _____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	x voa vial	YES	HCL	BC LABS	TPPH(8260)/BTEX+MTBE(8260)

COMMENTS: UTL

Add/Replaced Gasket: _____ Add/Replaced Bolt or FRK: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 17155647
 Event Date: 2-7-19 (inclusive)
 Sampler: AW

Well ID: SP-5
 Well Diameter: 1 1/2 / 4 / 6 in.
 Total Depth: _____ ft.
 Depth to Water: _____ ft.

Date Monitored: _____

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Check if water column is less than 0.50 ft.

xVF _____ = _____ x3 case volume = Estimated Purge Volume: _____ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: _____

Purge Equipment:
 Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer _____
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft.
 Depth to Water: _____ ft.
 Hydrocarbon Thickness: _____ ft.
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ ltr
 Amt Removed from Well: _____ ltr
 Water Removed: _____ ltr

Start Time (purge): _____
 Sample Time/Date: _____ / _____
 Approx. Flow Rate: _____ gpm.
 Did well de-water? _____ If yes, Time: _____

Weather Conditions: _____
 Water Color: _____ Odor: Y / N _____
 Sediment Description: _____
 Volume: _____ gal. DTW @ Sampling: _____

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
_____	_____	_____	_____	_____	PRE: _____	PRE: _____	PRE: _____
_____	_____	_____	_____	_____	POST: _____	POST: _____	POST: _____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	x voa vial	YES	HCL	BC LABS	TPPH(8260)/BTEX+MTBE(8260)

COMMENTS: M/D

Add/Replaced Gasket: _____ Add/Replaced Bolt or FRK: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 17155647
 Event Date: 2-7-19 (inclusive)
 Sampler: ML

Well ID: S-MW-1
 Well Diameter: 11 1/4 in.
 Total Depth: 28-05 ft.
 Depth to Water: 19.27 ft.
8.78 xVF = 1.4

Date Monitored: 2-7-19

Volume	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
Factor (VF)	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 21.02

x3 case volume = Estimated Purge Volume 4.2 gal.

Purge Equipment:
 Disposable Bailer X
 Stainless Steel Bailer _____
 Stack Pump _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer X
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ ltr
 Amt Removed from Well: _____ ltr
 Water Removed: _____ ltr

Start Time (purge): 0925
 Sample Time/Date: 0955 / 2-7-19
 Approx. Flow Rate: _____ gpm.
 Did well de-water? NO If yes, Time: _____

Weather Conditions: SUNNY
 Water Color: CLOUDY Odor: DIN STRONG
 Sediment Description: light
 Volume: _____ gal. DTW @ Sampling: 20.02

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS/mS / umhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
<u>0930</u>	<u>1.5</u>	<u>7.20</u>	<u>420</u>	<u>16.2</u>	<u>PRE: 0.9</u>	<u>PRE: -96</u>	<u>PRE: 111.3</u>
<u>0935</u>	<u>3</u>	<u>7.27</u>	<u>430</u>	<u>16.5</u>			
<u>0940</u>	<u>4.5</u>	<u>7.29</u>	<u>433</u>	<u>16.7</u>	<u>POST: 1.2</u>	<u>POST: -102</u>	<u>POST: 119.4</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>S-MW-1</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPPH(8260)/BTX+MTBE(8260)</u>

COMMENTS: _____

Add/Replaced Gasket: _____ Add/Replaced Bolt or FRK: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 17155647
 Event Date: 2-7-19 (inclusive)
 Sampler: AW

Well ID: S-mw-2
 Well Diameter: 110/4/6 in.
 Total Depth: 28.00 ft.
 Depth to Water: 19.75 ft.

Date Monitored: 2-7-19

Volume	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
Factor (VF)	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

Depth to Water 8.25 xVF -17 = 1.40 x3 case volume = Estimated Purge Volume 4.5 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 21.40

Purge Equipment:

Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ ltr
 Amt Removed from Well: _____ ltr
 Water Removed: _____ ltr

Start Time (purge): 1000
 Sample Time/Date: 1030 / 2-7-19
 Approx. Flow Rate: _____ gpm.
 Did well de-water? N If yes, Time: _____ Volume: _____ gal.

Weather Conditions: Sunny
 Water Color: cloudy Odor: Y / N
 Sediment Description: cloudy
 DTW @ Sampling: 21.08

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (°C / F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
<u>1005</u>	<u>1.5</u>	<u>7.27</u>	<u>250</u>	<u>16.0</u>	<u>PRE: 1.2</u>	<u>PRE: 142</u>	<u>PRE: 304</u>
<u>1010</u>	<u>3.0</u>	<u>7.31</u>	<u>266</u>	<u>18.1</u>			
<u>1015</u>	<u>4.5</u>	<u>7.35</u>	<u>281</u>	<u>18.2</u>	<u>POST: 1.4</u>	<u>POST: 160</u>	<u>POST: 320</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>S-mw-2</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPPH(8260)/BTEX+MTBE(8260)</u>

COMMENTS:

Add/Replaced Gasket: _____ Add/Replaced Bolt or FRK: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 17155647
 Event Date: 2-7-19 (inclusive)
 Sampler: ML

Well ID: S-MW-3
 Well Diameter: 11 @ 14 16 in.
 Total Depth: 26.86 ft.
 Depth to Water: 19.21 ft.
7.65 xVF = 0.17 = 1.3

Date Monitored: 2-7-19

Volume	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
Factor (VF)	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 20.74

Purge Equipment:
 Disposable Bailer X
 Stainless Steel Bailer _____
 Stack Pump _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer X
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ ltr
 Amt Removed from Well: _____ ltr
 Water Removed: _____ ltr

Start Time (purge): 1010 Weather Conditions: Srny
 Sample Time/Date: 1040 12-7-19 Water Color: Clear Odor: DI STRONG
 Approx. Flow Rate: _____ gpm. Sediment Description: light
 Did well de-water? no If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 19.76

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ((µS/mS) µmhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
<u>1015</u>	<u>1.5</u>	<u>7.41</u>	<u>369</u>	<u>15.7</u>	<u>PRE: 1.4</u>	<u>PRE: 112</u>	<u>PRE: 126-2</u>
<u>1020</u>	<u>3</u>	<u>7.45</u>	<u>377</u>	<u>16.0</u>			
<u>1024</u>	<u>4</u>	<u>7.47</u>	<u>381</u>	<u>16.1</u>	<u>POST: 1.5</u>	<u>POST: 124</u>	<u>POST: 140.1</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>S-MW-3</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPPH(8260)/BTEX+MTBE(8260)</u>

COMMENTS: _____

Add/Replaced Gasket: _____ Add/Replaced Bolt or FRK: _____ Add/Replaced Lock: X Add/Replaced Plug: X



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 17155647
 Event Date: 2-7-19 (inclusive)
 Sampler: ML

Well ID: S-MW-4
 Well Diameter: 11 1/4 in.
 Total Depth: 29.45 ft.
 Depth to Water: 19.36 ft.
10.09 xVF = 1.7

Date Monitored: 2-7-19

Volume	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
Factor (VF)	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 21.37
 x3 case volume = Estimated Purge Volume: 5.1 gal.

Purge Equipment:
 Disposable Bailer X
 Stainless Steel Bailer _____
 Stack Pump _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer X
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ ltr
 Amt Removed from Well: _____ ltr
 Water Removed: _____ ltr

Start Time (purge): 0745 Weather Conditions: Clear
 Sample Time/Date: 0815 / 2-7-19 Water Color: Brown Odor: 1 IN STRONG
 Approx. Flow Rate: _____ gpm. Sediment Description: light
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 20.32

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS/mS µmhos/cm)	Temperature (°C / °F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
<u>0751</u>	<u>2</u>	<u>6.82</u>	<u>462</u>	<u>16.5</u>	PRE: <u>1.1</u>	PRE: <u>-46</u>	PRE: <u>116.2</u>
<u>0757</u>	<u>4</u>	<u>6.84</u>	<u>460</u>	<u>16.8</u>			
<u>0802</u>	<u>5.5</u>	<u>6.81</u>	<u>458</u>	<u>16.9</u>	POST: <u>1.4</u>	POST: <u>-60</u>	POST: <u>121.4</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>S-MW-4</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPPH(8260)/BTEX+MTBE(8260)</u>

COMMENTS: _____

Add/Replaced Gasket: _____ Add/Replaced Bolt or FRK: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 17155647
 Event Date: 2-7-19 (inclusive)
 Sampler: AW

Well ID: S-MW-5
 Well Diameter: 11 1/4 in.
 Total Depth: 29.40 ft
 Depth to Water: 19.58 ft

Date Monitored: 2-7-19

Volume	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
Factor (VF)	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

Check if water column is less than 0.50 ft.
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 21.54
 xVF .17 = 1.66 x3 case volume = Estimated Purge Volume: 5.0 gal.

Purge Equipment:
 Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started:	_____ (2400 hrs)
Time Completed:	_____ (2400 hrs)
Depth to Product:	_____ ft
Depth to Water:	_____ ft
Hydrocarbon Thickness:	_____ ft
Visual Confirmation/Description:	_____
Skimmer / Absorbant Sock (circle one)	_____
Amt Removed from Skimmer:	_____ ltr
Amt Removed from Well:	_____ ltr
Water Removed	_____ ltr

Start Time (purge): 0925
 Sample Time/Date: 0950 / 2-7-19
 Approx. Flow Rate: - gpm.
 Did well de-water? N If yes, Time: _____ Volume: _____ gal.

Weather Conditions: Sunny
 Water Color: Cloudy Odor: Y (N)
 Sediment Description: cloudy
 DTW @ Sampling: 21.06

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS/mS / µmhos/cm)	Temperature (°C / °F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
<u>0930</u>	<u>2.0</u>	<u>7.20</u>	<u>279</u>	<u>18.6</u>	PRE: <u>1.3</u>	PRE: <u>108</u>	PRE: <u>316</u>
<u>0935</u>	<u>4.0</u>	<u>7.24</u>	<u>240</u>	<u>18.7</u>			
<u>0940</u>	<u>6.0</u>	<u>7.27</u>	<u>255</u>	<u>18.8</u>	POST: <u>1.5</u>	POST: <u>133</u>	POST: <u>333</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>S-MW-5</u>	<u>3</u> x vial	YES	HCL	BC LABS	TPPH(8260)/BTEX+MTBE(8260)

COMMENTS:

Add/Replaced Gasket: _____ Add/Replaced Bolt or FRK: _____ Add/Replaced Lock: _____ Add/Replaced Plug: 4ⁿ



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 17155647
 Event Date: 2-7-19 (inclusive)
 Sampler: ML

Well ID: S-MW-6
 Well Diameter: 11 1/4 in.
 Total Depth: 49.26 ft.
 Depth to Water: 25.93 ft.
23.33 xVF = 1.7 = 3.9

Date Monitored: 2-7-19

Volume	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
Factor (VF)	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 30.59
 x3 case volume = Estimated Purge Volume: 11.7 gal.

Purge Equipment:

Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump X
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer _____
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started:	_____ (2400 hrs)
Time Completed:	_____ (2400 hrs)
Depth to Product:	_____ ft
Depth to Water:	_____ ft
Hydrocarbon Thickness:	_____ ft
Visual Confirmation/Description:	_____
Skimmer / Absorbant Sock (circle one)	
Amt Removed from Skimmer:	_____ ltr
Amt Removed from Well:	_____ ltr
Water Removed:	_____ ltr

Start Time (purge): 1100 Weather Conditions: SUNNY
 Sample Time/Date: 1130 12-7-19 Water Color: Clear Odor: Y10
 Approx. Flow Rate: 1 gpm. Sediment Description: None
 Did well de-water? No If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 28.02

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS/mS µmhos/cm)	Temperature (°C / F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
<u>1104</u>	<u>4</u>	<u>7.01</u>	<u>136</u>	<u>15.9</u>	PRE: <u>1.1</u>	PRE: <u>56</u>	PRE: <u>140.3</u>
<u>1108</u>	<u>8</u>	<u>7.10</u>	<u>142</u>	<u>16.3</u>			
<u>1112</u>	<u>12</u>	<u>7.14</u>	<u>146</u>	<u>16.5</u>	POST: <u>1.4</u>	POST: <u>61</u>	POST: <u>144.2</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>S-MW-6</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPPH(8260)/BTEX+MTBE(8260)</u>

COMMENTS: _____

Add/Replaced Gasket: _____ Add/Replaced Bolt or FRK: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 17155647
 Event Date: 2-7-19 (inclusive)
 Sampler: ML

Well ID: S-EW-1
 Well Diameter: 1121415 in.
 Total Depth: 28.68 ft.
 Depth to Water: 19.12 ft.

Date Monitored: 2-7-19

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Check if water column is less than 0.50 ft.
 Depth to Water 9.56 x VF 21.5 = 14.3 x3 case volume = Estimated Purge Volume: 42.9 gal.
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 21.03

Purge Equipment:

Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump X
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer _____
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ ltr
 Amt Removed from Well: _____ ltr
 Water Removed: _____ ltr

Start Time (purge): 0835 Weather Conditions: Sunny
 Sample Time/Date: 0910 2-7-19 Water Color: Cloudy Odor: ① IN STRONG
 Approx. Flow Rate: 3.2 gpm. Sediment Description: light
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 19.56

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS) / mS (µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
<u>0840</u>	<u>15</u>	<u>7.37</u>	<u>369</u>	<u>17.0</u>	<u>PRE: 1.7</u>	<u>PRE: -46</u>	<u>PRE: 49.3</u>
<u>0845</u>	<u>30</u>	<u>7.41</u>	<u>374</u>	<u>17.5</u>			
<u>0850</u>	<u>44</u>	<u>7.44</u>	<u>375</u>	<u>17.7</u>			
					<u>POST: 2.0</u>	<u>POST: -60</u>	<u>POST: 57.2</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>S-EW-1</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPPH(8260)/BTEX+MTBE(8260)</u>

COMMENTS:

Add/Replaced Gasket: _____ Add/Replaced Bolt or FRK: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 17155647
 Event Date: 7-7-19 (inclusive)
 Sampler: AW

Well ID: MPE-1
 Well Diameter: 1 1/2 (4) 6 in.
 Total Depth: 32.08 ft.
 Depth to Water: 19.49 ft.
12.59 xVF = 66 = 8.30

Date Monitored: 2-7-19

Volume	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
Factor (VF)	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 22.00 gal.

Purge Equipment:

Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer _____
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started:	_____ (2400 hrs)
Time Completed:	_____ (2400 hrs)
Depth to Product:	_____ ft
Depth to Water:	_____ ft
Hydrocarbon Thickness:	_____ ft
Visual Confirmation/Description:	_____
Skimmer / Absorbant Sock (circle one)	_____
Amt Removed from Skimmer:	_____ ltr
Amt Removed from Well:	_____ ltr
Water Removed	_____ ltr

Start Time (purge): 0850
 Sample Time/Date: 0915 / 2-7-19
 Approx. Flow Rate: 2-3 gpm.
 Did well de-water? n If yes, Time: _____ Volume: _____

Weather Conditions: Sunny
 Water Color: Cloudy Odor: Y 10
 Sediment Description: Cloudy
 DTW @ Sampling: 21.86

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (°C / F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
<u>0855</u>	<u>8.5</u>	<u>7.07</u>	<u>364</u>	<u>18.3</u>	PRE: <u>1.4</u>	PRE: <u>123</u>	PRE: <u>380</u>
<u>0900</u>	<u>17.0</u>	<u>7.12</u>	<u>380</u>	<u>18.4</u>			
<u>0905</u>	<u>25.0</u>	<u>7.19</u>	<u>394</u>	<u>18.4</u>	POST: <u>1.5</u>	POST: <u>150</u>	POST: <u>404</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MPE-1</u>	<u>3</u> x voa vial	YES	HCL	BC LABS	TPPH(8260)/BTEX+MTBE(8260)

COMMENTS:

Add/Replaced Gasket: _____ Add/Replaced Bolt or FRK: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 17155647
 Event Date: 2/7/19 (inclusive)
 Sampler: aw

Well ID: mp-1
 Well Diameter: 1 1/2 / 4 / 6 in.
 Total Depth: 28.95 ft.
 Depth to Water: 19.34 ft.
9.61 xVF = 0.04 = 0.38

Date Monitored: 2-7-19

Volume	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
Factor (VF)	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

Check if water column is less than 0.50 ft.
 x3 case volume = Estimated Purge Volume: 1.25 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 21.26

Purge Equipment:
 Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ ltr
 Amt Removed from Well: _____ ltr
 Water Removed: _____ ltr

Start Time (purge): 0805 Weather Conditions: Down
 Sample Time/Date: 0840 / 2-7-19 Water Color: Cloudy Odor: Y / N
 Approx. Flow Rate: _____ gpm. Sediment Description: Cloudy
 Did well de-water? N If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 21.08

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (mS / μ mhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
<u>0813</u>	<u>0.5</u>	<u>7.19</u>	<u>338</u>	<u>16.1</u>	<u>PRE: 1.3</u>	<u>PRE: 128</u>	<u>PRE: 306</u>
<u>0820</u>	<u>1.0</u>	<u>7.24</u>	<u>350</u>	<u>16.2</u>			
<u>0830</u>	<u>1.25</u>	<u>7.27</u>	<u>366</u>	<u>16.2</u>	<u>POST: 1.4</u>	<u>POST: 149</u>	<u>POST: 339</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>mp-1</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPPH(8260)/BTEX+MTBE(8260)</u>

COMMENTS: _____

Add/Replaced Gasket: _____ Add/Replaced Bolt or FRK: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 17155647
 Event Date: 2.7.19 (inclusive)
 Sampler: Fr

Well ID: MW-1 Date Monitored: 2-7-19
 Well Diameter: 11 1/4 in.
 Total Depth: 33.41 ft.
 Depth to Water: 20.22 ft. Check if water column is less than 0.50 ft.
13.19 xVF .17 = 2.24 x3 case volume = Estimated Purge Volume: 7.0 gal
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 22.85

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Purge Equipment:
 Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ ltr
 Amt Removed from Well: _____ ltr
 Water Removed: _____ ltr

Start Time (purge): 0752 Weather Conditions: Sunny
 Sample Time/Date: 0816 2-7-19 Water Color: 5-824 Odor: DIRTY SLURRY
 Approx. Flow Rate: 1 gpm. Sediment Description: S. SILTY
 Did well de-water? No If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 21.85

Time (2400 hr.)	Volume (gal)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)	TURBIDITY (NTU)
<u>0757</u>	<u>2.5</u>	<u>6.74</u>	<u>410</u>	<u>18.2</u>	<u>PRE: 1.7</u>	<u>PRE: -56</u>	<u>PRE: 182</u>
<u>0802</u>	<u>5.0</u>	<u>6.77</u>	<u>418</u>	<u>18.4</u>			
<u>0806</u>	<u>7.0</u>	<u>6.79</u>	<u>427</u>	<u>18.7</u>	<u>POST: 1.6</u>	<u>POST: -62</u>	<u>POST: 198</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1</u>	<u>3 x vva vial</u>	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPPH(8260)/BTEX+MTBE(8260)</u>

COMMENTS: _____

Add/Replaced Gasket: _____ Add/Replaced Bolt or FRK: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 17155647
 Event Date: 2.7.19 (inclusive)
 Sampler: Fr

Well ID: MW-2
 Well Diameter: 11 @ 14 1/6 in
 Total Depth: 30.70 ft
 Depth to Water: 19.98 ft

Date Monitored: 2-7-19

Volume	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
Factor (VF)	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

Depth to Water 10.72 xVF 17 = 1.82 x3 case volume = Estimated Purge Volume: 5.0 gal

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 22.12

Purge Equipment:
 Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ ltr
 Amt Removed from Well: _____ ltr
 Water Removed: _____ ltr

Start Time (purge): 0720 Weather Conditions: SLUNNY
 Sample Time/Date: 0740 2.7.19 Water Color: LT. BLY. Odor: Y 10
 Approx. Flow Rate: ✓ gpm. Sediment Description: S. SILTY
 Did well de-water? No If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 21.05

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS) mS (µmhos/cm)	Temperature (° F)	D.O. (mg/L)	ORP (mV)	TURBIDITY (NTU)
<u>0723</u>	<u>1.5</u>	<u>6.95</u>	<u>435</u>	<u>17.6</u>	<u>PRE: 2.3</u>	<u>PRE: 119</u>	<u>PRE: 195</u>
<u>0726</u>	<u>3.0</u>	<u>6.98</u>	<u>442</u>	<u>17.8</u>			
<u>0730</u>	<u>5.0</u>	<u>7.01</u>	<u>450</u>	<u>18.0</u>	<u>POST: 2.1</u>	<u>POST: 128</u>	<u>POST: 210</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-2</u>	<u>3 x voa vial</u>	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPPH(8260)/BTEX+MTBE(8260)</u>

COMMENTS: _____

Add/Replaced Gasket: _____ Add/Replaced Bolt or FRK: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 17155647
 Event Date: 2.7.19 (inclusive)
 Sampler: FT

Well ID: MW-3
 Well Diameter: 1 1/2 / 4 1/6 in.
 Total Depth: 30.43 ft
 Depth to Water: 19.13 ft
11.30 xVF = 1.92

Date Monitored: 2.7.19

Volume	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
Factor (VF)	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

Check if water column is less than 0.50 ft.

x3 case volume = Estimated Purge Volume 60 gal

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 21.39

Purge Equipment:

Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ ltr
 Amt Removed from Well: _____ ltr
 Water Removed: _____ ltr

Start Time (purge): 1025
 Sample Time/Date: 1050 2.7.19
 Approx. Flow Rate: _____ gpm.
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal.

Weather Conditions: Slaty
 Water Color: LT-6M Odor: 01N STLOW
 Sediment Description: S. SILTY
 DTW @ Sampling: 20.92

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS mS µmhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)	TURBIDITY (NTU)
<u>1029</u>	<u>20</u>	<u>6.67</u>	<u>503</u>	<u>18.2</u>	<u>PRE: 1.6</u>	<u>PRE: -105</u>	<u>PRE: 210</u>
<u>1033</u>	<u>40</u>	<u>6.70</u>	<u>513</u>	<u>18.5</u>			
<u>1037</u>	<u>60</u>	<u>6.72</u>	<u>524</u>	<u>18.8</u>	<u>POST: 1.4</u>	<u>POST: -115</u>	<u>POST: 236</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-3</u>	<u>3 x vva vial</u>	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPPH(8260)/BTEX+MTBE(8260)</u>

COMMENTS: _____

Add/Replaced Gasket: _____ Add/Replaced Bolt or FRK: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 17155647
 Event Date: 2-7-19 (inclusive)
 Sampler: FT

Well ID: MW-4
 Well Diameter: 1 1/2 / 4 / 6 in.
 Total Depth: 32.00 ft.
 Depth to Water: 19.40 ft.
13.60 xVF = 17 = 2.31

Date Monitored: 2-7-19

Volume	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
Factor (VF)	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 21.12 gal.

Purge Equipment:

Disposable Bailer /
 Stainless Steel Bailer _____
 Stack Pump _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer /
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started	_____ (2400 hrs)
Time Completed	_____ (2400 hrs)
Depth to Product	_____ ft
Depth to Water:	_____ ft
Hydrocarbon Thickness:	_____ ft
Visual Confirmation/Description:	_____
Skimmer / Absorbent Sock (circle one)	_____
Amt Removed from Skimmer:	_____ ltr
Amt Removed from Well:	_____ ltr
Water Removed	_____ ltr

Start Time (purge): 0945
 Sample Time/Date: 1009 2-7-19
 Approx. Flow Rate: _____ gpm.
 Did well de-water? NO If yes, Time: _____

Weather Conditions: SLY
 Water Color: LT. BLU Odor: Y 10
 Sediment Description: S-SILTY
 Volume: _____ gal. DTW @ Sampling: 19.62

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS/mS µmhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)	TURBIDITY
<u>0950</u>	<u>2.5</u>	<u>7.21</u>	<u>406</u>	<u>17.6</u>	<u>PRE: 2.2</u>	<u>PRE: 117</u>	<u>PRE: 275</u>
<u>0955</u>	<u>5.0</u>	<u>7.24</u>	<u>414</u>	<u>17.9</u>			
<u>0959</u>	<u>7.0</u>	<u>7.26</u>	<u>423</u>	<u>18.2</u>	<u>POST: 1.9</u>	<u>POST: 129</u>	<u>POST: 292</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-4</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPPH(8260)/BTEX+MTBE(8260)</u>

COMMENTS:

Add/Replaced Gasket: _____ Add/Replaced Bolt or FRK: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 17155647
 Event Date: 2.7.19 (inclusive)
 Sampler: FT

Well ID: MW5
 Well Diameter: 110/1416 in.
 Total Depth: 31.50 ft.
 Depth to Water: 18.80 ft.
12.70 xVF .17 = 2.15

Date Monitored: 2-7-19

Volume Factor (VF)	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 21.34
 x3 case volume = Estimated Purge Volume: 6.0 gal.

Purge Equipment:

Disposable Bailer

Stainless Steel Bailer

Stack Pump

Peristaltic Pump

QED Bladder Pump

Other:

Sampling Equipment:

Disposable Bailer

Pressure Bailer

Metal Filters

Peristaltic Pump

QED Bladder Pump

Other:

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbent Sock (circle one)
 Amt Removed from Skimmer: _____ ltr
 Amt Removed from Well: _____ ltr
 Water Removed: _____ ltr

Start Time (purge): 0831
 Sample Time/Date: 0833 2.7.19
 Approx. Flow Rate: gpm.
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal.

Weather Conditions: SLUDDY
 Water Color: LT. Grey Odor: DIRTY MODERATE
 Sediment Description: S. SILTY
 DTW @ Sampling: 20.10

Time (2400 hr)	Volume (gal.)	pH	Conductivity (15) mS μ mhos/cm	Temperature (15) F	D.O. (mg/L)	ORP (mV)	TURBIDITY (NTU)
<u>0835</u>	<u>2.0</u>	<u>6.75</u>	<u>515</u>	<u>18.7</u>	<u>PRE: 1.6</u>	<u>PRE: -91</u>	<u>PRE: 215</u>
<u>0839</u>	<u>4.0</u>	<u>6.78</u>	<u>524</u>	<u>18.9</u>			
<u>0843</u>	<u>6.0</u>	<u>6.80</u>	<u>333</u>	<u>19.1</u>	<u>POST: 1.4</u>	<u>POST: -107</u>	<u>POST: 235</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-5</u>	<u>3 x vva vial</u>	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPPH(8260)/BTEX+MTBE(8260)</u>

COMMENTS: _____

Add/Replaced Gasket: _____ Add/Replaced Bolt or FRK: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 17155647
 Event Date: 2-7-19 (inclusive)
 Sampler: FT

Well ID: MW-6
 Well Diameter: 110/416 in
 Total Depth: 3081 ft
 Depth to Water: 1824 ft

Date Monitored: 2-7-19

Volume	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
Factor (VF)	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

Depth to Water 12.57 xVF .17 = 2.13 x3 case volume = Estimated Purge Volume: 6.0 gal

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 20.75

Purge Equipment:
 Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ ltr
 Amt Removed from Well: _____ ltr
 Water Removed: _____ ltr

Start Time (purge): 0908 Weather Conditions: SUNNY
 Sample Time/Date: 0930 12-7-19 Water Color: LT-BRD Odor: Y 100
 Approx. Flow Rate: / gpm. Sediment Description: S. SILTY
 Did well de-water? No If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 20.15

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (US) mS (µmhos/cm)	Temperature (° / F)	D.O. (mg/L)	ORP (mV)	TURBIDITY (NTU)
<u>0912</u>	<u>20</u>	<u>7.05</u>	<u>265</u>	<u>18.4</u>	<u>PRE: 2.4</u>	<u>PRE: 126</u>	<u>PRE: 246</u>
<u>0916</u>	<u>40</u>	<u>7.08</u>	<u>272</u>	<u>18.6</u>			
<u>0920</u>	<u>60</u>	<u>7.10</u>	<u>280</u>	<u>18.8</u>	<u>POST: 2.2</u>	<u>POST: 138</u>	<u>POST: 261</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-6</u>	<u>3 x vva vial</u>	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPPH(8260)/BTEX+MTBE(8260)</u>

COMMENTS: _____

Add/Replaced Gasket: _____ Add/Replaced Bolt or FRK: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752 Job Number: 17155647
 Site Address: 800 Harrison Street Event Date: 2-7-19 (inclusive)
 City: Oakland, CA Sampler: FT

Well ID: MW-7 Date Monitored: 2-7-19
 Well Diameter: 11 1/2 / 4 1/6 in.
 Total Depth: 31.30 ft.
 Depth to Water: 18.63 ft. Check if water column is less than 0.50 ft.
12.67 xVF 17 = 2.15 x3 case volume = Estimated Purge Volume 6.0 gal.
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 21.16

Volume	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
Factor (VF)	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

Purge Equipment:
 Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ ltr
 Amt Removed from Well: _____ ltr
 Water Removed: _____ ltr

Start Time (purge): 0642 Weather Conditions: CLEAR
 Sample Time/Date: 0704 2-7-19 Water Color: LT-Blue Odor: Y / SP
 Approx. Flow Rate: / gpm. Sediment Description: S SILTY
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 19.72

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS/mS µmhos/cm)	Temperature (°C / F)	D.O. (mg/L)	ORP (mV)	TURBIDITY (NTU)
<u>0646</u>	<u>2.0</u>	<u>6.82</u>	<u>339</u>	<u>17.1</u>	<u>PRE: 1.9</u>	<u>PRE: 95</u>	<u>PRE: 175</u>
<u>0650</u>	<u>4.0</u>	<u>6.84</u>	<u>347</u>	<u>18.1</u>			
<u>0654</u>	<u>6.0</u>	<u>6.86</u>	<u>355</u>	<u>18.3</u>	<u>POST: 1.8</u>	<u>POST: 108</u>	<u>POST: 188</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-7</u>	<u>3 x vva vial</u>	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPPH(8260)/BTEX+MTBE(8260)</u>

COMMENTS: _____

Add/Replaced Gasket: _____ Add/Replaced Bolt or FRK: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351646 / 0752
 Site Address: 800 Harrison Street
 City: Oakland, CA

Job Number: 17155647
 Event Date: 2-7-19 (inclusive)
 Sampler: ET

Well ID: MW-8
 Well Diameter: 2 in.
 Total Depth: 28.34 ft.
 Depth to Water: 18.38 ft.
9.96 xVF = 1.69

Date Monitored: 2-7-19

Volume Factor (VF)	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

Check if water column is less than 0.50 ft

x3 case volume = Estimated Purge Volume: 50 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 20.37

Purge Equipment:
 Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbent Sock (circle one)
 Amt Removed from Skimmer: _____ ltr
 Amt Removed from Well: _____ ltr
 Water Removed: _____ ltr

Start Time (purge): 0610
 Sample Time/Date: 0630 2-7-19
 Approx. Flow Rate: ✓ gpm.
 Did well de-water? NO If yes, Time: _____

Weather Conditions: CLEAR
 Water Color: LT. BRN. Odor: Y 10
 Sediment Description: S SILTY
 Volume: _____ gal. DTW @ Sampling: 19.75

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS) mS (µmhos/cm)	Temperature (°) F	D.O. (mg/L)	ORP (mV)	TURBIDITY (NTU)
<u>0613</u>	<u>15</u>	<u>6.80</u>	<u>330</u>	<u>17.5</u>	PRE: <u>2.1</u>	PRE: <u>110</u>	PRE: <u>152</u>
<u>0616</u>	<u>30</u>	<u>6.83</u>	<u>339</u>	<u>17.7</u>			
<u>0620</u>	<u>50</u>	<u>6.85</u>	<u>346</u>	<u>17.9</u>	POST: <u>1.9</u>	POST: <u>121</u>	POST: <u>162</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-8</u>	<u>3 x voa vial</u>	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPPH(8260)/BTEX+MTBE(8260)</u>

COMMENTS: _____

Add/Replaced Gasket: _____ Add/Replaced Bolt or FRK: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____

CHAIN OF CUSTODY FORM

Union Oil Company of California ■ 6101 Bollinger Canyon Road ■ San Ramon, CA 94583

COC 1 of 2

Union Oil Site ID: <u>0752</u>				Union Oil Consultant: <u>Atlas</u>		ANALYSES REQUIRED																					
Site Global ID: <u>T:1101.1486</u>				Consultant Contact: <u>KATHLENE S.</u>		TPH - Diesel by EPA 8015	TPH - G by GC/MS	BTX/M/TBE/ <u>OXYS</u> by EPA 8260B	Ethanol by EPA 8260B	EPA 8260B Full List with OXYS	<u>TPH (87015)</u>							Turnaround Time (TAT): Standard <input checked="" type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 72 Hours <input type="checkbox"/>									
Site Address: <u>501 HARRISON ST LAKLAND 2A</u>				Consultant Phone No.: <u>925-207-7948</u>														Special Instructions									
Union Oil PM: <u>FREEDY STEWARD</u>				Sampling Company: <u>GEOTEK - KAN</u>																							
Union Oil PM Phone No.: <u>925-207-1103</u>				Sampled By (PRINT): <u>ALEX WANG</u>																							
Charge Code: <u>NWRB-0-35146</u> -0- LAB				Sampler Signature:																							
				<p>BC Laboratories, Inc. Project Manager: Molly Meyers 4100 Atlas Court, Bakersfield, CA 93308 Phone No. 661-327-4911</p>																							
SAMPLE ID																											
Field Point Name	Matrix	Depth	Date (yymmdd)	Sample Time	# of Containers																Notes / Comments						
<u>GA</u>	<u>W-S-A</u>		<u>190207</u>	<u>---</u>	<u>2</u>			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>																	
<u>A-111-2</u>	<u>W-S-A</u>		<u>190207</u>	<u>0705</u>	<u>3</u>			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>																	
<u>A-111-3</u>	<u>W-S-A</u>		<u>190207</u>	<u>0715</u>	<u>3</u>			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>																	
<u>A-111-4</u>	<u>W-S-A</u>		<u>190207</u>	<u>0750</u>	<u>3</u>			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>																	
<u>S-111-5</u>	<u>W-S-A</u>		<u>190207</u>	<u>0830</u>	<u>3</u>			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>																	
<u>A-111-7</u>	<u>W-S-A</u>		<u>190207</u>	<u>0725</u>	<u>3</u>			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>																	
<u>S-111-1</u>	<u>W-S-A</u>		<u>190207</u>	<u>0955</u>	<u>3</u>			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>																	
<u>C-111-2</u>	<u>W-S-A</u>		<u>190207</u>	<u>1030</u>	<u>3</u>			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>																	
<u>S-111-3</u>	<u>W-S-A</u>		<u>190207</u>	<u>1040</u>	<u>3</u>			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>																	
<u>S-111-4</u>	<u>W-S-A</u>		<u>190707</u>	<u>0815</u>	<u>3</u>			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>																	
<u>S-111-5</u>	<u>W-S-A</u>		<u>190207</u>	<u>0950</u>	<u>3</u>			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>																	
<u>S-111-6</u>	<u>W-S-A</u>		<u>190207</u>	<u>1130</u>	<u>3</u>			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>																	
Relinquished By			Company		Date / Time:		Relinquished By			Company		Date / Time:		Relinquished By			Company		Date / Time:								
<u>[Signature]</u>			<u>ORNL</u>		<u>190207 / 1230</u>		<u>[Signature]</u>			<u>ORNL</u>		<u>19.2.7 / 1400</u>															
Received By			Company		Date / Time:		Received By			Company		Date / Time:		Received By			Company		Date / Time:								
<u>[Signature]</u>			<u>ORNL</u>		<u>19.2.7 / 1230</u>		<u>[Signature]</u>			<u>BC</u>		<u>2-7-19 1500</u>															

This is a LEGAL document. ALL fields must be filled out CORRECTLY and COMPLETELY.

Attachment B

Historical Groundwater Results from TRC

**Table 2
HISTORICAL GROUNDWATER RESULTS**

**August 3, 2011
76 Station 0752**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-1														
6/5/1991	34.94	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
9/30/1991	34.94	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
12/30/1991	34.94	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
4/2/1992	34.94	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
6/30/1992	34.94	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
9/15/1992	34.94	--	--	--	--	76	--	1.0	ND	ND	ND	--	--	
12/21/1992	34.94	21.17	0.00	13.77	--	95	--	0.69	ND	ND	1.0	--	--	
4/28/1993	34.94	--	--	--	--	920	--	3.1	2.3	1.2	9.7	--	--	
7/23/1993	34.94	20.13	0.00	14.81	--	ND	--	0.5	0.66	ND	ND	--	--	
10/5/1993	34.69	20.30	0.00	14.39	-0.42	92	--	1.5	ND	ND	0.72	--	--	
1/3/1994	34.69	20.52	0.00	14.17	-0.22	ND	--	ND	ND	ND	ND	--	--	
4/2/1994	34.69	20.16	0.00	14.53	0.36	ND	--	ND	ND	ND	ND	--	--	
7/5/1994	34.69	19.27	0.00	15.42	0.89	250	--	4.8	13	1.2	7.3	--	--	
10/6/1994	34.69	20.87	0.00	13.82	-1.60	540	--	1.4	ND	0.66	11	--	--	
1/2/1995	34.69	19.67	0.00	15.02	1.20	140	--	ND	ND	ND	ND	--	--	
4/3/1995	34.69	17.61	0.00	17.08	2.06	580	--	3.6	0.8	ND	4.0	--	--	
7/14/1995	34.69	18.58	0.00	16.11	-0.97	260	--	2.1	ND	ND	1.2	--	--	
10/10/1995	34.69	19.60	0.00	15.09	-1.02	220	--	2.0	ND	25	5.6	29	--	
1/3/1996	34.69	19.69	0.00	15.00	-0.09	190	--	2.4	ND	0.71	1.2	--	--	
4/10/1996	34.69	17.65	0.00	17.04	2.04	540	--	8.9	1.7	1.5	7.4	50	--	
7/9/1996	34.69	18.52	0.00	16.17	-0.87	490	--	3.0	1.4	1.3	2.5	150	--	
1/24/1997	34.69	17.72	0.00	16.97	0.80	760	--	27	0.89	5.2	10	510	--	
7/23/1997	34.69	19.42	0.00	15.27	-1.70	ND	--	ND	ND	ND	ND	550	--	
1/26/1998	34.69	17.46	0.00	17.23	1.96	1800	--	ND	ND	ND	ND	4800	--	
7/3/1998	34.69	18.61	0.00	16.08	-1.15	ND	--	ND	ND	ND	ND	1800	--	
1/14/1999	34.69	18.92	0.00	15.77	-0.31	83	--	ND	ND	ND	ND	230	--	
7/15/1999	34.69	17.84	0.00	16.85	1.08	110	--	ND	ND	ND	1.0	290	--	
1/7/2000	34.69	19.13	0.00	15.56	-1.29	ND	--	ND	ND	ND	ND	260	--	
7/19/2000	34.69	20.27	0.00	14.42	-1.14	ND	--	ND	ND	ND	ND	648	--	
1/2/2001	34.69	20.04	0.00	14.65	0.23	ND	--	ND	ND	ND	ND	119	--	
5/23/2001	34.69	18.27	0.00	16.42	1.77	84	--	ND	ND	ND	ND	760	--	
7/30/2001	34.69	18.56	0.00	16.13	-0.29	<50	--	<0.50	<0.50	<0.50	<0.50	350	--	
10/15/2001	34.69	18.72	0.00	15.97	-0.16	96	--	<0.50	<0.50	<0.50	<0.50	160	--	

**Table 2
HISTORICAL GROUNDWATER RESULTS**

**August 3, 2011
76 Station 0752**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
1/14/2002	34.69	16.78	0.00	17.91	1.94	450	--	<2.5	<2.5	<2.5	3.3	4100	--	
4/15/2002	34.69	17.35	0.00	17.34	-0.57	<1000	--	<10	<10	<10	<10	10000	--	
7/15/2002	34.69	17.63	0.00	17.06	-0.28	2100	--	<10	<10	<10	<20	--	2100	
1/18/2003	34.69	17.04	0.00	17.65	0.59	<25000	--	<250	<250	<250	<500	--	29000	
7/11/2003	34.69	17.91	0.00	16.78	-0.87	4000	--	<25	<25	<25	<50	--	6300	
2/4/2004	34.69	17.98	0.00	16.71	-0.07	--	8000	<50	<50	<50	<100	--	8500	
8/11/2004	34.69	17.84	0.00	16.85	0.14	--	1100	<10	<10	<10	<20	--	1500	
3/31/2005	34.69	15.71	0.00	18.98	2.13	--	<2000	<0.50	<0.50	0.54	2.2	--	4900	
9/30/2005	34.69	17.65	0.00	17.04	-1.94	--	190	<0.50	<0.50	<0.50	<1.0	--	160	
3/27/2006	34.69	15.03	0.00	19.66	2.62	--	760	<0.50	<0.50	<0.50	<1.0	--	1000	
9/27/2006	34.69	18.45	0.00	16.24	-3.42	--	170	<0.50	<0.50	<0.50	0.61	--	73	
3/27/2007	34.69	18.84	0.00	15.85	-0.39	--	120	<0.50	<0.50	<0.50	<0.50	--	99	
9/28/2007	34.69	19.73	0.00	14.96	-0.89	--	68	<0.50	<0.50	<0.50	<0.50	--	15	
3/26/2008	34.69	19.32	0.00	15.37	0.41	--	200	<0.50	<0.50	<0.50	1.0	--	47	
7/28/2008	34.69	20.15	0.00	14.54	-0.83	--	<50	<0.50	<0.50	<0.50	<1.0	--	8.7	
1/26/2009	34.69	20.74	0.00	13.95	-0.59	--	<50	<0.50	<0.50	<0.50	<1.0	--	5.2	
8/3/2009	34.72	20.10	0.00	14.62	0.67	--	76	<0.50	<0.50	<0.50	<1.0	--	12	
1/25/2010	34.72	19.78	0.00	14.94	0.32	--	<50	<0.50	<0.50	<0.50	<1.0	--	14	
8/3/2010	34.72	19.47	0.00	15.25	0.31	--	210	<0.50	<0.50	<0.50	<1.0	--	37	
2/17/2011	34.72	19.50	0.00	15.22	-0.03	--	150	<0.50	<0.50	<0.50	<1.0	--	17	
8/3/2011	34.72	18.96	0.00	15.76	0.54	--	230	<0.50	<0.50	<0.50	<1.0	--	44	
MW-2														
6/5/1991	34.97	--	--	--	--	49	--	ND	ND	ND	ND	--	--	
9/30/1991	34.97	--	--	--	--	130	--	18	0.53	14	9.6	--	--	
12/30/1991	34.97	--	--	--	--	91	--	16	0.89	11	1.9	--	--	
4/2/1992	34.97	--	--	--	--	88	--	12	0.32	6.3	7.2	--	--	
6/30/1992	34.97	--	--	--	--	76	--	9.3	0.76	4.8	6.9	--	--	
9/15/1992	34.97	--	--	--	--	1300	--	91	5.7	80	110	--	--	
12/21/1992	34.97	20.85	0.00	14.12	--	960	--	97	3.2	74	96	--	--	
4/28/1993	34.97	--	--	--	--	1300	--	76	1.9	130	87	--	--	
7/23/1993	34.97	19.81	0.00	15.16	--	66	--	1.8	ND	2.5	2.0	--	--	
10/5/1993	34.72	19.95	0.00	14.77	-0.39	120	--	12	ND	2.1	12	--	--	
1/3/1994	34.72	20.21	0.00	14.51	-0.26	260	--	25	ND	5.5	26	--	--	
4/2/1994	34.72	19.88	0.00	14.84	0.33	ND	--	0.65	ND	ND	0.99	--	--	

**Table 2
HISTORICAL GROUNDWATER RESULTS**

**August 3, 2011
76 Station 0752**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
7/5/1994	34.72	19.07	0.00	15.65	0.81	160	--	16	ND	0.73	10	--	--	
10/6/1994	34.72	20.55	0.00	14.17	-1.48	170	--	15	ND	1.4	11	--	--	
1/2/1995	34.72	19.25	0.00	15.47	1.30	190	--	27	ND	0.95	11	--	--	
4/3/1995	34.72	17.49	0.00	17.23	1.76	2400	--	65	6.6	19	63	--	--	
7/14/1995	34.72	18.30	0.00	16.42	-0.81	750	--	270	ND	ND	13	--	--	
10/10/1995	34.72	19.25	0.00	15.47	-0.95	50	--	1.6	ND	ND	ND	200	--	
1/3/1996	34.72	19.40	0.00	15.32	-0.15	ND	--	ND	ND	ND	ND	--	--	
4/10/1996	34.72	17.35	0.00	17.37	2.05	300	--	42	ND	2.4	9	620	--	
7/9/1996	34.72	18.22	0.00	16.50	-0.87	760	--	230	ND	1.3	2.4	1500	--	
1/24/1997	34.72	17.59	0.00	17.13	0.63	2900	--	400	350	190	720	1300	--	
7/23/1997	34.72	19.13	0.00	15.59	-1.54	ND	--	ND	ND	ND	ND	65	--	
1/26/1998	34.72	17.12	0.00	17.60	2.01	ND	--	ND	ND	ND	0.58	13	--	
7/3/1998	34.72	18.20	0.00	16.52	-1.08	140	--	26	ND	0.95	5.0	330	--	
1/14/1999	34.72	18.56	0.00	16.16	-0.36	ND	--	0.54	ND	ND	ND	350	--	
7/15/1999	34.72	17.39	0.00	17.33	1.17	ND	--	0.88	ND	ND	ND	39	--	
1/7/2000	34.72	18.78	0.00	15.94	-1.39	ND	--	ND	ND	ND	ND	24	--	
7/19/2000	34.72	19.68	0.00	15.04	-0.90	ND	--	1.45	ND	ND	ND	117	--	
1/2/2001	34.72	19.73	0.00	14.99	-0.05	ND	--	ND	ND	ND	ND	11.4	--	
5/23/2001	34.72	18.16	0.00	16.56	1.57	ND	--	ND	ND	ND	ND	33	--	
7/30/2001	34.72	18.34	0.00	16.38	-0.18	<50	--	<0.50	<0.50	<0.50	<0.50	67	--	
10/15/2001	34.72	18.52	0.00	16.20	-0.18	<50	--	<0.50	<0.50	<0.50	<0.50	31	--	
1/14/2002	34.72	16.72	0.00	18.00	1.80	<50	--	<0.50	<0.50	<0.50	0.56	11	--	
4/15/2002	34.72	17.26	0.00	17.46	-0.54	<50	--	<0.50	<0.50	<0.50	<0.50	110	--	
7/15/2002	34.72	17.46	0.00	17.26	-0.20	270	--	21	<0.50	3.8	4.0	--	73	
1/18/2003	34.72	16.93	0.00	17.79	0.53	<50	--	<0.50	<0.50	<0.50	<1.0	--	22	
7/11/2003	34.72	17.68	0.00	17.04	-0.75	130	--	3.0	<0.50	<0.50	<1.0	--	89	
2/4/2004	34.72	17.36	0.00	17.36	0.32	--	61	2.9	<0.50	<0.50	<1.0	--	22	
8/11/2004	34.72	17.61	0.00	17.11	-0.25	--	140	<0.50	0.60	<0.50	<1.0	--	94	
3/31/2005	34.72	15.56	0.00	19.16	2.05	--	<50	<0.50	<0.50	<0.50	<1.0	--	14	
9/30/2005	34.72	17.31	0.00	17.41	-1.75	--	<50	<0.50	<0.50	<0.50	<1.0	--	9.1	
3/27/2006	34.72	14.91	0.00	19.81	2.40	--	<50	<0.50	<0.50	<0.50	<1.0	--	2.7	
9/27/2006	34.72	18.15	0.00	16.57	-3.24	--	<50	<0.50	<0.50	<0.50	<0.50	--	7.7	
3/27/2007	34.72	18.57	0.00	16.15	-0.42	--	<50	<0.50	<0.50	<0.50	<0.50	--	1.4	
9/28/2007	34.72	18.38	0.00	16.34	0.19	--	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	

**Table 2
HISTORICAL GROUNDWATER RESULTS**

**August 3, 2011
76 Station 0752**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
3/26/2008	34.72	19.06	0.00	15.66	-0.68	--	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	
7/28/2008	34.72	19.90	0.00	14.82	-0.84	--	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	
1/26/2009	34.72	20.50	0.00	14.22	-0.60	--	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	
8/3/2009	34.74	19.92	0.00	14.82	0.60	--	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	
1/25/2010	34.74	19.70	0.00	15.04	0.22	--	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	
8/3/2010	34.74	19.26	0.00	15.48	0.44	--	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	
2/17/2011	34.74	19.32	0.00	15.42	-0.06	--	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	
8/3/2011	34.74	18.74	0.00	16.00	0.58	--	77	6.7	<0.50	<0.50	<1.0	--	14	
MW-3														
6/5/1991	33.39	--	--	--	--	5800	--	1200	40	140	97	--	--	
9/30/1991	33.39	--	--	--	--	6800	--	1400	130	290	240	--	--	
12/30/1991	33.39	--	--	--	--	7200	--	2100	690	410	550	--	--	
4/2/1992	33.39	--	--	--	--	8000	--	1400	200	300	310	--	--	
6/30/1992	33.39	--	--	--	--	8900	--	1900	210	430	550	--	--	
9/15/1992	33.39	--	--	--	--	10000	--	1900	330	400	580	--	--	
12/21/1992	33.39	20.02	0.00	13.37	--	8500	--	1500	150	310	330	--	--	
4/28/1993	33.39	--	--	--	--	2600	--	220	7.6	41	27	--	--	
7/23/1993	33.39	19.00	0.00	14.39	--	4400	--	660	26	160	82	--	--	
10/5/1993	33.14	19.20	0.00	13.94	-0.45	9200	--	720	88	140	140	--	--	
1/3/1994	33.14	19.40	0.00	13.74	-0.20	4900	--	830	100	170	150	--	--	
4/2/1994	33.14	19.01	0.00	14.13	0.39	6000	--	800	30	140	110	--	--	
7/5/1994	33.14	18.14	0.00	15.00	0.87	25000	--	ND	ND	ND	ND	--	--	
10/6/1994	33.14	19.73	0.00	13.41	-1.59	49000	--	1300	200	280	300	--	--	
1/2/1995	33.14	18.36	0.00	14.78	1.37	480	--	1.6	ND	1.4	ND	--	--	
4/3/1995	33.14	16.38	0.00	16.76	1.98	8100	--	65	ND	ND	ND	--	--	
7/14/1995	33.14	17.49	0.00	15.65	-1.11	ND	--	1300	ND	ND	ND	--	--	
10/10/1995	33.14	18.50	0.00	14.64	-1.01	3100	--	1400	36	50	53	190000	--	
1/3/1996	33.14	18.54	0.00	14.60	-0.04	ND	--	2300	110	150	140	--	--	
7/9/1996	33.14	17.43	0.00	15.71	1.11	ND	--	2000	ND	150	160	140000	--	
1/24/1997	33.14	16.57	0.00	16.57	0.86	540	--	8.0	ND	11	9.9	45	--	
7/23/1997	33.14	18.38	0.00	14.76	-1.81	7400	--	1900	180	140	340	45000	--	
1/26/1998	33.14	16.22	0.00	16.92	2.16	250	--	2.2	1.9	0.87	1.9	4.0	--	
7/3/1998	33.14	17.46	--	15.68	-1.24	230	--	1.8	2.5	1.5	3.4	6.3	--	
1/14/1999	33.14	17.73	--	15.41	-0.27	400	--	8.2	2.7	0.90	5.9	140	--	

**Table 2
HISTORICAL GROUNDWATER RESULTS**

**August 3, 2011
76 Station 0752**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
7/15/1999	33.14	16.58	--	16.56	1.15	290	--	3.3	3.6	1.7	2.5	13	--	
1/7/2000	33.14	17.84	--	15.30	-1.26	ND	--	890	91	100	480	20000	--	
7/19/2000	33.14	18.92	--	14.22	-1.08	354	--	3.87	2.61	0.646	ND	13.7	--	
1/2/2001	33.14	19.07	--	14.07	-0.15	464	--	ND	3.69	3.91	ND	21.1	--	
5/23/2001	33.14	17.12	--	16.02	1.95	420	--	7.6	3.1	3.0	5.1	1900	--	
7/30/2001	33.14	17.38	--	15.76	-0.26	290	--	4.6	4.1	<0.50	3.4	23	--	
10/15/2001	33.14	17.61	--	15.53	-0.23	400	--	<0.50	<0.50	<0.50	<0.50	13	--	
1/14/2002	33.14	15.53	--	17.61	2.08	130	--	0.50	0.61	1.1	<0.50	9.9	--	
4/15/2002	33.14	16.12	--	17.02	-0.59	280	--	9.9	1.6	3.3	6.8	1400	--	
7/15/2002	33.14	16.48	--	16.66	-0.36	64	--	<0.50	<0.50	<0.50	<1.0	33	--	
1/18/2003	33.14	15.81	--	17.33	0.67	420	--	0.54	<0.50	<0.50	<1.0	130	--	
7/11/2003	33.14	16.74	--	16.40	-0.93	--	300	2.3	<0.50	<0.50	<1.0	--	31	
2/4/2004	33.14	16.15	0.00	16.99	0.59	--	130	7.9	<0.50	<0.50	<1.0	--	63	
8/11/2004	33.14	16.64	0.00	16.50	-0.49	--	<20000	<200	<200	<200	<400	--	20000	
3/31/2005	33.14	14.53	0.00	18.61	2.11	--	<20000	330	<200	<200	<400	--	78000	
9/30/2005	33.14	16.55	0.00	16.59	-2.02	--	12000	360	40	<25	50	--	20000	
3/27/2006	33.14	13.66	0.00	19.48	2.89	--	10000	150	<25	53	99	--	15000	
9/27/2006	33.14	17.40	0.00	15.74	-3.74	--	<12000	<120	<120	<120	<120	--	12000	
3/27/2007	33.14	17.55	0.00	15.59	-0.15	--	8700	180	<12	60	57	--	8900	
9/28/2007	33.14	18.59	0.00	14.55	-1.04	--	9000	55	<50	<50	<50	--	11000	
3/26/2008	33.14	18.19	0.00	14.95	0.40	--	450	13	1.3	0.84	1.4	--	7200	
7/28/2008	33.14	19.00	0.00	14.14	-0.81	--	8300	<50	<50	<50	<100	--	13000	
1/26/2009	33.14	19.54	0.00	13.60	-0.54	--	8800	27	<12	<12	<25	--	13000	
8/3/2009	33.18	18.90	0.00	14.28	0.68	--	9300	56	<50	<50	<100	--	8000	
1/25/2010	33.18	18.54	0.00	14.64	0.36	--	4900	79	7.3	5.4	13	--	8100	
8/3/2010	33.18	18.35	0.00	14.83	0.19	--	2500	30	<12	<12	<25	--	4600	
2/17/2011	33.18	18.30	0.00	14.88	0.05	--	3800	11	<5.0	<5.0	<10	--	4700	
8/3/2011	33.18	17.87	0.00	15.31	0.43	--	2,600	9.7	0.8	3.1	1.4	--	2,000	
MW-4														
10/19/1992	--	--	--	--	--	480	--	0.51	2.1	2.8	6.8	--	--	
12/21/1992	33.12	19.73	--	13.39	--	220	--	ND	ND	0.97	0.74	--	--	
4/28/1993	33.12	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	
7/23/1993	33.12	18.72	--	14.40	--	85	--	ND	ND	ND	ND	--	--	
10/5/1993	32.71	18.74	--	13.97	-0.43	130	--	ND	ND	ND	ND	--	--	

**Table 2
HISTORICAL GROUNDWATER RESULTS**

**August 3, 2011
76 Station 0752**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
1/3/1994	32.71	18.93	--	13.78	-0.19	210	--	ND	ND	0.76	1.6	--	--	
4/2/1994	32.71	18.53	--	14.18	0.40	89	--	ND	ND	ND	ND	--	--	
7/5/1994	32.71	17.67	--	15.04	0.86	190	--	ND	ND	ND	ND	--	--	
10/6/1994	32.71	19.25	--	13.46	-1.58	170	--	0.85	ND	ND	0.74	--	--	
1/2/1995	32.71	17.75	--	14.96	1.50	ND	--	ND	ND	ND	ND	--	--	
4/3/1995	32.71	15.87	--	16.84	1.88	98	--	ND	ND	ND	ND	--	--	
7/14/1995	32.71	17.01	--	15.70	-1.14	ND	--	ND	ND	ND	ND	--	--	
10/10/1995	32.71	18.03	--	14.68	-1.02	ND	--	ND	ND	ND	ND	120	--	
1/3/1996	32.71	18.05	--	14.66	-0.02	ND	--	ND	ND	ND	ND	--	--	
4/10/1996	32.71	16.00	--	16.71	2.05	ND	--	ND	ND	ND	ND	240	--	
7/9/1996	32.71	16.96	--	15.75	-0.96	ND	--	ND	ND	ND	ND	480	--	
1/24/1997	32.71	16.04	0.00	16.67	0.92	ND	--	ND	ND	ND	ND	270	--	
7/23/1997	32.71	17.87	0.00	14.84	-1.83	ND	--	ND	ND	ND	ND	460	--	
1/26/1998	32.71	16.05	--	16.66	1.82	ND	--	ND	ND	ND	ND	17	--	
7/3/1998	32.71	16.95	--	15.76	-0.90	ND	--	ND	ND	ND	ND	3.8	--	
1/14/1999	32.71	17.34	--	15.37	-0.39	ND	--	ND	ND	ND	ND	4600	--	
7/15/1999	32.71	16.36	--	16.35	0.98	ND	--	ND	ND	ND	ND	ND	--	
1/7/2000	32.71	17.81	--	14.90	-1.45	ND	--	ND	ND	ND	ND	450	--	
7/19/2000	32.71	18.94	--	13.77	-1.13	ND	--	ND	ND	ND	ND	ND	--	
1/2/2001	32.71	18.85	--	13.86	0.09	ND	--	ND	ND	ND	ND	ND	--	
5/23/2001	32.71	16.82	--	15.89	2.03	ND	--	ND	ND	ND	ND	ND	--	
7/30/2001	32.71	16.88	--	15.83	-0.06	<50	--	<0.50	<0.50	<0.50	<0.50	4.9	--	
10/15/2001	32.71	17.08	--	15.63	-0.20	<50	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	
1/14/2002	32.71	14.97	--	17.74	2.11	<50	--	<0.50	<0.50	<0.50	<0.50	30	--	
4/15/2002	32.71	15.48	--	17.23	-0.51	<50	--	<0.50	<0.50	<0.50	<0.50	180	--	
7/15/2002	32.71	15.90	--	16.81	-0.42	<50	--	<0.50	<0.50	<0.50	<1.0	50	--	
1/18/2003	32.71	15.39	--	17.32	0.51	<50	--	<0.50	<0.50	<0.50	<1.0	<2.0	--	
7/11/2003	32.71	16.17	--	16.54	-0.78	--	200	<0.50	<0.50	<0.50	<1.0	--	52	
2/4/2004	32.71	16.12	0.00	16.59	0.05	--	1300	<10	<10	<10	<20	--	1700	
8/11/2004	32.71	16.16	0.00	16.55	-0.04	--	<5000	<50	<50	<50	<100	--	6400	
3/31/2005	32.71	14.15	0.00	18.56	2.01	--	<1300	<0.50	<0.50	<0.50	<1.0	--	1600	
9/30/2005	32.71	16.91	0.00	15.80	-2.76	--	900	<0.50	<0.50	<0.50	<1.0	--	3800	
3/27/2006	32.71	13.94	0.00	18.77	2.97	--	870	<0.50	<0.50	<0.50	<1.0	--	2000	
9/27/2006	32.71	16.91	0.00	15.80	-2.97	--	<1000	<10	<10	<10	<10	--	1600	

**Table 2
HISTORICAL GROUNDWATER RESULTS**

**August 3, 2011
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Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
3/27/2007	32.71	17.15	0.00	15.56	-0.24	--	1500	<2.5	<2.5	<2.5	<2.5	--	1700	
9/28/2007	32.71	18.13	0.00	14.58	-0.98	--	590	<5.0	<5.0	<5.0	<5.0	--	1400	
3/26/2008	32.71	17.66	0.00	15.05	0.47	--	390	<0.50	<0.50	<0.50	<1.0	--	1400	
7/28/2008	32.71	18.34	0.00	14.37	-0.68	--	480	<1.0	<1.0	<1.0	<2.0	--	950	
1/26/2009	32.71	18.80	0.00	13.91	-0.46	--	500	<0.50	<0.50	<0.50	<1.0	--	830	
8/3/2009	32.72	18.43	0.00	14.29	0.38	--	640	<5.0	6.6	<5.0	<10	--	570	
1/25/2010	32.72	18.02	0.00	14.70	0.41	--	190	<0.50	<0.50	<0.50	<1.0	--	400	
8/3/2010	32.72	17.83	0.00	14.89	0.19	--	58	<0.50	<0.50	<0.50	<1.0	--	110	
2/17/2011	32.72	17.85	0.00	14.87	-0.02	--	<50	<0.50	<0.50	<0.50	<1.0	--	12	
8/3/2011	32.72	17.36	0.00	15.36	0.49	--	<50	<0.50	<0.50	<0.50	<1.0	--	12	
MW-5														
10/19/1992	--	--	--	--	--	2700	--	61	5.0	100	61	--	--	
12/21/1992	33.25	19.75	--	13.50	--	1700	--	51	4.7	83	34	--	--	
4/28/1993	33.25	--	--	--	--	6700	--	200	190	250	430	--	--	
7/23/1993	33.25	18.74	--	14.51	--	2000	--	122	8.0	68	47	--	--	
10/5/1993	32.95	18.83	--	14.12	-0.39	1700	--	70	6.2	54	40	--	--	
1/3/1994	32.95	19.05	--	13.90	-0.22	1500	--	44	ND	42	46	--	--	
4/2/1994	32.95	18.68	--	14.27	0.37	1800	--	46	5.1	38	35	--	--	
7/5/1994	32.95	17.90	--	15.05	0.78	2200	--	97	8.4	37	36	--	--	
10/6/1994	32.95	19.37	--	13.58	-1.47	1600	--	79	5.7	28	22	--	--	
1/2/1995	32.95	17.92	--	15.03	1.45	1700	--	50	8.6	30	28	--	--	
4/3/1995	32.95	16.15	--	16.80	1.77	5400	--	190	240	170	420	--	--	
7/14/1995	32.95	17.18	--	15.77	-1.03	3800	--	210	100	130	190	--	--	
10/10/1995	32.95	18.15	--	14.80	-0.97	1300	--	92	14	15	39	1100	--	
1/3/1996	32.95	18.20	--	14.75	-0.05	630	--	53	4.4	8.3	13	--	--	
4/10/1996	32.95	16.05	--	16.90	2.15	500	--	25	18	7.0	20	640	--	
7/9/1996	32.95	17.11	--	15.84	-1.06	1000	--	44	20	10	34	150	--	
1/24/1997	32.95	16.36	0.00	16.59	0.75	4000	--	190	400	160	430	600	--	
7/23/1997	32.95	18.08	0.00	14.87	-1.72	1700	--	200	23	18	45	2500	--	
1/26/1998	32.95	16.27	--	16.68	1.81	ND	--	ND	ND	ND	ND	ND	--	
7/3/1998	32.95	17.27	--	15.68	-1.00	ND	--	ND	ND	ND	ND	ND	--	
1/14/1999	32.95	17.55	--	15.40	-0.28	330	--	61	4.1	2.2	2.9	560	--	
7/15/1999	32.95	16.41	--	16.54	1.14	1100	--	170	ND	ND	27	660	--	
1/7/2000	32.95	17.85	--	15.10	-1.44	1000	--	180	6.3	ND	14	430	--	

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**August 3, 2011
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Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
7/19/2000	32.95	18.87	--	14.08	-1.02	2980	--	289	57.3	65.3	43.4	976	--	
1/2/2001	32.95	18.47	--	14.48	0.40	1150	--	87.2	17.8	7.97	9.32	368	--	
5/23/2001	32.95	17.38	--	15.57	1.09	840	--	42	10	13	7.1	130	--	
7/30/2001	32.95	17.12	--	15.83	0.26	1900	--	82	24	6.9	13	370	--	
10/15/2001	32.95	17.33	--	15.62	-0.21	26000	--	390	230	58	1300	<500	--	
1/14/2002	32.95	15.33	--	17.62	2.00	<50	--	<0.50	<0.50	<0.50	<0.50	<2.5	--	
4/15/2002	32.95	15.89	--	17.06	-0.56	310	--	20	6.7	11	7.7	77	--	
7/15/2002	32.95	16.21	--	16.74	-0.32	1500	--	40	22	60	28	170	--	
1/18/2003	32.95	15.68	--	17.27	0.53	<50	--	0.75	<0.50	<0.50	<1.0	81	--	
7/11/2003	32.95	16.29	--	16.66	-0.61	--	<50	<0.50	<0.50	<0.50	<1.0	--	3.6	
2/4/2004	32.95	16.08	0.00	16.87	0.21	--	82	16	1.6	0.65	<1.0	--	16	
8/11/2004	32.95	16.38	0.00	16.57	-0.30	--	900	81	14	2.8	11	--	120	
3/31/2005	32.95	14.30	0.00	18.65	2.08	--	5000	160	84	65	72	--	140	
9/30/2005	32.95	16.19	0.00	16.76	-1.89	--	1200	26	5.8	2.4	9.2	--	38	
3/27/2006	32.95	13.90	0.00	19.05	2.29	--	1100	13	12	4.7	16	--	8.8	
9/27/2006	32.95	17.06	0.00	15.89	-3.16	--	1300	20	11	2.3	15	--	21	
3/27/2007	32.95	17.43	0.00	15.52	-0.37	--	960	15	7.8	2.2	11	--	14	
9/28/2007	32.95	18.25	0.00	14.70	-0.82	--	1300	13	6.0	2.3	15	--	8.4	
3/26/2008	32.95	17.82	0.00	15.13	0.43	--	1200	7.6	3.3	1.8	11	--	2.7	
7/28/2008	32.95	18.70	0.00	14.25	-0.88	--	2000	12	4.9	3.2	17	--	<0.50	
1/26/2009	32.95	19.25	0.00	13.70	-0.55	--	1400	7.4	3.3	2.5	11	--	3.3	
8/3/2009	32.98	18.62	0.00	14.36	0.66	--	1500	17	9.0	3.5	22	--	7.3	
1/25/2010	32.98	18.34	0.00	14.64	0.28	--	1600	7.6	3.6	2.4	15	--	1.7	
8/3/2010	32.98	18.07	0.00	14.91	0.27	--	2200	32	32	10	48	--	10	
2/17/2011	32.98	18.05	0.00	14.93	0.02	--	1800	33	7.4	<0.50	11	--	15	
8/3/2011	32.98	17.57	0.00	15.41	0.48	--	2,500	58	23	12	34	--	40	
MW-6														
10/19/1992	--	--	--	--	--	3900	--	420	12	60	28	--	--	
12/21/1992	32.42	19.17	--	13.25	--	2300	--	370	11	39	15	--	--	
4/28/1993	32.42	--	--	--	--	1200	--	54	1.5	11	5.3	--	--	
7/23/1993	32.42	18.17	--	14.25	--	580	--	19	0.99	3.4	2.7	--	--	
10/5/1993	32.16	18.35	--	13.81	-0.44	1400	--	34	ND	5.3	7.3	--	--	
1/3/1994	32.16	18.54	--	13.62	-0.19	1400	--	57	ND	8.5	11	--	--	
4/2/1994	32.16	18.15	--	14.01	0.39	5300	--	ND	ND	ND	ND	--	--	

**Table 2
HISTORICAL GROUNDWATER RESULTS**

**August 3, 2011
76 Station 0752**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
7/5/1994	32.16	17.25	--	14.91	0.90	ND	--	ND	ND	ND	ND	--	--	
10/6/1994	32.16	18.85	--	13.31	-1.60	11000	--	ND	ND	ND	ND	--	--	
1/2/1995	32.16	17.51	--	14.65	1.34	550	--	18	0.92	2.0	1.8	--	--	
4/3/1995	32.16	15.48	--	16.68	2.03	6600	--	ND	ND	ND	ND	--	--	
7/14/1995	32.16	16.63	--	15.53	-1.15	ND	--	ND	ND	ND	ND	--	--	
10/10/1995	32.16	17.68	--	14.48	-1.05	ND	--	81	ND	ND	ND	75000	--	
1/3/1996	32.16	17.66	--	14.50	0.02	70	--	9.9	0.58	ND	0.81	--	--	
4/10/1996	32.16	15.56	--	16.60	2.10	300	--	258	4.7	0.94	2.7	53000	--	
7/9/1996	32.16	16.59	--	15.57	-1.03	1800	--	410	ND	12	ND	76000	--	
1/24/1997	32.16	15.69	0.00	16.47	0.90	ND	--	0.80	ND	ND	ND	390	--	
7/23/1997	32.16	17.53	0.00	14.63	-1.84	5700	--	1100	240	240	700	16000	--	
1/26/1998	32.16	15.44	--	16.72	2.09	ND	--	ND	ND	ND	ND	ND	--	
7/3/1998	32.16	16.58	--	15.58	-1.14	ND	--	ND	ND	ND	ND	ND	--	
1/14/1999	32.16	17.02	--	15.14	-0.44	ND	--	ND	ND	ND	ND	14	--	
7/15/1999	32.16	15.95	--	16.21	1.07	ND	--	ND	ND	ND	ND	2.8	--	
1/7/2000	32.16	16.96	--	15.20	-1.01	78	--	24	ND	0.66	17	280	--	
7/19/2000	32.16	18.04	--	14.12	-1.08	ND	--	ND	1.32	ND	0.974	ND	--	
1/2/2001	32.16	18.10	--	14.06	-0.06	ND	--	ND	ND	ND	ND	ND	--	
5/23/2001	32.16	16.42	--	15.74	1.68	ND	--	ND	ND	ND	ND	ND	--	
7/30/2001	32.16	16.49	--	15.67	-0.07	<50	--	<0.50	<0.50	<0.50	<0.50	<2.5	--	
10/15/2001	32.16	16.67	--	15.49	-0.18	<50	--	<0.50	0.62	<0.50	<0.50	<5.0	--	
1/14/2002	32.16	14.60	--	17.56	2.07	<50	--	<0.50	<0.50	<0.50	<0.50	<2.5	--	
4/15/2002	32.16	15.07	--	17.09	-0.47	<50	--	<0.50	<0.50	<0.50	0.73	<5.0	--	
7/15/2002	32.16	15.56	--	16.60	-0.49	<50	--	<0.50	<0.50	<0.50	<1.0	<0.50	--	
1/18/2003	32.16	15.80	--	16.36	-0.24	<50	--	<0.50	<0.50	<0.50	<1.0	<2.0	--	
7/11/2003	32.16	15.74	--	16.42	0.06	--	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	
2/4/2004	32.16	15.49	0.00	16.67	0.25	--	<50	2.6	<0.50	<0.50	<1.0	--	2.4	
8/11/2004	32.16	15.81	0.00	16.35	-0.32	--	7900	95	<50	<50	<100	--	9100	
3/31/2005	32.16	13.70	0.00	18.46	2.11	--	<5000	2.5	<0.50	<0.50	<1.0	--	7600	
9/30/2005	32.16	15.48	0.00	16.68	-1.78	--	4300	140	37	28	41	--	5800	
3/27/2006	32.16	13.02	0.00	19.14	2.46	--	7200	34	0.66	0.96	18	--	9900	
9/27/2006	32.16	16.56	0.00	15.60	-3.54	--	1800	<12	<12	<12	<12	--	3300	
3/27/2007	32.16	16.73	0.00	15.43	-0.17	--	1600	2.8	<2.5	<2.5	<2.5	--	1800	
9/28/2007	32.16	17.75	0.00	14.41	-1.02	--	830	<5.0	<5.0	<5.0	<5.0	--	1600	

**Table 2
HISTORICAL GROUNDWATER RESULTS**

**August 3, 2011
76 Station 0752**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
3/26/2008	32.16	17.31	0.00	14.85	0.44	--	940	45	5.9	2.0	5.3	--	1300	
7/28/2008	32.16	18.50	0.00	13.66	-1.19	--	500	<1.0	<1.0	<1.0	<2.0	--	750	
1/26/2009	32.16	18.46	0.00	13.70	0.04	--	570	<0.50	<0.50	<0.50	<1.0	--	500	
8/3/2009	32.19	18.01	0.00	14.18	0.48	--	800	<5.0	<5.0	<5.0	<10	--	690	
1/25/2010	32.19	17.64	0.00	14.55	0.37	--	410	4.8	0.63	<0.50	1.4	--	390	
8/3/2010	32.19	17.48	0.00	14.71	0.16	--	480	2.0	<0.50	<0.50	<1.0	--	520	
2/17/2011	32.19	17.48	0.00	14.71	0.00	--	290	<0.50	<0.50	<0.50	<1.0	--	130	
8/3/2011	32.19	17.02	0.00	15.17	0.46	--	330	<0.50	<0.50	<0.50	<1.0	--	89	
MW-7														
10/19/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	
4/28/1993	32.49	--	--	--	--	110	--	2.8	1.3	1.4	1.7	--	--	
7/23/1993	32.49	18.60	--	13.89	--	790	--	23	3.3	28	5.4	--	--	
10/5/1993	32.20	18.76	--	13.44	-0.45	360	--	10	1.2	0.91	0.99	--	--	
1/3/1994	32.20	18.91	--	13.29	-0.15	ND	--	0.93	ND	0.75	1.9	--	--	
4/2/1994	32.20	18.50	--	13.70	0.41	360	--	2.0	ND	ND	0.8	--	--	
7/5/1994	32.20	17.52	--	14.68	0.98	ND	--	ND	ND	ND	ND	--	--	
10/6/1994	32.20	19.25	--	12.95	-1.73	340	--	5.6	0.85	ND	1.2	--	--	
1/2/1995	32.20	17.67	--	14.53	1.58	ND	--	ND	ND	ND	ND	--	--	
4/3/1995	32.20	15.81	--	16.39	1.86	570	--	24	ND	3.4	5.8	--	--	
7/14/1995	32.20	17.05	--	15.15	-1.24	ND	--	14	ND	ND	ND	--	--	
10/10/1995	32.20	18.08	--	14.12	-1.03	740	--	170	ND	ND	ND	13000	--	
1/3/1996	32.20	18.02	--	14.18	0.06	360	--	16	1.3	2.7	1.4	--	--	
4/10/1996	32.20	15.81	--	16.39	2.21	120	--	4.1	1.5	ND	0.88	3200	--	
7/9/1996	32.20	16.99	--	15.21	-1.18	ND	--	ND	ND	ND	ND	3400	--	
1/24/1997	32.20	16.08	0.00	16.12	0.91	ND	--	16	ND	ND	ND	6600	--	
7/23/1997	32.20	17.99	0.00	14.21	-1.91	ND	--	16	ND	ND	0.62	10000	--	
1/26/1998	32.20	15.56	--	16.64	2.43	ND	--	ND	ND	ND	0.56	ND	--	
7/3/1998	32.20	17.04	--	15.16	-1.48	ND	--	ND	ND	ND	ND	ND	--	
1/14/1999	32.20	--	--	--	--	--	--	--	--	--	--	--	--	
7/15/1999	32.20	15.72	--	16.48	--	ND	--	ND	ND	ND	ND	290	--	
1/7/2000	32.20	16.80	--	15.40	-1.08	ND	--	7.7	ND	ND	4.4	98	--	
7/19/2000	32.20	17.88	--	14.32	-1.08	ND	--	ND	1.27	ND	0.979	ND	--	
1/2/2001	32.20	17.97	--	14.23	-0.09	ND	--	ND	ND	ND	ND	ND	--	
5/23/2001	32.20	16.81	--	15.39	1.16	ND	--	ND	ND	ND	ND	ND	--	

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**Table 2
HISTORICAL GROUNDWATER RESULTS**

**August 3, 2011
76 Station 0752**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
7/30/2001	32.20	16.79	--	15.41	0.02	<50	--	<0.50	<0.50	<0.50	<0.50	<2.5	--	
10/15/2001	32.20	16.98	--	15.22	-0.19	<50	--	<0.50	0.58	<0.50	<0.50	<5.0	--	
1/14/2002	32.20	14.85	--	17.35	2.13	<50	--	<0.50	<0.50	<0.50	<0.50	<2.5	--	
4/15/2002	32.20	15.29	--	16.91	-0.44	<50	--	<0.50	<0.50	<0.50	0.70	<5.0	--	
7/15/2002	32.20	15.92	--	16.28	-0.63	<50	--	<0.50	<0.50	<0.50	<1.0	<0.50	--	
1/18/2003	32.20	15.11	--	17.09	0.81	<50	--	<0.50	<0.50	<0.50	<1.0	<2.0	--	
7/11/2003	32.20	15.89	--	16.31	-0.78	--	<50	<0.50	<0.50	<0.50	<1.0	--	19	
2/4/2004	32.20	15.90	0.00	16.30	-0.01	--	<50	3.6	<0.50	<0.50	<1.0	--	3.2	
8/11/2004	32.20	16.12	0.00	16.08	-0.22	--	<5000	120	<50	<50	<100	--	5100	
3/31/2005	32.20	13.99	0.00	18.21	2.13	--	<5000	190	<50	<50	<100	--	8400	
9/30/2005	32.20	15.93	0.00	16.27	-1.94	--	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	
3/27/2006	32.20	13.40	0.00	18.80	2.53	--	2500	160	10	11	26	--	5600	
9/27/2006	32.20	16.96	0.00	15.24	-3.56	--	2800	180	<12	15	44	--	4200	
3/27/2007	32.20	17.30	0.00	14.90	-0.34	--	920	66	2.9	3.4	4.5	--	970	
9/28/2007	32.20	18.10	0.00	14.10	-0.80	--	4000	440	15	17	59	--	3300	
3/26/2008	32.20	17.64	0.00	14.56	0.46	--	390	39	3.3	0.85	7.5	--	96	
7/28/2008	32.20	18.50	0.00	13.70	-0.86	--	64	3.3	<0.50	<0.50	<1.0	--	8.7	
1/26/2009	32.20	18.90	0.00	13.30	-0.40	--	80	7.9	0.58	<0.50	<1.0	--	10	
8/3/2009	32.22	18.29	0.00	13.93	0.63	--	2100	220	14	10	31	--	750	
1/25/2010	32.22	17.49	0.00	14.73	0.80	--	490	25	3.5	0.54	6.9	--	16	
8/3/2010	32.22	17.84	0.00	14.38	-0.35	--	240	45	1.8	1.2	1.7	--	290	
2/17/2011	32.22	17.83	0.00	14.39	0.01	--	370	53	2.0	<0.50	2.1	--	12	
8/3/2011	32.22	17.42	0.00	14.80	0.41	--	390	20	1.8	<0.50	1.6	--	27	
MW-8														
4/28/1993	32.33	--	--	--	--	450	--	18	1.8	1.8	1.4	--	--	
7/23/1993	32.33	18.45	--	13.88	--	260	--	5.1	ND	0.6	ND	--	--	
10/5/1993	32.00	18.57	--	13.43	-0.45	120	--	1.7	ND	ND	ND	--	--	
1/3/1994	32.00	18.73	--	13.27	-0.16	ND	--	ND	ND	ND	ND	51	--	
4/2/1994	32.00	18.30	--	13.70	0.43	150	--	1.2	ND	ND	ND	--	--	
7/5/1994	32.00	17.41	--	14.59	0.89	730	--	17	ND	1.6	ND	--	--	
10/6/1994	32.00	18.98	--	13.02	-1.57	140	--	ND	ND	ND	ND	--	--	
1/2/1995	32.00	17.58	--	14.42	1.40	440	--	18	0.72	2.0	1.8	--	--	
4/3/1995	32.00	15.54	--	16.46	2.04	960	--	11	ND	ND	ND	--	--	
7/14/1995	32.00	16.81	--	15.19	-1.27	280	--	4.2	2.6	1.1	3.3	--	--	

**Table 2
HISTORICAL GROUNDWATER RESULTS**

**August 3, 2011
76 Station 0752**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
10/10/1995	32.00	17.85	--	14.15	-1.04	110	--	1.3	0.62	0.67	ND	170	--	
1/3/1996	32.00	17.82	--	14.18	0.03	63	--	ND	0.51	ND	1.8	--	--	
4/10/1996	32.00	15.70	--	16.30	2.12	ND	--	1.1	0.61	ND	ND	60	--	
7/9/1996	32.00	16.78	--	15.22	-1.08	72	--	1.0	ND	ND	ND	140	--	
1/24/1997	32.00	15.79	0.00	16.21	0.99	ND	--	ND	ND	ND	ND	76	--	
7/23/1997	32.00	17.69	0.00	14.31	-1.90	ND	--	ND	ND	ND	ND	270	--	
1/26/1998	32.00	15.50	--	16.50	2.19	ND	--	ND	ND	ND	0.76	2.9	--	
7/3/1998	32.00	16.80	--	15.20	-1.30	ND	--	ND	ND	ND	ND	ND	--	
1/14/1999	32.00	17.13	--	14.87	-0.33	ND	--	ND	ND	ND	ND	11	--	
7/15/1999	32.00	15.85	--	16.15	1.28	ND	--	ND	ND	ND	ND	ND	--	
1/7/2000	32.00	16.94	--	15.06	-1.09	ND	--	ND	ND	ND	ND	11	--	
7/19/2000	32.00	18.06	--	13.94	-1.12	ND	--	ND	2.99	0.521	ND	ND	--	
1/2/2001	32.00	18.12	--	13.88	-0.06	ND	--	ND	ND	ND	ND	ND	--	
5/23/2001	32.00	16.96	--	15.04	1.16	ND	--	ND	ND	ND	ND	ND	--	
7/30/2001	32.00	16.52	--	15.48	0.44	<50	--	<0.50	<0.50	<0.50	<0.50	2.7	--	
10/15/2001	32.00	16.72	--	15.28	-0.20	<50	--	<0.50	0.65	<0.50	<0.50	<5.0	--	
1/14/2002	32.00	14.53	--	17.47	2.19	<50	--	<0.50	<0.50	<0.50	<0.50	<2.5	--	
4/15/2002	32.00	14.96	--	17.04	-0.43	<50	--	<0.50	<0.50	<0.50	<0.50	<5.0	--	
7/15/2002	32.00	15.60	--	16.40	-0.64	<50	--	<0.50	<0.50	<0.50	<1.0	11	--	
1/18/2003	32.00	14.78	--	17.22	0.82	<50	--	<0.50	<0.50	<0.50	<1.0	<2.0	--	
2/4/2004	32.00	15.65	0.00	16.35	-0.87	--	52	2.3	<0.50	<0.50	<1.0	--	2.4	
8/11/2004	32.00	15.86	0.00	16.14	-0.21	--	350	<2.5	<2.5	<2.5	<5.0	--	310	
3/31/2005	32.00	13.73	0.00	18.27	2.13	--	<2000	<0.50	<0.50	<0.50	<1.0	--	2100	
9/30/2005	32.00	15.94	0.00	16.06	-2.21	--	1200	<0.50	0.50	<0.50	<1.0	--	6900	
3/27/2006	32.00	13.13	0.00	18.87	2.81	--	460	<0.50	<0.50	<0.50	<1.0	--	820	
9/27/2006	32.00	16.75	0.00	15.25	-3.62	--	520	<5.0	<5.0	<5.0	8.2	--	870	
3/27/2007	32.00	16.87	0.00	15.13	-0.12	--	1400	<0.50	<0.50	<0.50	<0.50	--	3600	
9/28/2007	32.00	17.91	0.00	14.09	-1.04	--	280	<2.5	<2.5	<2.5	<2.5	--	670	
3/26/2008	32.00	17.45	0.00	14.55	0.46	--	110	<0.50	<0.50	<0.50	<1.0	--	210	
7/28/2008	32.00	18.50	0.00	13.50	-1.05	--	<50	<0.50	<0.50	<0.50	<1.0	--	11	
1/26/2009	32.00	18.65	0.00	13.35	-0.15	--	<50	<0.50	<0.50	<0.50	<1.0	--	22	
8/3/2009	32.03	18.11	0.00	13.92	0.57	--	67	<0.50	<0.50	<0.50	<1.0	--	64	
1/25/2010	32.03	17.67	0.00	14.36	0.44	--	<50	<0.50	<0.50	<0.50	<1.0	--	10	
8/3/2010	32.03	17.58	0.00	14.45	0.09	--	<50	<0.50	<0.50	<0.50	<1.0	--	10	

**Table 2
HISTORICAL GROUNDWATER RESULTS**

**August 3, 2011
76 Station 0752**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
2/17/2011	32.03	17.53	0.00	14.50	0.05	--	<50	<0.50	<0.50	<0.50	<1.0	--	2.5	
8/3/2011	32.03	17.18	0.00	14.85	0.35	--	<50	<0.50	<0.50	<0.50	<1.0	--	1.6	

Attachment C

Laboratory Reports and Chain-of-Custody Documentation



Date of Report: 02/14/2019

Carl Edwards

Arcadis- San Jose

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San Jose, CA 95119

Client Project: 351646
BCL Project: 0752
BCL Work Order: 1904256
Invoice ID: B330870

Enclosed are the results of analyses for samples received by the laboratory on 2/7/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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CHAIN OF CUSTODY FORM
Union Oil Company of California 6101 Bollinger Canyon Road San Ramon, CA 94583

Union Oil Site ID: 19-04256
 Site Global ID: 0752
 Site Address: 10600 LINDSEY ST, OAKLAND CA
 Union Oil PM: BRITTANY STEWARD
 Union Oil PM Phone No.: 415-5426103
 Charge Code: NWRTB-0 351646 - LAB

Union Oil Consultant: ARCADIS
 Consultant Contact: KATHERINE S.
 Consultant Phone No.: 925-202-7948
 Sampling Company: GETTLER - RAMON
 Sampled By (PRINT): ALEX WONG
 Sampler Signature: [Signature]
 Project Manager: Molly Meyers
 4100 Atlas Court, Bakersfield, CA 93306
 Phone No. 661-327-4911

TPH - Diesel by EPA 8015
 TPH - G by GCMS
 BTEX/MTB/E... by EPA 8260
 Enthalpy by EPA 8260
 EPA 8260B Full List with OXYS
 TPH (8260B)

Field Point Name	Matrix	Depth	Date (yyymmdd)	Sample Time	# of Containers	ANALYSES REQUIRED		Notes / Comments
						TPH - Diesel by EPA 8015	TPH - G by GCMS	
-1 QA	Q-S-A		190207		2	X	X	
-2 A-MW-2	Q-S-A		190207	0705	3	X	X	
-3 A-MW-3	Q-S-A		190207	0625	3	X	X	
-4 A-MW-4	Q-S-A		190207	0750	3	X	X	
-5 A-MW-5	Q-S-A		190207	0630	3	X	X	
-6 A-MW-7	Q-S-A		190207	0725	3	X	X	
-7 S-MW-1	Q-S-A		190207	0955	3	X	X	
-8 S-MW-2	Q-S-A		190207	1030	3	X	X	
-9 S-MW-3	Q-S-A		190207	1040	3	X	X	
-10 S-MW-4	Q-S-A		190207	0815	3	X	X	
-11 S-MW-5	Q-S-A		190207	0950	3	X	X	
-12 S-MW-6	Q-S-A		190207	1130	3	X	X	

Turnaround Time (TAT):
 Standard 24 Hours
 48 Hours 72 Hours
 Special Instructions

CHIK BY: [Signature] DISTRIBUTION: [Signature]
 SUB-OUT:

Relinquished By: [Signature] Company: GRIWIL Date / Time: 19-2-7 / 1230
 Relinquished By: [Signature] Company: GRIWIL Date / Time: 19-2-7 / 1400
 Relinquished By: [Signature] Company: BCLNB Date / Time: 2/7/19 2200
 Received By: [Signature] Company: GRIWIL Date / Time: 19-2-7 / 1230
 Received By: [Signature] Company: GRIWIL Date / Time: 19-2-7 / 1230
 Received By: [Signature] Company: BCLNB Date / Time: 2/7/19 2200
 Received By: [Signature] Company: BCLNB Date / Time: 2/7/19 2200

REC. 2/7/19 18:30

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19-04256
COC 2 of 2

CHAIN OF CUSTODY FORM
Union Oil Company of California 6101 Bollinger Canyon Road San Ramon, CA 94583

Union Oil Site ID: 0752	Union Oil Consultant: ARCADIS	Union Oil PM: ROSEMARY STEWARD	Union Oil PM Phone No.: 925-842-6103	Charge Code: NWRTB-0 351646-0-LAB	Sampler Signature: ALEX WONG	Project Manager: Molly Meyers 4100 Atlas Court, Bakersfield, CA 93308 Phone No. 661-327-4911	Union Oil Company of California 6101 Bollinger Canyon Road San Ramon, CA 94583								
Site Global ID: T060010486	Site Address: 800 HARRISON ST. OAKLAND CA	Consultant Contact: KATHERINE S.	Consultant Phone No.: 925-202-7448	Sampling Company: GIBTLER-R/MW	Sampled By (PRINT): ALEX WONG	BC Laboratories, Inc.									
Field Point Name	Matrix	Depth	Date (yyymmdd)	Sample Time	# of Containers	TFH - Diesel by EPA 8015	TFH - G by GC/MS	BTEX/MTBE by EPA 8260	Ethanol by EPA 8260B	EPA 8260B Full List with OXYS	TPH (8260B)	ANALYSES REQUIRED	Turnaround Time (TAT): Standard <input checked="" type="checkbox"/> 24 Hours 48 Hours <input type="checkbox"/> 72 Hours <input type="checkbox"/>	Special Instructions	Notes / Comments
-13 S-EW-1	Q-S-A		190207	0910	3						X				
-14 MP-1	Q-S-A		190207	0915	3						X				
-15 MP-1	Q-S-A		190207	0840	3						X				
-16 MW-1	Q-S-A		190207	0816	3						X				
-17 MW-2	Q-S-A		190207	0740	3						X				
-18 MW-3	Q-S-A		190207	1050	3						X				
-19 MW-4	Q-S-A		190207	1009	3						X				
-20 MW-5	Q-S-A		190207	0853	3						X				
-21 MW-6	Q-S-A		190207	0930	3						X				
-22 MW-7	Q-S-A		190207	0704	3						X				
-23 MW-8	Q-S-A		190207	0630	3						X				

Relinquished By: [Signature]	Company: GAINC	Date / Time: 190207 / 1230	Relinquished By: [Signature]	Company: BCLABS	Date / Time: 2/7/19 2200
Received By: [Signature]	Company: GAINC	Date / Time: 19.2.7 / 1230	Received By: [Signature]	Company: BCLABS	Date / Time: 2/7/19 2200
Relinquished By: [Signature]	Company: GAINC	Date / Time: 19.2.7 / 1230	Relinquished By: [Signature]	Company: BCLABS	Date / Time: 2/7/19 1906
Received By: [Signature]	Company: GAINC	Date / Time: 19.2.7 / 1230	Received By: [Signature]	Company: BCLABS	Date / Time: 2/7/19 18:30

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 3

Submission #: 19-045 28 | 19-04256

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID YES NO W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO

Emissivity: 0.97 Container: VOA Thermometer ID: 208 Date/Time: 2/7/2008

Temperature: (A) 0.9 °C / (C) 0.9 °C Analyst Init: EMC

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr*										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE/NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK	AB									
40ml VOA VIAL		ABC	ABC	ABC	ABC	ABC	ABC	ABC	ABC	ABC
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/808										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8915M										
QT EPA 820										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz IAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TRELAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: EMC Date/Time: 2-7-08 1750 Rev 21 05/23/2016

A = Actual / C = Corrected

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 2 Of 3

Submission #: 19-0456 19-04256

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO Emissivity: 0.97 Container: VOA Thermometer ID: 208 Date/Time: 2/7/2008

Temperature: (A) 0.9 °C / (C) 0.9 °C Analyst Init: EMC

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / Box / 16oz PE UNPRES										
2oz Cr ⁴										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / Box / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE/NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	ABC	ABC	ABC	ABC	ABC	ABC	ABC	ABC	ABC	ABC
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 505/506/5050										
QT EPA 515.1/5150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
5oz EPA 548										
QT EPA 549										
QT EPA 3015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz IAR										
SOIL SLEEVE										
PCE VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERRROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: EMC Date/Time: 2-7-08

A = Actual / C = Corrected

1750 Rev 21 05/23/2016
(S:\WPDoc\Work\Perfec\LAB_DOC\FORMS\SAMREC Rev 20)



BC LABORATORIES INC. COOLER RECEIPT FORM Page 2 of 2

Submission #: 19-04256

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers Intact: Yes No Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO Emissivity: 0.97 Container: VOA Thermometer ID: 208 Date/Time: 2/7/2000

Temperature: (A) 0.9 °C / (C) 0.9 °C Analyst Init: EML

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	21	22	23	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁴										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE/NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	ABC	ABC	ABC							
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 506/608/609										
QT EPA 515.1/6159										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 60ISM										
QT EPA 6270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____
 Sample Numbering Completed By: EML Date/Time: 2-7-19 1750 Rev 21 06/23/2016

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

1904256-01	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: QA-W-190207 Sampled By: GRD	Receive Date: 02/07/2019 22:00 Sampling Date: 02/07/2019 00:00 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): QA Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

1904256-02	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: A-MW-2-W-190207 Sampled By: GRD	Receive Date: 02/07/2019 22:00 Sampling Date: 02/07/2019 07:05 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): A-MW-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

1904256-03	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: A-MW-3-W-190207 Sampled By: GRD	Receive Date: 02/07/2019 22:00 Sampling Date: 02/07/2019 06:25 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): A-MW-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

1904256-04	COC Number: ---	Receive Date: 02/07/2019 22:00
	Project Number: 0752	Sampling Date: 02/07/2019 07:50
	Sampling Location: ---	Sample Depth: ---
	Sampling Point: A-MW-4-W-190207	Lab Matrix: Water
	Sampled By: GRD	Sample Type: Water
		Delivery Work Order:
		Global ID: T0600101486
		Location ID (FieldPoint): A-MW-4
		Matrix: W
		Sample QC Type (SACode): CS
		Cooler ID:

1904256-05	COC Number: ---	Receive Date: 02/07/2019 22:00
	Project Number: 0752	Sampling Date: 02/07/2019 06:30
	Sampling Location: ---	Sample Depth: ---
	Sampling Point: A-MW-5-W-190207	Lab Matrix: Water
	Sampled By: GRD	Sample Type: Water
		Delivery Work Order:
		Global ID: T0600101486
		Location ID (FieldPoint): A-MW-5
		Matrix: W
		Sample QC Type (SACode): CS
		Cooler ID:

1904256-06	COC Number: ---	Receive Date: 02/07/2019 22:00
	Project Number: 0752	Sampling Date: 02/07/2019 07:25
	Sampling Location: ---	Sample Depth: ---
	Sampling Point: A-MW-7-W-190207	Lab Matrix: Water
	Sampled By: GRD	Sample Type: Water
		Delivery Work Order:
		Global ID: T0600101486
		Location ID (FieldPoint): A-MW-7
		Matrix: W
		Sample QC Type (SACode): CS
		Cooler ID:

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

1904256-07	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: S-MW-1-W-190207 Sampled By: GRD	Receive Date: 02/07/2019 22:00 Sampling Date: 02/07/2019 09:55 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): S-MW-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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1904256-08	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: S-MW-2-W-190207 Sampled By: GRD	Receive Date: 02/07/2019 22:00 Sampling Date: 02/07/2019 10:30 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): S-MW-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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1904256-09	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: S-MW-3-W-190207 Sampled By: GRD	Receive Date: 02/07/2019 22:00 Sampling Date: 02/07/2019 10:40 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): S-MW-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

1904256-10	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: S-MW-4-W-190207 Sampled By: GRD	Receive Date: 02/07/2019 22:00 Sampling Date: 02/07/2019 08:15 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): S-MW-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

1904256-11	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: S-MW-5-W-190207 Sampled By: GRD	Receive Date: 02/07/2019 22:00 Sampling Date: 02/07/2019 09:50 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): S-MW-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

1904256-12	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: S-MW-6-W-190207 Sampled By: GRD	Receive Date: 02/07/2019 22:00 Sampling Date: 02/07/2019 11:30 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): S-MW-6 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

1904256-13	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: S-EW-1-W-190207 Sampled By: GRD	Receive Date: 02/07/2019 22:00 Sampling Date: 02/07/2019 09:10 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): S-EW-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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1904256-14	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: MPE-1-W-190207 Sampled By: GRD	Receive Date: 02/07/2019 22:00 Sampling Date: 02/07/2019 09:15 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): MPE-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	---

1904256-15	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: MP-1-W-190207 Sampled By: GRD	Receive Date: 02/07/2019 22:00 Sampling Date: 02/07/2019 08:40 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): MP-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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San Jose, CA 95119

Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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1904256-16	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: MW-1-W-190207 Sampled By: GRD	Receive Date: 02/07/2019 22:00 Sampling Date: 02/07/2019 08:16 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): MW-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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1904256-17	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: MW-2-W-190207 Sampled By: GRD	Receive Date: 02/07/2019 22:00 Sampling Date: 02/07/2019 07:40 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): MW-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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1904256-18	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: MW-3-W-190207 Sampled By: GRD	Receive Date: 02/07/2019 22:00 Sampling Date: 02/07/2019 10:50 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): MW-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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1904256-19	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: MW-4-W-190207 Sampled By: GRD	Receive Date: 02/07/2019 22:00 Sampling Date: 02/07/2019 10:09 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): MW-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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1904256-20	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: MW-5-W-190207 Sampled By: GRD	Receive Date: 02/07/2019 22:00 Sampling Date: 02/07/2019 08:53 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): MW-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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1904256-21	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: MW-6-W-190207 Sampled By: GRD	Receive Date: 02/07/2019 22:00 Sampling Date: 02/07/2019 09:30 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): MW-6 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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1904256-22	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: MW-7-W-190207 Sampled By: GRD	Receive Date: 02/07/2019 22:00 Sampling Date: 02/07/2019 07:04 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): MW-7 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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1904256-23	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: MW-8-W-190207 Sampled By: GRD	Receive Date: 02/07/2019 22:00 Sampling Date: 02/07/2019 06:30 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101486 Location ID (FieldPoint): MW-8 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1904256-01	Client Sample Name: 0752, QA-W-190207, 2/7/2019 12:00:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0		EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50		Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.3	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	98.5	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	95.9	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	02/11/19 06:17	02/11/19 11:47	ADC	MS-V15	1	B037319

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Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1904256-02		Client Sample Name: 0752, A-MW-2-W-190207, 2/7/2019 7:05:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	50		EPA-8260B	ND	A01	1
Ethylbenzene	ND	ug/L	50		EPA-8260B	ND	A01	1
Methyl t-butyl ether	120	ug/L	50		EPA-8260B	ND	A01	1
Toluene	63	ug/L	50		EPA-8260B	ND	A01	1
Total Xylenes	7800	ug/L	100		EPA-8260B	ND	A01	1
Total Purgeable Petroleum Hydrocarbons	31000	ug/L	5000		Luft-GC/MS	ND	A01	1
1,2-Dichloroethane-d4 (Surrogate)	97.2	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	99.8	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	99.8	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	02/11/19 06:17	02/11/19 17:36	ADC	MS-V15	100	B037319

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Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1904256-03	Client Sample Name: 0752, A-MW-3-W-190207, 2/7/2019 6:25:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0		EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50		Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	96.6	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	98.5	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	96.1	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	02/11/19 06:17	02/11/19 12:08	ADC	MS-V15	1	B037319

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Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1904256-04	Client Sample Name: 0752, A-MW-4-W-190207, 2/7/2019 7:50:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	5.2	ug/L	0.50		EPA-8260B	ND		1
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0		EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50		Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.5	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	99.5	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	98.1	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	02/11/19 06:17	02/12/19 08:46	ADC	MS-V15	1	B037319

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Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1904256-05	Client Sample Name: 0752, A-MW-5-W-190207, 2/7/2019 6:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0		EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50		Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.0	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	98.2	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	96.7	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	02/11/19 06:17	02/11/19 12:30	ADC	MS-V15	1	B037319

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Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1904256-06	Client Sample Name: 0752, A-MW-7-W-190207, 2/7/2019 7:25:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0		EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50		Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.8	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	97.5	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	98.2	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	02/11/19 06:17	02/11/19 12:52	ADC	MS-V15	1	B037319

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Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1904256-07	Client Sample Name: 0752, S-MW-1-W-190207, 2/7/2019 9:55:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	190	ug/L	25		EPA-8260B	ND	A01	1
Ethylbenzene	27	ug/L	25		EPA-8260B	ND	A01	1
Methyl t-butyl ether	5000	ug/L	25		EPA-8260B	ND	A01	1
Toluene	ND	ug/L	25		EPA-8260B	ND	A01	1
Total Xylenes	380	ug/L	50		EPA-8260B	ND	A01	1
Total Purgeable Petroleum Hydrocarbons	10000	ug/L	2500		Luft-GC/MS	ND	A01	1
1,2-Dichloroethane-d4 (Surrogate)	101	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	99.7	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	102	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	02/11/19 06:17	02/12/19 00:10	ADC	MS-V15	50	B037319

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Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1904256-08	Client Sample Name: 0752, S-MW-2-W-190207, 2/7/2019 10:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0		EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50		Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	99.1	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	95.8	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	02/11/19 06:17	02/11/19 13:14	ADC	MS-V15	1	B037319

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Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1904256-09	Client Sample Name: 0752, S-MW-3-W-190207, 2/7/2019 10:40:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	10	ug/L	0.50		EPA-8260B	ND		1
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	160	ug/L	1.0		EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	3300	ug/L	100		Luft-GC/MS	ND	A01	2
1,2-Dichloroethane-d4 (Surrogate)	97.8	%	75 - 125 (LCL - UCL)		EPA-8260B			1
1,2-Dichloroethane-d4 (Surrogate)	101	%	75 - 125 (LCL - UCL)		EPA-8260B			2
Toluene-d8 (Surrogate)	98.7	%	80 - 120 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	99.4	%	80 - 120 (LCL - UCL)		EPA-8260B			2
4-Bromofluorobenzene (Surrogate)	120	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	104	%	80 - 120 (LCL - UCL)		EPA-8260B			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	02/11/19 06:17	02/11/19 13:36	ADC	MS-V15	1	B037319
2	EPA-8260B	02/11/19 06:17	02/12/19 09:08	ADC	MS-V15	2	B037319

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Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1904256-10	Client Sample Name: 0752, S-MW-4-W-190207, 2/7/2019 8:15:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	27	ug/L	0.50		EPA-8260B	ND		1
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0		EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	110	ug/L	50		Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	103	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	102	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	02/11/19 06:17	02/12/19 08:24	ADC	MS-V15	1	B037319

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Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1904256-11	Client Sample Name: 0752, S-MW-5-W-190207, 2/7/2019 9:50:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	4.6	ug/L	0.50		EPA-8260B	ND		1
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0		EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50		Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	93.9	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	99.3	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	96.6	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	02/11/19 06:17	02/14/19 09:15	ADC	MS-V15	1	B037319

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San Jose, CA 95119

Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1904256-12		Client Sample Name: 0752, S-MW-6-W-190207, 2/7/2019 11:30:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	26	ug/L	0.50		EPA-8260B	ND		1
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0		EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	150	ug/L	50		Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.7	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	98.9	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	96.2	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	02/11/19 06:17	02/11/19 14:20	ADC	MS-V15	1	B037319

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Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1904256-13	Client Sample Name: 0752, S-EW-1-W-190207, 2/7/2019 9:10:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	69	ug/L	5.0		EPA-8260B	ND	A01	1
Ethylbenzene	8.3	ug/L	5.0		EPA-8260B	ND	A01	1
Methyl t-butyl ether	770	ug/L	25		EPA-8260B	ND	A01	2
Toluene	7.3	ug/L	5.0		EPA-8260B	ND	A01	1
Total Xylenes	210	ug/L	10		EPA-8260B	ND	A01	1
Total Purgeable Petroleum Hydrocarbons	3100	ug/L	500		Luft-GC/MS	ND	A01	1
1,2-Dichloroethane-d4 (Surrogate)	85.3	%	75 - 125 (LCL - UCL)		EPA-8260B			1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-8260B			2
Toluene-d8 (Surrogate)	98.4	%	80 - 120 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	98.7	%	80 - 120 (LCL - UCL)		EPA-8260B			2
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	98.8	%	80 - 120 (LCL - UCL)		EPA-8260B			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	02/11/19 06:17	02/12/19 14:36	ADC	MS-V15	10	B037319
2	EPA-8260B	02/11/19 06:17	02/12/19 00:54	ADC	MS-V15	50	B037319

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Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1904256-14	Client Sample Name: 0752, MPE-1-W-190207, 2/7/2019 9:15:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	32	ug/L	0.50		EPA-8260B	ND		1
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	6.4	ug/L	1.0		EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	190	ug/L	50		Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	101	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	99.8	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	99.0	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	02/11/19 06:17	02/12/19 13:08	ADC	MS-V15	1	B037319

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Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1904256-15	Client Sample Name: 0752, MP-1-W-190207, 2/7/2019 8:40:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	5.6	ug/L	0.50		EPA-8260B	ND		1
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	1.1	ug/L	1.0		EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	53	ug/L	50		Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	95.0	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	98.5	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	98.1	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	02/11/19 06:17	02/11/19 16:08	ADC	MS-V15	1	B037319

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Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1904256-16	Client Sample Name: 0752, MW-1-W-190207, 2/7/2019 8:16:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	1.5	ug/L	0.50		EPA-8260B	ND		1
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0		EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	96	ug/L	50		Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.7	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	98.7	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	99.6	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	02/11/19 06:17	02/11/19 14:42	ADC	MS-V15	1	B037319

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Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1904256-17	Client Sample Name: 0752, MW-2-W-190207, 2/7/2019 7:40:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0		EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50		Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	103	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	99.7	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	98.9	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	02/11/19 06:17	02/11/19 15:03	ADC	MS-V15	1	B037319

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Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1904256-18		Client Sample Name: 0752, MW-3-W-190207, 2/7/2019 10:50:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	2.2	ug/L	1.0		EPA-8260B	ND	A01	1
Ethylbenzene	1.0	ug/L	1.0		EPA-8260B	ND	A01	1
Methyl t-butyl ether	8.0	ug/L	1.0		EPA-8260B	ND	A01	1
Toluene	ND	ug/L	1.0		EPA-8260B	ND	A01	1
Total Xylenes	ND	ug/L	2.0		EPA-8260B	ND	A01	1
Total Purgeable Petroleum Hydrocarbons	1400	ug/L	100		Luft-GC/MS	ND	A01	1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	105	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	106	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	02/11/19 06:17	02/12/19 01:38	ADC	MS-V15	2	B037319

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Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1904256-19	Client Sample Name: 0752, MW-4-W-190207, 2/7/2019 10:09:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0		EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50		Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	103	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	99.2	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	97.6	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	02/11/19 06:17	02/11/19 17:14	ADC	MS-V15	1	B037319

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Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1904256-20	Client Sample Name: 0752, MW-5-W-190207, 2/7/2019 8:53:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	0.89	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	0.61	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	1.4	ug/L	0.50		EPA-8260B	ND		1
Toluene	2.0	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	3.6	ug/L	1.0		EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	520	ug/L	50		Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	101	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	104	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	108	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	02/11/19 13:08	02/11/19 15:25	ADC	MS-V15	1	B037391

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Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1904256-21		Client Sample Name: 0752, MW-6-W-190207, 2/7/2019 9:30:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	0.58	ug/L	0.50		EPA-8260B	ND		1
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0		EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	160	ug/L	50		Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.2	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	109	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	02/11/19 13:08	02/11/19 16:52	ADC	MS-V15	1	B037391

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Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1904256-22	Client Sample Name: 0752, MW-7-W-190207, 2/7/2019 7:04:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	3.5	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	1.0	ug/L	0.50		EPA-8260B	ND		1
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0		EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	93	ug/L	50		Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	103	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	99.4	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	97.4	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	02/11/19 13:08	02/11/19 16:30	ADC	MS-V15	1	B037391

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Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1904256-23	Client Sample Name: 0752, MW-8-W-190207, 2/7/2019 6:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0		EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	1000	ug/L	50		Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	104	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	107	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	108	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	02/11/19 13:08	02/11/19 15:47	ADC	MS-V15	1	B037391

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Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
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QC Batch ID: B037319						
Benzene	B037319-BLK1	ND	ug/L	0.50		
Ethylbenzene	B037319-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	B037319-BLK1	ND	ug/L	0.50		
Toluene	B037319-BLK1	ND	ug/L	0.50		
Total Xylenes	B037319-BLK1	ND	ug/L	1.0		
Total Purgeable Petroleum Hydrocarbons	B037319-BLK1	ND	ug/L	50		
1,2-Dichloroethane-d4 (Surrogate)	B037319-BLK1	99.2	%		75 - 125 (LCL - UCL)	
Toluene-d8 (Surrogate)	B037319-BLK1	99.3	%		80 - 120 (LCL - UCL)	
4-Bromofluorobenzene (Surrogate)	B037319-BLK1	97.0	%		80 - 120 (LCL - UCL)	

QC Batch ID: B037391						
Benzene	B037391-BLK1	ND	ug/L	0.50		
Ethylbenzene	B037391-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	B037391-BLK1	ND	ug/L	0.50		
Toluene	B037391-BLK1	ND	ug/L	0.50		
Total Xylenes	B037391-BLK1	ND	ug/L	1.0		
Total Purgeable Petroleum Hydrocarbons	B037391-BLK1	ND	ug/L	50		
1,2-Dichloroethane-d4 (Surrogate)	B037391-BLK1	96.2	%		75 - 125 (LCL - UCL)	
Toluene-d8 (Surrogate)	B037391-BLK1	99.8	%		80 - 120 (LCL - UCL)	
4-Bromofluorobenzene (Surrogate)	B037391-BLK1	98.0	%		80 - 120 (LCL - UCL)	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: B037319										
Benzene	B037319-BS1	LCS	24.630	25.000	ug/L	98.5		70 - 130		
Toluene	B037319-BS1	LCS	25.010	25.000	ug/L	100		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	B037319-BS1	LCS	9.7700	10.000	ug/L	97.7		75 - 125		
Toluene-d8 (Surrogate)	B037319-BS1	LCS	9.9700	10.000	ug/L	99.7		80 - 120		
4-Bromofluorobenzene (Surrogate)	B037319-BS1	LCS	10.020	10.000	ug/L	100		80 - 120		
QC Batch ID: B037391										
Benzene	B037391-BS1	LCS	24.550	25.000	ug/L	98.2		70 - 130		
Toluene	B037391-BS1	LCS	24.970	25.000	ug/L	99.9		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	B037391-BS1	LCS	9.7300	10.000	ug/L	97.3		75 - 125		
Toluene-d8 (Surrogate)	B037391-BS1	LCS	10.050	10.000	ug/L	100		80 - 120		
4-Bromofluorobenzene (Surrogate)	B037391-BS1	LCS	10.120	10.000	ug/L	101		80 - 120		

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Control Limits Percent Recovery, Lab Quals. Includes two QC Batch sections (B037319 and B037391) with data for Benzene, Toluene, 1,2-Dichloroethane-d4, Toluene-d8, and 4-Bromofluorobenzene.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 02/14/2019 14:09
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Notes And Definitions

- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A01 Detection and quantitation limits are raised due to sample dilution.

Attachment D

Remediation Progress Report

REMEDIATION PROGRESS REPORT
First Quarter 2018
April 8, 2019

Facility No:	<u>0752/Yee/Gin Comingled Plume</u>	Address:	<u>706/726/800 Harrison Street, Oakland, California</u>
Arcadis Contact Person / Phone No.:	Katherine Szymanowski / 510.596.9675		
Arcadis Project No.:	YC335135.1646		
Primary Agency/Regulatory ID No.:	Alameda County Department of Environmental Health (ACDEH) / Mr. Jonathan E. Sanders / Case No. RO0000231		

WORK CONDUCTED THIS QUARTER [FIRST QUARTER 2019]:

1. Twice monthly operation & maintenance (O&M) visits of the air sparge/soil vapor extraction (AS/SVE) system were conducted to monitor system operational parameters and performance, including the collection of monthly influent and effluent samples from the SVE system.
2. On February 7, 2019, groundwater monitoring of twenty-two (22) wells was performed. The AS/SVE system shutdown due to a power loss alarm on February 6, 2019 and was left off to allow the subsurface to reach static conditions prior to the groundwater monitoring event. The system was restarted on February 18, 2019 following the sampling event. Data from the site-wide groundwater monitoring event is presented in the First Quarter 2019 Semi-annual Groundwater Monitoring Report.

WORK PROPOSED NEXT QUARTER [SECOND QUARTER 2019]:

Arcadis will continue twice monthly O&M visits and a minimum of monthly sampling for the AS/SVE system. Once reduced groundwater intake to the SVE system is observed, system optimization will be performed to run the system more efficiently and effectively. See below for further explanation on the affect of higher groundwater elevation on SVE system performance.

Current Phase of Project:	Remediation	
Frequency of GW Monitoring / Sampling:	Semi-annual (Quarterly for MW-20)	
Frequency of AS/SVE System O&M / Sampling:	Twice Monthly O&M / Monthly SVE Sampling	
SVE System Reporting Period Hours / Percentage operational:	(12/18/18 – 3/25/19) 1,917 / 82%	
SVE Cumulative Operating Hours since Startup (September 2018) / Percentage operational:	3,437 / 72%	
SVE Hydrocarbon Removal:	Reporting Period	Cumulative
Gasoline Range Organics	207.8	870.8
Benzene:	0.16	0.71
Permits for Discharge:	Permit to Operate (PTO) #E1947 for Plant No. 21947	
AS System Reporting Period Hours / Percentage operational:	(12/18/18 – 3/25/19) 1,728 / 74%	
AS Cumulative Operating Hours since start-up (October 2018) / Percentage operational:	2,479 / 63%	

DISCUSSION

Current and historical system performance, operational, and analytical data are presented in Tables 1 through 4. O&M field notes detailing site activities and field measurements from the site visits conducted during the reporting period are included as Attachment 1. O&M certified laboratory analytical reports and chain-of-custody documents are included as Attachment 2.

The system began operation on September 6, 2018 following completion of system construction and troubleshooting. As discussed in the RAP (Arcadis 2014), system operation focuses on dissolved-phase mass in groundwater at 706 and 726 Harrison Street.

SVE System:

During the first quarter of 2019, monthly system influent and effluent samples were collected on December 18, 2018 and January 15, February 5, March 11, and March 25, 2019. All samples were collected by Arcadis and analyzed by BC Laboratories, Inc. of Bakersfield, California, a State of California accredited environmental laboratory. All samples were analyzed by the following methods for the respective analytes:

- Total petroleum hydrocarbons as gasoline (TPH-g) by EPA Method TO-15
- Benzene, toluene, ethylene and total xylenes (BTEX) and methyl tert-butyl ether (MTBE) by EPA Method TO-15

Influent TPH-g concentrations ranged from 0.7 parts per million by volume (ppmv) to 140 ppmv for the first quarter of 2019, and influent benzene concentrations ranged from below the detection limit (0.005 ppmv) to 0.078 ppmv. In the effluent, TPH-g was only detected in the December 2018 and February 2019 samples at concentrations of 1.2 and 1.6 ppmv, respectively. BTEX compounds and MTBE were not detected or were well below 0.05 ppmv in the effluent samples collected during the reporting period. Based on these analytical results and the vapor flow rates, system operation was compliant with the PTO. Laboratory analytical reports and chain-of-custody documents are included in Attachment 2.

The SVE system operated a total of 1,917 hours during the current reporting period (December 18, 2018 through March 25, 2019), resulting in an average runtime of 82%. Since system startup in September 2018, the SVE system has operated for 3,437 hours, resulting in a cumulative uptime of 72%. The AS/SVE system was found off upon arrival throughout the reporting period due to weather caused power losses.

During the reporting period, the SVE system removed an estimated 207.8 pounds (lbs) of TPH-g and 0.16 lbs of benzene. Cumulatively (since September 2018), the SVE system has removed approximately 870.8 lbs of TPH-g and 0.71 pounds of benzene. The system influent vapor flow rate ranged from 166 to 181 standard cubic feet per minute (scfm). During all visits conducted in the reporting period, a photo ionization detector (PID) calibrated to 100 ppmv hexane was used for field measurements, and measurements were collected without a carbon filter. Field measured influent and effluent concentrations ranged from 68.9 to 609.4 ppmv and 0 to 9.7 ppmv, respectively. A summary of the SVE system operational data and analytical results is presented in Tables 1 through 3.

AS System:

The AS system operated a total of 1,728 hours during the current reporting period (December 18, 2018 through March 25, 2019), resulting in an average runtime of 74%. Since startup in October 2018, the AS system has operated for 2,479, resulting in a cumulative uptime of 63%. As noted above, the AS/SVE system was found off upon arrival during multiple O&M visits in the reporting period due to weather caused power losses.

The minimum, average, and maximum observed AS well operating pressures were 5 pounds per square inch (psi), 8 psi, and 13 psi, respectively. The minimum, average, and maximum observed AS well flowrates were 4 scfm, 5 scfm, and 11 scfm, respectively. AS operational data is presented in Tables 1 and 4.

CONCLUSIONS AND RECOMMENDATIONS

In accordance with the approved RAP, the system was started to address dissolved-phase mass in groundwater at 706 and 726 Harrison Street. Due to high levels of groundwater recovery, two SVE wells (VW-4 and VW-5 located on the southern end of the 706 property) have not operated since system startup and the SVE system has operated at an influent vacuum equal to or less than 5 inches of mercury

(in-hg) since late November. Due to the reduced SVE vacuum and well operation, 7 AS wells have been turned off (AS-5, AS-11, AS-13, AS-14, SP-3, SP-4, and SP-5).


The current system operation has been focused on ensuring proper and consistent operation of the system components. The focus will shift to system optimization when the weather allows increased AS/SVE system operation. Measurements will also be collected to determine SVE radius of influence (ROI) to verify system efficiency.

REFERENCES


Arcadis U.S., Inc. (Arcadis) 2014. Remedial Action Plan, April 18.

LIMITATIONS

This report was prepared in accordance with the scope of work outlined in Arcadis' contract and with generally accepted professional engineering and environmental consulting practices existing at the time this report was prepared and applicable to the location of the site. It was prepared for the exclusive use of Chevron Environmental Management Company's affiliate, Union Oil Company of California ("Union Oil"), for the express purpose stated above. Any re-use of this report for a different purpose or by others not identified above shall be at the user's sole risk without liability to Arcadis. To the extent that this report is based on information provided to Arcadis by third parties, Arcadis may have made efforts to verify this third party information, but Arcadis cannot guarantee the completeness or accuracy of this information. The opinions expressed and data collected are based on the conditions of the site existing at the time of the field investigation. No other warranties, expressed or implied are made by Arcadis.

Prepared By:  Date: April 8, 2019
Katherine Szymanowski
Project Manager

Information, conclusions, and recommendations provided by Arcadis in this document have been prepared under the supervision of and reviewed by the licensed professional whose signature appears below.

Reviewed By:  Date: April 8, 2019
Thomas Kendig, P.E.

ATTACHMENTS:

Table 1	AS/SVE System – Operational Data
Table 2	AS/SVE System – Soil Vapor Analytical Data
Table 3	AS/SVE System – SVE Well Data
Table 4	AS/SVE System – AS Well Data
Attachment 1	Operation, Maintenance, and Monitoring Field Data Sheets
Attachment 2	Laboratory Analytical Reports and Chain-of-Custody Documentation

TABLES



Date and Time	Operations					AS System Parameters			SVE System Parameters										PID Readings and VOC Mass Removal				Comments	
	System Status Upon Arrival	System Status Upon Departure	Operational Hours	Total Runtime	Uptime (%)	Wells Operational	Pre HX Temp (deg F)	Post HX Temp (deg F)	Discharge Pressure (psi)	Manifold/Influent 1 Flow (acfm)	Manifold/Influent 1 Temp (deg F)	Pre KO/Influent 1 Vacuum (in Hg)	Manual Dilution (% Open)	Blower 1 Inlet Vacuum (in Hg)	Influent 2 Flow (scfm)	Influent 2 Temp (deg F)	Influent 2 Pressure (in WC)	CatOx Inlet Temp (deg F)	CatOx Outlet Temp (deg F)	Influent 1 Concentration (ppmV)	Influent 2 Concentration (ppmV)	Effluent Concentration (ppmV)		Destruction Efficiency
9/6/2018 11:55	Off	On	95	0	---	VW-3, VE-3, VE-4, VE-5	---	---	---	---	75.0	13.5	8%	13.5	91	160.0	2.7	706	857	---	1015.0	4.8	100%	Routine Operation Startup
9/13/2018 15:00	On	On	265	170	100%	VW-3, VE-3, VE-4, VE-5	---	---	---	---	79.0	9.0	10%	9.0	126	149.3	4.6	696	712	141.4	59.6	0.4	99%	VE-5 and VW-3 pulling water, reduced vac.
10/5/2018 13:00	Off	On	724	629	87%	VW-3, VE-3, VE-4, VE-5	---	---	---	---	76.0	9.0	8%	9.0	125	150.3	4.6	648	665	373.3	486.0	0.0	100%	System off upon arrival, restarted.
10/11/2018 12:00	On	Off	864	769	98%	VW-3, VE-3, VE-4, VE-5, AS-1, AS-2, AS-3, AS-7, AS-8, AS-9, AS-10, AS-11, AS-12	205	90	20	112.0	75.1	9.0	8%	9.0	130	143.0	5.5	637	882	390.1	401.0	2.9	99%	Started AS. Water coming from MW-5, turned off AS-4, AS-5, and AS-6, turned system off.
10/18/2018 13:15	Off	On	869	774	3%	VW-3, VE-3, VE-4, VE-5, AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	110	70	12	83.0	67.0	7.0	20%	7.0	153	131.0	6.8	655	904	---	282.0	3.5	99%	No Influent 1 or well concentrations collected, AS-5 turned off.
10/23/2018 16:00	Off	On	871	776	2%	VW-3, VE-3, VE-4, VE-5, AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	---	---	---	91.0	---	6.0	20%	6.0	156	130.0	7.9	640	840	---	406.0	0.8	100%	Off upon arrival due to high temp alarm, samples taken.
11/2/2018 16:00	Off	On	876	781	2%	VW-3, VE-3, VE-4, VE-5, AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	---	---	---	---	---	6.0	20%	6.0	175	125.0	4.5	625	925	---	---	---	---	Off upon arrival due to power outage.
11/27/2018 10:00	Off	On	1112	1017	40%	VW-3, VE-3, VE-4, VE-5, AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	---	---	---	---	---	7.0	20%	5.7	149	126.0	6.9	652	697	---	989.0	6.0	99%	Collected EFF and INF-2 samples
11/30/2018 9:00	On	On	1182	1087	99%	VW-3, VE-3, VE-4, VE-5, AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	165	65	13	--	--	4.9	15%	4.9	165	122.5	7.6	645	680	---	---	---	---	Reduced SVE vacuum due to water intake.
12/4/2018 14:00	On	On	1283	1188	100%	VW-3, VE-3, VE-4, VE-5, AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	170	75	7	134.0	66.6	4.5	15%	3.8	165	120.3	7.1	642	669	959.1	552.4	14.1	97%	
12/10/2018 13:00	On	On	1425	1330	99%	VW-3, VE-3, VE-4, VE-5, AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	---	---	---	---	---	5.0	20%	3.5	164	122.0	6.7	647	664	---	---	---	---	Knockout tank approx. 1/3 full
12/18/2018 13:00	On	On	1615	1520	99%	VW-3, VE-3, VE-4, VE-5, AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	170	70	7	130.0	69.8	4.5	15%	3.8	168	124.3	8.5	644	661	204.3	481.4	0.0	100%	Collected EFF and INF-2 samples
1/4/2019 13:10	On	On	2024 ¹	1929	100%	VW-3, VE-3, VE-4, VE-5, AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	170	75	7	128.0	62.3	4.5	15%	3.3	168	119.3	7.9	643	648	801.0	422.0	9.7	98%	Transferred KO tank liquid to drum.
1/15/2019 14:30	Off	On	2241	2146	82%	VW-3, VE-3, VE-4, VE-5, AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	160	65	7	135.0	58.0	4.5	15%	4.5	169	115.0	8.4	607	604	177.9	567.3	0.0	100%	Off upon arrival due to power failure, collect EFF and INF-2 samples
1/25/2019 9:20	On	On	2478	2383	101%	VW-3, VE-3, VE-4, VE-5, AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	160	75	12	---	---	4.8	15%	3.4	166	120.5	8.8	644	651	---	---	---	---	
2/5/2019 13:30	On	On	2746	2651	100%	VW-3, VE-3, VE-4, VE-5, AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	160	65	7	144.0	61.4	4.5	15%	4.5	171	108.8	8.9	650	633	205.1	609.4	0.0	100%	Collect EFF and INF-2 samples
2/26/2019 11:30	On	On	2955	2860	42%	VW-3, VE-3, VE-4, VE-5, AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	160	65	8	150.0	65.0	4.5	15%	4.5	168	120.0	10.2	651	640	192.1	604.9	0.0	100%	AS off upon arrival, transfer KO tank liquid to drum, check oil level in blowers and grease bearings.
3/11/2019 12:10	Off	On	3196	3101	77%	VW-3, VE-3, VE-4, VE-5, AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	160	65	8	188.0	63.7	5.0	15%	5.0	171	110.4	12.0	624	620	375.0	415.0	0.0	100%	Off upon arrival due to power failure, collect EFF and INF-2 samples.
3/25/2019 13:00	On	On	3532	3437	100%	VW-3, VE-3, VE-4, VE-5, AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	160	65	8	180.0	63.1	4.0	20%	4.0	181	113.1	12.0	640	650	77.1	68.9	0.1	100%	Collect EFF and INF-2 samples, low PID readings at system, high at well.

Notes and Abbreviations:
¹ = reading recorded incorrectly in the field, adjusted for accuracy
 % = percent
 HX = Heat Exchanger
 acfm = actual cubic feet per minute
 deg F = degrees Fahrenheit
 in Hg = inches mercury
 in WC = inches water column
 scfm = standard cubic feet per minute
 PID = photo ionization detector, calibrated with 100 ppmv hexane. A carbon tip is not used for readings.
 VOC = volatile organic compound
 ppmV = parts per million by volume
 lbs = pounds
 Influent 1 = Pre-Dilution
 Influent 2 = Post-Dilution
 --- = not measured/not applicable

Calculations:
Destruction Efficiency %

$$= \left(1 - \frac{\text{Effluent PID, ppmV}}{\text{Influent 2 PID, ppmV}} \right) 100$$

Mass Removal Rate

$$\frac{\text{lbs}}{\text{day}} = \frac{\text{MW g}}{1 \text{ mol}} \left(\frac{1 \text{ lb}}{453.6 \text{ g}} \right) \left(\frac{1 \text{ mol}}{24.46 \text{ L}} \right) \left(\frac{1 \text{ L}}{0.03531 \text{ std cu ft}} \right) \left(\frac{\text{CONC ppmV}}{1 \times 10^6 / \text{ppmV}} \right) (\text{SCFM})(1440 \text{ min})$$

Where:
 MW = molecular weight of hexane, 86.18 g/mol
 g = grams
 mol = 1 mole of gas
 L = Liters volume at STP (77 deg.F and 29.92 inWC)
 std cu ft = standard cubic feet

SVE SYSTEM INFLUENT

Date	Operational Hours	Average Influent 2 Flow (scfm)	Concentrations						TPHg Removal			Benzene Removal		
			TPHg (ppmV)	B (ppmV)	T (ppmV)	E (ppmV)	X (ppmV)	MTBE (ppmV)	Period (lbs)	Cumulative (lbs)	Rate (lbs/day)	Period (lbs)	Cumulative (lbs)	Rate (lbs/day)
9/13/2018	265	108.5	29.0	0.089	0.230	0.062	0.160	<0.050	8.2	8.2	1.2	0.0	0.0	0.0
10/23/2018	871	141.0	320.0	0.130	<0.050	<0.050	<0.10	<0.050	224.0	232.2	16.6	0.1	0.1	0.0
11/27/2018	1112	162.0	280.0	0.490	0.43	0.10	1.10	0.32	167.0	399.2	16.7	0.1	0.3	0.0
12/18/2018	1615	165.4	140.0	0.078	<0.050	0.43	2.00	<0.050	263.9	663.0	8.5	0.3	0.5	0.0
1/15/2019	2241	168.3	37.0	<0.050	0.05	0.06	0.33	<0.050	140.8	803.9	2.3	0.1	0.6	0.0
2/5/2019	2746	168.0	32.0	<0.050	<0.050	0.08	0.47	<0.050	44.9	848.7	2.0	0.1	0.7	0.0
3/11/2019	3196	169.5	0.7	<0.005	<0.005	<0.005	<0.010	<0.005	18.9	867.7	0.0	0.0	0.7	0.0
3/25/2019	3532	176.0	6.4	0.015	0.180	0.033	0.440	<0.005	3.2	870.8	0.4	0.0	0.7	0.0
									TPHg Recovery¹			Benzene Recovery¹		
Reporting Period Recovered Mass (lbs):									207.8			0.16		
Total Recovered Mass (lbs) Removed to Date:									870.8			0.71		

SVE SYSTEM EFFLUENT

Date	Operational Hours	Average Effluent Flow (scfm)	Concentrations						TPHg Emissions			Benzene Emissions			Destruction Efficiency (%)
			TPHg (ppmV)	B (ppmV)	T (ppmV)	E (ppmV)	X (ppmV)	MTBE (ppmV)	Period (lbs)	Cumulative (lbs)	Rate (lbs/day)	Period (lbs)	Cumulative (lbs)	Rate (lbs/day)	
9/13/2018	265	108.5	2.10	<0.005	<0.005	0.011	0.022	<0.005	0.6	0.6	0.1	0.0	0.0	0.000	93%
10/23/2018	871	141.0	1.10	<0.005	<0.005	<0.005	<0.010	<0.005	1.8	2.4	0.1	0.0	0.0	0.000	100%
11/27/2018	1112	162.0	<0.50	<0.005	0.0051	<0.005	<0.010	<0.005	0.4	2.8	0.0	0.0	0.0	0.000	100%
12/18/2018	1615	165.4	1.20	<0.005	0.0070	0.008	0.039	<0.005	1.1	3.9	0.1	0.0	0.0	0.000	99%
1/15/2019	2241	168.3	<0.50	<0.005	<0.005	<0.005	0.019	<0.005	1.4	5.2	0.0	0.0	0.0	0.000	99%
2/5/2019	2746	168.0	1.60	<0.005	<0.005	0.006	0.033	<0.005	1.4	6.6	0.1	0.0	0.0	0.000	95%
3/11/2019	3196	169.5	<0.50	<0.005	<0.005	<0.005	<0.010	<0.005	1.2	7.8	0.0	0.0	0.0	0.000	23%
3/25/2019	3532	176.0	<0.50	<0.005	<0.005	<0.005	<0.005	<0.005	0.4	8.3	0.0	0.0	0.0	0.000	92%
									TPHg Emissions¹			Benzene Emissions¹			
Reporting Period Mass (lbs) Emitted:									4.4			0.02			
Total Mass (lbs) Emitted to Date:									8.3			0.03			

Notes and Definitions:

¹ = Emissions calculations assume the full detection limit for non detect compounds
 --- = Data not available
 < = Less than stated laboratory method reporting limit
 lbs = pounds
 ppmV = Parts per million by volume
 scfm = Standard cubic feet per minute
 B = Benzene
 T = Toluene
 E = Ethylbenzene
 X = Total Xylenes
 MTBE = Methyl tertiary-butyl ether
 TPHg = Total purgeable hydrocarbons as gasoline

Calculations:

Mass Removal/Emission Rate

$$\frac{lbs}{day} = \left(\frac{MW \text{ g}}{1 \text{ mol}} \right) \left(\frac{1 \text{ lb}}{453.6 \text{ g}} \right) \left(\frac{1 \text{ mol}}{24.46 \text{ L}} \right) \left(\frac{1 \text{ L}}{0.03531 \text{ std cu ft}} \right) \left(\frac{CONC \text{ ppmV}}{1 \times 10^6 / \text{ppmV}} \right) (SCFM)(1440 \text{ min})$$

Where:

MW = molecular weight
 g = grams
 mol = 1 mole of gas
 L = Liters volume at STP (77 deg F and 29.92 inWC)
 std cu ft = standard cubic feet

Molecular Weights:

TPHg 100.00
 Benzene 78.77

Date and Time	Wells Operational	VE-3							VE-4						
		Manifold % Open	Manifold Temp (Deg F)	Manifold Flow (acfm)	Manifold Flow (scfm)	Manifold PID (VOC-ppmV)	Manifold Vacuum (inWC)	Relative Humidity (%)	Manifold % Open	Manifold Temp (Deg F)	Manifold Flow (acfm)	Manifold Flow (scfm)	Manifold PID (VOC-ppmV)	Manifold Vacuum (inWC)	Relative Humidity (%)
9/6/18 11:55	VW-3, VE-3, VE-4, VE-5	100%	78.6	23.2	9.7	---	180	35%	100%	76.7	41.9	17.5	---	180	36%
9/13/18 15:00	VW-3, VE-3, VE-4, VE-5	100%	73.1	25.8	7.1	371.4	120	44%	100%	72.7	57.1	15.7	17.2	120	42%
10/5/18 13:00	VW-3, VE-3, VE-4, VE-5	100%	74.6	31.0	8.5	4430.0	120	45%	100%	76.2	70.0	19.9	71.3	125	43%
10/11/18 12:00	VW-3, VE-3, VE-4, VE-5	100%	71.3	30.0	7.9	396.0	115	47%	100%	72.0	66.0	17.5	445.0	116	47%
10/18/18 13:15	VW-3, VE-3, VE-4, VE-5	100%	70.9	21.4	3.3	---	70	48%	100%	72.0	51.0	7.8	---	70.0	49%
11/30/18 8:30	VW-3, VE-3, VE-4, VE-5	100%	---	---	---	---	58	---	100%	---	---	---	---	58	---
12/4/18 12:05	VW-3, VE-3, VE-4, VE-5	100%	59.7	---	---	---	58	56%	100%	61.0	---	---	---	58	51%
12/18/18 10:40	VW-3, VE-3, VE-4, VE-5	100%	67.5	---	---	---	59	47%	100%	68.2	---	---	---	59	46%
1/4/19 12:15	VW-3, VE-3, VE-4, VE-5	100%	61.7	---	---	1341.0	58	42%	100%	64.5	---	---	1242.0	59	44%
1/15/19 13:30	VW-3, VE-3, VE-4, VE-5	100%	59.9	---	---	---	50	52%	100%	60.1	---	---	---	50	53%
1/25/19 9:40	VW-3, VE-3, VE-4, VE-5	100%	---	---	---	---	60	---	100%	---	---	---	---	58	---
2/5/19 13:00	VW-3, VE-3, VE-4, VE-5	100%	59.3	---	---	---	58	52%	100%	59.4	---	---	---	55	50%
2/26/19 11:30	VW-3, VE-3, VE-4, VE-5	100%	61.8	---	---	---	44	50%	100%	59.5	---	---	---	45	57%
3/11/19 12:10	VW-3, VE-3, VE-4, VE-5	100%	52.2	218.0	15.1	---	38	86%	100%	49.1	218.0	27.5	---	58	64%
3/25/19 12:00	VW-3, VE-3, VE-4, VE-5	100%	49.6	---	---	471.1'	45	62%	100%	51.7	---	---	613.9'	45	62%

Abbreviations:
 scfm = standard cubic feet per minute
 PID = photo ionization detector
 ppmv = parts per million by volume
 inWC = inches water column
 deg. F = degrees Fahrenheit
 acfm = actual cubic feet per minute
 VOC = volatile organic compound
 --- = not measured/not applicable
 ' = PID readings taken at well head.

Convert ACFM to SCFM

$$SCFM = ACFM \left(\frac{P_{actual} - (RH \times P_{sat})}{P_{std}} \right) \times \frac{T_{std}}{T_{actual}}$$

Where:
 SCFM = standard cubic feet per minute
 ACFM = actual cubic feet per minute
 P_{actual} = measured pressure (psia) = 0.036(manifold pressure)
 P_{std} = standard absolute air pressure (psia) = 14.696
 P_{sat} = water saturation at actual temperature (psi) = 0.43 psi for 75 deg F
 T_{actual} = actual air temperature (degree Rankine) = T deg.F + 459.67
 T_{std} = standard temperature (degree Rankine) = 520
 RH = relative humidity (%)

Date and Time	Wells Operational	VE-5							VW-3						
		Manifold % Open	Manifold Temp (Deg F)	Manifold Flow (acfm)	Manifold Flow (scfm)	Manifold PID (VOC-ppmV)	Manifold Vacuum (inWC)	Relative Humidity (%)	Manifold % Open	Manifold Temp (Deg F)	Manifold Flow (acfm)	Manifold Flow (scfm)	Manifold PID (VOC-ppmV)	Manifold Vacuum (inWC)	Relative Humidity (%)
9/6/18 11:55	VW-3, VE-3, VE-4, VE-5	100%	76.6	---	---	---	180	36%	100%	75.2	57.0	24.4	---	180	37%
9/13/18 15:00	VW-3, VE-3, VE-4, VE-5	100%	71.2	---	---	36.2	120	46%	100%	71.9	44.6	12.8	55.5	120	46%
10/5/18 13:00	VW-3, VE-3, VE-4, VE-5	100%	76.4	18.6	5.5	146.7	125	42%	100%	76.8	---	---	1311.0	125	42%
10/11/18 12:00	VW-3, VE-3, VE-4, VE-5	100%	72.3	26.0	7.2	403.0	115	49%	100%	72.8	22.0	6.1	198.5	116	43%
10/18/18 13:15	VW-3, VE-3, VE-4, VE-5	100%	72	23.6	4.0	---	70	48%	100%	72.9	27.3	4.6	---	70	48%
11/30/18 8:30	VW-3, VE-3, VE-4, VE-5	100%	---	---	---	---	56	---	100%	---	---	---	---	48	---
12/4/18 12:05	VW-3, VE-3, VE-4, VE-5	100%	62.0	---	---	---	58	50%	100%	62.8	---	---	---	47	50%
12/18/18 10:40	VW-3, VE-3, VE-4, VE-5	100%	68.9	---	---	---	41	47%	100%	69.4	---	---	---	41	47%
1/4/19 12:15	VW-3, VE-3, VE-4, VE-5	100%	63.1	---	---	395.0	59	41%	100%	62.2	---	---	402.0	58	39%
1/15/19 13:30	VW-3, VE-3, VE-4, VE-5	100%	61.2	---	---	---	45	53%	100%	61.3	---	---	---	45	54%
1/25/19 9:40	VW-3, VE-3, VE-4, VE-5	100%	---	---	---	---	32	---	100%	---	---	---	---	26	---
2/5/19 13:00	VW-3, VE-3, VE-4, VE-5	100%	58.1	---	---	---	50	---	100%	60.1	---	---	---	28	68%
2/26/19 11:30	VW-3, VE-3, VE-4, VE-5	100%	57.9	---	---	---	28	67%	100%	59.5	---	---	---	40	70%
3/11/19 12:10	VW-3, VE-3, VE-4, VE-5	100%	58.4	218.0	13.4	---	25	74%	100%	45.4	218.0	13.7	---	25	73%
3/25/19 12:00	VW-3, VE-3, VE-4, VE-5	100%	52.9	---	---	413.3'	45	60%	100%	51.4	---	---	294.4'	25	67%

Abbreviations:
 scfm = standard cubic feet per minute
 PID = photo ionization detector
 ppmv = parts per million by volume
 inWC = inches water column
 deg. F = degrees Fahrenheit
 acfm = actual cubic feet per minute
 VOC = volatile organic compound
 --- = not measured/not applicable
 ' = PID readings taken at well head.

Convert ACFM to SCFM

$$SCFM = ACFM \left(\frac{P_{actual} - (RH \times P_{sat})}{P_{std}} \right) \times \bar{T}$$

Where:
 SCFM = standard cubic feet per minute
 ACFM = actual cubic feet per minute
 P_{actual} = measured pressure (psia) = 0.036(manifold pres.
 P_{std} = standard absolute air pressure (psia) = 14.696
 P_{sat} = water saturation at actual temperature (psi) = 0.43
 T_{actual} = actual air temperature (degree Rankine) = T deg
 T_{std} = standard temperature (degree Rankine) = 520
 RH = relative humidity (%)

Date and Time	Wells Operational	VW-4							VW-5						
		Manifold % Open	Manifold Temp (Deg F)	Manifold Flow (acfm)	Manifold Flow (scfm)	Manifold PID (VOC-ppmV)	Manifold Vacuum (inWC)	Relative Humidity (%)	Manifold % Open	Manifold Temp (Deg F)	Manifold Flow (acfm)	Manifold Flow (scfm)	Manifold PID (VOC-ppmV)	Manifold Vacuum (inWC)	Relative Humidity (%)
9/6/18 11:55	VW-3, VE-3, VE-4, VE-5	0%	---	---	---	---	---	---	0%	---	---	---	---	---	---
9/13/18 15:00	VW-3, VE-3, VE-4, VE-5	0%	---	---	---	---	---	---	0%	---	---	---	---	---	---
10/5/18 13:00	VW-3, VE-3, VE-4, VE-5	0%	---	---	---	---	---	---	0%	---	---	---	---	---	---
10/11/18 12:00	VW-3, VE-3, VE-4, VE-5	0%	---	---	---	---	---	---	0%	---	---	---	---	---	---
10/18/18 13:15	VW-3, VE-3, VE-4, VE-5	0%	---	---	---	---	---	---	0%	---	---	---	---	---	---
11/30/18 8:30	VW-3, VE-3, VE-4, VE-5	0%	---	---	---	---	---	---	0%	---	---	---	---	---	---
12/4/18 12:05	VW-3, VE-3, VE-4, VE-5	0%	---	---	---	---	---	---	0%	---	---	---	---	---	---
12/18/18 10:40	VW-3, VE-3, VE-4, VE-5	0%	---	---	---	---	---	---	0%	---	---	---	---	---	---
1/4/19 12:15	VW-3, VE-3, VE-4, VE-5	0%	---	---	---	---	---	---	0%	---	---	---	---	---	---
1/15/19 13:30	VW-3, VE-3, VE-4, VE-5	0%	---	---	---	---	---	---	0%	---	---	---	---	---	---
1/25/19 9:40	VW-3, VE-3, VE-4, VE-5	0%	---	---	---	---	---	---	0%	---	---	---	---	---	---
2/5/19 13:00	VW-3, VE-3, VE-4, VE-5	0%	---	---	---	---	---	---	0%	---	---	---	---	---	---
2/26/19 11:30	VW-3, VE-3, VE-4, VE-5	0%	---	---	---	---	---	---	0%	---	---	---	---	---	---
3/11/19 12:10	VW-3, VE-3, VE-4, VE-5	0%	---	---	---	---	---	---	0%	---	---	---	---	---	---
3/25/19 12:00	VW-3, VE-3, VE-4, VE-5	0%	---	---	---	---	---	---	0%	---	---	---	---	---	---

Abbreviations:
 scfm = standard cubic feet per minute
 PID = photo ionization detector
 ppmv = parts per million by volume
 inWC = inches water column
 deg. F = degrees Fahrenheit
 acfm = actual cubic feet per minute
 VOC = volatile organic compound
 --- = not measured/not applicable
 ' = PID readings taken at well head.

Convert ACFM to SCFM

$$SCFM = ACFM \left(\frac{P_{actual} - (RH \times P_{sat})}{P_{std}} \right) \times \frac{T_{std}}{T_{actual}}$$

Where:
 SCFM = standard cubic feet per minute
 ACFM = actual cubic feet per minute
 P_{actual} = measured pressure (psia) = 0.036(manifold pres.
 P_{std} = standard absolute air pressure (psia) = 14.696
 P_{sat} = water saturation at actual temperature (psi) = 0.43
 T_{actual} = actual air temperature (degree Rankine) = T deg
 T_{std} = standard temperature (degree Rankine) = 520
 RH = relative humidity (%)

Date and Time	Wells Operational	Comments
9/6/18 11:55	VW-3, VE-3, VE-4, VE-5	Routine Operation Startup
9/13/18 15:00	VW-3, VE-3, VE-4, VE-5	VE-5 and VW-3 pulling water, reduced vac.
10/5/18 13:00	VW-3, VE-3, VE-4, VE-5	
10/11/18 12:00	VW-3, VE-3, VE-4, VE-5	
10/18/18 13:15	VW-3, VE-3, VE-4, VE-5	
11/30/18 8:30	VW-3, VE-3, VE-4, VE-5	Vac reduced due to water in all manifold legs
12/4/18 12:05	VW-3, VE-3, VE-4, VE-5	To moist to measure flow/PID at individual manifold legs
12/18/18 10:40	VW-3, VE-3, VE-4, VE-5	To moist to measure flow/PID at individual manifold legs
1/4/19 12:15	VW-3, VE-3, VE-4, VE-5	Flow measurements for individual manifold legs not registering
1/15/19 13:30	VW-3, VE-3, VE-4, VE-5	To moist to measure flow/PID at individual manifold legs
1/25/19 9:40	VW-3, VE-3, VE-4, VE-5	
2/5/19 13:00	VW-3, VE-3, VE-4, VE-5	To moist to measure flow/PID at individual manifold legs
2/26/19 11:30	VW-3, VE-3, VE-4, VE-5	To moist to measure flow/PID at individual manifold legs
3/11/19 12:10	VW-3, VE-3, VE-4, VE-5	To moist to measure PID at individual manifold legs
3/25/19 12:00	VW-3, VE-3, VE-4, VE-5	To moist to measure PID at individual manifold legs, PID reading from well head

Abbreviations:

scfm = standard cubic feet per minute
 PID = photo ionization detector
 ppmv = parts per million by volume
 inWC = inches water column
 deg. F = degrees Fahrenheit
 acfm = actual cubic feet per minute
 VOC = volatile organic compound
 --- = not measured/not applicable
 ' = PID readings taken at well head.

Convert ACFM to SCFM

$$SCFM = ACFM \left(\frac{P_{actual} - (RH \times P_{sat})}{P_{std}} \right) \times \frac{T_{std}}{T_{actual}}$$

Where:

SCFM = standard cubic feet per minute
 ACFM = actual cubic feet per minute
 P_{actual} = measured pressure (psia) = 0.036(manifold pres:
 P_{std} = standard absolute air pressure (psia) = 14.696
 P_{sat} = water saturation at actual temperature (psi) = 0.43
 T_{actual} = actual air temperature (degree Rankine) = T deg
 T_{std} = standard temperature (degree Rankine) = 520
 RH = relative humidity (%)

Date and Time	Wells Operational	AS-1			AS-2			AS-3			AS-4						
		Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)				
10/11/18 12:00	AS-1, AS-2, AS-3, AS-7, AS-8, AS-9, AS-10, AS-11, AS-12	Open	6	17.0	6.0	Open	12	17.0	7.0	Open	7	16.0	14.5	Open/Closed	0	17.5	---
10/18/18 13:15	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Open	3	15.0	---	Open	5	15.0	---	Open	3	14.0	---	Open	2	11.0	---
11/30/18 8:20	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Open	<5	8.0	---	Open	<5	8.0	---	Open	<5	8.5	---	Open	7	8.5	---
12/4/18 9:15	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Open	4	8.5	8.0	Open	4	8.5	8.0	Open	4	8.5	9.0	Open	6	7.5	8.5
12/18/18 11:10	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Open	5	7.0	8.0	Open	4	8.0	8.0	Open	4	8.0	8.0	Open	7	8.0	9.0
1/4/19 12:02	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Open	4	8.5	8.0	Open	4	8.5	9.0	Open	4	8.5	8.5	Open	6	7.5	8.5
1/15/19 12:15	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Open	4	7.0	7.0	Open	4	8.0	8.0	Open	5	7.0	7.0	Open	8	8.0	8.0
1/25/19 10:00	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Open	---	11.0	---	Open	6	11.0	---	Open	5	11.0	---	Open	5	9.0	---
2/5/19 12:10	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Open	5	7.0	6.0	Open	5	7.0	8.0	Open	5	7.0	6.0	Open	8	8.0	8.0
2/26/19 11:30	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Open	5	8.0	6.0	Open	5	8.0	8.0	Open	6	8.0	5.0	Open	7	8.0	6.0
3/11/19 12:10	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Open	5	8.0	6.0	Open	5	8.0	8.0	Open	6	10.0	5.0	Open	7	8.0	5.0

Abbreviations:
acfm = actual cubic feet per minute
psi = pounds per square inch
--- = not measured/not applicable

Date and Time	Wells Operational	AS-5				AS-6				AS-7				AS-8			
		Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)
10/11/18 12:00	AS-1, AS-2, AS-3, AS-7, AS-8, AS-9, AS-10, AS-11, AS-12	Open/Closed	8	19.5	---	Open/Closed	14	19.5	---	Open	10	19.0	---	Open	10	20.0	---
10/18/18 13:15	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	Open	4	11.0	---	Open	3	11.0	---	Open	3	11.0	---
11/30/18 8:20	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	Open	<5	9.5	---	Open	<5	8.5	---	Open	---	9.0	---
12/4/18 9:15	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	Open	4	8.5	5.5	Open	4	8.0	9.0	Open	---	8.5	7.5
12/18/18 11:10	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	Open	4	8.0	6.0	Open	4	8.0	8.0	Open	4	8.0	7.5
1/4/19 12:02	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	Open	4	8.5	6.0	Open	4	8.0	9.0	Open	---	8.5	8.0
1/15/19 12:15	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	Open	4	8.0	5.0	Open	4	8.0	8.0	Open	4	7.0	7.0
1/25/19 10:00	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	Open	6	10.0	---	Open	---	12.0	---	Open	---	12.5	---
2/5/19 12:10	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	Open	5	9.0	5.0	Open	5	9.0	8.0	Open	5	6.0	6.0
2/26/19 11:30	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	Open	6	10.0	5.0	Open	5	8.0	8.0	Open	5	6.0	5.0
3/11/19 12:10	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	Open	6	10.0	5.0	Open	5	8.0	7.0	Open	6	5.0	5.0

Abbreviations:
acfm = actual cubic feet per minute
psi = pounds per square inch
--- = not measured/not applicable

Date and Time	Wells Operational	AS-9				AS-10				AS-11				AS-12			
		Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)
10/11/18 12:00	AS-1, AS-2, AS-3, AS-7, AS-8, AS-9, AS-10, AS-11, AS-12	Open	11	17.0	---	Open	13	18.5	---	Closed	---	---	---	Open	5	12.0	---
10/18/18 13:15	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Open	4	10.0	---	Open	4	10.0	---	Closed	---	---	---	Open	6	9.0	---
11/30/18 8:20	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Open	<5	7.5	---	Open	<5	7.0	---	Closed	---	---	---	Open	<5	7.0	---
12/4/18 9:15	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Open	4	7.5	6.0	Open	4	7.5	7.0	Closed	---	---	---	Open	4	7.5	7.0
12/18/18 11:10	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Open	4	6.0	6.0	Open	4	5.0	8.0	Closed	---	---	---	Open	4	6.0	8.0
1/4/19 12:02	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Open	4	7.5	7.0	Open	4	7.5	7.0	Closed	---	---	---	Open	4	7.5	7.0
1/15/19 12:15	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Open	4	7.0	6.0	Open	4	6.0	7.0	Closed	---	---	---	Open	4	5.0	6.0
1/25/19 10:00	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Open	11	9.0	---	Open	7	9.0	---	Closed	---	---	---	Open	6	10.0	---
2/5/19 12:10	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Open	5	6.0	6.0	Open	5	7.0	7.0	Closed	---	---	---	Open	5	6.0	5.0
2/26/19 11:30	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Open	5	6.0	5.0	Open	5	8.0	6.0	Closed	---	---	---	Open	5	6.0	5.0
3/11/19 12:10	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Open	5	5.0	4.0	Open	5	7.0	6.0	Closed	---	---	---	Open	5	6.0	5.0

Abbreviations:
acfm = actual cubic feet per minute
psi = pounds per square inch
--- = not measured/not applicable

Date and Time	Wells Operational	AS-13				AS-14				SP-3				SP-4			
		Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)
10/11/18 12:00	AS-1, AS-2, AS-3, AS-7, AS-8, AS-9, AS-10, AS-11, AS-12	Closed	---	---	---	Closed	---	---	---	Closed	---	---	---	Closed	---	---	---
10/18/18 13:15	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	Closed	---	---	---	Closed	---	---	---	Closed	---	---	---
11/30/18 8:20	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	Closed	---	---	---	Closed	---	---	---	Closed	---	---	---
12/4/18 9:15	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	Closed	---	---	---	Closed	---	---	---	Closed	---	---	---
12/18/18 11:10	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	Closed	---	---	---	Closed	---	---	---	Closed	---	---	---
1/4/19 12:02	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	Closed	---	---	---	Closed	---	---	---	Closed	---	---	---
1/15/19 12:15	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	Closed	---	---	---	Closed	---	---	---	Closed	---	---	---
1/25/19 10:00	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	Closed	---	---	---	Closed	---	---	---	Closed	---	---	---
2/5/19 12:10	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	Closed	---	---	---	Closed	---	---	---	Closed	---	---	---
2/26/19 11:30	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	Closed	---	---	---	Closed	---	---	---	Closed	---	---	---
3/11/19 12:10	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	Closed	---	---	---	Closed	---	---	---	Closed	---	---	---

Abbreviations:
 acfm = actual cubic feet per minute
 psi = pounds per square inch
 --- = not measured/not applicable

Date and Time	Wells Operational	SP-5				Comments
		Valve Position	Manifold Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	
10/11/18 12:00	AS-1, AS-2, AS-3, AS-7, AS-8, AS-9, AS-10, AS-11, AS-12	Closed	---	---	---	AS-11 shutdown for broken flowmeter, AS-4, 5, and 6 shutdown for causing water to leak from MW-5. Not all wellhead readings collected prior to shutting system down for SVE malfunction.
10/18/18 13:15	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	AS-5 turned off.
11/30/18 8:20	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	AS-8 has broken flow meter
12/4/18 9:15	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	Replace gauge at AS-9 wellhead
12/18/18 11:10	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	
1/4/19 12:02	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	
1/15/19 12:15	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	System off on arrival
1/25/19 10:00	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	AS-1, AS-7, and AS-8 have broken flow meters
2/5/19 12:10	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	
2/26/19 11:30	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	System off on arrival
3/11/19 12:10	AS-1, AS-2, AS-3, AS-4, AS-6, AS-7, AS-8, AS-9, AS-10, AS-12	Closed	---	---	---	System off on arrival

Abbreviations:
 acfm = actual cubic feet per minute
 psi = pounds per square inch
 --- = not measured/not applicable

ATTACHMENT 1

Operation, Maintenance, and Monitoring Field Data Sheets





SITE MAINTENANCE SCOPE OF WORK
 AS/SVE
 Former Unocal Service Station No. 00752
 706/726/800 Harrison Street, Oakland, California

SITE MAINTENANCE SCOPE OF WORK

PM Thomas Kendig Project # B0047339
 Engineer Jesse Brockman Weather, wind velocity/direction, temperature
 Technician Date 12-18-18 Arrival Time 0950 Departure Time 1300

WORK TASKS TO BE COMPLETED

- ✓ Review HASP, conduct tailgate, and discuss SOW with Engineer
- ✓ Report any unusual situations
- ✓ Review OM&M plan and document visit in site entry log
- ✓ Calibrate PID and/or FID
- Perform maintenance and alarm testing per schedule and document items performed
- Collect system data readings and confirm permit conditions as follows:
 - Collect AS/SVE system readings in SVE System and AS System (in OM&M plan)
 - Record relevant data into system summary below and confirm permit compliance
 - Collect AS/SVE monitoring data on appropriate form if requested by Engineer
 - Collect response well data if requested by Engineer
- ✓ Review Compliance Checklist
- ✓ Call Thomas Kendig or Jesse Brockman

SUMMARY OF SYSTEM STATUS AND COMPLIANCE READINGS

SYSTEM SCREEN READINGS

	Arrival	Departure	
SVE Status	On	On	on/off
AS Status	On	On	on/off
Alarms	None	None	
VFD-1 Speed	40	40	Hz
VFD-1 Hours	1615	1	hrs.
VFD-2 Speed	NA	NA	Hz
VFD-2 Hours			hrs.
AC Hours			hrs.
Electric Service Meter	✓	✓	kwh

SVE FIELD READINGS

	Arrival	Departure	
Manifold/Inf 1 Flow (Header)	125	130	acfm
Manifold/Inf 1 Temp (Header)	64.4	64.8	°F
Manifold/Inf 1 Vac (Header)			inWC
Inf 1 Vac (Gauge)	4.5	4.5	inHg
Man. Dil. (Valve Turns/12)	85	85	% open
B-1 Vac (Blower Inlet)	375	375	inHg
B-2 Vac (Blower Inlet)	NA	NA	inHg
Inf 2 Flow (FIT102)	165.7	167.7	scfm
Inf 2 Temp (TIT102)	122.58	124.3	°F
Inf 2 Press (PIT102)	8.52	8.48	inWC
CatOx Inlet Temp (TIT201)	642	644	°F
CatOx Outlet Temp (TIT202)	654	661	°F
CatOx Inlet SP (Ox Panel)	650	650	°F
CatOx Outlet SP (Ox Panel)	950	950	°F
Inf 1 Conc	199.9	204.3	ppmv
Inf 2 Conc	39.7	48.4	ppmv
Eff Conc	0.0	0.0	ppmv

AS FIELD READINGS

	Arrival	Departure	
Pre Heat Exchanger Temp	70	70	°F
Post Heat Exchanger Temp	69	70	°F
Discharge Press	7	7	psi

Operational AS Wells:

- | | |
|--|---|
| 706 Harrison | 726 Harrison |
| <input type="checkbox"/> SP-3
<input type="checkbox"/> SP-5
<input checked="" type="checkbox"/> AS-7
<input checked="" type="checkbox"/> AS-8
<input checked="" type="checkbox"/> AS-9 | <input checked="" type="checkbox"/> AS-10
<input type="checkbox"/> AS-11
<input checked="" type="checkbox"/> AS-12
<input checked="" type="checkbox"/> AS-13
<input type="checkbox"/> AS-14
<input type="checkbox"/> AS-1
<input checked="" type="checkbox"/> AS-2
<input checked="" type="checkbox"/> AS-3
<input checked="" type="checkbox"/> AS-4
<input type="checkbox"/> AS-5
<input checked="" type="checkbox"/> AS-6 |

Operational SVE Wells:

- | | |
|--|--|
| 706 Harrison | 726 Harrison |
| <input checked="" type="checkbox"/> VW-3
<input type="checkbox"/> VW-4
<input type="checkbox"/> VW-5
<input checked="" type="checkbox"/> VE-5 | <input checked="" type="checkbox"/> VE-3
<input checked="" type="checkbox"/> VE-4 |

Equipment

	Make	Model	Calibrated to:
FID/PID (circle one)	MRAE	3000	Hexane
Velocicalc	TSI	9565	

Notes:

COMPLIANCE CHECKLIST

- ✓ Permits onsite
- ✓ System in proper working condition
- ✓ Records maintained onsite (OMM log)
- ✓ Monthly SVE sampling
- ✓ Vaults are secure
- ✓ Compound is secure
- AS/SVE system alarms tested
- ✓ Effluent flowrate <300 SCFM
- ✓ Oxidizer temperature >600 deg F
- CatOx Destruction Efficiency measured as hexane (check one)
 - 98.5% if inlet ≥2000 ppmv
 - ✓ 97% if inlet <2000 ppmv and ≥200 ppmv
 - 90% if inlet <200 ppmv
 - No requirement if outlet is <10 ppmv

DATA SHEETS & LOGS COMPLETED

- ✓ SVE Well Operational Data
- ✓ AS Well Operational Data
- Other _____

Date and Time	Well ID	% Open	Temp (F)	Flowrate (cfm)	PID (ppm)	Manifold Vacuum (in WC)	Relative Humidity (%)	Comments
726 HARRISON STREET								
1040 1212	VE-3	100	67.5			59" 58.5"	46.8	-40.9 @ well inlc
1041 1214	VE-4	100	68.2			59" 58.5" 58.5"	47.9 46.3 48.4	-44.9 inlc at well
706 HARRISON STREET								
1042 1215	VE-5	100	68.9			41" 41"	46.8	-23.9 inlc at well
1043 1216	VW-3	100	69.4			40.5" 40.5"	46.7	No Vac at well
1044	VW-4	0	—————			0		
1044	VW-5	0	—————			0		
						↓		
						↓		

Note: Multiple rounds of readings are not necessarily required, but extra fields are provided to do so.

Technician Zac Matlock
 Date 12-18-18

Date and Time	Valve #	Well ID	Valve Position	Flow (cfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Comments
726 HARRISON STREET							
12-18-18	1110	AS-1	Open	5	7	8	
|	1110	AS-2	Open	4	8	8	Hissing at well
|	1111	AS-3	Open	4	8	8	Hissing at well
|	1114	AS-4	Open	7	8	9	
|	1114	AS-5	off	—	—	—	
✓	1115	AS-6	Open	4	8	6	hissing at well
706 HARRISON STREET							
12-18-18	1118	AS-7	Open	4	8	8	hissing at well
|	1118	AS-8	Open	4	8	7.5	hissing at well
|	1120	AS-9	Open	4	6	6	
|	1120	AS-10	Open	4	5	8	
|	1122	AS-11	off	—	—	—	
|	1122	AS-12	Open	4	6	8	
|	1124	AS-13	off	—	—	—	
|	1125	AS-14	off	—	—	—	
|	1125	SP-3	off	—	—	—	
|	1125	SP-4	off	—	—	—	
✓	1125	SP-5	off	—	—	—	

Technician Zac Matlock
 Date 12-18-18

SITE MAINTENANCE SCOPE OF WORK

PM Thomas Kendig Project # B0047339
 Engineer Jesse Brockman Weather, wind velocity/direction, temperature
 Technician 01-04-19 Arrival Time 1030 Departure Time 1310
 Date

WORK TASKS TO BE COMPLETED

- Review HASP, conduct tailgate, and discuss SOW with Engineer
- Report any unusual situations
- Review OM&M plan and document visit in site entry log
- Calibrate PID and/or FID
- Perform maintenance and alarm testing per schedule and document items performed
- Collect system data readings and confirm permit conditions as follows:
 - Collect AS/SVE system readings in SVE System and AS System (in OM&M plan)
 - Record relevant data into system summary below and confirm permit compliance
 - Collect AS/SVE monitoring data on appropriate form if requested by Engineer
 - Collect response well data if requested by Engineer
- Review Compliance Checklist
- Call Thomas Kendig or Jesse Brockman

SUMMARY OF SYSTEM STATUS AND COMPLIANCE READINGS

SYSTEM SCREEN READINGS

	Arrival	Departure	
SVE Status	0n	0n	on/off
AS Status	0n	0n	on/off
Alarms	NA	NA	
VFD-1 Speed	40	40	Hz
VFD-1 Hours	1949	1952	hrs.
VFD-2 Speed	NA	N/A	Hz
VFD-2 Hours	NA		hrs.
AC Hours	NA	↓	hrs.
Electric Service Meter	NA	↓	kwh

SVE FIELD READINGS

	Arrival	Departure	
Manifold/Inf 1 Flow (Header)	120	128	acfm
Manifold/Inf 1 Temp (Header)	61.9	62.3	°F
Manifold/Inf 1 Vac (Header)			inWC
Inf 1 Vac (Gauge)	4.5	4.5	inHg
Man. Dil. (Valve Turns/12)	85	85	% open
B-1 Vac (Blower Inlet)	3.27	3.29	inHg
B-2 Vac (Blower Inlet)	N/A	N/A	inHg
Inf 2 Flow (FIT102)	166.17	167.68	scfm
Inf 2 Temp (TIT102)	119.34	119.30	°F
Inf 2 Press (PIT102)	7.89	7.89	inWC
CatOx Inlet Temp (TIT201)	643	643	°F
CatOx Outlet Temp (TIT202)	648	648	°F
CatOx Inlet SP (Ox Panel)	647	647	°F
CatOx Outlet SP (Ox Panel)	650	653	°F
Inf 1 Conc	744	801	ppmv
Inf 2 Conc	399	422	ppmv
Eff Conc	12.1	9.71	ppmv

AS FIELD READINGS

	Arrival	Departure	
Pre Heat Exchanger Temp	170	170	°F
Post Heat Exchanger Temp	75	75	°F
Discharge Press	7	7	psi

Operational AS Wells:

706 Harrison	726 Harrison
<input type="checkbox"/> SP-3	<input checked="" type="checkbox"/> AS-10
<input type="checkbox"/> SP-5	<input type="checkbox"/> AS-11
<input checked="" type="checkbox"/> AS-7	<input checked="" type="checkbox"/> AS-12
<input checked="" type="checkbox"/> AS-8	<input checked="" type="checkbox"/> AS-13
<input checked="" type="checkbox"/> AS-9	<input type="checkbox"/> AS-14
	<input type="checkbox"/> AS-1
	<input checked="" type="checkbox"/> AS-2
	<input checked="" type="checkbox"/> AS-3
	<input checked="" type="checkbox"/> AS-4
	<input type="checkbox"/> AS-5
	<input checked="" type="checkbox"/> AS-6

Operational SVE Wells:

706 Harrison	726 Harrison
<input checked="" type="checkbox"/> VW-3	<input type="checkbox"/> VW-5
<input type="checkbox"/> VW-4	<input checked="" type="checkbox"/> VE-3
	<input checked="" type="checkbox"/> VE-4

Equipment

	Make	Model	Calibrated to:
FID/PID (circle one)	MINIRAE	3000	Hexane
Velocicalc	TSI	9565	—

Notes:

- Velocicalc didn't give me manifold flow readings/line out
- Destruction Efficiency at 98.7% outlet <10

COMPLIANCE CHECKLIST

- Permits onsite
- System in proper working condition
- Records maintained onsite (OMM log)
- Monthly SVE sampling
- Vaults are secure
- Compound is secure
- AS/SVE system alarms tested
- Effluent flowrate <300 SCFM
- Oxidizer temperature >600 deg F
- CatOx Destruction Efficiency measured as hexane (check one)
 - 98.5% if inlet ≥2000 ppmv
 - 97% if inlet <2000 ppmv and ≥200 ppmv
 - 90% if inlet <200 ppmv
 - No requirement if outlet is <10 ppmv

DATA SHEETS & LOGS COMPLETED

- SVE Well Operational Data
- AS Well Operational Data
- Other _____

Date and Time	Well ID	% Depth	Temp (F)	Flowrate (cm)	PID (ppm)	Manifold Vacuum (in WC)	Relative Humidity (%)	Comments
726 HARRISON STREET								
01-04-19 / 1215	VE-3		61.7		1341	58	42.1	
			63.1			55	39.7	
			63.7			51	40.2	
01-04-19 / 1217	VE-4		64.5		1242	54	44.3	
			65.4			54	42.4	
			64.4			49	41.4	
706 HARRISON STREET								
01-04-19 / 1219	VE-5		63.1		345	59	41.4	
			63.7			53	40.1	
			63.7			40	42.6	
01-04-19 / 1221	VW-3		62.2		402	53	38.7	
			64.4			52	39.1	
			65.6			40/48	40.3	
	VW-4							
	VW-5							

Note: Multiple rounds of readings are not necessarily required, but extra fields are provided to do so.

Technician Zac Matloch
 Date 01-04-19

Date and Time	Valve #	Well ID	Valve Position	Flow (cfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Comments
---------------	---------	---------	----------------	------------	-------------------------	-------------------------	----------

726 HARRISON STREET

01-04-19	1202	AS-1	Open	4	8.5	8	
	1202	AS-2	Open	4	8.5	9	
	1203	AS-3	Open	4	8.5	8.5	
	1204	AS-4	Open	5.5	7.5	8.5	
	1205	AS-5	OFF				
	1206	AS-6	Open	4	8.5	6	

706 HARRISON STREET

01-04-19	1208	AS-7	Open	4	8	9	
	1208	AS-8	Open	broken	8.5	8	
	1209	AS-9	Open	4	7.5	7	
	1209	AS-10	Open	4	7.5	7	
	1209	AS-11	off				
	1211	AS-12	Open	4	7.5	7	
		AS-13	off				
		AS-14	off				
		SP-3	off				
		SP-4	off				
		SP-5	off				

Technician

Zac Matlock

Date

01-04-19

Date and Time	Valve #	Well ID	Valve Position	Flow (cfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Comments
726 HARRISON STREET							
01-15-14	1215	AS-1	OPEN	4	7	7	
	1216	AS-2	OPEN	4	8	8	
	1217	AS-3	OPEN	5	7	7	
	1218	AS-4	OPEN	8	8	8	
	1219	AS-5	OFF	—————			
↓	1220	AS-6	OPEN	4	8	5	
706 HARRISON STREET							
01-15-14	1221	AS-7	OPEN	4	8	8	
	1222	AS-8	OPEN	4	7	7	
	1223	AS-9	OPEN	4	7	6	
	1224	AS-10	OPEN	4	6	7	
	1225	AS-11	OFF	—————			
	1226	AS-12	OPEN	4	5	6	
	1227	AS-13	OFF	—————			
	1228	AS-14	↓	—————			
	1229	SP-3	↓	—————			
	1230	SP-4	↓	—————			
↓	1231	SP-5	↓	—————			

Technician _____
 Date _____

Date and Time	Well ID	% Depth	Temp (F)	Flowrate (cfs)	PID (ppm)	Manifold Vacuum (in WC)	Relative Humidity (%)	Comments
726 HARRISON STREET								
1330 01-15-19	VE-3	100	59.9			50	52.1	40.5 WC''
1345		↓	60.4			45	47.7	
1333 01-15-19	VE-4	100	60.1			50	53.4	40.9 WC''
1348		↓	60.2			45	49.6	
706 HARRISON STREET								
1337 01-15-19	VE-5	100	61.2			45	52.7	38.7 WC''
1356		↓	61.1			45	49.1	
1340 01-15-19	VW-3	100	61.3			45	53.9	10.5 WC''
1352		↓	62.1			45	50.3	
Closed	VW-4	_____						
Closed	VW-5	_____						

Note: Multiple rounds of readings are not necessarily required, but extra fields are provided to do so.

Technician Zac Matlock
Date 01-15-19

* Too much water for PID / flowrate readings.

SITE MAINTENANCE SCOPE OF WORK

PM Thomas Kendig Project # B0047339
 Engineer Jesse Brockman Weather, wind velocity/direction, temperature
 Technician 48°F Sunny
 Date 02-05-19 Arrival Time 1000 Departure Time ~~1400~~ 1300 1320

WORK TASKS TO BE COMPLETED

- ✓ Review HASP, conduct tailgate, and discuss SOW with Engineer
- ✓ Report any unusual situations
- ✓ Review OM&M plan and document visit in site entry log
- ✓ Calibrate PID and/or FID
- Perform maintenance and alarm testing per schedule and document items performed
- ✓ Collect system data readings and confirm permit conditions as follows:
 - Collect AS/SVE system readings in SVE System and AS System (in OM&M plan)
 - Record relevant data into system summary below and confirm permit compliance
 - Collect AS/SVE monitoring data on appropriate form if requested by Engineer
 - Collect response well data if requested by Engineer
- ✓ Review Compliance Checklist
- ✓ Call Thomas Kendig or Jesse Brockman

SUMMARY OF SYSTEM STATUS AND COMPLIANCE READINGS

SYSTEM SCREEN READINGS

	Arrival	Departure	
SVE Status	On	On	on/off
AS Status	On	On	on/off
Alarms	None	None	
VFD-1 Speed	40	40	Hz
VFD-1 Hours	2742	2746	hrs.
VFD-2 Speed	N/A	N/A	Hz
VFD-2 Hours			hrs.
AC Hours			hrs.
Electric Service Meter	↓	↓	kwh

SVE FIELD READINGS

	Arrival	Departure	
Manifold/Inf 1 Flow (Header)	139	144	acfm
Manifold/Inf 1 Temp (Header)	60.1	61.4	°F
Manifold/Inf 1 Vac (Header)			inWC
Inf 1 Vac (Gauge)	4.5	4.5	inHg
Man. Dil. (Valve Turns/12)	85	85	% open
B-1 Vac (Blower Inlet)	4.5	4.5	inHg
B-2 Vac (Blower Inlet)	N/A	N/A	inHg
Inf 2 Flow (FIT102)	170.13	170.58	scfm
Inf 2 Temp (TIT102)	106.34	108.84	°F
Inf 2 Press (PIT102)	9.06	8.89	inWC
CatOx Inlet Temp (TIT201)	646	650	°F
CatOx Outlet Temp (TIT202)	630	633	°F
CatOx Inlet SP (Ox Panel)	653	650	°F
CatOx Outlet SP (Ox Panel)	643	644	°F
Inf 1 Conc	201.4	205.1	ppmv
Inf 2 Conc	604.4	609.4	ppmv
Eff Conc	0.0	0.0	ppmv

AS FIELD READINGS

	Arrival	Departure	
Pre Heat Exchanger Temp	160	160	°F
Post Heat Exchanger Temp	65	65	°F
Discharge Press	7	7	psi

Operational AS Wells:

706 Harrison		726 Harrison
□ SP-3	✓ AS-10	✓ AS-1
□ SP-5	□ AS-11	✓ AS-2
✓ AS-7	✓ AS-12	✓ AS-3
✓ AS-8	✓ AS-13	✓ AS-4
✓ AS-9	□ AS-14	□ AS-5
		✓ AS-6

Operational SVE Wells:

706 Harrison		726 Harrison
□ VW-3	□ VW-5	□ VE-3
□ VW-4	□ VE-5	□ VE-4

Equipment

	Make	Model	Calibrated to:
FID/PID (circle one)	MRAE	3000	Hex
Velocicalc	TSL	9565	

Notes:
 * Water level at VW-3 elevated!
 I turn vac off on system & let
 drain for 30 minutes before increasing
 VAC on system.

COMPLIANCE CHECKLIST

- ✓ Permits onsite
- ✓ System in proper working condition
- ✓ Records maintained onsite (OMM log)
- ✓ Monthly SVE sampling
- ✓ Vaults are secure
- ✓ Compound is secure
- AS/SVE system alarms tested
- ✓ Effluent flowrate <300 SCFM
- ✓ Oxidizer temperature >600 deg F
- CatOx Destruction Efficiency measured as hexane(check one)
 - 98.5% if inlet ≥2000 ppmv
 - ✓ 97% if inlet <2000 ppmv and ≥200 ppmv
 - 90% if inlet <200 ppmv
 - ✓ No requirement if outlet is <10 ppmv

DATA SHEETS & LOGS COMPLETED

- ✓ SVE Well Operational Data
- ✓ AS Well Operational Data
- Other _____

Date and Time	Well ID	% Open	Temp (F)	Flowrate (cfm)	PID (ppm)	Manifold Vacuum (in WC)	Relative Humidity (%)	Comments
726 HARRISON STREET								
1100/02-05-19	VE-3	100	57.1	*	*	58	51.4	35.5 WC / 44 WC
1200		↓	58.4	↓	↓	58	50.9	
1302			59.3	↓	↓	58	52.2	
1102/02-05-19	VE-4	100	57.7			55	46.1	39.5 WC / 40 WC
1202		↓	58.3	↓	↓	55	49.4	
1304		↓	59.4	↓	↓	55	50.1	
706 HARRISON STREET								
1104/02-05-19	VE-5	100	56.1	*	*	50		40 WC / 44 WC
1204		↓	57.9	↓	↓	60		
1306		↓	58.1	↓	↓	50		
1106/02-05-19	VW-3	100	57.4			20	65.4	Site plus 75% full at VW-3 manifold
1206		↓	58.9	↓	↓	22	67.1	
1308			60.1	↓	↓	28	68.4	
Closed	VW-4	_____						
Closed	VW-5	_____						

UAC / Well head

10.5 WC / 18 WC

Note: Multiple rounds of readings are not necessarily required, but extra fields are provided to do so

Technician Zac Matlock
 Date 02-05-19

* To much H₂O for PID/Flow readings

Date and Time	Time Time	Well ID	Valve Position	Flow (cfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Comments
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726 HARRISON STREET

02-05-19	1210	AS-1	OPEN	5	7	6	
↓	1214	AS-2	OPEN	5	7	8	
	1218	AS-3	OPEN	5	7	6	
	1222	AS-4	OPEN	8	8	8	
	1226	AS-5	OFF	—	—	—	
	1230	AS-6	OPEN	5	9	5	

706 HARRISON STREET

02-05-19	1234	AS-7	OPEN	5	9	8		
↓	1238	AS-8	OPEN	5	6	6		
	1240	AS-9	OPEN	5	6	6		
	1242	AS-10	OPEN	5	7	7		
	1246	AS-11	OFF	—	—	—		
	1250	AS-12	OPEN	5	6	5		
	closed	AS-13	OFF	—	—	—		
			AS-14	↓	—	—	—	
			SP-3	↓	—	—	—	
			SP-4	↓	—	—	—	
			SP-5	↓	—	—	—	

Technician

Zac Matlock

Date

02-05-19

SITE MAINTENANCE SCOPE OF WORK

PM Thomas Kendig Project # B0047339
 Engineer Jesse Brockman Weather, wind velocity/direction, temperature
 Technician 60 F Rainy
 Date 02-26-19 Arrival Time 0900 Departure Time _____

WORK TASKS TO BE COMPLETED

- ✓ Review HASP, conduct tailgate, and discuss SOW with Engineer
- ✓ Report any unusual situations
- ✓ Review OM&M plan and document visit in site entry log
- ✓ Calibrate PID and/or FID
- ✓ Perform maintenance and alarm testing per schedule and document items performed
- ✓ Collect system data readings and confirm permit conditions as follows:
 - Collect AS/SVE system readings in SVE System and AS System (in OM&M plan)
 - Record relevant data into system summary below and confirm permit compliance
 - Collect AS/SVE monitoring data on appropriate form if requested by Engineer
 - Collect response well data if requested by Engineer
- ✓ Review Compliance Checklist
- ✓ Call Thomas Kendig or Jesse Brockman

SUMMARY OF SYSTEM STATUS AND COMPLIANCE READINGS

SYSTEM SCREEN READINGS

	Arrival	Departure	
SVE Status	ON	ON	on/off
AS Status	OFF	ON	on/off
Alarms	E-stop	N/A	
VFD-1 Speed	40	40	Hz
VFD-1 Hours	2951	2955	hrs.
VFD-2 Speed	N/A	N/A	Hz
VFD-2 Hours			hrs.
AC Hours			hrs.
Electric Service Meter			kwh

SVE FIELD READINGS

	Arrival	Departure	
Manifold/Inf 1 Flow (Header)	149	150	acfm
Manifold/Inf 1 Temp (Header)	64.1	65.0	°F
Manifold/Inf 1 Vac (Header)	—	—	inWC
Inf 1 Vac (Gauge)	4.5	4.5	inHg
Man. Dil. (Valve Turns/12)	85	85	% open
B-1 Vac (Blower Inlet)	4.5	4.5	inHg
B-2 Vac (Blower Inlet)	—	—	inHg
Inf 2 Flow (FIT102)	170	168	scfm
Inf 2 Temp (TIT102)	118	120	°F
Inf 2 Press (PIT102)	10.6	10.17	inWC
CatOx Inlet Temp (TIT201)	646	644	°F
CatOx Outlet Temp (TIT202)	633	634	°F
CatOx Inlet SP (Ox Panel)	651	651	°F
CatOx Outlet SP (Ox Panel)	639	640	°F
Inf 1 Conc	187.5	192.1	ppmv
Inf 2 Conc	594.1	604.9	ppmv
Eff Conc	0.0	0.0	ppmv

AS FIELD READINGS

	Arrival	Departure	
Pre Heat Exchanger Temp		160	°F
Post Heat Exchanger Temp		65	°F
Discharge Press		8	psi

Operational AS Wells:

706 Harrison	726 Harrison
<input type="checkbox"/> SP-3	<input checked="" type="checkbox"/> AS-10
<input type="checkbox"/> SP-5	<input checked="" type="checkbox"/> AS-11
<input checked="" type="checkbox"/> AS-7	<input checked="" type="checkbox"/> AS-12
<input checked="" type="checkbox"/> AS-8	<input checked="" type="checkbox"/> AS-13
<input checked="" type="checkbox"/> AS-9	<input type="checkbox"/> AS-14
	<input checked="" type="checkbox"/> AS-5
	<input checked="" type="checkbox"/> AS-6

Operational SVE Wells:

706 Harrison	726 Harrison
<input checked="" type="checkbox"/> VW-3	<input checked="" type="checkbox"/> VE-3
<input type="checkbox"/> VW-4	<input checked="" type="checkbox"/> VE-4
<input type="checkbox"/> VW-5	
<input checked="" type="checkbox"/> WE-5	

Equipment

	Make	Model	Calibrated to:
FID/PID (circle one)	MRAE	3000	Hex
Velocicalc	TSE	9565	

Notes:

AS system was off due to a E-stop alarm dated the 18th of February. [1239 pm]
 Oil Levels good on blowers / pumped
 increased into bearings
 DRAINED 10 tank into drum.
 - 10 tank was 10% full
 - Drum is 85% full

COMPLIANCE CHECKLIST

- ✓ Permits onsite
- ✓ System in proper working condition
- ✓ Records maintained onsite (OMM log)
 - Monthly SVE sampling
 - Vaults are secure
 - Compound is secure
 - AS/SVE system alarms tested
- ✓ Effluent flowrate <300 SCFM
- ✓ Oxidizer temperature >600 deg F
- ✓ CatOx Destruction Efficiency measured as hexane(check one)
 - 98.5% if inlet ≥2000 ppmv
 - ✓ 97% if inlet <2000 ppmv and ≥200 ppmv
 - 90% if inlet <200 ppmv
 - ✓ No requirement if outlet is <10 ppmv

DATA SHEETS & LOGS COMPLETED

- ✓ SVE Well Operational Data
- ✓ AS Well Operational Data
- Other _____

Date and Time	Valve #	Well ID	Valve Position	Flow (cfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Comments
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726 HARRISON STREET

02-26-19	1040	AS-1	OPEN	5	8	6	
	1042	AS-2	OPEN	5	8	8	
	1046	AS-3	OPEN	6	8	5	
	1050	AS-4	OPEN	7	8	6	
	—	AS-5	Closed	—————			
	1053	AS-6	OPEN	6	10	5	

706 HARRISON STREET

02-26-19	1057	AS-7	OPEN	5	8	8	
	1101	AS-8	OPEN	5	6	5	
	1105	AS-9	OPEN	5	6	5	
	1110	AS-10	OPEN	5	8	6	
	—	AS-11	Closed	—————			
	1115	AS-12	OPEN	5	6	5	
	—	AS-13	Closed	—————			
	—	AS-14	↓	—————			
	—	SP-3	↓	—————			
	—	SP-4	↓	—————			
	—	SP-5	↓	—————			
				—————			

Technician Zac Matlock
 Date 02-26-19

Date and Time	Well ID	% Open	Temp (F)	Flowrate (cfm)	PID (ppm)	Manifold Vacuum (in WC)	Relative Humidity (%)	VAC @ Wellhead
726 HARRISON STREET								
02-26-19 1000	VE-3	100	60.4	*	*	44	49.5	
1030		100	61.5			44	49.6	
1130		100	61.8			44	50.4	30" WC
1001	VE-4	100	58.9			45	54.9	
1031		100	59.1			45	54.5	
1131		100	59.5	✓	✓	45	56.6	35" WC
706 HARRISON STREET								
1002	VE-5	100	57.1	*	*	28	65.1	
1032		100	57.8			30	66.1	
1132		100	57.9			28	67.4	22" WC
1003	VW-3	100	58.4			40	69.9	
1033		100	58.8			40	70.1	
1133		100	59.5	✓	✓	40	70.4	30" WC
Closed	VW-4							
Closed	VW-5							

Note: Multiple rounds of readings are not necessarily required, but extra fields are provided to do so.

Technician Zac Matlock
 Date 02-26-19

SITE MAINTENANCE SCOPE OF WORK

PM Thomas Kendig Project # B0047339
 Engineer Jesse Brockman Weather, wind velocity/direction, temperature Sunny 490F
 Technician Date 03-11-19 Arrival Time 0900 Departure Time 1200

WORK TASKS TO BE COMPLETED

- Review HASP, conduct tailgate, and discuss SOW with Engineer
 - Report any unusual situations
 - Review OM&M plan and document visit in site entry log
 - Calibrate PID and/or FID
 - Perform maintenance and alarm testing per schedule and document items performed
 - Collect system data readings and confirm permit conditions as follows:
 - Collect AS/SVE system readings in SVE System and AS System (in OM&M plan)
 - Record relevant data into system summary below and confirm permit compliance
 - Collect AS/SVE monitoring data on appropriate form if requested by Engineer
 - Collect response well data if requested by Engineer
 - Review Compliance Checklist
- Call Thomas Kendig or Jesse Brockman

SUMMARY OF SYSTEM STATUS AND COMPLIANCE READINGS

SYSTEM SCREEN READINGS

	Arrival	Departure	
SVE Status	OFF	On	on/off
AS Status	OFF	On	on/off
Alarms		N/A	
VFD-1 Speed		40	Hz
VFD-1 Hours		-	hrs.
VFD-2 Speed		N/A	Hz
VFD-2 Hours			hrs.
AC Hours			hrs.
Electric Service Meter			kwh

AS FIELD READINGS

	Arrival	Departure	
Pre Heat Exchanger Temp	OFF	160	°F
Post Heat Exchanger Temp		65	°F
Discharge Press		8	psi

Operational AS Wells:

- | | |
|-------------------------------|--------------------------------|
| 706 Harrison | 726 Harrison |
| <input type="checkbox"/> SP-3 | <input type="checkbox"/> AS-10 |
| <input type="checkbox"/> SP-5 | <input type="checkbox"/> AS-11 |
| <input type="checkbox"/> AS-7 | <input type="checkbox"/> AS-12 |
| <input type="checkbox"/> AS-8 | <input type="checkbox"/> AS-13 |
| <input type="checkbox"/> AS-9 | <input type="checkbox"/> AS-14 |
| | <input type="checkbox"/> AS-1 |
| | <input type="checkbox"/> AS-2 |
| | <input type="checkbox"/> AS-3 |
| | <input type="checkbox"/> AS-4 |
| | <input type="checkbox"/> AS-5 |
| | <input type="checkbox"/> AS-6 |

Operational SVE Wells:

- | | |
|-------------------------------|-------------------------------|
| 706 Harrison | 726 Harrison |
| <input type="checkbox"/> VW-3 | <input type="checkbox"/> VW-5 |
| <input type="checkbox"/> VW-4 | <input type="checkbox"/> VE-5 |
| | <input type="checkbox"/> VE-3 |
| | <input type="checkbox"/> VE-4 |

SVE FIELD READINGS

	Arrival	Departure	
Manifold/Inf 1 Flow (Header)	OFF	ON	acfm 188
Manifold/Inf 1 Temp (Header)		63.7	°F
Manifold/Inf 1 Vac (Header)			inWC
Inf 1 Vac (Gauge)		5	inHg
Man. Dil. (Valve Turns/12)		85	% open
B-1 Vac (Blower Inlet)		5	inHg
B-2 Vac (Blower Inlet)		-	inHg
Inf 2 Flow (FIT102)		171	scfm
Inf 2 Temp (TIT102)		110.42	°F
Inf 2 Press (PIT102)		12	inWC
CatOx Inlet Temp (TIT201)		624	°F
CatOx Outlet Temp (TIT202)		620	°F
CatOx Inlet SP (Ox Panel)		640	°F
CatOx Outlet SP (Ox Panel)		600	°F
Inf 1 Conc		375	ppmv
Inf 2 Conc		415	ppmv
Eff Conc		0.0	ppmv

Equipment

	Make	Model	Calibrated to:
FID/PID (circle one)	Mini RAE	3000	Heane
Velocicalc	TSE	8360	

Notes:

COMPLIANCE CHECKLIST

- Permits onsite
- System in proper working condition
- Records maintained onsite (OMM log)
- Monthly SVE sampling
- Vaults are secure
- Compound is secure
- AS/SVE system alarms tested
- Effluent flowrate <300 SCFM
- Oxidizer temperature >600 deg F
- CatOx Destruction Efficiency measured as hexane(check one)
 - 98.5% if inlet ≥2000 ppmv
 - 97% if inlet <2000 ppmv and ≥200 ppmv
 - 90% if inlet <200 ppmv
 - No requirement if outlet is <10 ppmv

DATA SHEETS & LOGS COMPLETED

- SVE Well Operational Data
- AS Well Operational Data
- Other

Date and Time	Well ID	% Open	Temp (F)	Flowrate (CFM)	PID (ppm)	Manifold Vacuum (in WC)	Relative Humidity (%)	Comments	
726 HARRISON STREET									
3-11-19 1045	VE-3	100	56	218	—	30	75.6	20 WH 5" Hg Manifold	
1110		100	52.2	218	—	38	85.7	4" Hg Manifold	
3-11-19 1050	VE-4	100	49.6	218	—	60	72	35 WH 5" Hg Manifold	
		100	49.1	218	—	58	64	4" Hg Manifold	
								25	
706 HARRISON STREET									
3-11-19 1055	VE-5	100	50.4	218	—	24	73.5	20 WH 5" Hg Manifold	
		100	58.4	218	—	25	0%	4" Hg Manifold	
3-11-19 1100	VW-3	100	50.6	218	—	20	72.6	20 WH 5" Hg Manifold	
		100	45.4	218	—	25	0	4" Hg Manifold	
								24	
Closed	VW-4	_____							
↓		_____							
Closed	VW-5	_____							
↓		_____							

Note: Multiple rounds of readings are not necessarily required but extra fields are provided to do so

Technician Zac Matlock
 Date 03-11-19

WH = Well head

Hg" manifold = system vac

218 CFM is as high as the meter goes

Date and Time	Valve #	Well ID	Valve Position	Flow (cfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Comments
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726 HARRISON STREET

03-11-19	0950	AS-1	Open	5	8	6	
	0953	AS-2	Open	5	8	8	
	0955	AS-3	Open	6	10	5	
	0958	AS-4	Open	7	8	5	
	1001	AS-5	Closed				
↓	1005	AS-6	Open	6	10	5	

706 HARRISON STREET

03-11-19	1008	AS-7	Open	5	8	7	
	1011	AS-8	Open	6	5	5	
	1014	AS-9	Open	5	5	4	
	1018	AS-10	Open	5	7	6	
	—	AS-11	Closed				
	1022	AS-12	open	5	6	5	
	—	AS-13	Closed				
	—	AS-14					
	—	SP-3					
	—	SP-4					
↓	—	SP-5	↓				

Technician

Zac Matlock

Date

03-11-19

SITE MAINTENANCE SCOPE OF WORK

AS/SVE
Former Unocal Service Station No. 00752
706/726 Harrison Street, Oakland, California

Notes continue on other sheets
bennit noo 2010/1
no introduction no plot in room
UM99 82 to life b.w



SITE MAINTENANCE SCOPE OF WORK

PM Thomas Kendig Project # B0047339
 Engineer Jesse Brockman Weather, wind velocity/direction, temperature
 Technician Zee Matlock 64°F Cloudy
 Date Arrival Time 0900 Departure Time 1300

WORK TASKS TO BE COMPLETED

- Review HASP, conduct tailgate, and discuss SOW with Engineer
- Report any unusual situations
- Review OM&M plan and document visit in site entry log
- Calibrate PID and/or FID
- Perform maintenance and alarm testing per schedule and document items performed
- Collect system data readings and confirm permit conditions as follows:
 - Collect AS/SVE system readings in SVE System and AS System (in OM&M plan)
 - Record relevant data into system summary below and confirm permit compliance
 - Collect AS/SVE monitoring data on appropriate form if requested by Engineer
 - Collect response well data if requested by Engineer
- Review Compliance Checklist
- Call Thomas Kendig or Jesse Brockman

SUMMARY OF SYSTEM STATUS AND COMPLIANCE READINGS

SYSTEM SCREEN READINGS

	Arrival	Departure	
SVE Status	ON	ON	on/off
AS Status	ON	ON	on/off
Alarms	N/A	N/A	
VFD-1 Speed	40	40	Hz
VFD-1 Hours	-	-	hrs.
VFD-2 Speed	N/A	N/A	Hz
VFD-2 Hours	-	-	hrs.
AC Hours	-	-	hrs.
Electric Service Meter	↓	↓	kwh

SVE FIELD READINGS

	Arrival	Departure	
Manifold/Inf 1 Flow (Header)	185	180	acfm
Manifold/Inf 1 Temp (Header)	61.4	63.1	°F
Manifold/Inf 1 Vac (Header)	-	-	inWC
Inf 1 Vac (Gauge)	5.0	4.0	inHg
Man. Dil. (Valve Turns/12)	80	85	% open
B-1 Vac (Blower Inlet)	85	84	inHg
B-2 Vac (Blower Inlet)	-	-	inHg
Inf 2 Flow (FIT102)	190	181	scfm
Inf 2 Temp (TIT102)	109.12	113.1	°F
Inf 2 Press (PIT102)	12	12	inWC
CatOx Inlet Temp (TIT201)	634	640	°F
CatOx Outlet Temp (TIT202)	651	650	°F
CatOx Inlet SP (Ox Panel)	656	660	°F
CatOx Outlet SP (Ox Panel)	641	646	°F
Inf 1 Conc	2.2	7.1	ppmv
Inf 2 Conc	1.9	68.9	ppmv
Eff Conc	0.0	0.1	ppmv

AS FIELD READINGS

	Arrival	Departure	
Pre Heat Exchanger Temp	160	160	°F
Post Heat Exchanger Temp	65	65	°F
Discharge Press	8	8	psi

Operational AS Wells:

706 Harrison	726 Harrison
<input type="checkbox"/> SP-3	<input checked="" type="checkbox"/> AS-10
<input type="checkbox"/> SP-5	<input type="checkbox"/> AS-11
<input checked="" type="checkbox"/> AS-7	<input checked="" type="checkbox"/> AS-12
<input checked="" type="checkbox"/> AS-8	<input checked="" type="checkbox"/> AS-13
<input checked="" type="checkbox"/> AS-9	<input type="checkbox"/> AS-14
	<input checked="" type="checkbox"/> AS-1
	<input checked="" type="checkbox"/> AS-2
	<input checked="" type="checkbox"/> AS-3
	<input checked="" type="checkbox"/> AS-4
	<input type="checkbox"/> AS-5
	<input checked="" type="checkbox"/> AS-6

Operational SVE Wells:

706 Harrison	726 Harrison
<input checked="" type="checkbox"/> VW-3	<input checked="" type="checkbox"/> VE-3
<input type="checkbox"/> VW-4	<input checked="" type="checkbox"/> VE-4
<input type="checkbox"/> VW-5	

Equipment

	Make	Model	Calibrated to:
FID/PID (circle one)	MRAE	3000	Hex
Velocicalc	TSI	9565	

Notes: H2O 80% to 90% at manifold upon arrival.
 • Turned vac to 0 Hg to draw H2O
 • After 20 min increased Hg to 2" still 53 PPMU at INF 1 & 2
 • Adjust VAC to 3" Hg / Sampled after 20 minutes / still 53 PPMU at INF 1 & INF 2

COMPLIANCE CHECKLIST

- Permits onsite
- System in proper working condition
- Records maintained onsite (OMM log)
 - Monthly SVE sampling
- Vaults are secure
- Compound is secure
- AS/SVE system alarms tested
- Effluent flowrate <300 SCFM
- Oxidizer temperature >600 deg F
- CatOx Destruction Efficiency measured as hexane (check one)
 - 98.5% if inlet ≥2000 ppmv
 - 97% if inlet <2000 ppmv and ≥200 ppmv
 - 90% if inlet <200 ppmv
 - No requirement if outlet is <10 ppmv

DATA SHEETS & LOGS COMPLETED

- SVE Well Operational Data
- AS Well Operational Data
- Other _____

Further notes → 1 of 2

* Notes continued

- Checked ppmv concentrations just after manifold on horizontal line and still at < 3 ppmv.

- Went to each wellhead and "burped" the lines which increased vac at the manifold, increasing ppmv concentrations. [see field forms]

Date and Time	Time	Well ID	Valve Position	Flow (cfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Comments
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726 HARRISON STREET

03-25-19 ↓	1030	AS-1	Open	5	9	6	
	1033	AS-2	Open	5	9	8	
	1037	AS-3	Open	6	10	6	
	1040	AS-4	Open	7	9	6	
	—	AS-5	Closed	←—————→			
	1045	AS-6	Open	6	10	5	

706 HARRISON STREET

3-25-19 ↓	1048	AS-7	Open	5	8	7	
	1052	AS-8	Open	6	5	5	
	1056	AS-9	Open	5	5	4	
	1100	AS-10	Open	5	7	5	
	—	AS-11	Closed	←—————→			
	1101	AS-12	Open	5	6	4	
	—	AS-13	Closed	←—————→			
	—	AS-14	↓	←—————→			
	—	SP-3	↓	←—————→			
	—	SP-4	↓	←—————→			
—	SP-5	↓	←—————→				

Technician

Zac Matlock

Date

03-25-19

Date and Time	Well ID	% Open	Temp (F)	Flowrate (cfm)	PID (ppm)	Manifold Vacuum (in WC)	Relative Humidity (%)	Comments
726 HARRISON STREET								
03-25-19	VE-3	100	51.4	—	—	40	80.1	0905 25" WC @ Well
		↓	50.1	—	—	40	60.4	1100 PPMU 471.1
		↓	49.6	—	—	45	61.4	1200
03-25-19	VE-4	100	53.1	—	—	42	84.1	0905 30" WC @ Well
		↓	52.9	—	—	38	61.8	1110 PPMU 613.9
		↓	51.7	—	—	45	62.3	1200
706 HARRISON STREET								
03-25-19	VE-5	100	54.1	—	—	39	83.9	0905 30" WC @ Well
		↓	53.4	—	—	37	57.3	1110 PPMU 413.3
		↓	52.9	—	—	45	60.4	1200
03-25-19	VW-3	100	54.5	—	—	22	85.4	0905 10" WC @ Well
		↓	53.6	—	—	20	65.0	1110 PPMU 244.4
		↓	51.4	—	—	25	66.6	1200
Closed	VW-4							
Closed	VW-5							

Note: Multiple rounds of readings are not necessarily required, but extra fields are provided to do so

Technician Zac Matlock
 Date 03-25-19

ATTACHMENT 2

Laboratory Analytical Reports and Chain-of-Custody Documentation





Date of Report: 12/27/2018

Thomas Kendig

Arcadis- San Jose

6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Client Project: 351646
BCL Project: 0752
BCL Work Order: 1839611
Invoice ID: B326453

Enclosed are the results of analyses for samples received by the laboratory on 12/19/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Laboratories, Inc.

Environmental Testing Laboratory Since 1949

Chain of Custody

ANALYSIS REQUESTED

4100 Atlas Court Bakersfield, Ca. 93308 (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

18-39611

TEMP: _____

Phone * 5035398680 FAX * R: thomas.kendig@arcadis.com

Report Attention * Thomas Kendig

Address * 2300 Clayton Road Suit 400 Concord CA 94520

City * Concord State * CA Zip * 94520

Project Information: 351646 706 Harrison Street Oakland

How would you like your completed results sent? [x] E-Mail [] Fax [x] EDD [] Mail Only

QC Request [] STD [] Level II [x] STD [] 5 Day** [] Day**

Matrix Types: RSW - Raw Surface Water, RCW - Raw Ground Water, CFW - Chlorinated Finished Water, CWW - Chlorinated Waste Water, BW - Bottled Water, FW - Finished Water, WW - Waste Water, SW - Storm Water, DW - Drinking Water, SO - Solid

Carbons Copies: CDMS [] Fresno Co [] RPA [] Merced Co [] Tulare Co [] Other: []

Regulatory Compliance Electronic Data Transfer: Y [] N []

Comments / Station Code

Received by: (Signature and Print Name) [Signature] Arcadis

Received by: (Signature and Print Name) [Signature] Arcadis

Received for Lab by: (Signature and Print Name) [Signature]

Shipping Method: CAO UPS GSO WALK-IN STVC FED EX OTHER

Cooling Method: WET BLUE NONE

Packing Material: [Handwritten]

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 18-39611

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S _____

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO Emissivity: _____ Container: Kedon Thermometer ID: _____ Date/Time: 12-19-21-40

Temperature: (A) Room °C / (C) Room °C Analyst Init: EMR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁴										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLURRY										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: Col Date/Time: 12/19/2020

= Actual / C = Corrected

Rev 21 05/23/2016

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 12/27/2018 10:49
Project: 0752
Project Number: 351646
Project Manager: Thomas Kendig

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

1839611-01	COC Number: ---	Receive Date: 12/19/2018 21:40
	Project Number: 351646	Sampling Date: 12/18/2018 12:45
	Sampling Location: ---	Sample Depth: ---
	Sampling Point: EFF-A-181218	Lab Matrix: Air
	Sampled By: ARRC	Sample Type: Vapor or Air
		Delivery Work Order:
		Global ID:
		Location ID (FieldPoint): EFF
		Matrix: AX
		Sample QC Type (SACode): CS
		Cooler ID:

1839611-02	COC Number: ---	Receive Date: 12/19/2018 21:40
	Project Number: 351646	Sampling Date: 12/18/2018 12:48
	Sampling Location: ---	Sample Depth: ---
	Sampling Point: INF-2-A-181218	Lab Matrix: Air
	Sampled By: ARRC	Sample Type: Vapor or Air
		Delivery Work Order:
		Global ID:
		Location ID (FieldPoint): INF-2
		Matrix: AX
		Sample QC Type (SACode): CS
		Cooler ID:

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 12/27/2018 10:49
Project: 0752
Project Number: 351646
Project Manager: Thomas Kendig

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

BCL Sample ID:	1839611-01	Client Sample Name:	351646, EFF-A-181218, 12/18/2018 12:45:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #	
Benzene	ND	ppbv	5.0		EPA-TO-15	ND	A01	1	
Ethylbenzene	7.8	ppbv	5.0		EPA-TO-15	ND	A01	1	
Methyl t-butyl ether	ND	ppbv	5.0		EPA-TO-15	ND	A01	1	
Toluene	7.0	ppbv	5.0		EPA-TO-15	ND	A01	1	
Total Xylenes	39	ppbv	10		EPA-TO-15	ND	A01	1	
TPH - Gasoline	1200	ppbv	500		EPA-TO-15	ND	A01	1	
4-Bromofluorobenzene (Surrogate)	87.6	%	70 - 130 (LCL - UCL)		EPA-TO-15			1	

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-TO-15	12/20/18 08:14	12/20/18 18:33	BEP	MS-A1	10	B033428

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 12/27/2018 10:49
Project: 0752
Project Number: 351646
Project Manager: Thomas Kendig

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

BCL Sample ID: 1839611-02	Client Sample Name: 351646, INF-2-A-181218, 12/18/2018 12:48:00PM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	78	ppbv	50		EPA-TO-15	ND	A01	1
Ethylbenzene	430	ppbv	50		EPA-TO-15	ND	A01	1
Methyl t-butyl ether	ND	ppbv	50		EPA-TO-15	ND	A01	1
Toluene	ND	ppbv	50		EPA-TO-15	ND	A01	1
Total Xylenes	2000	ppbv	100		EPA-TO-15	ND	A01	1
TPH - Gasoline	140000	ppbv	100000		EPA-TO-15	ND	A01	2
4-Bromofluorobenzene (Surrogate)	114	%	70 - 130 (LCL - UCL)		EPA-TO-15			1
4-Bromofluorobenzene (Surrogate)	71.3	%	70 - 130 (LCL - UCL)		EPA-TO-15			2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-TO-15	12/20/18 08:14	12/21/18 15:14	BEP	MS-A1	100	B033428
2	EPA-TO-15	12/20/18 08:14	12/20/18 20:10	BEP	MS-A1	2000	B033428

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 12/27/2018 10:49
Project: 0752
Project Number: 351646
Project Manager: Thomas Kendig

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B033428						
Benzene	B033428-BLK1	ND	ppbv	0.50		
Ethylbenzene	B033428-BLK1	ND	ppbv	0.50		
Methyl t-butyl ether	B033428-BLK1	ND	ppbv	0.50		
Toluene	B033428-BLK1	ND	ppbv	0.50		
Total Xylenes	B033428-BLK1	ND	ppbv	1.0		
TPH - Gasoline	B033428-BLK1	ND	ppbv	50		
4-Bromofluorobenzene (Surrogate)	B033428-BLK1	96.5	%		70 - 130 (LCL - UCL)	

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 12/27/2018 10:49
Project: 0752
Project Number: 351646
Project Manager: Thomas Kendig

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab	Quals
								Percent Recovery	RPD		
QC Batch ID: B033428											
Benzene	B033428-BS1	LCS	4.8390	5.0000	ppbv	96.8		70 - 130			
	B033428-BSD1	LCSD	4.7590	5.0000	ppbv	95.2	1.7	70 - 130	30		
Ethylbenzene	B033428-BS1	LCS	5.8730	5.0000	ppbv	117		70 - 130			
	B033428-BSD1	LCSD	5.5940	5.0000	ppbv	112	4.9	70 - 130	30		
Toluene	B033428-BS1	LCS	5.4220	5.0000	ppbv	108		70 - 130			
	B033428-BSD1	LCSD	5.2850	5.0000	ppbv	106	2.6	70 - 130	30		
Total Xylenes	B033428-BS1	LCS	16.896	15.000	ppbv	113		70 - 130			
	B033428-BSD1	LCSD	16.151	15.000	ppbv	108	4.5	70 - 130	30		
4-Bromofluorobenzene (Surrogate)	B033428-BS1	LCS	10.4	10.0	ppbv	104		70 - 130			
	B033428-BSD1	LCSD	10.7	10.0	ppbv	107	2.8	70 - 130			

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 12/27/2018 10:49
Project: 0752
Project Number: 351646
Project Manager: Thomas Kendig

Notes And Definitions

- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A01 Detection and quantitation limits are raised due to sample dilution.



Date of Report: 01/17/2019

Carl Edwards

Arcadis- San Jose

6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Client Project: 351646
BCL Project: 0752
BCL Work Order: 1901798
Invoice ID: B328270

Enclosed are the results of analyses for samples received by the laboratory on 1/16/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Laboratories, Inc.

Environmental Testing Laboratory Since 1949

Chain of Custody

ANALYSIS REQUESTED

4100 Atlas Court Bakersfield, Ca, 93308 (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

TEMP: 19.0 17.98

Required Fields

Client/Company Name: **Arcadis** Report Attention: **Thomas Kendig** Phone: 5035398680 FAX: # E-mail: thomas.kendig@arcadis.com

Address: 2300 Clayton Road Suit 400 Concord CA 94520 State: CA Zip: 94520

Project Information: PO # B0047339.ST16 BCL Queue #

How would you like your completed results sent? E-Mail Fax BDD Mail Only

QC Request STD Level II STD Day** Day**

Sampler Name Printed/Signature: *Zoe Mathew / ZM*

Matrix Types: RSW - Raw Surface Water CFW - Chlorinated Finished Water CWW - Chlorinated Waste Water BW - Bottled Water
 RW - Raw Ground Water FW - Finished Water WW - Waste Water SW - Storm Water DW - Drinking Water SO - Solid

Sample #	# Bottles	Sample Date	Time	Sample Description / Location	Matrix	Comments / Station Code
2		1/19	1400	EFF	Air	Hold DUP Tedlar
2		1/19	1402	INF-2	Air	Hold DUP Tedlar

Relinquished by: (Signature and Printed Name) *Zoe Mathew* Company: Arcadis Date: 1-16-19 Time: 10:55

Received by: (Signature and Printed Name) *Thomas Kendig* Company: Arcadis Date: 1-16-19 Time: 2:30

Received for Lab by: (Signature and Printed Name) *Out for* Company: Arcadis Date: 1-16-19 Time: 2:30

Shipping Method: CAO UPS GSO WALK-IN SVC FEDEX OTHER Packing Method: WET BLUE NONE

Payment Received at Delivery: *ARCADIS DISTRIBUTION*

REC. *1/16/19 2300* REC. *1-16-19 1900 REC. ~~1900~~*

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 1901798

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) _____

FREE LIQUID: YES NO W / S _____

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers Intact? Yes No Intact? Yes No None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO

Emissivity: _____ Container: Tedlar Thermometer ID: _____ Date/Time: 1/16/2300

Temperature: (A) Room °C / (C) TEMP °C Analyst Init: EMC

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁴										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 505/508/509										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: Geo Date/Time: 1/16/2307

A = Actual / C = Corrected

Rev 21 05/23/2016
IS:\WPDoc\Word\Perical\LAB DOC\FRM\USA\AMRF.dwg 2016



Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 01/17/2019 12:46
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

1901798-01	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: EFF Sampled By: ARRC	Receive Date: 01/16/2019 23:00 Sampling Date: 01/15/2019 14:00 Sample Depth: --- Lab Matrix: Air Sample Type: Vapor or Air Delivery Work Order: Global ID: Location ID (FieldPoint): EFF Matrix: AX Sample QC Type (SACode): CS Cooler ID:
-------------------	---	---

1901798-02	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: INF-2 Sampled By: ARRC	Receive Date: 01/16/2019 23:00 Sampling Date: 01/15/2019 14:02 Sample Depth: --- Lab Matrix: Air Sample Type: Vapor or Air Delivery Work Order: Global ID: Location ID (FieldPoint): INF-2 Matrix: AX Sample QC Type (SACode): CS Cooler ID:
-------------------	---	---

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 01/17/2019 12:46
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

BCL Sample ID: 1901798-01	Client Sample Name: 0752, EFF, 1/15/2019 2:00:00PM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Ethylbenzene	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Methyl t-butyl ether	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Toluene	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Total Xylenes	19	ppbv	10		EPA-TO-15	ND	A01	1
TPH - Gasoline	ND	ppbv	500		EPA-TO-15	ND	A01	1
4-Bromofluorobenzene (Surrogate)	93.4	%	70 - 130 (LCL - UCL)		EPA-TO-15			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-TO-15	01/16/19 17:04	01/17/19 09:19	BEP	MS-A2	10	B035132

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 01/17/2019 12:46
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

BCL Sample ID: 1901798-02	Client Sample Name: 0752, INF-2, 1/15/2019 2:02:00PM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ppbv	50		EPA-TO-15	ND	A01	1
Ethylbenzene	59	ppbv	50		EPA-TO-15	ND	A01	1
Methyl t-butyl ether	ND	ppbv	50		EPA-TO-15	ND	A01	1
Toluene	54	ppbv	50		EPA-TO-15	ND	A01	1
Total Xylenes	330	ppbv	100		EPA-TO-15	ND	A01	1
TPH - Gasoline	37000	ppbv	5000		EPA-TO-15	ND	A01	1
4-Bromofluorobenzene (Surrogate)	86.0	%	70 - 130 (LCL - UCL)		EPA-TO-15			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-TO-15	01/16/19 17:04	01/17/19 10:30	BEP	MS-A2	100	B035132

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 01/17/2019 12:46
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B035132						
Benzene	B035132-BLK1	ND	ppbv	0.50		
Ethylbenzene	B035132-BLK1	ND	ppbv	0.50		
Methyl t-butyl ether	B035132-BLK1	ND	ppbv	0.50		
Toluene	B035132-BLK1	ND	ppbv	0.50		
Total Xylenes	B035132-BLK1	ND	ppbv	1.0		
TPH - Gasoline	B035132-BLK1	ND	ppbv	50		
4-Bromofluorobenzene (Surrogate)	B035132-BLK1	91.4	%		70 - 130 (LCL - UCL)	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 01/17/2019 12:46
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B035132										
Benzene	B035132-BS1	LCS	5.1500	5.0000	ppbv	103		70 - 130		
	B035132-BSD1	LCSD	4.9900	5.0000	ppbv	99.8	3.2	70 - 130		30
Ethylbenzene	B035132-BS1	LCS	5.2900	5.0000	ppbv	106		70 - 130		
	B035132-BSD1	LCSD	5.1400	5.0000	ppbv	103	2.9	70 - 130		30
Toluene	B035132-BS1	LCS	4.9600	5.0000	ppbv	99.2		70 - 130		
	B035132-BSD1	LCSD	4.8600	5.0000	ppbv	97.2	2.0	70 - 130		30
Total Xylenes	B035132-BS1	LCS	15.070	15.000	ppbv	100		70 - 130		
	B035132-BSD1	LCSD	15.380	15.000	ppbv	103	2.0	70 - 130		30
4-Bromofluorobenzene (Surrogate)	B035132-BS1	LCS	10.2	10.0	ppbv	102		70 - 130		
	B035132-BSD1	LCSD	10.3	10.0	ppbv	103	1.3	70 - 130		

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 01/17/2019 12:46
Project: 0752
Project Number: 351646
Project Manager: Carl Edwards

Notes And Definitions

- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A01 Detection and quantitation limits are raised due to sample dilution.



Date of Report: 02/08/2019

Thomas Kendig

Arcadis- San Jose

6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Client Project: 351646
BCL Project: 0752
BCL Work Order: 1903889
Invoice ID: B330304

Enclosed are the results of analyses for samples received by the laboratory on 2/6/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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Chain of Custody

4100 Atlas Court Bakersfield, Ca. 93308
(661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

BC LABORATORIES

19-03889

TEMP: _____

Client/Company Name: **Arcadis** Report Attention: **Thomas Kendig** Phone: #5035398680 FAX: # _____
 E-mail: **thomas.kendig@arcadis.com**

Address: **2300 Clayton Road Suit 400 Concord CA 94520** Zip: **94520**
 Project Information: **351646 706 Harrison Street Oakland** PO #: **B0047339.ST16**
 How would you like your completed results sent? E-Mail Fax BIDD Mail Only
 BCL Quote # _____
 Sampler Name Printed / Signature: **Zac Matlock** QC Request STD Level II 5 Day** 2 Day**
 Matrix Types: **RSW = Raw Surface Water CFW = Chlorinated Finished Water CWW = Chlorinated Waste Water BW = Bottled Water**
RCW = Raw Ground Water FW = Finished Water WW = Waste Water SW = Storm Water DW = Drinking Water SO = Solid

Carbons Copies: CDHS Fresco Co EPA
 Muesel Co Tubore Co
 Other: _____
 Regulatory Compliance Electronic Data Transfer: Y N

Sample #	Bottles	Sampled Date	Time	Sample Description / Location	Matrix *	Comments / Station Code
1	2	2-5-19	1308	EFF	Air	Hold DUP Tedlar
2	2	2-5-19	1310	INF-2	Air	Hold DUP Tedlar

Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received by: (Signature and Print Name)	Company
<i>Zac Matlock / Zac Matlock</i>	Arcadis	2-5-19	1415	<i>Thomas Kendig</i>	Arcadis
<i>Thomas Kendig</i>	Arcadis	2/6/19	1155	<i>David Berger</i>	Be/AB
<i>Carst</i>		2/6/19	2230		

Received for Lab by: (Signature and Printed Name) _____ Date _____
 Amount: _____
 Shipping Method: **CAO UPS GSO WALK-IN SVC FED EX OTHER**

Cooling Method: **WET BLUE NONE**
 Packing Material: **7EL Hay Bale 2-6-19 1830 REC-1500**

9941-001-001-000000

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 19-03889

SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> W / S	
---	--	---	--	---	--

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO

Emissivity: _____ Container: Tedlar Thermometer ID: _____ Date/Time: 2/6 2230

Temperature: (A) Room °C / (C) TEMP °C Analyst Init: ENC

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁴⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - 504										
QT EPA 508/608/808										
QT EPA 515, 1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8370										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: ENC Date/Time: 2/6 2235

A = Actual / C = Corrected

Rev 21 05/23/2016
[5:\NFDoc\Word\PerfectLAB COC\FORM\Chain of Custody Form 2016]



Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 02/08/2019 12:07
Project: 0752
Project Number: 351646
Project Manager: Thomas Kendig

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

1903889-01	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: EFF-A-190205 Sampled By: ARRC	Receive Date: 02/06/2019 22:30 Sampling Date: 02/05/2019 13:08 Sample Depth: --- Lab Matrix: Air Sample Type: Vapor or Air Delivery Work Order: Global ID: Location ID (FieldPoint): EFF Matrix: AX Sample QC Type (SACode): CS Cooler ID:
-------------------	--	---

1903889-02	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: INF-2-A-190205 Sampled By: ARRC	Receive Date: 02/06/2019 22:30 Sampling Date: 02/05/2019 13:10 Sample Depth: --- Lab Matrix: Air Sample Type: Vapor or Air Delivery Work Order: Global ID: Location ID (FieldPoint): INF Matrix: AX Sample QC Type (SACode): CS Cooler ID:
-------------------	--	---

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 02/08/2019 12:07
Project: 0752
Project Number: 351646
Project Manager: Thomas Kendig

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

BCL Sample ID: 1903889-01	Client Sample Name: 0752, EFF-A-190205, 2/5/2019 1:08:00PM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Ethylbenzene	5.7	ppbv	5.0		EPA-TO-15	ND	A01	1
Methyl t-butyl ether	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Toluene	ND	ppbv	5.0		EPA-TO-15	ND	A01	1
Total Xylenes	33	ppbv	10		EPA-TO-15	ND	A01	1
TPH - Gasoline	1600	ppbv	500		EPA-TO-15	ND	A01	1
4-Bromofluorobenzene (Surrogate)	84.9	%	70 - 130 (LCL - UCL)		EPA-TO-15			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-TO-15	02/07/19 10:11	02/07/19 20:52	BEP	MS-A2	10	B037118

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 02/08/2019 12:07
Project: 0752
Project Number: 351646
Project Manager: Thomas Kendig

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

BCL Sample ID: 1903889-02	Client Sample Name: 0752, INF-2-A-190205, 2/5/2019 1:10:00PM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ppbv	50		EPA-TO-15	ND	A01	1
Ethylbenzene	77	ppbv	50		EPA-TO-15	ND	A01	1
Methyl t-butyl ether	ND	ppbv	50		EPA-TO-15	ND	A01	1
Toluene	ND	ppbv	50		EPA-TO-15	ND	A01	1
Total Xylenes	470	ppbv	100		EPA-TO-15	ND	A01	1
TPH - Gasoline	32000	ppbv	5000		EPA-TO-15	ND	A01	1
4-Bromofluorobenzene (Surrogate)	82.5	%	70 - 130 (LCL - UCL)		EPA-TO-15			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-TO-15	02/07/19 10:11	02/08/19 09:02	BEP	MS-A2	100	B037118

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 02/08/2019 12:07
Project: 0752
Project Number: 351646
Project Manager: Thomas Kendig

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B037118						
Benzene	B037118-BLK1	ND	ppbv	0.50		
Ethylbenzene	B037118-BLK1	ND	ppbv	0.50		
Methyl t-butyl ether	B037118-BLK1	ND	ppbv	0.50		
Toluene	B037118-BLK1	ND	ppbv	0.50		
Total Xylenes	B037118-BLK1	ND	ppbv	1.0		
TPH - Gasoline	B037118-BLK1	ND	ppbv	50		
4-Bromofluorobenzene (Surrogate)	B037118-BLK1	82.4	%		70 - 130 (LCL - UCL)	

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 02/08/2019 12:07
Project: 0752
Project Number: 351646
Project Manager: Thomas Kendig

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab	Quals
								Percent Recovery	RPD		
QC Batch ID: B037118											
Benzene	B037118-BS1	LCS	5.5100	5.0000	ppbv	110		70 - 130			
	B037118-BSD1	LCSD	5.4100	5.0000	ppbv	108	1.8	70 - 130		30	
Ethylbenzene	B037118-BS1	LCS	5.3300	5.0000	ppbv	107		70 - 130			
	B037118-BSD1	LCSD	5.3200	5.0000	ppbv	106	0.2	70 - 130		30	
Toluene	B037118-BS1	LCS	5.2800	5.0000	ppbv	106		70 - 130			
	B037118-BSD1	LCSD	5.2500	5.0000	ppbv	105	0.6	70 - 130		30	
Total Xylenes	B037118-BS1	LCS	15.860	15.000	ppbv	106		70 - 130			
	B037118-BSD1	LCSD	15.590	15.000	ppbv	104	1.7	70 - 130		30	
4-Bromofluorobenzene (Surrogate)	B037118-BS1	LCS	9.14	10.0	ppbv	91.4		70 - 130			
	B037118-BSD1	LCSD	8.90	10.0	ppbv	89.0	2.7	70 - 130			

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 02/08/2019 12:07
Project: 0752
Project Number: 351646
Project Manager: Thomas Kendig

Notes And Definitions

- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A01 Detection and quantitation limits are raised due to sample dilution.



Date of Report: 03/20/2019

Thomas Kendig

Arcadis- San Jose

6296 San Ignacio Ave, Suite C&D

San Jose, CA 95119

Client Project: 351646

BCL Project: 0752

BCL Work Order: 1907880

Invoice ID: B333918

Enclosed are the results of analyses for samples received by the laboratory on 3/12/2019. If you have any questions concerning this report, please feel free to contact me.

Revised Report: This report supercedes Report ID 1000863581

Sincerely,

Contact Person: Molly Meyers
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Laboratories, Inc.

Environmental Testing Laboratory Since 1949

Chain of Custody

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LABORATORIES

19-07880

Client/Company Name: **Arcadis** Report Attention: **Thomas Kendig** Phone: #5035398680 FAX: # []

Address: **2300 Clayton Road Suit 400 Concord CA 94520** City: **Concord** State: **CA** Zip: **94520**

Project Information: **351646 706 Harrison Street Oakland** PO # **B0047339.ST16**

Flow would you like your completed results sent? E-Mail Fax BDD Mail Only

Sampler Name Printed / Signature: *Zac Mathew* QC Request STD Level II Level III 5 Day** 2 Day** Day**

Matrix Types: **RSW = Raw Surface Water** **CFW = Chlorinated Finished Water** **CWW = Chlorinated Waste Water** **BW = Bottled Water**
FW = Finished Water **WW = Waste Water** **SW = Storm Water** **DW = Drinking Water** **DW = Drinking Water** **SO = Solid**

Sample #	Bottles	Sampled Date	Time	Sample Description / Location	Matrix	Comments / Station Code
2		3-11-19	10:40	EFF -1	Air	Hold DUP Tedlar
2		3-11-19	10:44	INF-2 -2	Air	Hold DUP Tedlar

Relinquished by: (Signature and Printed Name) *Zac Mathew* Company **Arcadis** Time **1630**

Received by: (Signature and Printed Name) *Thomas Kendig* Company **Arcadis** Time **1340**

Received for Lab by: (Signature and Printed Name) *Elsy Ramirez* Company **Arcadis** Time **2230**

Shipping Method: **CAO UPS GSO WALK-IN SYVC FED EX OTHER**

Relinquished by: (Signature and Printed Name) *Thomas Kendig* Company **Arcadis** Time **1630**

Received by: (Signature and Printed Name) *Henry Bogan* Company **Bc/AB** Time **2230**

Payment Received at Delivery: **REL. Nunez Bogan 3-12-19 1830 REC.**

Shipping Method: **WET BLUE NONE**

Check/Cash/Card PIA # **REL. Nunez Bogan 3-12-19 1830 REC.**

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BC LABORATORIES INC. COOLER RECEIPT FORM Page Of

Submission #: 19-07880

SHIPPING INFORMATION		SHIPPING CONTAINER	FREE LIQUID
Fed Ex <input type="checkbox"/>	UPS <input type="checkbox"/>	Ontrac <input type="checkbox"/>	Hand Delivery <input type="checkbox"/>
BC Lab Field Service <input checked="" type="checkbox"/>	Other <input type="checkbox"/> (Specify) _____	Ice Chest <input type="checkbox"/>	None <input checked="" type="checkbox"/> Box <input type="checkbox"/>
		Other <input type="checkbox"/> (Specify) _____	YES <input type="checkbox"/> NO <input type="checkbox"/>
		W / S	

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals None Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received YES NO

Emissivity: _____ Container: Leak Thermometer ID: _____ Date/Time 3/12/22 30

Temperature: (A) Room °C / (C) Temp °C Analyst Init EPK

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr*										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/808										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
RNCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: EPK Date/Time: 3-12-22 2235 2230 05/23/2016



Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 03/20/2019 12:22
Project: 0752
Project Number: 351646
Project Manager: Thomas Kendig

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

1907880-01	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: EFF-A-190311 Sampled By: ARRC	Receive Date: 03/12/2019 22:30 Sampling Date: 03/11/2019 10:40 Sample Depth: --- Lab Matrix: Air Sample Type: Vapor or Air Delivery Work Order: Global ID: Location ID (FieldPoint): EFF Matrix: AX Sample QC Type (SACode): CS Cooler ID:
-------------------	--	---

1907880-02	COC Number: --- Project Number: 0752 Sampling Location: --- Sampling Point: INF-2-A-190311 Sampled By: ARRC	Receive Date: 03/12/2019 22:30 Sampling Date: 03/11/2019 10:44 Sample Depth: --- Lab Matrix: Air Sample Type: Vapor or Air Delivery Work Order: Global ID: Location ID (FieldPoint): INF-2 Matrix: AX Sample QC Type (SACode): CS Cooler ID:
-------------------	--	---

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 03/20/2019 12:22
Project: 0752
Project Number: 351646
Project Manager: Thomas Kendig

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

BCL Sample ID: 1907880-01		Client Sample Name: 0752, EFF-A-190311, 3/11/2019 10:40:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ppbv	5.0	EPA-TO-15	ND	A01	1
Benzene	ND	ppbv	5.0	EPA-TO-15	ND	A01	2
Ethylbenzene	ND	ppbv	5.0	EPA-TO-15	ND	A01	1
Ethylbenzene	ND	ppbv	5.0	EPA-TO-15	ND	A01	2
Methyl t-butyl ether	ND	ppbv	5.0	EPA-TO-15	ND	A01	1
Methyl t-butyl ether	ND	ppbv	5.0	EPA-TO-15	ND	A01	2
Toluene	ND	ppbv	5.0	EPA-TO-15	ND	A01	1
Toluene	ND	ppbv	5.0	EPA-TO-15	ND	A01	2
Total Xylenes	ND	ppbv	10	EPA-TO-15	ND	A01	1
Total Xylenes	ND	ppbv	10	EPA-TO-15	ND	A01	2
TPH - Gasoline	ND	ppbv	500	EPA-TO-15	ND	A01	1
TPH - Gasoline	ND	ppbv	500	EPA-TO-15	ND	A01	2
4-Bromofluorobenzene (Surrogate)	71.6	%	70 - 130 (LCL - UCL)	EPA-TO-15			1
4-Bromofluorobenzene (Surrogate)	71.2	%	70 - 130 (LCL - UCL)	EPA-TO-15			2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-TO-15	03/13/19 13:45	03/19/19 11:46		BEP	MS-A1	10	B040171
2	EPA-TO-15	03/13/19 13:45	03/13/19 17:02		BEP	MS-A1	10	B040171

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 03/20/2019 12:22
Project: 0752
Project Number: 351646
Project Manager: Thomas Kendig

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

BCL Sample ID: 1907880-02		Client Sample Name: 0752, INF-2-A-190311, 3/11/2019 10:44:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ppbv	5.0	EPA-TO-15	ND	A01	1
Benzene	ND	ppbv	5.0	EPA-TO-15	ND	A01	2
Ethylbenzene	ND	ppbv	5.0	EPA-TO-15	ND	A01	1
Ethylbenzene	ND	ppbv	5.0	EPA-TO-15	ND	A01	2
Methyl t-butyl ether	ND	ppbv	5.0	EPA-TO-15	ND	A01	1
Methyl t-butyl ether	ND	ppbv	5.0	EPA-TO-15	ND	A01	2
Toluene	ND	ppbv	5.0	EPA-TO-15	ND	A01	1
Toluene	ND	ppbv	5.0	EPA-TO-15	ND	A01	2
Total Xylenes	ND	ppbv	10	EPA-TO-15	ND	A01	1
Total Xylenes	ND	ppbv	10	EPA-TO-15	ND	A01	2
TPH - Gasoline	ND	ppbv	500	EPA-TO-15	ND	A01	1
TPH - Gasoline	650	ppbv	500	EPA-TO-15	ND	A01	2
4-Bromofluorobenzene (Surrogate)	70.9	%	70 - 130 (LCL - UCL)	EPA-TO-15			1
4-Bromofluorobenzene (Surrogate)	81.4	%	70 - 130 (LCL - UCL)	EPA-TO-15			2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-TO-15	03/13/19 13:45	03/13/19 17:32		BEP	MS-A1	10	B040171
2	EPA-TO-15	03/13/19 13:45	03/19/19 12:15		BEP	MS-A1	10	B040171

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 03/20/2019 12:22
Project: 0752
Project Number: 351646
Project Manager: Thomas Kendig

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	Lab Quals
QC Batch ID: B040171					
Benzene	B040171-BLK1	ND	ppbv	0.50	
Ethylbenzene	B040171-BLK1	ND	ppbv	0.50	
Methyl t-butyl ether	B040171-BLK1	ND	ppbv	0.50	
Toluene	B040171-BLK1	ND	ppbv	0.50	
Total Xylenes	B040171-BLK1	ND	ppbv	1.0	
TPH - Gasoline	B040171-BLK1	ND	ppbv	50	
4-Bromofluorobenzene (Surrogate)	B040171-BLK1	53.6	%	70 - 130 (LCL - UCL)	

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 03/20/2019 12:22
Project: 0752
Project Number: 351646
Project Manager: Thomas Kendig

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B040171										
Benzene	B040171-BS1	LCS	4.4580	5.0000	ppbv	89.2		70 - 130		
	B040171-BSD1	LCSD	4.4840	5.0000	ppbv	89.7	0.6	70 - 130		30
Ethylbenzene	B040171-BS1	LCS	5.0760	5.0000	ppbv	102		70 - 130		
	B040171-BSD1	LCSD	5.0240	5.0000	ppbv	100	1.0	70 - 130		30
Toluene	B040171-BS1	LCS	5.0400	5.0000	ppbv	101		70 - 130		
	B040171-BSD1	LCSD	4.9830	5.0000	ppbv	99.7	1.1	70 - 130		30
Total Xylenes	B040171-BS1	LCS	16.030	15.000	ppbv	107		70 - 130		
	B040171-BSD1	LCSD	15.988	15.000	ppbv	107	0.3	70 - 130		30
4-Bromofluorobenzene (Surrogate)	B040171-BS1	LCS	9.26	10.0	ppbv	92.6		70 - 130		
	B040171-BSD1	LCSD	9.16	10.0	ppbv	91.6	1.1	70 - 130		

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 03/20/2019 12:22
Project: 0752
Project Number: 351646
Project Manager: Thomas Kendig

Notes And Definitions

- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A01 Detection and quantitation limits are raised due to sample dilution.

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Date of Report: 03/28/2019

Thomas Kendig

Arcadis- San Jose

6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Client Project: 351646
BCL Project: 0752
BCL Work Order: 1909478
Invoice ID: B335218

Enclosed are the results of analyses for samples received by the laboratory on 3/26/2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers
Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Laboratories, Inc.

Environmental Testing Laboratory Since 1949

Chain of Custody

ANALYSIS REQUESTED

4100 Atlas Court Bakersfield, Ca. 93308 (661) 327-4911 • FAX (661) 327-1918 • www.bclabs.com

TEMP: 19-09478
Phone #: 5035398680
E-mail: thomas.kendig@arcadis.com

Report Attention: Thomas Kendig
City: Concord State: CA Zip: 94520
PO #: B0047339-ST16
BCL Quote #

Carbon Copies: CDFIS Fresno Co EPA
Mendocino Co Tulare Co
Other:
Regulatory Compliance Electronic Data Transfer: Y N
System No. *

QC Request: STD Level II EDD Mail Only
Result Request ** Surcharge: STD 5 Day** 2 Day** Day**
Matrix Types: RSW = Raw Surface Water CFW = Chlorinated Finished Water CWW = Chlorinated Waste Water BW = Bottled Water
RGW = Raw Ground Water FW = Finished Water WW = Waste Water SW = Storm Water DW = Drinking Water SO = Solid

Sample # Batches Date Time Sample Description / Location * Matrix * Comments / Station Code

Table with 5 columns: Sample #, Batches, Date, Time, Sample Description / Location, Matrix, Comments / Station Code. Contains handwritten entries for samples 1 and 2.

Relinquished by: (Signature and Printed Name) Zandra Zee-Matlock Arcadis Company Date Time 03/25/19 1400 Received by: (Signature and Printed Name) D. S. Thomas Kendig Arcadis Company
Relinquished by: (Signature and Printed Name) Thomas Kendig Arcadis Company Date Time 3/26/19 12:40 Received by: (Signature and Printed Name) Nancy Begon Be LAB
Received for Lab by: (Signature and Printed Name) Giffen Date Time 3/26/19 2200 Payment Received at Delivery:

Shipping Method: CAO UPS GSO WALK-IN SVC FED EX OTHER Cooling Method: WET BLUE NONE Packing Material: Inil. Check/Cash/Card PIA #

REL. 3/26/19 2200 REL. Nancy Begon 3-26-19 1830 REC. 1830

916-0100-1000000

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 19-09478

SHIPPING INFORMATION: Fed Ex UPS Ontrac Hand Delivery BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER: Ice Chest None Box Other (Specify) Bag

FREE LIQUID: YES NO W / S

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Intact? Yes No Intact? Yes No Comments: _____

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received: YES NO Emissivity: _____ Container: redox Thermometer ID: _____ Date/Time 3/26 2200

Temperature: (A) Room °C / (C) Temp °C Analyst Init ENR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr*										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 505/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TRD/LAR BAG		RB	RB							
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: GSR Date/Time: 3/26 2225

A = Actual / C = Corrected

Rev 21 06/23/2016 (S:\WPDoc\Word\Perfect\LAB_DOC\FORMS\CSAMREC Rev 20)



Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 03/28/2019 14:51
Project: 0752
Project Number: 351646
Project Manager: Thomas Kendig

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

1909478-01	COC Number: ---	Receive Date: 03/26/2019 22:00
	Project Number: 351646	Sampling Date: 03/25/2019 12:10
	Sampling Location: ---	Sample Depth: ---
	Sampling Point: EFF	Lab Matrix: Air
	Sampled By: ARRC	Sample Type: Vapor or Air
		Delivery Work Order:
		Global ID:
		Location ID (FieldPoint): EFF
		Matrix: AX
		Sample QC Type (SACode): CS
		Cooler ID:

1909478-02	COC Number: ---	Receive Date: 03/26/2019 22:00
	Project Number: 351646	Sampling Date: 03/25/2019 12:12
	Sampling Location: ---	Sample Depth: ---
	Sampling Point: INF-2	Lab Matrix: Air
	Sampled By: ARRC	Sample Type: Vapor or Air
		Delivery Work Order:
		Global ID:
		Location ID (FieldPoint): INF-2
		Matrix: AX
		Sample QC Type (SACode): CS
		Cooler ID:

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 03/28/2019 14:51
Project: 0752
Project Number: 351646
Project Manager: Thomas Kendig

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

BCL Sample ID: 1909478-01		Client Sample Name: 351646, EFF, 3/25/2019 12:10:00PM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ppbv	5.0	EPA-TO-15	ND	A01	1
Ethylbenzene	ND	ppbv	5.0	EPA-TO-15	ND	A01	1
Methyl t-butyl ether	ND	ppbv	5.0	EPA-TO-15	ND	A01	1
Toluene	ND	ppbv	5.0	EPA-TO-15	ND	A01	1
Total Xylenes	ND	ppbv	10	EPA-TO-15	ND	A01	1
TPH - Gasoline	ND	ppbv	500	EPA-TO-15	ND	A01	1
4-Bromofluorobenzene (Surrogate)	78.8	%	70 - 130 (LCL - UCL)	EPA-TO-15			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-TO-15	03/27/19 10:28	03/27/19 13:02	BEP	MS-A1	10	B041364

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 03/28/2019 14:51
Project: 0752
Project Number: 351646
Project Manager: Thomas Kendig

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

BCL Sample ID: 1909478-02	Client Sample Name: 351646, INF-2, 3/25/2019 12:12:00PM
----------------------------------	--

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	15	ppbv	5.0	EPA-TO-15	ND	A01	1
Ethylbenzene	33	ppbv	5.0	EPA-TO-15	ND	A01	1
Methyl t-butyl ether	ND	ppbv	5.0	EPA-TO-15	ND	A01	1
Toluene	180	ppbv	5.0	EPA-TO-15	ND	A01	1
Total Xylenes	440	ppbv	10	EPA-TO-15	ND	A01	1
TPH - Gasoline	6400	ppbv	500	EPA-TO-15	ND	A01	1
4-Bromofluorobenzene (Surrogate)	94.8	%	70 - 130 (LCL - UCL)	EPA-TO-15			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-TO-15	03/27/19 10:28	03/27/19 13:32	BEP	MS-A1	10	B041364

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 03/28/2019 14:51
Project: 0752
Project Number: 351646
Project Manager: Thomas Kendig

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	Lab Quals
QC Batch ID: B041364					
Benzene	B041364-BLK1	ND	ppbv	0.50	
Ethylbenzene	B041364-BLK1	ND	ppbv	0.50	
Methyl t-butyl ether	B041364-BLK1	ND	ppbv	0.50	
Toluene	B041364-BLK1	ND	ppbv	0.50	
Total Xylenes	B041364-BLK1	ND	ppbv	1.0	
TPH - Gasoline	B041364-BLK1	ND	ppbv	50	
4-Bromofluorobenzene (Surrogate)	B041364-BLK1	64.4	%	70 - 130 (LCL - UCL)	

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 03/28/2019 14:51
Project: 0752
Project Number: 351646
Project Manager: Thomas Kendig

Volatile Organic Compounds by GC/MS (EPA Method TO-15)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: B041364										
Benzene	B041364-BS1	LCS	4.0110	5.0000	ppbv	80.2		70 - 130		
	B041364-BSD1	LCSD	4.0050	5.0000	ppbv	80.1	0.1	70 - 130	30	
Ethylbenzene	B041364-BS1	LCS	3.9740	5.0000	ppbv	79.5		70 - 130		
	B041364-BSD1	LCSD	3.9090	5.0000	ppbv	78.2	1.6	70 - 130	30	
Toluene	B041364-BS1	LCS	4.4260	5.0000	ppbv	88.5		70 - 130		
	B041364-BSD1	LCSD	4.4560	5.0000	ppbv	89.1	0.7	70 - 130	30	
Total Xylenes	B041364-BS1	LCS	12.376	15.000	ppbv	82.5		70 - 130		
	B041364-BSD1	LCSD	12.368	15.000	ppbv	82.5	0.1	70 - 130	30	
4-Bromofluorobenzene (Surrogate)	B041364-BS1	LCS	9.47	10.0	ppbv	94.7		70 - 130		
	B041364-BSD1	LCSD	9.25	10.0	ppbv	92.5	2.3	70 - 130		

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Arcadis- San Jose
6296 San Ignacio Ave, Suite C&D
San Jose, CA 95119

Reported: 03/28/2019 14:51
Project: 0752
Project Number: 351646
Project Manager: Thomas Kendig

Notes And Definitions

- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A01 Detection and quantitation limits are raised due to sample dilution.



EAST BAY ASIAN LOCAL
DEVELOPMENT CORPORATION

BUILDING HEALTHY, VIBRANT AND SAFE NEIGHBORHOODS

07 March 2018

Project 750622605

Mr. Keith Nowell, PG
Alameda County Health Care Services Agency
Environmental Health Department
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Subject: Supplemental Environmental Investigation and Request for No Further Action
1110 Jackson Street
Oakland, California
Alameda County SCP Case No. RO0003232
Langan Project: 7506220604

Dear Mr. Nowell:

I have read and acknowledge the content, recommendations, and/or conclusions contained in the attached document submitted on my behalf to ACDEH's FTP server and the SWRCB's Geotracker website.

Sincerely yours,

Everett Cleveland, Jr
East Bay Asian Local Development Company

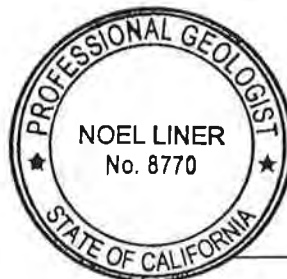
**SUPPLEMENTAL ENVIRONMENTAL
INVESTIGATION
AND REQUEST FOR NO FURTHER ACTION
1110 Jackson Street, Oakland, California**

Prepared For:
**Alameda County Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California**

Prepared By:
**Langan Engineering & Environmental Services, Inc.
501 14th Street, 3rd Floor
Oakland, California 94612**

Joshua Osborne

**Joshua Osborne
Senior Staff Geologist**



Noel Liner

**Noel Liner, PG
Project Geologist**

Joshua Graber

**Joshua Graber, CHMM
Associate**

LANGAN

**7 March 2018
Langan Project 750622605**

7 March 2018

Mr. Kieth Nowell
Alameda County Health Care Services Agency
Department of Environmental Health, Local Oversight Program
1131 Harbor Bay Parkway
Alameda, California, 94502

**Subject: Supplemental Environmental Investigation and Request for No Further Action
1110 Jackson Street, Oakland, CA
Fuel Leak Case No. RO0003232 (GeoTracker Case #T10000009472)
Project No. 750622605**

Dear Mr. Nowell:

Langan Engineering and Environmental Services, Inc. (Langan) is pleased to submit this *Supplemental Environmental Investigation and Request for No Further Action* report on behalf of East Bay Asian Local Development Corporation (EBALDC) related to the former petroleum underground storage tanks (USTs) at 1110 Jackson Street in Oakland, California (site). This report describes the environmental data collected to date by Langan and others to assess soil, soil gas and groundwater quality at the site related to the former USTs and presents data supporting our opinion that the site should receive a no further action determination regarding the former USTs.

The objective of our evaluation was to collect sufficient data to support regulatory closure of the former USTs, in accordance with the California State Water Resources Control Board Low-Threat Underground Storage Tank Case Closure Policy (LTCP). We believe this report presents information illustrating that subsurface conditions at the site are consistent with conditions outlined in the LTCP. On behalf of EBALDC, Langan requests that the Alameda County Department of Environmental Health (ACDEH) grant a no further action determination and regulatory closure of the former USTs for the site.

If you have any questions or wish to discuss, please do not hesitate to call.

Sincerely yours,
Langan Engineering & Environmental Services, Inc.



Noel Liner, PG
Project Geologist



Joshua Graber, CHMM
Associate

cc: Clint Loftman, Oakland Housing Authority
Emily Busch and Everett Cleveland, EBALDC

\\Langan.com\data\OAK\data6\750622605\Outbound\750622605.01 JDG_Request for NFA Updated 2018.docx

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**SUPPLEMENTAL ENVIRONMENTAL INVESTIGATION
AND REQUEST FOR NO FURTHER ACTION
1110 Jackson Street
Oakland, California**

1.0 INTRODUCTION

Langan Engineering and Environmental Services, Inc. (Langan) has prepared this *Supplemental Environmental Investigation Report and Request for No Further Action* (report), describing recent investigation activities conducted at the 1110 Jackson Street development in Oakland, California (Figure 1, site) for the East Bay Asian Local Development Corporation (EBALDC). The environmental investigation was conducted in January 2018 in accordance with our *Work Plan for Supplemental Environmental Site Assessment* (Work Plan) submitted to the Alameda County Department of Environmental Health (ACDEH) dated 12 October 2017. The purpose of the supplemental environmental investigation was to:

1. Close data gaps identified in Langan's Conceptual Site Model (CSM) (Appendix A) submitted as part of our October 2017 Work Plan; and,
2. Characterize horizontal and vertical impacts to soil and groundwater related to the former Underground Storage Tanks (USTs) and specifically UST #4.

This report summarizes data from Langan's recent environmental investigation and prior subsurface investigations and removal actions performed at the site to support a formal request for no further action related to the four former USTs previously located at the site. Remedial and investigative work at the site has included:

- Removal of four petroleum USTs and associated piping;
- Over-excavation of soil beneath the former USTs to the extent feasible;
- Installing temporary borings for collection of soil, soil gas and groundwater;
- Analyzing shallow and deep groundwater for total petroleum hydrocarbons as gasoline (TPHg), diesel (TPHd), motor oil (TPHmo), volatile organic compounds (VOCs) and polycyclic aromatic hydrocarbons (PAHs);
- Analyzing soil for total petroleum hydrocarbons as TPHg, TPHd, TPHmo, VOCs, PAHs and metals, including within the bioattenuation zone;

- Performing a building survey and inventory using a photo-ionization detector sensitive to the part-per-billion range for identification of potential preferential pathways and soil gas and sub-slab sample locations;
- Collecting and analyzing shallow soil gas and sub-slab soil gas samples for VOCs; and,
- Disposing groundwater and soil generated during sampling at appropriate facilities.

In addition to a summary of the activities presented above, this report also includes a summary of site background, environmental history from previous investigations conducted by others, and recent development activity. Based on the environmental data conducted to date at the site, it is Langan's opinion that the site is eligible for administrative case closure under the California State Water Resource Control Board (CSWRCB) Low-Threat Underground Storage Tank Case Closure Policy (LTCP). Therefore, we respectfully request a no further action and closure letter from the ACDEH with respect to the four former USTs at the site.

2.0 SITE DESCRIPTION AND BACKGROUND

2.1 Site Description

The site is located at 1110 Jackson Street in Oakland, California (Figure 1). The site is bound by 12th Street to the north, Jackson Street to the west, 11th Street to the south and multiple buildings to the east. The site is L-shaped, with long dimensions measuring approximately 190 feet by 200 feet. A 5-story mixed-use building was recently constructed over the entire footprint of the L-shaped lot. The building consists of a concrete podium constructed on grade and shallow foundations. The ground level is completely impervious and consists of a concrete slab and paved sidewalks. The majority of the ground level is openly ventilated and is used for parking. A commercial retail space currently occupied by a dentist is present in the southwestern portion of the building.

The site was first developed in 1889 with a hospital. By 1903, the hospital had been replaced by residences. Two automobile repair garages operated in the northern portion of the site (including two USTs beneath Jackson Street) between 1911 and 1946, while the southern portion of the site was developed for residential use. By 1939, the site was fully developed with two auto repair garages in the northern portion of the site, residences in the southern portion of the site, and a new commercial building at the southern corner of the site. One of the automobile repair garages was removed in 1946 and the residences were removed by 1950, when both became parking lots. The second auto repair garage was converted to a

store, a glass works business, and a parking lot through the 1950's. In the 1960's, a store was constructed in the southwest corner of the site and a small shed was constructed near the glass works facility. The site remained in this state until 2007 when the buildings were demolished (Essel Environmental Consulting, 2015).

2.2 Underground Storage Tanks

In April 2016 during construction of the current building, three USTs were discovered in the sidewalk of Jackson Street. The USTs were designated as UST #1, #2 and #3; all contained gasoline and were approximately 265-, 265- and 110-gallons, respectively. In November 2016, a fourth UST was discovered beneath the sidewalk of Jackson Street, south of the three former USTs. The UST, designated UST #4, contained diesel fuel and had a capacity of 750-gallons. UST removal and over-excavation activities are described in Section 2.7. The locations of the former USTs are presented on Figure 2.

2.3 Potential Preferential Pathways

Backfill around utility corridors and lenses of coarse fill may act as preferential pathways for contaminant migration in groundwater and/or soil gas. To identify potential preferential pathways, a building survey and inventory was completed at the site on 28 October 2016 by Langan personnel in the presence of representatives from EBALDC. The survey consisted of identifying subsurface utility locations, potential sources of VOCs present and evaluating all accessible areas with a photoionization detector (PID) capable of measuring volatile organic vapors down to the part per billion (ppb) level. Subsurface utility corridors downgradient of the former USTs include the sanitary sewer and storm water pipelines. Water supply and electrical service are provided aboveground. Groundwater at the site is found at a depth of around 20 feet below ground surface (bgs), which is significantly deeper than the utility trenches; therefore, the utility corridors would not act as preferential pathways for groundwater.

During the survey, the PID was used to assess background indoor air concentrations and possible preferential pathways for soil vapor migration such as gaps and cracks in building foundations, slab penetrations (such as piping and utility lines), floor drains, sumps, fire suppression lines, and sanitary sewer cleanouts. In general, PID readings across the building were consistent with an active construction site and no potential preferential pathways were registering elevated readings. The results of our building survey were used to develop a sampling plan to evaluate the building for vapor intrusion.

2.4 Current Surface Water/Ground Water Use and Nearby Sensitive Receptors

The site is serviced by East Bay Municipal Utility District's regional water system (EBMUD), which provides drinking water for approximately 1.4 million people in portions of Alameda County and Contra Costa County, including the city of Oakland. EBMUD has water rights for up to 325 million U.S. gallons per day, which is sourced from surface water runoff in the Sierra Nevada, and stored in a system of reservoirs. Groundwater is not used as a drinking water source at the site.

Langan contacted the California Department of Water Resources (DWR) to verify that groundwater wells supplying potable drinking water are not present downgradient of the site. The DWR well search confirmed that there are no mapped supply wells within one mile downgradient of the site. The nearest surface water body is Lake Merritt, a tidally influenced slough, approximately 1,200 feet east of the site (Figure 3). Appendix B presents the results of the well search.

2.5 Identification of Screening Levels

Screening levels for groundwater were selected from the San Francisco Bay Regional Water Quality Control Board's (RWQCB's) February 2016 Environmental Screening Levels (ESLs). The following ESLs were selected as appropriate screening values for the site:

- Soil: Tier I ESLs
- Soil Gas: Tier I ESLs
- Groundwater: ESLs for saltwater eco-toxicity. Additionally, groundwater was compared to Maximum Contaminant Level (MCL) Priority for reference.

2.6 Soil Types and Geology of Site

In general, the site's surficial geology is mapped as the Holocene and Pleistocene aged Merritt Sand, described as fine-grained, very well sorted, well-drained sand" (Graymer, 2000 – Figure 4). Based on borings advanced by Langan, the subsurface soils at the site are consistent with the geologic description, consisting of sandy fill with varying amounts of silt and clay underlain predominantly by sand and silty to clayey sand. Groundwater was generally encountered about 20 feet bgs. Groundwater flow is likely to the east, based on monitoring data for the nearby Alcoa Park parking garage (PSI, 2009).

2.7 Summary of Remedial Activities

USTs # 1, 2 and 3 were excavated and removed by Golden Gate Tank Removal (GGTR) on 15 April 2016 and UST #4 was excavated and removed on 23 November 2016. Confirmation soil samples were collected from each UST pit following removal. On 4 May 2016 and 2 December 2016, GGTR performed over-excavation of visibly stained soil to the extent practical from the tank pits and additional confirmation soil sampling. UST removal activities at the site were completed under the observation of Langan personnel and a representative from the ACDEH's Certified Unified Program Agency (CUPA). The UST removal activities are described below. Soil sample results for TPH and VOCs from over-excavation are presented on Table 1. Confirmation soil samples removed during excavation are presented in ~~strikeout~~ text on Table 1. Results for metals and PAHs in soil are presented on Tables 2 and 3.

2.7.1 UST Removal (USTs 1-3)

In April 2016, three USTs were discovered in the sidewalk of Jackson Street during site development activities. The USTs, designated as USTs #1, #2 and #3, all contained gasoline and were approximately 265-, 265- and 110-gallons, respectively. The locations of USTs #1, #2 and #3 are shown on Figure 2. Based on a review of Sanborn Fire Insurance maps, the USTs were likely in place prior to 1911. The three USTs were found to be in generally poor condition. GGTR removed the three USTs from beneath the sidewalk and conducted soil excavation and soil sampling activities on 15 April 2016. UST removal activities were completed under the observation of Langan personnel and a representative from the ACDEH's CUPA. After the USTs and associated piping were removed, GGTR collected confirmation soil samples from excavation sidewalls and bottoms. Soil samples collected from soil beneath the former USTs had elevated concentrations of TPHg, ranging between 391 and 2,480 milligrams per kilogram (mg/kg), exceeding the RWQCBs February 2016 Tier I ESLs.

Based on the elevated confirmation sample results and a recommendation by ACDEH, GGTR returned to the site on 4 May 2016 to perform over-excavation and additional confirmation sampling activities. GGTR over-excavated from the north side of UST#1 to the south side of UST#2 and UST#3 to a depth of 12 feet bgs. Following the over-excavation, additional confirmation samples were collected from the new bottom of the excavation and from the sidewalls. TPHg was detected at concentrations ranging from 6.96 to 6,320 mg/kg in soil collected from over-excavation sidewalls and bottoms; TPHd was not detected in any of the soil samples and TPHmo was detected at a maximum concentration of 135 mg/kg.

2.7.2 UST Removal (UST #4)

In November 2016, a fourth UST was discovered beneath the sidewalk of Jackson Street, south of the three former USTs removed earlier that year during construction of the sidewalk. The UST, designated as UST #4, contained diesel fuel and had a capacity of approximately 750-gallons. The top of UST #4 was approximately 5 feet bgs and the bottom was approximately 8 feet bgs. Figure 2 shows the location of the former UST. GGTR removed UST #4 from beneath the sidewalk and conducted the corresponding soil excavation and soil sampling activities on 23 November 2016. UST removal activities were completed under the observation of Langan personnel and a representative from CUPA/ACDEH. After the UST and associated piping were removed, GGTR collected two soil samples at 10 feet bgs from below the southern and northern ends of the UST (9669-S-10 and 9669-N-10, respectively), which was approximately two feet below the UST bottom. Soil samples collected from soil beneath the former UST had elevated concentrations of TPHd exceeding the Tier I ESLs.

Based on the elevated confirmation sample results and a recommendation by ACDEH, GGTR returned to the site on 2 December 2016 to perform over-excavation and additional confirmation sampling activities. GGTR over-excavated the tank pit to a depth of 14 feet bgs, as witnessed by ACDEH and Langan representatives. Following over-excavation, soil samples were collected of the sidewalls and the excavation bottom. One soil sample was collected from the excavation bottom at 14 feet bgs and two additional soil samples were collected at depths of 17.5 and 18.5 feet bgs from beneath the UST. TPHd was detected at concentrations of 10,000 and 11,000 mg/kg in the samples collected from 14 and 17.5 feet bgs beneath the former UST and TPHd was detected at a much lower concentration of 1,100 mg/kg at a depth of 18.5 mg/kg. Sidewall samples all had TPHd detected with concentrations ranging from 1.7 to 4,400 mg/kg.

2.8 Summary of Previous Environmental Investigations

Environmental investigations to evaluate soil and groundwater conditions at the site were conducted in 2005 by Tetra Tech, and in August and November of 2016 by Langan. These previous investigations are described in the following sections. Results of groundwater, soil and soil gas sampling from previous environmental investigations are presented in Tables 1 through 5. Results for TPHg, TPHd, TPHmo and benzene in groundwater are presented on Figure 5. Soil boring logs describing the materials encountered and water level measurements are presented in Appendix C.

2.8.1 January 2006 Phase II ESA

In December 2005, Tetra Tech conducted a limited Phase II Environmental Site Assessment to evaluate if petroleum impacts associated with the Alcopark Garage site were impacting the site. The Alcopark Garage site is about 260 feet to the north of the site across 12th Street.

Tetra Tech advanced three borings (SB-1, SB-2, and SB-3, Appendix C) at the site. Borings SB-1 and SB-2 were located approximately 50 to 60 feet from the former gasoline UST locations in both the northeast and southeast directions, respectively (Figure 2). Borings SB-2 and SB-3 were located approximately 45 feet east (downgradient) and 145 feet southeast of the diesel UST #4, respectively. Soil samples were collected at approximately 12 feet bgs from each boring. Groundwater was encountered at depths ranging between 20 to 22 feet bgs. One groundwater sample was collected from each boring. Soil and groundwater samples were analyzed for TPHg, TPHd, TPHmo, VOCs and metals with the following results:

- TPHg, TPHd and TPHmo were not detected in any of the samples collected. Metals results were within normal background ranges reported for Bay Area soils (Table 2).
- No VOCs were detected in any soil samples collected.
- No VOCs were detected at concentrations above their respective maximum contaminant level (RWQCB, February 2016 Maximum Contaminant Levels [MCL] Priority ESLs) in any groundwater samples collected. However, low levels of trichloroethene (TCE) and tetrachloroethene (PCE) were detected in groundwater collected from boring SB-3.

Based on the data collected, Tetra Tech recommended no further assessment of the site was necessary (Tetra Tech, 2006).

2.8.2 August 2016 Site Assessment

Following discovery and ultimate removal and over-excavation of USTs #1, #2, and #3, ACDEH requested collection of groundwater samples near the former UST locations to evaluate potential impacts of petroleum and petroleum related compounds to groundwater.

On 11 August 2016, Gregg Drilling & Testing, Inc. (Gregg Drilling) of Martinez, California, a California C-57-licensed drilling company advanced four borings (EB-1 through EB-4; Figure 2) to depths of 28 feet bgs. The borings were advanced to facilitate the collection of groundwater in order to evaluate potential impacts related to the former USTs. Soil samples were only collected from boring EB-2 at depths below the soil samples collected during UST removal.

Borings EB-1 through EB-3 were advanced within or adjacent to footprints of the former USTs #1, #2 and #3 and EB-4 was advanced approximately 12 feet east of and downgradient of former UST #2. All borings were hydraulically driven direct push borings advanced by a truck-mounted drill rig operated by Gregg Drilling and observed by Langan. Groundwater was encountered at about 20 feet bgs in each borehole and grab groundwater samples were collected through temporary 1-inch diameter polyvinyl chloride (PVC) well casings with ten feet of well screen to the bottom of each boring. The slotted screen extended above the water table and no free product or sheen was observed on any of the samples.

Langan collected three soil samples from depths of 13, 15.5 and 22.5 feet bgs from environmental boring EB-2 at the former UST #2 location. Soil samples were also collected during the removal of UST #2 at depths of 9 and 12.5 feet bgs. Samples were collected based on field observations (including visual and olfactory) and organic vapor measurement using a PID.

The results of the investigation indicated the following:

- TPHg and TPHd concentrations exceeding the Tier I ESLs were detected in soil greater than 10 feet bgs beneath former UST #2.
- Benzene was detected in the groundwater samples from EB-2 and EB-4 at concentrations of 320 and 110 micrograms per liter ($\mu\text{g/L}$). The EB-2 concentration is above the commercial vapor intrusion RWQCB ESLs ($260 \mu\text{g/L}$), but the EB-4 sample did not exceed the commercial vapor intrusion ESL closest to the existing building.
- Concentrations of TPHg and TPHd exceeding the MCL Priority ESLs were also detected in groundwater from borings EB-1, EB-2 and EB-4. Additionally, concentrations of TPHg and TPHd exceeding the Saltwater Ecological ESLs were detected in groundwater in limited areas from borings EB-2 and EB-4, which were advanced through the UST pits or directly adjacent to them.
- TPHg, TPHd, and TPHmo were not detected above laboratory reporting limits in groundwater from boring EB-3.

2.8.3 November 2016 Site Assessment

In November 2016, Langan conducted an additional site assessment consisting of soil, groundwater, soil gas, and sub-slab vapor sample collection to determine the potential extent of petroleum impacted soil in groundwater, and evaluate the site for potential vapor intrusion risks.

Four environmental borings (EB-5 through EB-8) were advanced using direct push techniques by Gregg Drilling for soil and groundwater collection, five temporary soil gas wells (SG-1 through SG-5) were installed to collect soil gas samples, and five temporary Vapor Pins™ were installed in the slab to facilitate collection of sub-slab samples (SS-1 through SS-5). Soil gas samples were collected near subsurface utility lines and below the bottom of the elevator pit, as these were areas identified as potential preferential pathways. Sub-slab sample locations were focused along the eastern side of the site and in the retail space since this space was the only enclosed space on the ground level proposed for occupation. A sub-slab sampling point (SS-6) was added to the sampling scope, due to the discovery of UST #4. The SS-6 sub-slab sample was collected on 30 November 2016 about 15 feet east of UST #4 in the commercial space. VOCs were not detected above their respective Tier 1 ESLs in soil gas or sub-slab samples collected at the site.

The soil gas and sub-slab samples were submitted under appropriate chain-of-custody documentation to Curtis & Tompkins (now Enthalpy Analytical) of Berkeley California for the following analysis:

- VOCs by United States Environmental Protection Agency (EPA) Method TO-15, Methane by ASTM D-1946, and Helium by ASTM D-1946.

The soil samples were submitted under appropriate chain-of-custody documentation to McCampbell Analytical, for the following analyses:

- TPHg, TPHd, and TPHmo by EPA Method 8015, VOCs by EPA Method 8260, PAHs by EPA Method 8310, and leaking underground fuel tank (LUFT) 5 metals by EPA Method 6020.

The grab groundwater samples were submitted under appropriate chain-of-custody documentation to McCampbell for the following analyses:

- TPHg, TPHd, and TPHmo by EPA Method 8015, VOCs by EPA Method 8260, and PAHs by EPA Method 8310.

The results of the investigation indicated the following:

- In soil gas, eleven VOCs were detected, each below Tier I ESLs, and methane was detected in two soil gas samples, below the lower explosive limit of 5%. Soil gas concentrations were also below the LTCP criteria described in Appendix 4 of the same document.

- In soil, TPHg was not detected, TPHd was detected in only one sample at a concentration of 15 mg/kg, and TPHmo was detected in only two samples at a maximum concentration 160 mg/kg. Metals were generally detected within background ranges; lead was detected in two soil samples at 97 and 150 mg/kg.
- In groundwater, TPHg was not detected above the laboratory reporting limit of 50 µg/L in any of the four samples analyzed. TPHd was detected above the laboratory reporting limit in two of the four samples analyzed at concentrations of 70 µg/L and 290 µg/L. TPHmo was detected above the laboratory reporting limit in each of the four samples analyzed at concentrations ranging from 100 µg/L to 2,800 µg/L.
- No VOCs were detected in groundwater above their respective Tier 1 ESLs. Trace concentrations of t-butyl alcohol (TBA) and PCE were the only VOCs detected in the grab groundwater samples analyzed.
- Acenaphthylene was the only PAH detected in the grab groundwater samples at concentrations ranging from 0.133 µg/L and 0.607 µg/L.

The results of the investigation indicate that soil gas below the elevator, five feet below the slab and directly beneath the slab in areas sampled was only minimally impacted and did not exceed any Tier 1 ESLs. Therefore, the vapor intrusion risk was not considered significant. Soil samples were only minimally impacted. Groundwater beneath the site had concentrations of TPHd did not exceed aquatic habitat screening levels for saltwater eco-toxicity in any borings beneath the building, downgradient of the former USTs. TPHg was not detected in groundwater at any of the November 2016 locations.

3.0 SUPPLEMENTAL ENVIRONMENTAL INVESTIGATION

Langan proposed a supplementary environmental investigation to collect sufficient data to support a no further action request related to the former USTs in our 12 October 2017 *Work Plan for Supplemental Environmental Assessment* (Work Plan). The work plan was conditionally approved by the ACDEH in their 16 November 2017 correspondence titled “*Conditional Work Plan Approval, Fuel Leak Case No. RO0003232 and GeoTracker Global ID T10000009472, 1110 Jackson Street, Oakland CA 94607*”. Additional actions requested by ACDEH consisted of the following:

1. Update the previously submitted CSM to include DWR well search.
2. Collect additional soil samples in areas of “obvious contamination, the soil/groundwater interface, and at significant changes in lithology” to define the vertical and horizontal

extent of TPH impacts, including collection of soil samples in the 0 to 5 foot interval for direct contact.

3. Collection of the deeper groundwater sample at least ten feet below the shallow groundwater sample.
4. Advanced an additional boring east of location EB-6 at location EB-13.

Langan implemented the Work Plan between 15 to 17 January 2018. Five borings (EB-9 through EB-13) were advanced to collect soil and groundwater samples at the site. A deeper groundwater sample was attempted for collection at each location. All hydraulically-driven direct push borings were advanced using the dual tube system by a truck-mounted or track-mounted drill rig operated by Gregg Drilling and supervised by Langan. Borings were advanced to depths ranging from 27 to 38 feet bgs and soil cores were visually logged by Langan personnel in general accordance with the Unified Soil Classification System (USCS).

Subsurface conditions consisted mainly of sandy soil with varying amounts silts and clays. Groundwater was measured at each boring location at depths ranging from approximately 19 to 21 feet bgs. No petroleum odor or light non-aqueous phase liquid (LNAPL) was observed during the duration of the investigation.

Soil samples were collected from all five boring locations in accordance with the Geoprobe® DT325 Dual Tube Sampling System Standard Operating Procedure as discussed in the Work Plan. In each boring, two soil samples were collected within the first five feet, and at five foot intervals thereafter (i.e. 10, 15, 20 feet bgs) until groundwater was encountered. Vadose zone samples (i.e. soil above the water table) were collected to assess the presence of a 'bioattenuation zone', as described in the LTCP. The term 'bioattenuation zone' is defined as an area of soil with conditions that support biodegradation of petroleum hydrocarbon vapors. Soil samples were also collected at first encountered groundwater (smear zone) and any noticeable areas of soil staining. Soil samples were labeled based on their location and depth (i.e. a sample collected from EB-9 at 2.5-feet bgs would be labeled "EB-9-2.5").

Groundwater samples were collected from four of the five borings at two discrete depths (shallow and deep). Shallow groundwater was collected from the zone of first encountered groundwater by setting 1-inch temporary pre-packed PVC casing with a 10-foot 0.010-inch milled slotted screen approximately five feet below first encountered groundwater. Shallow groundwater was sampled using a low flow sampling pump. Deep groundwater samples were collected using a hydro-punch groundwater sampler. The hydropunch sampler was advanced

10-feet below the depth of the shallow groundwater sample in collocated boreholes for locations EB-9 and EB-10 and in the same boreholes for locations EB-11 and EB-13. Due to unforeseen difficulties during drilling, Langan was unable to collect a deep groundwater sample at the EB-12 location. Deep groundwater was collected using a disposable bailer through the center of the drill pipe after exposing the screen of the hydropunch at the desired depth. Groundwater samples were labeled based on their location and bottom of sample depth (i.e. a groundwater sample from EB-9 at 28-feet bgs was labeled "EB-9-GW-28").

To avoid cross contamination, all sampling equipment used during the investigation activities was thoroughly cleaned between sample locations and disposable equipment was replaced with new, clean equipment. All borings were backfilled with neat cement grout under the supervision of an Alameda County Public Works grouting inspector and the surface cover was restored in accordance with the Alameda County Public Works Agency's requirements. Surface restoration for EB-10 included the replacement of a section of sidewalk adjacent to the building where drilling had been performed.

Soil cuttings and decontamination rinseate were placed in a 55-gallon drum, sealed and labeled. The drum was stored onsite, pending analytical profiling and proper disposal. After classification, the drum will be transported and disposed of at an appropriate facility..

3.1 Analytical Results

Immediately following collection, groundwater and soil samples were placed in an ice-cooled chest pending delivery to McCampbell Analytical Laboratory (McCampbell), a California-certified laboratory in Pittsburg, California. Soil and groundwater samples were submitted to McCampbell and were analyzed for the following:

- TPHg, TPHd and TPHmo by EPA Modified Method 8015B; and
- VOCs by EPA Method 8260.

The analytical results are presented in Tables 1 and 3 and analytical reports are included as Appendix D.

3.1.1 Soil Results

Soil analytical results were compared to RWQCB 2016 Tier 1 and residential shallow soil ESLs and to LTCP Criteria, Appendix 3, Scenario 3. A summary of the soil analytical results are presented below.

- TPHg was not detected above the laboratory reporting limit in the 34 samples analyzed.
- TPHd was detected in two of 34 samples analyzed at low concentrations of 1.6 and 1.9 mg/kg.
- TPHmo was detected in five of 34 samples at concentrations ranging from 6.8 to 23 mg/kg.
- Detected concentrations of TPHd and TPHmo were below Tier 1 ESLs.
- VOCs were not detected above the laboratory reporting limit in any soil samples collected from EB-9 through EB-13.

Analytical results for soil are presented on Table 1.

3.1.2 Groundwater Results

Groundwater analytical results were compared to RWQCB 2016 ecological ESLs for saltwater eco-toxicity, MCL Priority ESLs, residential and commercial vapor intrusion ESLs and LTCP Groundwater-Specific Criteria, Appendix 3, Scenario 3.

- TPHg was not detected above laboratory reporting limits in any of the 10 samples analyzed.
- TPHd was detected above laboratory reporting limits in seven of 10 samples analyzed at detected concentrations ranging from 67 to 250 µg/L.
- TPHmo was detected above laboratory reporting limits in five of 10 samples analyzed at detected concentrations ranging from 340 to 580 µg/L.
- None of the detected concentrations of TPHd exceed the ecological ESLs for saltwater eco-toxicity screening criteria. Concentrations of TPHd and TPHmo did exceed MCL Priority ESLs in six groundwater samples.
- Low levels of the VOCs chloroform, cis-1,2-dichloroethene, TBA, PCE and TCE were detected above laboratory reporting limits but did not exceed any of the screening criteria.

Analytical results for groundwater are presented on Table 3 and TPHg, TPHd, TPHmo and benzene concentrations are presented on Figure 5.

3.2 Waste Removal and Disposal

All investigation-derived waste was collected in drums pending analysis and proper disposal. A drum sample of soil was collected on 17 January, 2018, and submitted for analysis of TPHg, TPHd, TPHmo, benzene, toluene, ethylbenzene and xylenes (BTEX), and California Title-22 Metals (CAM 17). The waste profile data indicated the soils were non-hazardous waste. The drum was removed under manifest on 22 February 2018 for disposal at the Soil Safe facility in Adelanto, California as non-hazardous waste. Waste disposal documentation is provided in Appendix E.

4.0 CLOSURE REQUIREMENTS UNDER LTCP

The CSWRCB developed a set of guidelines for closure of sites with petroleum impacts deemed to be low risk. These closure criteria are presented in the LTCP (CSWRCB, 2012). These low-threat underground storage tank closure guidelines indicate that closure is appropriate for a site if the following can be demonstrated:

- The unauthorized release is within the service area of a public water system (i.e.; untreated groundwater is not a municipal resource or the community relies on surface water imports);
- The unauthorized release consists only of petroleum chemicals (including oxygenates);
- The unauthorized release has been stopped;
- Free product has been removed to the maximum extent practicable;
- A CSM has been developed;
- Secondary source has been removed to the extent practicable;
- Soil and groundwater have been tested for methyl tert-butyl ether (MTBE), and results have been reported in accordance with Health and Safety Code Section 25296.15 (indicates that results of MTBE tests are known to the RWQCB); and
- Nuisance as defined by Water Code section 13050 does not exist at the site (indicates no nuisance odors or threat to public health and safety).

Additionally, LTCP has media-specific criteria for groundwater, which includes the following minimum criteria:

- The contaminant plume that exceeds water quality objectives is less than 250 feet in length;
- There is no free product;
- The nearest existing water supply or surface water body is greater than 1,000 feet from the from the defined plume boundary; and
- The dissolved concentration of benzene is less than 3,000 µg/L and dissolved concentration of MTBE is less than 1,000 µg/L.

For sites where a release originated and impacted an existing building that is occupied, additional criteria associated with the LTCP are required to be met. Four potential exposure scenarios are described in Appendices 1 through 4 of the LTCP. Petroleum release sites shall satisfy the media-specific criteria for petroleum vapor intrusion to indoor air and be considered low-threat for the vapor-intrusion-to-indoor-air pathway, if site-specific conditions at the release site satisfy all of the characteristics and criteria of scenarios 1 through 3 as applicable, or all of the characteristics and criteria of scenarios 4 as applicable.

A bioattenuation zone is defined by the LTCP as an “area of soil with conditions that support biodegradation of petroleum hydrocarbons” (CSWRCB, 2012). Where the characteristics of a bioattenuation zone at a site meet certain criteria, the LTCP specifies a bioattenuation zone factor of 1,000. In other words, petroleum concentrations are conservatively assumed to reduce 1,000-fold when a bioattenuation zone is aerobic and consists of a minimum depth of clean soil. Specifically, the LTCP applies a bioattenuation factor of 1,000 where:

1. There is a minimum of five feet of soil between the soil vapor sample location and the building foundation or site grade;
2. The concentration of TPH (sum of TPHg and TPHd) is less than 100 mg/kg in soil within the bioattenuation zone; and
3. Oxygen in soil vapor in the bioattenuation zone is greater than or equal to 4 percent.

The LTCP also applies a bioattenuation factor where:

1. There is a minimum of five feet of soil between groundwater (i.e., the source of petroleum concentrations to soil vapor) and the proposed or existing building foundation or site grade; and

2. The concentration of TPH (sum of TPHg and TPHd) is less than 100 mg/kg in soil within the bioattenuation zone.

Oxygen concentration data for soil vapor is not necessary in the LTCP when the depth of the column of clean soil between petroleum impacted groundwater and the building foundation is at least five feet and dissolved phase benzene is less than 100 µg/L. The following sections discuss how the site data supports closure under the LTCP.

4.1 Interpretation of Data Supporting NFA

Soil and groundwater samples collected during this and previous environmental explorations indicate that petroleum hydrocarbons and petroleum hydrocarbon related compounds are present in subsurface soil and groundwater at the site. However, only relatively low concentrations appear present beneath the building. Detected concentrations of contaminants do not exceed criteria set forth by the LTCP for both groundwater-specific (Scenario 4) and bioattenuation zone requirements (Scenario 3). Additionally, since light non-aqueous phase liquid (LNAPL) is not present, Scenarios 1 and 2 are also met.

Data collected from explorations conducted at the site since December 2005 indicate that site conditions satisfy the groundwater-specific requirements for LTCP. Groundwater chemical data in downgradient borings (EB-7, EB-8, EB-11 and EB-12) indicate that the TPH plume does not extend beyond the boundary of the site at concentrations above water quality goals, and subsequently is less than 250 feet in length (Figure 5). As noted above, no LNAPL (weathered or unweathered) was observed during drilling and sampling activities. A one mile radius well search was requested and conducted by the DWR indicating that no existing water supply wells are located within a 1,000 foot radius of the boundary of the plume. The DWR well search results are available in Appendix B. Additionally, Lake Merritt, the nearest surface water body, is greater than 1,000 feet downgradient of the boundary of the plume (Figure 3). As shown in Table 2, groundwater samples collected since December 2005 indicate concentrations of benzene and MTBE have not exceeded the LTCP criteria (3,000 and 1,000 µg/L, respectively). Benzene was not detected in any groundwater samples collected beneath the building footprint and was only detected in two samples advanced adjacent or directly through the former UST pits at concentrations of 110 and 320 µg/L. MTBE has not been detected in any soil or groundwater samples collected at the site, which is expected given the age of the former USTs.

Because an existing building lies above the delineated TPH plume at the site, low-threat closure requires the presence of a bioattenuation zone to reduce the potential for vapor intrusion into the building. During our explorations, groundwater was generally observed between 20 and 22 feet bgs. Based on the soil data collected beneath the building between the ground surface and the water table, a bioattenuation zone of up to 20 feet is present beneath the building. Benzene was not detected above the laboratory's reporting limit of 0.5 µg/L in any groundwater samples collected beneath the building and therefore, benzene concentrations do not exceed the LTCP criteria of 3,000 µg/L. Based on the benzene concentrations near the former USTs (110 and 320 µg/L in borings EB-2 and EB-4, respectively), conservatively, a minimum five foot bioattenuation zone beneath the slab of the existing building is required (LTCP, Appendix 3, Scenario 3). Bioattenuation zone samples collected between November 2016 and January 2018 (Table 1) indicate that the sum of TPHg and TPHd detections in vadose zone soil (zero to 20 feet bgs) do not exceed the limit of 100 mg/kg in any soil samples collected beneath the building.

4.2 Justification for Closure

The four former USTs that released TPH into the subsurface have been physically removed from the site. Remedial over-excavations were completed following each UST removal to the extent feasible, without compromising the integrity of the building. Groundwater impacts related to the USTs have been delineated in borings advanced downgradient of the former USTs. The extent of the plume exceeding ESLs for ecological toxicity is less than 250 feet in length. Additionally, soil impacts are limited to the locations of the former USTs, and soil gas and sub-slab samples indicate that there is no significant risk of vapor intrusion to site users or residents. Furthermore, the presence of a bioattenuation zone has been confirmed beneath the building and will attenuate potential petroleum hydrocarbon vapors present in the former UST area.

The remedial activities have successfully removed the primary source of petroleum hydrocarbons to groundwater (the former USTs). The sampling data indicate that no VOCs, TPHg, TPHmo, or PAH concentrations were detected in groundwater exceeding ecological screening levels beyond 250 feet downgradient of the former USTs.

The following table summarizes the LTCP guidelines and describes how the soil and groundwater data collected at the site and analytical results support closure under the LTCP guidelines.

LTCP Guidelines	
Guideline	Justification for Site Closure
The unauthorized release is within the service area of a public water system.	The unauthorized release is within the downtown of Oakland, which is served by the East Bay Municipal Utility District water system.
The unauthorized release consists only of petroleum (including oxygenates).	Former USTs #1, #2, and #3 all contained gasoline and UST #4 contained diesel fuel. Therefore, the only releases at the site have been related to petroleum hydrocarbons.
The unauthorized release has been stopped.	The unauthorized releases have been stopped through the physical removal of the four USTs.
Free product has been removed to the maximum extent possible.	Free product has not been detected at the site.
A CSM has been developed.	A conceptual site model has been prepared and is provided in Appendix A.
Secondary source has been removed to the extent practicable.	Secondary sources include residual impacts in soil and shallow groundwater. Soil immediately around and beneath the former USTs was removed to the extent practical when the USTs were removed. Given the age of the former USTs (likely over 100 years old) groundwater concentrations are likely stable or attenuating naturally. Therefore additional source removal action beyond natural attenuation is not necessary.
Soil and groundwater have been tested for MTBE, and results have been reported in accordance with Health and Safety Code section 25296.15 (indicates that results of MTBE tests are known to the Regional Water Board).	Soil and groundwater has been tested for MTBE. MTBE was not detected in any soil or groundwater samples (Tables 1 and 4).
Nuisance as defined by Water Code section 13050 does not exist at the site (indicates no nuisance odors or threat to public health and safety).	Groundwater impacts are not considered to be a nuisance due to the lack of contact with human or other ecological receptors.
The contaminant plume that exceeds water quality objectives is less than 1,000 feet in length.	The contaminant plume that exceeds water quality objectives is less than 250 feet in length. Figure 5 present TPHg, TPHd, TPHmo, and benzene groundwater results.
The nearest existing water supply or surface water body is greater than 1,000 feet from the defined plume boundary.	The nearest surface water body (Lake Merritt) is 1,200 feet east of the plume boundary. No groundwater resources are currently used or anticipated to be used as a drinking water supply within 1,000 feet of the plume boundary.

LTCP Guidelines	
Guideline	Justification for Site Closure
The dissolved concentration of benzene is less than 3,000 µg/L and dissolved concentration of MTBE is less than 1,000 µg/L.	Benzene was not detected in any groundwater samples collected beneath the building. Benzene was only detected in groundwater in borings EB-2 and EB-4 at concentrations of 110 and 320 µg/L, respectively. Borings EB-2 and EB-4 were advanced through the former UST pit and directly adjacent to a former UST. MTBE has not been detected in any of the groundwater samples collected at the site to date.

The LTCP describes conditions, including bioattenuation zones, required to be met to assure that exposure to petroleum vapors in indoor air will not pose unacceptable health risks. Where benzene concentrations are less than 100 µg/L in groundwater, the following guidelines for a bioattenuation zone were evaluated:

Guideline	Justification for Site Closure
The bioattenuation zone shall be a continuous zone that provides a separation of at least five vertical feet between the dissolved phase benzene and the foundation of the existing building.	Table 1 summarizes soil samples collected within the proposed bioattenuation zone (zero to fifteen feet below the foundation of the building). Benzene has not been detected in soil samples collected within the bioattenuation zone above the laboratory reporting limit of 0.0050 mg/kg.
The bioattenuation zone shall contain Total TPH (TPHg and TPHd combined) less than 100 mg/kg throughout the entire depth of the bioattenuation zone.	Table 1 summarized soil samples collected with the proposed bioattenuation zone (zero to fifteen feet below the foundation of the building). The maximum concentration of Total TPH (TPHg and TPHd combined) detected within the proposed bioattenuation zone was from boring EB-6 at a depth of 4.5 feet bgs and at a concentration of 15 mg/kg.

Based on the results of our recent investigations and the preceding environmental investigations at the site, it is Langan’s opinion that the residual petroleum and VOC contamination at the site is attributable to the former USTs, which were removed in 2016. The residual hydrocarbon contamination exceeding the ESLs in soil and groundwater appear to be limited in extent on the following basis:

1. The former USTs and to the extent practical the secondary source of petroleum were removed from the site by excavation; effectively stopping any further release of petroleum to the environment.

2. The results of the grab groundwater sampling indicate that TPH and VOC concentrations exceeding ecological saltwater toxicity ESLs are limited to within the former UST vicinity. TPH and VOCs exceeding drinking water standards as MCLs rapidly decrease in concentrations across the site, suggesting high rates of bioattenuation. The predominantly sandy soils would facilitate to a well oxygenated environment, consistent with conditions that promote biodegradation of TPH.
3. The results of the confirmation soil sampling also indicates that TPH, VOC and PAH concentrations exceeding Tier I ESLs in soil are limited to the immediate vicinity of the former USTs.
4. Soil gas and sub-slab soil gas sampling indicates that vapor intrusion is not a significant risk.

In our opinion, the data collected during our investigations support a no further action determination for the site with regards to the former USTs under the LTCP. Langan therefore respectfully requests administrative case closure be granted under the Water Board LTCP from ACDEH.

6.0 LIMITATIONS

Activities undertaken as part of this report were conducted solely on behalf of EBALDC to assess and address the presence of known contaminants of concern, and no other party should rely on this information without the express, written permission of Langan. Langan assumes no responsibility or liability for errors in the information used or statements from sources other than those of Langan. Unless otherwise referenced, conclusions and recommendations in this report concerning the site are those professional opinions of the Langan personnel involved with the project, and this report should not be considered a legal interpretation of existing environmental regulations. Opinions presented herein apply to site conditions existing at the time of Langan's assessment, and cannot necessarily be taken to apply to site changes or conditions of which we are not aware and have not had the opportunity to evaluate.

7.0 REFERENCES

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TABLES

Table 1
Total Petroleum Hydrocarbon and Volatile Organic Compounds Analytical Results in Soil
1110 Jackson Street
Oakland, California

Sample ID	Depth	Date Sampled	Sample Type	Sample Location	TPHg	TPHd	TPHmo	VOCs																
								Benzene	n-Butyl-benzene	sec-Butyl-benzene	Ethyl-benzene	Isopropyl-benzene	p-Isopropyl-toulune	Methylene chloride	Naphthalene	n-Propyl-benzene	PCE	1,2,4-Trimethyl-benzene	1,3,5-Trimethyl-benzene	Toulene	Xylenes	MTBE	All Other VOCs	
					(mg/kg)																			
Tank Pit Samples																								
9669-T1-C-9	9	04/15/16	Confirmation	T1 Bottom	394	3.24	6.90	<4.6	0.479	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	0.532	<4.6	<4.6	<4.6	<4.6	<9.20	<4.6	<4.6-<37	
9669-T1-C-12	12	05/04/16	Confirmation	T1 Bottom	315	<3.3	41.80	<2.7	<2.7	0.273	0.293	0.350	<2.7	<11	0.900	0.559	0.32	0.735	<2.7	0.449	1.33	<2.7	<0.270-<5.6	
9669-T1-EW-8	8	05/04/16	Confirmation	T1 Sidewall	370	<1.70	8.98	<3	0.318	<3	0.624	<3	<3	<12	<3	0.362	<3	0.758	<3	0.805	3.05	<3	<0.300-<6	
9669-T1-VW-8	8	05/04/16	Confirmation	T1 Sidewall	471	<6.6	26.0	0.643	<2.8	0.417	0.392	<2.8	<2.8	0.555	<2.8	<2.8	<2.8	<2.8	<2.8	0.75	1.46	<2.8	<0.280-<2.8	
9669-T1-NW-8	8	05/04/16	Confirmation	T1 Sidewall	661	<13	135	<4.7	0.530	0.744	<4.7	<4.7	<4.7	<19	<4.7	0.659	<4.7	<4.7	<4.7	<4.7	<9.4	<4.7	<4.7-<38	
9669-P1-4	4	04/22/16	Confirmation	T1 Pipe Trench	<0.10	<3.3	<6.6	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050-<0.100	
9669-T2-C-9	9	04/15/16	Confirmation	T2 Bottom	491	19.0	4.04	<9.20	<9.20	<9.20	<9.20	<9.20	<9.20	<9.20	<9.20	<9.20	<9.20	<9.20	<9.20	<9.20	<18	<9.20	<9.20-<73	
9669-T2-C-12.5	12.5	05/04/16	Confirmation	T2 Bottom	6,320	<3.3	34.4	<23	5.64	6.25	<23	10.7	2.62	<91	7.77	13	<23	5.41	<23	<23	<46	<23	<23-<180	
9669-T2-EW-6	6	05/04/16	Confirmation	T2 Sidewall	788	<3.3	<6.6	<2.30	0.244	<2.3	<2.3	<2.3	<2.3	<9.2	0.626	<2.3	<2.3	<2.3	<2.3	<2.3	<4.6	<2.3	<2.3-<4.6	
9669-T2-VW-8	8	05/04/16	Confirmation	T2 Sidewall	178	<3.3	<6.6	<2.20	<2.20	<2.20	<2.20	<2.20	<2.20	<8.8	<2.20	0.261	<2.20	<2.20	<2.20	<2.20	<4.4	<2.20	<2.2 - <18	
9669-T2-SW-8	8	05/04/16	Confirmation	T2 Sidewall	144	<3.3	4.19	<2.30	<2.30	<2.30	<2.30	<2.30	<2.30	<9.3	<2.30	0.236	<2.30	<2.30	<2.30	<2.30	<4.6	<2.30	<2.3 - <19	
9669-P2-3.3	3.3	04/22/16	Confirmation	T2 Pipe Trench	<0.099	<3.3	<6.6	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0065	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0099	<0.0050	<0.0050 - <0.040	
9669-T3-C-8	8	04/15/16	Confirmation	T3 Bottom	2,480	<66	<130	<22	4.03	<22	2.50	<22	2.87	<90	4.59	3.54	<22	6.17	<22	9.28	<22	<22	<180	
9669-T3-C-12	12	05/04/16	Confirmation	T3 Bottom	67.80	<3.3	<6.6	<0.240	<0.240	0.0639	<0.240	<0.240	<0.240	0.0868	<0.960	0.0743	0.0361	<0.240	0.106	0.157	<0.240	0.062	<0.240	<0.240 - <19
9669-T3-VW-8	8	05/04/16	Confirmation	T3 Sidewall	<4.90	<3.3	<6.6	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.980	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.490	<0.250	<0.250 - <2	
9669-T3-SW-6.5	6.5	05/04/16	Confirmation	T3 Sidewall	1,330	<330	<670	<23	<23	10.1	<23	2.55	18.6	<91	9.0	5.4	<23	78.6	36.9	<23	6.64	<23	<23 - <180	
9669-T3-NW-8	8	05/04/16	Confirmation	T3 Sidewall	6.96	<3.3	<6.6	<0.210	0.0243	<0.210	<0.210	<0.210	<0.210	<0.860	<0.210	<0.210	<0.210	0.0617	<0.210	<0.210	<0.430	<0.210	<0.21 - <1.7	
9669-T3-EW-9	9	05/04/16	Confirmation	T3 Sidewall	<4.5	<3.3	<6.6	<0.230	<0.230	<0.230	<0.230	<0.230	<0.230	<0.910	<0.0230	<0.0230	<0.0230	<0.0230	<0.0230	<0.0230	<0.450	<0.0230	<0.0230 - <18	
9669-P3-4	4	04/22/16	Confirmation	T3 Pipe Trench	<0.10	<3.3	<6.70	<40	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0060	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050 - <0.040		
9669-S-10	10	11/23/16	Confirmation	T4 Bottom	--	2,800	--	<0.250	--	--	<0.250	--	--	--	3.1	--	--	--	--	<0.250	<0.250-<0.30	<0.250	--	
9669-N-10	10	11/23/16	Confirmation	T4 Bottom	--	1,400	--	<0.046	--	--	<0.046	--	--	--	0.74	--	--	--	--	<0.046	<0.046	<0.046	--	
9669-C-14	14	12/02/16	Confirmation	T4 Bottom	--	10,000	--	<.5	--	--	<0.500	--	--	--	6.9	--	--	--	--	<.5	<0.500 - <0.580	<0.500	--	
9669-C-17.5	17.5	12/02/16	Confirmation	T4 Bottom	--	11,000	--	<0.0097	--	--	<0.0097	--	--	--	<0.010	--	--	--	--	<0.0097	<0.0097	<0.0097	--	
9669-C-18.5	18.5	12/02/16	Confirmation	T4 Bottom	--	1,100	--	<0.0097	--	--	<0.0097	--	--	--	<0.340	--	--	--	--	<0.0097	<0.0097	<0.0097	--	
9669-SW-9	9	12/02/16	Confirmation	T4 Sidewall	--	8.9	--	<0.0049	--	--	<0.0049	--	--	--	<0.0049	--	--	--	--	<.0049	<0.0049	<0.0049	--	
9669-EW-9	9	12/02/16	Confirmation	T4 Sidewall	--	1.7	--	<0.0049	--	--	<0.0049	--	--	--	<0.0049	--	--	--	--	<.0049	<0.0049	<0.0049	--	
9669-VW-8.5	8.5	12/02/16	Confirmation	T4 Sidewall	--	610	--	<0.500	--	--	<0.500	--	--	--	6.4	--	--	--	--	<0.500	<0.500 - <0.530	<0.500	--	
9669-NW-9	9	12/02/16	Confirmation	T4 Sidewall	--	4,400	--	<1	--	--	<1	--	--	--	16	--	--	--	--	<1	<1-<1.2	<1	--	
Boring Samples																								
SB-1-12	12	12/30/05	BZ	Boring	<10	<10	<10	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004 - <0.002	<0.005	<0.002 - <0.020	
SB-2-12	12	12/30/05	BZ	Boring	<10	<10	<10	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004 - <0.002	<0.005	<0.002 - <0.020	
SB-3-12	12	12/30/05	BZ	Boring	<10	<10	<10	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004 - <0.002	<0.005	<0.002 - <0.020	
EB-2-13	13	08/11/16	TZ	Boring	200	18	5.50	<0.10	0.14	0.13	<0.10	0.14	--	<0.10	0.39	0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
EB-2-15.5	15.5	08/11/16	TZ	Boring	5,000	830	13.0	<2.0	2.3	2.5	<2.0	4.2	--	<2.0	5.3	5.1	<2.0	<2.0	<2.0	<2	<2.0	<2	<2	
EB-2-22.5	22.5	08/11/16	TZ/SZ	Boring	2,100	370	14.0	<0.10	0.12	0.18	0.52	0.33	--	<0.10	0.12	0.33	<0.10	0.55	0.25	<0.10	0.31	<0.10	<0.10	
EB-5-4.5	4.5	11/16/16	BZ	Boring	< 1.0	< 1.0	< 5.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	<0.0050	< 0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0040 - <0.10	
EB-5-8.5	8.5	11/16/16	BZ	Boring	< 1.0	< 1.0	< 5.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	<0.0050	< 0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0040 - <0.10	
EB-6-4.5	4.5	11/16/16	BZ	Boring	< 1.0	15	160	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	<0.0050	< 0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0040 - <0.10	
EB-6-8.5	8.5	11/16/16	BZ	Boring	< 1.0	< 1.0	< 5.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	<0.0050	< 0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0040 - <0.10	
EB-7-4.5	4.5	11/16/16	BZ	Boring	< 1.0	< 1.0	< 5.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	<0.0050	< 0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0040 - <0.10	
EB-7-8.5	8.5	11/16/16	BZ	Boring	< 1.0	< 1.0	< 5.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	<0.0050	< 0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0040 - <0.10	
EB-8-4.5	4.5	11/16/16	BZ	Boring	< 1.0	< 1.0	5.1	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	<0.0050	< 0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0040 - <0.10	
EB-8-8.5	8.5	11/16/16	BZ	Boring	< 1.0	< 1.0	< 5.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	<0.0050	< 0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0040 - <0.10	

Table 1
Total Petroleum Hydrocarbon and Volatile Organic Compounds Analytical Results in Soil
1110 Jackson Street
Oakland, California

Sample ID	Depth	Date Sampled	Sample Type	Sample Location	TPHg	TPHd	TPHmo	VOCs															
								Benzene	n-Butyl-benzene	sec-Butyl-benzene	Ethyl-benzene	Isopropyl-benzene	p-Isopropyl-toulene	Methylene chloride	Naphthalene	n-Propyl-benzene	PCE	1,2,4-Trimethyl-benzene	1,3,5-Trimethyl-benzene	Toulene	Xylenes	MTBE	All Other VOCs
EB-13-20	20.0	1/17/18	SZ	Boring	<1.0	<1.0	<5.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0040 - <0.10	
EB-13-21	21.0	1/17/18	SZ	Boring	<1.0	<1.0	<5.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0040 - <0.10	
Tier 1 ESLs					100	230	5,100	0.044	NE	NE	1.4	NE	NE	0.077	0.033	NE	0.42	NE	NE	2.9	2.3	0.023	Various
Residential ESLs					740	230	11,000	0.23	NE	NE	5.1	NE	NE	1.9	3.3	NE	0.6	NE	NE	970	560	42	Various
Bioattenuation Zone LTCP Criteria ¹					Combined 100		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

Notes:

1 - Bioattenuation zone is a continuous zone of at least 5 feet vertically between the dissolved phase Benzene (i.e. groundwater) and the foundation of existing or potential building; and containing Total TPH (TPHg and TPHd combined) less than 100 mg/kg throughout the entire depth of the bioattenuation zone.

< 4.6 - Analyte was not detected above the laboratory reporting limit (4.6 mg/kg)

0.900 - Shaded detections are at or above the established Tier 1 ESL

Bold values indicate an exceedance of the Tier 1 ESL

394 - sample over-excavated

-- - Not available

BZ - Saples collected within the bioattenuation zone (above groundwater level)

ESL - Environmental screening level

mg/kg - Milligrams per kilogram

MTBE - Methyl-tertiary-butyl ether

NE - Environmental Screening Level not established

NA - Not analyzed

PCE - Tetrachloroethene

SZ - Soil samples collected in the smear or saturated zone (at or below groundwater level)

TPHg - Total Petroleum Hydrocarbons as Gasoline, EPA Method 8015B

TPHd - Total Petroleum Hydrocarbons as Diesel Range, EPA Method 8015B

TPHmo - Total Petroleum Hydrocarbons as Motor Oil, EPA Method 8015B

TZ - Samples collected from borings advanced within or adjacent to the footprint of the former underground storage tanks

Various - Analysis of multiple compounds with various screening criteria

VOCs - Volatile organic compounds, EPA Method 8260B

Tier 1 ESLs - RWQCB Environmental Soil Screening Levels based on a generic conceptual site model designed for use at most sites. The Tier 1 ESL summary table is generally derived from the most conservative ESL for each compound (February 2016 [Rev.3])

Residential ESLs presented in San Francisco Bay Regional Water Quality Control Board, Environmental Screening Level, Table S-1, Any Land Use: Any Soil Depth Exposure

Bioattenuation Zone LTCP criteria presented in California State Water Resource Control Board Low-Threat Underground Storage Tank Case Closure Policy, Appendix 3, Scenario 3 - Dissolved Phase Benzene Concentrations in Groundwater, Figure A

**Table 2
Metal Analytical Results in Soil
1110 Jackson Street
Oakland, California**

Langan Project: 750622605
March 2018

Sample ID	Depth	Date Sampled	Sample Location	Cadmium	Chromium	Lead	Nickel	Zinc
	(feet)			(mg/kg)				
Tank Pit Samples								
9669-T1-C-9	9	04/15/16	T1 Bottom	<0.93	67.3	3.9	40.1	34.9
9669-T1-C-12	12	05/04/16	T1 Bottom	<0.83	69.4	1.7	0.83	1.7
9669-T1-EW-9	9	05/04/16	T1 Sidewall	<0.91	47.9	3.7	32.5	31.1
9669-T1-WW-8	8	05/04/16	T1 Sidewall	<.88	45.7	3.3	32.5	27.2
9669-T1-NW-8	8	05/04/16	T1 Sidewall	<0.93	49.3	3.34	32.1	26.5
9669-P1-4	4	04/22/16	T1 Pipe Trench	<0.99	41.4	2.4	23.2	20.4
9669-T2-C-9	9	04/15/16	T2 Bottom	<0.83	58.4	7.9	35.4	52.6
9669-T2-C-12.5	12.5	05/04/16	T2 Bottom	<0.87	61.6	2.4	47.2	22.5
9669-T2-EW-6	6	05/04/16	T2 Sidewall	<0.93	69.3	4.0	42.5	26.9
9669-T2-WW-8	8	05/04/16	T2 Sidewall	<0.88	46.4	3.2	32.2	26.0
9669-T2-SW-8	8	05/04/16	T2 Sidewall	<0.94	63.0	1.9	0.94	25.3
9669-P2-3.3	3.3	04/22/16	T2 Pipe Trench	<1.0	36.4	2.4	15.7	20.6
9669-T3-C-8	8	04/15/16	T3 Bottom	<0.88	62.5	3.7	40.0	30.5
9669-T3-C-12	12	05/04/16	T3 Bottom	<0.82	58.7	2.9	40.4	21
9669-T3-WW-8	8	05/04/16	T3 Sidewall	<0.90	56.7	4	32.8	28
9669-T3-SW-6.5	6.5	05/04/16	T3 Sidewall	<0.83	46.8	17.1	30.0	32
9669-T3-NW-8	8	05/04/16	T3 Sidewall	<.97	57.1	3.7	34.9	28.0
9669-T3-EW-9	9	05/04/16	T3 Sidewall	<0.91	51.9	3.3	33.4	30.4
9669-P3-4	4	04/22/16	T3 Pipe Trench	<0.97	37.0	4.2	16.6	25.8
Boring Samples								
SB-1-12	12	12/30/05	Boring	<2	63	3	40	20
SB-2-12	12	12/30/05	Boring	<2	48	<3	35	18
SB-3-12	12	12/30/05	Boring	<2	66	<3	33	20
EB-2-13	13	08/11/16	Boring	<0.25	55	2.4	48	24
EB-2-15.5	15.5	08/11/16	Boring	<0.25	45	1.9	36	22
EB-2-22.5	22.5	08/11/16	Boring	<0.25	110	2.3	44	26
EB-5-4.5	4.5	11/16/16	Boring	< 0.25	38	3	19	18
EB-5-8.5	8.5	11/16/16	Boring	< 0.25	50	3.7	38	30
EB-6-4.5	4.5	11/16/16	Boring	< 0.25	36	150	37	78
EB-6-8.5	8.5	11/16/16	Boring	< 0.25	49	3.3	34	26
EB-7-4.5	4.5	11/16/16	Boring	< 0.25	36	9.4	18	18
EB-7-8.5	8.5	11/16/16	Boring	< 0.25	69	4.4	48	34
EB-8-4.5	4.5	11/16/16	Boring	< 0.25	38	97	20	98
EB-8-8.5	8.5	11/16/16	Boring	< 0.25	70	4.2	49	32
Background [Metal] in Bay Area Soils*				0.27-3.3	10-142	4.8-65	16-144	33-282
Tier 1 ESLs				39	NE	80	86	2,300
ESL - Residential Land Use¹				750	4.0	23	6.7	0.78

Notes:

ESL - Environmental Screening Level

mg/kg - Milligrams per kilogram

< 0.93 - Analyte was not detected above the laboratory reporting limit (0.93 mg/kg)

Bold values indicate an exceedance of the Tier 1 ESL

<0.93 - sample over-excavated

*Background concentration ranges of metals in Bay Area soils, Appendix A, Table A-2 from Environmental Resources Management. *Feasibility Study, Hookston Station, Pleasant Hill, California*. July 2006

NE - Environmental screening level not established

Tier 1 ESLs - RWQCB Environmental Soil Screening Levels based on a generic conceptual site model designed for use at most sites. The Tier 1

ESLs Residential ¹ - Water Board Environmental Screening Level from Regional Water Quality Control Board Screening for Environmental Concerns at Contaminated Sites (Table A-1) December 2013.

Table 3
Polycyclic Aromatic Hydrocarbon Results in Soil
1110 Jackson Street
Oakland, California

Sample ID	Depth	Date Sampled	Sample Location	PAHs																		
				Acenaphthylene	Acenaphthene	Anthracene	Benzo (a) Anthracene	Benzo (a) Pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenz (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	1-Methyl-naphthalene	2-Methyl-naphthalene	Naphthalene	Phenanthrene	Pyrene	
				mg/kg																		
Tank Pit Samples																						
9669-T1-C-9	9	04/15/16	T1 Bottom	<0.0089	<0.0660	<0.0660	<0.0660	<0.0660	<0.0660	<0.0660	<0.0660	<0.0660	<0.0660	<0.014	<0.0660	<0.0660	<0.014	0.220	0.356	0.0335	<0.0660	<0.0660
9669-P1-4	4	04/22/16	T1 Pipe Trench	<0.0033	<0.0033	<0.0033	0.00037	0.00031	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	0.0033	<0.0033	<0.0033
9669-T1-EW-8	8	05/04/16	T1 Sidewall	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	0.00063	<0.0033	0.0259	0.0133	0.0257	0.00056	<0.0033
9669-T1-C-12	12	05/04/16	T1 Bottom	<0.0033	0.00097	<0.0033	0.0016	0.00069	0.00058	<0.0033	0.00057	0.0024	<0.0033	0.00087	0.003	<0.0033	0.342	0.701	0.426	0.0037	0.0021	
9669-T1-WW-8	8	05/04/16	T1 Sidewall	<0.0033	0.0027	0.00077	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	0.00086	<0.0033	0.00091	0.0064	<0.0033	0.125	0.0389	0.121	0.0034	0.0013	
9669-T1-NW-8	8	05/04/16	T1 Sidewall	<0.0033	0.0056	0.00096	0.0044	0.0033	0.0033	0.0008	<0.0033	0.0067	<0.0033	0.0036	0.0129	<0.0033	0.154	0.154	0.068	0.0193	0.0069	
9669-T2-C-9	9	04/15/16	T2 Bottom	<0.066	<0.0660	<0.0660	<0.0660	<0.0660	<0.0660	<0.0660	<0.0660	<0.0660	<0.0660	<0.0660	<0.0660	<0.0660	0.132	0.238	0.220	<0.0660	<0.0660	
9669-P2-3.3	3.3	04/22/16	T2 Pipe Trench	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
9669-T2-EW-6	6	05/04/16	T2 Sidewall	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	0.0155	0.0285	0.0142	<0.0033	<0.0033	
9669-T2-C-12.5	12.5	05/04/16	T2 Bottom	<0.0033	0.0062	<0.0033	0.001	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	0.0013	<0.0033	0.0011	0.0191	<0.0033	1.86	3.56	2.58	0.007	0.0016
9669-T2-WW-8	8	05/04/16	T2 Sidewall	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	0.0357	0.0642	0.0333	0.00047	<0.0033	
9669-T2-SW-8	8	05/04/16	T2 Sidewall	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	0.00061	<0.0033	0.0524	0.0956	0.0538	0.00041	<0.0033	
9669-T3-C-8	8	04/15/16	T3 Bottom	<0.066	0.0242	<0.0660	<0.0660	<0.0660	<0.0660	<0.0660	<0.0660	<0.0660	<0.066	<0.0660	0.0728	<0.066	2.280	4.130	1.960	0.0346	<0.0660	
9669-P3-4	4	04/22/16	T3 Pipe Trench	<0.0033	<0.0033	<0.0033	<0.0033	0.00038	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
9669-T3-WW-8	8	05/04/16	T3 Sidewall	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	0.00050	<0.0033	<0.0033	<0.0033	<0.0033
9669-T3-C-12	12	05/04/16	T3 Bottom	<0.0033	0.0037	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	0.0121	<0.0033	0.124	0.242	0.0913	0.0065	<0.0033	<0.0033
9669-T3-SW-6.5	6.5	05/04/16	T3 Sidewall	<0.066	0.0245	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066	0.0969	<0.066	1.97	3.33	0.724	0.0389	<0.066	
9669-T3-NW-8	8	05/04/16	T3 Sidewall	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	0.0041	0.0066	0.0018	<0.0033	<0.0033	
9669-T3-EW-9	9	05/04/16	T3 Sidewall	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	0.00082	0.0014	0.00058	<0.0033	<0.0033	
9669-C-17.5	17.5	12/02/16	T4 Bottom	<0.670	<0.340	0.068	0.800	0.100	0.280	0.260	0.049	0.045	0.130	0.830	0.110	0.170	--	--	<0.34	0.290	1	
9669-C-18.5	18.5	12/02/16	T4 Bottom	<0.670	<0.340	0.078	0.170	0.078	0.200	<0.067	0.170	<0.034	0.160	0.710	<0.067	<0.034	--	--	<0.34	.190	1	
Boring Samples																						
EB-5-4.5	4.5	11/16/16	Boring	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
EB-5-8.5	8.5	11/16/16	Boring	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
EB-6-4.5	4.5	11/16/16	Boring	<0.10	<0.10	<0.10	0.10	< 0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.31	<0.10	<0.10	<0.10	0.24	<0.0050	0.58	0.26	
EB-6-8.5	8.5	11/16/16	Boring	<0.0050	<0.0050	<0.0050	< 0.0050	< 0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	< 0.0050	<0.0050	<0.0050	<0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
EB-7-4.5	4.5	11/16/16	Boring	<0.0050	<0.0050	<0.0050	< 0.0050	< 0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	< 0.0050	<0.0050	<0.0050	<0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
EB-7-8.5	8.5	11/16/16	Boring	<0.0050	<0.0050	<0.0050	< 0.0050	< 0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	< 0.0050	<0.0050	<0.0050	<0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
EB-8-4.5	4.5	11/16/16	Boring	<0.0050	<0.0050	<0.0050	0.0078	0.0061	<0.0050	<0.0050	<0.0050	0.0081	<0.0050	0.011	<0.0050	<0.0050	<0.0050	< 0.0050	< 0.0050	<0.0050	0.0056	0.013
EB-8-8.5	8.5	11/16/16	Boring	<0.0050	<0.0050	<0.0050	< 0.0050	< 0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	< 0.0050	<0.0050	<0.0050	<0.0050	< 0.0050	< 0.0050	<0.0050	< 0.0050	< 0.0050
Tier 1 ESLs				13	3	2.8	0.16	0.016	0.16	2.5	1.6	3.8	0.016	60	8.9	0.16	NE	0.25	0.033	11	85	

Notes:
 NE - Environmental Screening Level not established
 NA - Not applicable
 mg/kg - Milligrams per kilogram
 PAHs - Polycyclic aromatic hydrocarbons
 <0.0033 - Analyte was not detected above the laboratory reporting limit (0.0033 mg/kg)
 0.0089 - sample over-excavated
Bold - Detected concentration is at or above the established regulatory environmental screening level
 -- - Not available/analyzed
 Tier 1 ESLs - RWQCB Environmental Soil Screening Levels based on a generic conceptual site model designed for use at most sites. The Tier 1 ESL summary table is generally derived from the most conservative ESL for each compound (February 2016 [Rev.3])

Table 4
Non-Metal Analytical Results in Grab-Groundwater
1110 Jackson Street
Oakland, California

Sample ID	Date Sampled	TPHg	TPHd	TPHmo	VOCs																			PAHs						
					Acetone	Benzene	2-Butanone	sec-Butyl benzene	TBA	Chloroform	cis-1,2-DCE	cis-1,2-Dichloro-propane	Ethyl-benzene	Isopropyl-benzene	4-Isopropyl toluene	MTBE	Naphthalene	n-Propyl benzene	PCE	TCE	1,2,4-Trimethyl-benzene	1,3,5-Trimethyl-benzene	Toluene	Xylenes, Total	All Other VOCs	Acenaphthylene	Benzo (b) flouranthene	Benzo (k) flouranthene	Dibenzo (a,h) anthracene	All Other PAHs ¹
(µg/L)																														
SB-1-GW1	12/30/05	<50	<50	<100	--	<0.50	--	<1.0	<10	<1.0	<1.0	<0.50	<0.50	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	--	<0.50-<2	--	--	--	--	
SB-2-GW2	12/30/05	<50	<50	<100	--	<0.50	--	<1.0	<10	<1.0	<1.0	<0.50	<0.50	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	--	<0.50-<2	--	--	--	--		
SB-3-GW3	12/30/05	<50	<50	<100	--	<0.50	--	<1.0	<10	<1.0	<1.0	<0.50	<0.50	<1.0	--	<1.0	<1.0	<1.0	4.1	4.1	<1.0	<1.0	<0.50	--	<0.50-<2	--	--	--	--	
EB-1-GW	08/11/16	1,600	3,200	250	<50	<2.5	<10	<2.5	<10	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<1.0 - <10	--	--	--	--	
EB-2-GW	08/11/16	30,000	55,000	<2,500	630	320	81	23	<50	<12	<12	<12	740	150	<12	<12	100	110	<12	<12	290	92	<12	430	<5.0 - <50	--	--	--	--	
EB-3-GW	08/11/16	<50	<100	<500	<10	<0.50	<2.0	<0.50	<2.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 - <10	--	--	--	--	
EB-4-GW	08/11/16	16,000	2,300	520	<100	110	<20	14	<20	<5.0	5.5	5.5	250	100	8.3	<5.0	7.9	64	<5.0	<5.0	19	<5.0	<5.0	27	<2.0 - <100	--	--	--	--	
EB-5-GW	11/17/16	<50	<50	420	<10	<0.50	<2.0	<0.50	<2.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 - <10	<0.0050	<0.0250	<0.0250	<0.0500	<0.0250 - <0.0500	
EB-6-GW	11/17/16	<50	290	2,800	<10	<0.50	<2.0	<0.50	2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 - <10	0.607	<0.0250	<0.0250	<0.0500	<0.0250 - <0.0500	
EB-7-GW	11/17/16	<50	<100	520	<10	<0.50	<2.0	<0.50	<2.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.68	<0.50	<0.50	<0.50	<0.50	<0.50 - <10	0.161	<0.0250	<0.0250	<0.0500	<0.0250 - <0.0500	
EB-8-GW	11/17/16	<50	70	100	<10	<0.50	<2.0	<0.50	<2.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 - <10	0.133	<0.0250	<0.0250	<0.0500	<0.0250 - <0.0500	
EB-9-GW-28	1/16/18	<50	190	330	<10	<0.50	<2.0	<0.50	3.8	<2.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 - <10	--	--	--	--	--		
EB-9-GW-38	1/16/18	<50	160	580	<10	<0.50	<2.0	<0.50	<2.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 - <10	--	--	--	--	--		
EB-10-GW-25	1/15/18	<50	<50	<250	<10	<0.50	<2.0	<0.50	<2.0	4.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 - <10	--	--	--	--	--		
EB-10-GW-35	1/15/18	<50	250	500	<10	<0.50	<2.0	<0.50	<2.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 - <10	--	--	--	--	--		
EB-11-GW-25	1/15/18	<50	90	<250	<10	<0.50	<2.0	<0.50	<2.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.67	<0.50	<0.50	<0.50	<0.50 - <10	--	--	--	--	--	
EB-11-GW-35	1/15/18	<50	<50	<250	<10	<0.50	<2.0	<0.50	<2.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 - <10	--	--	--	--	--		
EB-12-GW-27	1/17/18	<50	110	<250	<10	<0.50	<2.0	<0.50	<2.0	<0.50	1.8	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.4	3.7	<0.50	<0.50	<0.50	<0.50 - <10	--	--	--	--	--	
DUP1-2018-01-17	1/17/18	<50	180	<250	<10	<0.50	<2.0	<0.50	<2.0	<0.50	2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.58	4.4	<0.50	<0.50	<0.50	<0.50 - <10	--	--	--	--	--	
EB-13-GW-25	1/17/18	<50	140	420	<10	<0.50	<2.0	<0.50	<2.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 - <10	--	--	--	--	--		
EB-13-GW-35	1/17/18	<50	67	340	<10	<0.50	<2.0	<0.50	<2.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 - <10	--	--	--	--	--		
ESLs MCL Priority		220	150	Note 2	14,000	1.0	NE	NE	12	80	6.0	NE	30	NE	NE	5.0	0.17	NE	5.0	5.0	NE	NE	40	20	Various	20	0.012	0.017	0.0034	Various
Ecological ESLs		3,700	640	NE	NE	350	NE	NE	NE	3,200	22,000	NE	43	NE	NE	8,000	240	NE	230	200	NE	NE	2,500	100	Various	30	NE	NE	NE	Varous
Residential Vapor Intrusion ESLs		NE	NE	NE	140,000,000	30	NE	NE	NE	54	15,000	NE	370	NE	NE	15,000	180	NE	100	170	NE	NE	100,000	38,000	Various	NE	NE	NE	NE	Varous
Commercial Vapor Intrusion ESLs		NE	NE	NE	NE	260	NE	NE	NE	470	130,000	NE	3,300	NE	NE	130,000	1,600	NE	880	1,500	NE	NE	NE	NE	Various	NE	NE	NE	NE	Varous
LTCP Criteria		NE	NE	NE	NE	3,000	NE	NE	NE	NE	NE	NE	NE	NE	NE	1,000	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

Notes:

- 1 - Reporting limits for "All Other PAHs" are below their respective MCL Priority ESLs, where established.
- 2- TPH motor oil is not soluble. TPH motor oil detections in water most likely are petroleum degradedates or less likely non-aqueous phase liquids. Results of TPH motor oil and TPH diesel results have been added together and compared to the TPH diesel criterion.
- Cis-1,2-DCE - Cis-1,2-Dichloroethene
- ESLs - Environmental Screening Levles
- LTCP - Low-Threat Closure Policy
- TPHg - Total petroleum hydrocarbons as gasoline
- TPHd - Total petroleum hydrocarbons as diesel
- TPHmo - Total petroleum hydrocarbons as motor oil
- TPHk - Total petroleum hydrocarbons as kerosene
- MCL - Maximum Contaminant Level
- MTBE - Methyl-tertiary-butyl ether
- NE - Environmental Screening Level not established
- PCE - Tetrachloroethene
- TBA - Tert-butyl alcohol
- TCE - Trichloroethene
- VOCs - Volatile organic compounds
- PAHs - Polynuclear aromatic hydrocarbons
- µg/L - Micrograms per liter
- < 50 - Analyte was not detected above the laboratory reporting limit (50 µg/L)
- Shaded values are at or above the established ESL MCL Priority criteria
- Bold** values are at or above the established Ecological ESL criteria
- Various - Analysis of multiple compounds with various MCL Priority ESLs
- - Not available/analyzed
- MCL Priority - San Francisco Bay Regional Water Quality Control Board, Environmental Screening Levels, Summary of Groundwater Environmental Screening Levels. (February 2016 [Rev.3])
- Ecological ESLs - Saltwater Ecotox ESLs, as established by the San Francisco Regional Water Quality Control Board dated 22 February 2016.
- Residential Vapor Intrusion ESLs - Groundwater Vapor Intrusion Human Health Risk Levels for Deep Groundwater, Residential Land Use Scenario: Fine to Coarse Soil, as established by the San Francisco Regional Water Quality Control Board dated 22 February 2016
- Commercial Vapor Intrusion ESLs - Groundwater Vapor Intrusion Human Health Risk Levels for Deep Groundwater, Commercial Land Use Scenario: Fine to Coarse Soil, as established by the San Francisco Regional Water Quality Control Board dated 22 February 2016
- LTCP Criteria - Low-Threat Closure Policy, Groundwater-Specific Criteria, Scenario 2

Table 5
Volatile Organic Compound Analytical Results in Soil Vapor
1110 Jackson Street
Oakland, California

Sample ID	Date Sampled	Depth	Acetone	Benzene	2-Butanone	Carbon Disulfide	Cyclo-hexane	Dichlorodi-fluoro-methane (Freon 12)	Trichloro-tri-fluoroethane (Freon 113)	Ethylbenzene	n-Hexane	Isopropanol	Naphthalene	PCE	TCE	Toluene	Trichloro-fluoro-methane	Xylenes	All Other VOCs	Methane	Helium
		(feet)	(µg/m ³)																	%v	
Sub-slab Vapor Samples																					
SS-1	11/08/16	--	370	9.4	32	31	38	< 5.3	< 8.2	< 4.7	7.3	16	< 23	<1.1	<1.1	16	10	8.5	< 2.2 - < 11	< 0.22	< 0.22
SS-2	11/08/16	--	160	< 3.0	5.3	< 3.0	< 3.3	< 4.7	< 7.3	< 4.1	< 3.3	12	< 20	<0.95	<0.95	< 3.6	15	< 4.1	< 2.0 - < 10	< 0.19	< 0.19
SS-3	11/08/16	--	610	< 3.4	11	< 3.3	< 3.7	< 5.3	< 8.2	< 4.6	< 3.8	15	< 22	<1.1	<1.1	< 4.0	7.8	< 4.6	< 2.2 - < 11	< 0.21	< 0.21
SS-4	11/08/16	--	330	< 3.3	30	< 3.3	< 3.6	7.2	< 8.0	< 4.5	< 3.7	17	< 22	<1.0	<1.0	4.5	19	< 4.5	< 2.2 - < 11	< 0.21	< 0.21
SS-5	11/08/16	--	230	< 4.9	11	< 4.8	< 5.3	< 7.6	< 12	< 6.6	< 5.4	< 15	< 32	<1.5	<1.5	< 5.8	12	< 6.6	< 3.2 - < 16	< 0.31	< 0.31
SS-6	11/30/16	--	230	< 3.0	8.7	< 2.9	3.9	< 4.6	12	< 4.0	< 3.3	< 9.1	< 20	<0.93	<0.93	< 3.5	23	< 4.0	< 1.9 - < 9.9	< 0.19	0.41
Soil Gas Samples																					
SG1-2016-11-17	11/17/16	5.0	70.2	14.2	12.6	< 6.23	14.1	30.4	< 7.66	< 4.34	9.27	< 2.46	< 5.24	<6.78	<5.37	28.3	13.6	17.41	< 2.07 - < 10.7	< 0.100	< 0.100
SG2-2016-11-17	11/17/16	5.0	60.2	5.05	< 5.9	23.2	6.92	38.3	< 7.66	< 4.34	< 7.05	< 2.46	< 5.24	<6.78	<5.37	10.8	13.1	< 4.34	< 2.07 - < 10.7	< 0.100	< 0.100
SG3-2016-11-17	11/17/16	15.0	94.6	22.3	23.5	8.22	59.9	6.38	< 7.66	6.12	114	< 2.46	< 5.24	<6.78	<5.37	35.8	7.59	31.6	< 2.07 - < 10.7	1.22	< 0.100
SG4-2016-11-17	11/17/16	5.0	53.1	17.2	16	9.12	24	7.67	< 7.66	< 4.34	17.4	< 2.46	< 5.24	<6.78	<5.37	28.6	9.44	15.93	< 2.07 - < 10.7	< 0.100	< 0.100
SG5-2016-11-17	11/17/16	5.0	< 4.74	< 3.19	< 5.9	< 6.23	< 6.88	7.81	< 7.66	< 4.34	< 7.05	< 2.46	< 5.24	<6.78	<5.37	< 3.77	< 5.62	< 4.34	< 2.07 - < 10.7	1.21	< 0.100
Tier 1 ESLs			15,000,000	48	2,600,000	NE	NE	NE	NE	560	NE	NE	41	240	240	160,000	NE	52,000	Various	5*	--

Notes:

MEK - Methyl ethyl ketone

VOCs - Volatile organic compounds

PCE - Tetrachloroethene

TCE - Trichloroethene

µg/m³ - Micrograms per cubic meter

%v - Percent by volume

< 5.3 - Analyte was not detected above the laboratory reporting limit (5.3 µg/m³)

NE - Environmental screening level not established

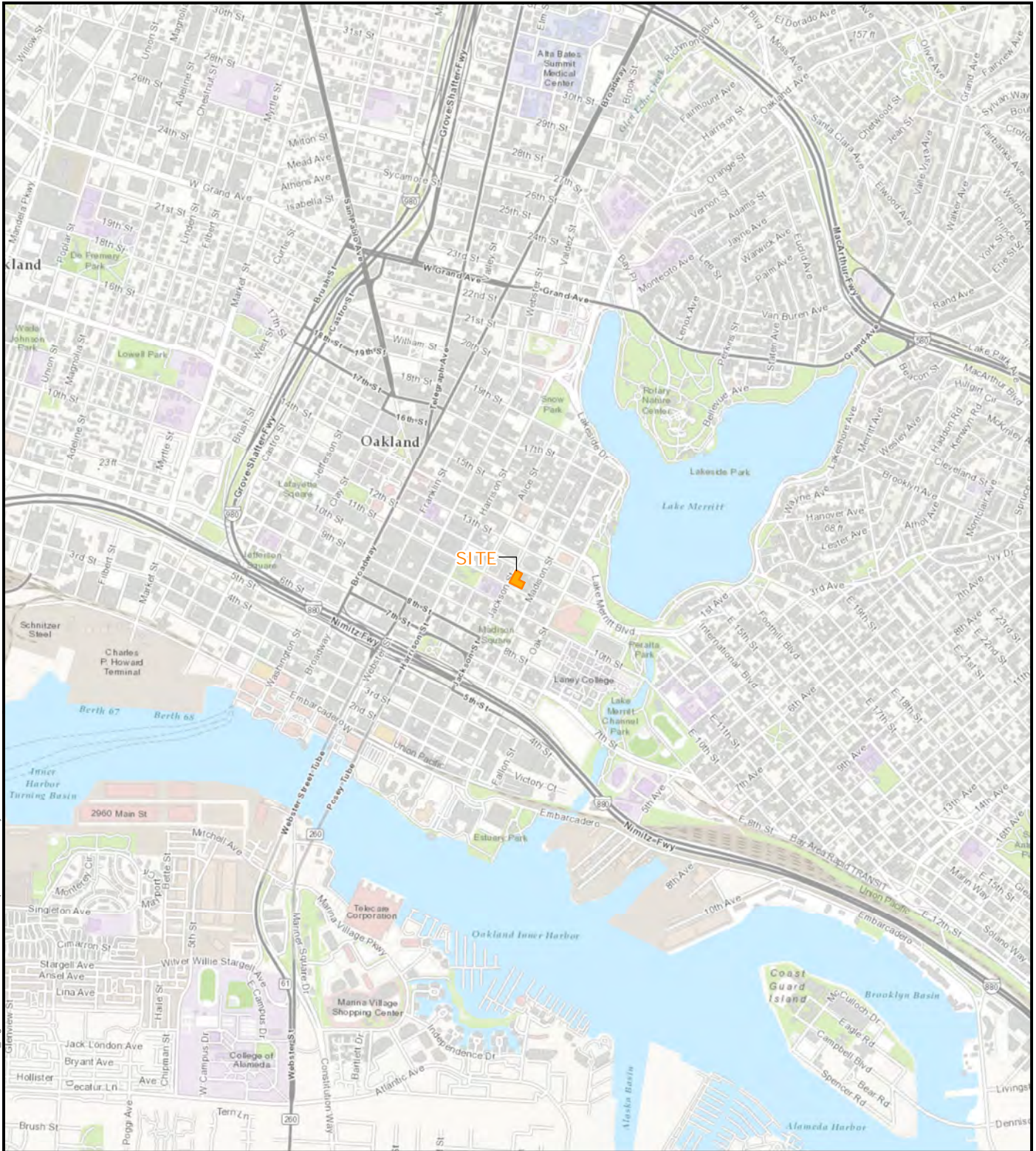
Various - Analysis of multiple compounds with various Tier 1 ESLs

* - Lower Explosive Limit (LEL) and not Tier 1 ESL

-- - Not applicable

Tier 1 ESLs - RWQCB Environmental Sub-slab and Soil Gas Screening Levels based on a generic conceptual site model designed for use at most sites. The Tier 1 ESL summary table is generally derived from the most conservative ESL for each compound (February 2016 [Rev.3])

FIGURES

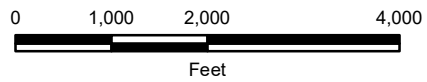


Legend

 Site Boundary

Notes:

1. Topographic basemap is provided through Langan's Esri ArcGIS software licensing and ArcGIS online © 2011 National Geographic Society, i-cubed.
2. All features shown are to be considered approximate.



1110 JACKSON STREET
Oakland, California

SITE LOCATION MAP

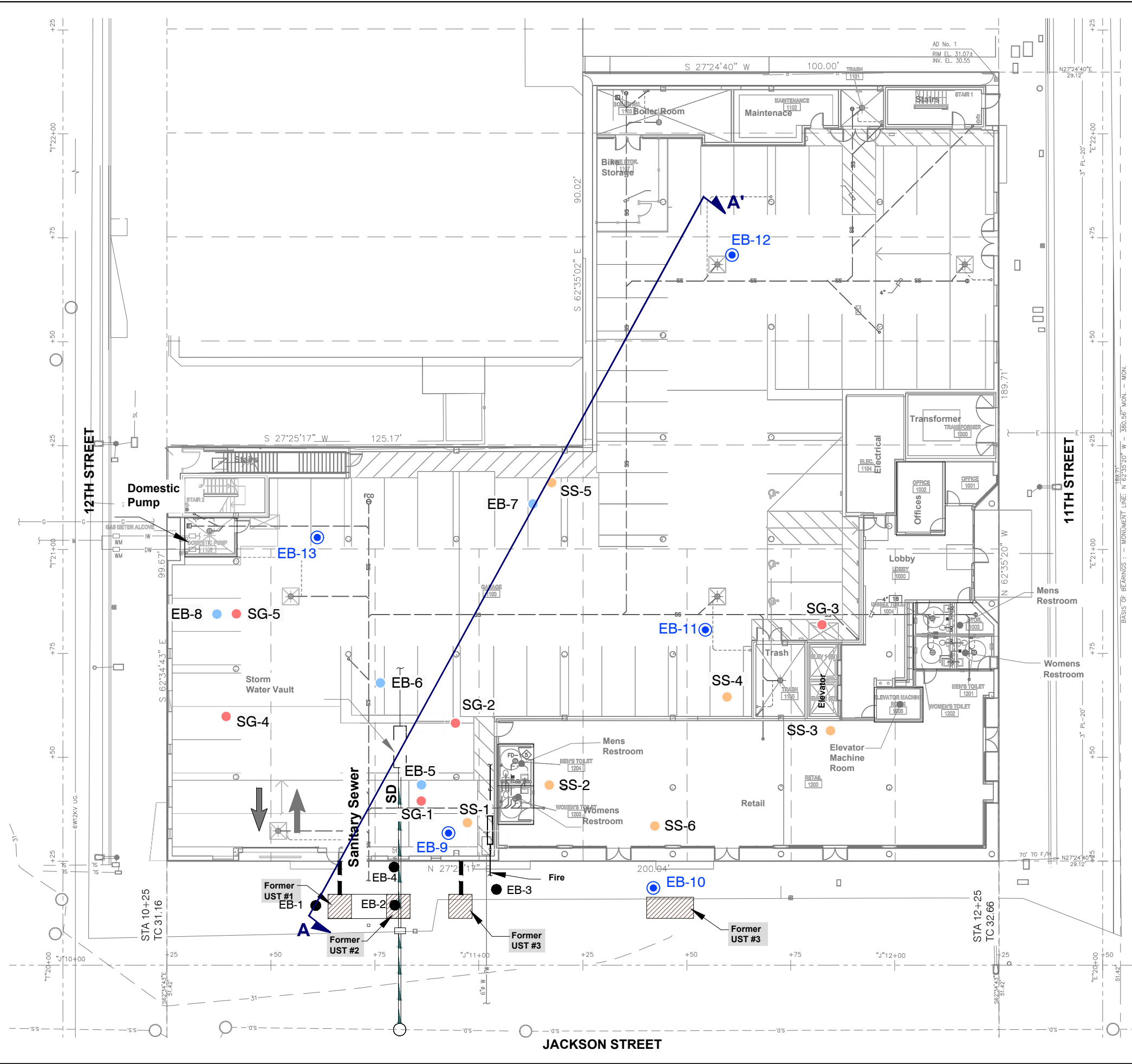
LANGAN

Date 7/26/2017









Project 750622603

Figure 1

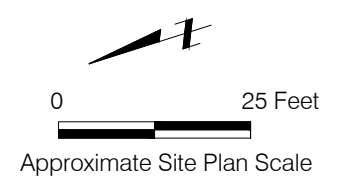
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EXPLANATION

-  Approximate location of former USTs
-  EB-9 Proposed location of soil and groundwater sample
-  SS-1 Approximate location of sub-slab sample by Langan, November 2016
-  SG-1 Approximate location of soil gas sample by Langan, November 2016
-  EB-5 Approximate location of soil and groundwater sample by Langan, November 2016
-  EB-1 Approximate location of grab groundwater sample by Langan, August 2016
-  Capped in-place former product pipeline
-  A-A' Approximate location of idealized subsurface profile



- Notes:
1. Fire and water supply lines are located above ground in building footprint.
 2. Elevator pit constructed with waterproof concrete walls and flooring. The bottom of the elevator pit is approximately 7 feet below ground surface.
 3. UST piping does not extend beneath building, as it was removed during foundation work. Samples collected beneath former product pipelines during tank removal were non-detect for petroleum hydrocarbons.



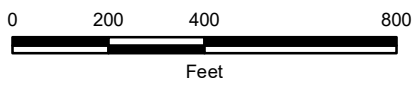
1110 JACKSON STREET Oakland, California		
SITE PLAN		
Date 02/01/18	Project No. 750622605	Figure 2
		



Legend

-  Site Boundary
-  1000' Site Radius

Notes:
 1. Aerial imagery provided through Langan's contract with Near Map. Aerial imagery flown on 3/9/2017.
 2. Stream data provided by the National Hydrologic dataset, 2017. (no streams in current map extent)



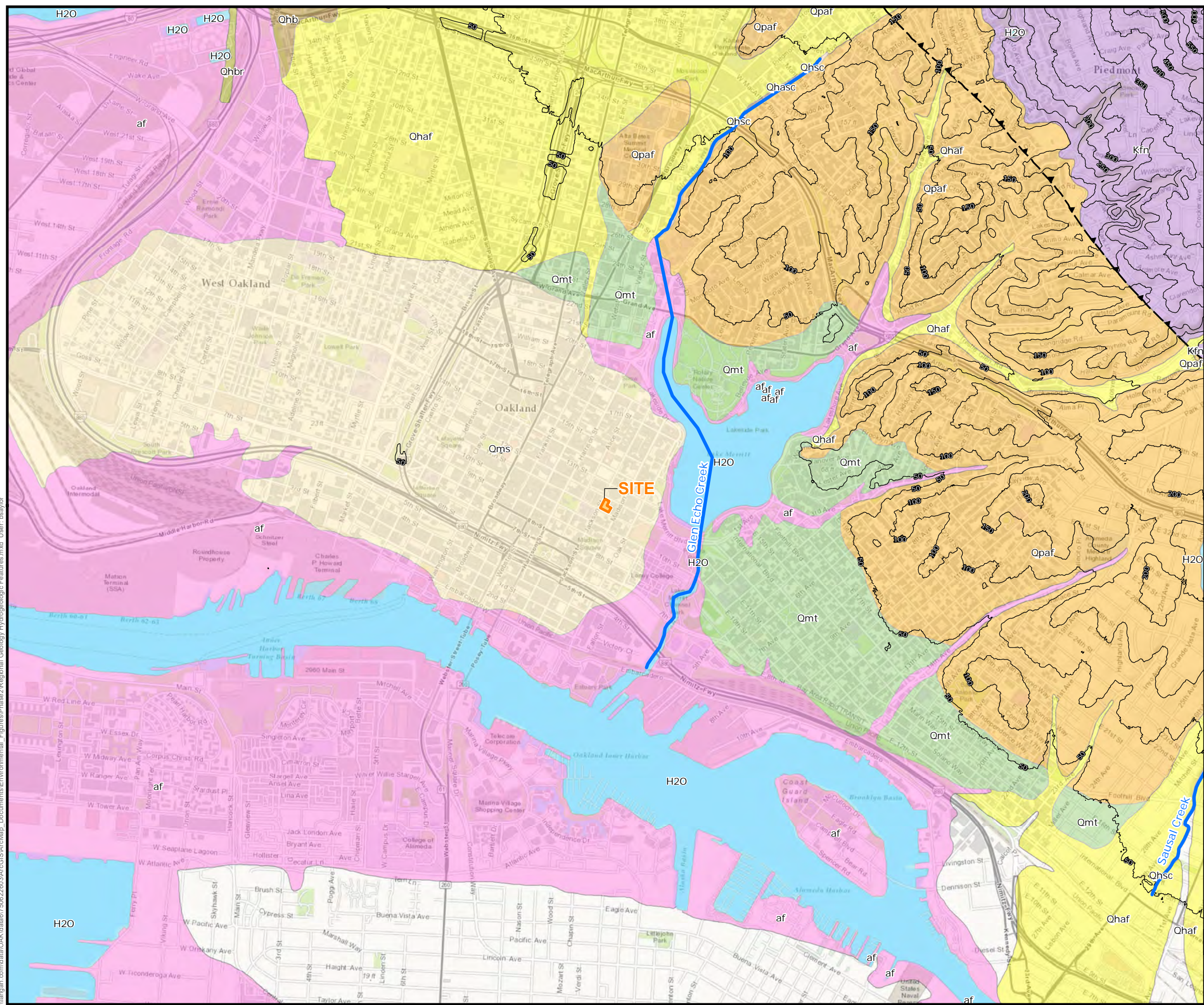
1110 JACKSON STREET
 Oakland, California

NEARBY SURFACE WATER BODIES







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









Legend

-  Site Boundary
-  Glenn Echo Creek
-  50ft Contour Interval
-  Inferred Thrust Fault

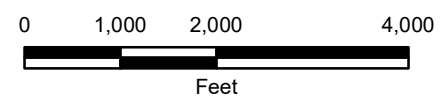
Bedrock Geology

Kfn – Sandstone of the Novato
Quarry terrane of Blake and others (1984) (Late Cretaceous)

Surficial Geology

-  Qhaf – Alluvial fan and fluvial deposits (Holocene)
-  Qhsc – Artificial stream channels (Historic)
-  Qhb – Basin deposits (Holocene)
-  Qhbr – (Beach ridge deposits (Holocene)
-  Qhsc – Stream channel deposits (Holocene)
-  Qms – Merritt sand (Holocene)
-  Qmt – Marine terrace deposits (Pleistocene)
-  Qpaf – Alluvial fan and fluvial deposits (Pleistocene)
-  Af – Artificial fill
-  Water

Notes:
 1. Geologic units based on the Geologic Map of the Oakland Metropolitan Area, Alameda County, California; R.W. Graymer, 2000.
 2. Topographic basemap is provided through Langan's Esri ArcGIS software licensing and ArcGIS online.
 Copyright: © 2011 National Geographic Society, i-cubed.
 3. Stream data provided by the National Hydrologic dataset, 2017.



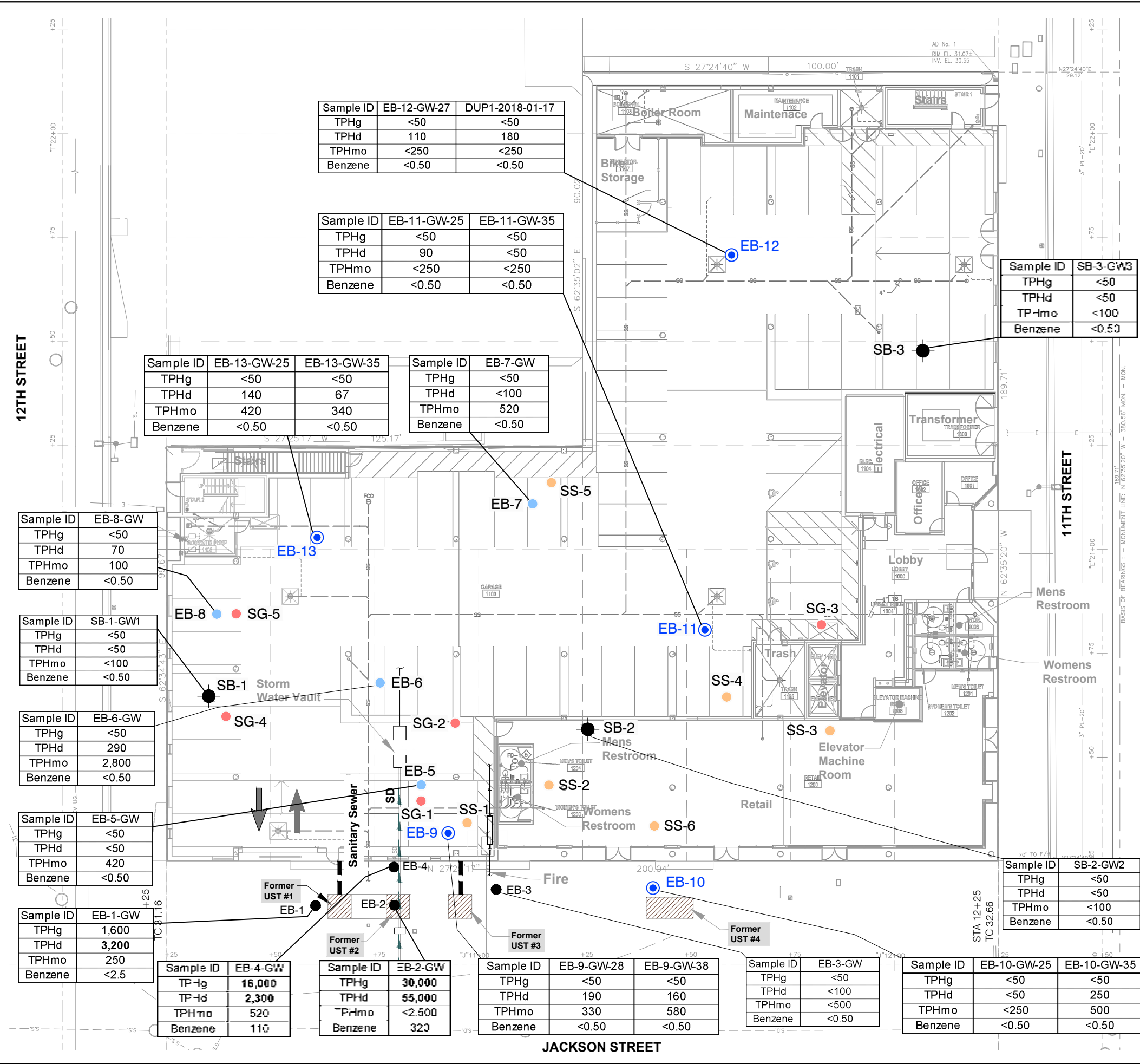
1110 JACKSON STREET
Oakland, California

**REGIONAL GEOLOGY AND
KEY HYDROLOGIC FEATURES MAP**

Date 7/26/2017	Project 750622605	Figure 4
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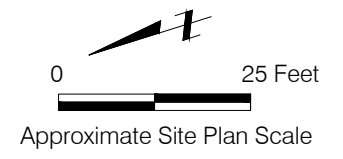
EXPLANATION

- EB-9 ● Approximate location of soil and groundwater sample by Langan, January 2018
- SS-1 ● Approximate location of sub-slab sample by Langan, November 2016
- SG-1 ● Approximate location of soil gas sample by Langan, November 2016
- EB-5 ● Approximate location of soil and groundwater sample by Langan, November 2016
- EB-1 ● Approximate location of grab groundwater sample by Langan, August 2016
- SB-1 ● Approximate location of boring conducted by Tetra Tech, 2005
- Approximate location of former USTs
- Capped in-place former product pipeline

Sample ID	"Environmental Boring-Location-Groundwater-Depth"
TPHg	Total Petroleum Hydrocarbons as gasoline
TPHd	Total Petroleum Hydrocarbons as diesel
TPHmo	Total Petroleum Hydrocarbons as motor oil
Benzene	

Bold - concentrations exceed the San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels, Aquatic Habitat Goal Levels, Saltwater Ecotox (3,700 ug/L for TPHg; 640 ug/L for TPHd; and 350 ug/L for Benzene)

- Notes:
1. Fire and water supply lines are located above ground in building footprint.
 2. Elevator pit constructed with waterproof concrete walls and flooring. The bottom of the elevator pit is approximately 7 feet below ground surface.
 3. UST piping does not extend beneath building, as it was removed during foundation work. Samples collected beneath former product pipelines during tank removal were non-detect for petroleum hydrocarbons. Concentrations greater than the ecological Environmental Screening Level are presented in bold
 5. All concentrations are in milligrams per liter.
 6. Sample IDs not presenting a sample depth (i.e. SB-1-GW1) were collected at first encountered groundwater



1110 JACKSON STREET Oakland, California		
TPHg, TPHd, AND BENZENE RESULTS IN GROUNDWATER		
Date 02/27/18	Project No. 750622605	Figure 5

Sample ID	EB-12-GW-27	DUP1-2018-01-17
TPHg	<50	<50
TPHd	110	180
TPHmo	<250	<250
Benzene	<0.50	<0.50

Sample ID	EB-11-GW-25	EB-11-GW-35
TPHg	<50	<50
TPHd	90	<50
TPHmo	<250	<250
Benzene	<0.50	<0.50

Sample ID	SB-3-GW3
TPHg	<50
TPHd	<50
TPHmo	<100
Benzene	<0.50

Sample ID	EB-13-GW-25	EB-13-GW-35
TPHg	<50	<50
TPHd	140	67
TPHmo	420	340
Benzene	<0.50	<0.50

Sample ID	EB-7-GW
TPHg	<50
TPHd	<100
TPHmo	520
Benzene	<0.50

Sample ID	EB-8-GW
TPHg	<50
TPHd	70
TPHmo	100
Benzene	<0.50

Sample ID	SB-1-GW1
TPHg	<50
TPHd	<50
TPHmo	<100
Benzene	<0.50

Sample ID	EB-6-GW
TPHg	<50
TPHd	290
TPHmo	2,800
Benzene	<0.50

Sample ID	EB-5-GW
TPHg	<50
TPHd	<50
TPHmo	420
Benzene	<0.50

Sample ID	EB-1-GW
TPHg	1,600
TPHd	3,200
TPHmo	250
Benzene	<2.5

Sample ID	EB-4-GW
TPHg	16,000
TPHd	2,300
TPHmo	520
Benzene	110

Sample ID	EB-2-GW
TPHg	30,000
TPHd	55,000
TPHmo	<2,500
Benzene	320

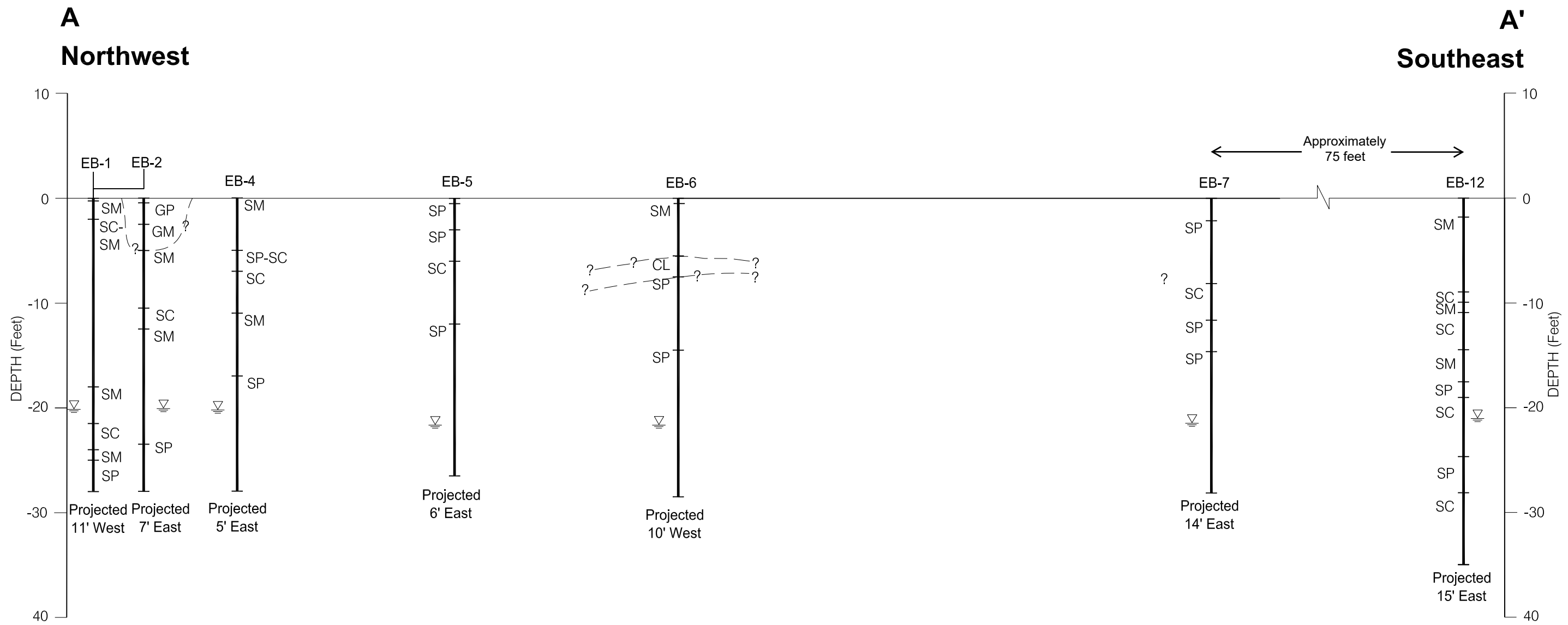
Sample ID	EB-9-GW-28	EB-9-GW-38
TPHg	<50	<50
TPHd	190	160
TPHmo	330	580
Benzene	<0.50	<0.50

Sample ID	EB-3-GW
TPHg	<50
TPHd	<100
TPHmo	<500
Benzene	<0.50

Sample ID	EB-10-GW-25	EB-10-GW-35
TPHg	<50	<50
TPHd	<50	250
TPHmo	<250	500
Benzene	<0.50	<0.50

Sample ID	SB-2-GW2
TPHg	<50
TPHd	<50
TPHmo	<100
Benzene	<0.50

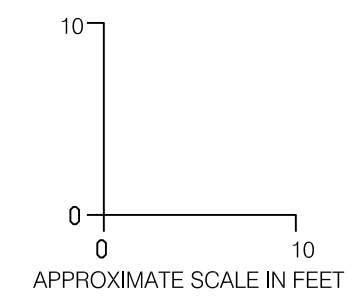
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EXPLANATION

GM	Silty gravels
GP	Poorly-graded gravels
SC	Clayey sands
SM	Silty sands
SP	Poorly-graded sands
SP-SC	Poorly-graded sands to clayey sands
▽	Water level at time of drilling

Note:
 The above profile represents a generalized subsurface cross section interpreted from widely spaced borings. Soil and bedrock deposits may vary in type, strength, and other important properties between points of exploration.



1110 JACKSON STREET Oakland, California		
IDEALIZED SUBSURFACE PROFILE A-A'		
Date 02/27/18	Project No. 750622605	Figure 6
LANGAN		

APPENDIX A
CONCEPTUAL SITE MODEL

**APPENDIX A
CONCEPTUAL SITE MODEL
1110 JACKSON STREET, OAKLAND, CALIFORNIA**

March 2018
Langan Project: 750622605

NO.	CSM ELEMENT	DESCRIPTION	EXHIBITS	REFERENCES	DATA GAPS	RESOLUTION
1	Site Description	<p>The property, 1110 Jackson Street (site), is located to on Jackson Street and occupies the length of the block from 11th Street to 12th Street in Oakland, California, in a fully developed area known as "Chinatown", characterized primarily by commercial and high density residential buildings. The site is bounded by dense development to the east. The site is L-shaped, with long dimensions measuring approximately 190 feet by 200 feet, along 11th and Jackson Streets, respectively.</p> <p>The L-shaped site is bound by Jackson Street to the west, 12th Street to the north, 11th Street to the south, and a school (the American Indian Model School, 171 12th Street) and residential buildings (1115 and 1109 Madison, and 150 and 168 11th Street) to the east.</p> <p>Based on historical research and supporting documentation (Essel Environmental Consulting, 2015), the site was developed with a hospital in 1889. By 1903, the hospital had been replaced by residences. Two automobile repair garages operated in the northern portion of the site (including two USTs beneath Jackson Street) between 1911 and 1946, while the southern portion of the site was developed for residential use. By 1939, the site was fully developed with two auto repair garages in the northern portion of the site, residences in the southern portion of the site, and a new commercial building at the southern corner of the site. One of the automobile repair garages was removed in 1946 and the residences were removed by 1950, when both became parking lots. The second auto repair garage was converted to a store, a glass works business, and a parking lot through the 1950's. In the 1960's, a store was constructed in the southwest corner of the site and a small shed was constructed near the glass works facility. The site remained in this state until 2007 when all the buildings were demolished. The site was vacant until construction of the current apartment building.</p> <p>The site is currently occupied by a 5-story residential building with an openly ventilated parking garage and a commercial space on the ground floor. The building is currently occupied.</p>	<p>Figure 1 – Site Location Map</p> <p>Figure 2 – Site Plan</p>	<p>EMG, <i>Phase I Environmental Site Assessment, 176 and 198 11th Street/1110 Jackson Street, Oakland, California</i> dated 15 September 2005.</p> <p>Essel Environmental Consulting, <i>Phase I Environmental Site Assessment, 176 and 198 11th Street/1110 Jackson Street, Oakland, California 94607</i> dated 13 February 2015.</p> <p>Langan, <i>Underground Storage Tank Closure Investigation Report, 1110 Jackson Street, Oakland, California</i> dated 13 September 2016.</p> <p>Langan, <i>Additional Environmental Site Assessment Report, 1110 Jackson Street, Oakland, California</i> dated 1 December 2016.</p>	None	Not Applicable
2	Surface Water Bodies	<p>The nearest surface water body is Lake Merritt located approximately 1,200 feet to the east of the site. The San Francisco Bay is approximately 0.7 miles southwest of the site. Lake Merritt is a brackish tidal estuary that is linked by a narrow channel at its southern terminus point into the inner Oakland Harbor of the San Francisco Bay.</p>	<p>Figures 3 – Nearby Surface Water Bodies</p> <p>Figures 4 – Regional Geology and Key Hydrologic Features Map</p>	None	None	Not Applicable
3	Nearby Wells	<p>The State Water Resources Quality Control Board's (RWQCB) Geotracker GAMA website provides the locations of water supply wells. Langan reviewed the GAMA website in July 2017 and no municipal supply wells were shown within 1,000 feet of the site.</p>	Appendix B – Well Search	<p><i>RWQCB Geotracker GAMA, Results of Well Search</i> website accessed 22 February</p>	None	Not Applicable

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		Langan requested information from the California Department of Water Resources (DRW) for permitted wells and borings within one mile of the site. Appendix B presents the results of the DWR well search. None of the wells within 1 mile of the site were identified as water supply wells based on a review of the documentation provided by DWR.		2018.		
4	Regional Geology and Hydrogeology	<p><u>Regional Geology</u> Regional physiographic conditions are reflective of and affected by the tectonic framework, regional faulting, and geologic units that comprise the site and surrounding area. The regional topography is characterized by northwest to southeast oriented coastal hills and intervening valleys, developed as a consequence of plate motions at the boundary of the North American and Pacific lithospheric plates. Under the current tectonic framework, compressive and shearing forces from the plate motions are distributed regionally across several active, sub-parallel, northwest to southeast trending fault zones. Horizontal motion is distributed across the major active strike-slip faults. Within the East Bay, these faults include the Hayward, Calaveras and Concord Faults, which comprise the East Bay Fault System (EBFS) (Sloan, 2006). Compressive deformation is distributed across northwest to southeast trending thrust and reverse faults parallel to the major strike-slip faults of the EBFS (Graymer, 2000). Regional uplift of the East Bay hills was coincident with a change in tectonic forces to a component of compression beginning approximately 3.5 million years ago (Sloan, 2006); current measurements indicate uplift is occurring at a rate of as much as one millimeter per year (Graymer, 2000). Regionally, bedrock is composed of the Mesozoic Franciscan Assemblage (complexly faulted and folded marine sedimentary and volcanic rocks) and is overlain by Quaternary to modern sedimentary formations which include alluvial fans, and basin and stream valley deposits, amongst others (Graymer, 2000). These Quaternary sedimentary formations were deposited during regional uplift.</p> <p>The site is located within the Coast Ranges geomorphic province, which is characterized by a series of parallel, northwesterly trending, folded and faulted mountain chains and valleys. In central California, these ranges are separated by a geologic depression that formed mainly by Franciscan Formation rock series, consisting of Jurassic Franciscan melanges. The East Bay ranges forms the eastern boundary of the Bay and consist of Late Mesozoic shelf and slope sedimentary rocks. Situated between the East Bay ranges and San Francisco Bay is the Easy Bay Plain. This plain measures approximately 25 miles long and two to seven miles wide. Prior to urban development, the plain consisted of tidal flats, estuaries and alluvial plains.</p> <p><u>Regional Hydrogeology</u> The San Francisco Bay hydrologic region has 28 identified groundwater basins underlying approximately 30 percent of the entire San Francisco Bay region (DWR, 2003). Alameda County is within the East Bay Plain sub-basin of the Santa Clara Valley groundwater basin. The East Bay Plain sub-basin is bounded to the north by San Pablo Bay, to the east by Franciscan bedrock, to the south by the Niles Cone groundwater basin, and extends to the west below the San Francisco Bay. The East Bay Plain is formed in an alluvial plain; the main water bearing units consist of unconsolidated</p>	Figure 4 – Regional Geology and Key Hydrologic Features	<p>Sloan, Doris. <i>Geology of the San Francisco Bay Region, California Natural History Guides</i>, University of California Press; First Printing edition. (360 pages), 27 June 2006.</p> <p>Graymer, R.W. <i>Geologic Map and Map Database of the Oakland metropolitan area, Alameda, Contra Costa, and San Francisco Counties, California</i>. Miscellaneous Field Studies MF-2342, 2000.</p> <p>California Department of Water Resources (DWR). <i>Bulletin 118, Update</i>, October 2003.</p> <p>DWR. <i>San Francisco Bay Hydrologic Region, California's Groundwater Bulletin 118, Santa Clara Valley Groundwater Basin, East Bay Plain Subbasin</i>, Last update 27 February 2004.</p>	None	Not Applicable

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NO.	CSM ELEMENT	DESCRIPTION	EXHIBITS	REFERENCES	DATA GAPS	RESOLUTION
		<p>Quaternary sedimentary formations, including the Pleistocene Santa Clara and Alameda Formations, and the Holocene Temescal Formation as well as artificial fill. With the exception of artificial fill, these main water-bearing formations were deposited as alluvial fans.</p> <p>Total groundwater storage capacity within the East Bay Plain was estimated to be 2,670,0000 acre feet, of which, approximately 2,500,000 acre feet is in storage to a depth of 1,000 feet below mean sea level; adjusting for potential sea water intrusion reduces the groundwater is storage to approximately 80,000 acre feet (storage above mean sea level). The San Francisco Bay Regional Water Quality Control Board identified 13 areas of major groundwater pollution in the East Bay Plain; contamination was most commonly associated with release of fuels and solvents, and was generally found within the upper 50 feet (DWR, 2004).</p>				
5	Site Geology	<p>The site rests on the Merritt Sand. The site's surficial geology is mapped as Holocene and Pleistocene aged Quaternary eolian deposits described as fine-grained, very well sorted, well-drained sand (Graymer, 2000).</p> <p>The subsurface has been explored to a depth up to 27 feet below ground surface (bgs). The subsurface soil at the site reportedly consists of three to five feet of fill underlain by sand mixed with varying amounts of silty and clayey sand.</p>	<p>Figure 2 – Site Plan</p> <p>Appendix C. Boring Logs and Cross Sections</p>	<p>California Geological Survey, <i>State of California Seismic Hazard Zones, Oakland West Quadrangle, Official Map</i> dated 14 February 2003.</p> <p>Graymer, R.W. <i>Geologic Map and Map Database of the Oakland metropolitan area, Alameda, Contra Costa, and San Francisco Counties, California</i>. Miscellaneous Field Studies MF-2342, 2000.</p> <p>Langan, <i>Additional Environmental Site Assessment Report, 1110 Jackson Street, Oakland, California</i> dated 1 December 2016.</p>	None	Not Applicable
6	Site Groundwater Depth and Flow	<p>Groundwater was generally measured between approximately 20 feet bgs with the potential for seasonal rainfall to influence groundwater levels by several feet.</p> <p>The groundwater flow direction at the site, based on groundwater investigations performed at a nearby site (165 13th Street, Oakland, California), is anticipated to flow in an easterly direction towards Lake Merritt.</p>	Appendix C – Boring Logs and Cross Sections	None	None	Not Applicable

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NO.	CSM ELEMENT	DESCRIPTION	EXHIBITS	REFERENCES	DATA GAPS	RESOLUTION
7	Preferential Pathways	<p>Utility conduits (storm water, sanitary sewer and water supply lines) enter the property from Jackson Street near the former UST #1, #2, and #3 locations. Utility conduits adjacent to or within the site boundaries are not potential preferential pathways for groundwater migration due to the depth to groundwater beneath the site.</p> <p>Additionally, one elevator bank is located near the commercial space along Jackson and 11th Streets. The elevator pit extends about 6 feet below the slab and is constructed of waterproof concrete. Elevator pits and shafts can act as conduits for vapor intrusion.</p> <p>Sub-slab and soil gas samples were collected in the vicinity of the subsurface utility trenches and the elevator pit in November 2016. No sub-slab or soil gas samples had detected concentrations in excess of their respective Regional Water Quality Control Board (RWQCB) Tier 1 Environmental Screening Levels (ESLs), which indicates that vapor intrusion is not a significant concern at the site.</p> <p>In January 2018, borings (EB-9 through EB-13, Figure 2) were advanced across the footprint of the existing building. Groundwater levels were measured ranging from approximately 19 to 21 feet bgs. Considering these recent groundwater level measurements, utility conduits will not act as preferential pathways for groundwater.</p>	Figure 2 – Site Plan	Langan, <i>Additional Environmental Site Assessment Report, Fuel Leak Case RO0003232, 1110 Jackson Street, Oakland, California</i> dated 1 December 2016.	None	Not Applicable
8	UST Systems or Release Source	<p>The site formerly housed four underground storage tanks (USTs) consisting of two 265-gallon gasoline USTs, one 110-gallon gasoline UST, and one 750-gallon diesel UST. All tanks were located underneath the Jackson Street sidewalk along the eastern side of the site. The three gasoline USTs were removed in April 2016 and the diesel UST was removed in November 2016 by Golden Gate Tank Removal (GGTR). Over-excavation was performed for each of the USTs as part of the removal and sidewall and bottom samples were collected by GGTR following excavation.</p> <p>Two environmental site assessments, performed in August 2016 and November 2016, were completed to evaluate the extent of soil, soil gas, and groundwater impacts related to the release of petroleum products from the USTs at the site. A total of eight borings (EB-1 through EB-8) for soil and/or groundwater collection, five soil gas borings, and six sub-slab sample points were completed to facilitate the collection of environmental samples to delineate the potential contaminant impacts since the discovery and removal of the first three USTs. The analytical results collected to date indicate contaminant impacts at the site are attributable to the former USTs and generally limited to soil immediately surrounding the former USTs and groundwater extending slightly beneath the existing building.</p> <p>Soil and groundwater samples were collected in January 2018 immediately east of the former UST #4 and farther downgradient of the former USTs #1, 2 and 3. Borings EB-10 and EB-11 were advanced approximately five and 60 feet downgradient of the former UST #4, respectively. Analytical results for soil from zero feet bgs to groundwater (approximately 20 feet bgs) as well as shallow and deep discrete groundwater samples (approximately 25 and 35 feet bgs, respectively) indicate that groundwater impacts</p>	Figure 2 – Site Plan	<p>Golden Gate Tank Removal (GGTR), <i>Underground Storage Tank Closure Report, 1110 Jackson Street, Oakland, California</i> dated 23 June 2016.</p> <p>GGTR, <i>Underground Storage Tank (T4) Closure Report, 1110 Jackson Street, Oakland, California</i> dated 13 January 2017.</p> <p>Langan, <i>Underground Storage Tank Closure Investigation Report, 1110 Jackson Street, Oakland, California</i> dated 13 September 2016.</p>	None	Not Applicable

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NO.	CSM ELEMENT	DESCRIPTION	EXHIBITS	REFERENCES	DATA GAPS	RESOLUTION
		exceeding ecological ESLs extend less than 250 feet in length from the former UST locations.				
	LNAPL	Based on previous investigations conducted by others and Langan, there is no evidence and/or documentation of light non-aqueous phase liquid (LNAPL) at the site. Groundwater samples were collected from six borings (EB-1 through EB-4 and EB-10 and EB-11) downgradient and cross-gradient of the former USTs. After allowing for groundwater equilibration and before collecting groundwater samples, a disposable bailer was used to skim the surface of groundwater to inspect for the presence of LNAPL. LNAPL was not observed in any borings.	None	None	None	Not Applicable
9	Contaminants of Concern	Chemicals currently or historically detected in site soil and/or groundwater at concentrations greater than ESLs presented in Tables 1 through 4 include: <ul style="list-style-type: none"> <u>Petroleum Hydrocarbons and TPH constituents</u>: total petroleum hydrocarbons as gasoline (TPHg), diesel (TPHd), and motor oil (TPHmo) <u>Polycyclic aromatic hydrocarbons (PAHs)</u>: benzo (a) Anthracene, benzo (a) Pyrene, benzo (b) fluoranthene, dibenz (a,h) anthracene, indeno (1,2,3-cd) pyrene, 2-methyl-naphthalene, naphthalene, <u>Volatile Organic Compounds (VOCs)</u>: benzene, t-Butyl benzene, ethylbenzene, naphthalene, and xylenes <u>Metals</u>: Lead (in soil) 	Table 1—TPH and VOC Analytical Results in Soil Table 2—Metal Analytical Results in Soil Table 3—PAH Analytical Results in Soil Table 4—Non-Metal Analytical Results in Grab-Groundwater	Langan, <i>Underground Storage Tank Closure Investigation Report, 1110 Jackson Street, Oakland, California</i> dated 13 September 2016.	None	Not applicable
10	Soil Impacts	In 2006, Tetra Tech advanced three borings in an effort to assess the potential petroleum impacts associated with an adjacent property. Soil samples were collected at approximately 12 feet bgs and analytical results yielded no detections of TPH, VOCs, or metals above their respective ESLs. In 2016, after discovery of USTs in the Jackson Street sidewalk adjacent to the site, and subsequent removal of the USTs and the associated over-excavation, soil contamination was visually observed and soil samples collected from beneath all USTs. The ACEH recommended over-excavation of contaminated soil and additional bottom wall soil sampling. The recommended over-excavation and additional sampling was completed by GGTR in May 2016. TPHg contamination was detected beneath all three UST excavations at concentrations ranging between 67.8 mg/kg (beneath UST 3) and 6,320 mg/kg (beneath UST 2). The ACEH requested collection of groundwater samples near the former tanks to assess the impact of petroleum and petroleum related compounds to groundwater. In August 2016, Langan performed additional soil sampling in conjunction with the requested groundwater sampling at four locations near the former USTs (EB-1 through 4). Soil sample results collected from beneath UST 2 indicated that petroleum	Table 1—TPH and VOC Analytical Results in Soil Table 2—Metal Analytical Results in Soil Table 3—PAH Analytical Results in Soil Table 4—Non-Metal Analytical Results in Grab-Groundwater Figure 2 – Site Plan	Langan, <i>Underground Storage Tank Closure Investigation Report, 1110 Jackson Street, Oakland, California</i> dated 13 September 2016. Langan, <i>Additional Environmental Site Assessment Report, 1110 Jackson Street, Oakland, California</i> dated 1 December 2016. Tetra Tech EM, Inc., <i>Limited Phase II Environmental Site Assessment, Jackson Tower, Oakland,</i>	None	Not Applicable

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NO.	CSM ELEMENT	DESCRIPTION	EXHIBITS	REFERENCES	DATA GAPS	RESOLUTION
		<p>hydrocarbons and related compounds have impacted subsurface soils at the site.</p> <p>Following the additional soil and groundwater sampling, Langan collected soil and groundwater samples from four additional borings (EB-5 through EB-8) at the site in November 2016. Soil samples were collected at approximately 4.5 and 8.5 feet bgs. Soil samples collected and analyzed for TPH and VOCs were generally non-detect, except TPHd and TPHmo detected at concentrations of 15 and 160 mg/kg in sample EB-6-4.5 and TPHmo detected at 5.1 mg/kg in sample EB-8-4.5.</p> <p>In January 2018, soil borings (EB-9 through EB-13, Figure 2) were advanced throughout the footprint of the existing building for the collection of soil and groundwater samples. Soil samples were collected within the first five feet to characterize the chemical nature of surface soils and to assess the presence of a suitable bioattenuation zone below the slab of the building. Additionally, soil samples were collected at five foot intervals until groundwater was encountered. TPHg was not detected above the laboratory reporting limit of 1.0 mg/kg in 38 of 38 samples analyzed. TPHd was detected in three of 38 samples analyzed at concentrations ranging from 1.6 to 15 mg/kg. TPH-mo was detected in seven of 38 samples analyzed at concentrations ranging from 5.1 to 160 mg/kg. No soil samples analyzed had detected concentrations of TPH exceeding the RWQCB Low-Threat Closure Required Characteristics of Bioattenuation Zones for Sites Without Oxygen Data (i.e. sum of TPHg and TPHd greater than 100 mg/kg).</p>		<p><i>California</i> dated 18 January 2006.</p>		
11	Groundwater Impacts	<p>Groundwater samples were first collected at the site in 2006. Additional groundwater samples were collected subsequent to the removal of USTs #1, #2, and #3. No TPH was detected in any of the groundwater samples collected by Tetra Tech from borings SB-1, SB-2 or SB-3 in 2006. The only VOCs detected were trichloroethene (TCE) and tetrachloroethene (PCE) in boring SB-3 at concentrations of 4.1 µg/L, which are both below their maximum contaminant level (MCL) of 5 µg/L. Boring SB-3 was located in the southeast portion of the site.</p> <p>In August 2016, Langan advanced three borings (EB-1 through EB-3) in the vicinity of the former USTs and one boring (EB-4) downgradient of the former USTs. Analytical results from this investigation revealed the highest concentrations of TPH and related compounds in groundwater were directly below UST #2, which also had the highest concentrations in soil. Contaminants detected above their MCL priority ESLs were reported as follows:</p> <ul style="list-style-type: none"> • TPHg and TPHd in EB-2 at 30,000 and 55,000 µg/L, respectively; • TPHg, TPHd, and TPHmo in EB-1 at 1,600, 3,200, and 250 µg/L, respectively; • TPHg, TPHd, and TPHmo in EB-4 at 16,000, 2,300, and 520 µg/L, respectively; • Benzene in EB-2 and EB-4 at 320 and 110 µg/L, respectively; 	<p>Table 4—Non-Metal Analytical Results in Grab-Groundwater</p> <p>Figure 2 – Site Plan</p>	<p>GGTR, <i>Underground Storage Tank Closure Report, 1110 Jackson Street, Oakland, California</i> dated 23 June 2016.</p> <p>GGTR, <i>Underground Storage Tank (T4) Closure Report, 1110 Jackson Street, Oakland, California</i> dated 13 January 2017.</p> <p>Langan, <i>Underground Storage Tank Closure Investigation Report, 1110 Jackson Street, Oakland, California</i> dated 13 September 2016.</p> <p>Langan, <i>Additional Environmental Site</i></p>	None	Not applicable

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NO.	CSM ELEMENT	DESCRIPTION	EXHIBITS	REFERENCES	DATA GAPS	RESOLUTION
		<ul style="list-style-type: none"> • Ethylbenzene EB-2 and EB-4 at 740 and 250 µg/L, respectively; • Naphthalene in EB-2 and EB-4 at 100 and 7.9 µg/L, respectively; • Xylenes in EB-2 and EB-4 at 430 and 27 µg/L, respectively. <p>Based on elevated concentrations downgradient of the USTs, additional groundwater sampling was performed by Langan in November 2016. Four borings (EB-5 through EB-8) were advanced to a maximum depth of 26.5 feet bgs downgradient of the former USTs to determine the extent of the groundwater contamination at the site. TPHd and TPHmo were the only compounds detected above their MCL Priority ESLs. However, no groundwater samples beneath the building had detected concentrations exceeding ecological ESLs (saltwater Ecotox). Groundwater sample results yielded the following maximum detections:</p> <ul style="list-style-type: none"> • TPHd in EB-6 at 290 µg/L • TPHmo in EB-6 at 2,800 µg/L <p>Based on the groundwater investigations to this point, it has been confirmed that groundwater beneath the site has been impacted by TPHd and TPHmo downgradient of the former USTs.</p> <p>Discrete groundwater samples were collected by Langan in January 2018 from five borings from depths of first encountered groundwater (shallow) and approximately 10 feet below the shallow groundwater sample (deep) in an effort to delineate the vertical and horizontal extent of groundwater contamination. A total of 10 groundwater samples were collected including one duplicate sample from boring EB-12 (DUP1-2018-01-17). Shallow groundwater was collected from bottom depths ranging from 25 to 28 feet bgs and deep groundwater samples were collected from bottom depths of 35 to 38 feet bgs. Groundwater results yielded the following maximum concentrations:</p> <ul style="list-style-type: none"> • TPH-g was not detected above the laboratory reporting limit of 50 µg/L in any of the 10 samples analyzed • TPH-d in EB-10 at 35 feet bgs at 250 µg/L • TPH-mo in EB-9 at 38 feet bgs at 580 µg/L • Benzene, toluene, ethylbenzene, xylenes and methyl tert-butyl ether (MTBE) were not detected above the laboratory reporting limit of 0.50 µg/L in the 10 samples analyzed • Naphthalene was not detected above the laboratory reporting limit of 0.50 µg/L in the 10 samples analyzed 		<p><i>Assessment Report, 1110 Jackson Street, Oakland, California</i> dated 1 December 2016.</p> <p>Tetra Tech EM, Inc., <i>Limited Phase II Environmental Site Assessment, Jackson Tower, Oakland, California</i> dated 18 January 2006.</p>		

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		Groundwater results were compared to MCLs and ecological ESLs (saltwater Ecotox). Based on this comparison, the plume is less than 250 feet in length in shallow and deeper groundwater.				
12	Soil Vapor Impacts	<p>Langan has conducted soil vapor sampling in areas closest to the former USTs, including six sub-slab vapor samples (SS-1 through SS-6) and five soil gas samples (SG-1 through SG-5), including soil gas near the elevator at a depth below the bottom of the elevator pit. Samples were collected from within both the first floor parking garage and commercial spaces. All sub-slab and soil vapor samples with reported VOC detections were at concentrations below current ESLs, where established.</p> <p>Based on the soil vapor analytical data, soil vapor does not pose a significant vapor intrusion concern at the site.</p> <p>In January 2018, soil boring EB-11 was advanced near the elevator pit. Soil samples were collected within the bioattenuation zone from zero to five feet below the building foundation and at five foot intervals until groundwater was encountered. Only TPHmo was detected in soil samples from EB-11 at a depth of 2.5 feet bgs and a concentration of 11 mg/kg. TPHg, TPHd and VOCs were not detected above laboratory reporting limits. Based on concentrations of VOCs detected in groundwater in comparison to ESLs for vapor intrusion, as well as the presence of a suitable bioattenuation zone beneath the building slab, there is not a significant risk related to vapor intrusion at the site.</p>	<p>Table 5—Volatile Organic Compound Analytical Results in Vapor</p> <p>Figure 2 – Site Plan</p>	Langan, <i>Underground Storage Tank Closure Investigation Report, 1110 Jackson Street, Oakland, California</i> dated 13 September 2016.	None	Not applicable
13	Source Removal and Remediation	Source removal consisted of excavation of the former USTs (two 265-gallon gasoline USTs, one 110-gallon gasoline UST, and one 750-gallon diesel UST) performed by Golden Gate Tank Removal in April 2016 (USTs 1 through 3) and November 2016 (UST 4). All four former USTs were removed from beneath the Jackson Street sidewalk adjacent to the site. Remediation consisted of removal of visibly contaminated soil to the extent practical without compromising the structures surrounding the pits by over-excavation and backfill with imported fill material.	Figure 2 – Site Plan	<p>Golden Gate Tank Removal (GGTR), <i>Underground Storage Tank Closure Report, 1110 Jackson Street, Oakland, California</i> dated 23 June 2016.</p> <p>GGTR, <i>Underground Storage Tank (T4) Closure Report, 1110 Jackson Street, Oakland, California</i> dated 13 January 2017.</p>	None	Not applicable

APPENDIX B
WELL SEARCH RESULTS

File Original with DWR

Well Completion Report

State of California

Refer to Instruction Pamphlet
No. e0111680

DWR Use Only - Do Not Fill In

011504W35K
State Well Number/Site Number

Latitude Longitude

APN/TRS/Other

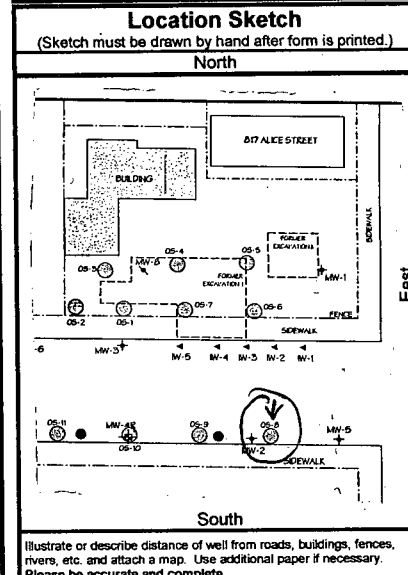
Page 1 of 1
 Owner's Well Number 05-8
 Date Work Began 10-26-10 Date Work Ended 10-26-10
 Local Permit Agency ACPWA
 Permit Number W2010-0743 Permit Date 10-13-10

Geologic Log		
Orientation <input type="radio"/> Vertical <input type="radio"/> Horizontal <input type="radio"/> Angle Specify _____		
Drilling Method _____		Drilling Fluid _____
Depth from Surface	Description	
Feet to Feet	Describe material, grain size, color, etc	
0	0.5	concrete
0.5	16	<No sampling>
16	25.5	Silty SAND
25.5	28	SAND
28	30	Sandy CLAY
Total Depth of Boring <u>30</u> Feet		
Total Depth of Completed Well <u>28</u> Feet		

Well Owner

Well Location

Address 250 8th Street
 City Oakland County Alameda
 Latitude _____ N Longitude _____ W
 Datum _____ Decimal Lat. _____ Decimal Long. _____
 APN Book _____ Page _____ Parcel _____
 Township 15 Range 4W Section 35K



Activity

New Well
 Modification/Repair
 Deepen
 Other _____
 Destroy
 Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

Water Supply
 Domestic Public
 Irrigation Industrial
 Cathodic Protection
 Dewatering
 Heat Exchange
 Injection
 Monitoring
 Remediation
 Sparging
 Test Well
 Vapor Extraction
 Other _____

Water Level and Yield of Completed Well

Depth to first water _____ (Feet below surface)
 Depth to Static _____
 Water Level _____ (Feet) Date Measured _____
 Estimated Yield * _____ (GPM) Test Type _____
 Test Length _____ (Hours) Total Drawdown _____ (Feet)
 *May not be representative of a well's long term yield.

Casings							
Depth from Surface	Borehole Diameter	Type	Material	Wall Thickness	Outside Diameter	Screen Type	Slot Size
Feet to Feet	(Inches)			(Inches)	(Inches)		(Inches)
0.5	26.5	8	Sch 80	PVC	0.179	1.32	
26.5	28	8	Sch 80	PVC	0.179	1.32	Factory 25sqm

Annular Material			
Depth from Surface	Fill	Description	
Feet to Feet			
2.5	23	concrete	Neat
23	25	Bentonite	
25	30	SAND	#2/12

Attachments

Geologic Log
 Well Construction Diagram
 Geophysical Log(s)
 Soil/Water Chemical Analyses
 Other _____

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name _____
 Person, Firm or Corporation _____
 Address _____
 City _____ State _____ Zip _____
 Signed _____ Date Signed _____
 C-57 Licensed Water Well Contractor _____ CA _____
 C-57 License Number _____

File Original with DWR

Well Completion Report

Page 1 of 1
 Owner's Well Number 05-9
 Date Work Began 10-26-10 Date Work Ended 10-26-10
 Local Permit Agency ACPWA
 Permit Number W2010-0743 Permit Date 10-13-10

DWR Use Only - Do Not Fill In

01504W35K
 State Well Number/Site Number

Latitude 37° 51' N Longitude 122° 21' W

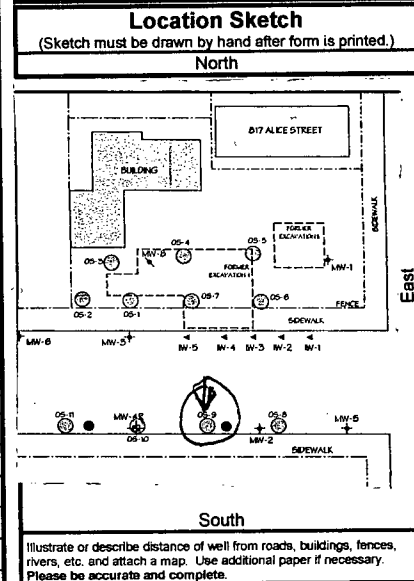
APN/TRS/Other _____

Geologic Log		
Orientation <input type="radio"/> Vertical <input type="radio"/> Horizontal <input type="radio"/> Angle Specify _____		
Drilling Method _____ Drilling Fluid _____		
Depth from Surface	Description	
Feet to Feet	Describe material, grain size, color, etc	
0	1	concrete
1	16	↳ No sampling
16	22	silty SAND
22	28	SAND
28	30	↳ Sample jammed - couldn't remove
Total Depth of Boring <u>30</u> Feet		
Total Depth of Completed Well <u>28</u> Feet		

Well Owner

Well Location

Address 250 18th Street
 City Oakland County Alameda
 Latitude _____ N Longitude _____ W
 Datum _____ Decimal Lat. _____ Decimal Long. _____
 APN Book _____ Page _____ Parcel _____
 Township 15 Range 4W Section 35K



Activity

New Well
 Modification/Repair
 Deepen
 Other _____
 Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

Water Supply
 Domestic Public
 Irrigation Industrial
 Cathodic Protection
 Dewatering
 Heat Exchange
 Injection
 Monitoring
 Remediation
 Sparging
 Test Well
 Vapor Extraction
 Other _____

Water Level and Yield of Completed Well

Depth to first water _____ (Feet below surface)
 Depth to Static _____
 Water Level _____ (Feet) Date Measured _____
 Estimated Yield * _____ (GPM) Test Type _____
 Test Length _____ (Hours) Total Drawdown _____ (Feet)
 *May not be representative of a well's long term yield.

Casings								Annular Material			
Depth from Surface	Borehole Diameter	Type	Material	Wall Thickness	Outside Diameter	Screen Type	Slot Size if Any	Depth from Surface	Fill	Description	
Feet to Feet	(Inches)			(Inches)	(Inches)		(Inches)	Feet to Feet			
0-5	26.5	sch 80	PVC	0.179	1.32			2-5	23	compact	Neat
26-5	28	sch 80	PVC	0.179	1.32	factory	25 mil	23	25	Bentonite	
								25	30	Sand	# 2/12

Attachments

Geologic Log
 Well Construction Diagram
 Geophysical Log(s)
 Soil/Water Chemical Analyses
 Other _____

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name _____
 Person, Firm or Corporation
 Address _____
 City _____ State CA Zip _____
 Signed [Signature] Date Signed 12/01/10 C-57 License Number 802334

File Original with DWR

State of California Well Completion Report

Refer to Instruction Pamphlet No. e0111683

DWR Use Only - Do Not Fill In

015024W35K
State Well Number/Site Number

Latitude Longitude

APN/TRS/Other

Page 1 of 1
 Owner's Well Number 05-11
 Date Work Began 10-25-10 Date Work Ended 10-25-10
 Local Permit Agency ACPWA
 Permit Number W2010-0743 Permit Date 10-13-10

Geologic Log		
Orientation <input type="radio"/> Vertical <input type="radio"/> Horizontal <input type="radio"/> Angle Specify _____		
Drilling Method _____		Drilling Fluid _____
Depth from Surface	Description	
Feet	to	Feet Describe material, grain size, color, etc
0	0.5	Concrete
0.5	16	< NO Sampling ?
16	20	Silty SAND
20	29	SAND
29	30	Sandy CLAY

Total Depth of Boring 30 Feet
 Total Depth of Completed Well 29 Feet

Well Owner

Well Location

Address 250 8th St
 City Oakland County Alameda
 Latitude _____ N Longitude _____ W
 Datum _____ Decimal Lat. _____ Decimal Long. _____
 APN Book _____ Page _____ Parcel _____
 Township 15 Range 4W Section 35K

Location Sketch
 (Sketch must be drawn by hand after form is printed.)

Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.

Activity

New Well
 Modification/Repair
 Deepen
 Other _____
 Destroy
 Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

Water Supply
 Domestic Public
 Irrigation Industrial
 Cathodic Protection
 Dewatering
 Heat Exchange
 Injection
 Monitoring
 Remediation
 Sparging
 Test Well
 Vapor Extraction
 Other _____

Water Level and Yield of Completed Well

Depth to first water _____ (Feet below surface)
 Depth to Static _____
 Water Level _____ (Feet) Date Measured _____
 Estimated Yield * _____ (GPM) Test Type _____
 Test Length _____ (Hours) Total Drawdown _____ (Feet)
 *May not be representative of a well's long term yield.

Casings								Annular Material			
Depth from Surface Feet to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)	Depth from Surface Feet to Feet	Fill	Description	
0.5	27.5	8	Sub 80	PVC	0.197	1.32		2.5	24	concrete	Neat
27.5	29	8	Sub 80	PVC	0.197	1.32	Factory 25mil	24	26	Bentonite	
								26	30	Sand	#2/12

Attachments

Geologic Log
 Well Construction Diagram
 Geophysical Log(s)
 Soil/Water Chemical Analyses
 Other _____

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name _____
 Person, Firm or Corporation
 Signed _____
 C-57 Licensed Water Well Contractor

City 12/01/2010 State CA Zip 802334
 Date Signed _____ C-57 License Number _____

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0111684

Page 1 of 1
 Owner's Well Number 05-12
 Date Work Began 10-26-10 Date Work Ended 10-26-10
 Local Permit Agency ACPLWA
 Permit Number W2010-0743 Permit Date 10-13-10

DWR Use Only - Do Not Fill In

0115 04W 35K
 State Well Number/Site Number

Latitude N Longitude W

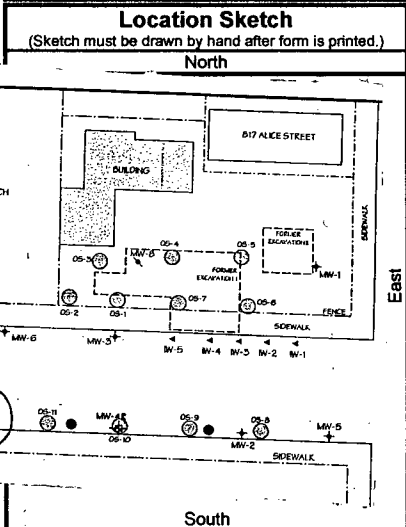
APN/TRS/Other _____

Geologic Log		
Orientation <input type="radio"/> Vertical <input type="radio"/> Horizontal <input type="radio"/> Angle Specify _____		
Drilling Method _____ Drilling Fluid _____		
Depth from Surface	Description	Description
Feet to Feet	Describe material, grain size, color, etc	
0 to 0.5	Concrete	
0.5 to 16	No Sampling	
16 to 30	SAND	
Total Depth of Boring <u>30</u> Feet		
Total Depth of Completed Well <u>30</u> Feet		

Well Owner

Well Location

Address 259 8th Street
 City Oakland County Alameda
 Latitude _____ N Longitude _____ W
 Datum _____ Decimal Lat. _____ Decimal Long. _____
 APN Book _____ Page _____ Parcel _____
 Township 15 Range 4W Section 35K



- Activity**
- New Well
 Modification/Repair
 Deepen
 Other _____
 Destroy
Describe procedures and materials under "GEOLOGIC LOG"
- Planned Uses**
- Water Supply
 Domestic Public
 Irrigation Industrial
- Cathodic Protection
 Dewatering
 Heat Exchange
 Injection
 Monitoring
 Remediation
 Sparging
 Test Well
 Vapor Extraction
 Other _____

Water Level and Yield of Completed Well

Depth to first water _____ (Feet below surface)
 Depth to Static _____
 Water Level _____ (Feet) Date Measured _____
 Estimated Yield * _____ (GPM) Test Type _____
 Test Length _____ (Hours) Total Drawdown _____ (Feet)
 *May not be representative of a well's long term yield.

Casings								Annular Material			
Depth from Surface	Borehole Diameter	Type	Material	Wall Thickness	Outside Diameter	Screen Type	Slot Size if Any	Depth from Surface	Fill	Description	
Feet to Feet	(Inches)			(Inches)	(Inches)		(Inches)	Feet to Feet			
0.5 to 28.5	8	Sch 80	PVC	0.179	1.32			2.5 to 25.5	cement	Nest	
28.5 to 30	8	Sch 80	PVC	0.179	1.32	Factory	25 microns	25.5 to 27.5	Bentonite	-	
								27.5 to 30	Sand	#2/12	

- Attachments**
- Geologic Log
 Well Construction Diagram
 Geophysical Log(s)
 Soil/Water Chemical Analyses
 Other _____

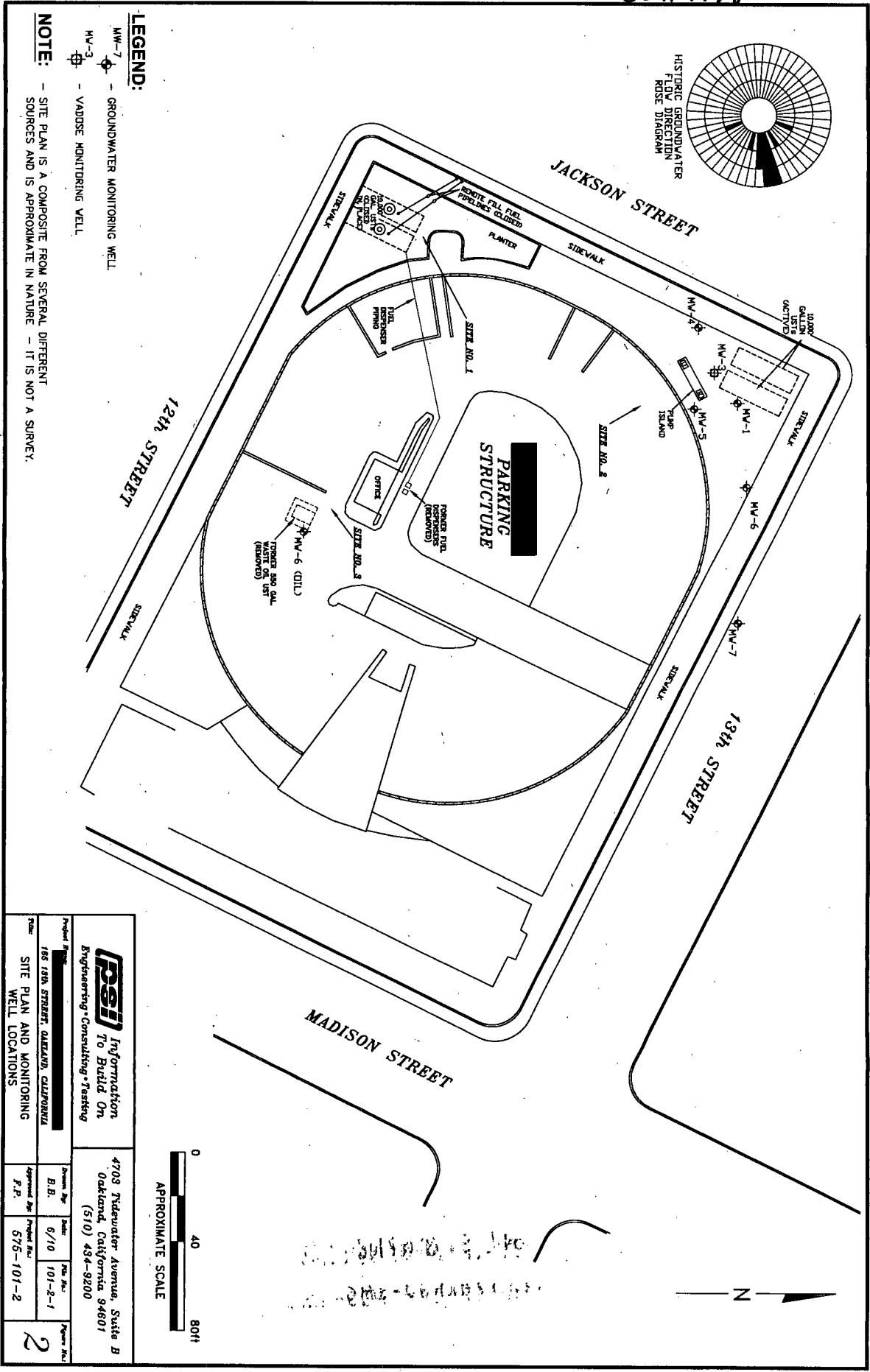
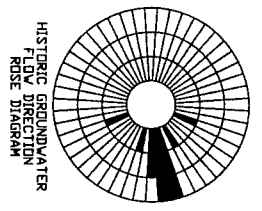
Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name _____
 Person, Firm or Corporation _____

Signed [Signature] City Walpole State CA Zip 90234
 C-57 Licensed Water Well Contractor Date Signed _____ C-57 License Number _____

00114728



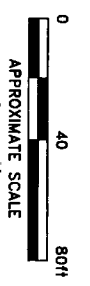
LEGEND:

MW-7 - GROUNDWATER MONITORING WELL

MW-3 - VADOSE MONITORING WELL

NOTE: - SITE PLAN IS A COMPOSITE FROM SEVERAL DIFFERENT SOURCES AND IS APPROXIMATE IN NATURE - IT IS NOT A SURVEY.

Information To Be Held On Engineering - Consulting - Testing		4708 Tilden Avenue, Suite B Oakland, California 94601 (510) 434-9200	
Project Name 186 18th Street, Oakland, California	Drawn By B.E.	Date 6/10	Pn No. 101-2-1
Title SITE PLAN AND MONITORING WELL LOCATIONS	Approved By P.P.	Project No. 576-101-2	Revision No. 2





597 Center Avenue, Suite 350
Martinez, California 94553
415-372-3637

LOG OF BORING NO. MW-1 PAGE 1 of 2

PROJECT NO: 02-276-010 DATE: 3/21/89
CLIENT: [REDACTED] REF. ELEV. -
SITE LOCATION: 165 13th St., Oakland METHOD: Hollow-stem auger,
Mobile Drill B-53

DEPTH (FT)	GRAPHIC LOG	BLOW/FT	VAPOR (PPM)	SAMPLE TYPE AND DEPTH	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	WELL CONSTRUCTION
0						4" Concrete at Surface	
2	[Dotted pattern]				SP	SAND, brown, silty, fine-grained, medium dense, slightly moist, no odor	[Dotted pattern]
4		30	47	RING @ 5'	SP	As Above	[Dotted pattern]
6							[Dotted pattern]
8							[Dotted pattern]
10		38	ND	RING @ 10'	SP	As Above, moist, trace of odor	[Dotted pattern]
12							[Dotted pattern]
14		40	300	RING @ 15'	SP	SAND, brown, fine-grained, medium dense, moist, strong odor	[Dotted pattern]
16							[Dotted pattern]
18							[Dotted pattern]
20		50+	260	RING @ 20'	SP	SAND, brown, medium-grained, moist, slight odor	[Dotted pattern]
22							[Dotted pattern]
24						Water found at 23'	[Dotted pattern]



597 Center Avenue, Suite 350
Martinez, California 94553
415-372-3637

LOG OF BORING NO. MW-1 PAGE 2 of 2

PROJECT NO:
CLIENT:
SITE LOCATION:

DATE:
REF. ELEV.
METHOD:

BORING LOCATION:

HOLE DIA:

DRILLER:
LOGGED BY:
SUPERVISOR:

WELL
CONSTRUCTION

DEPTH (FT)	GRAPHIC LOG	BLOW/FT	VAPOR (PPM)	SAMPLE TYPE AND DEPTH	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	WELL CONSTRUCTION
24		-	-	RING @ 25'	SP	As above, silty, no odor	
26					CL	CLAY, light-brown, sandy, silty, firm, moist, no odor	
28							
30					SP	SAND, brown, gravelly, fine to medium-grained, very dense, moist, no odor	
32							
34							
36						TOTAL DEPTH-35'	
						Well Construction: 35'-14', 0.02" slotted 4" PVC; 14'-0', blank 4" PVC. #3 Lonestar sand 35'-13'; 3/8" bentonite pellets 13'-11.5'; holeplug 11.5'-4'; concrete 4'-0'. 12" water-proof well box.	



597 Center Avenue, Suite 350
Martinez, California 94553
415-372-3637

LOG OF BORING NO. MW-3 PAGE 1 of 1

PROJECT NO: 02-276-010

DATE: 3/20/89

CLIENT: Alameda County

REF. ELEV. -

SITE LOCATION: 165 13th St., Oakland

METHOD: Hollow-stem auger,
Mobile Drill B-53

BORING LOCATION: 5' N.W. of pump
Island
DRILLER: Gregg Drilling and Testing
LOGGED BY: J. Bryson
SUPERVISOR: S. Wickham, R.G. #3851

HOLE DIA: 10.25"

DEPTH (FT)	GRAPHIC LOG	BLOW/FT	VAPOR (PPM)	SAMPLE TYPE AND DEPTH	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	WELL CONSTRUCTION
0						8" Concrete at surface	
2							
4		33	16	RING @ 5'	SP	SAND, brown, silty, fine-grained, medium dense, slightly moist, no odor	
6							
8							
10		22	35	RING @ 10'	SP	As above	
12							
14							
16		50+	160	RING @ 15'	SP	As above, slight odor	
18						Well Construction: 15'-5', 0.02" slotted 2" PVC; 5'-0', blank 2" PVC. Holeplug 24'-22'; 3/8" bentonite pellets 22'-21'; holeplug 21'-16'; #3 Lonestar sand 16'-4'; 3/8" bentonite pellets 4'-3'; concrete 3'-0'. 12" water-proof well box.	
20				ND RING @ 20'		As above	
22							
24						Water found at 23' TOTAL DEPTH = 24'	

E0114730



597 Center Avenue, Suite 350
Martinez, California 94553
415-372-3637

LOG OF BORING NO. MW-4 PAGE 1 of 2

PROJECT NO: 02-276-010
CLIENT: [REDACTED]
SITE LOCATION: 02-276-010

DATE: 3/21/89
REF. ELEV. -
METHOD: Hollow-stem Auger,
Mobile Drill B-53

BORING LOCATION: 20' West of pump island
HOLE DIA: 8.25"
DRILLER: Gregg Drilling and Testing
LOGGED BY: J. Bryson
SUPERVISOR: S. Wickham R.G. #3851

DEPTH (FT)	GRAPHIC LOG	BLOW/FT	VAPOR (PPM)	SAMPLE TYPE AND DEPTH	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	WELL CONSTRUCTION
0						4" Concrete at Surface	
2							
4		4	ND	RING @ 5'	SP	SAND, brown, some silt, fine-grained, loose, slighty moist, no odor	
6							
8							
10		25	ND	RING @ 10'	SP	As above, medium dense	
12							
14		35	133	RING @ 15'	SP	As above, slight odor	
16							
18							
20		50+	15	RING @ 20'	SP	SAND, brown, fine-grained, dense, moist, no odor	
22							
24						Water found at 23'	



ENVIRONMENTAL SERVICES, INC.

597 Center Avenue, Suite 350
Martinez, California 94553
415-372-3637

LOG OF BORING NO. MW-4 PAGE 2 of 2

PROJECT NO: 02-276-010

DATE: 3/21/89

CLIENT:

REF. ELEV.

SITE LOCATION:

METHOD:

BORING LOCATION:

HOLE DIA:

DRILLER:

LOGGED BY:

SUPERVISOR:

DEPTH (FT)	GRAPHIC LOG	BLOW/FT	VAPOR (PPM)	SAMPLE TYPE AND DEPTH	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	WELL CONSTRUCTION
24		-	ND	RING @ 25'	SP	As above, saturated	
26							
28							
30							
32							
34							
36						TOTAL DEPTH-35'	
						Well Construction: 35'-15', 0.02" slotted 2" PVC; 15'-0', blank 2" PVC. #3 Lonestar sand 35'-13'; 3/8" bentonite pellets 13'-11'; holeplug 11'-4'; concrete 4'-0'. 12" water-proof well box.	



597 Center Avenue, Suite 350
Martinez, California 94553
415-372-3637

LOG OF BORING NO. MW-5 PAGE 1 of 2

PROJECT NO: 02-276-010

DATE: 3/21/89

CLIENT: [REDACTED]

REF. ELEV. -

SITE LOCATION: 165 13th St., Oakland

METHOD: Hollow-stem auger,
Mobile Drill B-53

BORING LOCATION: 5' East of pump
Island

HOLE DIA: 10.25"

DRILLER: Gregg Drilling and Testing

LOGGED BY: J. Bryson

SUPERVISOR: S. Wickham R.G #3851

DEPTH (FT)	GRAPHIC LOG	BLOW/FT	VAPOR (PPM)	SAMPLE TYPE AND DEPTH	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	WELL CONSTRUCTION
0						6" Concrete at Surface	
2	[Dotted pattern]						
4	[Dotted pattern]	18	ND	RING @ 5'	SP	SAND, light-brown, silty, fine-grained, medium dense, slightly moist, no odor	[Hatched pattern]
6	[Dotted pattern]						
8	[Dotted pattern]						
10	[Dotted pattern]	22	ND	RING @ 10'	SP	As above	[Hatched pattern]
12	[Dotted pattern]						
14	[Dotted pattern]	46	10	RING @ 15'	SP	SAND, gray-brown, fine-grained, medium dense, slightly moist, no odor	[Dotted pattern]
16	[Dotted pattern]						
18	[Dotted pattern]						
20	[Dotted pattern]	50+110		RING @ 20'	SP	As above, trace of odor	[Dotted pattern]
22	[Dotted pattern]						
24	[Dotted pattern]					Water found at 24'	[Dotted pattern]



597 Center Avenue, Suite 350
Martinez, California 94553
415-372-3637

LOG OF BORING NO. MW-5 PAGE 2 of 2

PROJECT NO: DATE:
CLIENT: REF. ELEV.
SITE LOCATION: METHOD:

BORING LOCATION: HOLE DIA:

DRILLER:
LOGGED BY:
SUPERVISOR:

DEPTH (FT)	GRAPHIC LOG	BLOW/FT	VAPOR (PPM)	SAMPLE TYPE AND DEPTH	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	WELL CONSTRUCTION
24		-	-	RING @ 25'	SP	RING @ 25'	
26							
28					CL	CLAY, light-brown, sandy, silty, fine-grained, medium dense, saturated	
30							
32					SP	SAND, brown, silty, fine-grained, medium dense, saturated	
34							
36						TOTAL DEPTH-35'	
						Well Construction: 35'-15', 0.02" slotted 4" PVC; 15'-0', blank 4" PVC. #3 Lonestar sand 35'-13'; 3/8" bentonite pellets 13'-11.5'; holeplug 11.5'-4'; concrete 4'-0'. 12" water-proof well box.	



**Environmental
Science &
Engineering, Inc.**

**BORING LOG AND
WELL COMPLETION SUMMARY**

MW-6

WELL COMPLETION

Completion Depth: 20 FEET

Size/Type	From	To
Casing: 2" PVC Sch. 40	5	0
Screen: 2"-0.02" slot PVC	20	5
Filter: #3 Monterey Sand	20	4
Seal: Bentonite Pellets	4	3.5
Grout /sand slurry	3.5	1.5
Concrete	1.5	0

Project Name: [REDACTED]
Location: 165 13th Street
Oakland, California

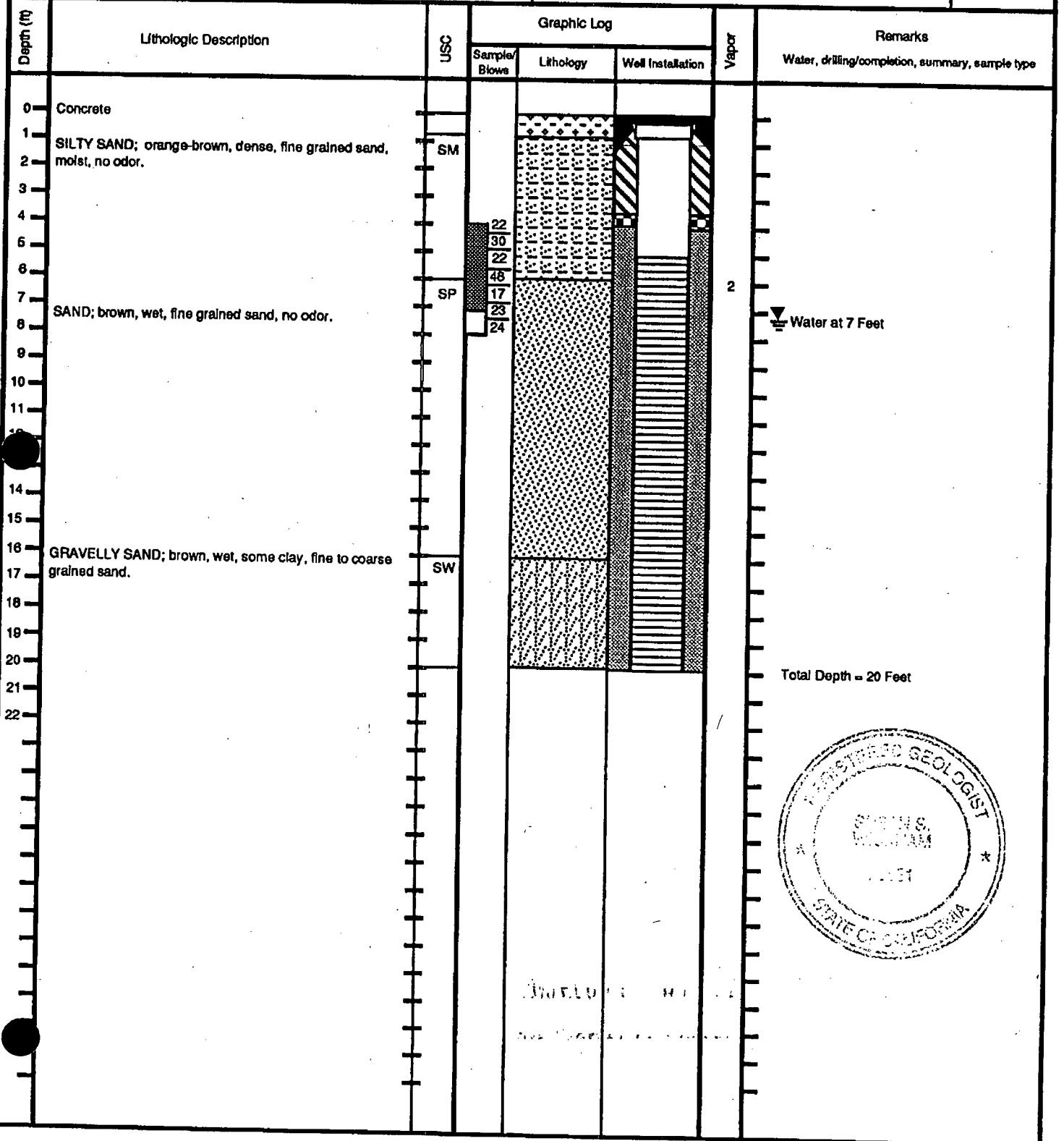
Project No: 6-92-5413

Page 1 of 1

Driller: Soils Exploration Services, Inc.
Method: Hollow Stem Auger - Access II
Hole Diameter: 8 In. O.D. Total Depth: 20 Feet
Ref. Elevations: NA
Logged By: Kerry Lefever

Dates:
Start: 10-29-92
Finish: 10-29-92

Well Cap or Box: Flush Traffic box with locking well cap.



*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California Well Completion Report

Refer to Instruction Pamphlet
No. e0114734

Page 1 of 1

Owner's Well Number MW-7

Work Began 07/14/2010

Date Work Ended 7/14/2010

Permit Agency ALAMEDA COUNTY PUBLIC WORKS AGENCY

Permit Number W2010-0439

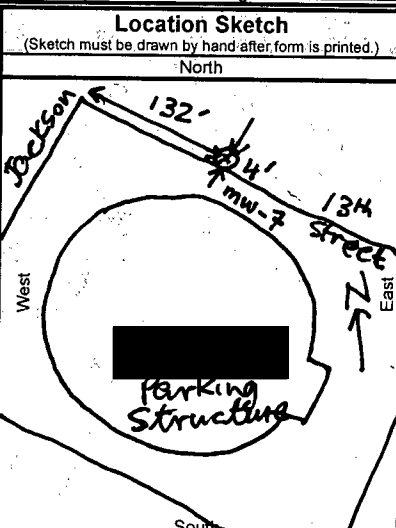
Permit Date 7/12/10

DWR Use Only - Do Not Fill In			
01504W35H			
State Well Number/Site Number			
	N		W
Latitude		Longitude	
APN/TRS/Other			

Geologic Log		
Orientation <input checked="" type="radio"/> Vertical <input type="radio"/> Horizontal <input type="radio"/> Angle Specify _____		
Drilling Method _____		Drilling Fluid _____
Depth from Surface	Description	
Feet to Feet	Describe material, grain size, color, etc	
0 to 25	WELL DISTRUCTION - DRILLED OUT; WELL DRILLED OUT AND FILLED WITH CEMENT GROUT AND HOLE TOPPED TO MATCH EXISTING GROUND SURFACE.	
Total Depth of Boring _____	Feet	
Total Depth of Completed Well _____	Feet	

Well Owner	

Well Location	
Address <u>165 13TH STREET</u>	
City <u>OAKLAND</u>	County <u>Alameda</u>
Latitude <u>37</u> <u>48</u> <u>4</u>	N Longitude <u>-122</u> <u>15</u> <u>55</u> W
Dea. Min. Sec. Dea. Min. Sec.	
Datum _____	Decimal Lat. _____ Decimal Long. _____
APN Book _____	Page _____ Parcel _____
Township <u>T5</u>	Range <u>4W</u> Section <u>35H</u>



Activity

New Well

Modification/Repair

Deepen

Other _____

Destroy

Describe procedures and materials under 'GEOLOGIC LOG'

Planned Uses

Water Supply

Domestic Public

Irrigation Industrial

Cathodic Protection

Dewatering

Heat Exchange

Injection

Monitoring

Remediation

Sparging

Test Well

Vapor Extraction

Other _____

Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.

Water Level and Yield of Completed Well			
Depth to first water _____	(Feet below surface)		
Depth to Static _____			
Water Level _____	(Feet)	Date Measured _____	
Estimated Yield * _____	(GPM)	Test Type _____	
Test Length _____	(Hours)	Total Drawdown _____	(Feet)
<small>*May not be representative of a well's long term yield.</small>			

Casings								
Depth from Surface	Borehole Diameter	Type	Material	Wall Thickness	Outside Diameter	Screen Type	Slot Size	
Feet to Feet	(Inches)			(Inches)	(Inches)		If Any (Inches)	

Annular Material		
Depth from Surface	Fill	Description
Feet to Feet		

Attachments

Geologic Log

Well Construction Diagram

Geophysical Log(s)

Soil/Water Chemical Analyses

Other _____

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name V & W DRILLING, INC.

Person, Firm or Corporation

3806 DUCK CREEK DRIVE STOCKTON CA 95215

Address City State Zip

Signed Karlo Roming 8/12/10 720904

C-57 Licensed Water Well Contractor Date Signed C-57 License Number

E0114734

SOIL BORING LOG

BORING NO:	B-7	
SHEET	1 OF 2	
PROJECT NAME:	Site No. 2	
PROJECT NO:	575-9G028	
DATE	9/3/99	
DRILLING COMPANY:	FISCH ENVIRONMENTAL	
DRILLING METHOD:	DIRECT PUSH - GEOPROBE	
BORING DIMENSIONS:	2 INCH DIAMETER DEPTH: 24 ft.	
GROUNDWATER LEVELS		
DATE	COMMENTS	DEPTH BGS
9/3/99	initial	18.0
9/3/99	stabilized	16.9

DEPTH (FEET)	SAMPLE NO.	RECOVERY (IN)	SAMPLE INTERVAL	BLOW COUNT	DESCRIPTION	PID (PPM)	USCS	REMARKS
1					Sand with some silt, fine to medium grained sand, brown, moist, no odor.		SP	Concrete Surface
2								
3								
4								
5		16				0		
6								
7								
8								Color change to green.
9								
10		18				0		
11								
12								
13								
14								
15		20				0		
16								
17								
18								groundwater encountered.
19		19						
20								

Log continues downward

LOGGED BY: Chris Merritt

E0114734

SOIL BORING LOG

BORING NO: B-7	
SHEET 2 OF 2	
PROJECT NAME: [REDACTED] Site No. 2	PROJECT NO: 575-9G028
DATE 9/3/99	
DRILLING COMPANY: FISCH ENVIRONMENTAL	
DRILLING METHOD: DIRECT PUSH - GEOPROBE	
BORING DIMENSIONS: 2 INCH DIAMETER	DEPTH: 24 FT

DEPTH (FEET)	SAMPLE NO.	RECOVERY (IN)	SAMPLE INTERVAL	BLOW COUNT	DESCRIPTION	PID (PPM)	USCS	REMARKS
21					Silty sand as described above.		SP	
22								
23								
24		24						
25						0		Groundwater encountered at 18 feet. Total Depth = 24 feet.
26								Boring terminated at depth sufficient for well installation.
27								Well MW-7 installed in boring.
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								

LOGGED BY: Chris Merritt

MONITORING WELL CONSTRUCTION DATA

ED014734

WELL/BORING NO: B7/MW7

PERMIT NO: _____

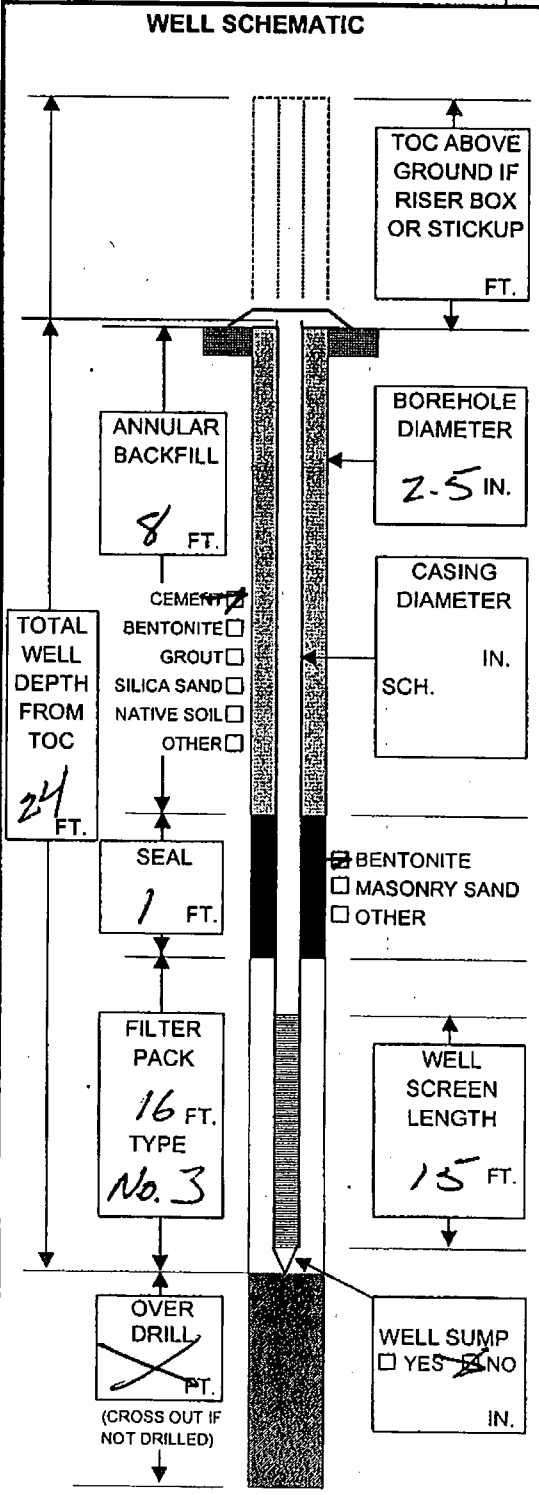
DATE: 9/3/99

PROJECT NAME: _____

Site # 2

PROJECT NO: 96028

WELL SITE LOCATION PLAN:
 SEC: _____ TWN: _____ RGE: _____ LAT: _____ LONG: _____
 DRILLING CO: Fisch Environmental
 DRILL CREW: Dave Fisch
 WELL TYPE: SHALLOW SINGLE CASED MONITORING
 PERMANENT INTERMEDIATE DOUBLE CASED RECOVERY
 TEMPORARY DEEP OTHER OTHER



INSTALLATION DATA

DECON: STEAM CLEAN HIGH PRESSURE WASH
 SOAP WASH OTHER

CASING TYPE: PVC STAINLESS TEFLON OTHER
 JOINTS: THREADED WELDED COUPLED
 SCREWED OTHER Prepack

PIT CASING: YES NO DESCRIBE _____

WELL SCREEN: PVC STAINLESS TEFLON OTHER
 DIAMETER: 2" 4" 6" OTHER _____ IN
 SLOT: 0.010 0.020 OTHER _____ IN

DRILLING METHOD: SOLID STEM HOLLOW STEM MUD ROTARY
 AIR ROTARY DIRECT PUSH HAND AUGER
 OTHER

BIT SIZE: 2.5 4" 6" 8" 12" OTHER _____ IN

DRILLING MUD: NONE WATER BENTONITE
 OTHER

CENTRALIZER: YES NO

COMPLETION: FLUSH MOUNT STICKUP RISER BOX
 LOCK TYPE: DOLPHIN MASTER KEY NO. _____
 OTHER

PAD: 2'X2' 4'X4' OTHER

CUTTINGS: DRUMMED NUMBER OF DRUMS _____
 SPREAD OTHER None generated

DEVELOPMENT METHOD: NONE BAILING PUMPING AIR LIFT
 SURGE & BLOCK OTHER

TIME: 10 MIN 20 MIN OTHER 30 MIN
 AMOUNT: 5 GAL 10 GAL OTHER _____ GAL

WATER BEFORE: SILTY TURBID OPAQUE CLEAR
 WATER AFTER: SILTY TURBID OPAQUE CLEAR

EVIDENT ODOR: YES NO TYPE _____

DEVELOPMENT WATER: DRUMMED NUMBER OF DRUMS _____
 SPREAD TREATED POTW OTHER

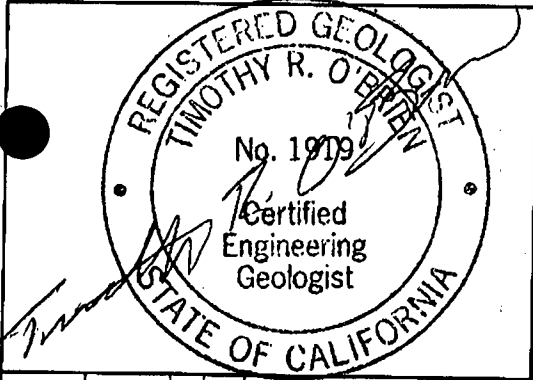
WATER LEVEL: INITIAL _____ FT. BTOC BGS

DATE: _____ FT BELOW TOC
 DATE: _____ FT BELOW TOC

NOTES: (DESCRIBE ALL NON-STANDARD METHODS & MATERIALS)
None

SOIL BORING LOG

E0114739



BORING NO:	B2
SHEET	1 OF 2
PROJECT NO:	8G004

PROJECT NAME:	[REDACTED]	
DATE:	3/23/98	
NORTHINGS:	EASTINGS:	
DRILLING COMPANY:	FISCH ENVIRONMENTAL SERVICES	
DRILLING METHOD:	DIRECT PUSH - GEOPROBE	
BORING DIMENSIONS:	2.5 INCH DIAMETER	DEPTH: 24 FT
GROUNDWATER LEVELS		
DATE	COMMENTS	DEPTH BGS
3/23/98	INITIAL	19 FT
3/23/98	STABILIZED	16 FT

DEPTH (FEET)	SAMPLE NO.	RECOVERY (IN)	SAMPLE INTERVAL	BLOW COUNT	DESCRIPTION	PID (PPM)	USCS	REMARKS
1					Sand with some clay, fine to medium grained sand, brown, moist, low plasticity fines, no odor.		SP	Concrete pavement surface.
2								
3								
4								
5						0		
6		22						
7								
8								
9								
10						0		
11		16						
12								
13								
14								
15								
16		19				0		
17								
18								
19								Color change to green. Slight organic (sewage) odor noted.
20								
21								
22		16				0		

Log continued on Sheet 2 of 2

LOGGED BY: TIM O'BRIEN

SOIL BORING LOG

E0114739

BORING NO:	B2
SHEET	2 OF 2
PROJECT NO:	8G004

PROJECT NAME:	[REDACTED]
DATE:	3/23/98
NORTHINGS:	EASTINGS:
DRILLING COMPANY:	FISCH ENVIRONMENTAL SERVICES
DRILLING METHOD:	DIRECT PUSH - GEOPROBE
BORING DIMENSIONS:	2.5 INCH DIAMETER DEPTH: 24 FT

GROUNDWATER LEVELS		
DATE	COMMENTS	DEPTH BGS
3/23/98	STABILIZED	16 FT

DEPTH (FEET)	SAMPLE NO.	RECOVERY (IN)	SAMPLE INTERVAL	BLOW COUNT	DESCRIPTION	PID (PPM)	USCS	REMARKS
21		16			Sand with trace fines as described above.	0	SP	Sample interval continued from 19 ft. bgs.
22								
23								
24								Probe refusal at 24 ft. bgs.
25								Total Depth = 24 feet.
26								Boring terminated at depth of probe refusal.
27								Well MW-6 constructed in boring.
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								

LOGGED BY: Tim O'Brien

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California
Well Completion Report

Refer to Instruction Pamphlet

DWR USE ONLY - DO NOT WRITE

01504W350

State Well Number/Site Number

Latitude Longitude

APN/TRS/Other

Page 1 of 1
Owner's Well Number SVP-6 / SVP-6

No. 0121812 - 0212121

Date Work Began 07/28/2010 Date Work Ended 7/28/2010

Local Permit Agency Alameda County Public Works Agency

Permit Number W2010-0531 Permit Date 7/20/10

Geologic Log

Orientation Vertical Horizontal Angle Specify _____

Drilling Method Air Drilling Drilling Fluid _____

Depth from Surface Description

Feet to Feet	Description	CONTACT DEPTH (fbg)	WELL DIAGRAM
0	CONCRETE	0.6	
0.6	Silty SAND (SM); very dark brown (10YR 2/2); dry; 45% silt, 55% fine to medium grained sand.	5.0	
5.0			

Total Depth of Boring 5 Feet

Total Depth of Completed Well 5 Feet

Well Owner

Well Location

Address 105 5th Street

City Oakland County Alameda

Latitude _____ Longitude _____

Datum _____ Decimal Lat. _____ Decimal Long. _____

APN Book _____ Page _____ Parcel _____

Township 15 Range 4W Section 050

Location Sketch

(Sketch must be drawn by hand and attached to this report)

Activity

New Well
 Modification/Repair
 Deepen
 Other
 Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

Water Supply
 Domestic Public
 Irrigation Industrial

Cathodic Protection
 Dewatering
 Heat Exchange
 Injection
 Monitoring
 Remediation
 Sparging
 Test Well
 Vapor Extraction
 Other

Water Level and Yield of Completed Well

Depth to first water _____ (Feet below surface)

Depth to Static Water Level _____ (Feet) Date Measured _____

Estimated Yield * _____ (GPM) Test Type _____

Test Length _____ (Hours) Total Drawdown _____ (Feet)

* May not be representative of a well's long term yield.

Casings						Annular Material				
Depth from Surface Feet to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size If Any (Inches)	Depth from Surface Feet to Feet	Fill	Description
0	2.91	Blank	Teflon Tubing		0.25			0	2.16	Cement
2.91	3	Screen	Polyethylene		0.25	Vapor Implai		2.16	2.33	Bentonite
								2.33	3.25	Fill
								3.25	4.42	Bentonite
0	4.91	Blank	Teflon Tubing		0.25			4.42	5	Fill
4.91	5	Screen	Polyethylene		0.25	Vapor Implai				Sand

Attachments

Geologic Log
 Well Construction Diagram
 Geophysical Log(s)
 Soil/Water Chemical Analyses
 Other _____

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Grego Drilling & Testing
 Person, Firm or Corporation

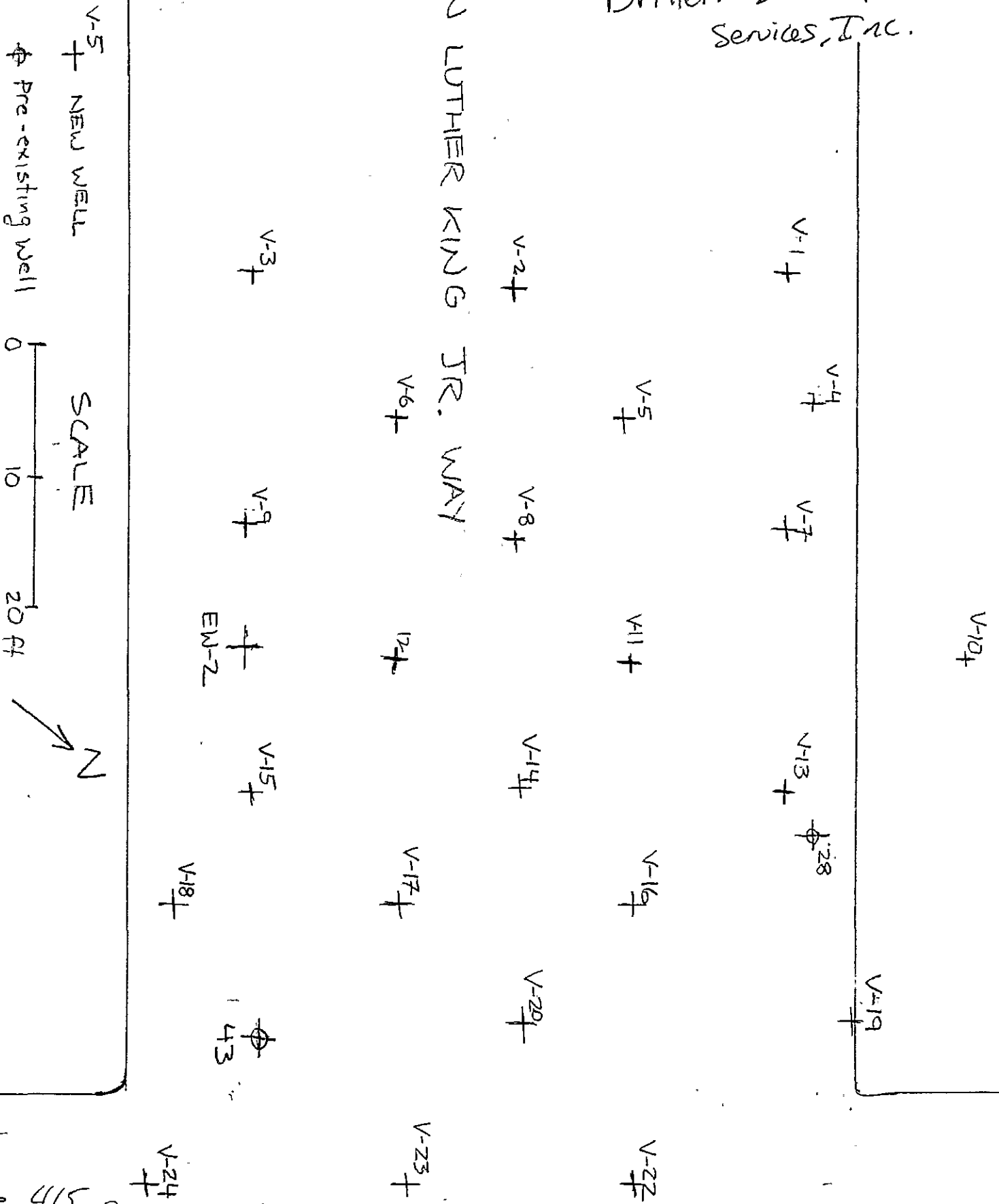
950 Howe Road Martinez CA 485165
 Address City State Zip

Signed [Signature] City 19/10 State CA Zip 485165
 C-57 Licensed Water Well Contractor Date Signed C-57 License Number

15/4W ~~35D41~~ 35D41
35D42

Driller: Soils Exploration
Services, Inc.

MARTIN LUTHER KING JR. WAY



ZONE 7 PERM # 90699

OAKLAND

Phone 415 268-0861
Lic# C57-582696

THE STRIKE

B1- 24'-6 3/4" @ 8. @ 1345

SUCTION @ 30 FT. PUMPER 1 PT. DRY - 1st RECHARGE
INITIAL H₂O CLEAR, DECAHCB - ROTTEN ODOR,
1405 H₂O @ 28°
1420 H₂O @ 29-4 1/2" U

B4- 22 - 10 1/2" @ 1440. NO REACTION TO PASTE
RAN DISTILLED WATER THROUGH LWE, PUT ON NEW TUBING
BOTTOM of piezometer 28 FT ±
PURGED 3 QTS

SAMPLED 14:35 UNABLE TO DRAW DOWN BEYOND 26 FT.

WP-1 TP OVER 1 1/2" FROM GROUND SURFACE NO PASTE REACTION
24'-11" TOP OF PIPE
FLUSH 1 PT DISTILLED NEW SILICONE PUMP HOSE
PURGED 2 1/2 QUARTS. DRY BOTTOM WELL POINT SAMPLED IN
RESERVOIR ONLY 8" DEEP
SAMPLED 1518

WP-2 STICK UP = 24' 11 1/2" NO PASTE REACTION
WATER 24'-11 1/2" BELOW TOP PIPE
RESERVOIR = 18"
PUMP 1 PT DISTILLED NEW SILICONE PUMP TUBE
PURGE 1 QUART 1545
TOOK 3 LITER
Then UOA SAMPLE @ 1635
Bentonite pellets TO 210

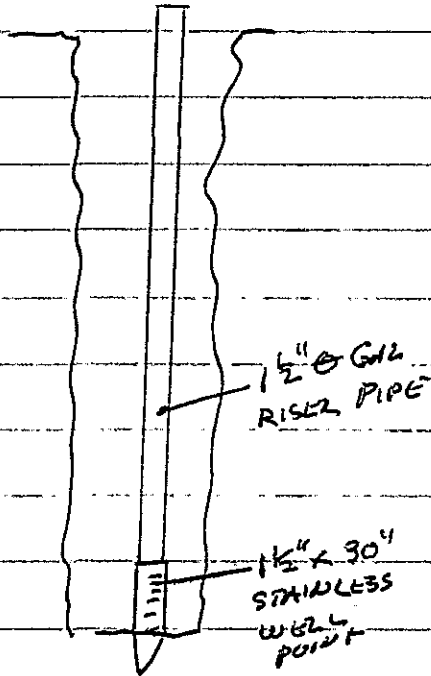
(98-44-499-01

2-21-88 IS/HW

35657-52

Inw/Adv

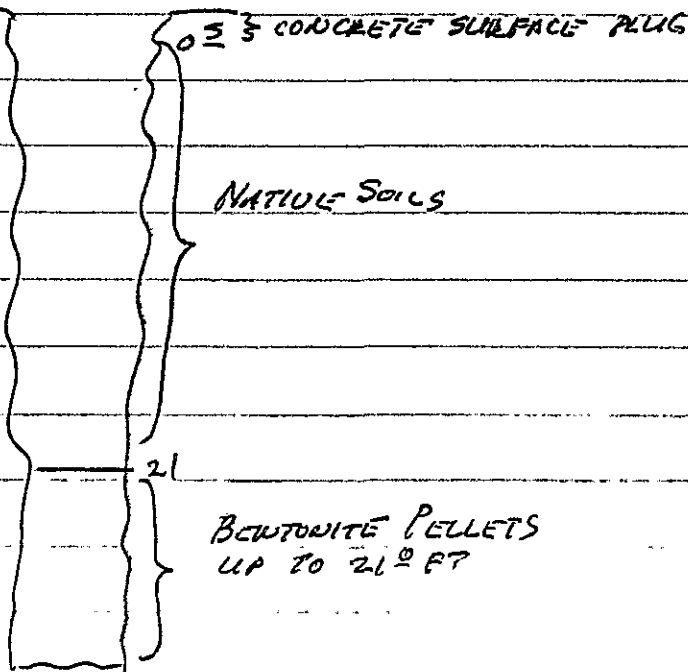
WELL POINTS 1 & 2 HAND AUGERED $3\frac{1}{2}$ " ϕ DOWN TO WATER BEARING SAND. VERY LITTLE DIFF. IN WATER LEVEL BEFORE & AFTER DIGGING HOLE. SET POINT & ATTEMPTED TO DRIVE INTO SANDS.



(1) DEVELOPMENT BY PARASTALTIC PUMP.

(2) U.O.A. SAMPLES TAKEN FROM SUCTION SIDE OF PUMP & LET DRAIN INTO BOTTLES

AFTER



01-418E 15/4w-35F

WOODWARD-CLYDE CONSULTANTS

TEST BORING RECORD

SS = 30' Boring

Job No. 8810021A

Date 12/19/88

Name [Redacted] Location 1111 Broadway, Oakland

Hole No. APC-11 Gr. El. 17 ft Type of Boring 8-inch Auger Rig CME-75

Datum MSL Engr. J. Springer Wt. Ham. 130lb.

Depth	DESCRIPTION	So. No.	Pen	% Rec.	Bl Ct	Wtr. Level	Lab. Data
1		1					
2		2					
3		3					
4		4					
5		5					
6	CLAYEY SAND (SC), moist, light gray.	6	1-4		16	▽ ATD	
7		7		30			
8		8		50			
9		9					
10		10					
11	SAND (SW), grayish-brown, medium-grained.	11	2-4		25		
12		12		50/3"			
13		13					
14		14					
15	SAND (SP-SW), grayish-brown, medium-grained.	15	3-4		9		
16		16		12			
17		17		40			
18	BOH - 16 1/2 ft.	18					
19		19					
20		20					
21		21					

Woodward-Clyde Consultants

Increase 1514W 35C 01-4250

PROJECT NAME [REDACTED] NO. 8910214A

BORING NUMBER D3			ELEVATION AND DATUM		
DRILLING AGENCY RNL Exploration		DRILLER Ramon/Jessie	DATE STARTED		DATE FINISHED July 24, 1989
DRILLING EQUIPMENT All Terrain			COMPLETION DEPTH 16.5'	SAMPLER 2" Modified California Type	
DRILLING METHOD 6" Solid Auger		DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 3
SIZE AND TYPE OF CASING NA			WATER LEVEL	FIRST NA	COMPL. NA 24 HRS. NA
TYPE OF PERFORATION NA		FROM TO FL	LOGGED BY: W. Copeland		CHECKED BY: G. Ford
SIZE AND TYPE OF PACK NA		FROM TO FL			
TYPE OF SEAL	NO. 1 NA	FROM TO FL			
	NO. 2 NA	FROM TO FL			

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (feet)	Blow Counts		
	Asphaltic Concrete							
	SILTY SAND (SM) reddish brown, damp, fine grained, little clay (NATIVE SOIL)							no odor OVM = 0 ppm
5	medium dense	5	1	D3-1	33 43 50			
	becomes mottled reddish brown, gray, and light brown		2	D3-2	23 20 19			OVM = 0 ppm
10	some clay	10						
15	becomes moist, dense	15	3	D3-3	38 38 37			OVM = 0 ppm
	Bottom of Boring at 16.5'							
20		20						
25		25						
30		30						
35		35						

01-4690 1S/4W 35D16

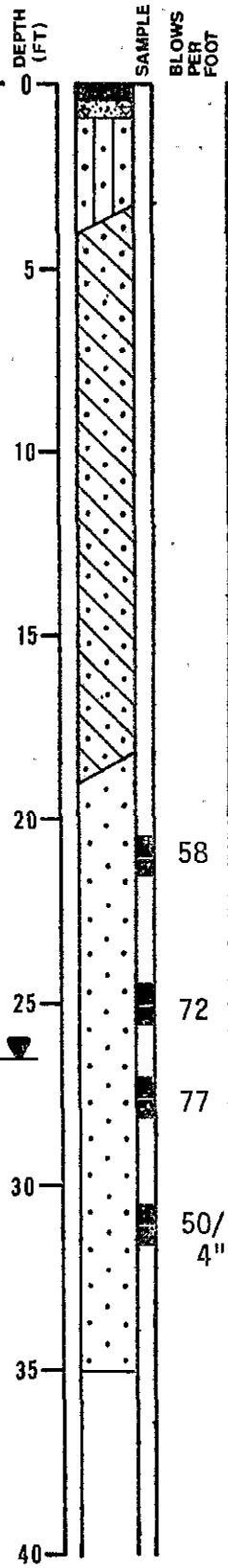
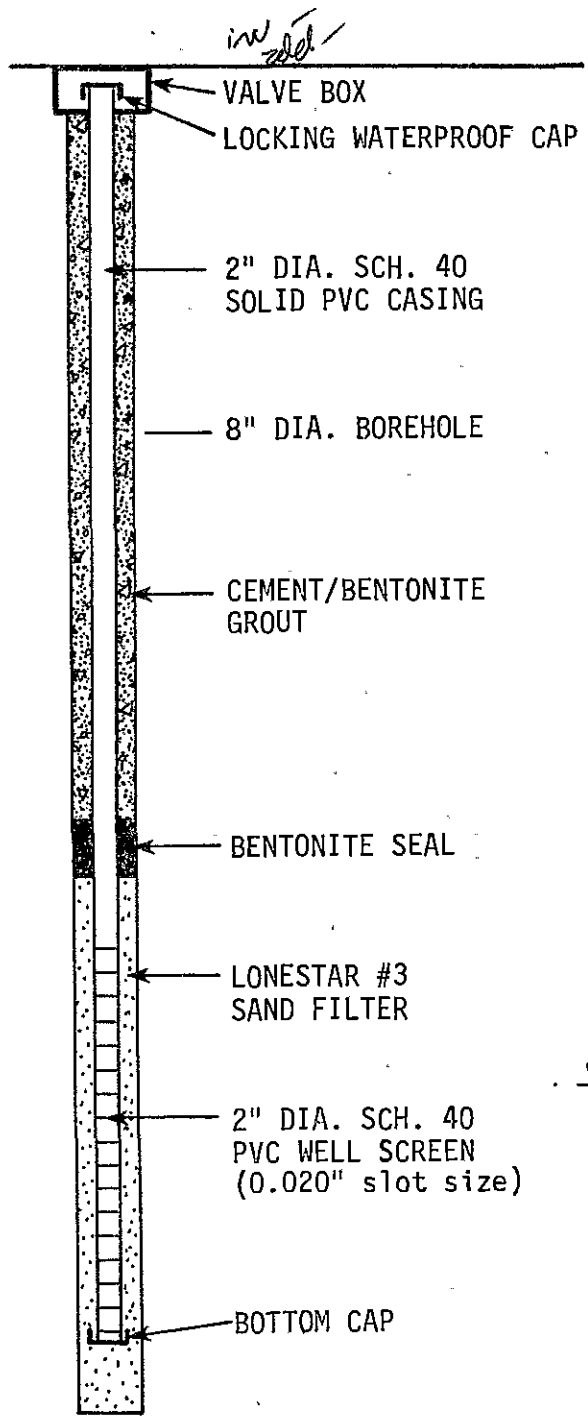
monitoring well

LOG OF TEST BORING 39

EQUIPMENT 8" Hollow Stem Auger

DATE DRILLED 3/29/89

ELEVATION --



ASPHALTIC CONCRETE - 4" thick
 CONCRETE - 6" thick
 GRAY-GREEN SILTY SAND (SM)
 medium dense, moist (fill)
 GRAY-GREEN CLAYEY SAND (SC)
 medium dense, moist

color changes to brown

BROWN SAND (SP)
 dense, moist

GROUNDWATER LEVEL 9/28/89

SAMPLER TYPE:
 CALIFORNIA DRIVE
 O.D.: 2.5" I.D.: 2.0"
 HAMMER WEIGHT: 140 pounds
 HAMMER DROP: 30 inches

HEW Drilling

Subsurface Consultants

1330 MARTIN LUTHER KING, JR. WAY - OAK.
 JOB NUMBER 430.002 DATE 7/7/89 APPROVED

PLATE
20



597 Center Avenue, Suite 350
Martinez, California 94553
415-372-3637

LOG OF BORING NO. CMW 1 PAGE 2 of 2

PROJECT NO: 02-355-001

DATE: 1/25/89

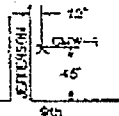
CLIENT: [REDACTED]

REF. ELEV.

SITE LOCATION: 900 Jefferson,
Oakland, Ca.

METHOD: 861 Hollow
Stem Auger

BORING LOCATION:



HOLE DIA: 8"

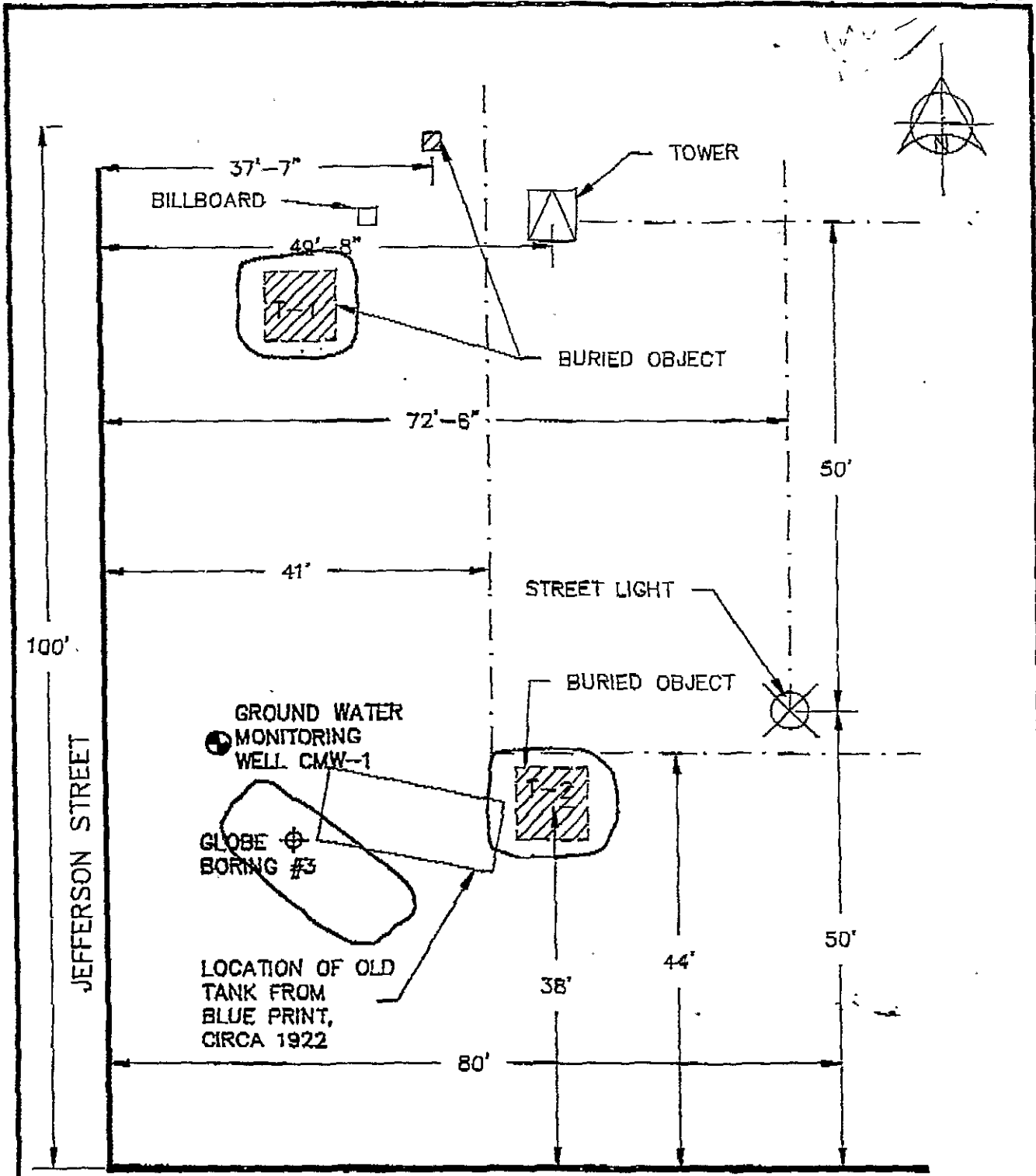
DRILLER: ASE

LOGGED BY: M. MARSDEN

SUPERVISOR: S. WICKHAM *Susan Wickham R6 3851*

DEPTH (FT)	GRAPHIC LOG	BLOW/FT	VAPOR (PPM)	SAMPLE TYPE AND DEPTH	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	WELL CONSTRUCTION	
26		21	4	Ring @ 25'	SM	25' driller notes stem plug is wet, possibly ground water SILTY SAND, brown, wet (saturated), no odor, very little silt * Could not retrieve sample with brass ring (no sample) used standard sampler 1.5" to review lithology As above		
28								
30								
32								
34								
36								
38						SM		As above, more clay, not completely saturated, stiff
40						SM		SILTY SAND, brown, saturated, low coh, no odor
42								Total depth 40' Ground water found at 25.5'
44								40'-20' 2" Slotted (.02 slots) 40 gauge PVC, 20'-0' blank PVC; 40-18' Lanester #3 sand, 18-16' bentonite, 16-0' concrete, well box.
46								
48								
50								

add Inv 1514W 35E 11
01-033Z



LEGEND

- ELECTRICAL LINES
- ⊕ MONITORING WELL
- ⊕ SOIL BORING
- EXCAVATION LINE

9th STREET



FIGURE 1
SITE PLAN

1/89

02-355-001

900 Jefferson
OAKLAND, CA.

89029

Lic# C-57-487000

Add

Incl 1S/4W 35 E1



597 Center Avenue, Suite 350
Martinez, California 94553
415-372-3637

LOG OF BORING NO. CMW 1 PAGE 1 of 2

PROJECT NO: 02-355-001

DATE: 1/25/89

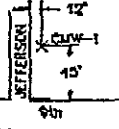
CLIENT: [REDACTED]

REF. ELEV.

SITE LOCATION: 900 Jefferson,
Oakland, Ca.

METHOD: B61 Hollow
Stem Auger

BORING LOCATION:



HOLE DIA: 8"

DRILLER: ASE

LOGGED BY: M. MARSDEN

SUPERVISOR: S. WICKHAM *Susan Wickham*

DESCRIPTION *RG-3851*

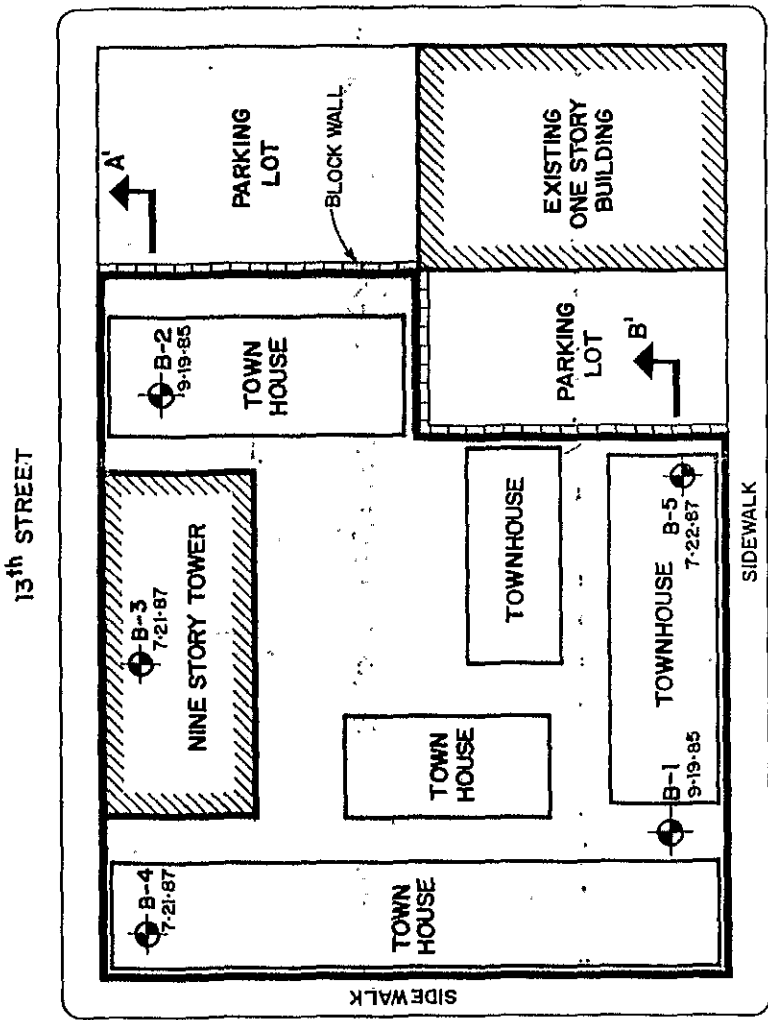
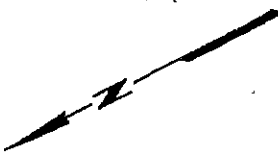
DEPTH (FT)	GRAPHIC LOG	BLOW/FT	VAPOR (PPM)	SAMPLE TYPE AND DEPTH	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	WELL CONSTRUCTION
0					SM	Asphalt and surface 3-4" thick	
2						SILTY SAND, dark brown, moist, low cohesion, no odor	
4						As above, lighter brown	
5				Ring @ 5'	SM	SILTY SAND, some clay, red brown, moist, low cohesion, no odor	
6						As above, brown	
8						As above	
10		30		Ring @ 10'	SM	As above	
12						As above, slightly more clay	
14							
15				Ring @ 15'	SC	CLAYEY SAND, brown, moist, slightly consolidated, no odor, some grey mottling	
16							
18							
20		31		Ring @ 20'	SM	SILTY SAND, brown, moist, no odor	
22							
24							

#87164

INV
ADU

01-266 AC
15/4W359
(3 BOREHOLE)

plot/ord



SOURCE: PRELIMINARY SITE PLAN PREPARED BY MacDONALD & GEE ASSOCIATED ARCHITECTS

SITE PLAN

Scale 1" = 40 Feet
 Date 10-7-87
 Prepared by UCR/LQL
 Checked by [redacted]
 Approved by DPO

Project No. 87-34-145-01
 Drawing No. 2

Harrison and 13th Street, Oakland, California

Converse Consultants
 Geotechnical Engineering
 and Applied Sciences

EXPLANATION:

LOCATION AND DATE OF EXPLORATORY BORINGS



HARRISON ST. & 12th/13th ST.
OAKLAND, CA.

DRILLER: PITCHER
DRILLING

#87164

6. P 7/168

LOG OF BORING NO. B-3

15/4N359 01-266 A

DATE DRILLED: 7-21-87

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED.

DEPTH m. ft.	SAMPLES SYMBOL	ELEVATION: ---	EQUIPMENT: 4-7/8" Rotary Wash			BLOWS/FT.	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB./CU. FT.	TESTS	
					2" asphalt concrete 10" aggregate base					
	SM	dry	loose	brown	SILTY SAND	8	6.5 8.0	106 107		
1	D			light brown						
5	SC	slightly moist	dense	mottled gray	CLAYEY SAND trace of fines lightly cemented	30	15.1	113	ma	
2	D									
3					----- lightly cemented sand	28	13.8	122	tx	ma
10	D									
4										
15	D	moist	medium dense	gray-brown rust						
5										
6										
20										

(Cont.)

Harrison and 13th Street, Oakland, California

Project No. 87-34-145-01



Converse Consultants Northern California

Drawing No. A-8

DATE DRILLED: 7-21-87

#7164

LOG OF BORING NO. B-3 (Cont.)

1 S / 4 W 35 E

01-266A

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED.

DEPTH
m. ft. SAMPLES SYMBOL

ELEVATION: —

EQUIPMENT: 4-7/8" Rotary Wash

BLOWS/FT.
FIELD MOISTURE
& DRY WEIGHT
DRY DENSITY
LB./CU. FT.
TESTS

DEPTH (m. ft.)	SAMPLES SYMBOL	moist	dense	grayish brown	DESCRIPTION	BLOWS/FT.	FIELD MOISTURE & DRY WEIGHT	DRY DENSITY LB./CU. FT.	TESTS
7	D	moist	dense	grayish brown	FINE SAND trace fines				
25	D	wet				63	20.5	110	
8									
9	D		very dense			80	20.8	108	
10	SC	wet	medium dense	light grayish brown	CLAYEY FINE SAND				
35	D					28	17.8	113	tx
11									
12					trace coarse sand & gravel				
40									

(Cont.)

Harrison and 13th Street, Oakland, California

Project No.
87-34-145-01



Converse Consultants Northern California

Drawing No.
A-9

DATE DRILLED: 7-21-87

LOG OF BORING NO. B-3 (Cont.)

15/4W359 81-266 A

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED.

DEPTH

m. ft.

SAMPLES SYMBOL

ELEVATION: —

EQUIPMENT: 4-7/8" Rotary Wash

BLOWS/FT.
FIELD MOISTURE % DRY WEIGHT
DRY DENSITY LB./CU. FT.
TESTS

DEPTH (m. ft.)	SAMPLES SYMBOL	ELEVATION	moist	medium dense stiff	light grayish brown	DESCRIPTION	BLOWS/FT.	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB./CU. FT.	TESTS
13	S		moist	medium dense stiff	light grayish brown	CLAYEY SAND SANDY CLAY	push	18.1 19.8 19.2	104 104 108	tx ma c
45	SP/GP					gravelly zone				
14	S					gravelly zone	push			
15	CL		wet	stiff	gray	SILTY CLAY				
50	S						push	31.1	87	c
16					mottled gray/rust	sandy clay trace fine sand				
55	SC				gray	CLAYEY SAND				
17	D		moist	very stiff	black	CLAY trace fine sand	32	19.7	111	tx
18						trace coarser sand				

(Cont.)

Harrison and 13th Street, Oakland, California

Project No. 87-34-145-01



Converse Consultants Northern California

Drawing No. A-10

DATE DRILLED: 7-21-87

LOG OF BORING NO. B-3 (Cont.)

15/AN/35G

01-266 A

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED

DEPTH

m. ft.

SAMPLES SYMBOL

ELEVATION: —

EQUIPMENT: 4-7/8" Rotary Wash

BLOWS/FT.

FIELD MOISTURE & DRY WEIGHT

DRY DENSITY LB./CU. FT.

TESTS

DEPTH (m. ft.)	SAMPLES SYMBOL	ELEVATION	WET	MEDIUM DENSE TO DENSE	MOTTLED OLIVE GRAY/TUST	CLAYEY SAND	BLOWS/FT.	FIELD MOISTURE & DRY WEIGHT	DRY DENSITY LB./CU. FT.	TESTS
19	D SC		wet	medium dense to dense	mottled olive gray/tust	CLAYEY SAND	32	18.7	112	tx
65						Bottom of Boring 61'3"				
20										
21										
70										
22										
75										
23										
24										
80										

Harrison and 13th Street, Oakland, California

Project No. 87-34-145-01



Converse Consultants Northern California

Drawing No.

A-11

DATE DRILLED: 7-21-87

#87167

LOG OF BORING NO. B-4

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED

15/4W/35G 01-266 B
 TESTS
 DRY DENSITY LB./CU. FT.
 FIELD MOISTURE * DRY WEIGHT
 BLOWS/FT.

DEPTH		SYMBOL	ELEVATION: —	EQUIPMENT: 4-7/8" Rotary Wash			BLOWS/FT.	FIELD MOISTURE * DRY WEIGHT	DRY DENSITY LB./CU. FT.	TESTS
m.	ft.									
		D	SM	dry	loose	brown	9	7.4	106	
					light brown					
1										
	5	D	SC	moist	medium dense	mottled gray-rust	11	15.9	114	
2										
		D	SP	moist	dense	rusty brown	43	15.1	113	tx
3	10									
		D	SC	moist	medium dense	mottled gray-brown	15	14.4	118	tx
4										
	15					SANDY CLAY				
5										
		D	SP	moist	dense	grayish brown	39	16.5	108	
6	20									

(Cont.)

Harrison and 13th Street, Oakland, California

Project No.
87-34-145-01



Converse Consultants Northern California

Drawing No.
A-12

DATE DRILLED: 7-21-87

LOG OF BORING NO. B-4 (Cont.)

15/7W 359 01-266 B

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED

87167
DEPTH
m. ft. SAMPLES SYMBOL

ELEVATION: —

EQUIPMENT: 4-7/8" Rotary Wash

BLOWS/FT.
FIELD MOISTURE & DRY WEIGHT
DRY DENSITY LB./CU. FT.
TESTS

DEPTH (m. ft.)	SAMPLES SYMBOL	ELEVATION	MOISTURE	DENSITY	SOIL DESCRIPTION	BLOWS/FT.	FIELD MOISTURE & DRY WEIGHT	DRY DENSITY LB./CU. FT.	TESTS
7	D		wet	dense	grayish brown FINE SAND	55	21.3	107	ma
25					trace of fines				
8	D			very dense		89			
9									
10	D		wet	medium dense	gray brown w/rust streak CLAYEY SAND	22	18.4	112	tx
35									
11									
12	D				light gray brown w/rust mottled trace fine gravel	31	17.8 18.1	114 114	
40					Bottom of Boring 39.3'				

Harrison and 13th Street, Oakland, California

Project No.
87-34-145-01



Converse Consultants Northern California

Drawing No.
A-13

DATE DRILLED: 7-22-87

#87168

LOG OF BORING NO. B-5

15/4W359 01-266C

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED.

BLWS/FT.
FIELD MOISTURE % DRY WEIGHT
DRY DENSITY LB./CU. FT.
TESTS

DEPTH m. ft. SAMPLES SYMBOL ELEVATION: — EQUIPMENT: 4-7/8" Rotary Wash

DEPTH	m.	ft.	SAMPLES	SYMBOL	ELEVATION	EQUIPMENT	BLWS/FT.	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB./CU. FT.	TESTS
						2" asphalt concrete 10" aggregate base				
				SM	dry	loose brown				
1			D	SP	dry	loose light brown	6	11.9 7.0	100 106	
5										
2			D	SC	moist	medium dense rusty brown	9	15.5	113	
						mottled gray-rust less clay with depth				
3				SP	moist	dense gray-brown				
10			D			CEMENTED FINE SAND trace fines	44	12.9	119	ma
4										
5			S	SC	moist	dense gray-brown	push	15.1	118	ma
6										
20				SP	moist	dense gray-brown				
						FINE SAND trace fines				

(Cont.)

Harrison and 13th Street, Oakland, California

Project No.
87-34-145-01



Converse Consultants Northern California

Drawing No.
A-14

DATE DRILLED: 7-22-87

RP 7168

LOG OF BORING NO. B-5 (Cont.)

15/4W359 01-266 c

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED.

DEPTH m. ft.	SAMPLES SYMBOL	ELEVATION: —	EQUIPMENT: 4-7/8" Rotary Wash	15/4W359		01-266 c				
				BLOWS/FT.	FIELD MOISTURE & DRY WEIGHT	DRY DENSITY LB./CU. FT.	TESTS			
7	D	SP	wet	very dense	gray brown	CEMENTED FINE SAND	65			
25	D						75	20.5	106	
30							90			
10	SP/SC					trace fines				
35	SC	wet	dense	brown		CLAYEY SAND				
11	S						push	21.7	107	tx ma
12										

(Cont.)

Harrison and 13th Street, Oakland, California

Project No.
87-34-145-01



Converse Consultants Northern California

Drawing No.
A-15

DATE DRILLED: 7-22-87

AP 7/68

LOG OF BORING NO. B-5 (Cont.)

15/4N 35 G

01-266C

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED

DEPTH
m. ft. SAMPLES SYMBOL

ELEVATION: —

EQUIPMENT: 4-7/8" Rotary Wash

BLOWS/FT.

FIELD MOISTURE
% DRY WEIGHT

DRY DENSITY
LB./CU. FT.

TESTS

DEPTH m. ft.	SAMPLES D	SYMBOL SC/CL	wet	stiff	lt. green brown/w rust strk	DESCRIPTION	BLOWS/FT.	FIELD MOISTURE % DRY WEIGHT	DRY DENSITY LB./CU. FT.	TESTS
							25	18.5 17.8	113 114	tx
						CLAYEY SAND SANDY CLAY				
						Bottom of Boring 41.3'				
13										
45										
14										
15										
50										
16										
55										
17										
18										
60										

Harrison and 13th Street, Oakland, California

Project No.
87-34-145-01



Converse Consultants Northern California

Drawing No.
A-16

7299

11th STREET

10th STREET

FRANKLIN STREET

WEBSTER STREET

FORMER LOCATION OF TANKS

APPROXIMATE LOCATION OF ABANDONED BASEMENT

ASPHALT CONCRETE PARKING LOT

MW-2

MW-1

MW-4

MW-3

MW-5

EXPLANATION

MW-2 Monitoring Well Location

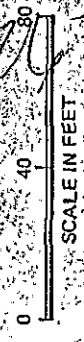
Fence

Property Line

Cross Section Location

15/4W359 2-5

15/4W359 41



Monitoring Well Location Map

Harding Lawson Associates
Engineers, Geologists
& Geophysicists



JOB NUMBER
9382,013.02

DRAWN

DATE
12/87

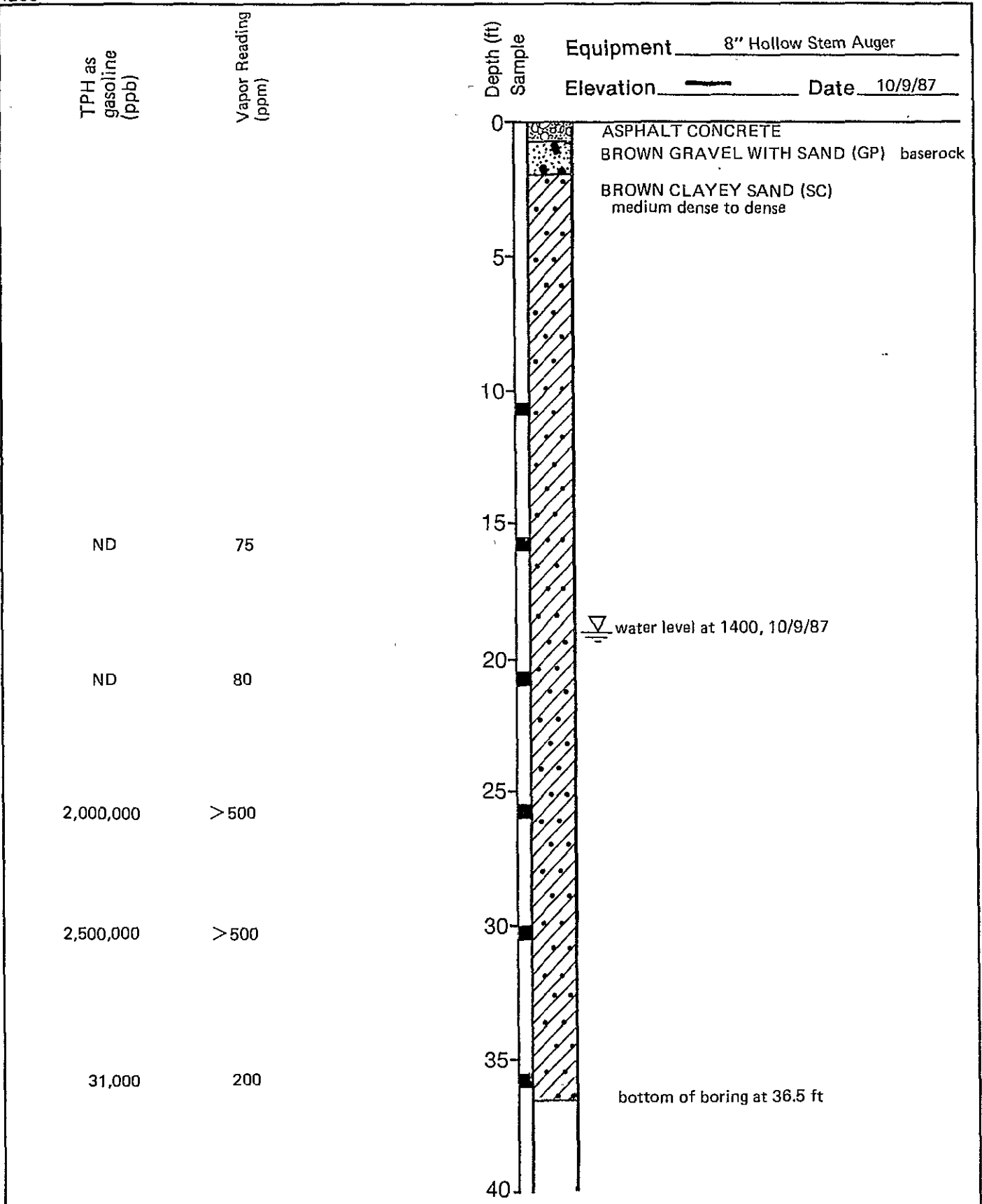
DATE
12/87

Oakland, California

01-267 A

15/4W 356

4286



Harding Lawson Associates
Engineers and Geoscientists

Log of Boring B-3

PLATE

Oakland, California

A-3

DRAWN
JAS

JOB NUMBER
09382,008.01

APPROVED
[Signature]

DATE
10/87

REVISED

DATE

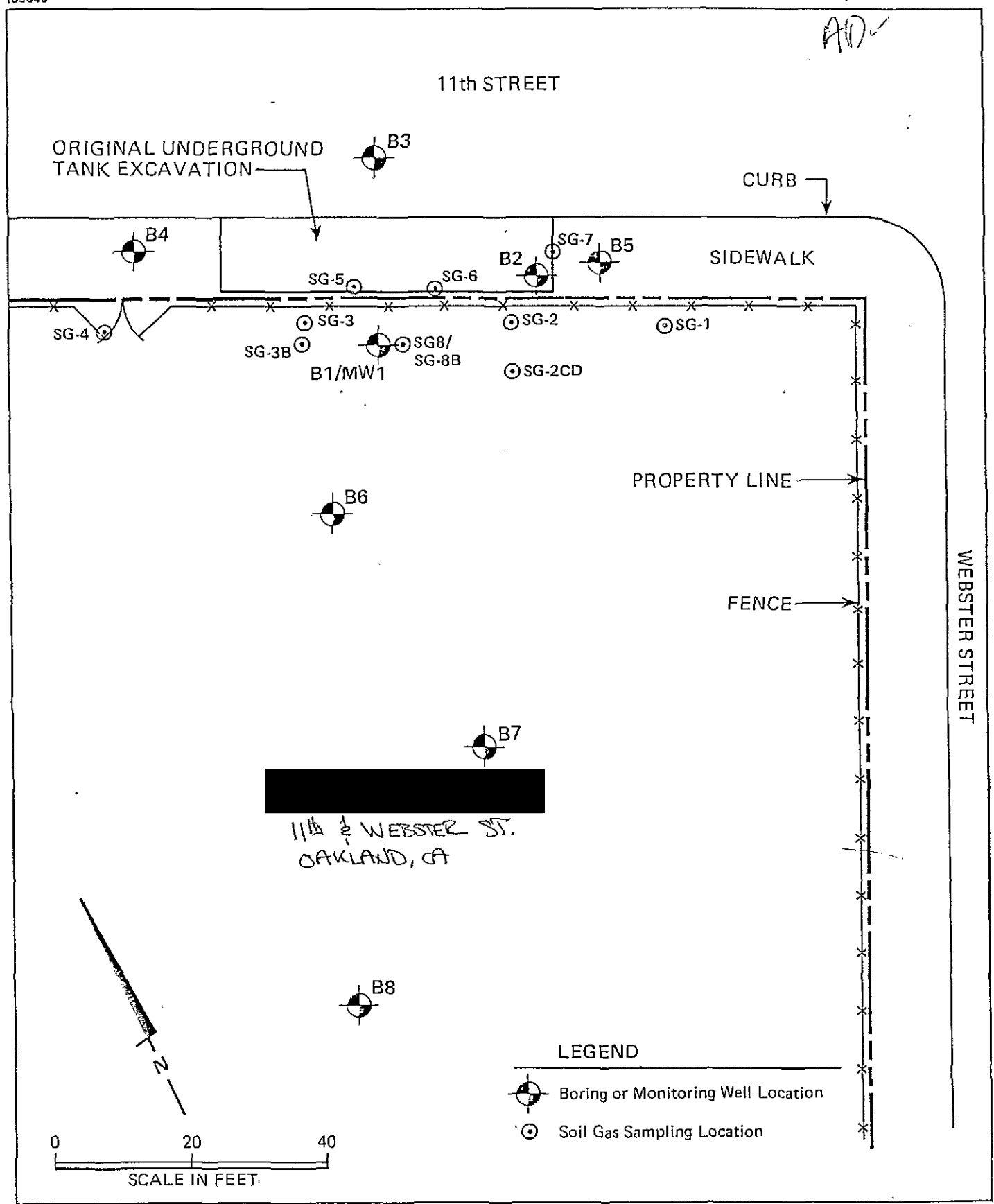
87239 A-267 A-E, F

ISA/W BSG (5 BORINGS)

HN ✓

AD ✓

105849



11th & WEBSTER ST.
OAKLAND, CA

LEGEND

- Boring or Monitoring Well Location
- Soil Gas Sampling Location



Harding Lawson Associates
Engineers and Geoscientists

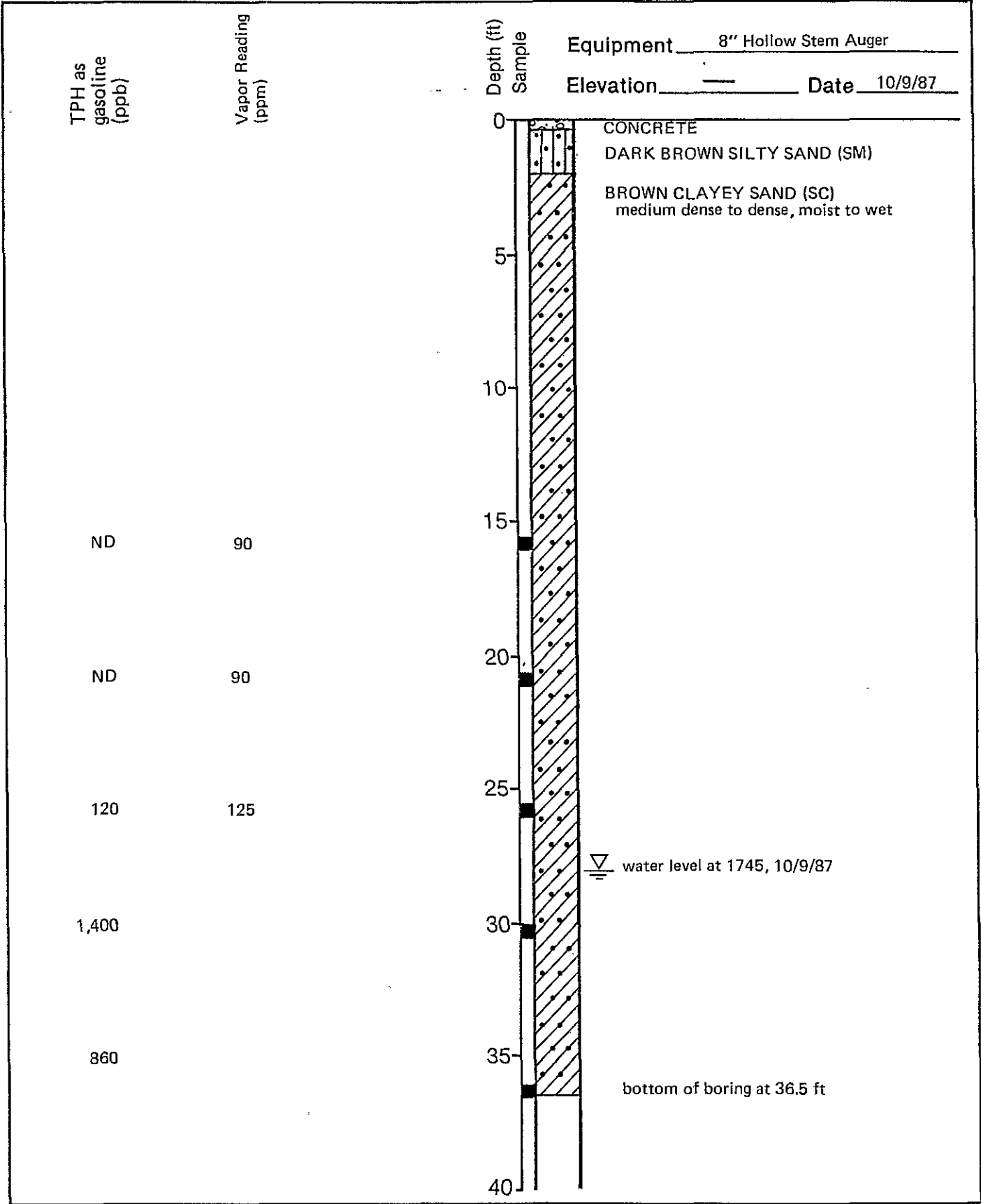
Site Plan
[Redacted]
Oakland, California

DRILLER: AQUA SCIENCE
ASE
PLATE 2

DRAWN JAS	JOB NUMBER 09382,008.01	APPROVED 	DATE 10/87	REVISED	DATE
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01-267 B
15/4W 356

4286



Harding Lawson Associates
Engineers and Geoscientists

Log of Boring B-4



Oakland, California

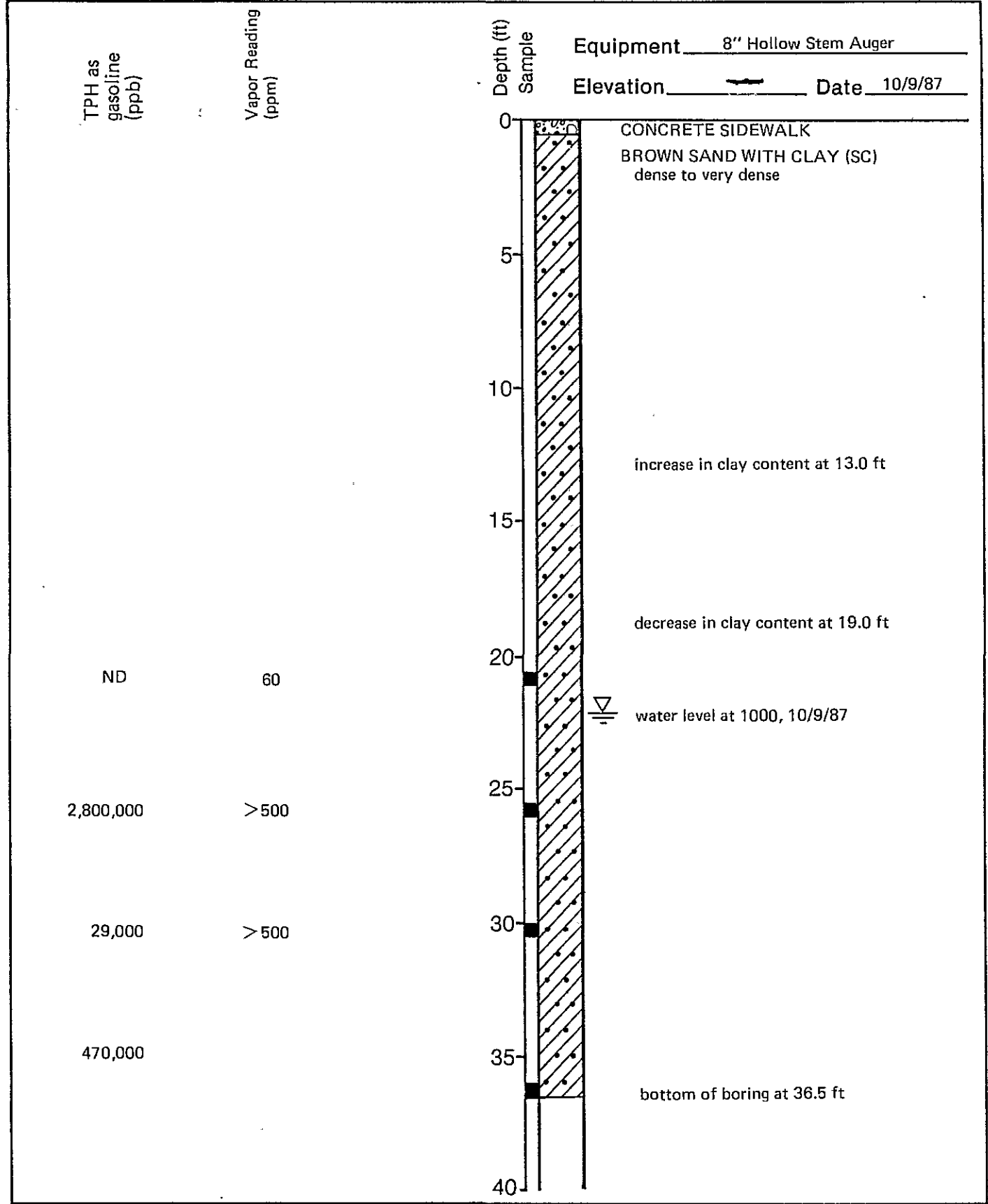
PLATE

A-4

01-267 C

12/4W 356

4286



Harding Lawson Associates
Engineers and Geoscientists

Log of Boring B-5
[Redacted]
Oakland, California

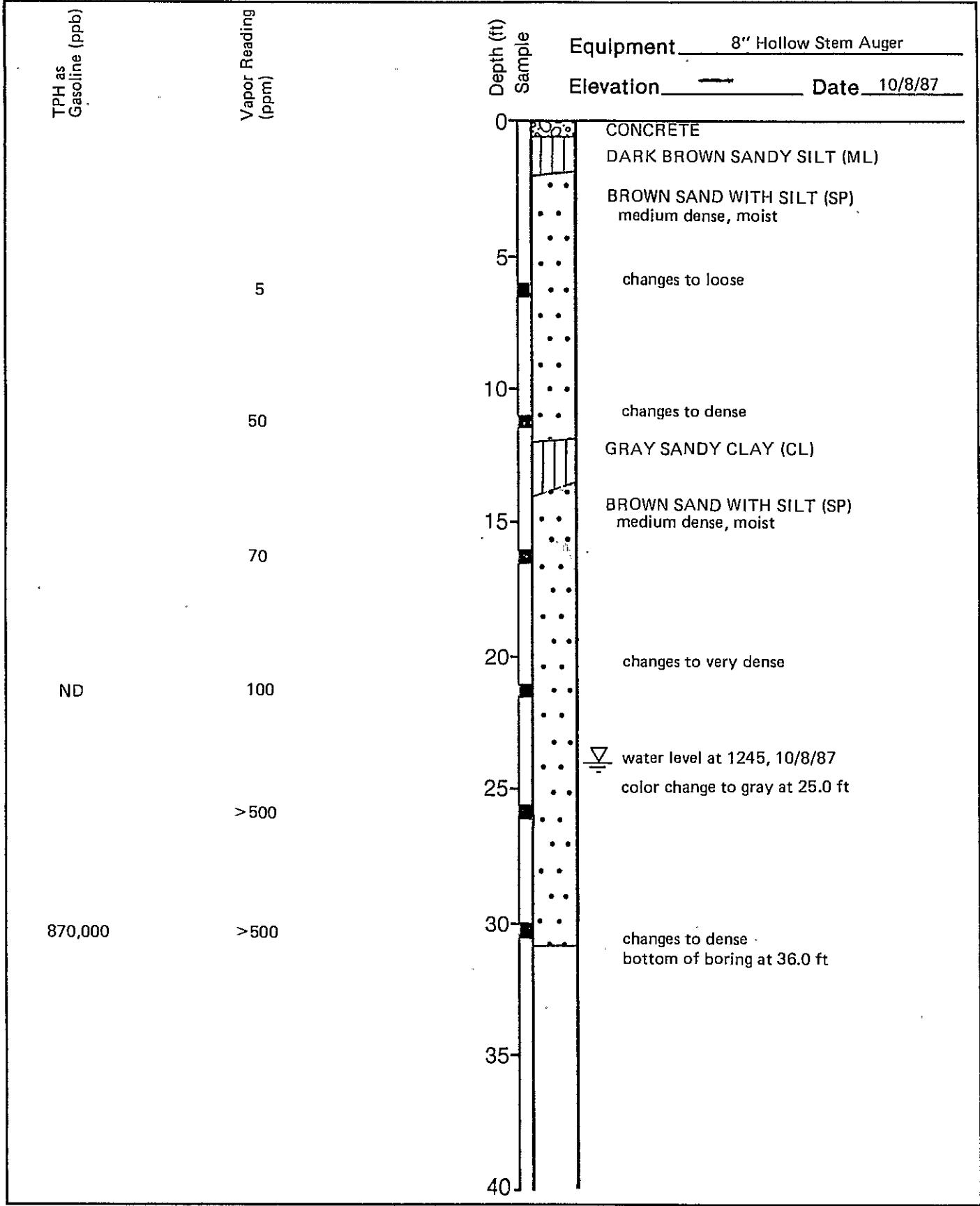
PLATE

A-5

DRAWN JAS	JOB NUMBER 09382,008.01	APPROVED <i>[Signature]</i>	DATE 10/87	REVISED	DATE
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01-267 D
15/4/87 35 G

4286



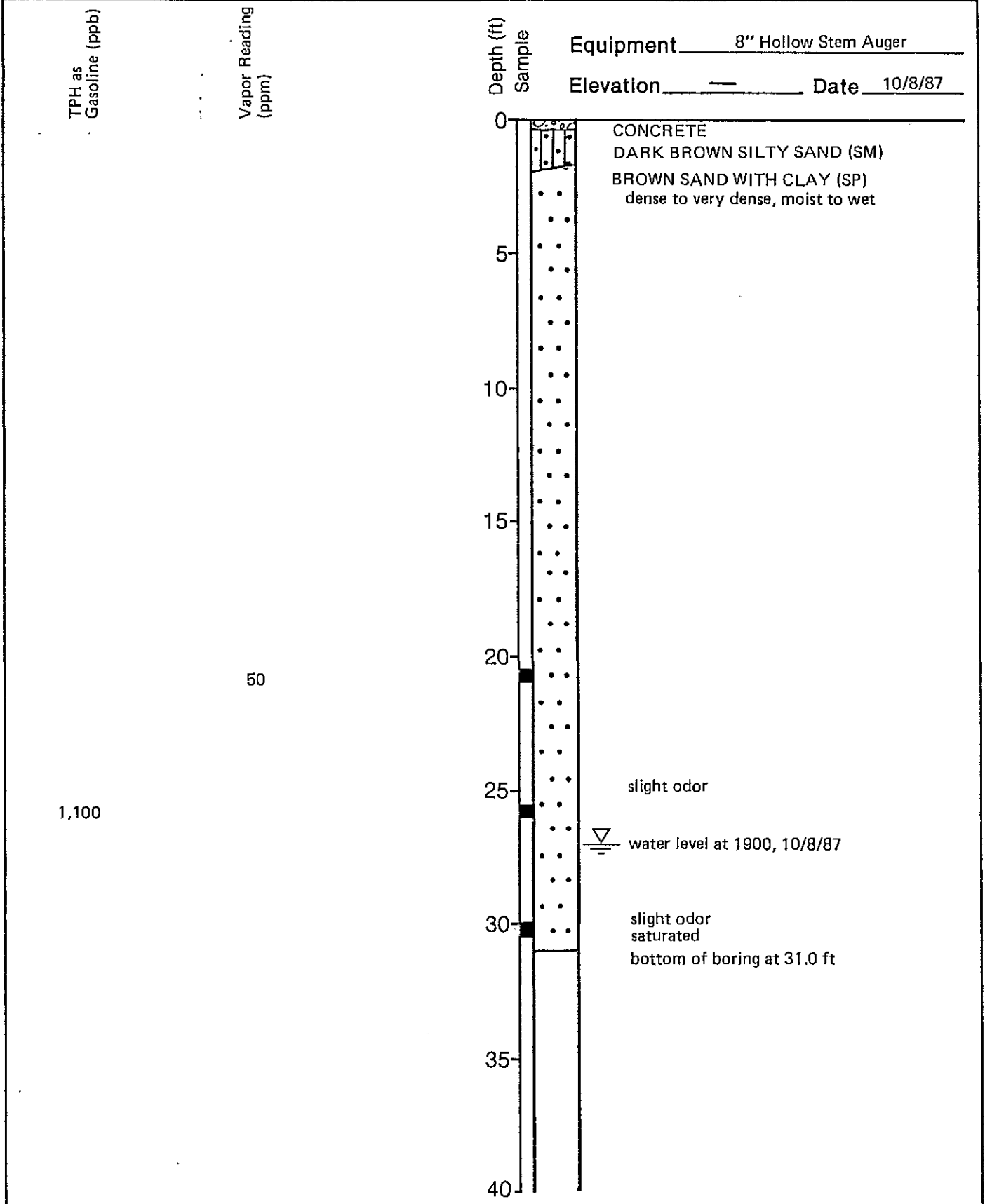
Harding Lawson Associates
Engineers and Geoscientists

Log of Boring B-6

PLATE

Oakland, California

A-6



Harding Lawson Associates
Engineers and Geoscientists

Log of Boring B-7

Oakland, California

PLATE

A-7

DRAWN
JAS

JOB NUMBER
09382,008.01

APPROVED
[Signature]

DATE
10/87

REVISED

DATE

4286

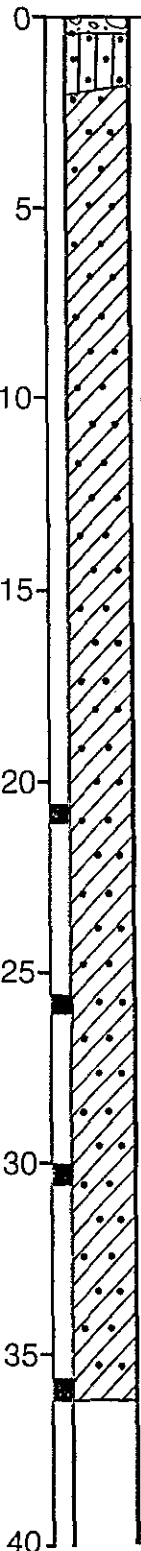
TPH as Gasoline (ppb)

Vapor Reading (ppm)

Depth (ft) Sample

Equipment 8" Hollow Stem Auger

Elevation _____ Date 10/8/87



CONCRETE
 DARK BROWN SILTY SAND (SM)
 BROWN SAND WITH CLAY (SC)

ND

50

very dense

changes to mottled gray-brown at 23.0 ft

90

changes to medium dense

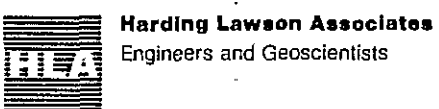
▽ water level at 1615, 10/8/87

60

changes to very dense

330

changes to dense, bottom of boring at 30.8 ft

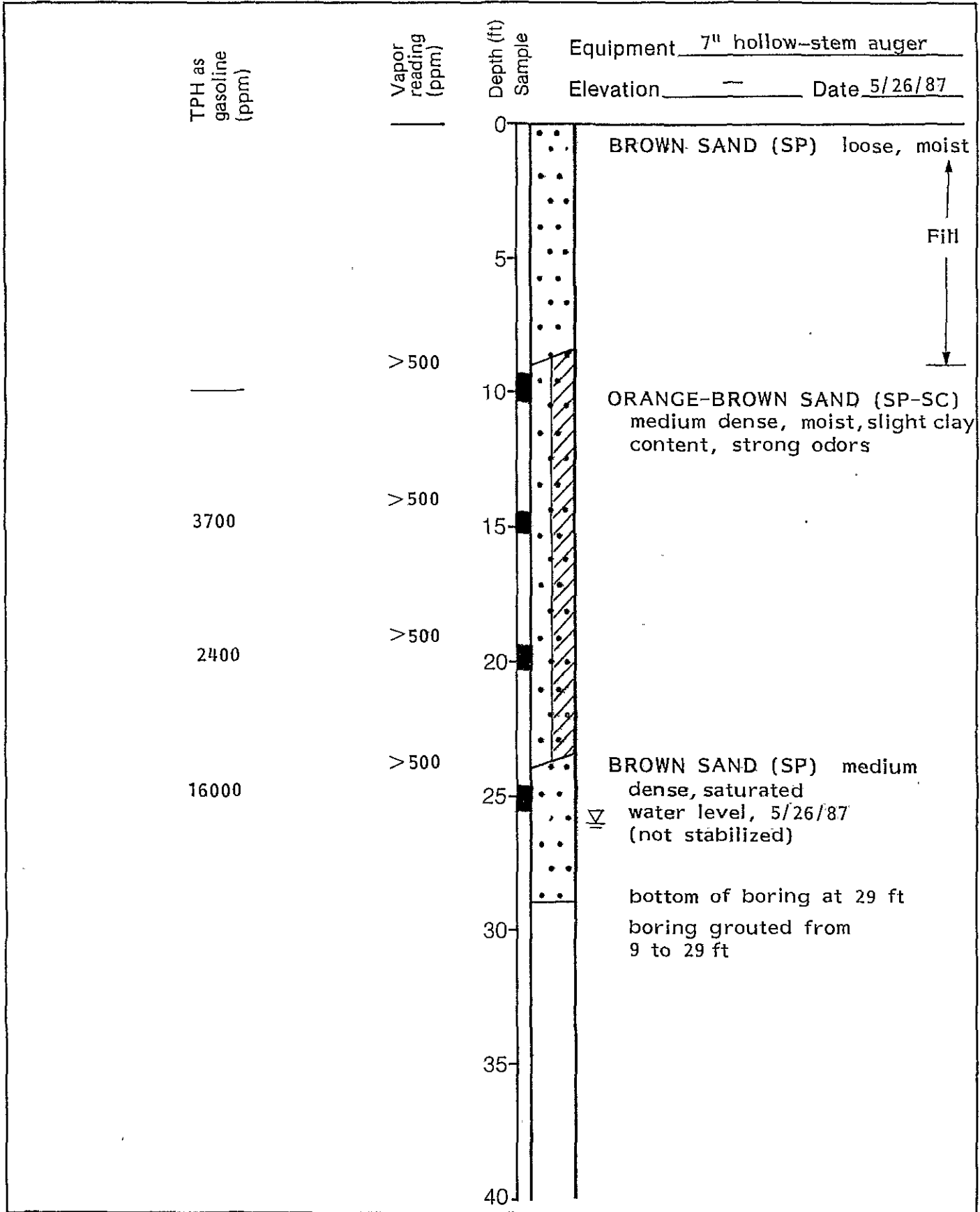


Log of Boring B-8

PLATE

Oakland, California

A-8



Harding Lawson Associates
Engineers, Geologists
& Geophysicists

Log of Boring 2

Oakland, California

PLATE

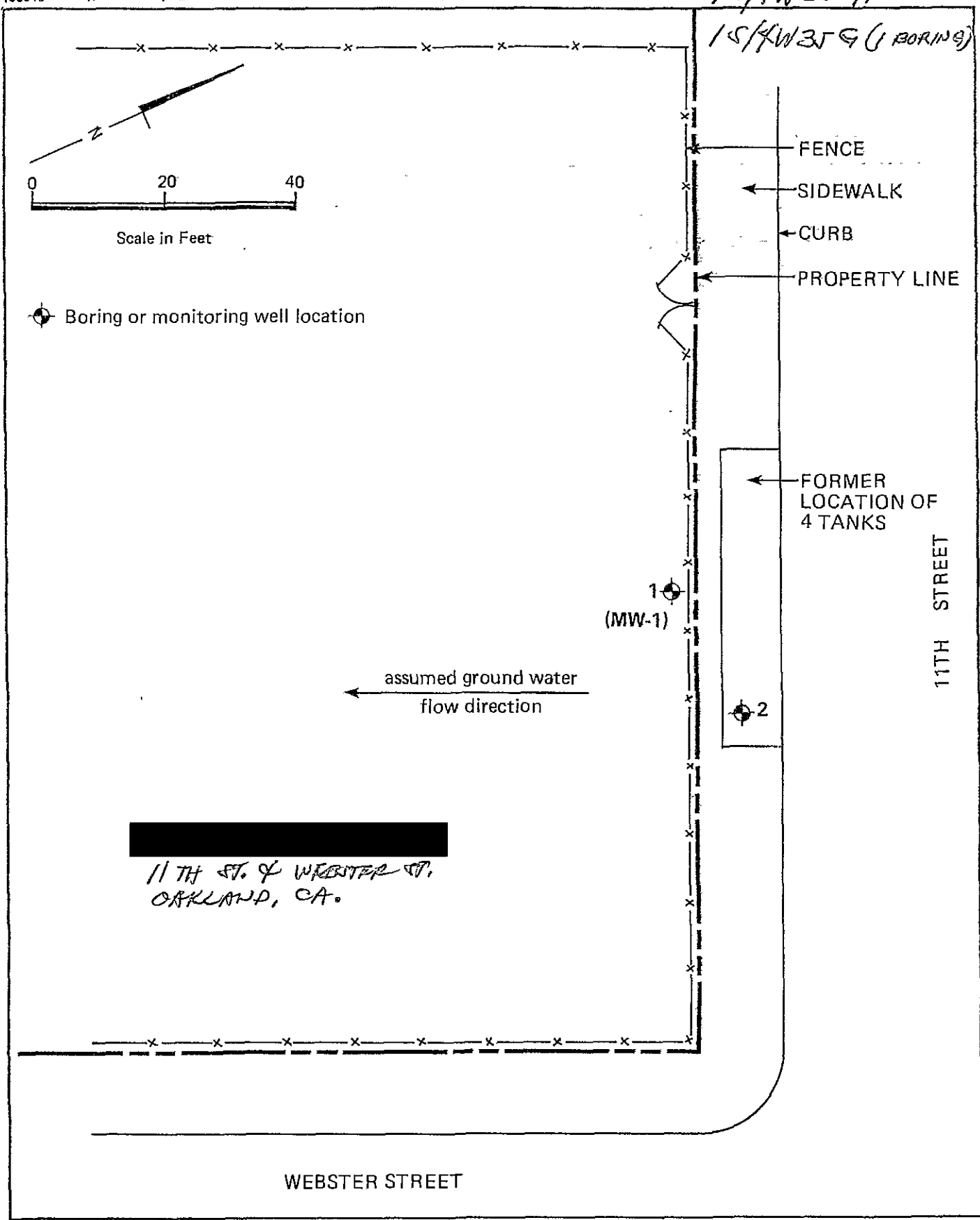
3

0358
105640

7123

01-267 E, H

INV
NO. 15/KW3591
plot/gpd



Harding Lawson Associates
Engineers and Geoscientists

Boring Location Map
[Redacted]
Oakland, California

DRILLER: WEEKS
(SEBASTOPOL)
PLATE **1**

DRAWN
MG

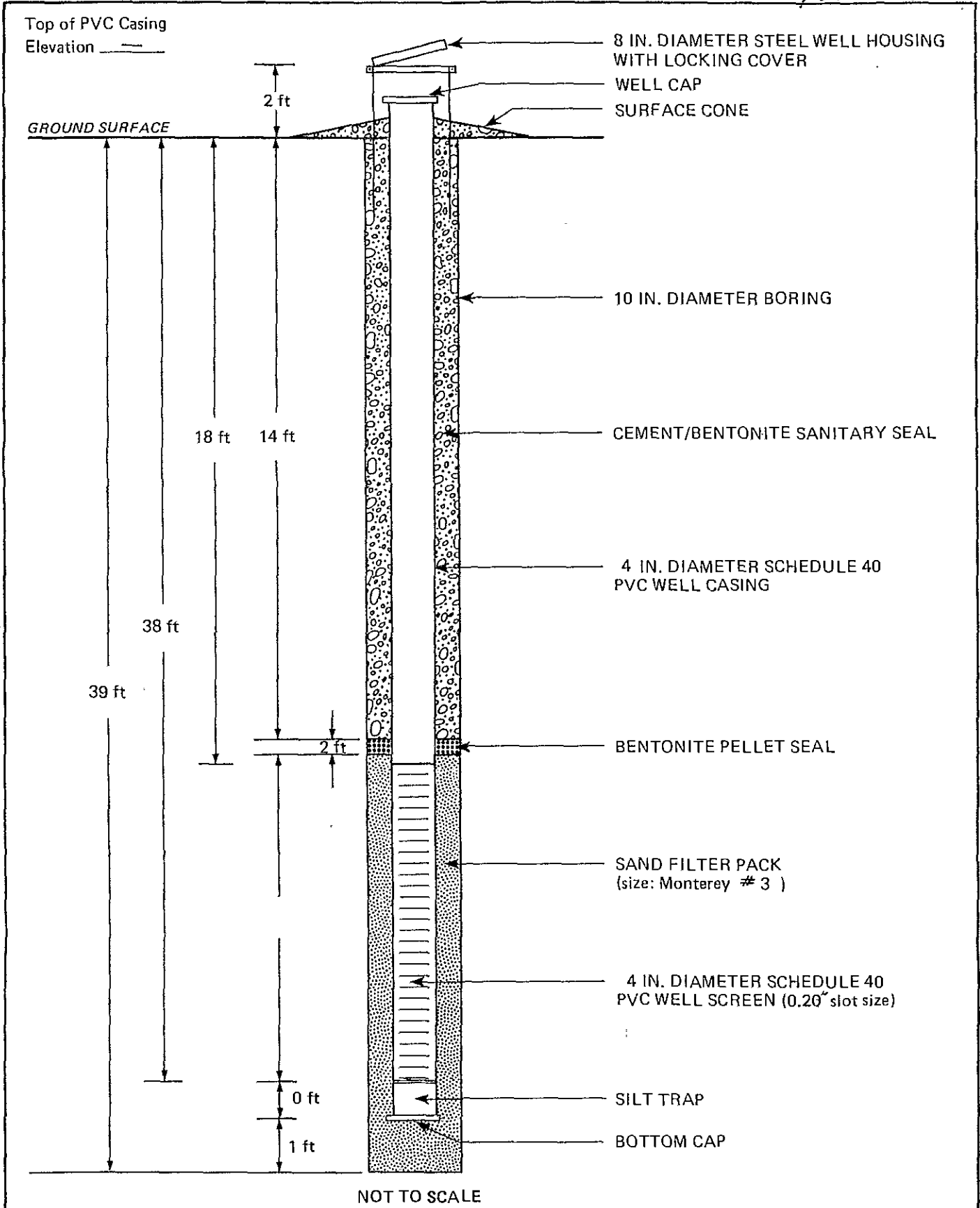
JOB NUMBER
09382,005.02

APPROVED
D. Long

DATE
6/87

REVISED

DATE

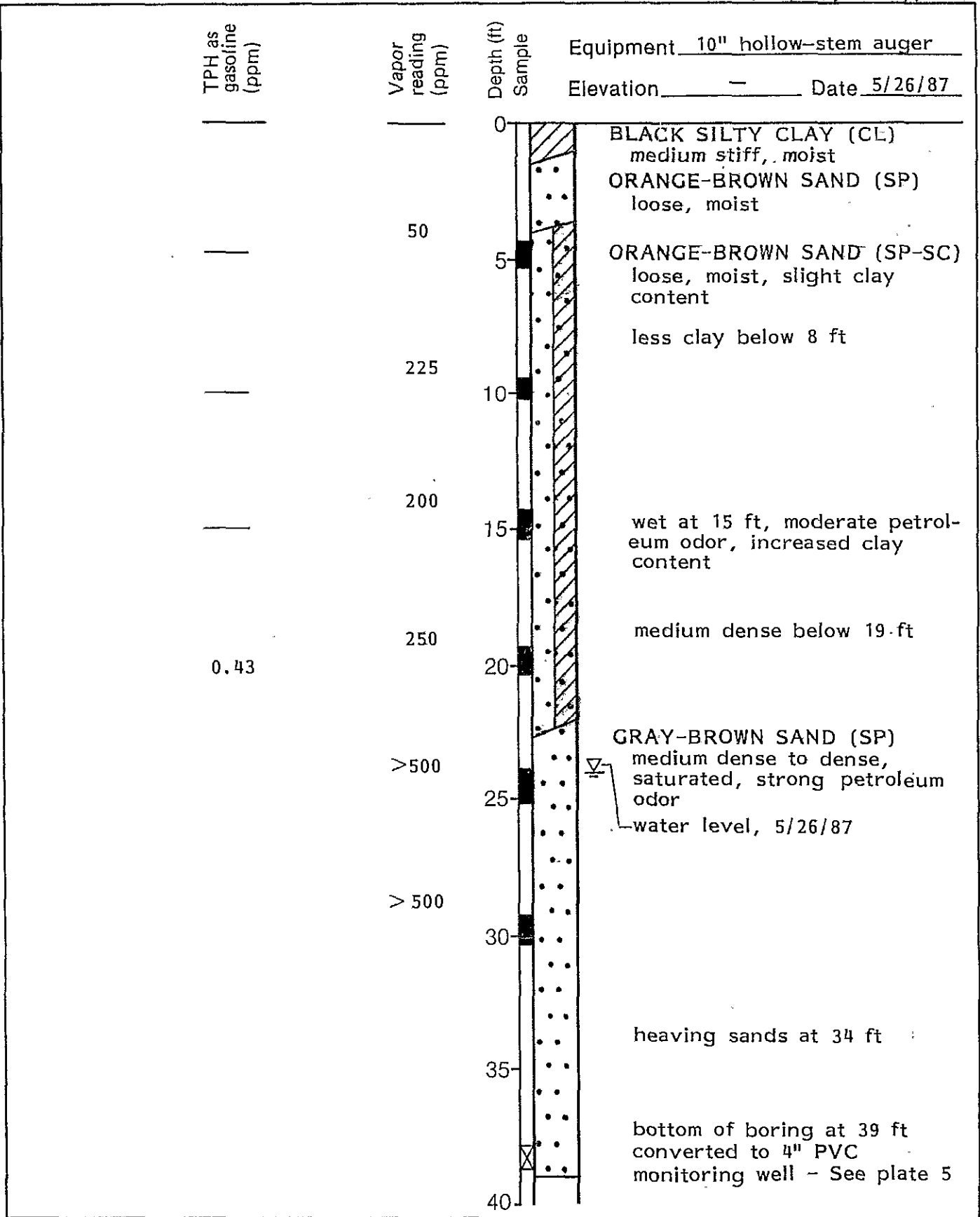


Harding Lawson Associates
 Engineers, Geologists
 & Geophysicists

**Well Construction Detail for
 Monitoring Well 1**
 Oakland, California

PLATE
5

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED	DATE
	9382,005.02	<i>[Signature]</i>	6/87		



Harding Lawson Associates
Engineers, Geologists
& Geophysicists

Log of Boring 1

Oakland, California

PLATE

2

MAJOR DIVISIONS					TYPICAL NAMES
COARSE - GRAINED SOILS MORE THAN HALF IS LARGER THAN NO. 200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW		WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES
			GP		POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES
		GRAVELS WITH OVER 12% FINES	GM		SILTY GRAVELS, POORLY GRADED GRAVEL-SAND-SILT MIXTURES
			GC		CLAYEY GRAVELS, POORLY GRADED GRAVEL-SAND-CLAY MIXTURES
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE	CLEAN SANDS WITH LITTLE OR NO FINES	SW		WELL-GRADED SANDS, GRAVELLY SANDS
			SP		POORLY GRADED SANDS, GRAVELLY SANDS
		SANDS WITH OVER 12% FINES	SM		SILTY SANDS, POORLY GRADED SAND-SILT MIXTURES
			SC		CLAYEY SANDS, POORLY GRADED SAND-CLAY MIXTURES
FINE - GRAINED SOILS MORE THAN HALF IS SMALLER THAN NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT 50% OR LESS	ML		INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, OR CLAYEY SILTS WITH SLIGHT PLASTICITY	
		CL		INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS	
		OL		ORGANIC CLAYS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50%	MH		INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS	
		CH		INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS	
		OH		ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS	
	HIGHLY ORGANIC SOILS		Pt		PEAT AND OTHER HIGHLY ORGANIC SOILS

UNIFIED SOIL CLASSIFICATION SYSTEM

Perm	—	Permeability	Shear Strength (psf)	Confining Pressure	
Consol	—	Consolidation	TxUU 3200 (2600)	—	Unconsolidated Undrained Triaxial Shear (field moisture or saturated)
LL	—	Liquid Limit (%)	(FM) or (S)		
PI	—	Plastic Index (%)	TxCU 3200 (2600)	—	Consolidated Undrained Triaxial Shear (with or without pore pressure measurement)
G _s	—	Specific Gravity	(P)		
MA	—	Particle Size Analysis	TxCD 3200 (2600)	—	Consolidated Drained Triaxial Shear
■	—	"Undisturbed" Sample	SSCU 3200 (2600)	—	Simple Shear Consolidated Undrained (with or without pore pressure measurement)
⊠	—	Bulk or Classification Sample	(P)		
			SSCD 3200 (2600)	—	Simple Shear Consolidated Drained
			DSCD 2700 (2000)	—	Consolidated Drained Direct Shear
			UC 470	—	Unconfined Compression
			LVS 700	—	Laboratory Vane Shear

KEY TO TEST DATA



Harding Lawson Associates
Engineers, Geologists
& Geophysicists

Unified Soil Classification Chart
[Redacted]
Oakland, California

PLATE

4

DRAWN
MG

JOB NUMBER
09382,005.02

APPROVED
D. J. M. J.

DATE
6/87

REVISED

DATE

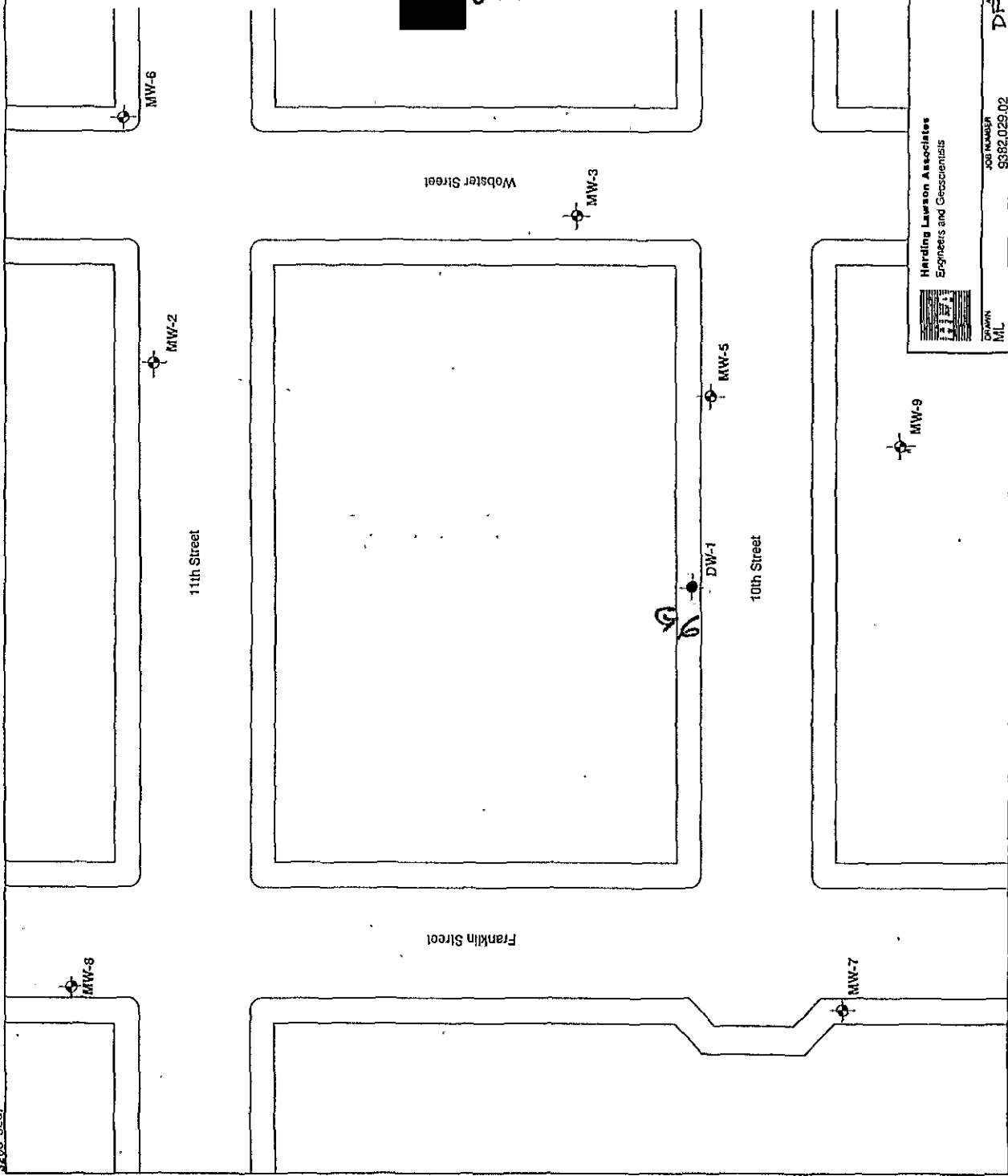
01-343

15/AN 3596

plaf/wed

INV. ✓
AD. ✓

5958



[Redacted Area]

SHUNAJOVAN REMEDIATION AREA
WEBSTER & 10TH, 11TH STS.
OAKLAND, CA

Monitoring Well Locations

[Redacted Information]

Harding Lawson Associates
Engineers and Geoscientists



DRAWN: ML
JOB NUMBER: 9382.029.02
DATE: 4/88

APPROVED: DF [Signature]
DATE: 4/88
REVISED: [Blank]DATE: [Blank]

3288_3287

DRILLER'S EXPLORATION DRILLING SERVICES

105465

Top of PVC Casing
Elevation 38.42 ft

Equipment Failing 1250

Elevation 39.02 ft Date 3/30/88

GROUND SURFACE

Blows/foot

Depth (ft)
Sample

8.5 IN. DIAMETER STEEL
CONDUCTOR CASING
0.5 ft to 45.0 ft below
ground surface

14 3/4 IN. DIAMETER
BOREHOLE
0 to 43.0 ft

BENTONITE-CEMENT SEAL
0 to 43.0 ft

7 7/8 IN. DIAMETER
BOREHOLE
0 to 66 ft

4 IN. DIAMETER SCHEDULE
40 PVC WELL CASING
0 to 49.0 ft

BENTONITE-CEMENT SEAL
0 to 44.0 ft

CEMENT SIDEWALK
DARK BROWN (7.5YR 4/4) SAND (SP) medium
dense, moist, very fine to fine sand

dark yellowish brown (10YR 4/4)

becomes very moist to wet

color change to grayish brown (10YR 5/2)
mottling

few clay, few silt

color change to light olive-brown (7.5Y
5/4)



Harding Lawson Associates
Engineers and Geoscientists

Log of Boring and Well Completion Detail DW-1

PLATE

Oakland, California

2a

DRAWN
DM

JOB NUMBER
9382, 029.02

APPROVED
[Signature]

DATE
4/88

REVISED

DATE

Top of PVC Casing
Elevation 38.42 ft

Equipment Failing 1250

Elevation 39.02 ft Date 3/30/88

GROUND SURFACE

Blows/foot

Depth (ft)
Sample

BENTONITE PELLET SEAL
44.0 to 47.0 ft

MONTEREY #3 SAND PACK
47.0 to 66.0 ft

4 IN. DIAMETER SCHEDULE
40 PVC WELL SCREEN
(0.020 in. slot size)
49.0 to 64.0 ft

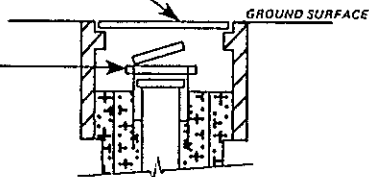
BOTTOM WELL CAP at 64.0 ft

BOREHOLE CLEANED OUT
to 66.0 ft

BOTTOM OF BOREHOLE
at 66.0 ft

WATER PROOF WELL COVER

TOP OF CASING



40 LIGHT BROWN (2.5Y 5/4) LEAN CLAY WITH SILT (CL) stiff, saturated, trace fine sand

45 LIGHT OLIVE-BROWN (2.5Y 5/4) CLAYEY GRAVEL (GC) very dense, saturated, fine angular to subangular gravel

50 LIGHT OLIVE-BROWN (2.5Y 5/4) LEAN CLAY (CL) stiff, some silt
color change to olive-gray (5Y 5/2) at 43 ft

55 MOTTLED OLIVE-GRAY (5Y 5/2) AND DARK YELLOWISH BROWN (10YR 4/6) SAND (SP) dense, saturated, very fine to fine subrounded sand

60 OLIVE-GRAY (5Y 5/2) CLAY (CL) stiff, saturated, trace very fine sand, few silt

MOTTLED OLIVE-GRAY (5Y 5/2) AND DARK YELLOWISH BROWN (10YR 4/6) SAND (SP) dense, saturated, very fine to fine sand, trace very fine angular gravel

DARK YELLOWISH BROWN (10YR 4/4) SAND (SP) dense, saturated, very fine to fine sand

YELLOWISH BROWN (10YR 5/4) SILTY SAND (SM) dense, saturated, very fine sand

YELLOWISH BROWN (10YR 5/4) SILT (ML) stiff, saturated

65 YELLOWISH BROWN (10YR 5/4) SAND (SW) dense, saturated, fine to coarse sand, caliche nodules

YELLOWISH BROWN (10YR 5/4) SILT (ML) very stiff, saturated, trace very fine sand

YELLOWISH BROWN (10YR 5/4) SAND (SP) medium dense to dense, saturated, fine to medium sand, trace silt

OLIVE-GRAY (5Y 5/2) SAND (SW) dense, saturated, fine to coarse subrounded sand, trace caliche

YELLOWISH BROWN (10YR 5/4) SAND (SP) dense, saturated, trace silt

OLIVE-GRAY (5Y 5/2) CLAY (CL) stiff, moist to saturated
bottom of boring at 66 ft



Harding Lawson Associates
Engineers and Geoscientists

Log of Boring and Well Completion Detail DW-1

PLATE

Oakland, California

2b

DRAWN
DM

JOB NUMBER
9382, 029.02

APPROVED

DATE
4/88

REVISED

DATE

Project: [REDACTED] **Log of Boring No. 4**

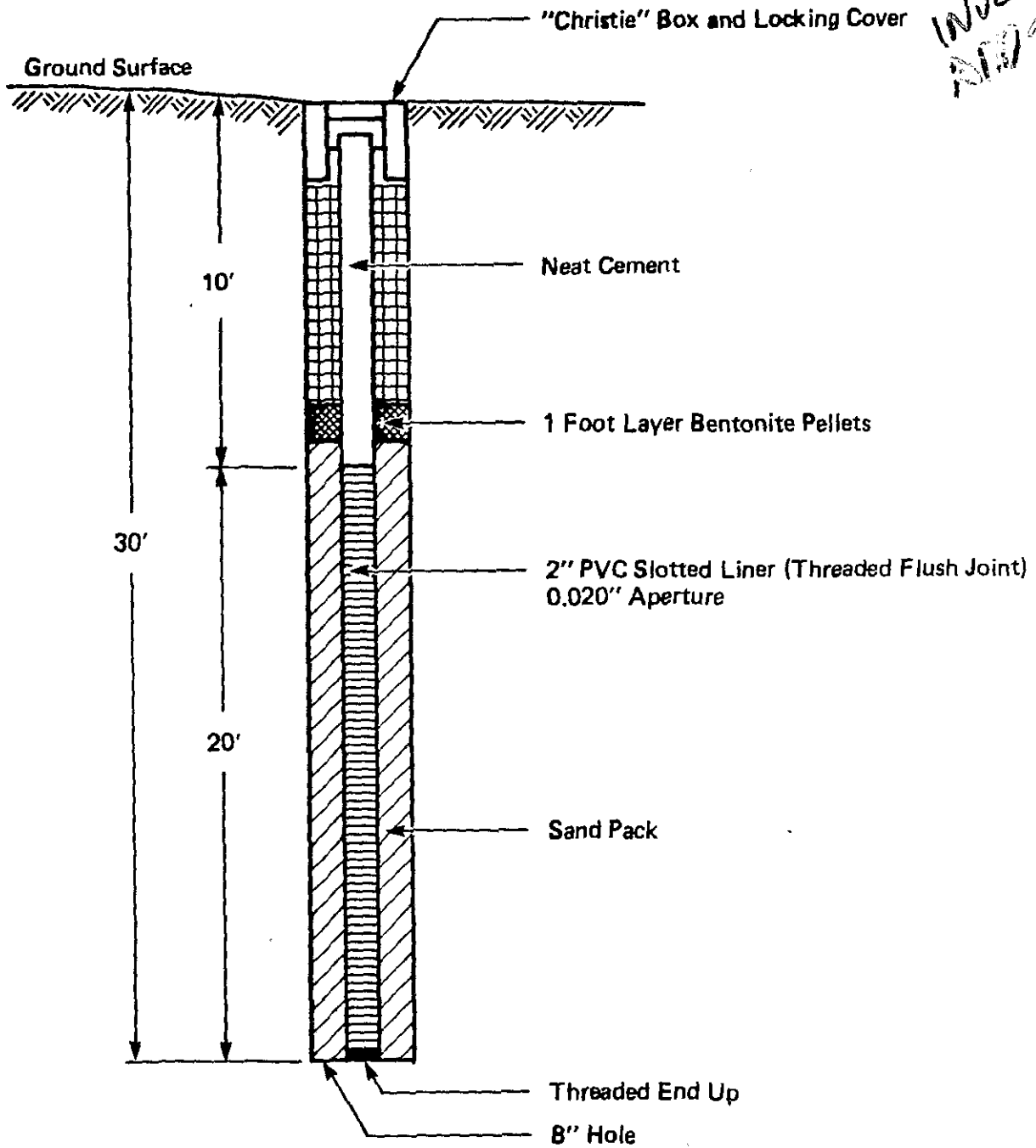
Date Drilled: June 3, 1988 Remarks: Refer to Figure A-1 for Sampler Legend
 Type of Boring: 8-inch-diameter hollow stem auger
 Hammer: 140 pounds falling 30 inches Location:

Depth FL	Samples	Blows/ft	MATERIAL DESCRIPTION	WELL CONSTRUCTION DETAIL
Surface Elevation:				
0			ORGANIC-RICH SOIL	
5	1	20	CLAYEY SAND (SC) FILL Medium dense, slightly moist, brown to red-brown	
10	2	75 11"	SILTY CLAY (CL) FILL Medium stiff, slightly moist, dark brown, with concrete and brick fragments	
15	3	38	CLAYEY SAND (SC) Medium dense to dense, damp to moist, gray-brown, with some silt	
20	4	83		
30			Bottom of boring at 30 feet.	
35				
40				
45				

01-405 I-R 882/6

IS/4W 35 C 1-3

35 C BONNIS-6



Not to Scale

COMPLETED WELL DIAGRAM -
MONITORING WELL NO. 4, 5, 6

Oakland, California

Project No.
8810026A

September 16, 1987

Woodward-Clyde Consultants

Project: [REDACTED] Log of Boring No. FCC 5

Date Drilled: July 14, 1988 Remarks:
 Type of Boring: 8" HSA
 Hammer: 140 lbs falling 30" Location: 14th & Clay

Depth Ft.	Samples	Blows/Ft	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density pcf	Unconfined Compress. Strength, psf
Surface Elevation:						
5			CLAYEY SAND (SC) FILL? Medium dense, moist, brown, fine-grained, with orange mottling			
1		46	} with some medium gravel			
10			CLAYEY SAND (SC) Dense, moist to wet, fine-grained			
2		62	↓ Becomes Sandy Clay			
3		66				
4		37	↓ Becomes wet and medium-grained			
			▽ ATD			
35			Bottom of Boring at 35' Installed well			
40						

01-405K

15/4W-3503

C-3

Project: [REDACTED]	Log of Boring No. FCC 6a
---	--------------------------

Date Drilled: July 14, 1988 Type of Boring: 8" HSA Hammer: 140 lbs falling 30"	Remarks: Location: 14th & Clay
--	---------------------------------------

Depth Ft.	Samples	Blows/Ft	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density pcf	Unconfined Compress. Strength, psf
Surface Elevation:						
5	1	35	CLAYEY SAND (SC) FILL? Medium dense, wet, brown, fine-grained, with some medium-grained sand			
10						
15	2	75	With some brick fragments			
20						
25	3	50 6"	CLAYEY SAND (SC) Dense, wet, brown, medium-grained			
30						
35	4	50 6"	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> <p>Becomes saturated</p> </div> <div style="text-align: center;"> <p>ATD</p> </div> </div>			
40			Bottom of Boring at 35' Installed observation well			

01-405L

Project: XXXXXXXXXX

Log of Boring No. 1

Bar...

Date Drilled: June 3, 1988

Remarks: See below for Sampler Legend

15/4W-35C

Type of Boring: 8-inch-diameter hollow stem auger

Hammer: 140 pounds falling 30 inches

Location:

Depth Ft.	Samples	Blows/Ft	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density pcf	Unconfined Compress. Strength, psf
Surface Elevation:						
1		17	SILTY SAND (SM) FILL Medium dense, slightly moist, brown, with some cobbles ↓ Becomes brown to dark red-brown, clayier			
5	2	18				
10	3	24				
15	4	36	↓ SILTY SAND (SM-SC) Dense, slightly moist, brown to gray with orange mottling			
20	5	58				
25	6	71 11"				
30	7	55				
Bottom of boring at 31.5 feet.						
SAMPLER LEGEND						
← 2-1/2-INCH O.D. MODIFIED CALIFORNIA SAMPLER.						
← BLOW COUNT WITH A 140-POUND HAMMER FALLING 30 INCHES						
WATER LEVEL MEASURED: At time of Drilling → ATD In Hours or Days After Drilling → 3 Hrs. On Date Indicated → 6-3-88						

▽
ATD

▽
ATD

Project: 8810026A

Woodward-Clyde Consultants

Figure A-1

01-405M

Project: [REDACTED] SITE ASSESSMENT

Log of Boring No. 2

Date Drilled: June 3, 1988

Remarks: Refer to Figure A-1 for Sampler Legend

15/4W-39C

Type of Boring: 8-inch-diameter hollow stem auger

Hammer: 140 pounds falling 30 inches

Location:

Depth Ft.	Samples	Blows/Ft	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density pcf	Unconfined Compress. Strength, psf
Surface Elevation:						
			ORGANIC-RICH SOIL			
			FILL Dry, brown, with abundant well-graded gravels			
5	1	28	↓ Becomes finer and contains more clay			
10	2	27				
15	3	28	FILL : rubble consisting of concrete and cobbles			
			SILTY SAND (SM-SC) Medium dense to dense, slightly moist, gray to brown with some orange mottling, fine-grained			
20	4	41				
			CLAYEY SAND (SC) Dense to very dense, moist, gray to brown, with some silt			
25	5	72				
30	6	36	▽ ATD			
			Bottom of boring at 31.5 feet.			
35						
40						
45						

Project: 8810026A

Woodward-Clyde Consultants

Figure A-2

01-40587N *15/4W-35C*

Project: XXXXXXXXXX

Log of Boring No. 3

Date Drilled: June 3, 1968

Remarks: Refer to Figure A-1 for Sampler Legend

Type of Boring: 8-inch-diameter hollow stem auger

Hammer: 140 pounds falling 30 inches

Location:

Depth Ft.	Samples	Blows/Ft.	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density pcf	Unconfined Compress. Strength, psf
Surface Elevation:						
			ORGANIC-RICH SOIL			
			CLAYEY GRAVEL (GC) FILL Loose, dark gray-brown, with concrete and brick fragments			
5			SANDY CLAY (CL) FILL Soft to medium stiff, damp, dark brown, with concrete and brick fragments			
10	1	24				
15	2	22				
20	3	$\frac{86}{11''}$	CLAYEY SAND (SC) Medium dense, moist brown to orange-brown Becomes dense, red-brown to gray-brown			
25	4	50				
30	5	$\frac{77}{9''}$	CLAYEY SAND (SC) Medium dense, to dense, moist, light gray-brown			
			Bottom of boring at 31.5 feet.			

Project: 8810026A


Woodward-Clyde Consultants

Figure A-3

01-4050 1S/4W-35C

Project: [REDACTED] Log of Boring No. FCC 6


Date Drilled: July 14, 1988 Remarks:
 Type of Boring: 8" HSA Location: 14th and Clay
 Hammer: 140 lbs falling 30"

Depth Ft.	Samples	Blows/Ft	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density pcf	Unconfined Compress. Strength, psf
Surface Elevation:						
0			SANDY CLAY (CL) FILL Medium stiff, red-brown, wet, with fine gravel and medium-grained sand			
5			CLAYEY SAND (SC) FILL Medium dense, brown, moist to wet, fine-grained			
10	1	16	 ↓ Becomes wet			
12			Bottom of Boring (Concrete Vault) at 12'			
15						
20						
25						
30						

01-4050P B/S/4W 35C

Project: [REDACTED] SITE ASSESSMENT Log of Boring No. FCC 7

Date Drilled: July 14, 1988 Remarks:
 Type of Boring: 8" HSA Location: 14th & Clay
 Hammer: 140 lbs falling 30"

Depth FL	Samples	Blows/Ft	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density pcf	Unconfined Compress. Strength, psf
Surface Elevation:						
5	1	24	CLAYEY SAND (SC) FILL Medium dense, moist to wet, brown, fine-grained CLAYEY SAND (SC) Medium dense to dense, wet, brown, fine-grained, with orange mottling <div style="text-align: center;">  ATD </div>			
10	2	36				
15	3	27				
20	4	37				
23	5	50 6"				
			Bottom of Boring at 23'			
25						
30						
35						
40						

Project: 8810021A/26A Woodward-Clyde Consultants Figure 5

01-405R

IS/4W-35 @ BORING

Project: [REDACTED]

Log of Boring No. FCC 8

Date Drilled: July 14, 1988
Type of Boring: 8" HSA
Hammer: 140 lbs falling 30"

Remarks:
Location: 14th & Clay

Depth Ft.	Samples	Blows/Ft	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density pcf	Unconfined Compress. Strength, psf	
Surface Elevation:							
5	1	46	CLAYEY SAND (SC) FILL Dense, wet, brown				
10	2	48	CLAYEY SAND (SC) Dense, wet, brown, with orange-brown mottling				
15	3	41					
20	4	41					
25	5	44					
30	Bottom of Boring at 27'						
35							
40							

Project: 8810021A/26A

Woodward-Clyde Consultants

Figure 6

LOG OF TEST BORING 8

EQUIPMENT 3" Hollow Stem

DATE DRILLED 6-24-88

ELEVATION --

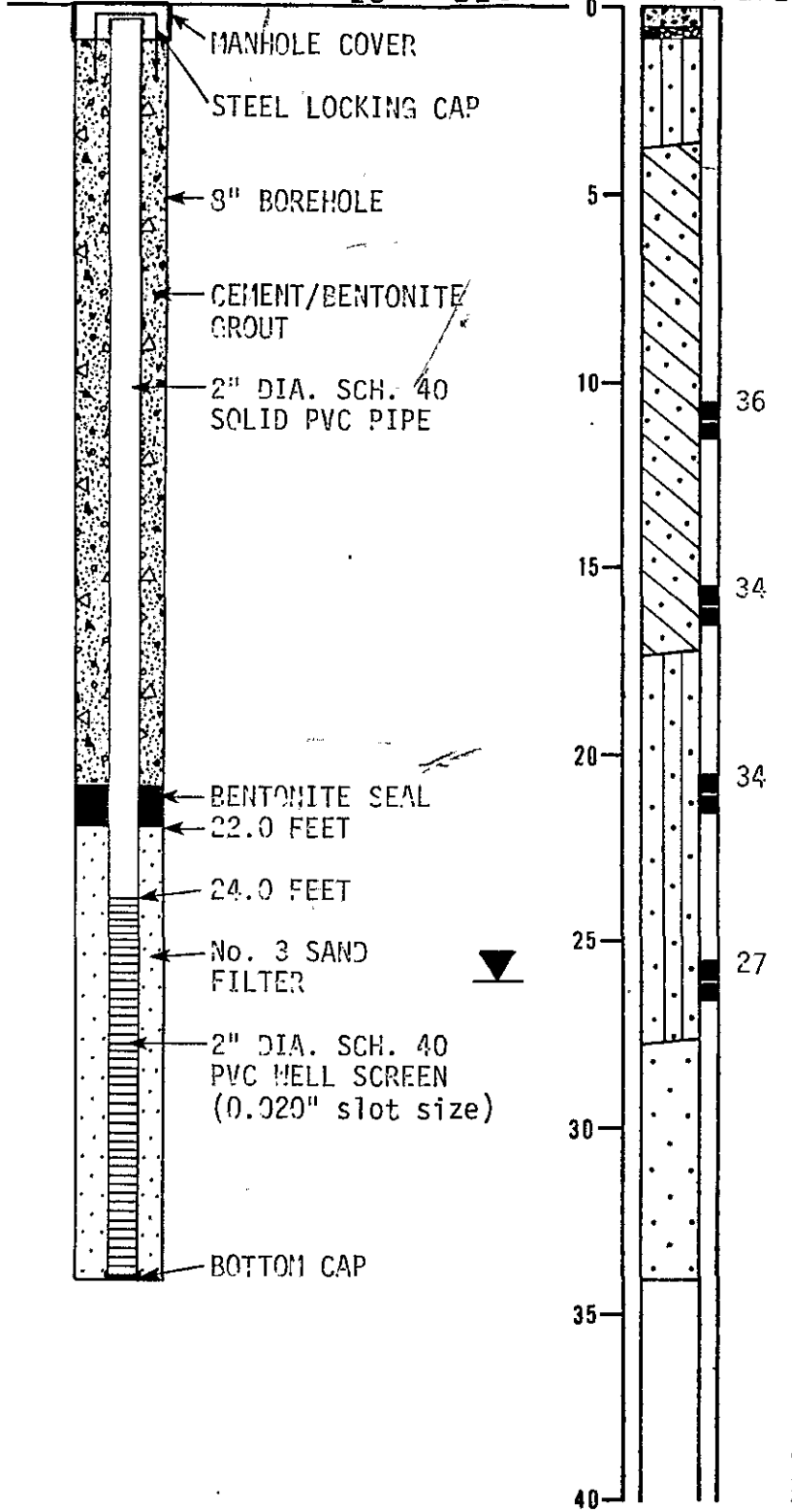
MOISTURE CONTENT %

DRY DENSITY (PCF)

DEPTH (FT)

SAMPLE

BLOWS PER FOOT



6" CONCRETE
 3" BASE ROCK
 DARK BROWN SILTY SAND (SM)
 medium dense, moist with numerous pieces of glass and brick (fill)
 BROWN CLAYEY SAND (SC)
 medium dense, moist

36
 34

BROWN SILTY SAND (SM)
 medium dense, moist, fine grained

34

27
 GROUNDWATER LEVEL 6-30-88

BROWN SAND (SP)
 medium dense to dense, saturated, fine grained

Subsurface Consultants

1330 MARTIN LUTHER KING, JR. WAY, OAK.

PLATE

JOB NUMBER
430.002

DATE
7-11-88

APPROVED

9

13/4/85 1-9

WUL
ADD

EXISTING BUILDING

11
25 (ND)
11-2

9

24

15
25 (ND)

14
19 (ND)
22 (ND)
25 (6710)

ZONE OF SOIL CONTAMINATION

7
19 (ND)
24 (987)
28.5 (2020)

4
16 (54)
21 (6770)
26 (ND)

16
25 (7660)

16 (ND)
21 (ND)
25 (ND)

1

1A



2

6

16 (ND)
21 (3700)

16 (ND)
21 (1810)
25 (7530)

17.5 (ND)
23 (ND)
27 (ND)

16 (ND)
21 (2370)
25 (ND)

3

8
16 (ND)
21 (ND)
26 (ND)

SAMPLE DEPTH (FT)

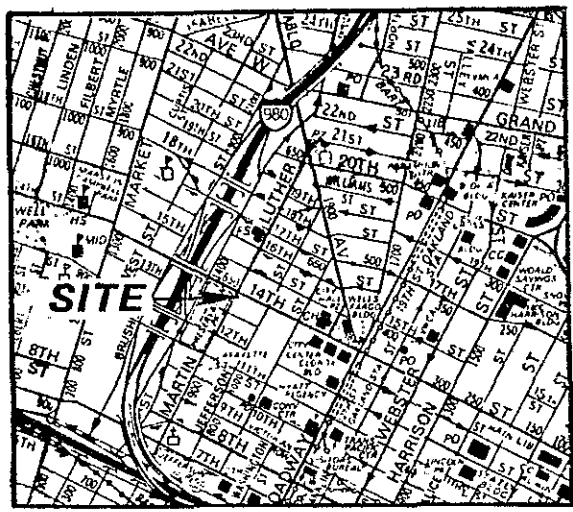
ND = NOT DETECTED

() = TVH CONCENTRATION IN MG/KG OR ppm

25






10

DIRECTION OF
GROUNDWATER FLOW

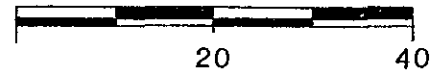


VICINITY MAP

MARTIN LUTHER KING Jr. WAY

-  TEST BORING
-  MONITORING WELL
-  TEST BORING PREVIOUS STUDY
-  PIEZOMETER
-  TANK

APPROXIMATE SCALE (FEET)



14th STREET

DRILLING SITE PLAN

Subsurface Consultants

1330 MARTIN LUTHER KING Jr. WAY, OAK.


JOB NUMBER 430,002 DATE 7-25-88 APPROVED 

PLATE 1

LOG OF TEST BORING 11

EQUIPMENT 8" Hollow stem

DATE DRILLED 6-30-88

ELEVATION --

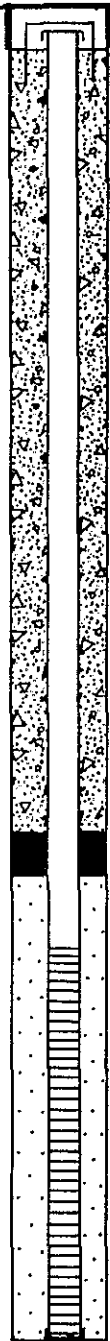
MOISTURE
CONTENT
%

DRY
DENSITY
(PCF)

DEPTH
(FT)

SAMPLE

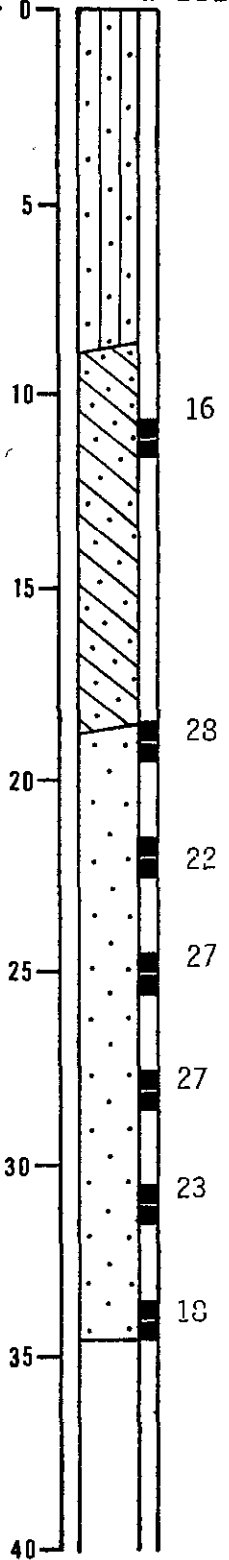
BLOWS
PER
FOOT



WELL DETAILS: (SEE LOG OF BORING 8)

12.5

114



BROWN SILTY SAND (SM)
medium dense, moist (fill)

MOTTLED GRAY AND BROWN CLAYEY
SAND (SC)
medium dense, moist

GRAY BROWN SAND (SP)
medium dense, moist, fine grain-
ed

GROUNDWATER LEVEL 7-5-88

Subsurface Consultants

1330 MARTIN LUTHER KING, JR. WAY, OAK.

JOB NUMBER

430.002

DATE

7-11-88

APPROVED

PLATE

12

01405T

15/40-35 1-2

LOG OF TEST BORING 16

EQUIPMENT 8" Hollow Stem

DATE DRILLED 7-1-88

ELEVATION --

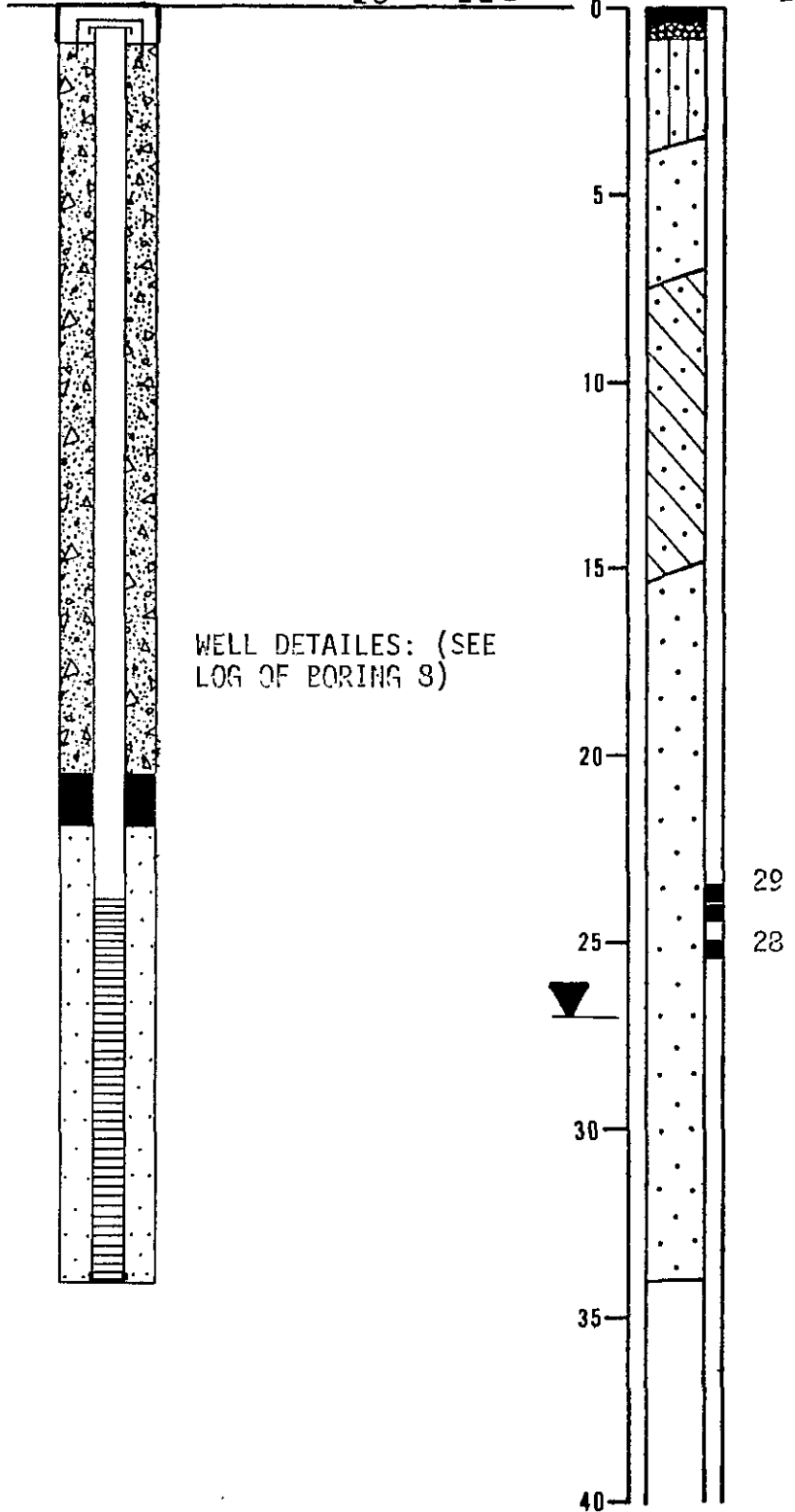
MOISTURE
CONTENT
%

DRY
DENSITY
(PCF)

DEPTH
(FT)

SAMPLE

BLOWS
PER
FOOT



4" ASPHALT CONCRETE
 3" BASE ROCK
 DARK BROWN SILTY SAND (SI1)
 medium dense, moist (fill)

BROWN SAND (SP)
 medium dense, moist
 fine grained

BROWN CLAYEY SAND (SC)
 medium dense, moist

becomes mottled gray and brown
 below 12 feet

GRAY BROWN SAND (SP)
 dense, moist, fine grained

29

28

GROUNDWATER LEVEL MEASURED 7-1-88

Subsurface Consultants

1330 MARTIN LUTHER KING, JR. WAY, OAK.

JOB NUMBER
430.002

DATE
7-11-88

APPROVED

PLATE

16

01-405U-Y

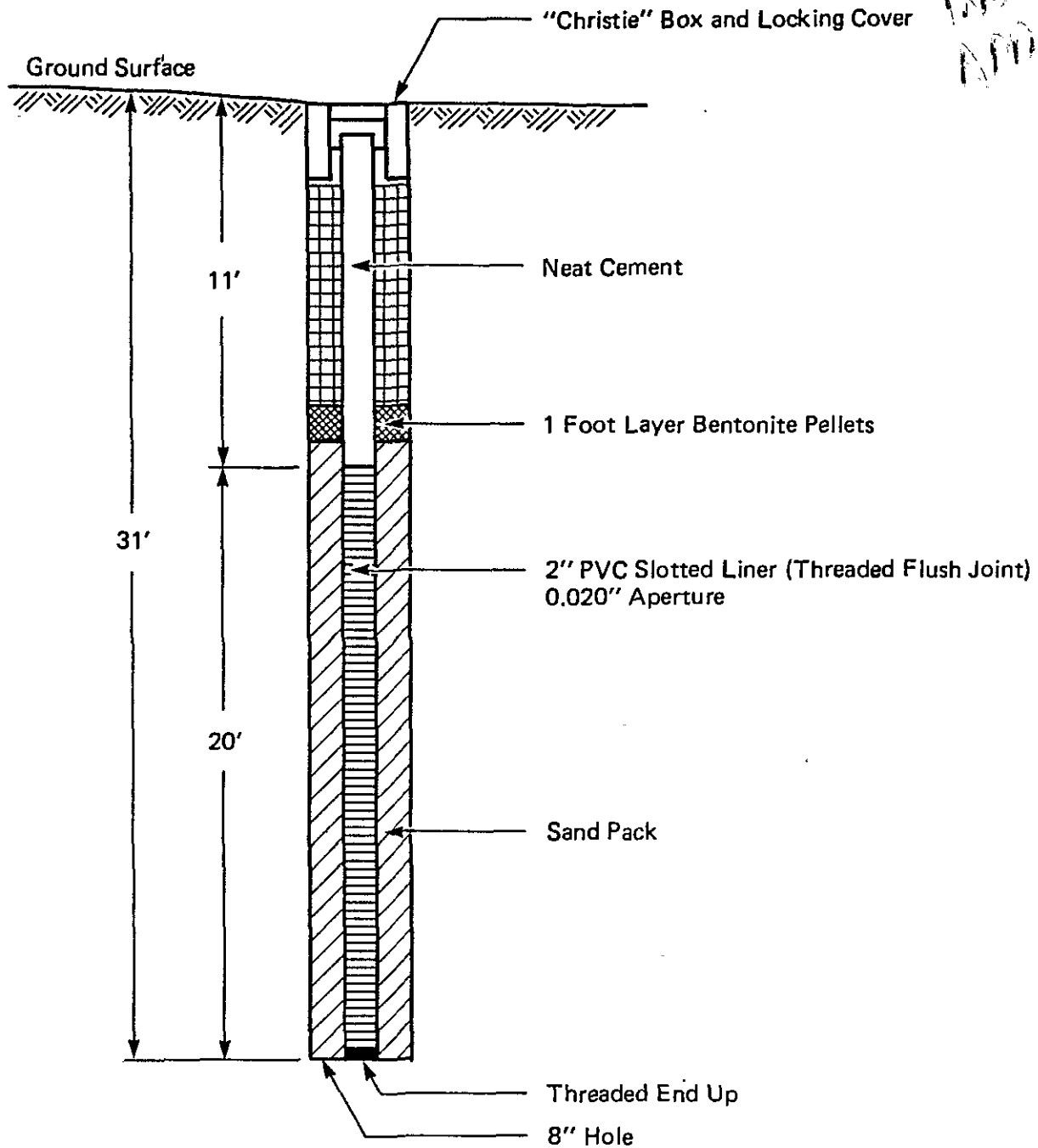
15/400/ 35 F 2-4

88220

F - Benings - 2

LP-2

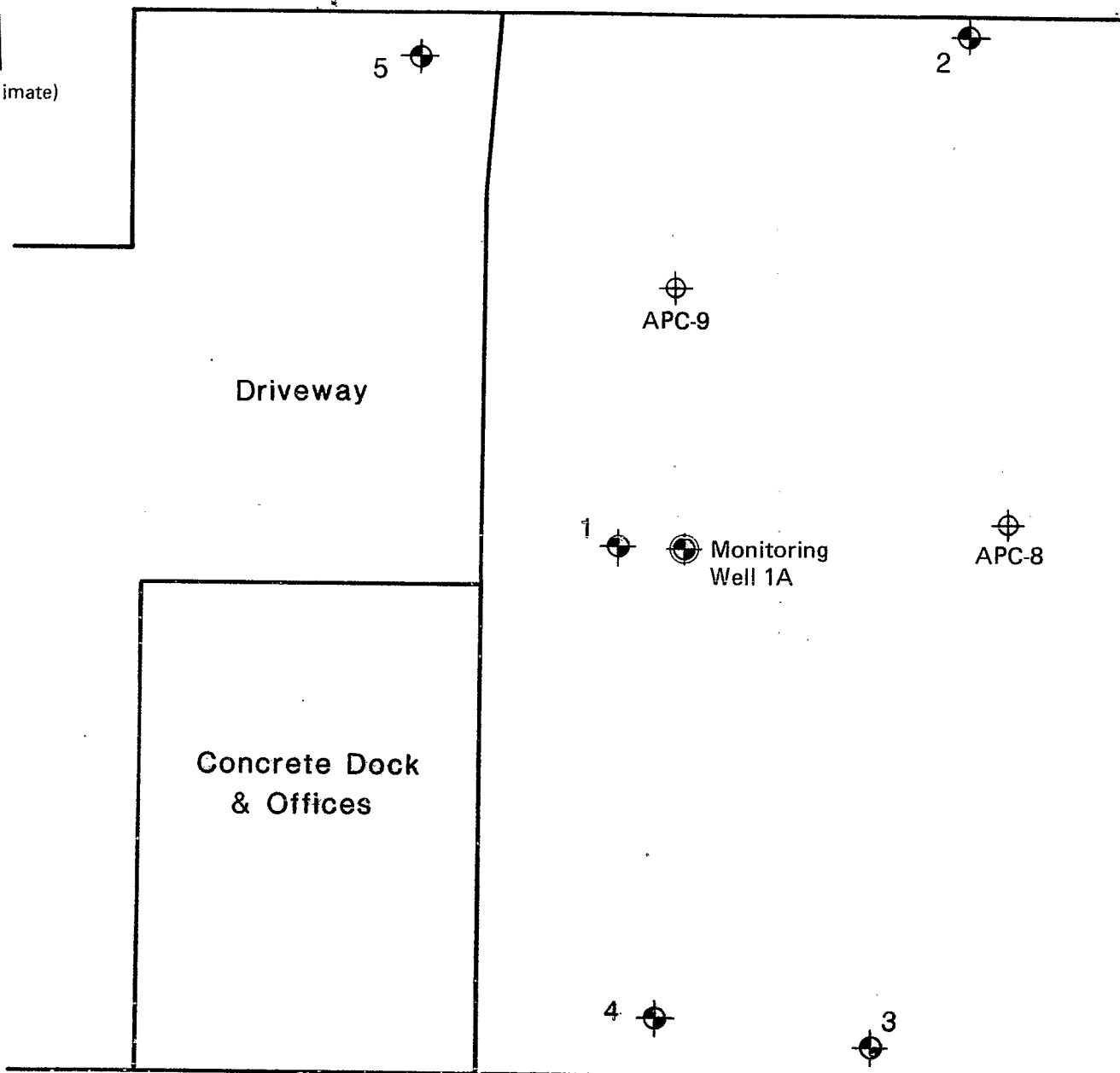
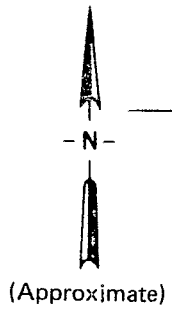
ADD =



Not to Scale

COMPLETED WELL DIAGRAM - MONITORING WELL NO. 1A, 6, 7		
[REDACTED] Oakland, California		
Project No. 8810021A	September 16, 1987	
Woodward-Clyde Consultants		

12th STREET

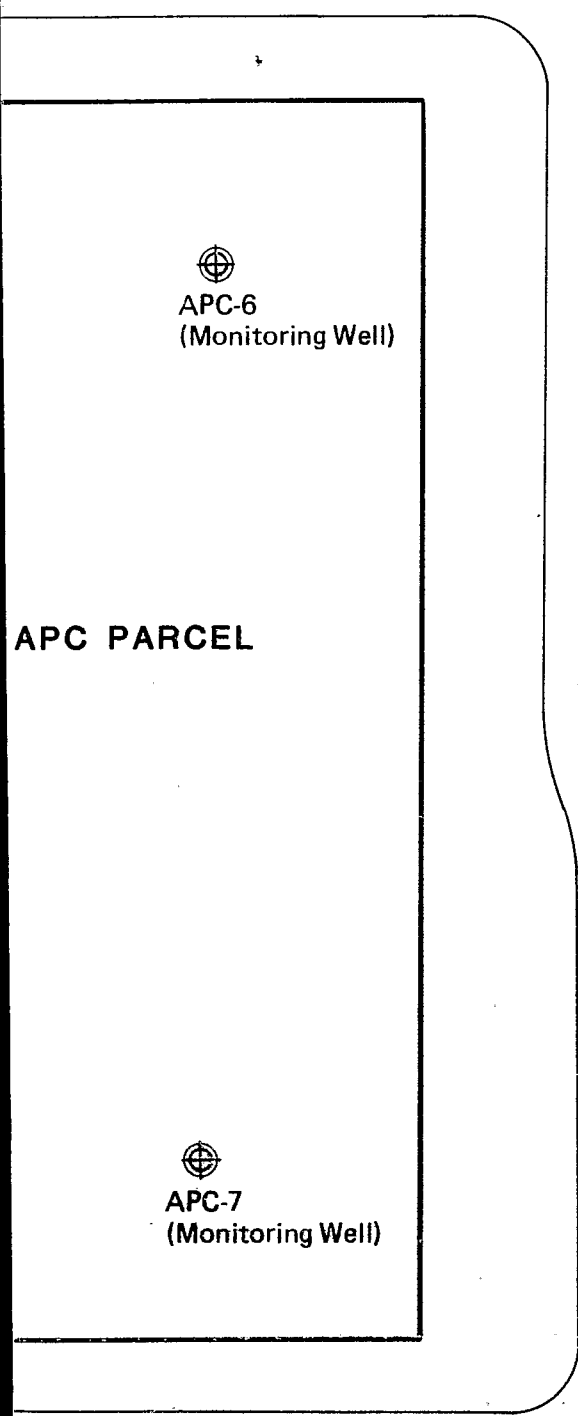


11th STREET





01-4050-2
15/4W-35F2-4
+ 2 borings

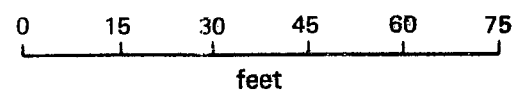
2 Borings

3 monitoring wells



LEGEND


-  Approximate Soil Boring Location (previous study)
-  Monitoring Well Installed (previous study)
-  Approximate Soil Boring Location (July 1988)
-  Monitoring Wells Installed (July 1988)



Project No. 8810021A	 Oakland, CA	BORING LOCATION PLAN	Figure 1
Woodward-Clyde Consultants			

Project: ██████████ SITE ASSESSMENT	Log of Boring No. APC 6
---	--------------------------------

Date Drilled: July 15, 1988 Type of Boring: 8" HSA Hammer: 140 lbs falling 30"	Remarks: Location:
--	---------------------------

Depth Ft.	Samples	Blows/Ft	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density pcf	Unconfined Compress. Strength, psf
Surface Elevation:						
1	1	50 6"	SANDY GRAVEL (GW) Dense, moist, gray brown FILL			
5			CLAYEY SAND (SC) Dense, moist, brown FILL			 ATD
10	2	50 6"	CLAYEY SAND (SM-SC) Dense, damp, gray brown, with some medium-grained sand			
15	3	48	CLAYEY SAND (SM-SC) Dense, damp, gray brown			
20	4	23	Silty			
30			Bottom of Boring at 30'			
35						
40						

Project: [REDACTED] Log of Boring No. APC 7

Date Drilled: July 15, 1988 Remarks:
 Type of Boring: 8" HSA
 Hammer: 140 lbs falling 30" Location:

Depth FL	Samples	Blows/Ft	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density pcf	Unconfined Compress. Strength, psf
Surface Elevation:						
1		33	CLAYEY SAND (SC) Dense, wet, brown, with some gravel and brick fragments FILL			
5	2	30	CLAYEY SAND (SM) Dense, damp, brown Color turns tan brown			
10	3	44	CLAYEY SAND (SM-SC) Dense, damp, mottled brown, with gray fine-grained sand			
15	4	39	SILTY SAND (SM) Dense, damp, mottled, with gray fine-grained sand			
20			CLAYEY SAND (SC) Moist, slightly grayish brown ▽ ATD			
25						
30			Bottom of Boring at 30'			
35						
40						

01-405X 015/410-350

Project: [REDACTED]

Log of Boring No. APC 8

Date Drilled: July 15, 1988

Remarks:

Type of Boring: 8" HSA

Hammer: 140 lbs falling 30"

Location:

Depth Ft.	Samples	Blows/Ft.	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density pcf	Unconfined Compress. Strength, pcf
Surface Elevation:						
1		64	CLAYEY SAND (SC) Dense, moist, brown FILL			
5						
2		44	CLAYEY SAND (SC) Dense, moist, brown			
			SILTY SAND (SM) Dense, moist, brown			
10						
3		15 6"				
15						
4		46	SILTY SAND (SM) Dense, moist, grayish brown			
20			Bottom of Boring at 19.5'			
25						
30						
35						
40						

Project: 8810021A

Woodward-Clyde Consultants

Figure 4

01-405 X 15/4w 35F

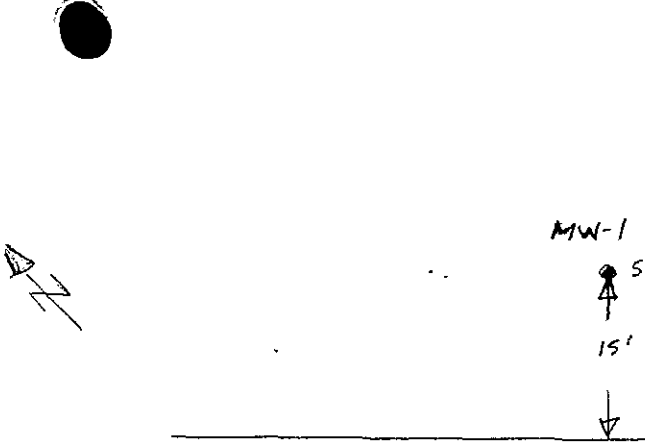
Project: [REDACTED]	Log of Boring No. APC 9
---	-------------------------

Date Drilled: July 15, 1988	Remarks:
Type of Boring: 8" HSA	Location:
Hammer: 140 lbs falling 30"	

Depth Ft.	Samples	Blows/Ft.	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density pcf	Unconfined Compress. Strength, psf
Surface Elevation:			AGGREGATE BASE			
1	1	33	CLAYEY SAND (SC-SM) Damp, brown FILL			
5	2	31	CLAYEY SAND (SM-SC) Damp, brown, slightly grayish, mottled, with gray fine-grained sand			
10	3	35	CLAYEY SAND (SC) Dense, damp to moist, lightgray			
15	4	31	CLAYEY SAND (SC) Dense, moist, light brownish gray, mottled, with red brown			
20						
25						
30						
35						
40						

Project: 8810021A	Woodward-Clyde Consultants	Figure 5
-------------------	----------------------------	----------

LOCATION OF BORING:



HARRISON

PROJECT: [REDACTED]		BORING NO. 1
17 TH + HARRISON OAKLAND		TOTAL DEPTH: 34'
JOB NO.: 1-012-01	LOGGED BY: C. JONES	
PROJ. MGR: T. HOWARD	EDITED BY: T. HOWARD	
DRILLING CONTRACTOR: ALL TERRAIN		
DRILL RIG TYPE: CME 95		
DRILLERS NAME: WES		
BOREHOLE DIAMETER 12" TO 29' 2 1/2" TO 34'		
HAMMER WT.: 140 #	DROP: 30"	
STARTED, TIME: 12:30	DATE: 10.26.88	
COMPLETED, TIME: 14:00	DATE: 10.26.88	

SIZE / FLUID	SAMPLER TYPE	BLOW COUNT / G-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min/10)	CIRCULATION	CASING / SCREEN SIZE, MATERIAL, SLOTS	ANULUS - FILLER GROUT, BENTONITE	DEPTH IN FEET	GRAPHIC LOG
12" 12#4	2"									1	ASPHALT
										2	SILTY SAND (SM) LT. BROWN, MED. DENSE TO LOOSE, ^{DAMP} 20% FINES, F TO M #1 SAND, MOD EST. K
										3	SILTY SAND (SM) LT. BROWN
2"		5	18	18	F			PVC		4	W/ ORANGE MOTTLING, 20% FINES, F TO M #1 SAND, MOD EST. K
3.5"		6				5.0		40	T	5	MED DENSE TO LOOSE, DAMP
		10						SCHED	4		
									0	6	
								BUNNICK	0	7	
									R	8	
8.5"		7	18	18	F			4"	G	9	
		8								10	
		13				10.0					

BORING DEPTH (ft.)	25		
CASING DEPTH (ft.)	25		
WATER DEPTH (ft.)	25	20.40	
TIME:	14:30	11:30	
DATE:	10/26/88	11/5/88	
BACKFILLED, TIME:		DATE:	BY:
SURFACE ELEV.:		DATUM:	GL
CONDITIONS:			

TYPE	BLOWS	DRIVEN	REC'D.	COND.	D.RATE	CIRC.	CASE	ANUL.	DEPTH	GRAPHIC LOG	PROJECT: 17th (HARRISON)	NO. 101201	BORING NO. 1
									11		SILTY SAND AS ABOVE		
									12				
									13				
	19.5	11	18	18	E				14	X	SAND (SP) ORANGE - BROWN		
		19					BLANK		15	X	LOOSE, DAMP, F TO M GR,		
		24			15.0				16	X	HIGH EST. K		
							40 SAND CAS IN GA		17				
							10 SAND CAS IN GA		18				
	18.5	10	18	12	G		4" PUL		19	X	SAND AS ABOVE GRAY-BROWN		
		12							20	X			
		20			20.0				21				
							SCHEM		22				
							40		23		SAMPLE		
	23.5	17	18	1*	F				24		* FELL OUT		
		22					0.00 1/2"		25	X	SAND AS ABOVE MED. DENSE		
		29							26	X	WET, GRADES TO MED. GR		
							10		27				
							4"	2/16	28				
	23.5	3	10	18	E				29	X	(CONTACT DIPS 5°)		
		5			24.0				30	X	SILTY SAND (SM) LT. BROWN, LOOSE		
		9									30-40% FINES, VF GR SAND, LOW EST. K,		
	4	8	24	24	E						ROOTLETS		

TYPE	BLOWS	DRIVEN	REC'V'D.	COND.	D.RATE	CIRC.	CASE	ANUL.	DEPTH	GRAPHIC LOG	PROJECT: 17TH + HARRISON	NO. 1-012-01	BORING NO. 1
	8								31		SILTY SAND AS ABOVE		
	10								31		LT GRAY BROWN W/ BLACK MOTTLING		
	11								31		ROOTLETS, FEO(?) STAINING		
									32		LOW EST. K		
	8	24	24	E					32		CLAYEY SILT (ML) LT GRAY		
	12								32		MED STIFF, 10% VF GV SAND,		
	15								33		ROOTLETS LOW EST. K		
	16				340				33		LOW EST. K		
									34		LOW EST. K		
									5		LOW EST. K		
									6		LOW EST. K		
									7		MATERIALS		
									7		(1) 10' SLOTTED .002" 4" Ø ID PVC		
									7		(2) 10' BLANK 4" Ø ID PVC		
									8		1 BUCKET BENTONITE PELLETS		
									8		8 SACKS THE 2/16 SAND		
									9	LOW EST. K			
									0	LOW EST. K			
									1	LOW EST. K			
									2	LOW EST. K			
									3	LOW EST. K			
									4	LOW EST. K			
									5	LOW EST. K			
									6	LOW EST. K			
									7	LOW EST. K			
									8	LOW EST. K			
									9	LOW EST. K			
									0	LOW EST. K			



ADD
INU

15/4W 35-A3-5
01-417T, U, V

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94566 (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

(1) LOCATION OF PROJECT 17TH + HARRISON
NW CORNER
OAKLAND

PERMIT NUMBER 88540
LOCATION NUMBER _____

(2) CLIENT
[Redacted]

Approved Wyman Hong Date 24 Oct 88
Wyman Hong

(3) APPLICANT
Name TOM HOWARD
WESTERN GEOLOGIC RESOURCES
Address 2169 E. FRANCISCO Phone 415 457 7595
City SAN RAFAEL Zip 94901

PERMIT CONDITIONS

Circled Permit Requirements Apply

(4) DESCRIPTION OF PROJECT
Water Well Construction Geotechnical _____
Cathodic Protection _____ Well Destruction _____

A. GENERAL

1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Notify this office (484-2600) at least one day prior to starting work on permitted work and before placing well seals.
3. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or bore hole logs and location sketch for geotechnical projects. Permitted work is completed when the last surface seal is placed or the last boring is completed.
4. Permit is void if project not begun within 90 days of approval date.

(5) PROPOSED WATER WELL USE
Domestic _____ Industrial _____ Irrigation _____
Municipal _____ Monitoring Other _____

B. WATER WELLS, INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie, or equivalent.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic, irrigation, and monitoring wells unless a lesser depth is specially approved.

(6) PROPOSED CONSTRUCTION
Drilling Method:
Mud Rotary _____ Air Rotary _____ Auger
Cable _____ Other _____

C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material.

D. CATHODIC. Fill hole above and below zone with concrete placed by tremie, or equivalent.

E. WELL DESTRUCTION. See attached.

WELL PROJECTS
Drill Hole Diameter 12 in. Depth(s) ~60 ft. ^{MAX}
Casing Diameter 4 in. Number _____
Surface Seal Depth ~10 ft. of Wells 3
Driller's License No. 437836
ALL TERRAIN MARYSVILLE, CA

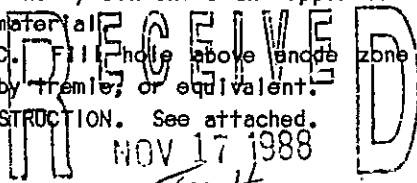
GEOTECHNICAL PROJECTS
Number _____
Diameter _____ in. Maximum Depth _____ ft.

(7) ESTIMATED STARTING DATE 10/26/88
ESTIMATED COMPLETION DATE 10/28/88

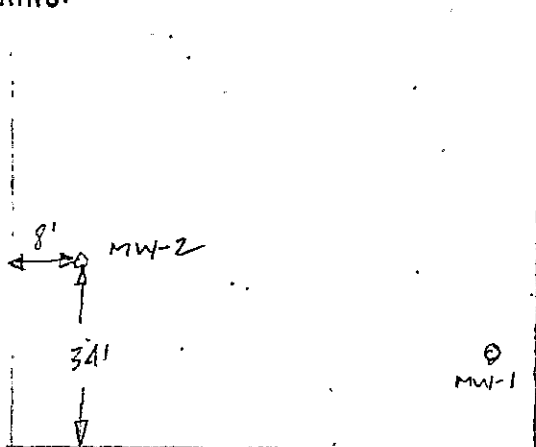
I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Tom Howard Date 10/24/88

Approved _____
Job # 1-012.01
Copy To Tom



LOCATION OF BORING:



PROJECT: 17TH & HARRISON OAKLAND		BORING NO. 2
JOB NO.: 1-012-01		TOTAL DEPTH: 28.5
PROJ. MGR.: T. HOWARD	LOGGED BY: GAIL JONES	
DRILLING CONTRACTOR: AUL TERRAIN		EDITED BY: T. HOWARD
DRILL RIG TYPE: CME 95		
DRILLERS NAME: WES		
BOREHOLE DIAMETER 12" TO 28.5 2 1/2" TO 32.5'		
HAMMER WT.: 140 LBS	DROP: 30"	
STARTED, TIME: 6:45	DATE: 10-27-88	
COMPLETED, TIME: 10:45	DATE: 10-27-88	

HARRISON

SIZE / FLUID	SAMPLE TYPE	DEPTH	BLOW COUNT / G-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min/10)	CIRCULATION	CASING / SCREEN	SIZE, MATERIAL, SLOTS	ANULUS-FILLER	GROUT, BENTONITE	DEPTH IN FEET
		21											1
		3.5	DETERMINED	18	18	F	5.0						2
													3
													4
													5
													6
													7
													8
		1											9
		4											10
		8					10.0						10

BOREHOLE DEPTH (ft.)	25	32.5
CASING DEPTH (ft.)	25	28.5
WATER DEPTH (ft.)	23.5	20.89
TIME:	9:30	13:00
DATE:	10-27-88	11/3/88
BACKFILLED, TIME:	---	DATE: --- BY: ---
SURFACE ELEV.:	---	DATUM: GL
CONDITIONS:	ASPHALT	
	SILTY SAND (SM) LT. BROWN	
	MED. DENSE, DAMP 20% FINES	
	VF TO M GV, MOD TO LOW EST. K	
	SILTY SAND AS ABOVE	
	LOOSE TO MED. DENSE	

TYPE	BLOWS	DRIVEN	REC'D.	COND.	D.RATE	CIRC.	CASE	ANUL.	DEPTH	GRAPHIC LOG	PROJECT: 17TH WATERSON NO. 1-01201	BORING NO. 2
											SILTY SAND AS ABOVE	
							↑	↑	11			
									12			
									13			
13.5	10	18	18	E			PUL	T	14		SAND (SP) LT. BROWN, MED. DENSE, FINE GV SANDS MOD TO HIGHT EST. K	
	13				15.0		40	U	15			
	29						SIGHTS	O	16			
									17			
							BLANK	R	18			
									19			
13.5	10	18	18	E	19.0		ID	↓	20		SANDY GRAVEL (GV) BROWN + RED MED. DENSE ^{DAMP} FINE GRAVEL TO 1/2" (RED BRICK) M TO C 91 SAND STRONG ORGANIC ODOR MOD EST. K (FILL?)	
	16				20.0		4"	↓	21		SAND (SP) AS ABOVE VF TO F 91 MOD EST. K	
	21								22			
							PUL		23			
									24			
23.5	13	18	18	E			" SLICES	N	25			
	22						.002	A	26			
	29				15.0				27			
							ID	S	28			
							4"	2/16	29			
									30			
	7	18	18	E								
	11											
	15				30.0							
30.0	9	18	18	P								

0 ← Slurrier

20-30% SILT

	TYPE	BLOWS	DRIVEN	REC'D.	COND.	D.RATE	CIRC.	CASE	ANUL.	DEPTH	GRAPHIC LOG	PROJECT: 1-017.01	NO.	BORING NO. 2
		9	18						∇	31				
	31.5	9	18	6*					∇	32				
		13							∇	33				
										4				
										5				
										6				
										7				
										8				
										9				
										0				
										1				
										2				
										3				
										4				
										5				
										6				
										7				
										8				
										9				
										0				

?

CLAYEY SILT (ML) LT. GRAY, MED
 STIFF TO SOFT, LOW EST. V

* RECOVERY BASED ON
 DRUMMER OBSERVATIONS

WGR, INC.

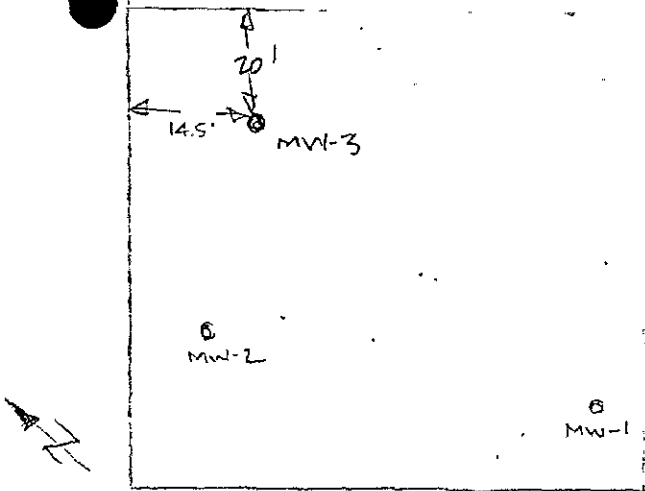
Western Geologic Resources, Inc.
Geologic and Environmental Consulting

01-417V/1S/4W-35A5

FIELD LOG OF BORING

SHEET 1 OF 3

LOCATION OF BORING:



PROJECT: 17TH + HARRISON OAKLAND		BORING NO. 3
JOB NO.: 1-012.01		TOTAL DEPTH: 32' 35.5'
PROJ. MGR: T. HOWARD	LOGGED BY: G. JONES	
DRILLING CONTRACTOR: ALL TERRAIN		EDITED BY: T. HOWARD
DRILL RIG TYPE: CME 95		
DRILLERS NAME: WES 2 1/2"		
BOREHOLE DIAMETER 12" TO 32' 8" TO 35.5'		
HAMMER WT.: 140 #	DROP: 30"	
STARTED, TIME: 11:10	DATE: 10-27-88	
COMPLETED, TIME: 18:00	DATE: 10-27-88	

SIZE / FLUID	SAMPLER TYPE	DEPTH	BLOW COUNT / G-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min/10')	CIRCULATION	CASING / SCREEN SIZE, MATERIAL, SLOTS	ANNULUS - FILLER	GROUT, BENTONITE	DEPTH IN FEET
1/2"												1
3.5												2
							5.0					3
PUSH			18	18	TR				BLANK SCREEN 4" DIA			4
												5
8.5												6
												7
												8
												9
			18	18	TR		10.0		4" DIA			10

CASING DEPTH (ft.)	WATER DEPTH (ft.)	TIME	DATE	BACKFILLED, TIME	DATE	BY	SURFACE ELEV.	DATUM	CONDITIONS
25	25	14:00	10/27/88					GL	
32	20.54	11:41	11/3/88						
ASPHALT									
SILTY SAND (SM) BROWN MED. DENSE, DAMP 30% SILT, 5% CLAY, VF TO F									
GR SAND LOW TO MOD EST. K									
SILTY SAND (SM) BROWN W/ORANGE STAIN MED. DENSE DAMP 10-20% SILT, MOD EST. K NO ODOR									
SILTY SAND AS ABOVE W/ 5% CLAY MOD TO LOW EST. K									

										PROJECT: 1-012.01		NO. 3	BORING NO. 3		
TYPE	BLOWS	DRIVEN	REC'D.	COND.	D.RATE	CIRC.	CASE	ANUL.	DEPTH	GRAPHIC LOG					
							▲	▲	11						
							—	—	12						
	13.5	12 17 20	18	18	E				13	HA	SAND (SP) BROWN MED. DENSE DAMP, FINE GR. MOD TO HIGH EST. K				
					15.0				14	X					
									15	X					
									16						
									17						
	18.5	12 20 28	18	18	E		PVC TOP ID CASE		18		SAND (SP) MED DENSE DAMP LT. GRAY FINE TO MED GRAINED HIGH EST. K				
					20.0				19	X					
									20	X					
									21						
									22						
	23.5	10 23 30	18	18	E		BLANK CASE		23		SAND (SP) AS ABOVE - LT. BROWN WET				
					25.0				24	X					
									25	X					
									26						
									27						
	28.5	7 17 20	18	18	E		4" ID PVC	1/12	28		LT BROWN GRAVELLY SAND (SP) MED DENSE 30% FINE GRAVEL TO 1/4" M TO VC GR SAND HIGH EST. K				
					30.0				29	X					
									30	X					

TYPE	BLOWS	DRIVEN	REC'D.	COND.	D.RATE	CIRC.	CASE	ANVL.	DEPTH	GRAPHIC LOG	PROJECT: 17TH MADISON NO. 1-01201	BORING NO. 3
									31			
								← 002 SUTTER →	32			
	33.0	18	18	E				← 2 1/2 SANDS →				
								X			(DRIVER)	
									33		CLAYEY SILT (ML) LT. BROWN W/	
		4									BLACK MOTTLING, MED STIFF TO	
		7			34.0				34		SOFT LOW EST. K	
	34.5	10						← BESTIACIDE PELLETS →				
		12	12	E					35			
		14							6			
									7			
									8			
									9			
									0			
									1			
									2			
									3			
									4			
									5			
									6			
									7			
									8			
									9			
									0			

89029

Lic# C-57-487000

01-417Z
15/4W-35E1



597 Center Avenue, Suite 350
Martinez, California 94553
415-372-3637

LOG OF BORING NO. CMW 1 PAGE 1 of 2

PROJECT NO: 02-355-001

DATE: 1/25/89

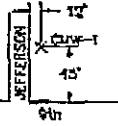
CLIENT: [REDACTED]

REF. ELEV.

SITE LOCATION: 900 Jefferson,
Oakland, Ca.

METHOD: B61 Hollow
Stem Auger

BORING LOCATION:



HOLE DIA: 8"

DRILLER: ASE

LOGGED BY: M. MARSDEN

SUPERVISOR: S. WICKHAM *Susan Wickham*

DESCRIPTION *RG-3851*

WELL
CONSTRUCTION

DEPTH (FT)	GRAPHIC LOG	BLOW/FT	VAPOR (PPM)	SAMPLE TYPE AND DEPTH	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	WELL CONSTRUCTION
0						Asphalt and surface 3-4" thick	
2					SM	SILTY SAND, dark brown, moist, low cohesion, no odor	
4						As above, lighter brown	
5				Ring @ 5'	SM	SILTY SAND, some clay, red brown, moist, low cohesion, no odor	
6						As above, brown	
8						As above	
10		30		Ring @ 10'	SM	As above	
12						As above, slightly more clay	
14							
15				Ring @ 15'	SC	CLAYEY SAND, brown, moist, slightly consolidated, no odor, some grey mottling	
16							
18							
20		31		Ring @ 20'	SM	SILTY SAND, brown, moist, no odor	
22							
24							

01-417B

1S/4W-35E1



597 Center Avenue, Suite 350
Martinez, California 94553
415-372-3637

LOG OF BORING NO. CMW 1 PAGE 2 of 2

PROJECT NO: 02-355-001

DATE: 1/25/89

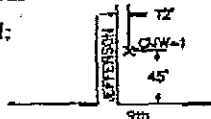
CLIENT: [REDACTED]

REF. ELEV.

SITE LOCATION: 900 Jefferson,
Oakland, Ca.

METHOD: B61 Hollow
Stem Auger

BORING LOCATION:



HOLE DIA: 8"

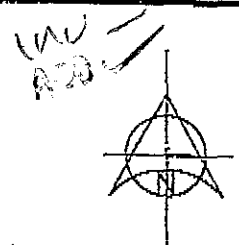
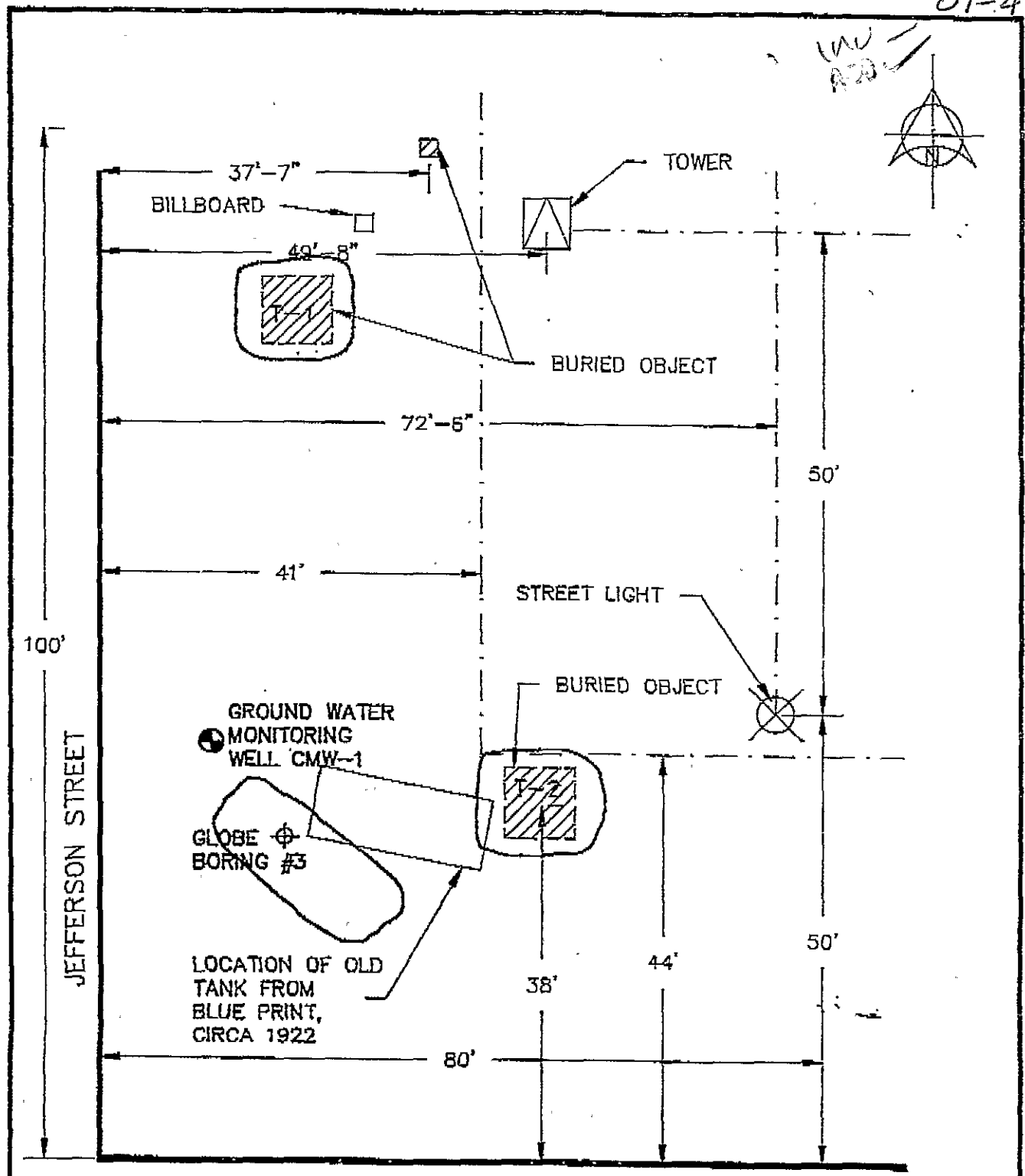
DRILLER: ASE

LOGGED BY: M. MARSDEN

SUPERVISOR: S. WICKHAM *Susan Wickham R6-3851*

DEPTH (FT)	GRAPHIC LOG	BLOW/FT	VAPOR (PPM)	SAMPLE TYPE AND DEPTH	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	WELL CONSTRUCTION	
26		21	▼	Ring @ 25'	SM	25' driller notes stem plug is wet, possibly ground water		
28						SILTY SAND, brown, wet (saturated), no odor, very little silt		
30						* Could not retrieve sample with brass ring (no sample) used standard sampler 1.5" to review lithology		
32						As above		
34								
36								
38						SM		As above, more clay, not completely saturated, stiff
40						SM		SILTY SAND, brown, saturated, low coh, no odor
42								Total depth 40'
44								Ground water found at 25.5'
46		40'-20' 2" Slotted (.02 slots) 40 gauge PVC,						
48		20'-0' blank PVC; 40-18' Lonestar #3 sand,						
50		18-16' bentonite, 16-0' concrete, well box.						

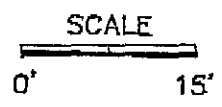
15/40 05E1
01-417E



LEGEND

- ELECTRICAL LINES
- ⊙ MONITORING WELL
- ⊕ SOIL BORING
- ⬭ EXCAVATION LINE

9th STREET



Huntan

FIGURE 1
SITE PLAN

1/89

02-355-001

900 Jefferson
OAKLAND, CA.

01-418A 1S/4W-35F5

WOODWARD-CLYDE CONSULTANTS

TEST BORING RECORD

Station 812

35F5

Job No. 8810021A

Date 12/19/88

Name [REDACTED]

Location 1111 Broadway, Oakland

Hole No. APC-12 Gr. El. 27ft

Type of Boring 8-inch Auger Rig CME-75

Datum: msl

Engr. J. Springer Wt. Ham. 130lb.

Depth	DESCRIPTION	So. No.	Pen.	% Rec.	Bl. Ct.	Wir. Level	Lab. Data
1		1					
2		2					
3		3					
4		4					
5	SILTY SAND (SM), dense, moist, reddish-brown to grayish-brown. Some mottled reddish-brown clay.	5	1-4		23		
6		6		50			
7		7		50/3"			
8		8					
9		9					
10	SILTY SAND (SM), dense, moist, grayish-brown, medium-grained.	10	2-4		36		
11		11			50/5"		
12	↓ Becomes reddish-brown.	12					
13		13					
14		14					
15		15					
16		16					
17		17					
18		18					
19		19					
20		20					

▽
ATD

WOODWARD-CLYDE CONSULTANTS

TEST BORING RECORD

Cont

Job No. _____

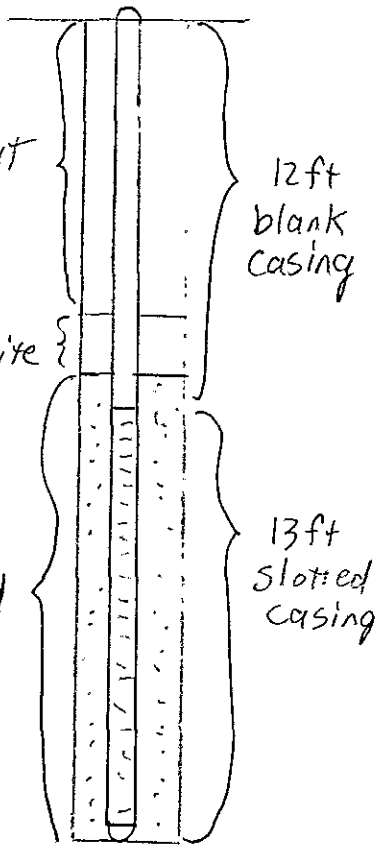
Date _____

Name _____ Location _____

Hole No. APC-12 Gr. El. _____ Type of Boring _____ Rig _____

Datum _____ Engr _____ Wt. Ham. _____

Depth	DESCRIPTION	So. No.	Pen.	% Ret.	Bl. C.	Wtr. Level	Lab. Data
21	SILTY SAND (SM), wet, reddish-brown.	21					
22		22					
23		23					
24		24					
25		25					
6	BOH - 25 ft / 2" ID PVC	6					
7	9 ft gravel	7					
8		8					
9		9					
0	2 ft bentonite	0					
1		1					
2	14 ft. Sand	2					
3		3					
4		4					
5		5					
6		6					
7		7					
8		8					
9		9					
0		0					



Oakland City Center
500 12th Street
Suite 100
Oakland, CA 94607-4014
(415) 893-3600

Woodward-Clyde Consultants

01-418 A-E

RECEIVED
JAN 05 1989
ZONE 7, ACFC&WCD

January 3, 1989

Mr. Wyman Hong
Alameda County Flood Control
and Water Conservation District
Zone 7
5997 Parkside Drive
Pleasanton, California 94566

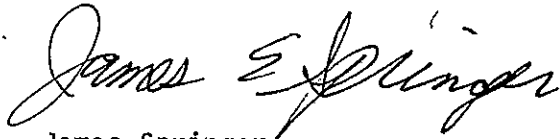
Re: Groundwater Protection Ordinance Permit #88614

Dear Mr. Hong:

Enclosed please find a location sketch map, and drilling and completion logs for three monitoring wells and two soil borings constructed under permit number 88614 (highlighted in red). The soil borings were backfilled with a light grout. The monitoring wells are temporary and will be removed by excavation for the new building at 1111 Broadway. Foundation excavation and well removal will be completed in the first three months of 1989.

Sincerely yours,

WOODWARD-CLYDE CONSULTANTS



James Springer

JS/sp
SMP-152

Enclosure

Consulting Engineers, Geologists
and Environmental Scientists

Offices in Other Principal Cities

Datum Corp
1518

WOODWARD-CLYDE CONSULTANTS

TEST BORING RECORD

37 F6

Job No. 8810021A

Date 12/20/88

Name [REDACTED] Location 1111 Broadway, Oakland

Hole No. APC-13 Gr. El. 25 ft. Type of Boring 8-inch auger Rig CME-75

Datum MSL Engr. J. Springer Wt. Ham. 130 lb.

Dp	DESCRIPTION	So. No.	Pen	% Rec.	Bl. C.	Wir. Level	Lab. Date
1		1					
2		2					
3		3					
4	SILTY SAND (SM-SP), slightly moist, reddish-brown, contains pieces of brick material.	4	1-4		9		
5		5		15			
6		6		24			
7		7					
8		8					
9	CLAYEY SAND (SC), moist, dense, reddish-brown.	9	2-4		30		
10		10		50/2 1/2"			
11		11					
12		12				▽	
13		13				—	
14	CLAYEY SAND (SC), moist, dense, reddish-brown ↓ Becomes blue-gray in bottom 2 sample tubes (14 1/2 ft).	14	3-4		20		
15		15		50/3"			
16		16					
17		17					
18		18					
19		19					
20		20					

▽
—
ATD

01-418B

1S/4W-35F6

WOODWARD-CLYDE CONSULTANTS

TEST BORING RECORD

Job No. 8810021A

Date _____

Name _____ Location _____

Hole No. APC-13 Gr. El. _____ Type of Boring _____ Rig _____

Datum _____ Engr. _____ Wt. Ham. _____

Depth	DESCRIPTION	So. No.	Pen.	% Rec.	Bl. Ct.	Wtr. Level	Lab. Date
21	Blue-gray clayey sand as above.						
22							
23							
4	BOH - 23 ft. 2" ID PVC 5ft stick up						
5							
6							
7	6 ft gravel. 8ft. blank casing						
8	1ft bentonite						
9							
0							
1							
2	16ft sand. 15ft slotted casing						
3							
4							
5							
6							
7							
8							
9							
0							

WOODWARD-CLYDE CONSULTANTS

TEST BORING RECORD

Job No. 8810021A

Date 12/20/88

Name [REDACTED]

Location 1111 Broadway, Oakland.

Hole No. APC-14 Gr. El. 27 ft

Type of Boring 8-inch Auger Rig CME-75

Datum m.s.l.

Engr. J. Springer Wt. Ham. 130 lb.

Sp	DESCRIPTION	So. No.	Pen	% Rec.	Bl Ct	Wtr. Level	Lab. Data
1		1					
2		2					
3		3					
4	CLAYEY SAND (SC), wet, reddish-brown, fine-grained.	4			17		
5		5	14		29		
6		6			45		
7		7					
8		8					
9	CLAYEY SAND (SC), wet, reddish-brown, medium-grained. Contains some mottled gray CLAY (CH)	9			20		
10		10			28		
11		11			40		
12		12					
13		13					
14	SANDY CLAY (CL), dense, wet, grayish-brown.	14			23	▽ ATD	
15		15			32		
16		16			40		
17		17					
18		18					
19		19					
20		20					

WOODWARD-CLYDE CONSULTANTS

TEST BORING RECORD

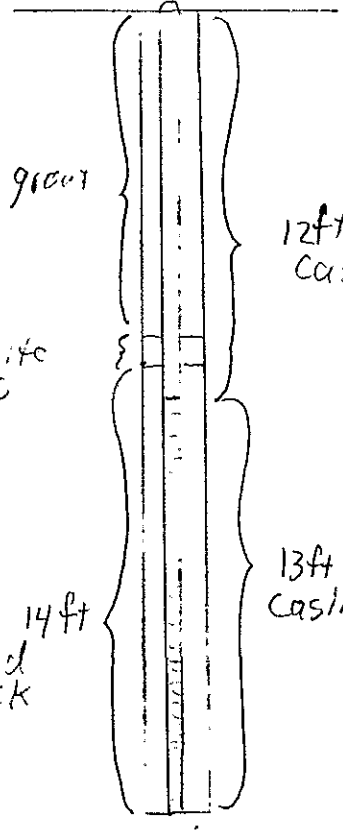
Job No. _____ Date _____

Name _____ Location _____

Hole No. _____ Gr. El. _____ Type of Boring _____ Rig _____

Datum _____ Engr. _____ Wt. Ham. _____

Depth	DESCRIPTION	So. No.	Pen.	% Rec.	Bl. Ct.	Wtr. Level	Lab. Date
21		21					
22		22					
23		23					
24		24					
25		25					
	Bottom of hole - 25 ft.						
6		6					
7	2" ID PVC casing	7					
8		8					
9		9					
10	10ft gravel	10					
11		11					
12	1ft bentonite peizete	12					
13		13					
14		14					
15		15					
16	14ft sand pack	16					
17		17					
18		18					
19		19					
20		20					



WOODWARD-CLYDE CONSULTANTS

TEST BORING RECORD 1S/4W

Job No. 8810021A

Date 12/19/88

Name [REDACTED] Location 1111 Broadway, Oo 4 10, 1.

Hole No. APC-10 Gr. El. 25 ft Type of Boring 8-inch auger Rig CME-75

Datum MSL Engr. J. Springer Wt. Ham. 130 16

Depth	DESCRIPTION	So. No.	Pen.	% Rec.	Bl. C.	Wtr. Level	Lab. Data
1		1					
2		2					
3		3					
4	SILTY SAND (SP-SM), dense, moist, reddish-brown.	4			6		
5		5	1-4		13		
						16	
6		6					
7		7					
8		8					
9	SAND (SP), slightly silty, moist, grayish-brown, contains occasional stringers of gray clay (CL).	9			16		
10		10	2-4		50/3 1/2"		
11		11					
12		12					
13		13					
14	SAND (SW), moist, light gray, medium-grained, contains occasional stringers of brown clay (CH).	14			9		
15		15	3-4		26		
16		16			50/5"		
17		17					
18		18					
19	SILTY SAND (SM), dense, wet, grayish-brown, contains stringers of brown clay (CL-CH).	19			12		
20		20	4-4		30		
						40	

▽
ATD

01-418D

15/4w-35R

WOODWARD-CLYDE CONSULTANTS

TEST BORING RECORD

Job No. 8810021A

Date _____

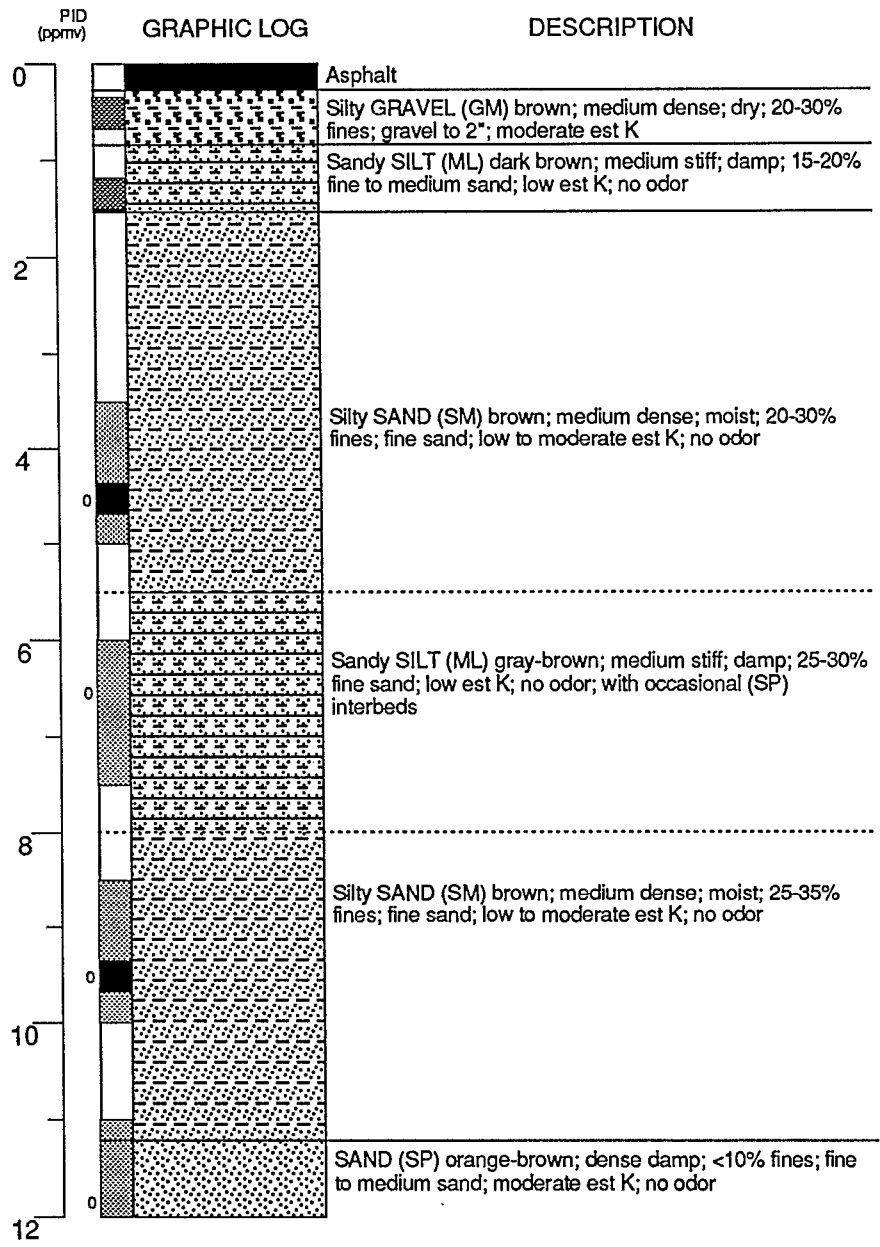
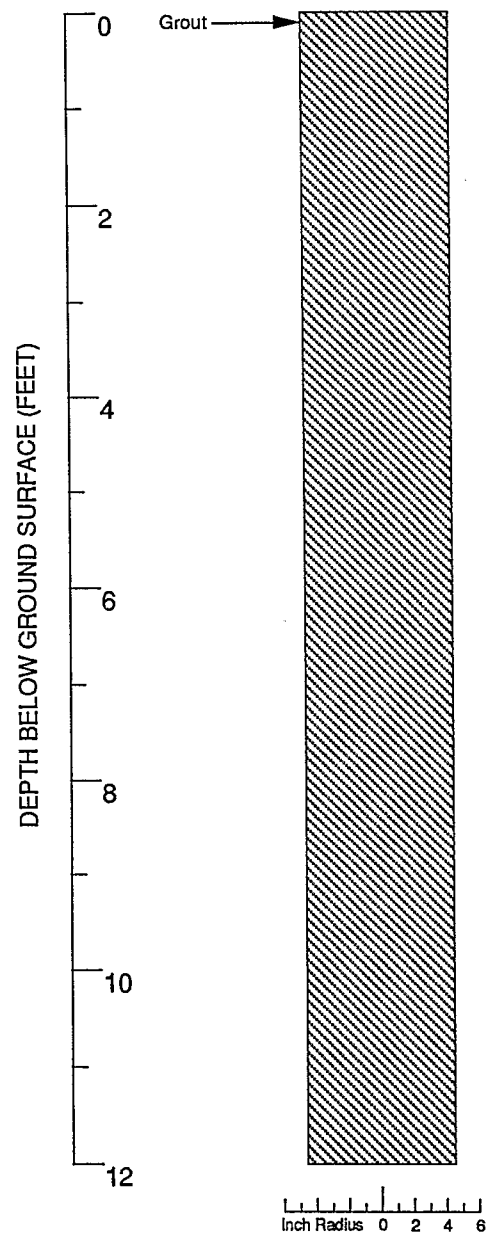
Name _____ Location _____

Hole No. APC-10 Gr. El. _____ Type of Boring _____ Rig _____

Datum _____ Engr _____ Wt. Ham. _____

DP	DESCRIPTION	So. No.	Pen	% Rec.	Bl. Ct.	Wtr. Level	Lab. Date
21		21					
22		22					
23	SILTY SAND (SM), dense, grayish-brown to reddish-brown.	23					
24		24			13		
					50		
5	BOH 24 1/2 ft.	5					
6		6					
7		7					
8		8					
9		9					
0		0					
1		1					
2		2					
3		3					
4		4					
5		5					
6		6					
7		7					
8		8					
9		9					
0		0					

1S/4W35A
Inv ✓ Add ✓



Continues

Logged by: Mike Edmonson	Drilling Company: Exploration Geoservices	Well Head Completion: None
Supervisor: Tom Howard	Drilling Method: 9" Hollow stem auger	Type of Samplers: 2" & 1.4" split barrel
Dates Drilled: 4/11/89	Driller: Dave Yeager	TD (Total Depth): 22.5 ft.

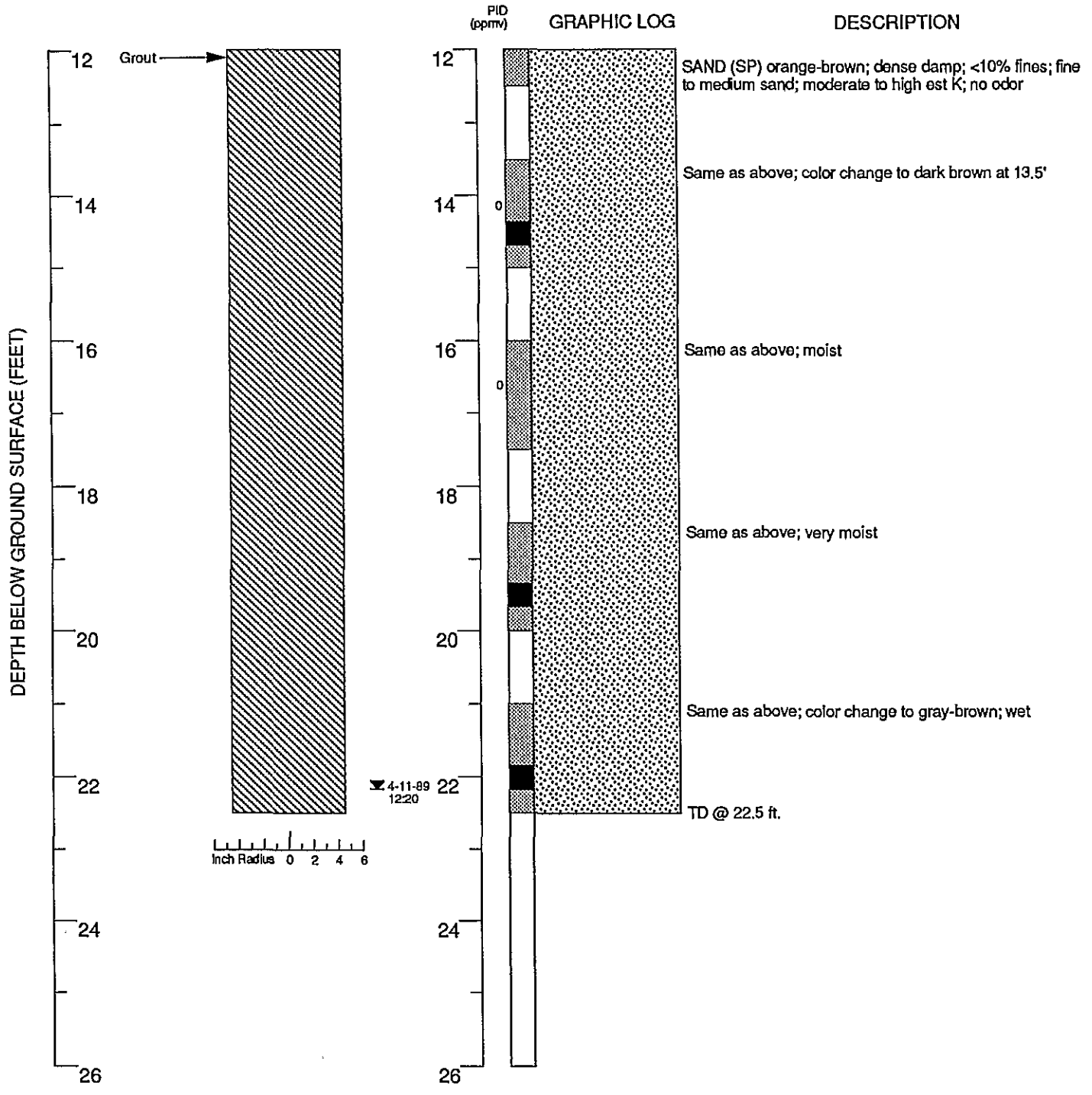
- EXPLANATION**
- ☒ Water level during drilling
 - ☒ Water level in completed well
 - ▣ Location of recovered drill sample
 - ▣ Location of sample sealed for chemical analysis
 - NR No recovery
 - ▣ Grab sample
 - Contacts
 - Dotted where approximate
 - - - Dashed where uncertain
 - ////// Hachured where gradational
 - est K Estimated permeability (hydraulic conductivity)

Boring Log B-5
WGR Project No.: 1-012.02

██████████
Oakland, CA

BORING

5



- EXPLANATION**
- ☒ Water level during drilling
 - ☒ Water level in completed well
 - ▣ Location of recovered drill sample
 - Location of sample sealed for chemical analysis
 - NR No recovery
 - ▣ Grab sample
 - Contacts
 - Dotted where approximate
 - - - Dashed where uncertain
 - ////// Hachured where gradational
 - est K Estimated permeability (hydraulic conductivity)

Boring Log B-5 (cont.)
 WGR Project No.: 1-012.02

██████████
 Oakland, CA

BORING

5

Iny ✓
Add

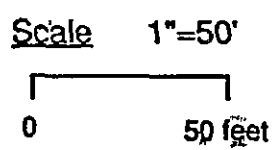
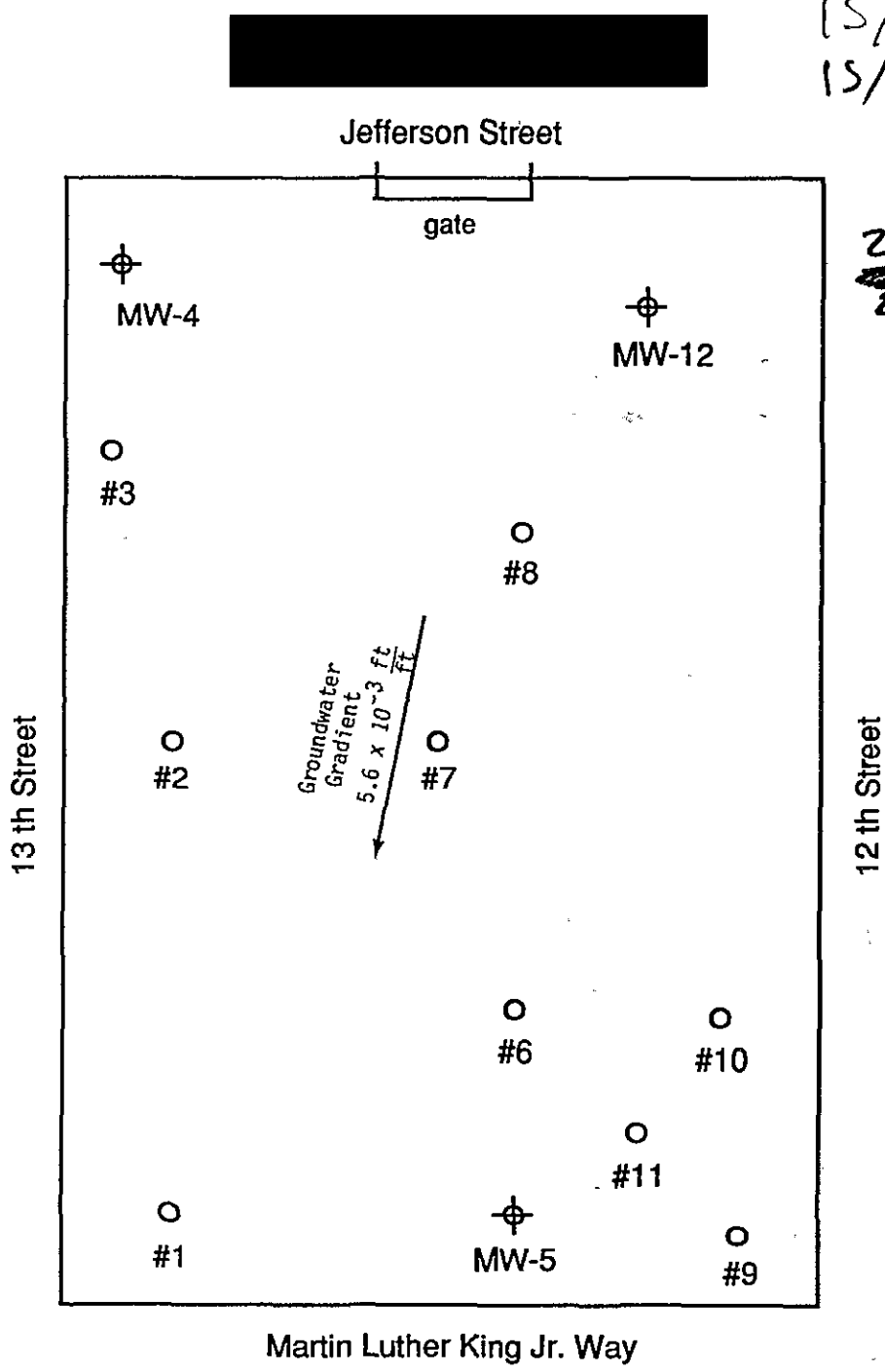
15/4/1W35D8

BORING LOCATION		MW-4	ELEVATION AND DATUM		
DRILLING AGENCY	EnSCO Environmental	DRILLER	Tim / Cam	DATE STARTED	June 12, 1989
DRILLING EQUIPMENT	Mobile B-53			COMPLETION DEPTH	35.0'
				SAMPLER	2" Modified California Type
DRILLING METHOD	8" Hollow Stem Augers	DRILL BIT		NO. OF SAMPLES	DIST. NA
				UNDIST.	7
SIZE AND TYPE OF CASING		2" PVC		WATER LEVEL	FIRST 28'
				COMPL.	NA 24 HRS. NA
TYPE OF PERFORATION		.020"	FROM 23' TO 35' FL.	LOGGED BY:	
SIZE AND TYPE OF PACK		#3 Monterey Sand	FROM 21' TO 35' FL.	W. Copeland	
TYPE OF SEAL		NO. 1 Grout	FROM 0' TO 20.5' FL.	CHECKED BY:	
		NO. 2 Bentonite	FROM 20.5' TO 21.0' FL.	G. Ford	

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		Water Content	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)	
		Lithology	Piezometer Installation			Drive Number	Sample Number	Recov. (Feet)	Blow Counts			
0	Asphalt											
0	Fill - gravel											
5	SILTY SAND (SM) dark brown, fine grain, medium dense, damp becomes reddish brown, less silt, some clay				5	1	MW-4-1A	7	7	13	HNU = 0 ppm No odor	
5	CLAYEY SAND (SC) mottled orange and brown, some silt, contains organics, moist, medium dense lenses of SILTY SAND (SM)											
10	SILTY SAND (SM) - mottled orange and medium brown, fine to medium grain, little clay, damp, dense				10	2	MW-4-2A	16	23	48	HNU = 0 ppm No odor	
10	clayey lenses											
15	becomes medium dense, moist				15	3	MW-4-3A	14	16	18	HNU = 0 ppm No odor	
15	clayey lenses											
20	becomes dense, no clay				20	4	MW-4-4A	19	27	35	HNU = 0 ppm No odor	
20												
25	becomes reddish brown, orange staining				25	5	MW-4-5A	23	30	40	HNU = 0 ppm No odor	
25												
30	becomes saturated				30	6	MW-4-6A	27	41		HNU = 0 ppm No odor	
30												
35	becomes very dense											
35	Bottom of Boring at 35.0'				35	7	MW-4-7A	28	38	38	HNU = 0 ppm No odor	

1S/4W350
1S/4W350 8-12

Incl
Add
23
Borings



- Legend
- Boring
 - ⊕ Monitoring Well

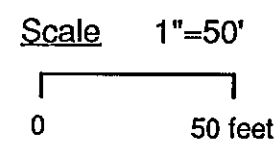
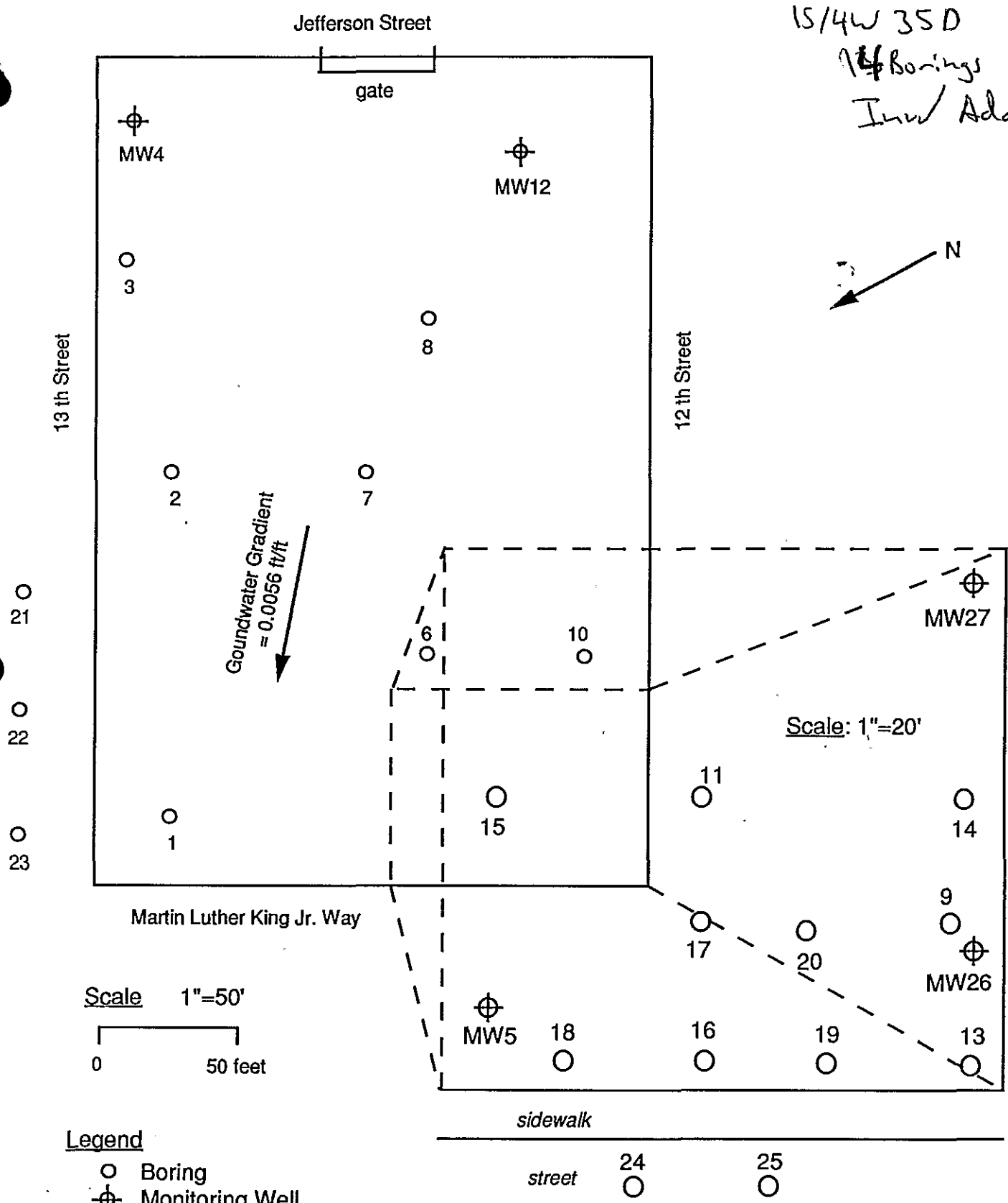
Project No. 8910155A	[Redacted]	[Redacted]	Figure 1
Woodward-Clyde Consultants		[Redacted]	

Driller Ensco phone: 415-659-0404

89329

01-427N ~~01-427N~~
01-428A-C ~~01-428A-C~~

01-424F-Q
1S/4W 35D 10-12
1S/4W 35D
14 Borings
Inw Add ✓



Legend
○ Boring
⊕ Monitoring Well

Project No. 8910155A	[Redacted]	[Redacted]	Figure 1
Woodward-Clyde Consultants		[Redacted]	

Driller phone Ensco: 415-659-0404

01-4249

Incl Add 15/4W3509

Woodward-Clyde Consultants

PROJECT NAME [REDACTED] NO. 8910155A

BORING LOCATION MW-5		ELEVATION AND DATUM	
DRILLING AGENCY Ensco Environmental	DRILLER Tim / Cam	DATE STARTED DATE FINISHED June 12, 1989	
DRILLING EQUIPMENT Mobile B-53		COMPLETION DEPTH 35.0'	SAMPLER 2" Modified California Type
DRILLING METHOD 8" Hollow Stem Augers	DRILL BIT	NO. OF SAMPLES DIST. NA	UNDIST. 7
SIZE AND TYPE OF CASING 2" PVC		WATER LEVEL FIRST 28'	COMPL. NA 24 HRS. NA
TYPE OF PERFORATION .020"	FROM 23' TO 35' FL	LOGGED BY: W. Copeland	
SIZE AND TYPE OF PACK #3 Monterey Sand	FROM 21' TO 35' FL	CHECKED BY: G. Ford	
TYPE OF SEAL	NO. 1 Grout	FROM 0' TO 20.5' FL	
	NO. 2 Bentonite	FROM 20.5' TO 21.0' FL	

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		Water Content	DEPTH (feet)	SAMPLES				REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
		Lithology	Piezometer Installation			Drive Number	Sample Number	Recov. (Feet)	Blow Counts	
0	Asphalt									
0	Fill - gravel and debris: brick fragments, pipe									
0	SILTY SAND (SM) dark brown, fine grain, damp									
5	CLAYEY SAND (SC) mottled reddish brown and gray, some silt, moist				5	1	MW-5-1A	5-14-17		HNU = 0 ppm No odor
10	SILTY SAND (SM) mottled reddish brown and gray, fine to medium grain, some clay, damp, dense				10	2	MW-5-2A	14-24-29		HNU = 0 ppm No odor
15	becomes medium dense				15	3	MW-5-3A	9-13-19		HNU = 0 ppm No odor
20	becomes dense, less clay				20	4	MW-5-4A	21-25-34		HNU = 40 ppm Weak gasoline odor
25					25	5	MW-5-5A	18-27-38		HNU = 300 ppm Strong gasoline odor
25					25	5	MW-5-5A	18-27-38		HNU = 60 ppm Moderate gasoline odor
30	becomes saturated				30	6	MW-5-6A	24-40		HNU = 10 ppm Slight gasoline odor
30	becomes gray brown, medium dense, some clay				30	6	MW-5-6A	24-40		HNU = 10 ppm Slight gasoline odor
35	Bottom of Boring at 35.0'				35	7	MW-5-7A	18-20		HNU = 0 ppm No odor

ADDY
TAVV

15/2/W 350 10

01-424H

BORING LOCATION MW-12		ELEVATION AND DATUM	
DRILLING AGENCY Ensco Environmental	DRILLER Tim / Cam	DATE STARTED June 12, 1989	DATE FINISHED
DRILLING EQUIPMENT Mobile B-53		COMPLETION DEPTH 35.0'	SAMPLER 2" Modified California Type
DRILLING METHOD 8" Hollow Stem Augers	DRILL BIT	NO. OF SAMPLES NA	DIST. NA
SIZE AND TYPE OF CASING 2" PVC		WATER LEVEL FIRST 28'	COMPL. NA 24 HRS. NA
TYPE OF PERFORATION .020"	FROM 23' TO 35' FL.	LOGGED BY: W. Copeland	
SIZE AND TYPE OF PACK #3 Monterey Sand	FROM 21' TO 35' FL.	CHECKED BY: G. Ford	
TYPE OF SEAL	NO. 1 Grout	FROM 0' TO 20.5' FL.	
	NO. 2 Bentonite	FROM 20.5' TO 21.0' FL.	

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		Water Content	DEPTH (feet)	SAMPLES				REMARKS (Drill Rate, Fluid Loss, Odor, etc.)	
		Lithology	Piezometer Installation			Drive Number	Sample Number	Reco. (feet)	Blow Counts		
0	Asphalt										
0	Fill - gravel and brick fragments										
5	SILTY SAND (SM) dark brown, fine grain, dry				5	1	MW-12-1A				HNU = 0 ppm No odor
5	Fill										
10	CLAYEY SAND (SC) medium brown, some silt, moist				10	2	MW-12-2A	19	26	34	HNU = 0 ppm No odor
10	SILTY SAND (SM) reddish brown, fine to medium grain, damp, dense clayey lenses										
15	becomes mottled reddish brown and gray, orange stain along fractures				15	3	MW-12-3A	7	9	14	HNU = 0 ppm No odor
20					20	4	MW-12-4A	23	32	50	HNU = 0 ppm No odor
25	becomes gray brown				25	5	MW-12-5A	25	28	34	HNU = 0 ppm No odor
30	becomes mottled gray and brown, saturated				30	6	MW-12-6A	27	44		HNU = 0 ppm No odor
35	becomes gray										
35	Bottom of Boring at 35.0'				35	7	MW-12-7A	16	50		HNU = 0 ppm No odor

Add Inw

15/4W 3SD

Woodward-Clyde Consultants

PROJECT NAME [REDACTED] NO. 8910155A

BORING LOCATION #1			ELEVATION AND DATUM		
DRILLING AGENCY Ensco Environmental		DRILLER Steve / Richard	DATE STARTED DATE FINISHED June 15, 1989		
DRILLING EQUIPMENT Mobile B-53			COMPLETION DEPTH 29.0'	SAMPLER 2" Modified California Type	
DRILLING METHOD 6" Solid Augers		DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 6
SIZE AND TYPE OF CASING NA			WATER LEVEL	FIRST 28'	COMPL. NA 24 HRS. NA
TYPE OF PERFORATION NA		FROM TO FL.	LOGGED BY: W. Copeland		CHECKED BY: G. Ford
SIZE AND TYPE OF PACK NA		FROM TO FL.			
TYPE OF SEAL	NO. 1 NA	FROM TO FL.			
	NO. 2 NA	FROM TO FL.			

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		Water Content	DEPTH (feet)	SAMPLES					REMARKS (Drift Rate, Fluid Loss, Odor, etc.)	
		Lithology	Piezometer Installation			Drive Number	Sample Number	Recov. (Feet)	Blow Counts			
	Asphalt											
	Fill - gravel											
	SILTY SAND (SM) dark brown, fine grain, damp											
5	CLAYEY SAND (SC) mottled reddish brown and gray, fine grain, loose, moist				5	1	1-1A	6 9 11			HNU = 0 ppm No odor	
	SILTY SAND (SM) mottled reddish brown and gray, fine to medium grain, dense, moist				10	2	1-2A	16 27 37			HNU = 0 ppm No odor	
	becomes medium dense, some clay				15	3	1-3A	13 16 16			HNU = 0 ppm No odor	
	becomes gray, clayey				20	4	1-4A	22 26 33			HNU = 0 ppm No odor	
	little clay				25	5	1-5A	21 28 31			HNU = 0 ppm No odor	
	becomes saturated				30	6	1-6A	24 40			HNU = 0 ppm No odor	
30	Bottom of Boring at 29.0'				30							
	Backfilled borehole with sand / cement grout, June 19, 1989				35							



Add Inv ✓

15/4W 35P

01-424J

BORING LOCATION #2			ELEVATION AND DATUM		
DRILLING AGENCY Ensco Environmental		DRILLER Steve / Richard	DATE STARTED		DATE FINISHED June 15, 1989
DRILLING EQUIPMENT Mobile B-53		COMPLETION DEPTH 29.0'		SAMPLER 2' Modified California Type	
DRILLING METHOD 6" Solid Augers		DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 6
SIZE AND TYPE OF CASING NA		WATER LEVEL		FIRST 28'	COMPL. NA 24 HRS. NA
TYPE OF PERFORATION NA		FROM	TO	FL	LOGGED BY: W. Copeland
SIZE AND TYPE OF PACK NA		FROM	TO	FL	CHECKED BY: G. Ford
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL	
	NO. 2 NA	FROM	TO	FL	

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		Water Content	DEPTH (feet)	SAMPLES				REMARKS (Drill Rate, Fluid Loss, Odor, etc.)	
		Lithology	Piezometer Installation			Drive Number	Sample Number	Recov. (feet)	Blow Counts		
0	Asphalt										
0	Fill - gravel										
5	SILTY SAND (SM) dark brown, fine grain, damp becomes medium brown				5	1	2-1A	9 17 23		HNU = 0 ppm No odor	
5	CLAYEY SAND (SC) mottled reddish brown and gray, fine grain, low plasticity, moist										
10	SILTY SAND (SM) mottled reddish brown and gray, fine to medium grain, some clay, dense, moist				10	2	2-2A	20 27 29		HNU = 0 ppm No odor	
10	little clay										
10	some clay										
15	becomes clayey, medium dense				15	3	2-3A	14 15 15		HNU = 0 ppm No odor	
20	becomes dense, trace clay				20	4	2-4A	22 27 29		HNU = 0 ppm No odor	
25	becomes medium dense, some clay				25	5	2-5A	14 16 24		HNU = 0 ppm No odor	
30	becomes saturated										
30	Bottom of Boring at 29.0'				30	6	2-6A	19 31		HNU = 0 ppm No odor	
35	Backfilled borehole with sand / cement grout, June 19, 1989				35						

Add Inv ✓

1S/4W 35D

01-424K

PROJECT NAME

NO. 8910155A

BORING LOCATION #3		ELEVATION AND DATUM	
DRILLING AGENCY	Ensco Environmental	DRILLER	Steve / Richard
DATE STARTED		June 15, 1989	
DATE FINISHED			
DRILLING EQUIPMENT	Mobile B-53	COMPLETION DEPTH	29.0'
SAMPLER		2" Modified California Type	
DRILLING METHOD	6" Solid Augers	DRILL BIT	
NO. OF SAMPLES		DIST. NA	
UNDIST.		6	
SIZE AND TYPE OF CASING		NA	
WATER LEVEL		FIRST 28'	
COMPL.		NA 24 HRS. NA	
TYPE OF PERFORATION		NA	
FROM		TO FL.	
LOGGED BY:		W. Copeland	
CHECKED BY:		G. Ford	
SIZE AND TYPE OF PACK		NA	
FROM		TO FL.	
TYPE OF SEAL		NO. 1 NA	
FROM		TO FL.	
NO. 2 NA		FROM TO FL.	

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		Water Content	DEPTH (feet)	SAMPLES				REMARKS (Drill Rate, Fluid Loss, Odor, etc.)	
		Lithology	Piezometer Installation			Drive Number	Sample Number	Recov. (feet)	Blow Counts		
	Asphalt										
	Fill - gravel										
5	SILTY SAND (SM) dark brown, fine grain, damp, loose becomes medium brown				5	1	3-1A	4 7 5		HNU = 0 ppm No odor	
	CLAYEY SAND (SC) brown, fine to medium grain, medium plasticity, dense, moist										
10	SILTY SAND (SM) mottled reddish brown and gray, fine to medium grain, dense, moist				10	2	3-2A	17 23 32		HNU = 0 ppm No odor	
15	becomes medium dense becomes clayey				15	3	3-3A	12 18 17		HNU = 0 ppm No odor	
20	becomes dense, trace clay				20	4	3-4A	22 24 32		HNU = 0 ppm No odor	
25	becomes medium dense, gray				25	5	3-5A	14 17 28		HNU = 0 ppm No odor	
	becomes saturated										
30	Bottom of Boring at 29.0'				30	6	3-6A	21 26		HNU = 0 ppm No odor	
35	Backfilled borehole with sand / cement grout, June 19, 1989				35						



Add Inset

154W 3SD

01-424-L

BORING LOCATION #6		ELEVATION AND DATUM	
DRILLING AGENCY	EnSCO Environmental	DRILLER	Tim / Cam
DATE STARTED		June 14, 1989	
DATE FINISHED			
DRILLING EQUIPMENT	Mobile B-53	COMPLETION DEPTH	29.0'
SAMPLER		2" Modified California Type	
DRILLING METHOD	6" Solid Augers	DRILL BIT	
NO. OF SAMPLES	DIST. NA	UNDIST.	6
SIZE AND TYPE OF CASING	NA	WATER LEVEL	FIRST 28'
COMPL. NA		24 HRS. NA	
TYPE OF PERFORATION	NA	FROM	TO FL
LOGGED BY:	W. Copeland		
CHECKED BY:	G. Ford		
SIZE AND TYPE OF PACK	NA	FROM	TO FL
TYPE OF SEAL	NO. 1 NA	FROM	TO FL
	NO. 2 NA	FROM	TO FL

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		Water Content	DEPTH (feet)	SAMPLES				REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
		Lithology	Piezometer Installation			Drive Number	Sample Number	Recov. (Feet)	Blow Counts	
	Asphalt									
	Fill - gravel									
5	SILTY SAND (SM) dark brown, fine grain, damp, loose becomes medium brown				5	1	6-1A	5 5 9		HNU = 0 ppm No odor
	CLAYEY SAND (SC) mottled reddish brown and gray, fine to medium grain, some silt, moist									
10	SILTY SAND (SM) mottled reddish brown and gray, fine to medium grain, dense, damp				10	2	6-2A	23 36		HNU = 0 ppm No odor
	becomes medium dense, some clay									
15					15	3	6-3A	9 20 23		HNU = 0 ppm No odor
	becomes dense, little clay									
20					20	4	6-4A	17 29 43		HNU = 0 ppm No odor
	becomes gray									
25					25	5	6-5A	20 31 40		HNU = 0 ppm No odor
	becomes saturated									
30	Bottom of Boring at 29.0'				30	6	6-6A	20 32		HNU = 0 ppm No odor
	Backfilled borehole with sand / cement grout, June 19, 1989									
35					35					



Add/Inv

154W35D

01-424M

PROJECT NAME



NO. 8910155A

BORING LOCATION #7			ELEVATION AND DATUM		
DRILLING AGENCY Enesco Environmental		DRILLER Steve / Richard	DATE STARTED June 15, 1989		DATE FINISHED
DRILLING EQUIPMENT Mobile B-53			COMPLETION DEPTH 29.5'	SAMPLER 2" Modified California Type	
DRILLING METHOD 6" Solid Augers		DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 6
SIZE AND TYPE OF CASING NA			WATER LEVEL	FIRST 28'	COMPL. NA 24 HRS. NA
TYPE OF PERFORATION NA		FROM	TO	FL.	LOGGED BY: W. Copeland
SIZE AND TYPE OF PACK NA		FROM	TO	FL.	CHECKED BY: G. Ford
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL.	
	NO. 2 NA	FROM	TO	FL.	

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG			Water Content	DEPTH (feet)	SAMPLES				REMARKS (Drill Rate, Fluid Loss, Odor, etc.)	
		Lithology	Piezometer Installation				Drive Number	Sample Number	Recov. (Feet)	Blow Counts		
0	Asphalt											
0	Fill - gravel and brick fragments											
0	SILTY SAND (SM) dark brown, fine grain, damp, loose becomes medium brown											
5	CLAYEY SAND (SC) mottled reddish brown and gray, moderate plasticity, medium dense, damp					5	1	7-1A	8 20 26			HNU = 0 ppm No odor
10	SILTY SAND (SM) mottled reddish brown and gray, fine to medium grain, some clay, medium dense, damp becomes dense					10	2	7-2A	21 34 41			HNU = 0 ppm No odor
15	becomes medium dense, little clay					15	3	7-3A	14 15 18			HNU = 0 ppm No odor
20	becomes dense					20	4	7-4A	18 30 38			HNU = 0 ppm No odor
25	becomes gray, some clay					25	5	7-5A	16 21 32			HNU = 0 ppm No odor
30	becomes saturated					30	6	7-6A	19 23 50/5			HNU = 0 ppm No odor
30	Bottom of Boring at 29.5'					30						
35	Backfilled borehole with sand / cement grout, June 19, 1989					35						



Add Inv

IS/HW350

01-424N

BORING LOCATION #8			ELEVATION AND DATUM		
DRILLING AGENCY Ensco Environmental		DRILLER Steve / Richard	DATE STARTED		DATE FINISHED June 15, 1989
DRILLING EQUIPMENT Mobile B-53			COMPLETION DEPTH 29.0'	SAMPLER 2" Modified California Type	
DRILLING METHOD 6" Solid Augers		DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 6
SIZE AND TYPE OF CASING NA			WATER LEVEL	FIRST 28'	COMPL. NA 24 HRS. NA
TYPE OF PERFORATION NA		FROM	TO	FL.	LOGGED BY: W. Copeland
SIZE AND TYPE OF PACK NA		FROM	TO	FL.	
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL.	
	NO. 2 NA	FROM	TO	FL.	CHECKED BY: G. Ford

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		Water Content	DEPTH (feet)	SAMPLES				REMARKS (Drill Rate, Fluid Loss, Odor, etc.)	
		Lithology	Piezometer Installation			Drive Number	Sample Number	Recov. (feet)	Blow Counts		
0	Asphalt										
0	Fill - gravel										
5	SILTY SAND (SM) dark brown, fine grain, damp, loose becomes medium brown				5	1	8-1A	2 5 7		HNU = 0 ppm No odor	
	some clay										
10	becomes mottled reddish brown and gray, dense, little clay				10	2	8-2A	24 35 41		HNU = 0 ppm No odor	
	becomes medium dense										
15					15	3	8-3A	9 14 19		HNU = 0 ppm No odor	
	becomes dense, gray										
20					20	4	8-4A	30 33 45		HNU = 0 ppm No odor	
25					25	5	8-5C	17 29 34		HNU = 0 ppm No odor	
	becomes saturated										
30	Bottom of Boring at 29.0'				30	6	8-6A	27 47		HNU = 0 ppm No odor	
35	Backfilled borehole with sand / cement grout, June 19, 1989				35						



Innovative Solutions S/4/W3SD 01-4248

BORING LOCATION #9			ELEVATION AND DATUM			
DRILLING AGENCY Ensco Environmental		DRILLER Steve / Richard	DATE STARTED June 15, 1989		DATE FINISHED	
DRILLING EQUIPMENT Mobile B-53			COMPLETION DEPTH 29.0'	SAMPLER 2" Modified California Type		
DRILLING METHOD 6" Solid Augers		DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 6	
SIZE AND TYPE OF CASING NA			WATER LEVEL	FIRST 28'	COMPL. NA 24 HRS. NA	
TYPE OF PERFORATION NA		FROM	TO	FL.	LOGGED BY: W. Copeland	
SIZE AND TYPE OF PACK NA		FROM	TO	FL.		CHECKED BY: G. Ford
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL.		
	NO. 2 NA	FROM	TO	FL.		

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		Water Content	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)	
		Lithology	Piezometer Installation			Drive Number	Sample Number	Recovery (Feet)	Blow Counts			
	Asphalt											
	Fill - gravel											
5	SILTY SAND (SM) dark brown, fine grain, damp, medium dense becomes light brown				5	1	9-1A		5 7 15		HNU = 0 ppm No odor	
10	becomes mottled reddish brown and gray, moist, dense				10	2	9-2A		21 22 34		HNU = 0 ppm No odor	
	clayey lenses											
15	becomes medium dense, little clay				15	3	9-3A		13 17 18		HNU = 0 ppm No odor	
	some clay											
20	becomes dense, gray				20	4	9-4A		16 29 34		HNU = 30 ppm Moderate gasoline odor	
25					25	5	9-5A		19 29 32		HNU = 19 ppm Slight gasoline odor	
	becomes saturated											
30	Bottom of Boring at 29.0'				30	6	9-6A		19 34		HNU = 2 ppm Possible gasoline odor	
35	Backfilled borehole with sand / cement grout, June 19, 1989				35							



BORING LOCATION #10		ELEVATION AND DATUM			
DRILLING AGENCY	Ensco Environmental	DRILLER	Tim / Cam		
DATE STARTED		June 14, 1989			
DATE FINISHED					
DRILLING EQUIPMENT	Mobile B-53	COMPLETION DEPTH	29.0'	SAMPLER 2" Modified California Type	
DRILLING METHOD	6" Solid Augers	DRILL BIT		NO. OF SAMPLES	DIST. NA
SIZE AND TYPE OF CASING		NA		UNDIST.	6
TYPE OF PERFORATION		NA	FROM	TO	FL
SIZE AND TYPE OF PACK		NA	FROM	TO	FL
TYPE OF SEAL		NO. 1 NA	FROM	TO	FL
		NO. 2 NA	FROM	TO	FL
WATER LEVEL		FIRST	28'	COMPL. NA	24 HRS. NA
LOGGED BY:			W. Copeland		
CHECKED BY:			G. Ford		

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		Water Content	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
		Lithology	Piezometer Installation			Drive Number	Sample Number	Recov. (Feet)	Blow Counts		
	Asphalt										
	Fill - gravel										
5	SILTY SAND (SM) dark brown, fine grain, damp				5	1	10-1A	4	6	16	HNU = 0 ppm No odor
	CLAYEY SAND (SC) mottled reddish brown and gray, moist, medium dense										
10	SILTY SAND (SM) mottled reddish brown and gray, fine to medium grain, little clay, damp, dense				10	2	10-2A	20	28	32	HNU = 0 ppm No odor
	becomes medium dense										
15					15	3	10-3A	10	15	21	HNU = 0 ppm No odor
	becomes dense, gray brown										
20					20	4	10-4A	17	23	36	HNU = 0 ppm No odor
25					25	5	10-5A	14	21	31	HNU = 0 ppm No odor
	becomes saturated										
30					30	6	10-6A	19	23	33	HNU = 0 ppm No odor
	Bottom of Boring at 29.0'										
	Backfilled borehole with sand / cement grout, June 19, 1989										
35					35						



Inventor 15/4w 35D 01-424Q

BORING LOCATION #11		ELEVATION AND DATUM			
DRILLING AGENCY	Ensco Environmental	DRILLER	Steve / Richard		
DRILLING EQUIPMENT		Mobile B-53	COMPLETION DEPTH	29.0'	SAMPLER
DRILLING METHOD		6" Solid Augers	DIST.		2" Modified California Type
SIZE AND TYPE OF CASING		NA	NO. OF SAMPLES	NA	UNDIST.
TYPE OF PERFORATION		NA	WATER LEVEL	FIRST 28'	COMPL. NA 24 HRS. NA
SIZE AND TYPE OF PACK		NA	LOGGED BY:		CHECKED BY:
TYPE OF SEAL		NO. 1 NA	W. Copeland		G. Ford
		NO. 2 NA			

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		Water Content	DEPTH (feet)	SAMPLES				REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
		Lithology	Piezometer Installation			Drive Number	Sample Number	Recov. (Feet)	Blow Counts	
	Asphalt									
	Fill - gravel									
5	SILTY SAND (SM) dark brown, fine grain, medium dense, damp becomes medium brown, some clay				5	1	11-1A	19 21 21		HNU = 0 ppm No odor
10	becomes mottled reddish brown and gray, little clay, dense				10	2	11-2A	22 31 45		HNU = 0 ppm No odor
15	becomes medium dense, some clay				15	3	11-3A	14 14 15		HNU = 0 ppm No odor
20	becomes gray				20	4	11-4A	18 25 31		HNU = 40 ppm moderate gasoline odor
25					25	5	11-5A	24 35 50/5'		HNU = 30 ppm Moderate gasoline odor
	becomes saturated									HNU = 10 ppm
30	Bottom of Boring at 29.0'				30	6	11-6A	22 36		HNU = 0 ppm No odor
35	Backfilled borehole with sand / cement grout, June 19, 1989				35					



Add Inv ✓

15/4w 35c 01-425

BORING NUMBER A3			ELEVATION AND DATUM		
DRILLING AGENCY RNL Exploration		DRILLER Ramon/Jessie	DATE STARTED July 24, 1989		DATE FINISHED
DRILLING EQUIPMENT All Terrain			COMPLETION DEPTH 9.5'	SAMPLER 2" Modified California Type	
DRILLING METHOD 8" Hollow Stem Auger		DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 2
SIZE AND TYPE OF CASING NA			WATER LEVEL	FIRST NA	COMPL. NA 24 HRS. NA
TYPE OF PERFORATION NA		FROM	TO	FL	LOGGED BY: W. Copeland
SIZE AND TYPE OF PACK NA		FROM	TO	FL	CHECKED BY: G. Ford
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL	
	NO. 2 NA	FROM	TO	FL	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recev. (Feet)	Blow Counts		
	Asphaltic Concrete							OVM reading = Headspace - Baseline
	SILTY SAND (SM) reddish brown, damp, gravel up to 1" diameter becomes medium brown		1	A3-1		14 19 15		OVM = 1.9 - 2.0 = -0.1 ppm
5	becomes dark brown, no gravel, fine grained, medium dense (FILL - pieces of brick, asphalt, clay chips, glass)	5	2	A3-2		9 10 11		OVM = 1.5 - 1.3 = 0.2 ppm
	CLAYEY SAND (SC) black, moist, medium plasticity, fine grained (FILL)							no odor
10	Concrete Surface - redrilled 10' to the west, encountered concrete again	10						
	Bottom of Boring at 9.5'							

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1S/4W 35C

Woodward-Clyde Consultants

PROJECT NAME [REDACTED] NO. 8910214A

BORING NUMBER A2		ELEVATION AND DATUM			
DRILLING AGENCY RNL Exploration	DRILLER Ramon/Jessie	DATE STARTED July 24, 1989		DATE FINISHED	
DRILLING EQUIPMENT All Terrain		COMPLETION DEPTH 15.0'	SAMPLER 2" Modified California Type		
DRILLING METHOD 6" Solid Auger	DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 2	
SIZE AND TYPE OF CASING NA		WATER LEVEL	FIRST NA	COMPL. NA	24 HRS. NA
TYPE OF PERFORATION NA		FROM	TO	FL.	LOGGED BY: W. Copeland CHECKED BY: G. Ford
SIZE AND TYPE OF PACK NA		FROM	TO	FL.	
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL.	
	NO. 2 NA	FROM	TO	FL.	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES				REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (feet)	Blow Counts	
	Asphaltic Concrete						OVM reading = Headspace - Baseline
5	SILTY SAND (SM) black, damp, medium dense (FILL - pieces of brick, asphalt, wood, gravel up to 3/4" diameter)	5	1	A2-1	17 13 17		OVM = 13.2 - 8.2 = 5.0 ppm
			2	A2-2	16 9 12		OVM = 6.4 - 4.0 = 2.4 ppm
10	becomes dark brown	10					oily asphaltic odor
15	Bottom of Boring at 15.0'	15					Auger broke at 15.0', unable to recover drill stem and bit.
20		20					
25		25					
30		30					
35		35					



Add Inv ✓

15/4w 35c 01-4250

BORING NUMBER A5		ELEVATION AND DATUM			
DRILLING AGENCY RNL Exploration	DRILLER Ramon/Jessie	DATE STARTED July 25, 1989		DATE FINISHED	
DRILLING EQUIPMENT All Terrain		COMPLETION DEPTH 10.5'	SAMPLER 2" Modified California Type		
DRILLING METHOD 6" Solid Auger	DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 2	
SIZE AND TYPE OF CASING NA		WATER LEVEL	FIRST NA	COMPL. NA	24 HRS. NA
TYPE OF PERFORATION NA	FROM TO FL	LOGGED BY: W. Copeland		CHECKED BY: G. Ford	
SIZE AND TYPE OF PACK NA	FROM TO FL				
TYPE OF SEAL	FROM TO FL				
NO. 1 NA	FROM TO FL				
NO. 2 NA	FROM TO FL				

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recovery (feet)	Blow Counts		
	Asphaltic Concrete							
	SILTY SAND (SM) dark brown, damp, very dense (FILL - gravel, asphalt)							OVM reading = Headspace - Baseline slight oily odor
5		5	1	A5-1	32 50			OVM = 12.1 - 4.9 = 7.2 ppm strong oily odor
	becomes reddish brown, dense							
	becomes dark brown							
10		10	2	A5-2	26 25 47			OVM = 0 ppm
	Concrete Surface - redrilled 15' to the west, encountered concrete again at 4'							
	Bottom of Boring at 10.5'							
15		15						
20		20						
25		25						
30		30						
35		35						

BORING NUMBER A6		ELEVATION AND DATUM			
DRILLING AGENCY RNL Exploration		DRILLER Ramon/Jessie		DATE STARTED July 25, 1989	
DRILLING EQUIPMENT All Terrain		COMPLETION DEPTH 15.5'		SAMPLER 2" Modified California Type	
DRILLING METHOD 6" Solid Auger		DRILL BIT		NO. OF SAMPLES	
SIZE AND TYPE OF CASING NA		WATER LEVEL		FIRST NA	
TYPE OF PERFORATION NA		FROM TO FL		LOGGED BY: W. Copeland	
SIZE AND TYPE OF PACK NA		FROM TO FL		CHECKED BY: G. Ford	
TYPE OF SEAL		NO. 1 NA		FROM TO FL	
		NO. 2 NA		FROM TO FL	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES				REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (feet)	Blow Counts	
	Asphaltic Concrete						
5	SILTY SAND (SM) very dark brown, damp, very dense (FILL - gravel, asphalt, brick pieces)	5	1	A6-1	32 40 44	oil odor oil odor OVM = 8.1 ppm	
		5	2	A6-2	17 32 50	OVM = 0 ppm	
10	SILTY SAND (SM) medium brown, damp, some clay (NATIVE SOIL)	10					
	becomes reddish brown, no clay, very dense	15	3	A6-3	50	OVM = 0 ppm	
	Bottom of Boring at 15.5'						
20		20					
25		25					
30		30					
35		35					

01-425E

Inu ✓ Add ✓ 1S/4W 35C

Woodward-Clyde Consultants



PROJECT NAME



No. 8910214A

BORING NUMBER B1		ELEVATION AND DATUM			
DRILLING AGENCY RNL Exploration		DRILLER Ramon/Jessie		DATE STARTED DATE FINISHED July 24, 1989	
DRILLING EQUIPMENT All Terrain		COMPLETION DEPTH 15.5'		SAMPLER 2" Modified California Type	
DRILLING METHOD 6" Solid Auger		DRILL BIT		NO. OF SAMPLES DIST. NA UNDIST. 3	
SIZE AND TYPE OF CASING NA		WATER LEVEL		FIRST NA COMPL. NA 24 HRS. NA	
TYPE OF PERFORATION NA		FROM TO FL		LOGGED BY: W. Copeland	
SIZE AND TYPE OF PACK NA		FROM TO FL		CHECKED BY: G. Ford	
TYPE OF SEAL	NO. 1 NA	FROM TO FL			
	NO. 2 NA	FROM TO FL			

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recovery (Feet)	Blow Counts		
0	Asaphaltic Concrete							
5	SILTY SAND (SM) very dark brown, damp, medium dense (FILL - asaphalt, brick pieces, glass)	5	1	B1-1	18 19 21			OVM = 0 ppm
			2	B1-2	5 11			OVM = 0 ppm ← brick and mortar
15	SILTY SAND (SM) medium brown, damp, very dense (NATIVE SOIL)	15	3	B1-3	50.5			no odor OVM = 0 ppm
	Bottom of Boring at 15.5'							

01-425F

Invt Add ✓ 15/4W 35C

Woodward-Clyde Consultants

PROJECT NAME [REDACTED] NO. 8910214A

BORING NUMBER B3			ELEVATION AND DATUM		
DRILLING AGENCY RNL Exploration		DRILLER Ramon/Jessie	DATE STARTED		DATE FINISHED July 24, 1989
DRILLING EQUIPMENT All Terrain			COMPLETION DEPTH 6'		SAMPLER 2" Modified California Type
DRILLING METHOD 6" Solid Auger		DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 2
SIZE AND TYPE OF CASING NA			WATER LEVEL FIRST NA		COMPL. NA 24 HRS. NA
TYPE OF PERFORATION NA		FROM	TO	FL.	LOGGED BY: W. Copeland
SIZE AND TYPE OF PACK NA		FROM	TO	FL.	
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL.	
	NO. 2 NA	FROM	TO	FL.	CHECKED BY: G. Ford

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES				REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (feet)	Blow Counts	
	Asphaltic Concrete + gravel						
	SILTY SAND (SM) medium brown, damp, fine grained becomes dark brown, dense (FILL - wood, brick, glass, asphalt)						no odor OVM = 0.6 ppm brick
5		5	1	B3-1	18 23 25		
	Concrete Surface - redrilled 15' to the west, encountered concrete again						OVM = 0.5 ppm
	Bottom of Boring at 6'		2	B3-2	6 19/41		
10		10					
15		15					
20		20					
25		25					
30		30					
35		35					

Inw Add 15/4W 35C 01-425G

Woodward-Clyde Consultants

PROJECT NAME [REDACTED] No. 8910214A

BORING NUMBER B4			ELEVATION AND DATUM		
DRILLING AGENCY RNL Exploration		DRILLER Ramon/Jessie	DATE STARTED July 25, 1989		DATE FINISHED
DRILLING EQUIPMENT All Terrain			COMPLETION DEPTH 15.5'	SAMPLER 2" Modified California Type	
DRILLING METHOD 6" Solid Auger		DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 3
SIZE AND TYPE OF CASING NA			WATER LEVEL	FIRST NA	COMPL. NA 24 HRS. NA
TYPE OF PERFORATION NA		FROM	TO	FL.	LOGGED BY: W. Copeland
SIZE AND TYPE OF PACK NA		FROM	TO	FL.	CHECKED BY: G. Ford
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL.	
	NO. 2 NA	FROM	TO	FL.	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (Feet)	Blow Counts		
	Asphaltic Concrete + gravel							
	SILTY SAND (SM) reddish brown, damp, some clay, very dense (NATIVE SOIL)							no odor
5		1	B4-1	50				OVM = 0 ppm
5		2	B4-2	50				OVM = 0 ppm
15		3	B4-3	50				no odor OVM = 0 ppm
	Bottom of Boring at 15.5'							



Instr Add 15/4W35C 01-425H

BORING NUMBER B6			ELEVATION AND DATUM		
DRILLING AGENCY RNL Exploration		DRILLER Ramon/Jessie	DATE STARTED July 25, 1989		DATE FINISHED
DRILLING EQUIPMENT All Terrain			COMPLETION DEPTH 16.5'	SAMPLER 2" Modified California Type	
DRILLING METHOD 6" Solid Auger		DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 3
SIZE AND TYPE OF CASING NA			WATER LEVEL	FIRST NA	COMPL. NA 24 HRS. NA
TYPE OF PERFORATION NA		FROM	TO	FL	LOGGED BY: W. Copeland
SIZE AND TYPE OF PACK NA		FROM	TO	FL	
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL	
	NO. 2 NA	FROM	TO	FL	CHECKED BY: G. Ford

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES				REMARKS (Drift Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (feet)	Blow Counts	
	Asphaltic Concrete + gravel						
5	SILTY SAND (SM) very dark brown, damp, gravel up to 1/2" diameter, dense gravel up to 2" diameter (FILL)	5	1	B6-1	31 32 36	OVM = 7 ppm	
			2	B6-2	38 50	OVM = 2.5 ppm	
10	becomes medium brown	10				strong diesel odor OVA = 12 ppm	
15	SILTY SAND (SM) medium brown, damp, little clay (NATIVE SOIL) becomes light brown, very dense	15	3	B6-3	37 48 50	no odor OVM = 0 ppm	
20	Bottom of Boring at 16.5'	20					
25		25					
30		30					
35		35					



Incl Add 1S/4w JSC 01-425I

BORING NUMBER B7		ELEVATION AND DATUM	
DRILLING AGENCY RNL Exploration	DRILLER Ramon/Jessie	DATE STARTED	DATE FINISHED July 25, 1989
DRILLING EQUIPMENT All Terrain		COMPLETION DEPTH 15.5'	SAMPLER 2" Modified California Type
DRILLING METHOD 6" Solid Auger	DRILL BIT	NO. OF SAMPLES	DIST. NA
SIZE AND TYPE OF CASING NA		WATER LEVEL	FIRST NA
TYPE OF PERFORATION NA		FROM	TO FL.
SIZE AND TYPE OF PACK NA		FROM	TO FL.
TYPE OF SEAL	NO. 1 NA	FROM	TO FL.
	NO. 2 NA	FROM	TO FL.
LOGGED BY: W. Copeland		CHECKED BY: G. Ford	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recev. (feet.)	Blow Counts		
	Asphaltic Concrete + gravel							strong diesel odor
5	SILTY SAND (SM) very dark brown, damp, dense becomes very dense (FILL)	5	1	B7-1	22 24 32			OVM = 5.6 - 0.8 = 4.8 ppm
			2	B7-2	40 50/43			OVM = 1.2 - 0.8 = 0.4 ppm
10		10						moderate diesel odor
15	SILTY SAND (SM) medium brown, moist, little clay (NATIVE SOIL) becomes light brown	15	3	B7-3	50			← sample dropped on ground
	Bottom of Boring at 15.5'							



Instr Add 15/4W 3SC 01-4255

BORING NUMBER C2		ELEVATION AND DATUM			
DRILLING AGENCY RNL Exploration	DRILLER Ramon/Jessie	DATE STARTED July 24, 1989		DATE FINISHED	
DRILLING EQUIPMENT All Terrain		COMPLETION DEPTH 16.0'	SAMPLER 2" Modified California Type		
DRILLING METHOD 6" Solid Auger	DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 3	
SIZE AND TYPE OF CASING NA		WATER LEVEL	FIRST NA	COMPL. NA	24 HRS. NA
TYPE OF PERFORATION NA	FROM	TO	FL	LOGGED BY: W. Copeland	
SIZE AND TYPE OF PACK NA	FROM	TO	FL	CHECKED BY: G. Ford	
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL	
	NO. 2 NA	FROM	TO	FL	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (Feet)	Blow Counts		
	<u>Asphaltic Concrete</u>							
5	SILTY SAND (SM) very dark brown, damp, very dense becomes clayey (FILL - asphalt, brick, gravel up to 1/2" diameter)	5	1	C2-1	32 44 50		OVM = 0 ppm brick fragments	
			2	C2-2	30 35 50		OVM = 0 ppm	
10	SILTY SAND (SM) dark brown, damp, some clay (NATIVE SOIL) becomes light brown, little clay	10						
15		15	3	C2-3	40 50		OVM = 0 ppm	
	Bottom of Boring at 16.0'							
20		20						
25		25						
30		30						
35		35						



Incl add 1S/4W 35C 01-425K

BORING NUMBER C5		ELEVATION AND DATUM			
DRILLING AGENCY RNL Exploration	DRILLER Ramon/Jessie	DATE STARTED July 25, 1989		DATE FINISHED	
DRILLING EQUIPMENT All Terrain		COMPLETION DEPTH 16.0'	SAMPLER 2" Modified California Type		
DRILLING METHOD 6" Solid Auger	DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 3	
SIZE AND TYPE OF CASING NA		WATER LEVEL	FIRST NA	COMPL. NA	24 HRS. NA
TYPE OF PERFORATION NA	FROM TO FL	LOGGED BY: W. Copeland		CHECKED BY: G. Ford	
SIZE AND TYPE OF PACK NA	FROM TO FL				
TYPE OF SEAL	FROM TO FL				
NO. 1 NA	FROM TO FL				
NO. 2 NA	FROM TO FL				

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (feet)	Blow Counts		
	<u>Asphaltic Concrete</u>							
5	SILTY SAND (SM) very dark brown, damp, medium dense (FILL - asphalt, brick, gravel)	5	1	C5-1	8 15 17			OVM = 1.4 ppm
			2	C5-2	32 15 16			OVM = 0.8 ppm
10	SILTY SAND (SM) medium brown, damp, some clay (NATIVE SOIL)	10						
15	becomes mottled reddish brown and gray	15	3	C5-3	38 50			OVM = 0 ppm
	Bottom of Boring at 16.0'							

Inw Add 1S14W 35C 01-425L

Woodward-Clyde Consultants

PROJECT NAME [REDACTED] NO. 8910214A

BORING NUMBER C6		ELEVATION AND DATUM	
DRILLING AGENCY RNL Exploration	DRILLER Ramon/Jessie	DATE STARTED	DATE FINISHED July 25, 1989
DRILLING EQUIPMENT All Terrain		COMPLETION DEPTH 5'	SAMPLER 2" Modified California Type
DRILLING METHOD 6" Solid Auger	DRILL BIT	NO. OF SAMPLES	DIST. NA
SIZE AND TYPE OF CASING NA		WATER LEVEL	FIRST NA
TYPE OF PERFORATION NA		FROM	TO FL
SIZE AND TYPE OF PACK NA		FROM	TO FL
TYPE OF SEAL	NO. 1 NA	FROM	TO FL
	NO. 2 NA	FROM	TO FL

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recev. (Feet)	Blow Counts		
	Asphaltic Concrete							
	SILTY SAND (SM) very dark brown, damp, very dense							
	(FILL)		1			2		OVM = 2.8 ppm
						3		
5	concrete surface moved 25' to the west, encountered concrete again at 5'	5						
	Bottom of Boring at 5'							
10		10						
15		15						
20		20						
25		25						
30		30						
35		35						



Instr Add 1572w 35C 01-425M

BORING NUMBER D1			ELEVATION AND DATUM		
DRILLING AGENCY RNL Exploration		DRILLER Ramon/Jessie	DATE STARTED July 24, 1989		DATE FINISHED
DRILLING EQUIPMENT All Terrain			COMPLETION DEPTH 16.0'		SAMPLER 2" Modified California Type
DRILLING METHOD 6" Solid Auger		DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 3
SIZE AND TYPE OF CASING NA			WATER LEVEL	FIRST NA	COMPL. NA 24 HRS. NA
TYPE OF PERFORATION NA		FROM	TO	FL	LOGGED BY: W. Copeland
SIZE AND TYPE OF PACK NA		FROM	TO	FL	
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL	
	NO. 2 NA	FROM	TO	FL	CHECKED BY: G. Ford

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (feet)	Blow Counts		
	<u>Asphaltic Concrete</u>							
	SILTY SAND (SM) very dark brown, damp (FILL)							
5	SILTY SAND (SM) mottled reddish brown and brown, damp, very dense (NATIVE SOIL)	5	1	D1-1	30 42 50			no odor OVM = 0 ppm
			2	D1-2	32 50			OVM = 0 ppm
10		10						
	becomes clayey							
15		15	3	D1-3	19 50			OVM = 0 ppm
	Bottom of Boring at 16.0'							
20		20						
25		25						
30		30						
35		35						

Inw/addr 5/27w 35C 01-425N

Woodward-Clyde Consultants



PROJECT NAME [REDACTED] NO. 8910214A

BORING NUMBER D2		ELEVATION AND DATUM			
DRILLING AGENCY RNL Exploration		DRILLER Ramon/Jessie		DATE STARTED July 24, 1989	
DRILLING EQUIPMENT All Terrain		COMPLETION DEPTH 16.0'		SAMPLER 2" Modified California Type	
DRILLING METHOD 6" Solid Auger		DRILL BIT		NO. OF SAMPLES DIST. NA UNDIST. 3	
SIZE AND TYPE OF CASING NA		WATER LEVEL		FIRST NA COMPL. NA 24 HRS. NA	
TYPE OF PERFORATION NA		FROM TO FL		LOGGED BY: W. Copeland	
SIZE AND TYPE OF PACK NA		FROM TO FL		CHECKED BY: G. Ford	
TYPE OF SEAL	NO. 1 NA	FROM TO FL			
	NO. 2 NA	FROM TO FL			

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES				REMARKS (Drift Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (Feet)	Blow Counts	
	<u>Asphaltic Concrete</u>						
	SILTY SAND (SM) reddish brown, damp, fine grained, some clay, very dense						no odor OVM = 0.2 ppm
5	becomes mottled reddish brown and brown	5	1	D2-1	35 50		
	becomes mottled reddish brown and gray		2	D2-2	32 44 46		OVM = 0 ppm
10	(NATIVE SOIL)	10					
15		15	3	D2-3	37 50		OVM = 0 ppm
	Bottom of Boring at 16.0'						
20		20					
25		25					
30		30					
35		35					



Innov/Adv 154W 35C 01-425P
 PROJECT NAME [REDACTED] NO. 8910214A

BORING NUMBER D5			ELEVATION AND DATUM		
DRILLING AGENCY RNL Exploration		DRILLER Ramon/Jessie	DATE STARTED		DATE FINISHED July 25, 1989
DRILLING EQUIPMENT All Terrain			COMPLETION DEPTH 16.5'	SAMPLER 2" Modified California Type	
DRILLING METHOD 6" Solid Auger		DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 3
SIZE AND TYPE OF CASING NA			WATER LEVEL	FIRST NA	COMPL. NA 24 HRS. NA
TYPE OF PERFORATION NA		FROM	TO	FL.	LOGGED BY: W. Copeland
SIZE AND TYPE OF PACK NA		FROM	TO	FL.	
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL.	
	NO. 2 NA	FROM	TO	FL.	CHECKED BY: G. Ford

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (Feet)	Blow Counts		
	<u>Asphaltic Concrete</u>							
	SILTY SAND (SM) reddish brown, damp, fine grained, very dense (NATIVE SOIL)							no odor OVM = 0.7 ppm
5	becomes dense, mottled reddish brown and light brown	5	1	D5-1	50			
			2	D5-2	26 25 23			OVM = 0 ppm
10		10						
15	becomes clayey, medium brown	15	3	D5-3	16 28 50			OVM = 0 ppm
	Bottom of Boring at 16.5'							
20		20						
25		25						
30		30						
35		35						



BORING NUMBER D7		ELEVATION AND DATUM			
DRILLING AGENCY RNL Exploration		DRILLER Ramon/Jessie		DATE STARTED DATE FINISHED July 25, 1989	
DRILLING EQUIPMENT All Terrain		COMPLETION DEPTH 16.0'		SAMPLER 2" Modified California Type	
DRILLING METHOD 6" Solid Auger		DRILL BIT		NO. OF SAMPLES DIST. NA UNDIST. 3	
SIZE AND TYPE OF CASING NA		WATER LEVEL		FIRST NA COMPL. NA 24 HRS. NA	
TYPE OF PERFORATION NA		FROM TO FL		LOGGED BY: W. Copeland	
SIZE AND TYPE OF PACK NA		FROM TO FL		CHECKED BY: G. Ford	
TYPE OF SEAL	NO. 1 NA	FROM TO FL			
	NO. 2 NA	FROM TO FL			

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recev. (feet)	Blow Counts		
5	Asphaltic Concrete SILTY SAND (SM) dark brown, damp, fine grained, medium dense (FILL - brick, wood, asphalt) concrete surface - drilled 20' east	5	1	D7-1	13 5 20		no odor OVM = 0 ppm	
			2	D7-2	38 50		OVM = 0 ppm	
15	SILTY SAND (SM) medium brown, damp (NATIVE SOIL) becomes reddish brown	15	3	D7-3	38 50/5'		OVM = 0 ppm	
20	Bottom of Boring at 16.0'	20						



Innov Add 15/4/89 35C 01-425R

BORING NUMBER E2			ELEVATION AND DATUM		
DRILLING AGENCY RNL Exploration		DRILLER Ramon/Jessie	DATE STARTED July 24, 1989		DATE FINISHED
DRILLING EQUIPMENT All Terrain			COMPLETION DEPTH 16.5'	SAMPLER 2" Modified California Type	
DRILLING METHOD 6" Solid Auger		DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 3
SIZE AND TYPE OF CASING NA			WATER LEVEL	FIRST NA	COMPL. NA 24 HRS. NA
TYPE OF PERFORATION NA		FROM	TO	FL	LOGGED BY: W. Copeland
SIZE AND TYPE OF PACK NA		FROM	TO	FL	CHECKED BY: G. Ford
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL	
	NO. 2 NA	FROM	TO	FL	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (Feet)	Blow Counts		
	<u>Asphaltic Concrete</u>							
	SILTY SAND (SM) brown, moist, some clay, fine grained, dense becomes mottled reddish brown and brown							
5	becomes very dense	5	1	E2-1	37 32 40			no odor OVM = 0 ppm
			2	E2-2	36 50			OVM = 0 ppm
10	becomes clayey	10						
15		15	3	E2-3	32 35 50.5'			OVM = 0 ppm
	Bottom of Boring at 16.5'							
20		20						
25		25						
30		30						
35		35						

01-4255

Instr Addr 15/2/2 35C

Woodward-Clyde Consultants

PROJECT NAME [REDACTED] NO. 8910214A

BORING NUMBER E3		ELEVATION AND DATUM			
DRILLING AGENCY RNL Exploration	DRILLER Ramon/Jessie	DATE STARTED July 24, 1989		DATE FINISHED	
DRILLING EQUIPMENT All Terrain		COMPLETION DEPTH 16.0'	SAMPLER 2" Modified California Type		
DRILLING METHOD 6" Solid Auger	DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 3	
SIZE AND TYPE OF CASING NA		WATER LEVEL	FIRST NA	COMPL. NA 24 HRS. NA	
TYPE OF PERFORATION NA	FROM TO FL	LOGGED BY: W. Copeland		CHECKED BY: G. Ford	
SIZE AND TYPE OF PACK NA	FROM TO FL				
TYPE OF SEAL	NO. 1 NA	FROM TO FL			
	NO. 2 NA	FROM TO FL			

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (Feet)	Blow Counts		
	Asphaltic Concrete							
	CLAYEY SAND (SC) reddish brown, moist, some silt, fine grained, trace gravel up to 1/2" diameter (NATIVE SOIL)							
5	SILTY SAND (SM) reddish brown, some clay, moist, very dense	5	1	E3-1	29 35 50			no odor OVM = 0 ppm
	becomes mottled reddish brown and brown							
5	(NATIVE SOIL)	5	2	E3-2	28 33 50			OVM = 0 ppm
	becomes clayey							
15		15	3	E3-3	43 50/5'			OVM = 0 ppm
	Bottom of Boring at 16.0'							
20		20						
25		25						
30		30						
35		35						



Instr Add 15/4w 35C 01-425T

BORING NUMBER E4			ELEVATION AND DATUM		
DRILLING AGENCY RNL Exploration		DRILLER Ramon/Jessie	DATE STARTED July 25, 1989		DATE FINISHED
DRILLING EQUIPMENT All Terrain			COMPLETION DEPTH 15.5'	SAMPLER 2" Modified California Type	
DRILLING METHOD 6" Solid Auger		DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 3
SIZE AND TYPE OF CASING NA			WATER LEVEL	FIRST NA	COMPL. NA 24 HRS. NA
TYPE OF PERFORATION NA		FROM	TO	FL	LOGGED BY: W. Copeland
SIZE AND TYPE OF PACK NA		FROM	TO	FL	CHECKED BY: G. Ford
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL	
	NO. 2 NA	FROM	TO	FL	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (feet)	Blow Counts		
	Asphaltic Concrete (FILL)							
5	SILTY SAND (SM) reddish brown, damp, very dense (NATIVE SOIL) becomes mottled reddish brown and brown	5	1	E4-1	35/50			no odor OVM = 0 ppm
			2	E4-2	32/50			OVM = 0 ppm
15		15	3	E4-3	50			OVM = 0 ppm
	Bottom of Boring at 15.5'							

01-425U

Invo Add 15/4w 35C

Woodward-Clyde Consultants

PROJECT NAME [REDACTED] NO. 8910214A

BORING NUMBER E4.4			ELEVATION AND DATUM		
DRILLING AGENCY RNL Exploration		DRILLER Ramon/Jessie	DATE STARTED July 25, 1989		DATE FINISHED
DRILLING EQUIPMENT All Terrain			COMPLETION DEPTH 15.5'	SAMPLER 2" Modified California Type	
DRILLING METHOD 6" Solid Auger		DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 3
SIZE AND TYPE OF CASING NA			WATER LEVEL	FIRST NA	COMPL. NA 24 HRS. NA
TYPE OF PERFORATION NA		FROM	TO	FL	LOGGED BY: W. Copeland
SIZE AND TYPE OF PACK NA		FROM	TO	FL	CHECKED BY: G. Ford
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL	
	NO. 2 NA	FROM	TO	FL	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (Feet)	Blow	Counts	
	Asphaltic Concrete							
5	SILTY SAND (SM) reddish brown, damp, some clay (NATIVE SOIL)	5	1			38		no odor OVM = 0 ppm E4.4-1
	becomes medium brown, little clay		2			50		OVM = 0 ppm E4.4-2 no odor
10	clayey lenses	10						
15	Bottom of Boring at 15.5'	15	3			50		OVM = 0 ppm E4.4-3
20		20						
25		25						
30		30						
35		35						

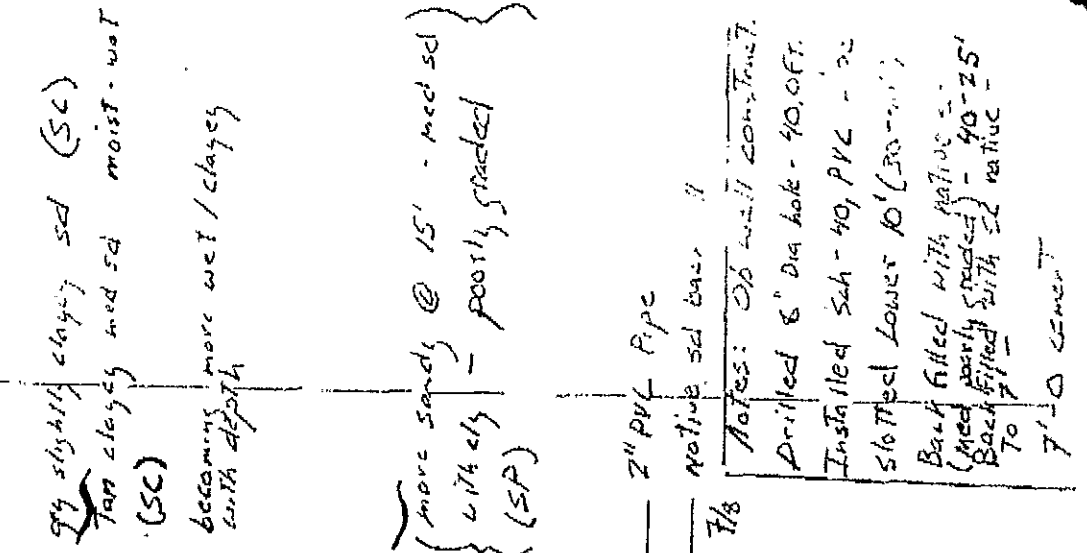
01-2520

92027G

F440
First Methodist Church 7/8/92

BH-1

AB-1



Notes: Ob well construct.
 Drilled 8" dia hole - 40.0ft.
 Installed sch - 40' PVC - 20
 Slotted lower 10' (30-40)
 Back filled with native
 (med poorly sorted) - 40-25'
 Back filled with sd native -
 to 7'
 7'-0 cement

92027G-

F440
Methodist Church Oakland 7/8/92
Start 8:30

BH-1

Start 8:30

14th Front of church 7/8/92

GW-28 @ 487

BC

Desc

5' - med clayey sd - moist
 5' - Tan transition to more clayey med sd
 5' - Tan med clayey sd
 5' - Tan med clayey sd
 5' - Tan med clayey sd
 5' - Tan med clayey sd - very wet
 5' - Tan clayey sd - wet
 5' - Tan clayey sd - med sd with (more sely coarse)
 5' - Tan clayey sd / slotted - 4y
 5' - Tan sd w/ some clay same as moist
 5' - Tan med sd with some clay
 5' - Tan med sd - (med clay)
 5' - Tan med s -
 5' - Tan med s - difficult pulling Auger
 drilled to 40' -
 installed 40' PVC pipe
 bottom 10' perforated

BH-1

FL

10L

GW

Depth

0-2

3-3.5

3.5-5.0

5.0-6.5

6.5-10

10-11.5

11.5-15

15-16.5

16.5-20

20-22.5

22.5-25

25-26.5

26.5-30

30-31.5

31.5-32.5

32-36

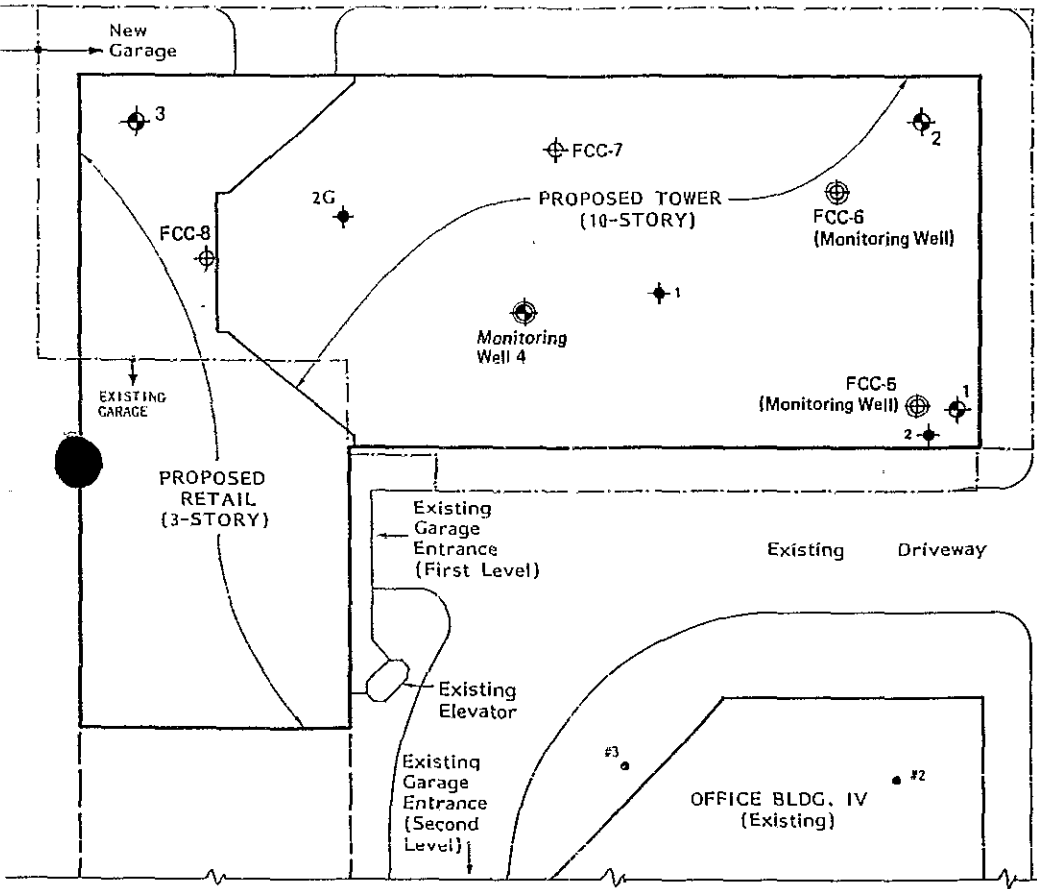
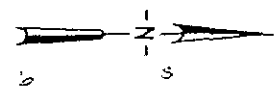
36.5-40

40

8"

21-405E-0 13/40-3521
 R. J. ...

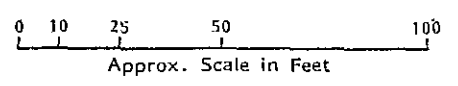
CLAY STREET



STREET

LEGEND

- ⊕ Approximate Soil Boring Location (previous study)
- ⊗ Monitoring Well Installed (previous study)
- ⊕ Approximate Soil Boring Location (July 1988)
- ◆ Approximate Test Boring Location (previous study)
- Approximate Test Boring Location (drilled by others)
- ⊗ Monitoring Well Installed (July 1988)



BORING LOCATION PLAN		
[REDACTED] Oakland, California		
Project No. 8810028A	September 16, 1987	Figure 1
Woodward-Clyde Consultants		

BORING NUMBER E4.7		ELEVATION AND DATUM			
DRILLING AGENCY RNL Exploration		DRILLER Ramon/Jessie		DATE STARTED DATE FINISHED July 25, 1989	
DRILLING EQUIPMENT All Terrain		COMPLETION DEPTH 15.5'		SAMPLER 2" Modified California Type	
DRILLING METHOD 6" Solid Auger		DRILL BIT		NO. OF SAMPLES DIST. NA UNDIST. 3	
SIZE AND TYPE OF CASING NA		WATER LEVEL FIRST NA		COMPL. NA 24 HRS. NA	
TYPE OF PERFORATION NA		FROM TO FL		LOGGED BY: W. Copeland CHECKED BY: G. Ford	
SIZE AND TYPE OF PACK NA		FROM TO FL			
TYPE OF SEAL NO. 1 NA		FROM TO FL			
		NO. 2 NA		FROM TO FL	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (Feet)	Blow Counts		
	Asphaltic Concrete							
5	SILTY SAND (SM) reddish brown, damp, very dense (NATIVE SOIL)	5	1			50		no odor OVM = 0 ppm E4.7-1
		5	2			36 39 46		OVM = 0 ppm E4.7-2
10	clayey lenses	10						no odor
15		15	3			50		OVM = 0 ppm E4.7-3
	Bottom of Boring at 15.5'							
20		20						
25		25						
30		30						
35		35						

Innov Add

15/4W 35C 01-425W

BORING NUMBER E5.3			ELEVATION AND DATUM		
DRILLING AGENCY RNL Exploration		DRILLER Ramon/Jessie	DATE STARTED July 25, 1989		DATE FINISHED
DRILLING EQUIPMENT All Terrain			COMPLETION DEPTH 15.5'	SAMPLER 2" Modified California Type	
DRILLING METHOD 6" Solid Auger		DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 3
SIZE AND TYPE OF CASING NA			WATER LEVEL	FIRST NA	COMPL. NA 24 HRS. NA
TYPE OF PERFORATION NA		FROM	TO	FL.	LOGGED BY: W. Copeland
SIZE AND TYPE OF PACK NA		FROM	TO	FL.	
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL.	
	NO. 2 NA	FROM	TO	FL.	CHECKED BY: G. Ford

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES				REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (Feet)	Blow Counts	
	Asphaltic Concrete						
	SILTY SAND (SM) medium brown, damp, very dense (NATIVE SOIL)						no odor
			1		50		OVM = 0 ppm E5.3-1
5	becomes mottled reddish brown and gray	5	2		38 50		OVM = 0 ppm E5.3-2
10		10					no odor
15		15	3		50/5'		OVM = 0 ppm E5.3-3
	Bottom of Boring at 15.5'						
20		20					
25		25					
30		30					
35		35					



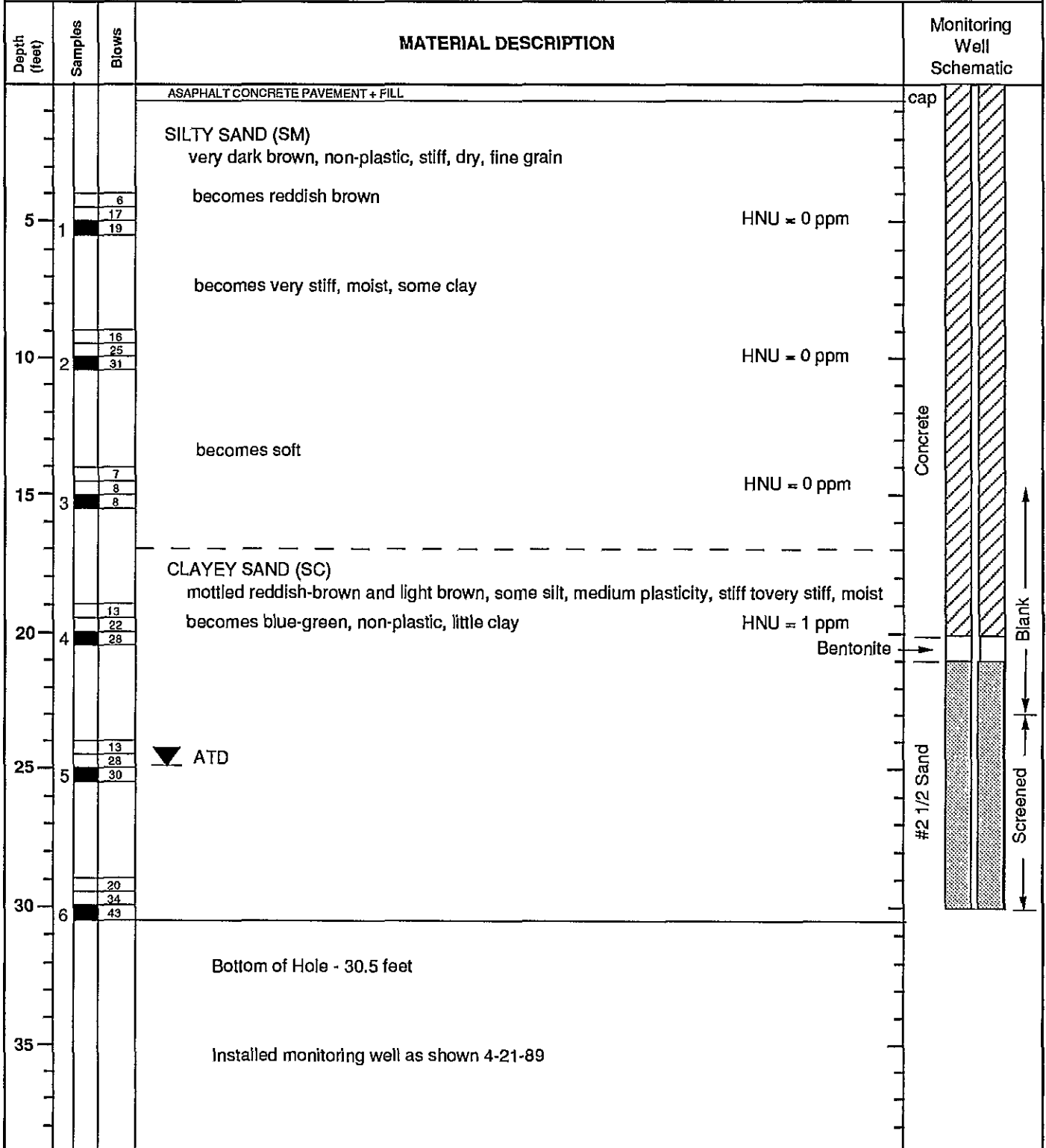
BORING NUMBER E6		ELEVATION AND DATUM			
DRILLING AGENCY RNL Exploration	DRILLER Ramon/Jessie	DATE STARTED DATE FINISHED		July 25, 1989	
DRILLING EQUIPMENT All Terrain		COMPLETION DEPTH 16.0'	SAMPLER 2" Modified California Type		
DRILLING METHOD 6" Solid Auger	DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 3	
SIZE AND TYPE OF CASING NA		WATER LEVEL	FIRST NA	COMPL. NA	24 HRS. NA
TYPE OF PERFORATION NA	FROM TO FL	LOGGED BY: W. Copeland		CHECKED BY: G. Ford	
SIZE AND TYPE OF PACK NA	FROM TO FL				
TYPE OF SEAL	FROM TO FL				
NO. 1 NA	FROM TO FL				
NO. 2 NA	FROM TO FL				

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (feet)	Blow Counts		
	Asphaltic Concrete							
	SILTY SAND (SM) dark brown, damp (FILL)							no odor
5	SILTY SAND (SM) reddish brown, damp, very dense, some clay (NATIVE SOIL)	5	1	E6-1	30 40 50			OVM = 0 ppm
			2	E6-2	30 39 50			OVM = 0 ppm
10		10						no odor
	becomes medium brown, little clay							no odor
15		15	3	E6-3	39 50/5'			OVM = 0 ppm
	Bottom of Boring at 16.0'							
20		20						
25		25						
30		30						
35		35						



Add In 15/4W 35E2

BORING NUMBER - 5		ELEVATION AND DATUM 01-426A	
DRILLING AGENCY Ensco Exploration	DRILLER Tim / Don	DATE STARTED 4-21-89	DATE FINISHED
DRILLING EQUIPMENT Mobile B-53		COMPLETION DEPTH 30.5 feet	SAMPLER Modified Ca.
DRILLING METHOD 8" Hollow Stem Auger	DRILL BIT	NO. OF SAMPLES 6	DIST. 6
LOGGED BY: W. Copeland		WATER LEVEL FIRST 25 feet	UNDIST. 24 HRS.
CHECKED BY: G. Ford			



Oakland City Center
500 12th Street
Suite 100
Oakland, CA 94607-4014
(415) 893-3600

89226

Lic # C57-46432

Woodward-Clyde Consultants

1S/4W 35 E 2, 3, 4

46432.4

~~WOODWARD-CLYDE~~ Boring
1S/4W 35E
Add ✓
Inv ✓

RECEIVED
APR 26 1989

ZONE 7, ACFC&W

April 25, 1989

01-426A-S

Mr. Todd Wendler
Water Resources Technician
Alameda County Flood Control and Water Conservation District
5997 Parkside Dr.
Pleasanton, Ca. 94566


Dear Mr. Wendler:

Enclosed is the well construction report required after completion of the work on April 21, 1989 permitted by the Groundwater Protection Ordinance permit #89226 for a monitoring well construction project near the intersection of Jefferson Street and 9th Street in Oakland, Ca. Drilling logs, a schematic of the monitoring well, and a site layout are included.

Please note that all boreholes were backfilled with a sand / cement grout on April 21, 1989. If you have any questions, please call me at 874-3203.

Sincerely,
Woodward-Clyde Consultants

Owner?
Pg. 40-41

for 
George A. Ford
Project Geologist

GF:wbc
Enc.

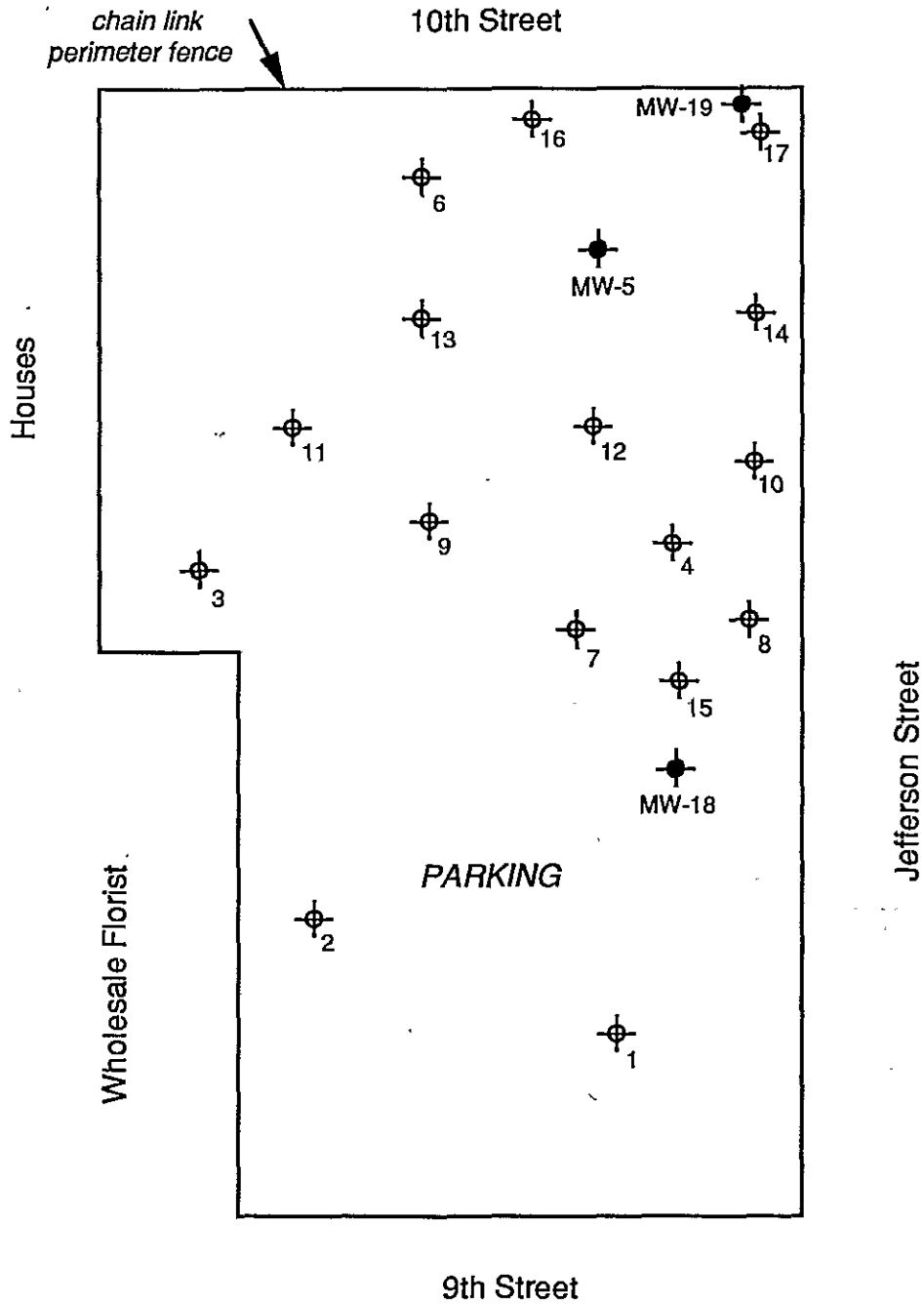


Consulting Engineers, Geologists
and Environmental Scientists

Offices in Other Principal Cities



15/4W-35E
01-426A-8

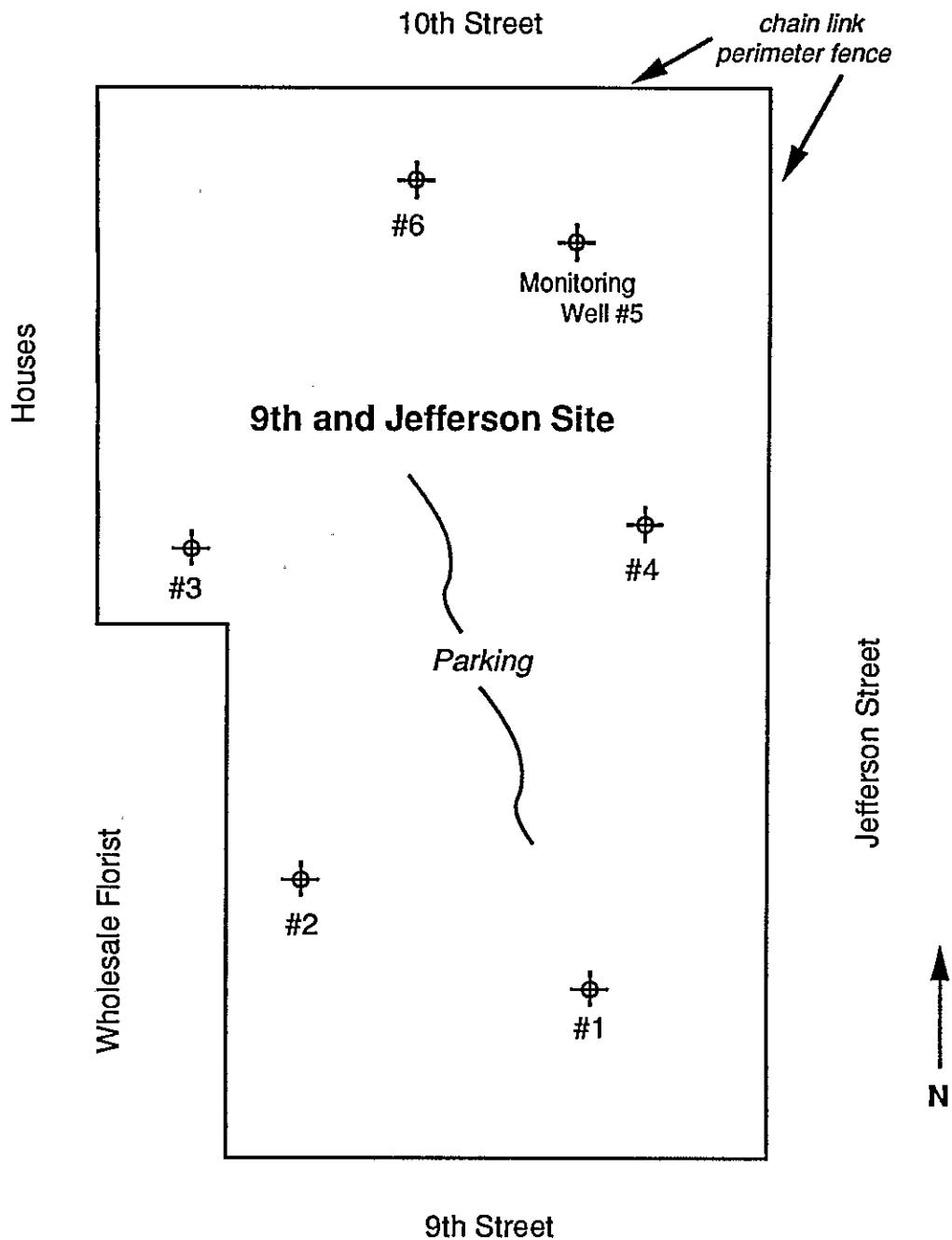


Scale (approximate)
0 50 feet

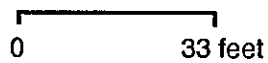
Legend

- ⊕ Soil Boring
- Monitoring Well

Project No. 8910084A	9th and Jefferson		9th and Jefferson Site Map	
Woodward-Clyde Consultants				



Scale (approximate)



Legend

-  Soil Boring or
- #1** Monitoring Well

Project No. 8910084A	9th and Jefferson [REDACTED]	9th and Jefferson Site	
Woodward-Clyde Consultants			

BORING NUMBER - MW-18		ELEVATION AND DATUM 01-426B	
DRILLING AGENCY Ensco Exploration	DRILLER Tim / Rich	DATE STARTED 8-7-89	DATE FINISHED
DRILLING EQUIPMENT Mobile B-53		COMPLETION DEPTH 31 feet	SAMPLER Modified Ca.
DRILLING METHOD 6" Solid Auger	DRILL BIT	NO. OF SAMPLES 1	DIST. 1
LOGGED BY: W. Copeland		WATER LEVEL FIRST 27 feet ▼	UNDIST. 24 HRS.
CHECKED BY: G. Ford			

Depth (feet)	Samples	Blows	MATERIAL DESCRIPTION	Monitoring Well Schematic
			ASAPHALT CONCRETE PAVEMENT + FILL	cap
5			SILTY SAND (SM) dark brown, dry, fine grain becomes medium brown no odor increasing clay	
10			no odor	
15			some clay	concrete
20			CLAYEY SAND (SC) brown, some silt, damp no odor decreasing clay	bentonite
25			SILTY SAND (SM) brown, fine grain, moist	#3 sand
30	23 43		▼ ATD becomes wet slight gasoline odor OVM = 9.5 ppm	0.020 screen
			Bottom of Hole - 31 feet	
35			Backfilled borehole with sand / cement grout, 4-21-89	

Add Snow 15/4/89 35 EQ

BORING NUMBER - MW-19		ELEVATION AND DATUM 01-4260	
DRILLING AGENCY Ensco Exploration	DRILLER Tim / Rich	DATE STARTED 8-7-89	DATE FINISHED
DRILLING EQUIPMENT Mobile B-53		COMPLETION DEPTH 31 feet	SAMPLER Modified Ca.
DRILLING METHOD 6" Solid Auger	DRILL BIT	NO. OF SAMPLES	DIST. 1
LOGGED BY: W. Copeland		WATER LEVEL FIRST 28 feet	COMPL. 24 HRS.
CHECKED BY: G. Ford			

Depth (feet)	Samples	Blows	MATERIAL DESCRIPTION	Monitoring Well Schematic
			ASAPHALT CONCRETE PAVEMENT + FILL	cap
5			SILTY SAND (SM) very dark brown, dry, fine grain becomes medium brown no odor increasing clay	
10			no odor	
15			some clay	concrete
20			less clay	bentonite
25			becomes gray, little clay slight gasoline odor	#3 sand
30	1	28 34	▼ ATD becomes wet strong gasoline odor OVM = 663 ppm OVM = 118 ppm	0.020 screen
			Bottom of Hole - 31 feet	
35			Backfilled borehole with sand / cement grout, 4-21-89	

Add/Inv ✓ 154W 35E 01-426D

BORING NUMBER - 1		ELEVATION AND DATUM	
DRILLING AGENCY	Ensco Exploration	DRILLER	Tim / Don
		DATE STARTED	4-20-89
		DATE FINISHED	
DRILLING EQUIPMENT	Mobile B-53	COMPLETION DEPTH	30.5 feet
		SAMPLER	Modified Ca.
DRILLING METHOD	8" Hollow Stem Auger	DRILL BIT	
		NO. OF SAMPLES	DIST. 6
		UNDIST.	
LOGGED BY:	W. Copeland	WATER LEVEL	FIRST 25 feet ▼
		COMPL.	24 HRS.
CHECKED BY: G. Ford			

Depth (feet)	Samples	Blows	MATERIAL DESCRIPTION	USCS	Moisture Content	Dry Density
			ASAPHALT CONCRETE PAVEMENT + FILL			
5	1	6 13 21	SILTY SAND (SM) very dark brown, non-plastic, medium firm to stiff, dry, fine grain becomes reddish brown			HNU = 0 ppm
10	2	17 28 28	becomes mottled reddish-brown and brown, moist, very stiff			HNU = 0 ppm
15	3	9 16 18	becomes stiff, less silt			HNU = 0 ppm
20	4	16 23 37	CLAYEY SAND (SC) mottled reddish-brown and gray, some silt, medium plasticity, very stiff, moist becomes non-plastic, less clay			HNU = 0.5 ppm
25	5	16 31 40	▼ ATD			HNU = 0.5 ppm
30	6	21 32 43				HNU = 1 ppm
			Bottom of Hole - 30.5 feet			
35			Backfilled borehole with sand / cement grout, 4-21-89			

Add Inuv 15/4W 35E ^{01-426E}

BORING NUMBER - 2		ELEVATION AND DATUM	
DRILLING AGENCY	EnSCO Exploration	DRILLER	Tim / Don
DATE STARTED		4-20-89	
DATE FINISHED			
DRILLING EQUIPMENT	Mobile B-53	COMPLETION DEPTH	30 feet
SAMPLER		Modified Ca.	
DRILLING METHOD	8" Hollow Stem Auger	DRILL BIT	
NO. OF SAMPLES	DIST. 4	UNDIST.	
LOGGED BY:	W. Copeland	WATER LEVEL	FIRST 25 feet ▼
COMPL.		24 HRS.	

CHECKED BY: G. Ford

Depth (feet)	Samples	Blows	MATERIAL DESCRIPTION	USCS	Moisture Content	Dry Density pcf
			ASAPHALT CONCRETE PAVEMENT + FILL			
5	1	2 7 14	SILTY SAND (SM) very dark brown, non-plastic, medium firm, dry, fine grain becomes reddish-brown, less silt HNU = 0 ppm			
10	2	16 28 31	becomes light brown, moist, very stiff, some clay HNU = 0 ppm			
15	3	6 7 13	becomes damp, medium firm HNU = 0 ppm			
20	4	14 23 33	CLAYEY SAND (SC) mottled reddish-brown and light brown, some silt, low plasticity, very stiff, moist HNU = 0 ppm			
25	5	16 19 23	becomes non-plastic, little clay ▼ ATD HNU = 0 ppm			
30	6	21 50/5"	becomes very stiff to hard HNU = 0 ppm			
			Bottom of Hole - 30 feet			
35			Backfilled borehole with sand / cement grout, 4-21-89			



Add In

15/4W 3SE 01-426F

BORING NUMBER - 3		ELEVATION AND DATUM	
DRILLING AGENCY	Ensco Exploration	DRILLER	Scott / Bob
DATE STARTED		DATE FINISHED	
4-19-89		4-19-89	
DRILLING EQUIPMENT	Mobile B-61	COMPLETION DEPTH	30.5 feet
SAMPLER		Modified Ca.	
DRILLING METHOD	8" Hollow Stem Auger	NO. OF SAMPLES	DIST. 6
UNDIST.			
LOGGED BY:	W. Copeland	WATER LEVEL	FIRST 25 feet ▼
COMPL.		24 HRS.	
CHECKED BY: G. Ford			

Depth (feet)	Samples	Blows	MATERIAL DESCRIPTION	USCS	Moisture Content	Dry Density
			FILL			
5	1	11 18 31	SILTY SAND (SM) very dark brown, non-plastic, stiff to very stiff, dry, fine grain becomes reddish brown			HNU = 1 ppm
10	2	17 21 30	becomes mottled reddish-brown and gray, moist			HNU = 0.5 ppm
15	3	6 6 7	becomes damp, soft			HNU = 1 ppm
20	4	20 25 34	CLAYEY SAND (SC) light brown, some silt, medium plasticity, very stiff, moist			HNU = 1 ppm
25	5	12 17 22	becomes non-plastic, little clay ▼ ATD used split spoon to recover samples			HNU = 0 ppm
30	6	16 25 34	becomes dark brown			HNU = 0 ppm
			Bottom of Hole - 30.5 feet			
35			Backfilled borehole with sand / cement grout, 4-21-89			



W. Copeland
Tim / Don

15/4W 35E01-426G

BORING NUMBER - 4		ELEVATION AND DATUM	
DRILLING AGENCY	Ensco Exploration	DRILLER	Tim / Don
DATE STARTED		4-20-89	
DATE FINISHED			
DRILLING EQUIPMENT	Mobile B-53	COMPLETION DEPTH	30.5 feet
SAMPLER		Modified Ca.	
DRILLING METHOD	8" Hollow Stem Auger	DRILL BIT	
NO. OF SAMPLES		DIST. 6	
UNDIST.			
LOGGED BY:	W. Copeland	WATER LEVEL	FIRST 25 feet ▼
COMPL.		24 HRS.	
CHECKED BY: G. Ford			

Depth (feet)	Samples	Blows	MATERIAL DESCRIPTION	USCS	Moisture Content	Dry Density
			ASAPHALT CONCRETE PAVEMENT + FILL			
5	1	7 13 18	SILTY SAND (SM) very dark brown, non-plastic, stiff, dry, fine grain becomes reddish brown			HNU = 2 ppm
10	2	23 31 38	becomes mottled blue-green and brown, very stiff, moist			HNU = 5 ppm HNU = 11 ppm
15	3	7 12 19				
20	4	17 23 31	CLAYEY SAND (SC) mottled reddish-brown and light brown, some silt, medium plasticity, very stiff, moist			HNU = 0 ppm
25	5	16 24 39	becomes non-plastic, little clay ▼ ATD			HNU = 2 ppm
30	6	16 24 38				HNU = 1 ppm
			Bottom of Hole - 30.5 feet			
35			Backfilled borehole with sand / cement grout, 4-21-89			

add Inew

BORING NUMBER - 6		ELEVATION AND DATUM	
DRILLING AGENCY	Ensco Exploration	DRILLER	Scott / Bob
DRILLING EQUIPMENT		Mobile B-61	COMPLETION DEPTH
DRILLING METHOD		8" Hollow Stem Auger	DRILL BIT
LOGGED BY:		W. Copeland	NO. OF SAMPLES
CHECKED BY:		G. Ford	DATE STARTED
			DATE FINISHED
			COMPLETION DEPTH
			SAMPLER
			NO. OF SAMPLES
			DIST.
			UNDIST.
			WATER LEVEL
			FIRST
			COMPL.

Depth (feet)	Samples	Blows	MATERIAL DESCRIPTION	USCS	Moisture Content	Dry Density pcf
			ASAPHALT CONCRETE PAVEMENT			
			FILL			
5	1	3 11 30	SILTY SAND (SM) very dark brown, non-plastic, stiff to very stiff, dry, fine grain becomes medium brown		HNU = 0 ppm	
10	2	20 22 32	becomes light brown, moist, some clay		HNU = 0 ppm	
15	3	10 14 16	becomes medium firm		HNU = 0.5 ppm	
20	4	26 30 35	CLAYEY SAND (SC) light brown, some silt, non-plastic, very stiff, moist no recovery		HNU = 0.5 ppm	
25	5	26 30 50/3"	becomes very stiff to hard, little clay ▼ ATD no recovery		HNU = 1 ppm	
30	6	16 42 50/1"	used split spoon to recover sample		HNU = 5 ppm	
			Bottom of Hole - 30.5 feet			
35			Backfilled borehole with sand / cement grout, 4-21-89			

Invent Add 15/4W 3SE 01-426I

BORING NUMBER - 7		ELEVATION AND DATUM	
DRILLING AGENCY	Ensco Exploration	DRILLER	Tim / Rich
DATE STARTED		DATE FINISHED	
8-7-89		8-7-89	
DRILLING EQUIPMENT	Mobile B-53	COMPLETION DEPTH	31 feet
SAMPLER		Modified Ca.	
DRILLING METHOD	6" Solid Auger	DRILL BIT	
NO. OF SAMPLES		DIST. 3	
UNDIST.			
LOGGED BY:	W. Copeland	WATER LEVEL	FIRST 26 feet ▼
COMPL.		24 HRS.	
CHECKED BY: G. Ford			

Depth (feet)	Samples	Blows	MATERIAL DESCRIPTION	USCS	Moisture Content	Dry Density
			ASAPHALT CONCRETE PAVEMENT + FILL			
5			SILTY SAND (SM) dark brown, dry, fine grain becomes medium brown, damp			
			no odor			
10			little clay			
			increasing clay			
			some clay			
15			medium dense			
	8					
	8					
	14					
	1					
20			CLAYEY SAND (SC) brown, some silt, damp			
			decreasing clay			
25			SILTY SAND (SM) brown, some clay, dense, moist			
			▼ ATD			
			becomes grayish brown, wet			
			HNU = 0.5 ppm			
			slight gasoline odor			
			HNU = 12.6 ppm			
30						
	21					
	28					
	3					
			Bottom of Hole - 31 feet			
35			Backfilled borehole with sand / cement grout, 4-21-89			

Instr Add 1514W 35E 01-426J

BORING NUMBER - 8		ELEVATION AND DATUM	
DRILLING AGENCY	Ensco Exploration	DRILLER	Tim / Rich
DATE STARTED		8-4-89	
DATE FINISHED			
DRILLING EQUIPMENT	Mobile B-53	COMPLETION DEPTH	31 feet
SAMPLER		Modified Ca.	
DRILLING METHOD	6" Solid Auger	DRILL BIT	
NO. OF SAMPLES		DIST. 3	
UNDIST.			
LOGGED BY:	W. Copeland	WATER LEVEL	FIRST 26 feet
COMPL.		24 HRS.	
CHECKED BY: G. Ford			

Depth (feet)	Samples	Blows	MATERIAL DESCRIPTION	USCS	Moisture Content	Dry Density
			ASAPHALT CONCRETE PAVEMENT + FILL			
			- Hit concrete, moved 10' north			
5			SILTY SAND (SM) very dark brown, dry, fine grain			
			becomes light brown, damp			no odor
10						no odor
15						
		7				
		12				
	1	15	mottled reddish brown and gray, medium dense, some clay			OVM = 0.3 ppm
20			CLAYEY SAND (SC) medium brown, some silt, moist			
			decreasing clay			
25						
		18				
		30				
	2	38	SILTY SAND (SM) gray, moist, some clay, dense			OVM = 0.9 ppm
			becomes wet			slight gasoline odor
30						
		35				OVM = 339 ppm
	3	37				moderate gasoline odor
35			Bottom of Boring - 31 feet			
			Backfilled borehole with sand / cement grout, 8-9-89			

Instr Add 15/4W3SE
01-426K

BORING NUMBER - 9		ELEVATION AND DATUM	
DRILLING AGENCY	Ensco Exploration	DRILLER	Tim / Rich
DATE STARTED		8-7-89	
DATE FINISHED			
DRILLING EQUIPMENT	Mobile B-53	COMPLETION DEPTH	25 feet
SAMPLER		Modified Ca.	
DRILLING METHOD	6" Solid Auger	DRILL BIT	
NO. OF SAMPLES		DIST. 1	
UNDIST.			
LOGGED BY:	W. Copeland	WATER LEVEL	FIRST
COMPL.		24 HRS.	
CHECKED BY: G. Ford			

Depth (feet)	Samples	Blows	MATERIAL DESCRIPTION	USCS	Moisture Content	Dry Density
			ASAPHALT CONCRETE PAVEMENT + FILL			
5			SILTY SAND (SM) dark brown, dry, fine grain becomes medium brown no odor			
10			Increasing clay becomes dark brown no odor			
15	7 10 12		mottled reddish brown and gray, some clay, medium dense OVM = 0 ppm			
20			CLAYEY SAND (SC) brown, moist, fine grain decreasing clay no odor			
25			SILTY SAND (SM) brown, fine grain, moist			
30			Bottom of Boring - 25 feet			
35			Backfilled borehole with sand / cement grout, 8-9-89			

Inc. **ADD 15/4W 35E** 01-426L

Woodward-Clyde Consultants

PROJECT NAME **9th & Jefferson** NO. **8910084A**

BORING NUMBER - 10		ELEVATION AND DATUM	
DRILLING AGENCY	Ensco Exploration	DRILLER	Tim / Rich
DATE STARTED		8-4-89	
DATE FINISHED			
DRILLING EQUIPMENT	Mobile B-53	COMPLETION DEPTH	31 feet
SAMPLER		Modified Ca.	
DRILLING METHOD	6" Solid Auger	DRILL BIT	
NO. OF SAMPLES		DIST. 3	
UNDIST.			
LOGGED BY:	W. Copeland	WATER LEVEL	FIRST 26 feet
COMPL.		24 HRS.	
CHECKED BY: G. Ford			

Depth (feet)	Samples	Blows	MATERIAL DESCRIPTION	USCS	Moisture Content	Dry Density
			ASAPHALT CONCRETE PAVEMENT + FILL			
5			SILTY SAND (SM) dark brown, dry, fine grain			
			becomes medium brown			no odor
10			little clay			no odor
			some clay			no odor
15		7				
		9				
	1	15	mottled reddish brown and gray, medium dense			OVM = 2.6 ppm
20			CLAYEY SAND (SC) brown, some silt, damp			
			decreasing clay			OVM = 49 ppm slight gasoline odor
25		15				
		26				
	2		SILTY SAND (SM) gray, moist, little clay, dense			OVM = 456 ppm
			ATD becomes wet			OVM = 490 ppm strong gasoline odor
30		24				OVM = 392 ppm
		50/5'				
	3		Bottom of Boring - 31 feet			
35			Backfilled borehole with sand / cement grout, 8-9-89			

1S/4W 35E 01-426M

BORING NUMBER - 11		ELEVATION AND DATUM	
DRILLING AGENCY	Ensco Exploration	DRILLER	Tim / Rich
DATE STARTED		8-4-89	
DATE FINISHED			
DRILLING EQUIPMENT	Mobile B-53	COMPLETION DEPTH	0.5 feet
SAMPLER		Modified Ca.	
DRILLING METHOD	6" Solid Auger	DRILL BIT	
NO. OF SAMPLES		DIST. 0	
UNDIST.			
LOGGED BY:	W. Copeland	WATER LEVEL	FIRST
COMPL.		24 HRS.	
CHECKED BY: G. Ford			

Depth (feet)	Samples	Blows	MATERIAL DESCRIPTION	USCS	Moisture Content	Dry Density pcf
			ASAPHALT CONCRETE PAVEMENT + FILL			
5			Encountered concrete at 6", moved 10' south, hit concrete again Abandoned boring			
10						
15						
20						
25						
30						
35						

01-426N

Add In 15/4W35E

Woodward-Clyde Consultants

PROJECT NAME 9th & Jefferson NO. 8910084A

BORING NUMBER - 12		ELEVATION AND DATUM	
DRILLING AGENCY	Ensco Exploration	DRILLER	Tim / Rich
DATE STARTED		8-4-89	
DATE FINISHED			
DRILLING EQUIPMENT	Mobile B-53	COMPLETION DEPTH	31 feet
SAMPLER		Modified Ca.	
DRILLING METHOD	6" Solid Auger	DRILL BIT	
NO. OF SAMPLES		DIST. 3	
UNDIST.			
LOGGED BY:	W. Copeland	WATER LEVEL	FIRST 26 feet ▼
COMPL.		24 HRS.	
CHECKED BY: G. Ford			

Depth (feet)	Samples	Blows	MATERIAL DESCRIPTION	USCS	Moisture Content	Dry Density
			ASAPHALT CONCRETE PAVEMENT + FILL			
5			SILTY SAND (SM) dark brown, dry, fine grain			
			becomes medium brown			no odor
10			little clay			no odor
			some clay			no odor
15	6 9 14		mottled reddish brown, brown, and gray, medium dense			OVM = 9 ppm
			little clay			
20						
			becomes gray, dense, wet			
25	24 34		▼ ATD			OVM = 10 ppm
						OVM = 200 ppm strong gasoline odor
30	21 32					OVM = 101 ppm
			Bottom of Boring - 31 feet			
35			Backfilled borehole with sand / cement grout, 8-9-89			

01-4260

Add Inc / 15/4W35E

BORING NUMBER - 13		ELEVATION AND DATUM	
DRILLING AGENCY	Ensco Exploration	DRILLER	Tim / Rich
DATE STARTED		8-4-89	
DATE FINISHED			
DRILLING EQUIPMENT	Mobile B-53	COMPLETION DEPTH	26.5 feet
SAMPLER		Modified Ca.	
DRILLING METHOD	6" Solid Auger	DRILL BIT	
NO. OF SAMPLES		DIST. 2	
UNDIST.			
LOGGED BY:	W. Copeland	WATER LEVEL	FIRST 25.4 feet
COMPL.		24 HRS.	
CHECKED BY: G. Ford			

Depth (feet)	Samples	Blows	MATERIAL DESCRIPTION	USCS	Moisture Content	Dry Density
			ASAPHALT CONCRETE PAVEMENT + FILL			
5			SILTY SAND (SM) dark brown, dry, fine grain no odor			
10			becomes reddish brown no odor			
15			increasing clay no odor			
15	8 12 17	1	mottled reddish brown and gray, some clay, medium dense OVM = 0 ppm			
20			CLAYEY SAND (SC) brown, some silt, damp no odor			
25			decreasing clay no odor			
25	18 22 45	2	SILTY SAND (SM) brown, some clay, moist ATD OVM = 0 ppm			
30			Bottom of Boring - 26.5 feet			
35			Backfilled borehole with sand / cement grout, 8-9-89			

BORING NUMBER - 14		ELEVATION AND DATUM	
DRILLING AGENCY	Ensco Exploration	DRILLER	Tim / Rich
DATE STARTED		8-4-89	
DATE FINISHED			
DRILLING EQUIPMENT	Mobile B-53	COMPLETION DEPTH	26.5 feet
SAMPLER		Modified Ca.	
DRILLING METHOD	6" Solid Auger	DRILL BIT	
NO. OF SAMPLES		DIST.	2
UNDIST.			
LOGGED BY:	W. Copeland	WATER LEVEL	FIRST 25.4 feet
COMPL.		24 HRS.	
CHECKED BY: G. Ford			

Depth (feet)	Samples	Blows	MATERIAL DESCRIPTION	USCS	Moisture Content	Dry Density
			ASAPHALT CONCRETE PAVEMENT + FILL			
5			SILTY SAND (SM) dark brown, dry, fine grain no odor			
10			becomes reddish brown no odor			
15			increasing clay no odor			
15	7 9 13	1	mottled reddish brown and gray, some clay, medium dense OVM = 24 ppm			
20			CLAYEY SAND (SC) brown, some silt, damp decreasing clay strong gasoline odor			
25	15 22 40	2	SILTY SAND (SM) brown, some clay, moist ATD OVM = 252 ppm			
30			Bottom of Boring - 26.5 feet			
35			Backfilled borehole with sand / cement grout, 8-9-89			

01-4260

Add/Insert

15/4W35E

Woodward-Clyde Consultants

PROJECT NAME 9th & Jefferson NO. 8910084A

BORING NUMBER - 15		ELEVATION AND DATUM	
DRILLING AGENCY	Ensco Exploration	DRILLER	Tim / Rich
DATE STARTED		8-7-89	
DATE FINISHED			
DRILLING EQUIPMENT	Mobile B-53	COMPLETION DEPTH	31 feet
SAMPLER		Modified Ca.	
DRILLING METHOD	6" Solid Auger	DRILL BIT	
NO. OF SAMPLES		DIST.	2
UNDIST.			
LOGGED BY:	W. Copeland	WATER LEVEL	FIRST 26.5 feet
COMPL.		24 HRS.	
CHECKED BY: G. Ford			

Depth (feet)	Samples	Blows	MATERIAL DESCRIPTION	USCS	Moisture Content	Dry Density
			ASAPHALT CONCRETE PAVEMENT + FILL			
5			SILTY SAND (SM) very dark brown, dry, fine grain			
			becomes medium brown		no odor	
10			increasing clay		no odor	
			some clay		no odor	
15					OVM = 0 ppm	
20			CLAYEY SAND (SC) brown, moist			
			decreasing clay			
25	1	15 28	SILTY SAND (SM) brown, moist, fine grain			
			becomes gray		OVM = 0 ppm	
			ATD		slight gasoline odor	
30	2	25 50.5			OVM = 31 ppm	
			Bottom of Boring - 31 feet			
35			Backfilled borehole with sand / cement grout, 8-9-89			

01-426R
 Add/Inv 15/4W 35E

BORING NUMBER - 16		ELEVATION AND DATUM	
DRILLING AGENCY	Ensco Exploration	DRILLER	Tim / Rich
DATE STARTED		8-4-89	
DATE FINISHED			
DRILLING EQUIPMENT		COMPLETION DEPTH	26 feet
SAMPLER		Modified Ca.	
DRILLING METHOD		6" Solid Auger	DRILL BIT
NO. OF SAMPLES		DIST.	2
UNDIST.			
LOGGED BY:		W. Copeland	WATER LEVEL
FIRST		▼	
COMPL.		24 HRS.	
CHECKED BY: G. Ford			

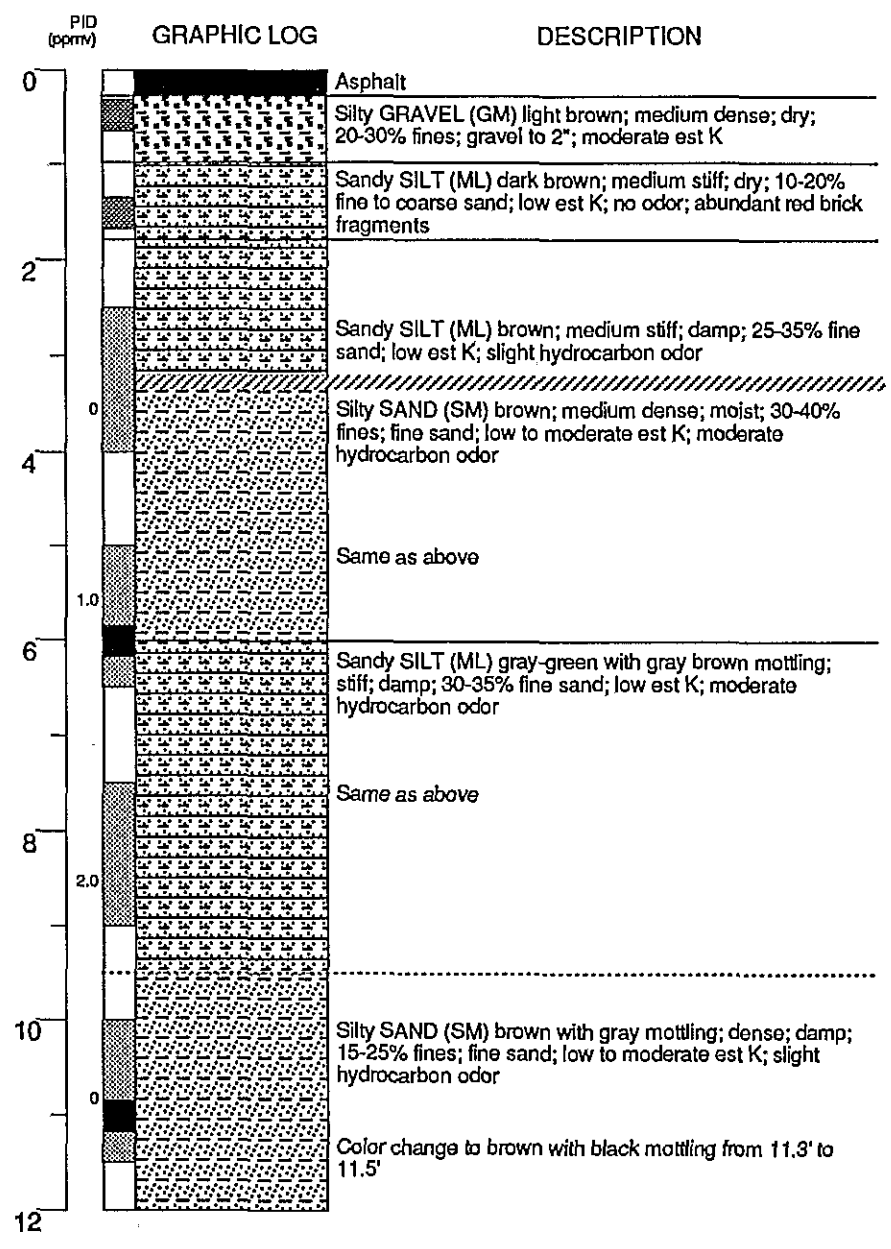
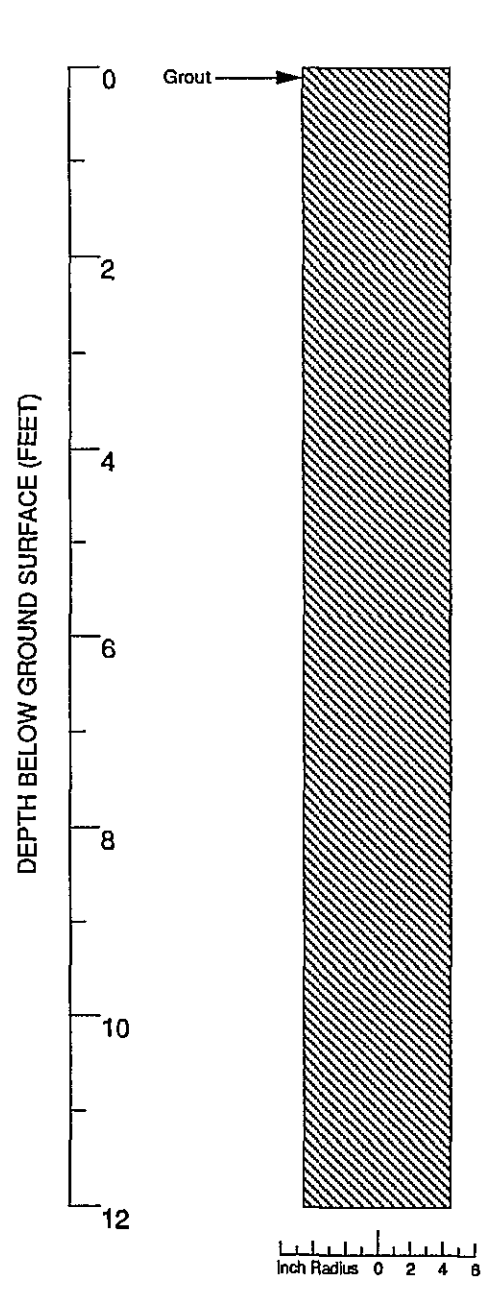
Depth (feet)	Samples	Blows	MATERIAL DESCRIPTION	USCS	Moisture Content	Dry Density
			ASAPHALT CONCRETE PAVEMENT + FILL			
5			SILTY SAND (SM) dark brown, dry, fine grain becomes medium brown			no odor
10						no odor
15						no odor
15	1	9 9 18	mottled reddish brown and gray, little clay, medium dense			OVM = 0 ppm
20						no odor
25	2	21 35				OVM = 4 ppm
30			Bottom of Boring - 26 feet			
35			Backfilled borehole with sand / cement grout, 8-9-89			

Add Inv 1S/4W3SE 81-4265

BORING NUMBER - 17		ELEVATION AND DATUM	
DRILLING AGENCY	Ensco Exploration	DRILLER	Tim / Rich
DATE STARTED		8-7-89	
DATE FINISHED			
DRILLING EQUIPMENT	Mobile B-53	COMPLETION DEPTH	30 feet
SAMPLER		Modified Ca.	
DRILLING METHOD	6" Solid Auger	DRILL BIT	
NO. OF SAMPLES		DIST. 2	
UNDIST.			
LOGGED BY:	W. Copeland	WATER LEVEL	FIRST
COMPL.		24 HRS.	
CHECKED BY: G. Ford			

Depth (feet)	Samples	Blows	MATERIAL DESCRIPTION	USCS	Moisture Content	Dry Density pcf
			ASAPHALT CONCRETE PAVEMENT + FILL			
5			SILTY SAND (SM) dark brown, dry, fine grain hit pipe, moved 4 feet west			
			becomes medium brown			no odor
10			becomes gray			very slight odor
15	1	98 12 15	becomes medium dense			OVM = 29 ppm
20			CLAYEY SAND (SC) mottled gray and brown, some silt, damp			moderate gasoline odor
			decreasing clay			OVM = 34 ppm
25	2	12 33	SILTY SAND (SM) gray, moist, some clay			OVM = 320 ppm
						strong gasoline odor
30						OVM = 455 ppm
			Bottom of Boring - 30 feet			
35			Backfilled borehole with sand / cement grout, 8-9-89			

15/4W 35A
 Inv ✓ Add ✓



Continues

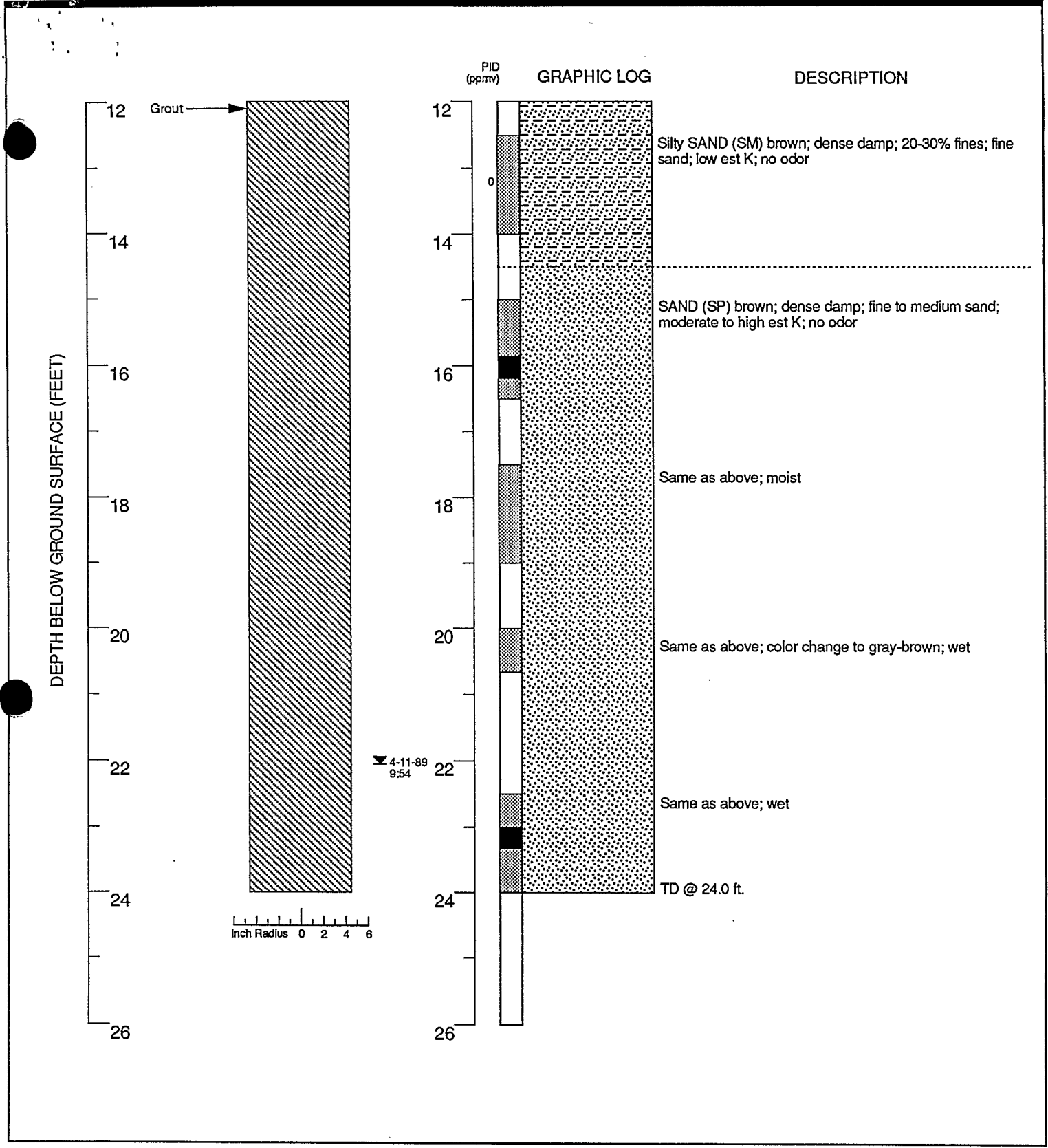
Logged by: Mike Edmonson	Drilling Company: Exploration Geoservices	Well Head Completion: None
Supervisor: Tom Howard	Drilling Method: 9" Hollow stem auger	Type of Samplers: 2" & 1.4" split barrel
Date Drilled: 4/11/89	Driller: Dave Yeager	TD (Total Depth): 24.0 ft.

EXPLANATION

	Water level during drilling		Contacts
	Water level in completed well		Dotted where approximate
	Location of recovered drill sample		Dashed where uncertain
	Location of sample sealed for chemical analysis		Hachured where gradational
NR	No recovery	est K	Estimated permeability (hydraulic conductivity)
	Grab sample		

Boring Log B-4
 WGR Project No.: 1-012.02
 [Redacted]
 Oakland, CA

BORING
 4



EXPLANATION

▼ Water level during drilling	— Contacts
▨ Water level in completed well	..... Dotted where approximate
▩ Location of recovered drill sample	- - - Dashed where uncertain
■ Location of sample sealed for chemical analysis	////// Hachured where gradational
NR No recovery	est K Estimated permeability (hydraulic conductivity)
▣ Grab sample	

Boring Log B-4 (cont.)
 WGR Project No.: 1-012.02

████████████████████
 Oakland, CA

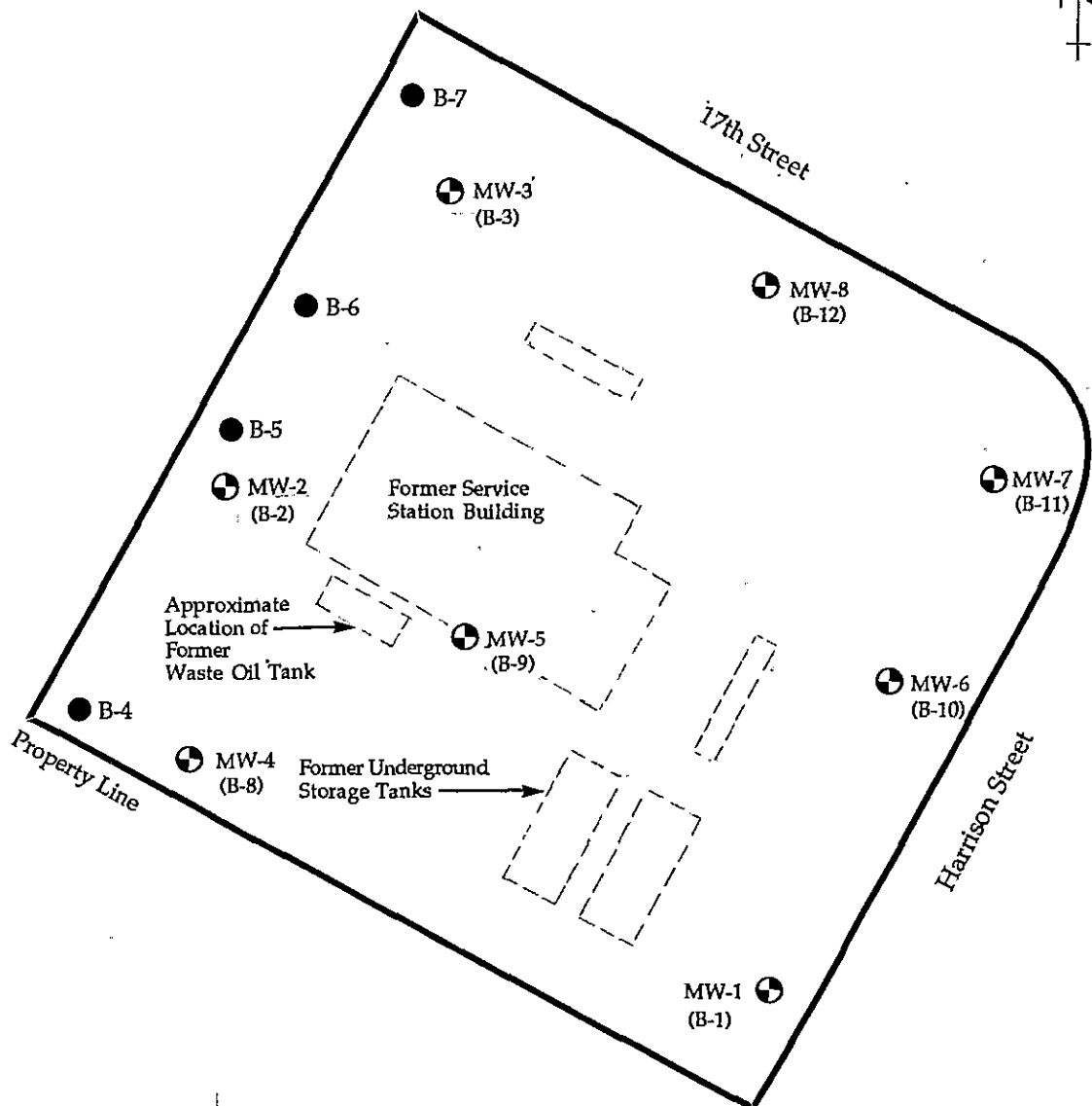
WESTERN GEOLOGIC RESOURCES, INC.

BORING

4

1S/4W 3SA6-10
1S/4W 3SA

4 Borings
Incl ✓
Add ✓



LEGEND

-  MW-1 (B-1) Monitoring Well Locations
-  B-5 Boring Locations

Site Map with Monitoring Well and Boring Locations
[Redacted] Oakland, California

June 1989

FIGURE

3

WESTERNGEOLOGICRESOURCES, INC.

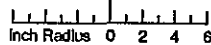
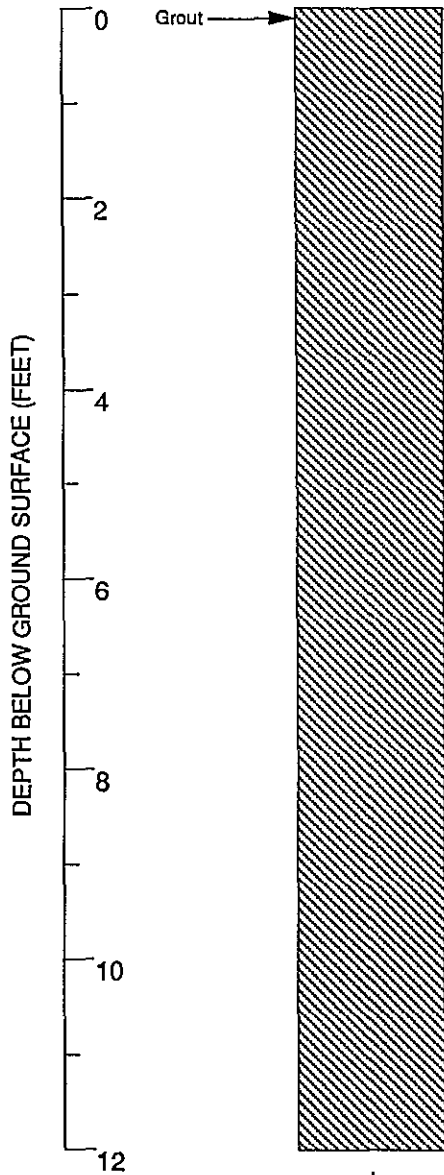
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89200

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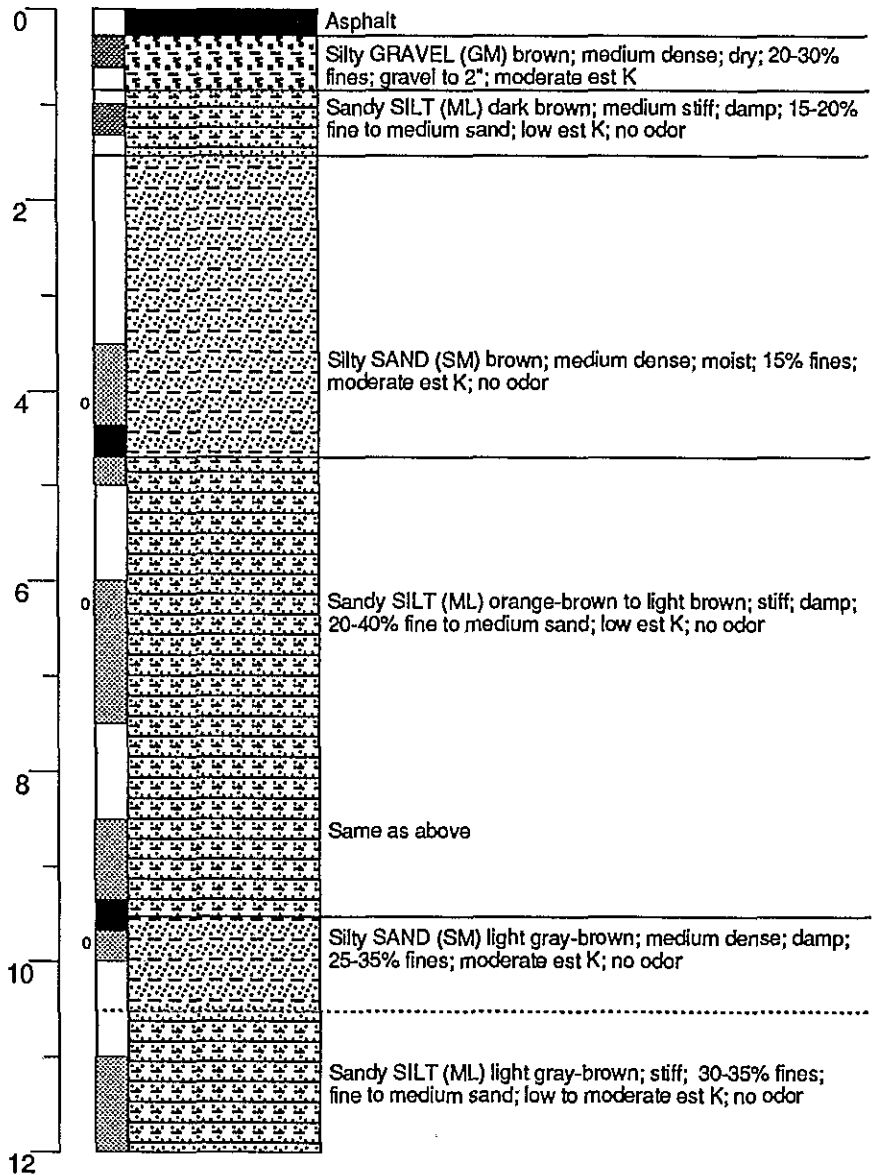
15/4W 35A

Inu Add



GRAPHIC LOG

DESCRIPTION



Continues

Logged by: Dave Reichard
 Supervisor: Tom Howard
 Dates Drilled: 4/11/89

Drilling Company: Exploration Geoservices
 Drilling Method: 9" Hollow stem auger
 Driller: Dave Yeager

Well Head Completion: None
 Type of Samplers: 2" & 1.4" split barrel
 TD (Total Depth): 22.7 ft

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- NR No recovery
- Grab sample
- Contacts
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K Estimated permeability (hydraulic conductivity)

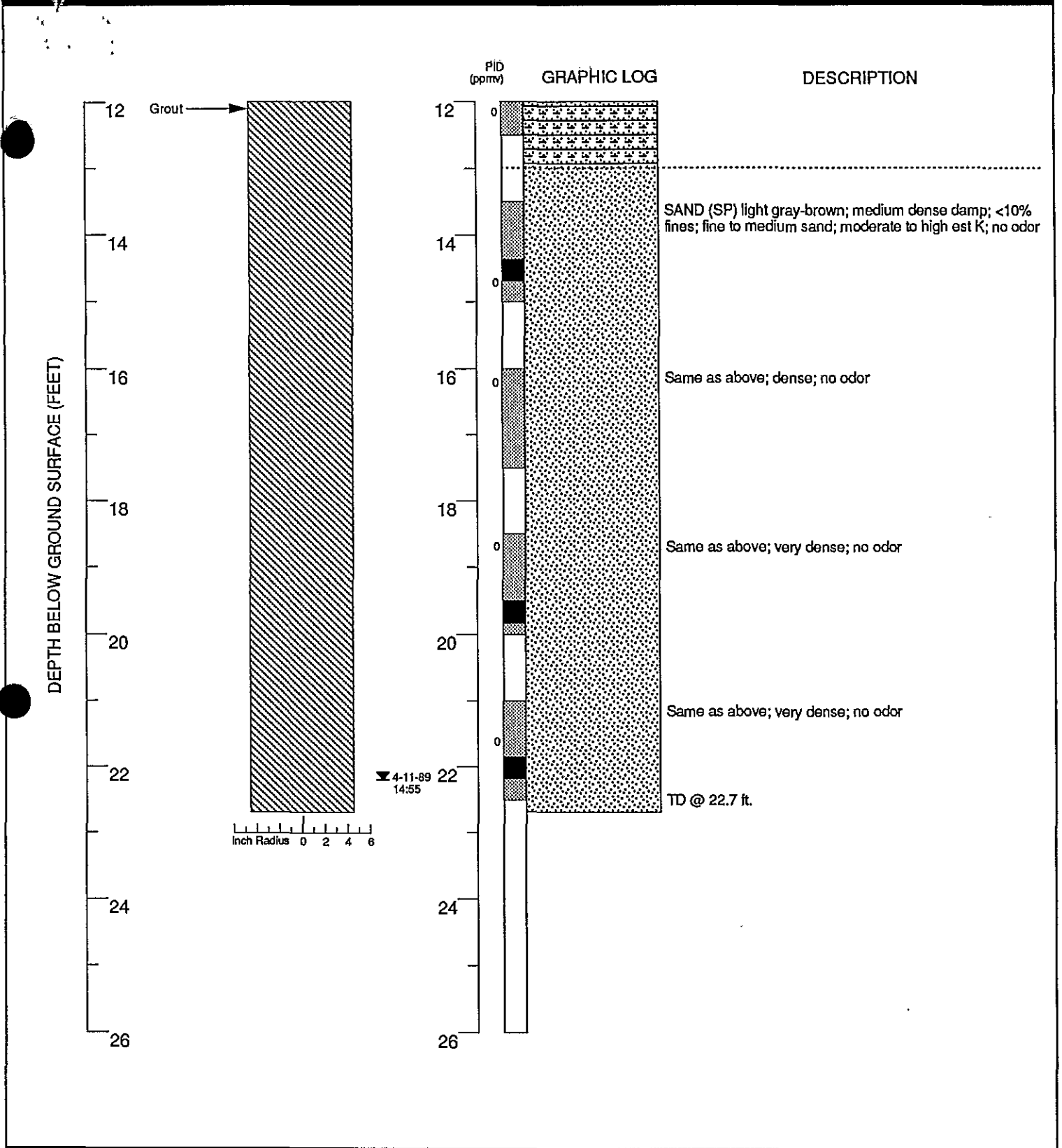
Boring Log B-6
 WGR Project No.: 1-012.02

Oakland, CA

WESTERN GEOLOGIC RESOURCES, INC.

BORING

6



EXPLANATION

	Water level during drilling		Contacts
	Water level in completed well		Dotted where approximate
	Location of recovered drill sample		Dashed where uncertain
	Location of sample sealed for chemical analysis		Hachured where gradational
	NR No recovery		est K Estimated permeability (hydraulic conductivity)
	Grab sample		

Boring Log B-6 (cont.)
 WGR Project No.: 1-012.02

Oakland, CA

WESTERN GEOLOGIC RESOURCES, INC.

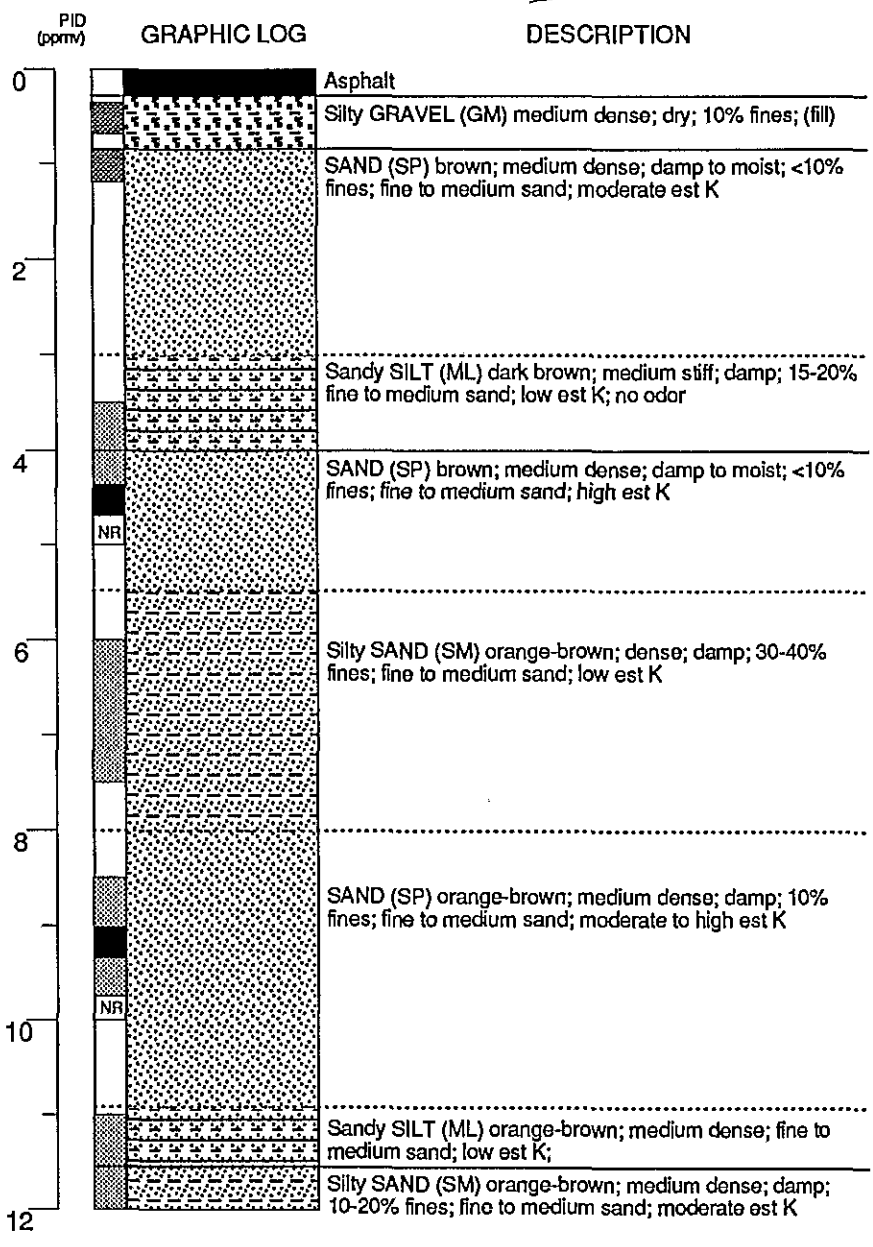
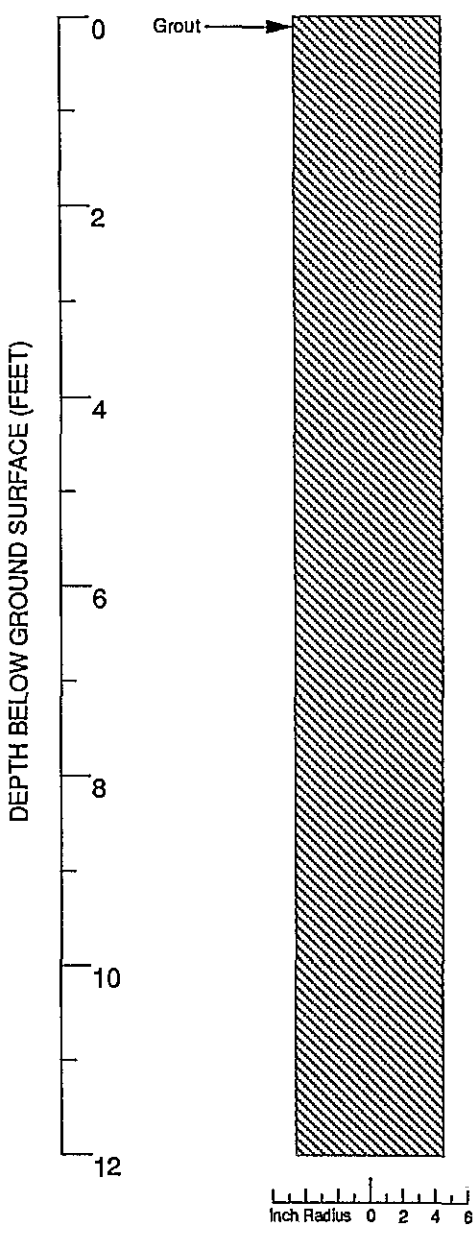
BORING

6

01-427D

1514W 3SA

Inuv Add



Continues

Logged by: Dave Reichard	Drilling Company: Exploration Geoservices	Well Head Completion: None
Supervisor: Tom Howard	Drilling Method: 9" Hollow stem auger	Type of Sampler: 2" split barrel
Dates Drilled: 4/12/89	Driller: Dave Yeager	TD (Total Depth): 22.7 ft.

- EXPLANATION**
- Water level during drilling
 - Water level in completed well
 - Location of recovered drill sample
 - Location of sample sealed for chemical analysis
 - NR No recovery
 - Grab sample
 - Contacts
 - Dotted where approximate
 - Dashed where uncertain
 - Hachured where gradational
 - est K Estimated permeability (hydraulic conductivity)

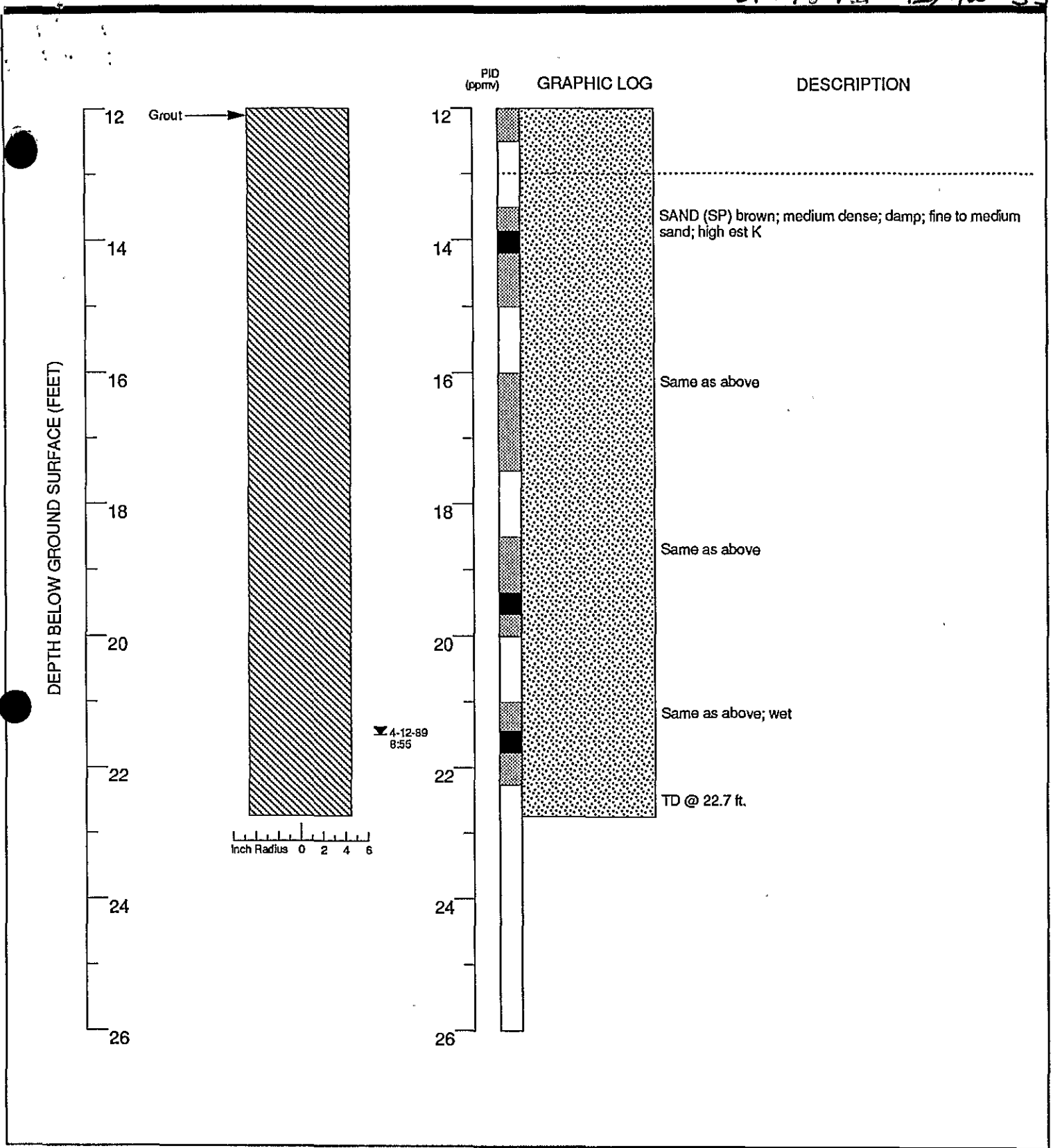
Boring Log B-7
WGR Project No.: 1-012.02

Oakland, CA

WESTERN GEOLOGIC RESOURCES, INC.

BORING

7



EXPLANATION

	Water level during drilling		Contacts
	Water level in completed well		Dotted where approximate
	Location of recovered drill sample		Dashed where uncertain
	Location of sample sealed for chemical analysis		Hachured where gradational
NR	No recovery	est K	Estimated permeability (hydraulic conductivity)
	Grab sample		

Boring Log B-7 (cont.)
 WGR Project No.: 1-012.02

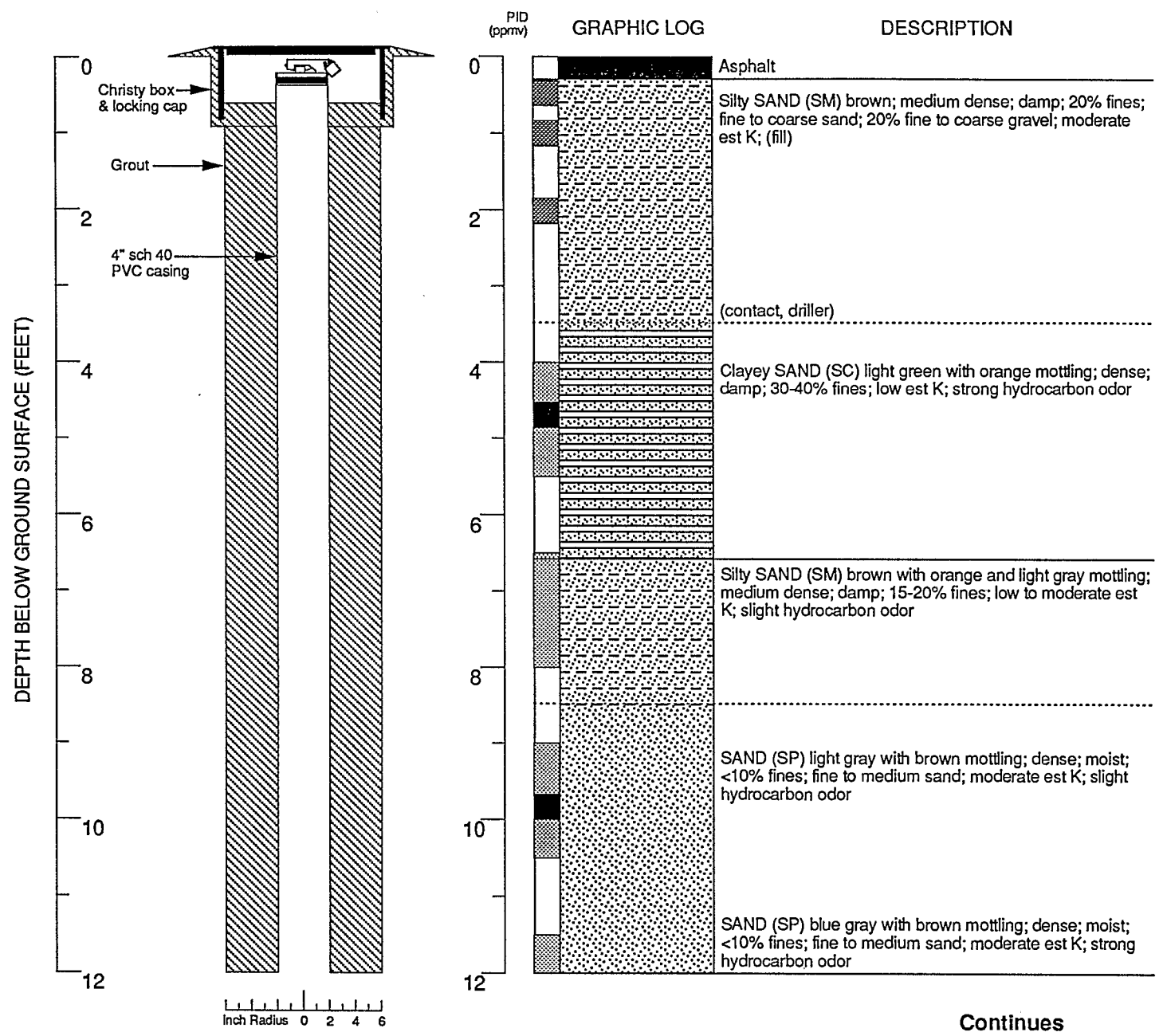
████████████████████
 Oakland, CA

WESTERN GEOLOGIC RESOURCES, INC.

BORING

7

1514W 3SAG
Inv ✓ Add ✓



Continues

Logged by: Dave Reichard	Drilling Company: Exploration Geoservices	Well Head Completion: Christy box & locking cap
Supervisor: Tom Howard	Drilling Method: 12" Hollow stem auger	Type of Samplers: 2" & 1.4" split barrel
Dates Drilled: 4/12/89	Driller: Dave Yeager	TD (Total Depth): 36.5 ft.

EXPLANATION

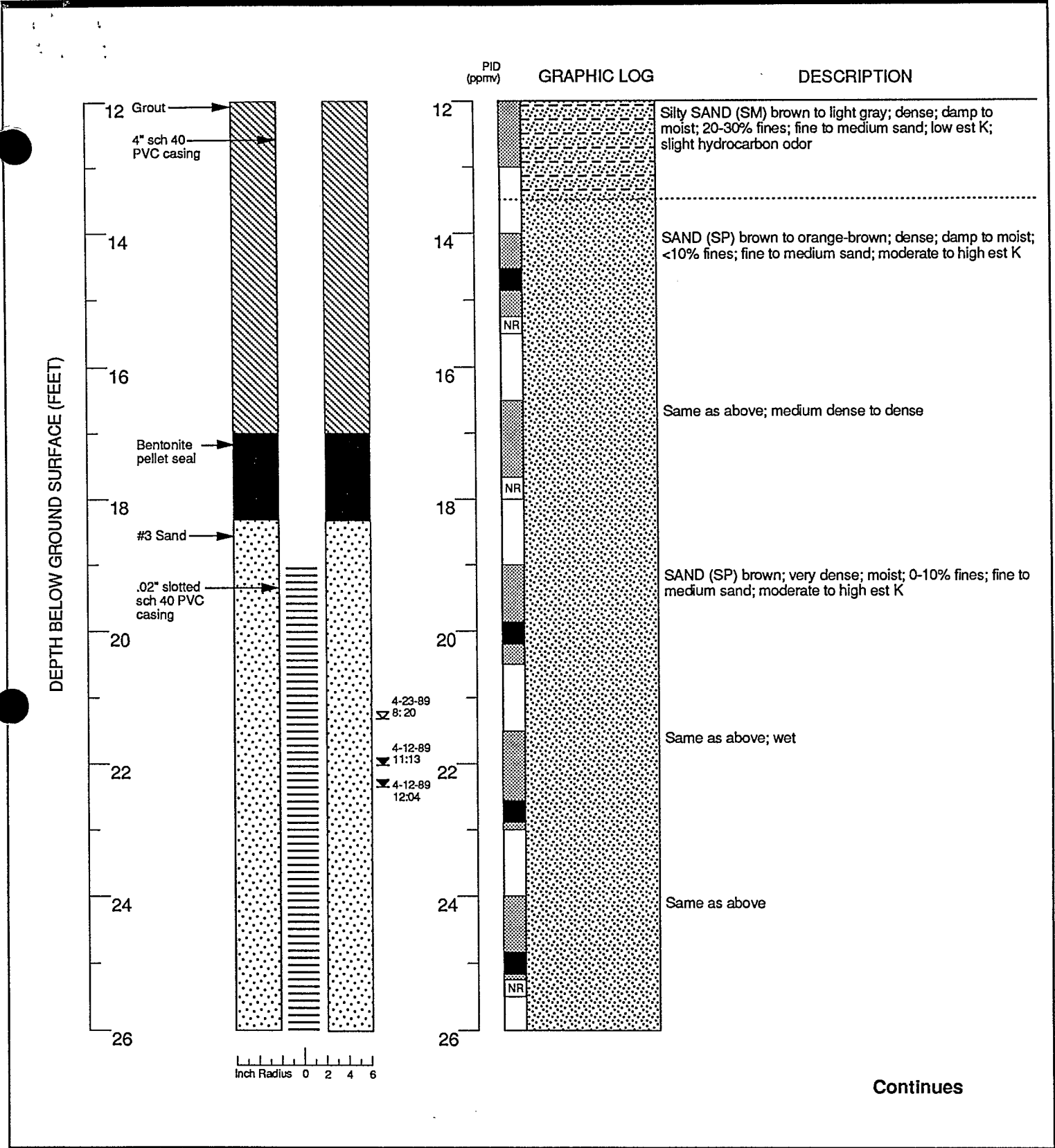
Water level during drilling	Contacts
Water level in completed well	Dotted where approximate
Location of recovered drill sample	Dashed where uncertain
Location of sample sealed for chemical analysis	Hachured where gradational
NR No recovery	est K Estimated permeability (hydraulic conductivity)
Grab sample	

Boring Log and Well Completion Details
 MW-4 (Boring B-8)
 WGR Project No.: 1-012.02

Oakland, CA

MONITOR WELL

4



EXPLANATION

Water level during drilling	Contacts
Water level in completed well	Dotted where approximate
Location of recovered drill sample	Dashed where uncertain
Location of sample sealed for chemical analysis	Hachured where gradational
NR No recovery	est K Estimated permeability (hydraulic conductivity)
Grab sample	

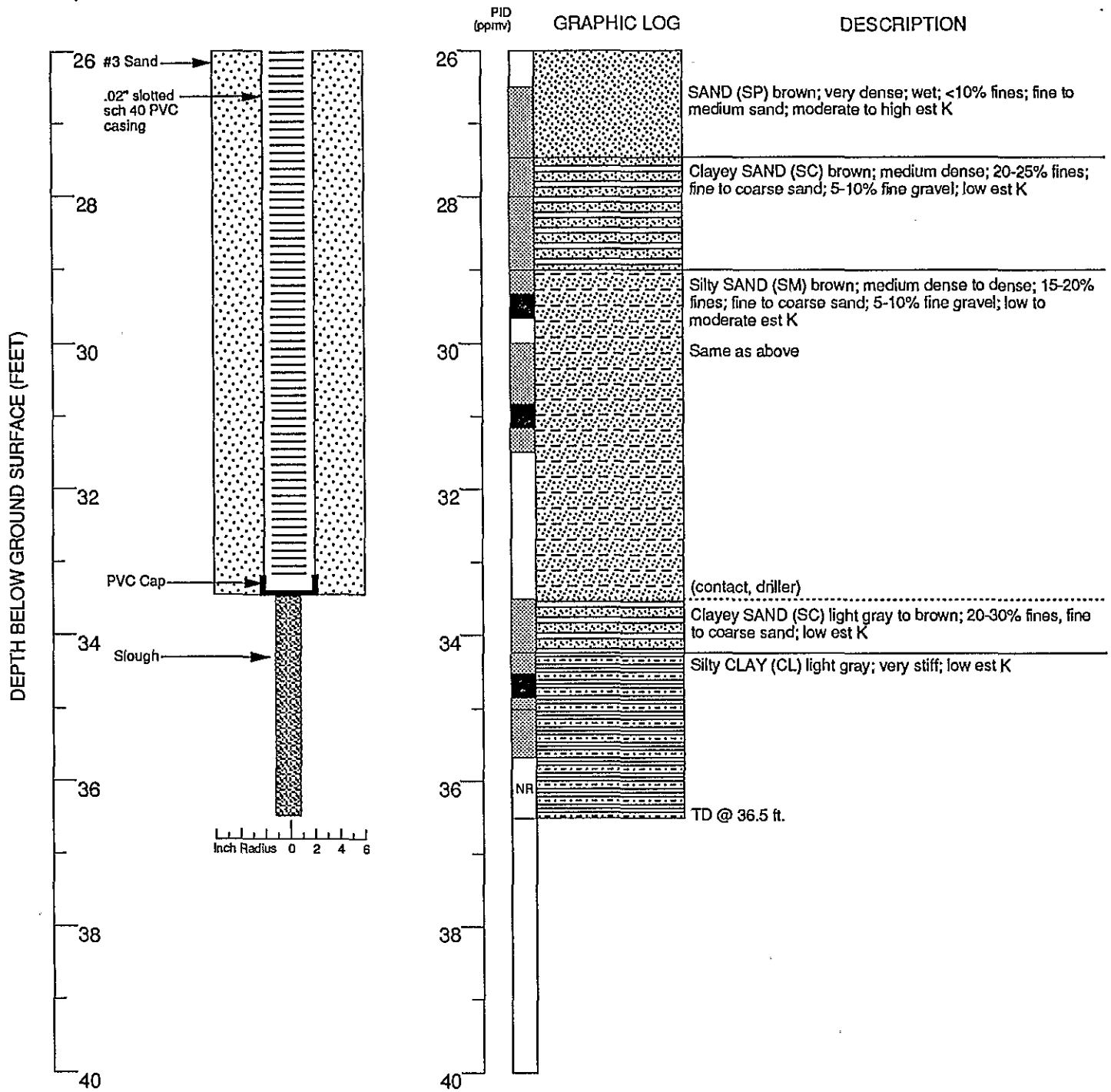
Boring Log and Well Completion Details
 MW-4 (Boring B-8) (cont.)
 WGR Project No.: 1-012.02

Oakland, CA

WESTERN GEOLOGIC RESOURCES, INC.

MONITOR WELL

4



EXPLANATION

- ☒ Water level during drilling
- ☒ Water level in completed well
- ▣ Location of recovered drill sample
- ▣ Location of sample sealed for chemical analysis
- NR No recovery
- ▣ Grab sample
- Contacts
- Dotted where approximate
- - - Dashed where uncertain
- ////// Hatched where gradational
- est K Estimated permeability (hydraulic conductivity)

Boring Log and Well Completion Details
MW-4 (Boring B-8) (cont.)
WGR Project No.: 1-012.02

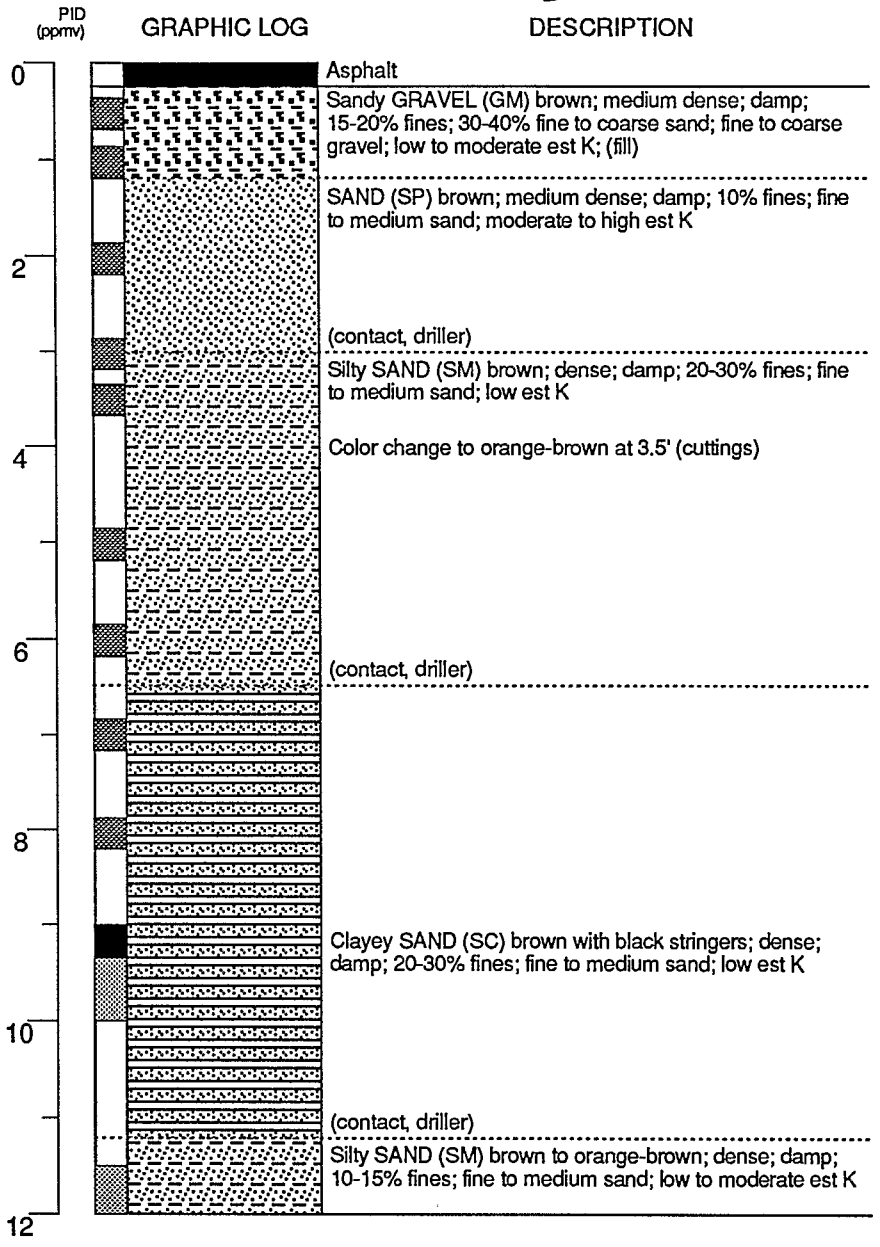
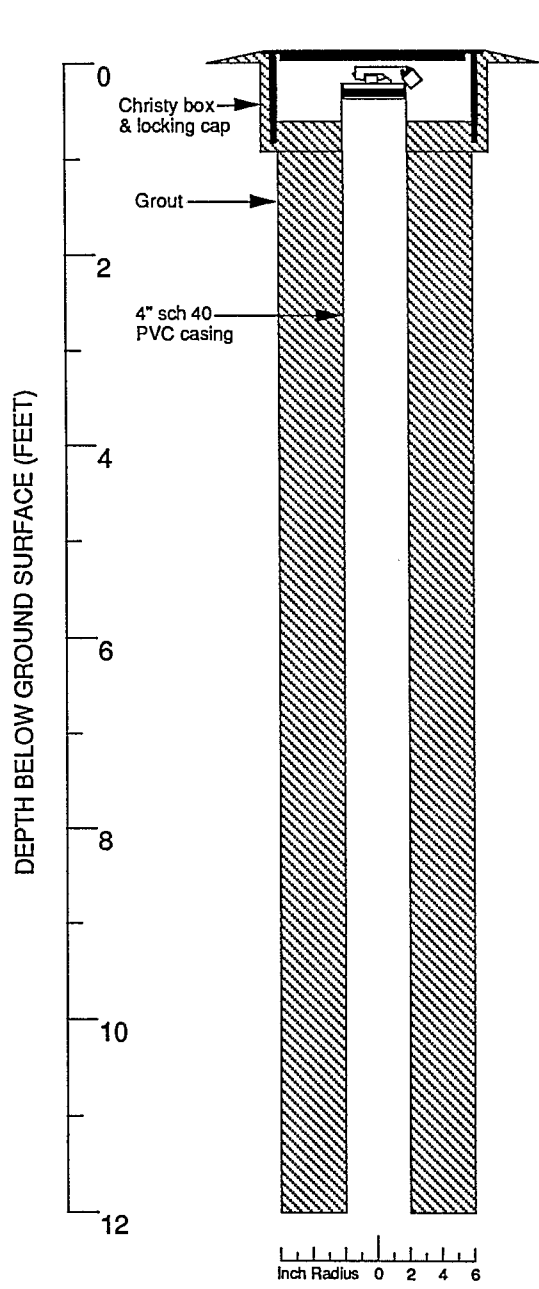
Oakland, CA

MONITOR WELL

4

15/4W 35A 7

Inu Addv



Continues

Logged by: Richard Baldwin	Drilling Company: Exploration Geoservices	Well Head Completion: Christy box & locking cap
Supervisor: Tom Howard	Drilling Method: 12" Hollow stem auger	Type of Samplers: 2" & 1.4" split barrel
Dates Drilled: 4/14/89	Driller: Dave Yeager/Troy Foster	TD (Total Depth): 34.0 ft.

EXPLANATION

- ☒ Water level during drilling
- ☒ Water level in completed well
- ▣ Location of recovered drill sample
- ▣ Location of sample sealed for chemical analysis
- NR No recovery
- ▣ Grab sample
- Contacts
- Dotted where approximate
- - - Dashed where uncertain
- ////// Hachured where gradational
- est K Estimated permeability (hydraulic conductivity)

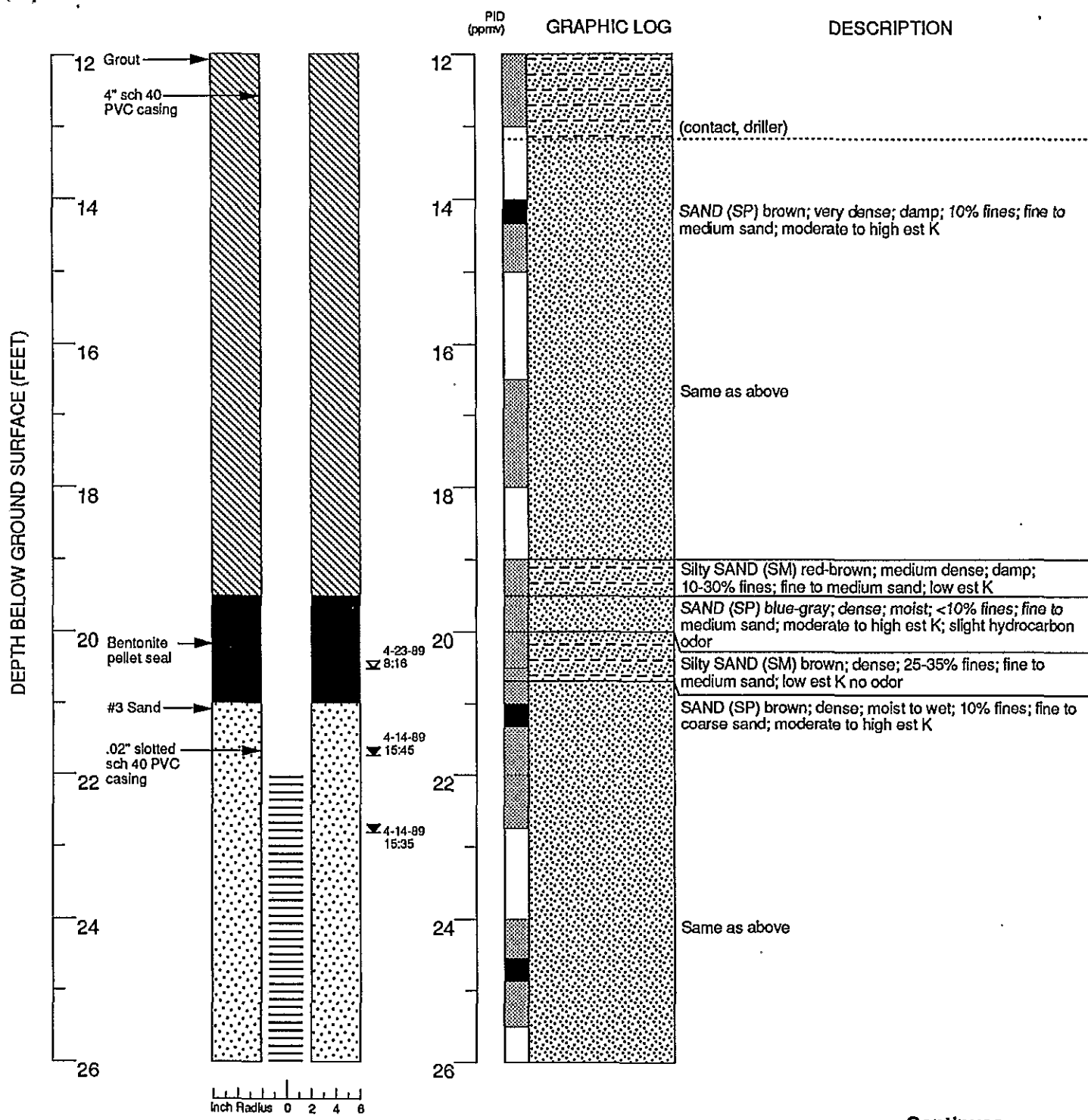
Boring Log and Well Completion Details
 MW-5 (Boring B-9)
 WGR Project No.: 1-012.02

Oakland, CA

WESTERN GEOLOGIC RESOURCES, INC.

MONITOR WELL

5



Continues

EXPLANATION

▼ Water level during drilling	— Contacts
⚡ Water level in completed well	..... Dotted where approximate
▣ Location of recovered drill sample	- - - Dashed where uncertain
■ Location of sample sealed for chemical analysis	////// Hachured where gradational
NR No recovery	est K Estimated permeability (hydraulic conductivity)
▣ Grab sample	

Boring Log and Well Completion Details
 MW-5 (Boring B-9) (cont.)
 WGR Project No.: 1-012.02

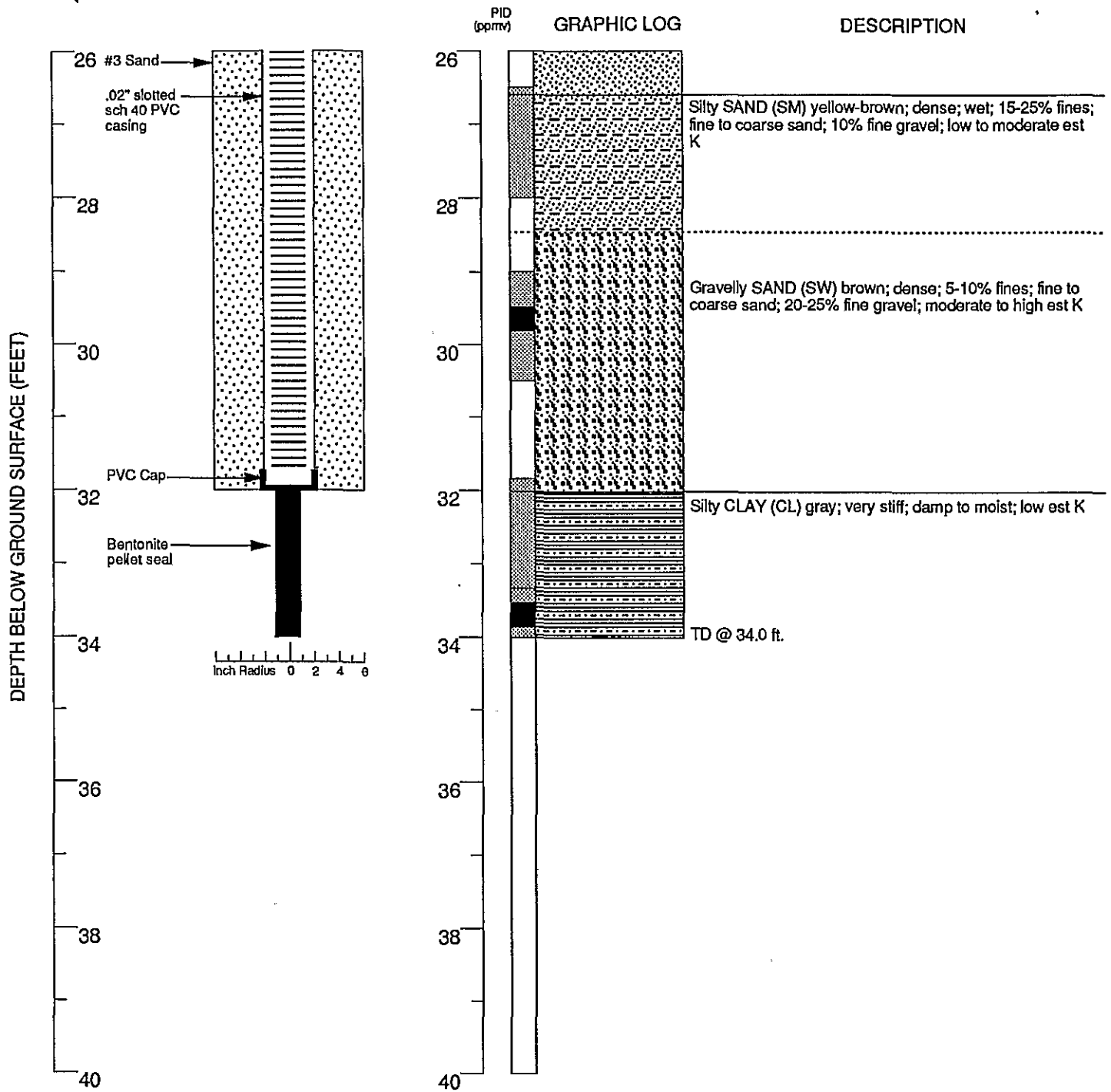
██████████

Oakland, CA

WESTERN GEOLOGIC RESOURCES, INC.

MONITOR WELL

5



EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- NR No recovery
- Grab sample
- Contacts
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K Estimated permeability (hydraulic conductivity)

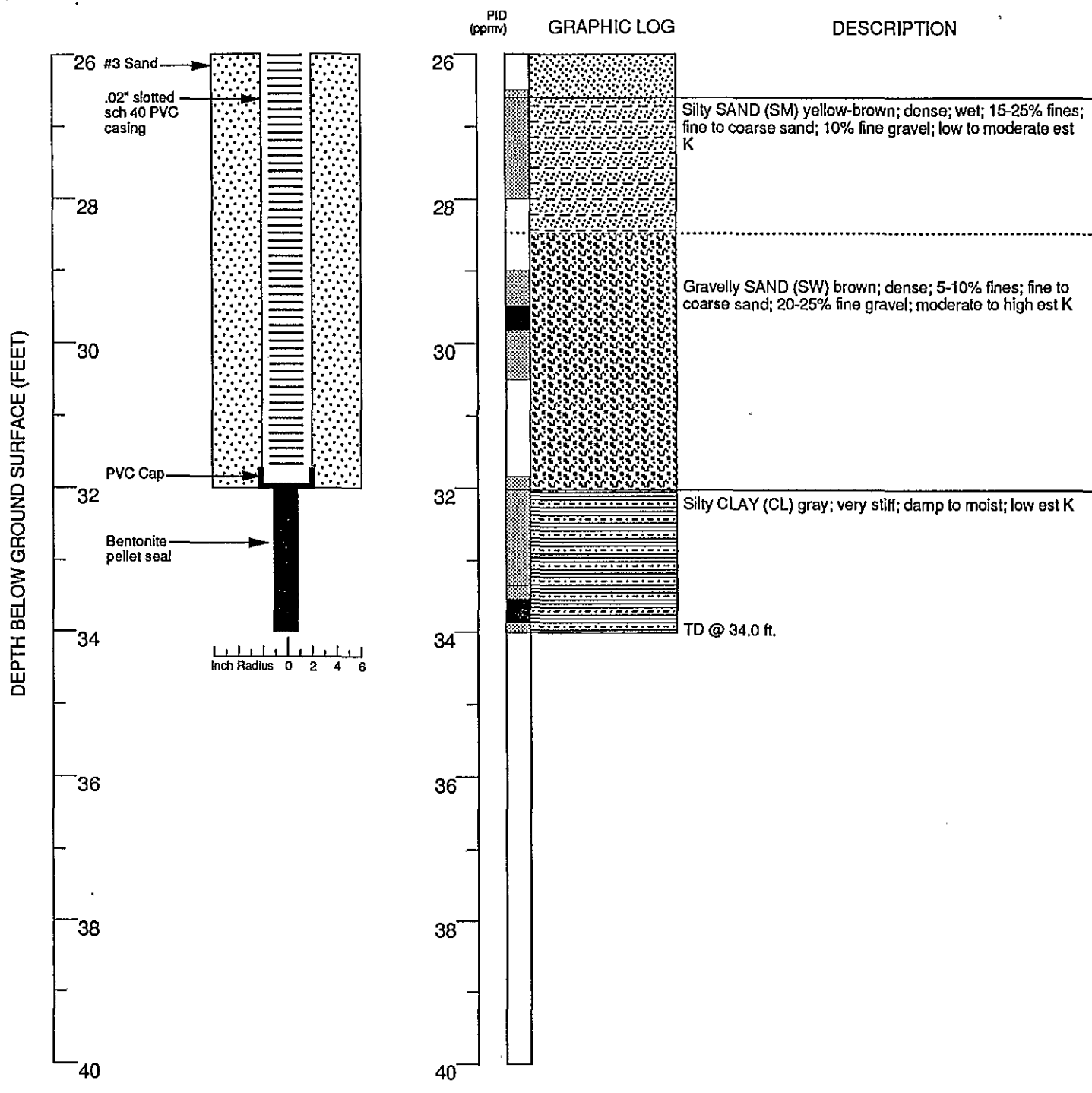
Boring Log and Well Completion Details
 MW-5 (Boring B-9) (cont.)
 WGR Project No.: 1-012.02

Oakland, CA

WESTERN GEOLOGIC RESOURCES, INC.

MONITOR WELL

5



EXPLANATION

	Water level during drilling		Contacts
	Water level in completed well		Dotted where approximate
	Location of recovered drill sample		Dashed where uncertain
	Location of sample sealed for chemical analysis		Hachured where gradational
	NR No recovery		est K Estimated permeability (hydraulic conductivity)
	Grab sample		

Boring Log and Well Completion Details
 MW-5 (Boring B-9) (cont.)
 WGR Project No.: 1-012.02

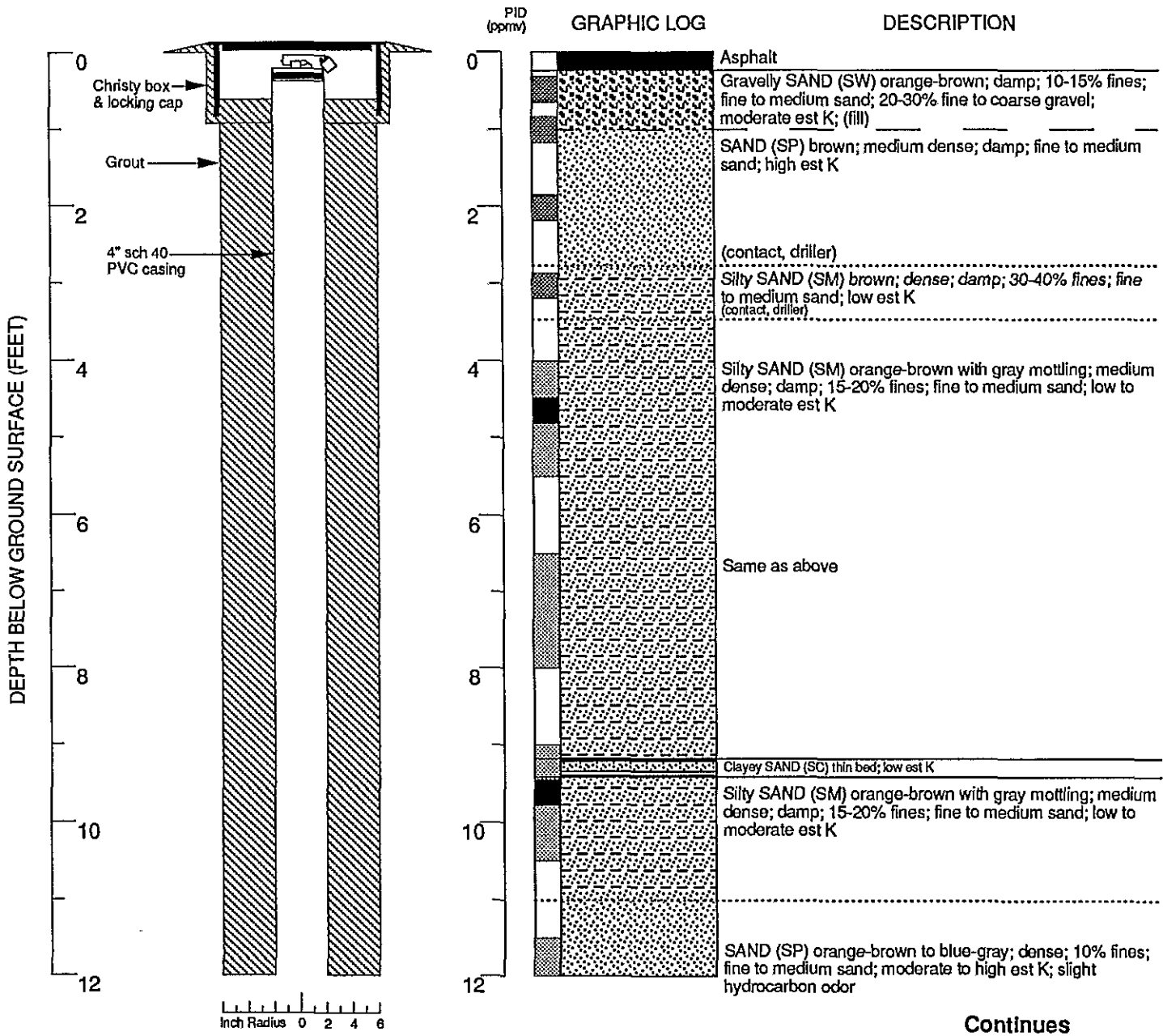
Oakland, CA

WESTERN GEOLOGIC RESOURCES, INC.

MONITOR WELL

5

15/4W35A8
Inw ✓ Add ✓



Continues

Logged by: Richard Baldwin	Drilling Company: Exploration Geoservices	Well Head Completion: Christy box & locking cap
Supervisor: Tom Howard	Drilling Method: 12" Hollow stem auger	Type of Samplers: 2" & 1.4" split barrel
Dates Drilled: 4/13/89	Driller: Dave Yeager/Troy Foster	TD (Total Depth): 29.5 ft.

EXPLANATION

	Water level during drilling		Contacts
	Water level in completed well		Dotted where approximate
	Location of recovered drill sample		Dashed where uncertain
	Location of sample sealed for chemical analysis		Hachured where gradational
	NR No recovery	est K	Estimated permeability (hydraulic conductivity)
	Grab sample		

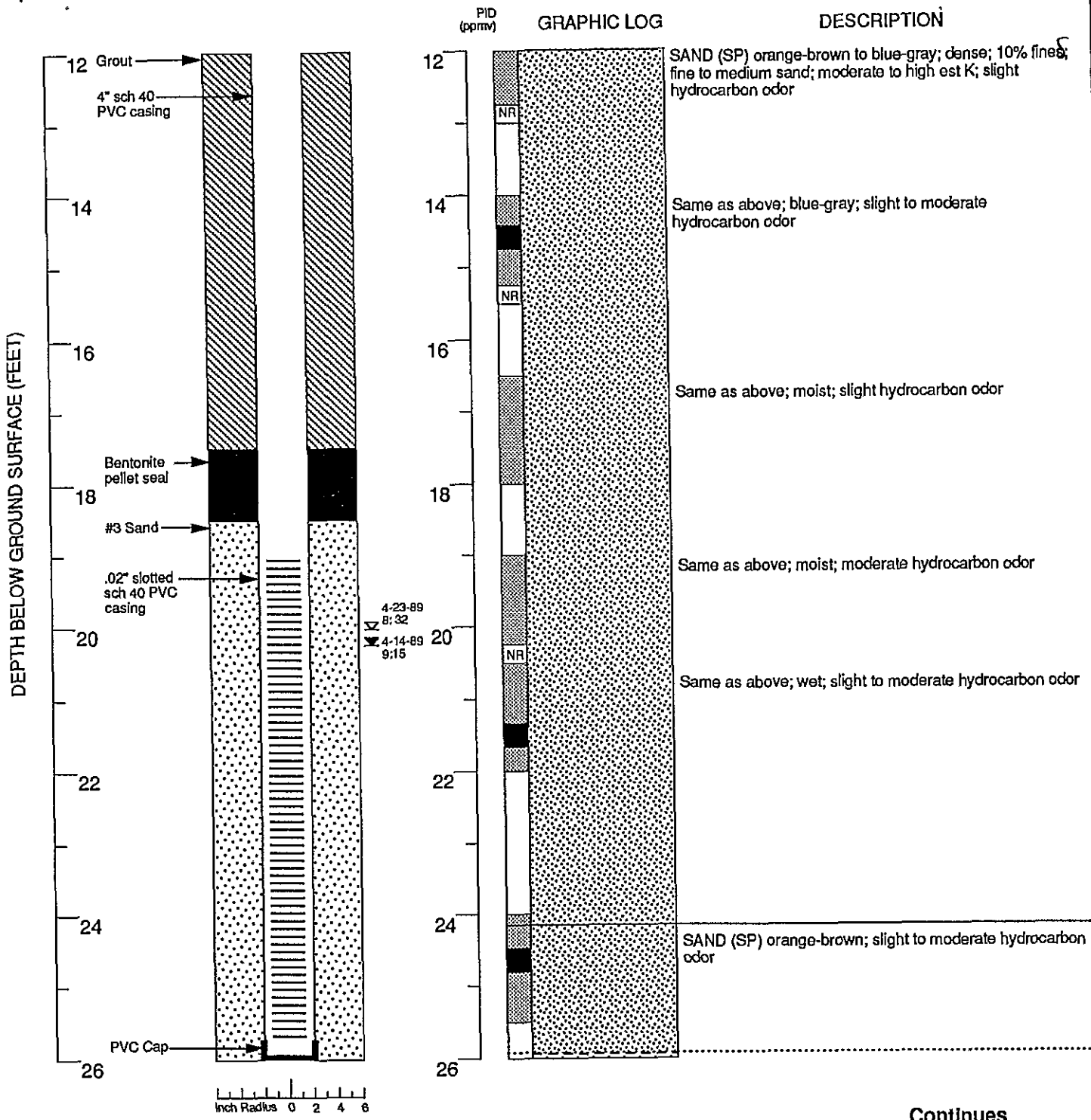
Boring Log and Well Completion Details
 MW-6 (Boring B-10)
 WGR Project No.: 1-012.02

████████████████████
 Oakland, CA

WESTERN GEOLOGIC RESOURCES, INC.

MONITOR WELL

6



EXPLANATION

Water level during drilling	Contacts
Water level in completed well	Dotted where approximate
Location of recovered drill sample	Dashed where uncertain
Location of sample sealed for chemical analysis	Hachured where gradational
NR No recovery	est K Estimated permeability (hydraulic conductivity)
Grab sample	

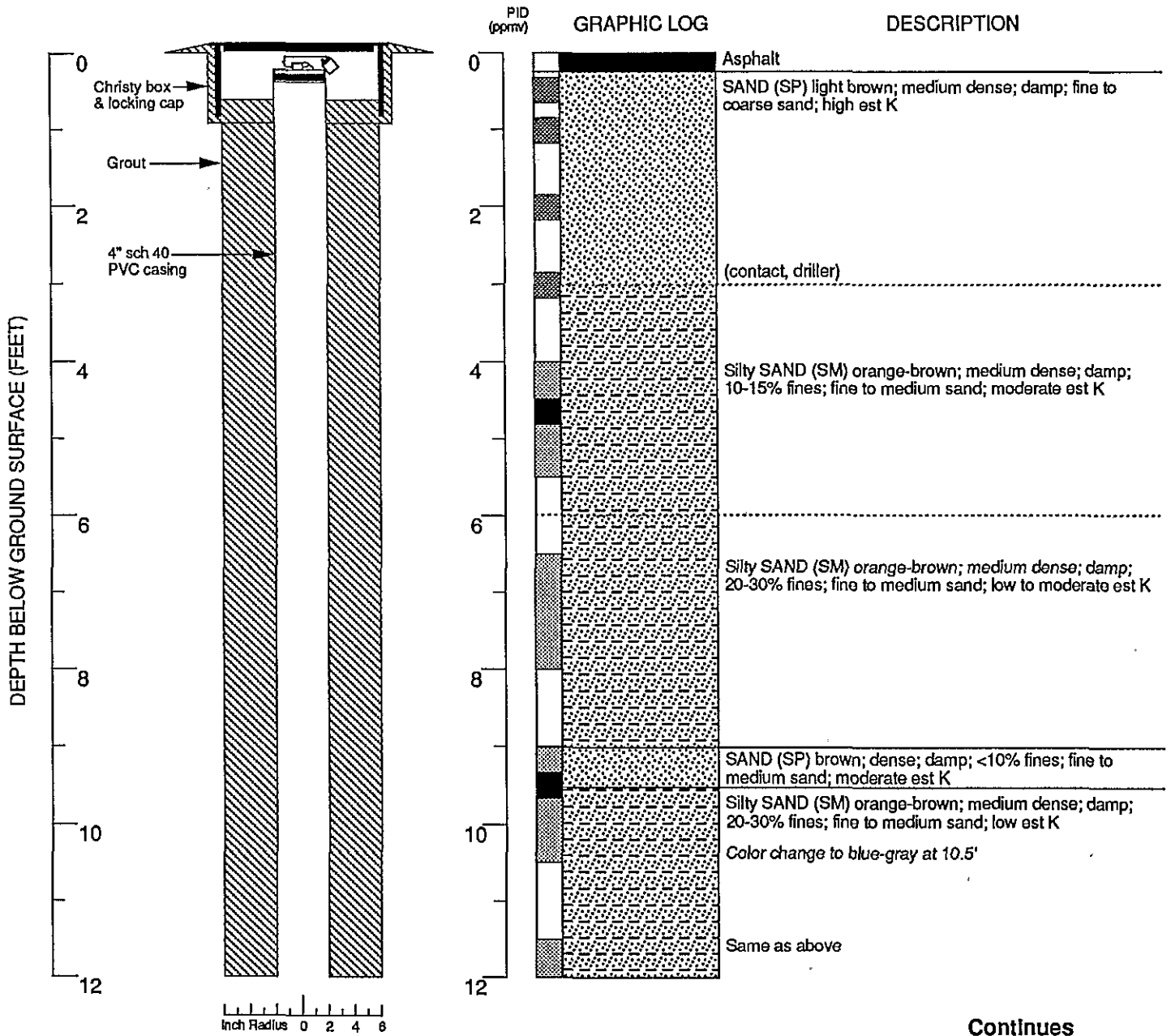
Boring Log and Well Completion Details
 MW-6 (Boring B-10) (cont.)
 WGR Project No.: 1-012.02

Oakland, CA

WESTERN GEOLOGIC RESOURCES, INC.

MONITOR WELL

6



Logged by: Richard Baldwin	Drilling Company: Exploration Geoservices	Well Head Completion: Christy box & locking cap
Supervisor: Tom Howard	Drilling Method: 12" Hollow stem auger	Type of Samplers: 2" & 1.4" split barrel
Dates Drilled: 4/13/89	Driller: Dave Yeager/Troy Foster	TD (Total Depth): 31.0 ft.

EXPLANATION

- ☒ Water level during drilling
- ☒ Water level in completed well
- ☒ Location of recovered drill sample
- ☒ Location of sample sealed for chemical analysis
- NR No recovery
- ☒ Grab sample
- Contacts
- Dotted where approximate
- - - Dashed where uncertain
- ////// Hachured where gradational
- est K Estimated permeability (hydraulic conductivity)

Boring Log and Well Completion Details
 MW-7 (Boring B-11)
 WGR Project No.: 1-012.02

[Redacted]
 Oakland, CA

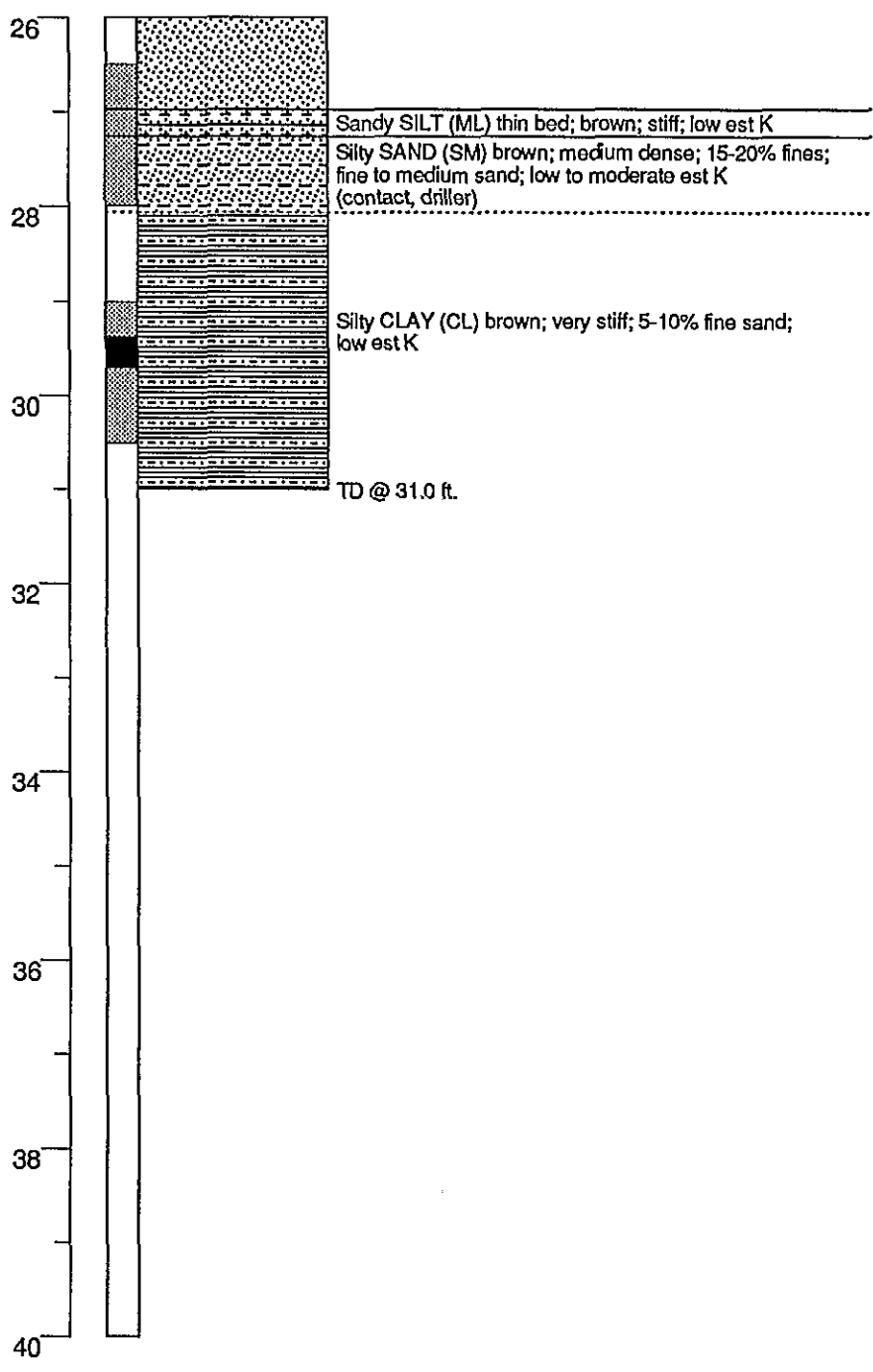
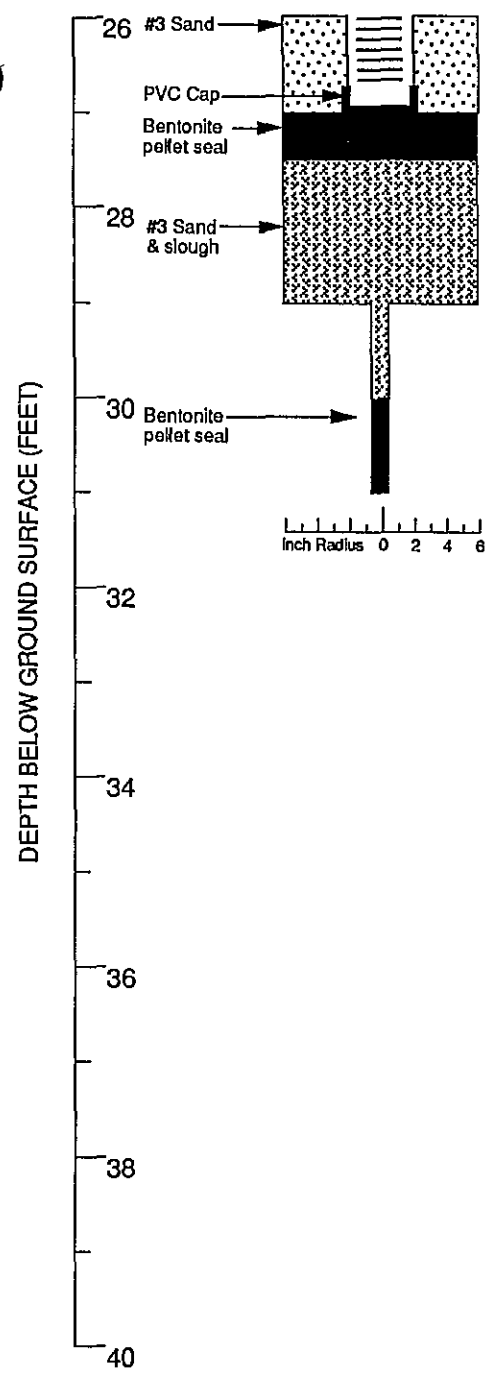
MONITOR WELL

7

PID
(ppmv)

GRAPHIC LOG

DESCRIPTION



EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- NR No recovery
- Grab sample
- Contacts
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K Estimated permeability (hydraulic conductivity)

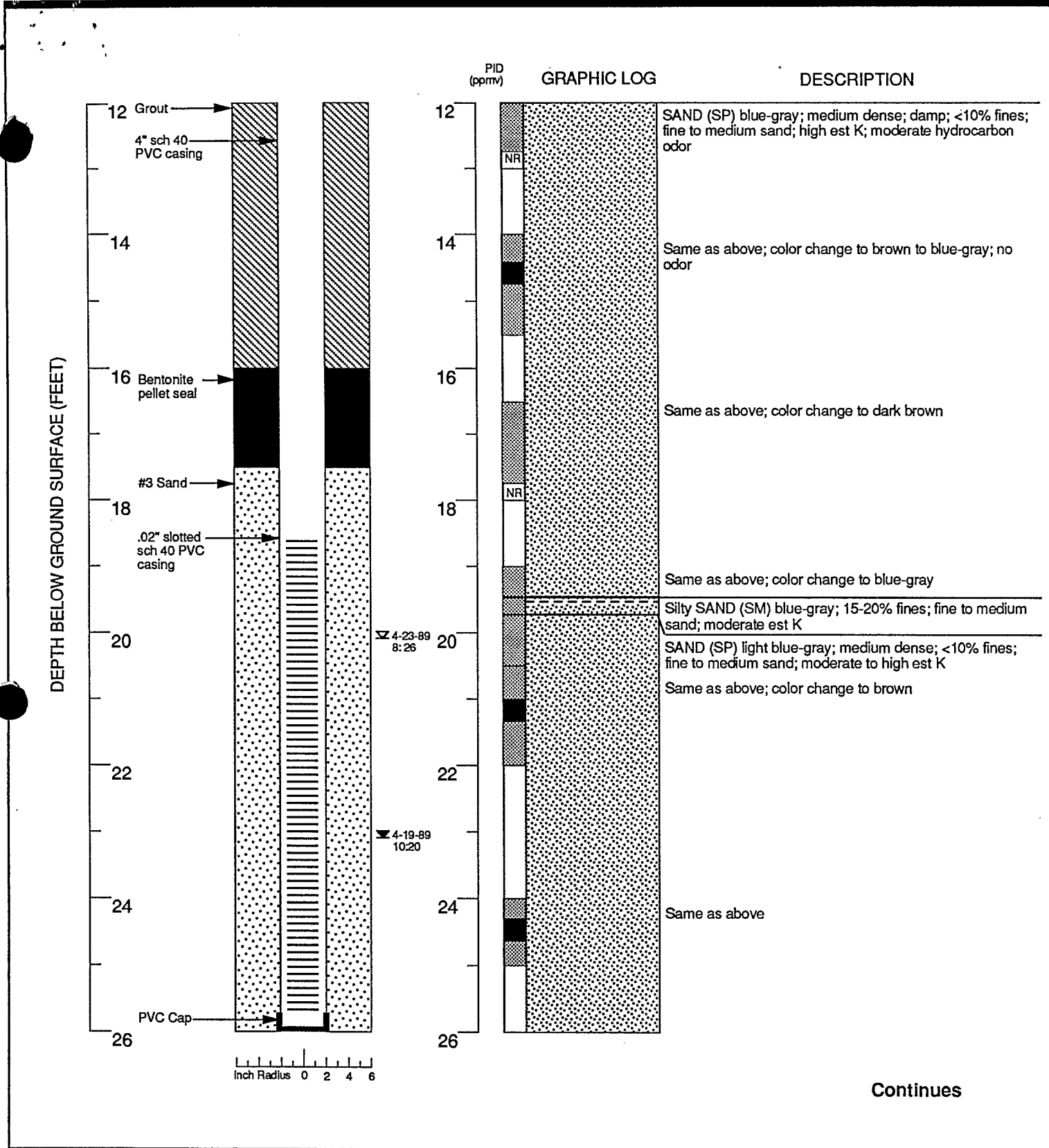
Boring Log and Well Completion Details
 MW-7 (Boring B-11) (cont.)
 WGR Project No.: 1-012.02

Oakland, CA

WESTERN GEOLOGIC RESOURCES, INC.

MONITOR WELL

7



Continues

EXPLANATION

	Water level during drilling		Contacts
	Water level in completed well		Dotted where approximate
	Location of recovered drill sample		Dashed where uncertain
	Location of sample sealed for chemical analysis		Hachured where gradational
	NR No recovery		est K Estimated permeability (hydraulic conductivity)
	Grab sample		

Boring Log and Well Completion Details
 MW-8 (Boring B-12) (cont.)
 WGR Project No.: 1-012.02

Oakland, CA

WESTERN GEOLOGIC RESOURCES, INC.

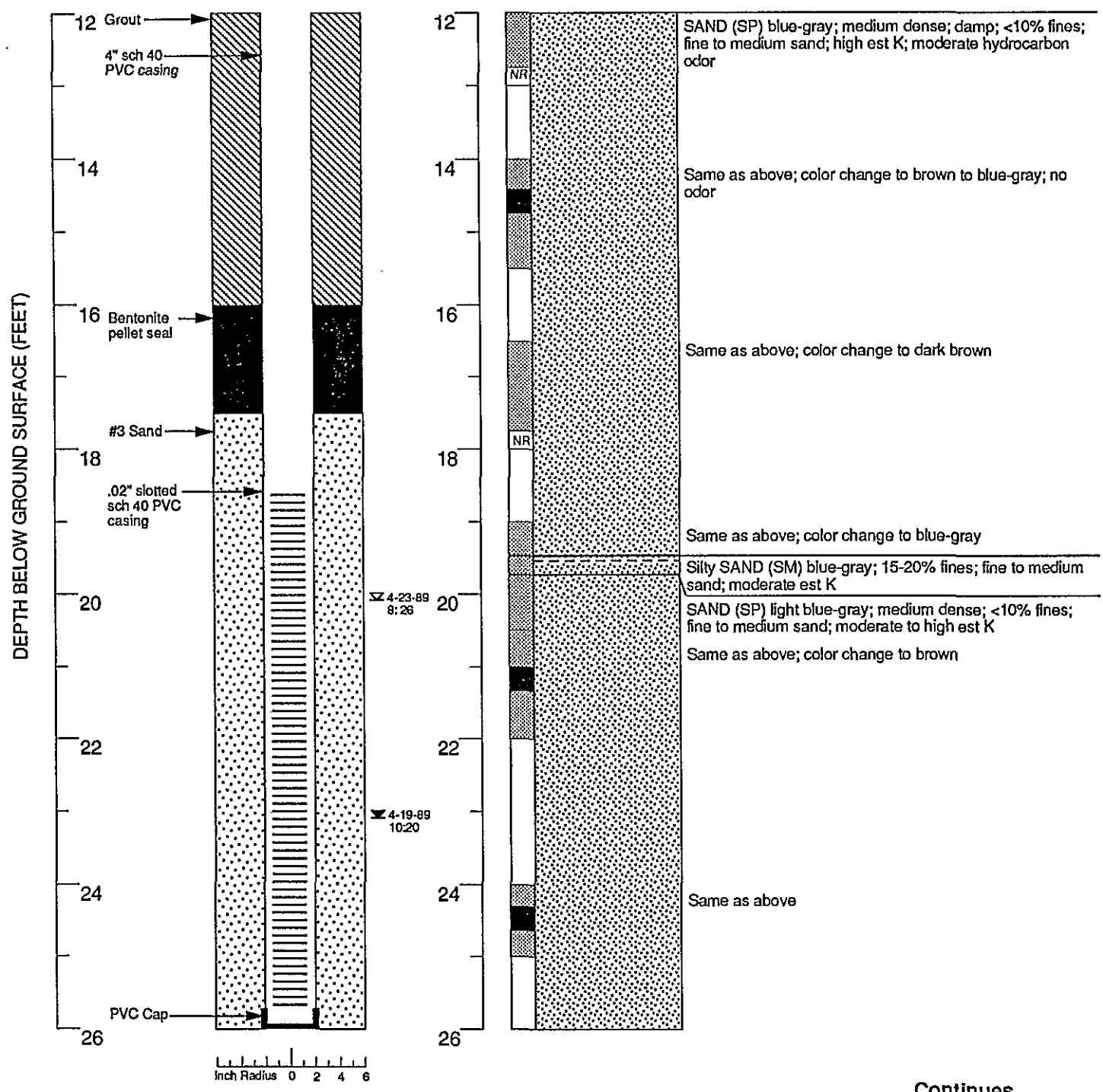
MONITOR WELL

8

Westerly Borehole

PID (ppmv) GRAPHIC LOG

DESCRIPTION



Continues

EXPLANATION

Water level during drilling	Contacts
Water level in completed well	Dotted where approximate
Location of recovered drill sample	Dashed where uncertain
Location of sample sealed for chemical analysis	Hachured where gradational
NR No recovery	est K Estimated permeability (hydraulic conductivity)
Grab sample	

Boring Log and Well Completion Details
 MW-8 (Boring B-12) (cont.)
 WGR Project No.: 1-012.02

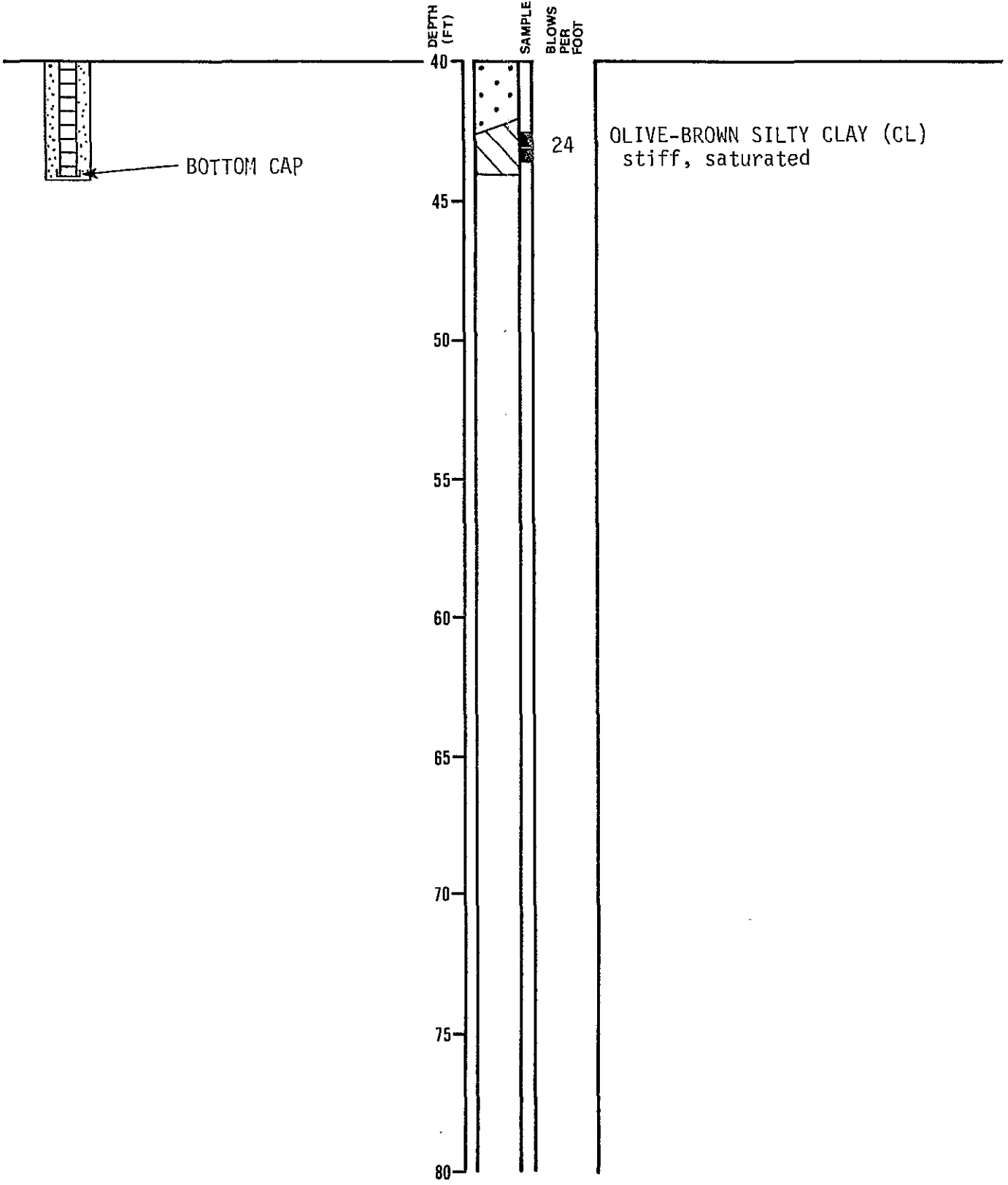
Oakland, CA

WESTERN GEOLOGIC RESOURCES, INC.

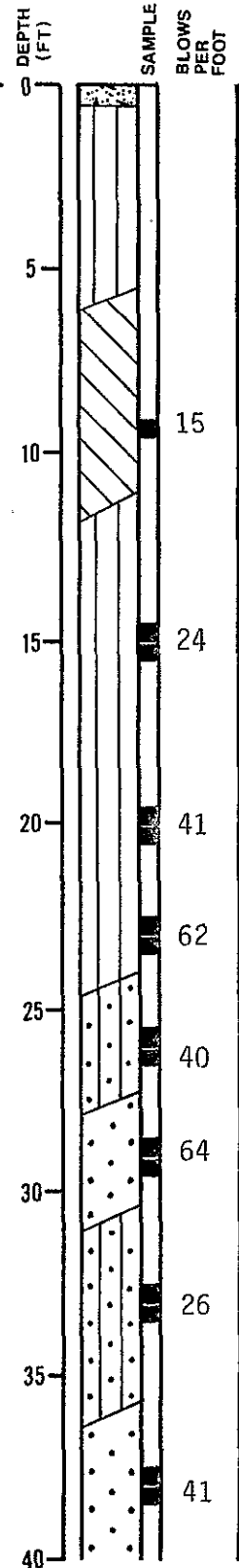
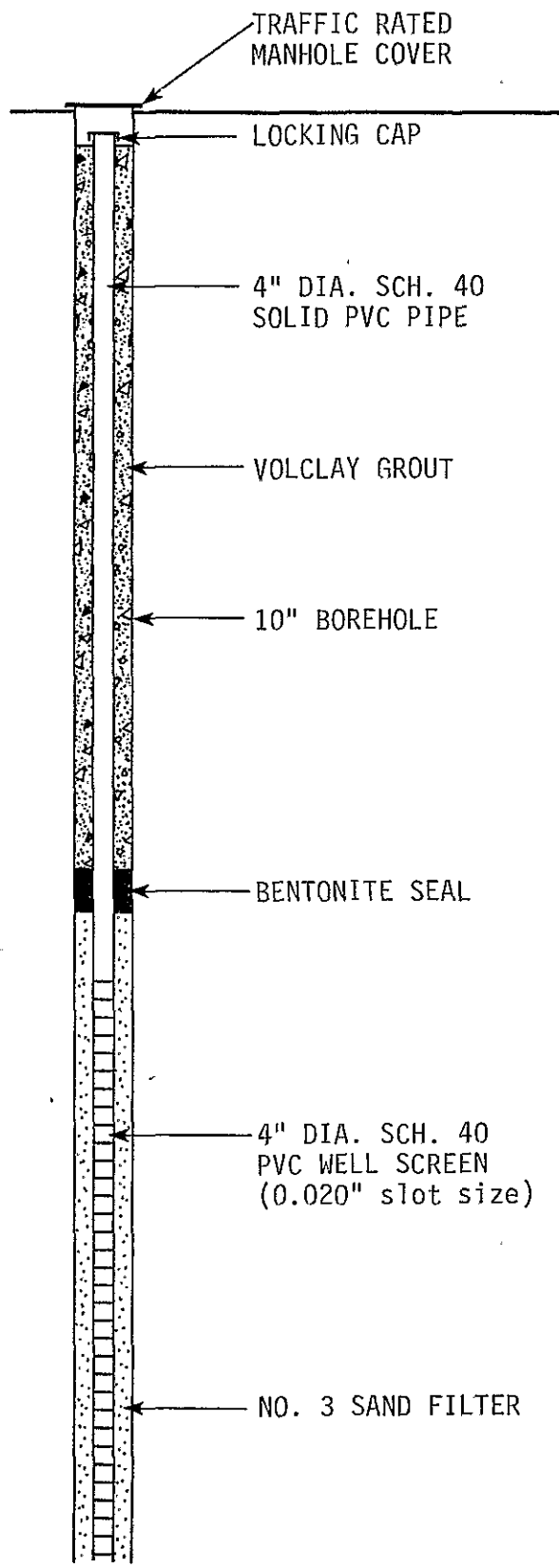
MONITOR WELL

8

LOG OF TEST BORING 28



Subsurface Consultants	1330 MARTIN LUTHER KING, JR. WAY - OAK.		PLATE
	JOB NUMBER 430.002	DATE 9/6/88	APPROVED 2



EQUIPMENT 10" Hollow Stem Auger
 DATE DRILLED 8/17/88
 ELEVATION --

CONCRETE - 6" thick
 DARK BROWN SILTY SAND (SM)
 medium dense, moist

LIGHT BROWN CLAYEY SAND (SC)
 medium dense, moist

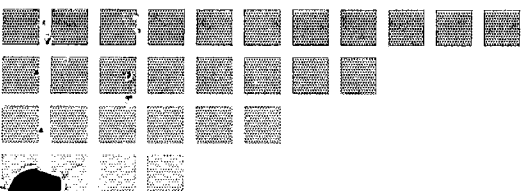
BROWN SILTY SAND (SM)
 dense, moist

BROWN SILTY SAND (SM/SP)
 dense, moist

BROWN SAND (SP)
 dense, moist, fine grained

BROWN SILTY SAND (SM/SP)
 dense, wet

BROWN SAND (SP)
 dense, wet, fine grained



~~88278~~ ? wrong 15/4W 350 4-712 01-4275 M
88278
88287
Add ✓
Invl ✓

James P. Bowers, PE
R. William Rudolph, Jr., PE

RECEIVED
NOV 14 1988
ZONE 7, ACFCRWCD

November 10, 1988
SCI 430.002

Owner:



Mr. Craig Mayfield
Alameda County Flood Control
and Water Conservation District
5997 Parkside Drive
Pleasanton, California 94566

1330 Martin Luther King Jr. Way, Oakland

Well Construction Report
14th Street & Martin Luther King, Jr. Way
Oakland, California

Dear Mr. Mayfield,

As requested, we have submitted the Location Sketch, drilling logs and well details for the additional groundwater monitoring wells installed under the Groundwater Protection Ordinance Permit #88278. Originally, this project was to consist of 3 monitoring wells (8, 11 and 16). However, after reviewing analytical test results, the Alameda County Environmental Health Department requested additional groundwater monitoring wells to more fully characterize the groundwater quality in this area. To date, 7 groundwater monitoring wells exist at the site; no further well installations are currently planned.

Attached you will find monitoring well details for Wells 28 through 31 and a new Location Sketch. Well details for Wells 8, 11 and 16 were included in our memorandum to Mr. Wyman Hong, dated August 30, 1988. If you have any questions regarding this project, please call.

Yours very truly,

Subsurface Consultants, Inc.

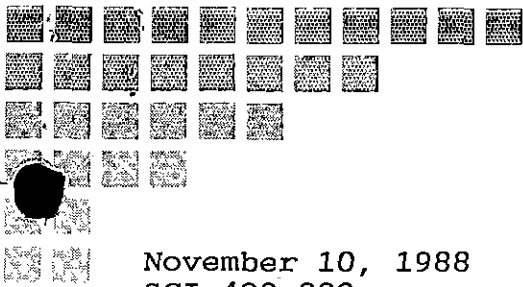
G. Thomas Tebb
G. Thomas Tebb
Geologist

GTT:clh

Attachments: Plate 1 - Site Plan
Plates 2 thru 5 - Borings Logs

Subsurface Consultants, Inc.

171 12th Street • Suite 201 • Oakland, California 94607 • Telephone 415-268-0461



~~88278~~ ? wrong 15/4W 350 4-7 12 01-4278-
88278
88287
Add ✓
Invl ✓

James P. Bowers, PE
R. William Rudolph, Jr., PE

RECEIVED
NOV 14 1988
ZONE 7, ACFC3WCD

November 10, 1988
SCI 430.002

Owner :



Mr. Craig Mayfield
Alameda County Flood Control
and Water Conservation District
5997 Parkside Drive
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1330 Martin Luther King Jr. Way, Oakland

Well Construction Report
14th Street & Martin Luther King, Jr. Way
Oakland, California

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Yours very truly,
Subsurface Consultants, Inc.

G. Thomas Tebb
Geologist

GTT:clh

Attachments: Plate 1 - Site Plan
Plates 2 thru 5 - Borings Logs

Subsurface Consultants, Inc.

171 12th Street • Suite 201 • Oakland, California 94607 • Telephone 415-268-0461

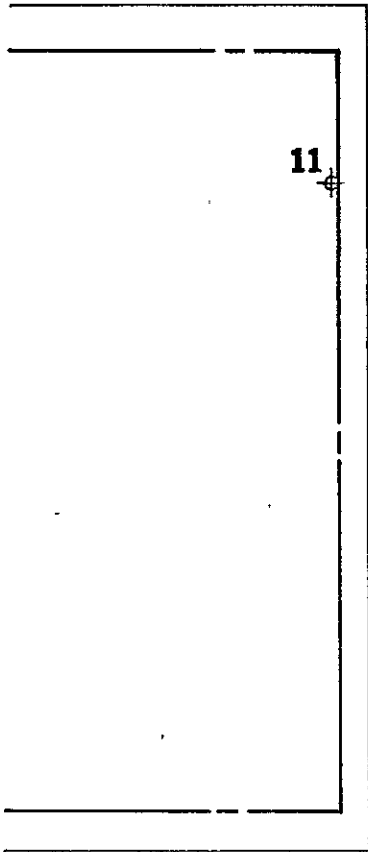
30



29 10

31

14th STREET



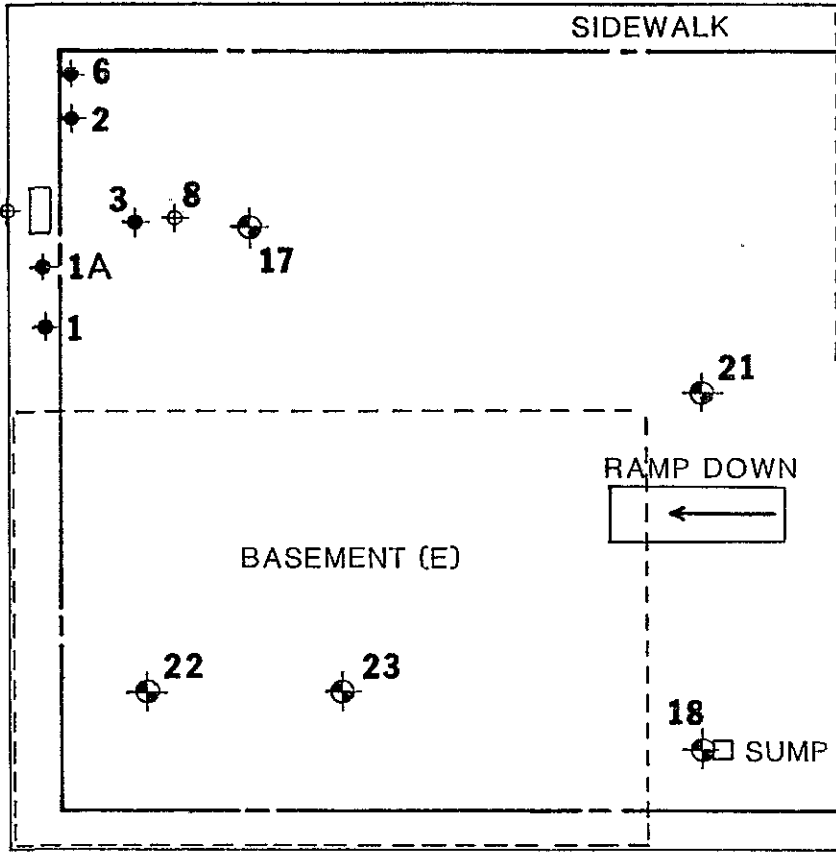
11

28 30 14

7 4 16

15

9



SIDEWALK

6 2 3 8 17 1A 1

21

RAMP DOWN

BASEMENT (E)

22 23

18 SUMP

13th STREET

TRUE NORTH

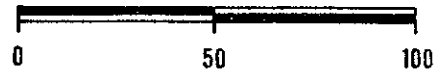


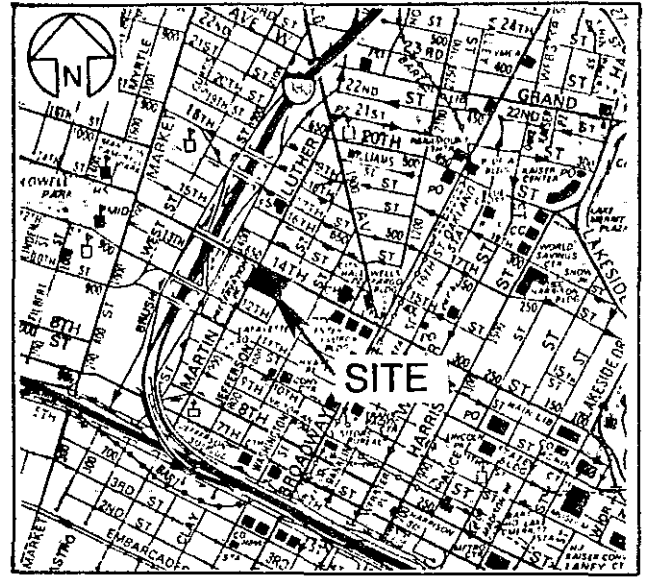
REFERENCE NORTH



MARTIN LUTHER KING, JR. WAY

APPROXIMATE SCALE (feet)





VICINITY MAP

BASEMENT
(BACKFILLED)

20

WELL

19

5

25

12

24

26

27

JEFFERSON STREET

- TEST BORING
- TEST BORING (previous study)
- MONITORING WELL (previous study)
- EXCAVATED TANK LOCATION

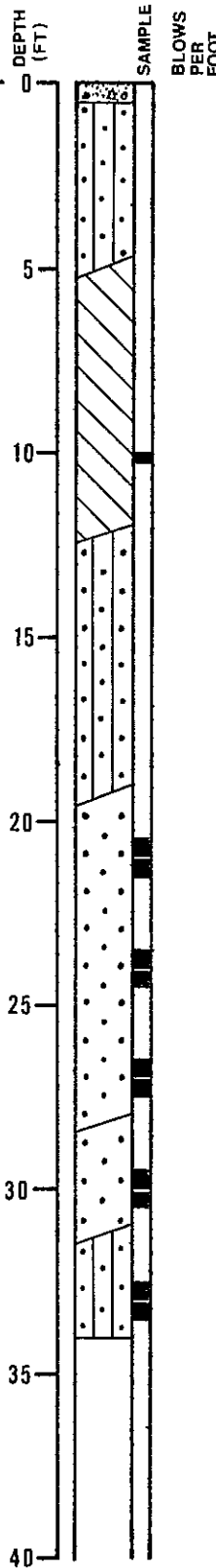
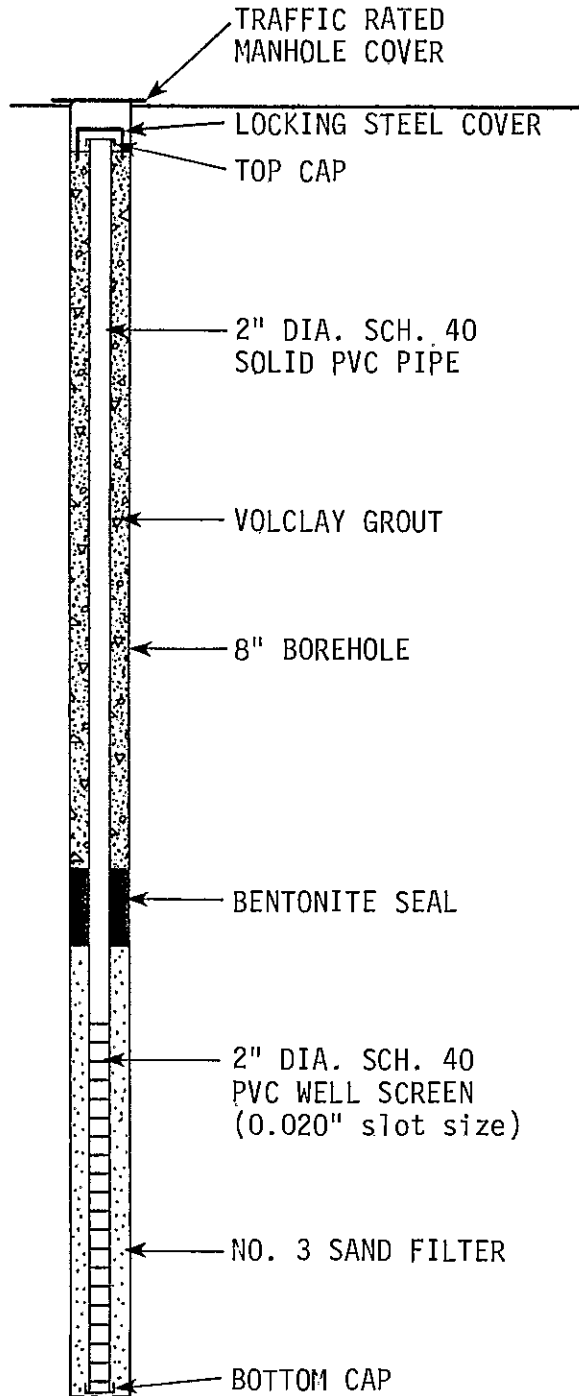
Owner:

SITE PLAN

Subsurface Consultants

14TH & MLK, JR. WAY, OAKLAND, CA		PLATE
JOB NUMBER	DATE	APPROVED
430.005	10/27/88	
		1

LOG OF TEST BORING 29



EQUIPMENT 8" Hollow Stem Auger
 DATE DRILLED 8/17/88
 ELEVATION --

CONCRETE - 6" thick
 DARK BROWN SILTY SAND (SM)
 medium dense, moist

MOTTLED OLIVE-BROWN CLAYEY SAND (SC)
 medium dense, moist

OLIVE-GRAY/BROWN SILTY SAND (SM/SP)
 dense, moist, fine grained

BROWN SAND (SP)
 dense, moist, fine grained

slight increase in silt content below 25.0 feet

GRAY SAND (SP)
 dense, wet
 mild gasoline odor

BROWN SILTY SAND (SM)
 dense, wet

Subsurface Consultants

1330 MARTIN LUTHER KING, JR. WAY - OAK.

JOB NUMBER

DATE

APPROVED

430.002

9/6/88

PLATE

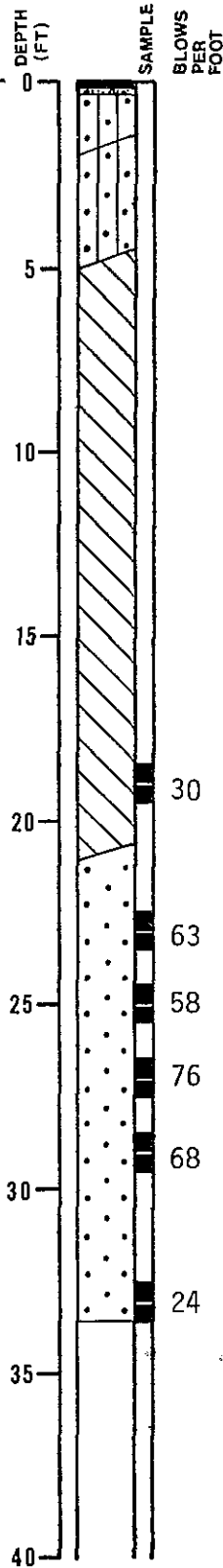
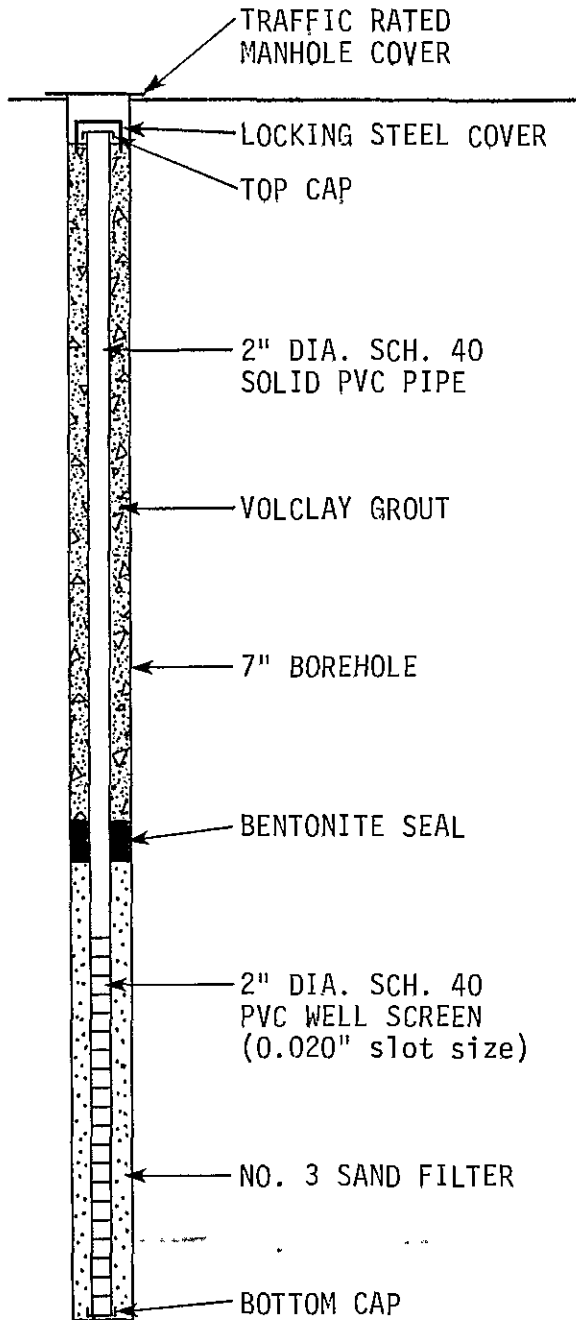
3

LOG OF TEST BORING 30

EQUIPMENT 7" Hollow Stem Auger

DATE DRILLED 8/26/88

ELEVATION --



ASPHALTIC CONCRETE - 2" thick
 CONCRETE SLAB - 2" thick
 BLACK SILTY SAND (SM)
 medium stiff, moist
 BROWN SILTY SAND (SM)
 medium stiff, moist
 GRAY-BROWN CLAYEY SAND (SC)
 medium dense, moist

color change to gray below 10.0 feet

color change to brown below 13.0 feet

color change to olive-green below 17.0 feet

GRAY SAND (SP)
 very dense, moist

Subsurface Consultants

1330 MARTIN LUTHER KING, JR. WAY - OAK.

JOB NUMBER

DATE

APPROVED

430.002

9/6/88

PLATE

4

Inw Add ✓ 1S/4W35D7

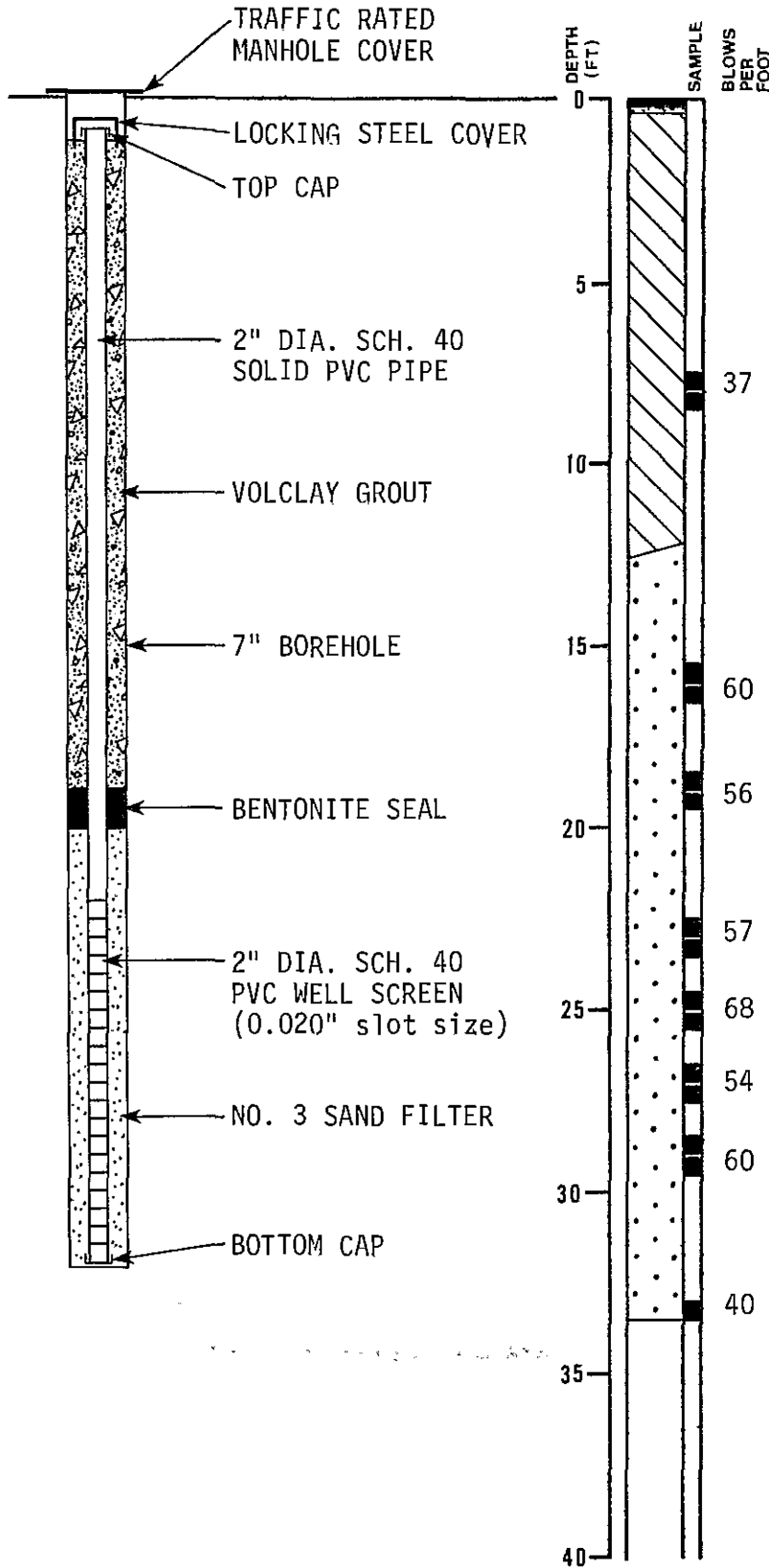
LOG OF TEST BORING 31

01-427M

EQUIPMENT 7" Hollow Stem Auger

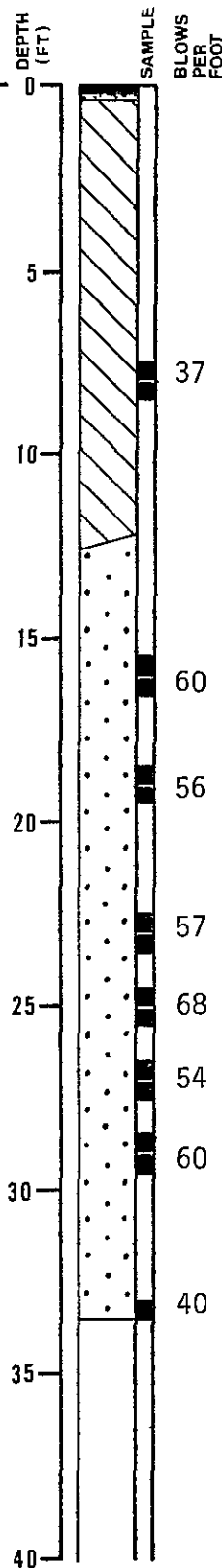
DATE DRILLED 8/26/88

ELEVATION --



ASPHALTIC CONCRETE - 2" thick
 CONCRETE SLAB - 2" thick
 DARK GRAY-BROWN CLAYEY SAND (SC)
 medium dense, moist

BROWN SAND (SP)
 dense, moist



Subsurface Consultants

1330 MARTIN LUTHER KING, JR. WAY - OAK.

PLATE

JOB NUMBER

DATE

APPROVED

430.002

9/6/88

5

01-4270 I m Add 15/4W 350 11

Woodward-Clyde Consultants



PROJECT NAME

NO. 8910155A

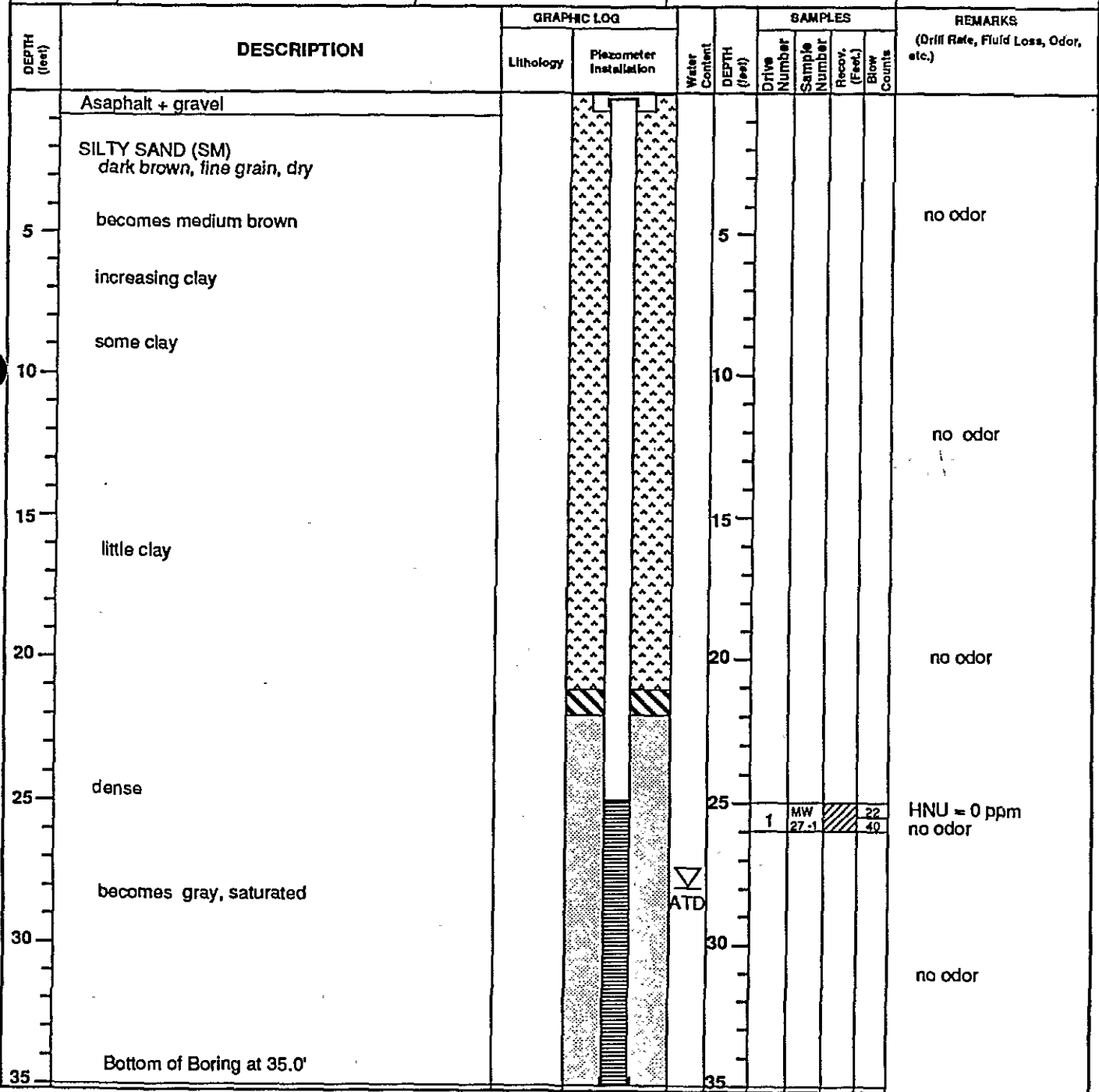
BORING LOCATION MW 26			ELEVATION AND DATUM		
DRILLING AGENCY Sierra Pacific Exploration		DRILLER Anthony/Derral	DATE STARTED DATE FINISHED		September 20, 1989
DRILLING EQUIPMENT Moble B-53			COMPLETION DEPTH 35.0'	SAMPLER 2" Modified California Type	
DRILLING METHOD 8" Hollow Stem Augers		DRILL BIT	NO. OF SAMPLES	DIST.	NA
SIZE AND TYPE OF CASING 2" PVC			WATER LEVEL	FIRST	28'
TYPE OF PERFORATION .020"		FROM 25' TO 35' FL	LOGGED BY:		CHECKED BY:
SIZE AND TYPE OF PACK #3 Monterey Sand		FROM 22' TO 35' FL	W. Copeland		G. Ford
TYPE OF SEAL	NO. 1 Grout	FROM 0' TO 21' FL			
	NO. 2 Bentonite	FROM 21' TO 22' FL			

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		Water Content	DEPTH (feet)	SAMPLES				REMARKS (Drill Rate, Fluid Loss, Odor, etc.)	
		Lithology	Piezometer Installation			Drive Number	Sample Number	Recov. (feet)	Blow Counts		
0	Asphalt + gravel										
5	SILTY SAND (SM) dark brown, fine grain, dry becomes medium brown increasing clay				5						no odor
10	some clay				10						no odor
15	little clay				15						
20	becomes gray, little clay				20						very slight odor
25	dense				25	1	MW 26-1	25 40			HNU = 8 ppm
30	becomes brown, saturated				30		MW 26-1	28 50/4"			HNU = 0 ppm no odor
35	Bottom of Boring at 35.0'				35						

01-423
Inv/P Add

IS/HW 350 R

BORING LOCATION MW 27		ELEVATION AND DATUM	
DRILLING AGENCY Sierra Pacific Exploration	DRILLER Anthony/Derral	DATE STARTED DATE FINISHED	September 20, 1989
DRILLING EQUIPMENT Mobile B-53		COMPLETION DEPTH 35.0'	SAMPLER 2" Modified California Type
DRILLING METHOD 8" Hollow Stem Augers	DRILL BIT	NO. OF SAMPLES DIST. NA	UNDIST. 1
SIZE AND TYPE OF CASING 2" PVC		WATER LEVEL FIRST 28'	COMPL. NA 24 HRS. NA
TYPE OF PERFORATION .020"	FROM 25' TO 35' FL	LOGGED BY: W. Copeland	
SIZE AND TYPE OF PACK #3 Monterey Sand	FROM 22' TO 35' FL	CHECKED BY: G. Ford	
TYPE OF SEAL	NO. 1 Grout	FROM 0' TO 21' FL	
	NO. 2 Bentonite	FROM 21' TO 22' FL	



01-427P
 P Inw Add ✓ 1S/4W 3SD

Woodward-Clyde Consultants



PROJECT NAME

NO. 8910155A

BORING LOCATION #13			ELEVATION AND DATUM		
DRILLING AGENCY Sierra Pacific Exploration		DRILLER Anthony/Derral	DATE STARTED		DATE FINISHED September 18, 1989
DRILLING EQUIPMENT Mobile B-53			COMPLETION DEPTH 29.0'	SAMPLER 2" Modified California Type	
DRILLING METHOD 8" Hollow Stem Augers		DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 2
SIZE AND TYPE OF CASING NA			WATER LEVEL	FIRST NA	COMPL. NA 24 HRS. NA
TYPE OF PERFORATION NA		FROM	TO	FL.	LOGGED BY: W. Copeland
SIZE AND TYPE OF PACK NA		FROM	TO	FL.	
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL.	
	NO. 2 NA	FROM	TO	FL.	CHECKED BY: G. Ford

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		Water Content	DEPTH (feet)	SAMPLES				REMARKS (Drill Rate, Fluid Loss, Odor, etc.)	
		Lithology	Piezometer Installation			Drive Number	Sample Number	Flow (feet)	Blow Counts		
	Asphalt + gravel										
5	SILTY SAND (SM) very dark brown, fine grain, dry becomes medium brown increasing clay				5						No odor
10	CLAYEY SAND (SC) brown, some silt, damp				10						No odor
15	SILTY SAND (SM) brown, damp, fine grain, some clay decreasing clay				15						
20	becomes gray, moist				20						HNU = 5 ppm slight gasoline odor
25	dense				25	1	13-1	17 31 35			HNU = 20 ppm
	becomes wet					2	13-2	27 42			HNU = 3 ppm
30	Bottom of Boring at 29.0'				30						
35	Backfilled borehole with sand / cement grout, September 21, 1989				35						

Woodward-Clyde Consultants



PROJECT NAME

NO. 8910155A

Inw Add 01-427 D 15/4W 350

BORING LOCATION #14		ELEVATION AND DATUM			
DRILLING AGENCY	Sierra Pacific Exploration	DRILLER	Anthony/Derral		
DATE STARTED		DATE FINISHED			
		September 19, 1989			
DRILLING EQUIPMENT		COMPLETION DEPTH		SAMPLER	
Moblie B-53		26.0'		2" Modified California Type	
DRILLING METHOD		DRILL BIT		NO. OF SAMPLES	
8" Hollow Stem Augers				DIST. NA	
SIZE AND TYPE OF CASING		WATER LEVEL		FIRST	
NA		NA		NA	
TYPE OF PERFORATION		FROM		TO	
NA		FL.		LOGGED BY:	
SIZE AND TYPE OF PACK		FROM		TO	
NA		FL.		CHECKED BY:	
TYPE OF SEAL		FROM		TO	
NO. 1 NA		FL.		W. Copeland	
NO. 2 NA		FL.		G. Ford	

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		Water Content	DEPTH (feet)	SAMPLES				REMARKS (Drill Rate, Fluid Loss, Odor, etc.)	
		Lithology	Piezometer Installation			Drive Number	Sample Number	Recov. (Feet)	Blow Counts		
	Asaphalt + gravel										
5	SILTY SAND (SM) very dark brown, fine grain, dry becomes medium brown				5						No odor
10	very small amount of brick fragments, gravel - fill? some clay				10						No odor
15	little clay				15						
20	becomes gray dense				20	1	14-1	20 24 43			Strong gasoline odor HNU = 300 ppm
25					25	2	14-2	17 30			HNU = 200 ppm Strong gasoline odor
30	Bottom of Boring at 26.0'				30						
35	Backfilled borehole with sand / cement grout, September 21, 1989				35						



*Inw Add 01-427R
15/4W 3SD*

BORING LOCATION #15			ELEVATION AND DATUM		
DRILLING AGENCY	Sierra Pacific Exploration	DRILLER	Anthony/Derral	DATE STARTED	Semtpember 19, 1989
DRILLING EQUIPMENT	Mobile B-53	COMPLETION DEPTH	29.0'	SAMPLER	2" Modified California Type
DRILLING METHOD	8" Hollow Stem Augers	DRILL BIT		NO. OF SAMPLES	DIST. NA
SIZE AND TYPE OF CASING	NA	WATER LEVEL	FIRST NA	UNDIST.	2
TYPE OF PERFORATION			FROM	TO	FL.
SIZE AND TYPE OF PACK	NA	FROM	TO	FL.	
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL.	
	NO. 2 NA	FROM	TO	FL.	
			LOGGED BY:		CHECKED BY:
			W. Copeland		G. Ford

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		Water Content	DEPTH (feet)	SAMPLES				REMARKS (Drill Rate, Fluid Loss, Odor, etc.)	
		Lithology	Piezometer Installation			Drive Number	Sample Number	Recov. (Feet)	Blow Counts		
	Asaphalt + gravel										
5	SILTY SAND (SM) very dark brown, fine grain, dry becomes medium brown some clay				5						No odor
	CLAYEY SAND (SC) brown, damp, some silt										
10	SILTY SAND (SM) brown, damp, some clay				10						No odor
	CLAYEY SAND (SC) brown, moist, some silt decreasing clay										No odor
20	SILTY SAND (SM) brown, moist, some clay dense				25	1	15-1	17	28		HNU = 0 ppm no odor
	becomes saturated, very dense			ATD							
30	Bottom of Boring at 29.0'				30	2	15-2	26	48		HNU = 0 ppm No odor
	Backfilled borehole with sand / cement grout, September 21, 1989										
35					35						

Inu/ Adv/ 15/4/89 SD 01-725

BORING LOCATION #16		ELEVATION AND DATUM	
DRILLING AGENCY Sierra Pacific Exploration	DRILLER Anthony/Derral	DATE STARTED	DATE FINISHED September 18, 1989
DRILLING EQUIPMENT Mobile B-53	COMPLETION DEPTH 26.0'	SAMPLER 2" Modified California Type	
DRILLING METHOD 8" Hollow Stem Augers	DRILL BIT	NO. OF SAMPLES	DIST. NA
SIZE AND TYPE OF CASING NA	WATER LEVEL	FIRST NA	UNDIST. 2
TYPE OF PERFORATION NA		FROM	TO
SIZE AND TYPE OF PACK NA		FROM	TO
TYPE OF SEAL	NO. 1 NA	FROM	TO
	NO. 2 NA	FROM	TO
LOGGED BY: W. Copeland		CHECKED BY: G. Ford	

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		Water Content	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
		Lithology	Piezometer Installation			Drive Number	Sample Number	Recov. (Feet)	Blow Counts		
	Asphalt + gravel, concrete fragments										
5	SILTY SAND (SM) very dark brown, fine grain, dry becomes medium brown brick fragments (?)				5						No odor
10	some clay little clay				10						No odor
15	CLAYEY SAND (SC) medium brown, damp, some silt				15						HNU = 150 ppm moderate gasoline odor
20	SILTY SAND (SM) brown, damp, some clay little clay				20	1	16-1	15 25 34			HNU = 30 ppm
25					25	2	16-2	15 25			HNU = 200 ppm strong gasoline odor
	Bottom of Boring at 26.0'										
35	Backfilled borehole with sand / cement grout, September 21, 1989				35						



Inu Add 01-4270T
15/4W 3SD

BORING LOCATION #17		ELEVATION AND DATUM			
DRILLING AGENCY	Sierra Pacific Exploration	DRILLER	Anthony/Derral		
DATE STARTED		DATE FINISHED			
		September 18, 1989			
DRILLING EQUIPMENT		COMPLETION DEPTH		SAMPLER	
Mobile B-53		26.0'		2" Modified California Type	
DRILLING METHOD		DRILL BIT		NO. OF SAMPLES	
8" Hollow Stem Augers				DIST. NA	
UNDIST.		2		24 HRS.	
SIZE AND TYPE OF CASING		WATER LEVEL		FIRST	
NA		NA		NA	
TYPE OF PERFORATION		FROM		TO	
NA		FL		LOGGED BY:	
SIZE AND TYPE OF PACK		FROM		TO	
NA		FL		W. Copeland	
TYPE OF SEAL		FROM		TO	
NO. 1 NA		FL		CHECKED BY:	
NO. 2 NA		FL		G. Ford	

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		Water Content	DEPTH (feet)	SAMPLES				REMARKS (Drill Rate, Fluid Loss, Odor, etc.)	
		Lithology	Piezometer Installation			Drive Number	Sample Number	Recov. (Feet)	Blow Counts		
0	Asphalt + gravel										
5	SILTY SAND (SM) very dark brown, fine grain, dry becomes medium brown becomes damp				5						No odor
10	some clay				10						No odor
15	decreasing clay				15						strong gasoline odor
20	little clay				20	1	17-1	17	19		HNU = ? ppm
25					25	2	17-2	17	38		strong gasoline odor HNU = ? ppm
30	Bottom of Boring at 26.0'				30						
35	Backfilled borehole with sand / cement grout, September 21, 1989				35						

Inw Add ✓ 01-428V 15/4W 35D

BORING LOCATION #19		ELEVATION AND DATUM	
DRILLING AGENCY Sierra Pacific Exploration	DRILLER Anthony/Derral	DATE STARTED	DATE FINISHED September 18, 1989
DRILLING EQUIPMENT Mobile B-53		COMPLETION DEPTH 26.0'	SAMPLER 2" Modified California Type
DRILLING METHOD 8" Hollow Stem Augers	DRILL BIT	NO. OF SAMPLES	DIST. NA
SIZE AND TYPE OF CASING NA		WATER LEVEL	FIRST NA
TYPE OF PERFORATION NA		FROM	TO
SIZE AND TYPE OF PACK NA		FROM	TO
TYPE OF SEAL	NO. 1 NA	FROM	TO
	NO. 2 NA	FROM	TO
		LOGGED BY: W. Copeland	CHECKED BY: G. Ford

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		Water Content	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
		Lithology	Piezometer Installation			Drive Number	Sample Number	Recov. (Feet)	Blow Counts		
	Asphalt + gravel, brick fragments										
5	SILTY SAND (SM) very dark brown, fine grain, dry becomes medium brown				5						No odor
10	some clay				10						No odor
15					15						
20	little clay				20						HNU = 200 ppm strong gasoline odor
	becomes gray, some clay					1	19-1	19	32	40	HNU = 40 ppm
25	becomes brown				25	2	19-2	20	32		HNU = 200 ppm strong gasoline odor
30	Bottom of Boring at 26.0'				30						
35	Backfilled borehole with sand / cement grout, September 21, 1989				35						

Instr. Added 15/4W 35D
 01-429X
~~01-429A~~

BORING LOCATION #21			ELEVATION AND DATUM		
DRILLING AGENCY Sierra Pacific Exploration		DRILLER Anthony/Derral	DATE STARTED		DATE FINISHED September 20, 1989
DRILLING EQUIPMENT Mobile B-53			COMPLETION DEPTH 26.0'		SAMPLER 2" Modified California Type
DRILLING METHOD 8" Hollow Stem Augers		DRILL BIT	NO. OF SAMPLES		DIST. NA
SIZE AND TYPE OF CASING NA			WATER LEVEL		FIRST NA
TYPE OF PERFORATION NA		FROM	TO	FL	LOGGED BY: W. Copeland
SIZE AND TYPE OF PACK NA		FROM	TO	FL	CHECKED BY: G. Ford
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL	
	NO. 2 NA	FROM	TO	FL	

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		Water Content	DEPTH (feet)	SAMPLES				REMARKS (Drift Rate, Fluid Loss, Odor, etc.)	
		Lithology	Piezometer Installation			Drive Number	Sample Number	Recov. (Feet)	Blow Counts		
	Asphalt + concrete										
5	SILTY SAND (SM) very dark brown, fine grain, dry becomes medium brown some clay				5						No odor
10	becomes reddish brown, increasing clay little clay some clay				10						no odor
15	medium dense becomes grayish brown				15	1	21-1	14 17			HNU = 1 ppm no odor
20	little clay				20						no odor
25	dense				25	2	21-2	15 35			HNU = 0 ppm
30	Bottom of Boring at 26.0'				30						
35	Backfilled borehole with sand / cement grout, September 21, 1989				35						

In Add 01-4278-U
15/HW 35D

BORING LOCATION #18		ELEVATION AND DATUM	
DRILLING AGENCY Sierra Pacific Exploration	DRILLER Anthony/Derral	DATE STARTED	DATE FINISHED September 18, 1989
DRILLING EQUIPMENT Mobile B-53		COMPLETION DEPTH 26.0'	SAMPLER 2" Modified California Type
DRILLING METHOD 8" Hollow Stem Augers	DRILL BIT	NO. OF SAMPLES	DIST. NA
SIZE AND TYPE OF CASING NA		WATER LEVEL	FIRST NA
TYPE OF PERFORATION NA		FROM	TO
SIZE AND TYPE OF PACK NA		FROM	TO
TYPE OF SEAL	NO. 1 NA	FROM	TO
	NO. 2 NA	FROM	TO
LOGGED BY: W. Copeland		CHECKED BY: G. Ford	

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		Water Content	DEPTH (feet)	SAMPLES				REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
		Lithology	Piezometer Installation			Drive Number	Sample Number	Recov. (feet)	Blow Counts	
0-5	Asphalt + gravel									No odor
5-10	SILTY SAND (SM) very dark brown, fine grain, dry becomes medium brown becomes damp									No odor
10-15	some clay									No odor
15-20	CLAYEY SAND (SC) medium brown, damp, some silt decreasing clay									HNU = 70 ppm moderate gasoline odor
20-25	SILTY SAND (SM) gray damp, medium grain, some clay little clay					1	18-1	15 28		HNU = 40 ppm strong gasoline odor
25-30						2	18-2	17 32		HNU > 20 ppm
30-35	Bottom of Boring at 26.0'									
	Backfilled borehole with sand / cement grout, September 21, 1989									

Inu/Addr 15/4W 3SD
 01-4258
 4271

Woodward-Clyde Consultants

PROJECT NAME

NO. 8910155A

BORING LOCATION #22		ELEVATION AND DATUM	
DRILLING AGENCY Sierra Pacific Exploration	DRILLER Anthony/Derrai	DATE STARTED	DATE FINISHED September 20, 1989
DRILLING EQUIPMENT Mobile B-53		COMPLETION DEPTH 26.0'	SAMPLER 2" Modified California Type
DRILLING METHOD 8" Hollow Stem Augers	DRILL BIT	NO. OF SAMPLES	DIST. NA
SIZE AND TYPE OF CASING NA		WATER LEVEL	FIRST NA
TYPE OF PERFORATION NA		FROM	TO FL.
SIZE AND TYPE OF PACK NA		FROM	TO FL.
TYPE OF SEAL	NO. 1 NA	FROM	TO FL.
	NO. 2 NA	FROM	TO FL.
		LOGGED BY: W. Copeland	CHECKED BY: G. Ford

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		Water Content	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
		Lithology	Piezometer Installation			Drive Number	Sample Number	Recov. (Feet)	Blow Counts		
	Asphalt + concrete										
5	SILTY SAND (SM) very dark brown, fine grain, dry becomes medium brown				5						No odor
10	becomes reddish brown, some clay becomes brown				10						no odor
15	mottled brown and reddish brown, medium dense				15	1	22-1	12	15		HNU = 2 ppm no odor
20	little clay				20						no odor
25					25	2	22-2	16	35		HNU = 1 ppm
30	Bottom of Boring at 26.0'				30						
35	Backfilled borehole with sand / cement grout, September 21, 1989				35						

Inu Add 1S/4W 3SD
01-4258
4272

BORING LOCATION #23		ELEVATION AND DATUM	
DRILLING AGENCY Sierra Pacific Exploration	DRILLER Anthony/Derral	DATE STARTED	DATE FINISHED September 20, 1989
DRILLING EQUIPMENT Mobile B-53	COMPLETION DEPTH 26.0'	SAMPLER 2" Modified California Type	
DRILLING METHOD 8" Hollow Stem Augers	DRILL BIT	NO. OF SAMPLES	DIST. NA
SIZE AND TYPE OF CASING NA	WATER LEVEL	FIRST NA	UNDIST. 2
TYPE OF PERFORATION NA	FROM TO FL	LOGGED BY: W. Copeland	
SIZE AND TYPE OF PACK NA	FROM TO FL	CHECKED BY: G. Ford	
TYPE OF SEAL	NO. 1 NA	FROM TO FL	
	NO. 2 NA	FROM TO FL	

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		Water Content	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
		Lithology	Piezometer Installation			Drive Number	Sample Number	Recov. (Feet)	Blow Counts		
	Asaphalt + concrete										
5	SILTY SAND (SM) very dark brown, fine grain, dry becomes medium brown little clay				5						No odor
10	some clay little clay becomes gray				10						slight gasoline odor
15	some clay				15	1	23-1	7	15		HNU = 1 ppm no odor
20	becomes brown little clay				20						no odor
25					25	2	23-2	16	36		HNU = 1 ppm
30	Bottom of Boring at 26.0'				30						
35	Backfilled borehole with sand / cement grout, September 21, 1989				35						



Inuv Add 15/41W 35D W 01-429 W

BORING LOCATION #20		ELEVATION AND DATUM	
DRILLING AGENCY Sierra Pacific Exploration	DRILLER Anthony/Derral	DATE STARTED	DATE FINISHED September 18, 1989
DRILLING EQUIPMENT Mobile B-53	COMPLETION DEPTH 26.0'	SAMPLER 2" Modified California Type	
DRILLING METHOD 8" Hollow Stem Augers	DRILL BIT	NO. OF SAMPLES	DIST. NA
SIZE AND TYPE OF CASING NA	WATER LEVEL	FIRST NA	UNDIST. 2
TYPE OF PERFORATION NA	FROM TO FL	LOGGED BY: W. Copeland	
SIZE AND TYPE OF PACK NA	FROM TO FL	CHECKED BY: G. Ford	
TYPE OF SEAL	NO. 1 NA	FROM TO FL	24 HRS. NA
	NO. 2 NA	FROM TO FL	

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		Water Content	DEPTH (feet)	SAMPLES				REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
		Lithology	Piezometer Installation			Drive Number	Sample Number	Recov. (feet)	Blow Counts	
0	Asphalt + gravel									
5	SILTY SAND (SM) very dark brown, fine grain, dry becomes medium brown				5					No odor
10	some clay little clay				10					No odor
15	CLAYEY SAND (SC) brown, some silt, damp				15					strong gasoline odor
20					20	1	20-1	15-24		HNU = ? ppm
25	SILTY SAND (SM) brown, damp, fine grain				25	2	20-2	17-28		strong gasoline odor HNU = ? ppm
30	Bottom of Boring at 26.0'				30					
35	Backfilled borehole with sand / cement grout, September 21, 1989				35					

01-478

Converse Consultants

DAILY REPORT

Project: 13th & Harrison

Project No. 8844 499 01

Inspector: Etienne Constable

Day Thurs Date 8-4-88

Time On Site: From 6:30 To 5:00; From _____ To _____ Report No. _____

Weather: Over cast

Equipment In Use: Sm. Drill rig, Peristaltic Pump, 1.05 OD
stst bailor, cord, tools, well points; sounder

Work In Progress/Completed: Install, sample & remove 4 well points

6:30 on Site set up Barricades

8:43 WP-3 DTW = 24.00 TOC

Purged 2.5 gal from WP-3

Sample WP-3 Shene present

10:20 WP-6 DTW = 26-11-0 TOC (after raising WP 2 ft.)

Purged 2.5 gal from WP-6

11:50 Sample WP-6 shene present

13:39 WP-4 (After raising WP) DTW = 26-0-0 TOC

Sample WP-4 after Purging 1.5 gal shene present

14:15 WP-5 DTW = 29-0-0 TOC

Purged 2 gals

Sampled shene present

Special Conditions/Corrective Work Required:

14:55 Begin Backfill of WP's

Bentonite up to 20' BGS

Soil up to 3" BGS

Cement cap

16:10 TOC above Ground WP-3 18 5/8

WP-4 13 1/2

WP-5 46 1/2

WP-6 20 1/2

BORING LOCATION #24		ELEVATION AND DATUM			
DRILLING AGENCY Sierra Pacific Exploration	DRILLER Anthony/Derral	DATE STARTED	DATE FINISHED September 19, 1989		
DRILLING EQUIPMENT Mobile B-53	COMPLETION DEPTH 26.0'	SAMPLER 2" Modified California Type			
DRILLING METHOD 8" Hollow Stem Augers	DRILL BIT	NO. OF SAMPLES	DIST. NA		
SIZE AND TYPE OF CASING NA	WATER LEVEL	FIRST NA	COMPL. NA 24 HRS. NA		
TYPE OF PERFORATION NA	FROM TO FL	LOGGED BY: W. Copeland			
SIZE AND TYPE OF PACK NA	FROM TO FL			CHECKED BY: G. Ford	
TYPE OF SEAL	FROM TO FL				
NO. 1 NA	FROM TO FL				
NO. 2 NA	FROM TO FL				

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		Water Content	DEPTH (feet)	SAMPLES				REMARKS (Drill Rate, Fluid Loss, Odor, etc.)	
		Lithology	Piezometer Installation			Drive Number	Sample Number	Recov. (Feet)	Blow Counts		
	Asphalt + 9" concrete										
5	SILTY SAND (SM) very dark brown, fine grain, dry becomes medium brown				5						No odor
	some clay										
10	little clay				10						No odor
15					15						
	clayey lense										
20	little clay				20						HNU = 1 ppm no odor
	some clay										
25	little clay				25	1	24-1	14	23		HNU = 20 ppm
	Bottom of Boring at 26.0'										
30					30						
35	Backfilled borehole with sand / cement grout, September 21, 1989				35						

01-4283

Inu Add 15/4W 3SD

Woodward-Clyde Consultants

PROJECT NAME

No. 8910155A

BORING LOCATION #25		ELEVATION AND DATUM	
DRILLING AGENCY Sierra Pacific Exploration	DRILLER Anthony/Derral	DATE STARTED	DATE FINISHED September 19, 1989
DRILLING EQUIPMENT Mobile B-53		COMPLETION DEPTH 26.0'	SAMPLER 2" Modified California Type
DRILLING METHOD 8" Hollow Stem Augers	DRILL BIT	NO. OF SAMPLES	DIST. NA
SIZE AND TYPE OF CASING NA		WATER LEVEL	FIRST NA
TYPE OF PERFORATION NA		FROM	TO
SIZE AND TYPE OF PACK NA		FROM	TO
TYPE OF SEAL	NO. 1 NA	FROM	TO
	NO. 2 NA	FROM	TO
		LOGGED BY: W. Copeland	CHECKED BY: G. Ford
		COMPL. NA	24 HRS. NA

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		Water Content	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)	
		Lithology	Piezometer Installation			Drive Number	Sample Number	Recov. (feet)	Blow Counts			
	Asaphalt + 9" concrete											
5	SILTY SAND (SM) very dark brown, fine grain, dry becomes medium brown				5							No odor
10	some clay				10							No odor
15	little clay				15							
20	some clay little clay becomes gray				20							HNU = 7 ppm slight gasoline odor
25					25	1	25-1	29	35			HNU = 80 ppm moderate gasoline odor
30	Bottom of Boring at 26.0'				30							
35	Backfilled borehole with sand / cement grout, September 21, 1989				35							

Inw Add / 01-4280 ~~01-4280~~
15/4W 350

BORING LOCATION #28		ELEVATION AND DATUM	
DRILLING AGENCY Sierra Pacific Exploration	DRILLER Anthony/Derral	DATE STARTED	DATE FINISHED September 20, 1989
DRILLING EQUIPMENT Mobile B-53	COMPLETION DEPTH 3.5'	SAMPLER 2" Modified California Type	
DRILLING METHOD 8" Hollow Stem Augers	DRILL BIT	NO. OF SAMPLES	DIST. NA
SIZE AND TYPE OF CASING NA	WATER LEVEL	FIRST NA	UNDIST. 0
TYPE OF PERFORATION NA	FROM	TO	FL
SIZE AND TYPE OF PACK NA	FROM	TO	FL
TYPE OF SEAL	NO. 1 NA	FROM	TO
	NO. 2 NA	FROM	TO
LOGGED BY: W. Copeland		CHECKED BY: G. Ford	

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		Water Content	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
		Lithology	Piezometer Installation			Drive Number	Sample Number	Recev. (feet)	Blow Counts		
	Asphalt										
	17" Concrete										
5	encountered abandoned steel pipe, abandoned boring				5						
10					10						
15					15						
20					20						
25					25						
30					30						
35					35						

01-428 D=51 new
E=51 destr 4/5 - 543-4200
F=52 new
G=52 destr

Destruction

15/200 51-52
Inc ✓
Add ✓

WELL POINT INSTALLATION AND GROUNDWATER SAMPLING

On July 21, 1988, CECC representatives installed two well points (WP1 and WP2) at the locations shown on Drawing 1. The well points were installed using hand drilling methods to the first water-bearing zone at depths of approximately 25 feet below ground surface (bgs). WP1 and WP2, as well as the previously-installed well B4, were purged, and groundwater samples were obtained and transported to an approved laboratory for chemical analysis under EPA protocol and chain-of-custody. Groundwater samples were obtained from the previously-installed observation well at B1, although the attempts to purge the well proved unsuccessful. Depths to ground water were measured and the collar elevations of the well points and wells were surveyed to provide information on groundwater gradient. Following sampling, the well points were abandoned by backfilling with bentonite pellets and soil cuttings. On July 28, 1988, additional groundwater samples were obtained from wells B1 and B4 for additional analysis. Again, attempts to purge well B1 proved unsuccessful.

On August 4, 1988, CECC representatives installed four additional well points (WP3 through WP6) at the locations shown in Drawing 1. Holes for the well points were drilled by Datum Exploration, Inc., under supervision by CECC personnel. Following sampling, the well points were abandoned by removing casing and backfilling with bentonite and soil cuttings.

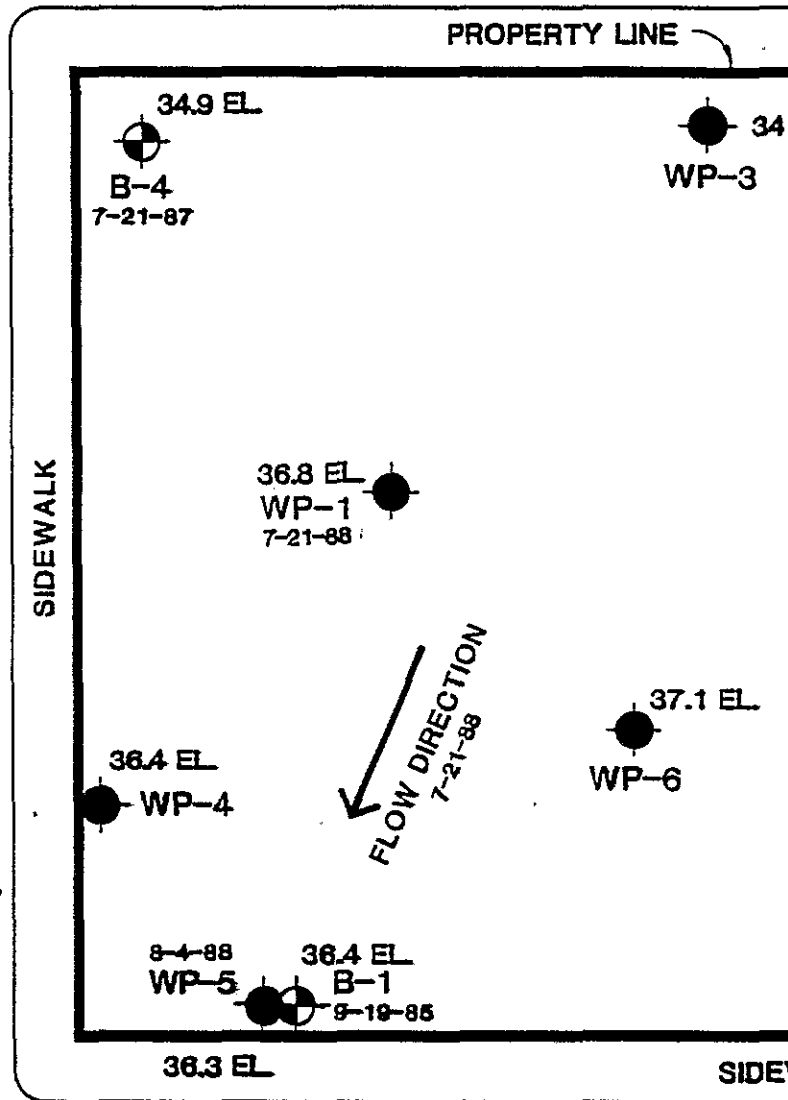
Note: Groundwater flow direction based on measurements from temporary well points.

B-1 unable to be purged prior to sampling.

Hole locations as of 8-4-88

HARRISON STREET

ELEVATIONS BASED ON PARCEL MAP PREPARED BY BISSELL AND KARN, INC, DATED APRIL, 1988, AND ARE BASED ON CITY OF OAKLAND DATUM



Note: B-1 is 5.0' from WP-5

EXPLANATION

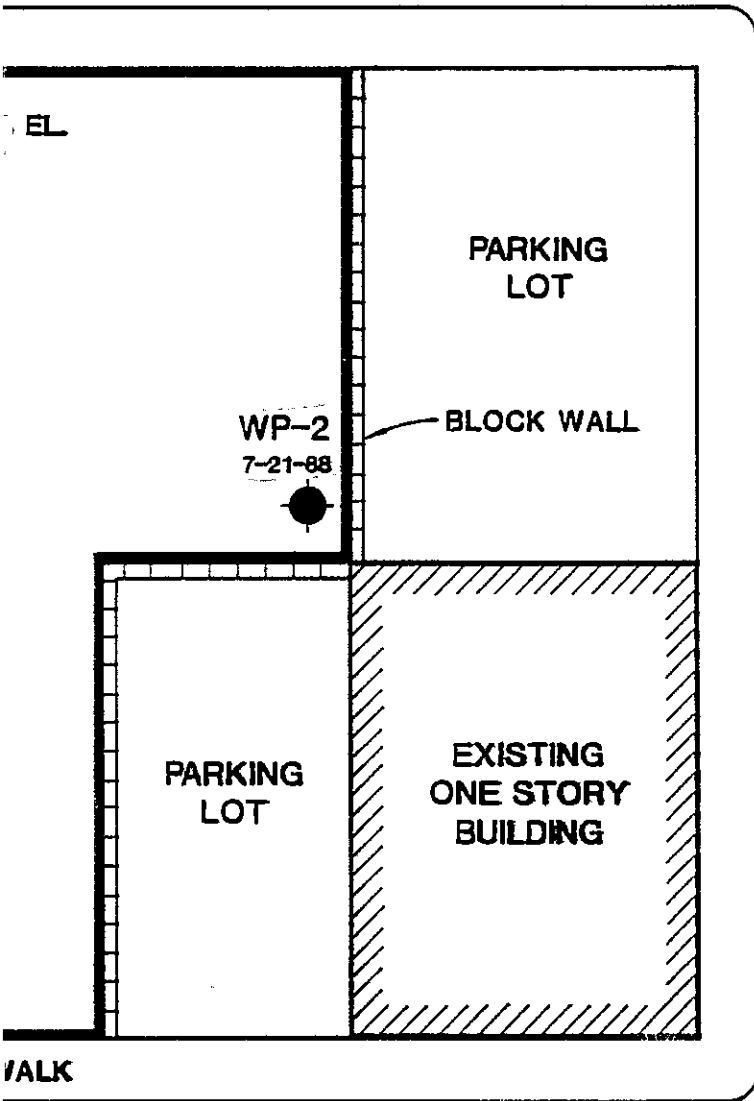


LOCATION AND DATE OF EXPLORATORY BORINGS DRILLED FOR GEOTECHNICAL INVESTIGATIONS BY CCNC AND CONVERTED TO MONITORING WELLS



LOCATION AND DATE OF WELL POINTS PERFORMED BY CECC

TREET



ALICE STREET

WALK

TREET

SOURCE: PRELIMINARY SITE PLAN PREPARED BY MacDONALD & GEE ASSOCIATED ARCHITECTS.

SITE PLAN

Harrison and 13th Street, Oakland, California

Scale	1" = 40'	Project No.	88-44-499-02
Date	8-2-88	Drawing No.	1
Prepared By	LQL		
Checked By	DPO		
Approved By	DPO		

Converse Environmental Consultants California

S.F. 415 543-2800 EX 126

Robin Brown MI



THANKS

FIELD LOG OF BORING NO. WP-1

SHEET NO. 1 OF 2

PROJECT NO. 88-44-49901 DATE(S) 7/21/88 ELEVATION _____

PROJECT NAME 13th & Harrison REFERENCE _____

FIELD ENGINEER CB LOCATION _____

ASSISTANT K.S. WATER LEVEL _____ AFTER _____ MIN./HOURS _____

DRILLING CO. Hanna Auger TIME _____

DRILLING METHOD & DIAM. 3 1/2" O DRIVING WEIGHT 50 SETUP _____ START _____ STOP _____

AVERAGE DROP 12"

FORCEN

DEPTH	BLOWS PER LENGTH - IN.	MOISTURE	CONSISTENCY	COLOR	DESCRIPTION	GROUP SYMBOL	PERCENT GRAV. SAND-FINES	REMARKS
0					Asphalt. 2" Trace Bar			
1					Pieces Brick 1/2-1/2			
2				DK BR				
3								
4				LT BR	Fine SAND	SM		
5								
6				DK BR	CLAYEY SAND	SC		
7								
8				LT BR	Decrease CLAY - BECOMING CEMENTED.			
9								
10								
11								
12								
13								
14								
15					INCREASE CLAY. VERY CLAYEY SAND	SC		
16								
17				BR	CEMENTED LESS CLAY			
18								
19								
20								

FINES: FRACTION OF MATERIAL SMALLER THAN NO. 200 SIEVE SIZE.



FIELD LOG OF BORING NO. WP1

SHEET NO. 2 OF 2

PROJECT NO. 88-44-499-01 DATE(S) 7/2/88 ELEVATION _____
 PROJECT NAME 13th Harrison REFERENCE _____
 FIELD ENGINEER EB LOCATION _____
 ASSISTANT KS WATER LEVEL _____ AFTER _____ MIN/HOURS _____
 DRILLING CO. HAND AUGER TIME _____
 DRILLING METHOD & DIAM. 3 1/2" DRIVING WEIGHT 50 AVERAGE DROP 72 STOP

FORCE DROP

20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1

DEPTH	BLOWS PER LENGTH - IN.	MOISTURE	CONSISTENCY	COLOR	DESCRIPTION	GROUP SYMBOL	PERCENT GRAV. SAND-FINES	REMARKS
4					light CLAYEY SAND	EC		
5					DECREASE CLAY			INITIAL HD
7					AUGER TO 26 FT. ONLY ABLE TO DRIVE POINT & 4" 60 BLOWS VERY TIGHT			

FINES: FRACTION OF MATERIAL SMALLER THAN NO. 200 SIEVE SIZE.



FIELD LOG OF BORING NO. 2

SHEET NO. 1 OF

PROJECT NO. 85-44-499-01 DATE(S) 7/2/85 ELEVATION _____

PROJECT NAME 13th & Harrison REFERENCE _____

FIELD ENGINEER 87 LOCATION _____

ASSISTANT KS WATER LEVEL _____ AFTER _____ MIN./HOURS _____

DRILLING CO. HARRIS RUSSELL TIME SETUP _____ START _____ STOP _____

DRILLING METHOD & DIAM. 3 1/2" X DRIVING WEIGHT _____ AVERAGE DROP _____

DEPTH	BLOWS PER LENGTH - IN.	MOISTURE	CONSISTENCY	COLOR	DESCRIPTION	GROUP SYMBOL	PERCENT GRAV. SAND-FINES	REMARKS
0								
1					REMARKS 4 1/2" PAUSE 6"			WASTED 45 MIN
2								
3					MISSIVE PIPE COLLAPSE MOVE HOLE			
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

FINES: FRACTION OF MATERIAL SMALLER THAN NO. 200 SIEVE SIZE.



ReDrill

ReDrill

FIELD LOG OF BORING NO. WP-2R

SHEET NO. 1 OF 2

PROJECT NO. 88-44-499-01 DATE(S) 1/27/88 ELEVATION _____

PROJECT NAME 13th & HARRISON REFERENCE _____

FIELD ENGINEER JS LOCATION _____

ASSISTANT KS WATER LEVEL _____ AFTER _____ MIN/HOURS

DRILLING CO. HAND AUGER TIME _____ SETUP _____ START _____ STOP _____

DRILLING METHOD & DIAM. 3 1/2" Ø DRIVING WEIGHT _____ AVERAGE DROP _____

DEPTH	BLOWS PER LENGTH - IN.	MOISTURE	CONSISTENCY	COLOR	DESCRIPTION	GROUP SYMBOL	PERCENT GRAV. SAND-FINES	REMARKS
0								
1					HEADS 3" PIPE 6"			
2					DR FR CHUNKS CONCRETE ASPHALT SILTY SAND	SM		
3								
4					FR SILTY SAND TO SILT	SP/SM		
5								
7					DR FR CLAYEY SAND	SC		
8								
9					FR SAND LESS CLAY	SC/SP		
10								
11					LIGHTLY CEMENTED			
12								
13								
14								
15								
16					DR FR MORE CLAYEY SAND CEMENTED	SC		
17								
19								
20								

FINES: FRACTION OF MATERIAL SMALLER THAN NO. 200 SIEVE SIZE.



REDRILL

FIELD LOG OF BORING NO. WP-2R

SHEET NO. _____ OF _____

PROJECT NO. 88-44-499-01

DATE(S) 7/27/88 ELEVATION _____

PROJECT NAME 13th & Harrison

REFERENCE _____

FIELD ENGINEER KS

LOCATION _____

ASSISTANT KS

WATER LEVEL _____ AFTER _____ MIN./HOURS

DRILLING CO. HAND AUGER

TIME _____ SETUP _____ START _____ STOP _____

DRILLING METHOD & DIAM. 3 1/2" O

DRIVING WEIGHT _____ AVERAGE DROP _____

DEPTH	NO. VALUE (S.P. 1)	SAMPLE NO. BULK AND RANGE	CORE	BLOWS PER LENGTH - IN.	MOISTURE	CONSISTENCY	COLOR	DESCRIPTION	GROUP SYMBOL	PERCENT GRAV. SAND-FINES	REMARKS
0											
1											
2											
3											
4					PM		LT GUM	CLAYEN SAND NO CEMENTATION			
5					W						INITIAL
6											
7								AUGERED TO 26 FT. ONLY DROVE SABELL POINT FEW INCHES SAND IS DENSE			
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											

FINES: FRACTION OF MATERIAL SMALLER THAN NO. 200 SIEVE SIZE.

PROJECT NAME

01-435Q

1S/4W SSCS

LOCATION PARKING LOT AT 12TH AND JEFFERSON STREETS, OAKLAND

GEOLOGIST CINDA C. MacKINNON, R.G. (#4316)

BORING NO: MW2

DRILLING METHODS: 8" HSA

DRILLER: ENSCO

TIM COLLETT

DEPTH	SAMPLE	RECOVERY	BLOWS	DESCRIPTION	USCS	GRAPHIC SYMBOL	WELL CONSTRUCTION
0				3" ASPHALT / 4" GRAVEL BASE			<p>CHRISTY BOX 2" DIAMETER BLANK PVC CASING GROUT BENTONITE PELLETS #2/12 LONESTAR SAND</p>
				BROWN, FINE GRAINED CLAYEY SAND WITH RUBBLE SLIGHTLY MOIST.			
5	01	2/16 /26	18"	LIGHT BROWN TO OLIVE FINE GRAINED CLAYEY SAND; RED BROWN LENS AT 5-7' WITH LESS CLAY EXCEPT AS OLIVE MOTTLING, MOIST			
10	02	21/30 /30	18"	RED BROWN MOTTLING	SC		
15	03	15/16 /19	17"				
20	04	15/29 /42	18"	RED-BROWN SILTY SAND FINE GRAINED; DENSE; MOIST			
25	05	20/32 /44	18"	BECOMES OLIVE-GREY IN COLOR BY 25' WITH OCCASIONAL CLAYEY STRINGERS	SM		
30		22/43 /X					

REMARKS SOIL SAMPLE 04 SENT TO LABORATORY

SCALE

DATE 5-17-89

DRAWN ELS

APPROVED

BORING LOG

PROJ. NO. 895040

DRAWING NUMBER

The FPE Group

CONSULTANTS

SHEET 1 OF 2

DRAWN ELS

APPROVED

The FPE Group

CONSULTANTS

SHEET 1 OF 1

01-446A

IS/4W 35D13

Woodward-Clyde Consultants



90C0039A

LOG OF MONITORING WELL

T-12 W-2

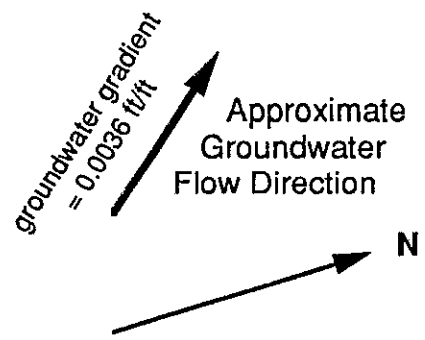
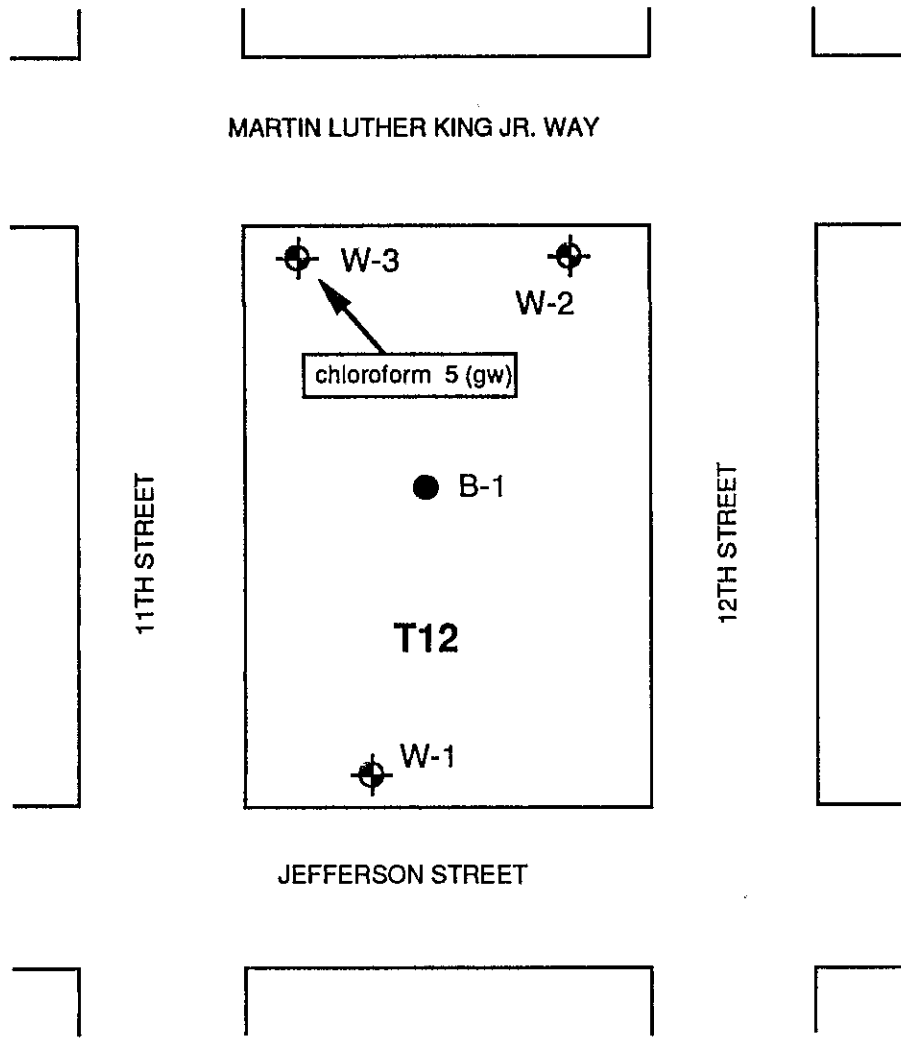
LOCATION Parcel T-12, 12th & Clay Streets, Oakland, California		ELEVATION AND DATUM 33.15 feet (C.O.O. D.)	
AGENCY Sierra Pacific	DRILLER Derald/Aaron	DATE STARTED 2/12/90	
EQUIPMENT Mobile Drill B-53		DATE COMPLETED 2/12/90	
METHOD 8"-diam Hollow Stem Auger	DRILL BIT	COMPLETION DEPTH 37-1/2'	
CASING 2 in.-diameter Schedule 40 PVC		SAMPLERS Modified California 2-in.-diam.	
PERFORATIONS 0.020 in. slot	FROM 25' TO 35'	NO. OF SAMPLES	DIST. UNDIST. 6
PACK #3 Monterey sand	FROM 23' TO 37-1/2'	WATER LEVEL	ATD 27' COMPL 24 HR
TYPE OF SEALS	Activated 3/8" bentonite pellets	FROM 20' TO 23'	LOGGED BY Lois Gruenberg
	Sand cement grout	FROM 0' TO 20'		CHECKED BY Michael McGuire

DEPTH (FT)	DESCRIPTION	PIEZOMETER INSTALLATION	DEPTH (FT)	SAMPLES	Blow Counts		REMARKS (Strength, moisture content, etc.)
					Recovery		
	Asphalt surface to approximately 6" -----						
5	SILTY SAND (SM) - brown with orange stain - fine to medium sand - medium dense - damp		5	1	4	6	
10			10	2	10	12	
15	increasing clay, moist.		15	3	5	10	
20			20	4	10	14	
25			25		18		

Continued on next page.



DEPTH (FT)	DESCRIPTION	PIEZOMETER INSTALLTION	DEPTH (FT)	SAMPLES	Blow Counts	Recovery	REMARKS (Strength, moisture content, etc.)
<p>25</p> <p>30</p> <p>35</p>	<p>SILTY SAND (SM) Continues</p> <p>becomes brown gray, moist.</p> <p>▽ ATD</p> <p>▽ 3/13/90</p>		<p>25</p> <p>30</p> <p>35</p>	<p>5</p> <p>6</p>	<p>15</p> <p>21</p> <p>26</p> <p>12</p> <p>24</p> <p>38</p>		
<p>40</p> <p>45</p> <p>50</p> <p>55</p>	<p>Bottom of Boring at 37.5 feet</p>		<p>40</p> <p>45</p> <p>50</p> <p>55</p>				



Legend:

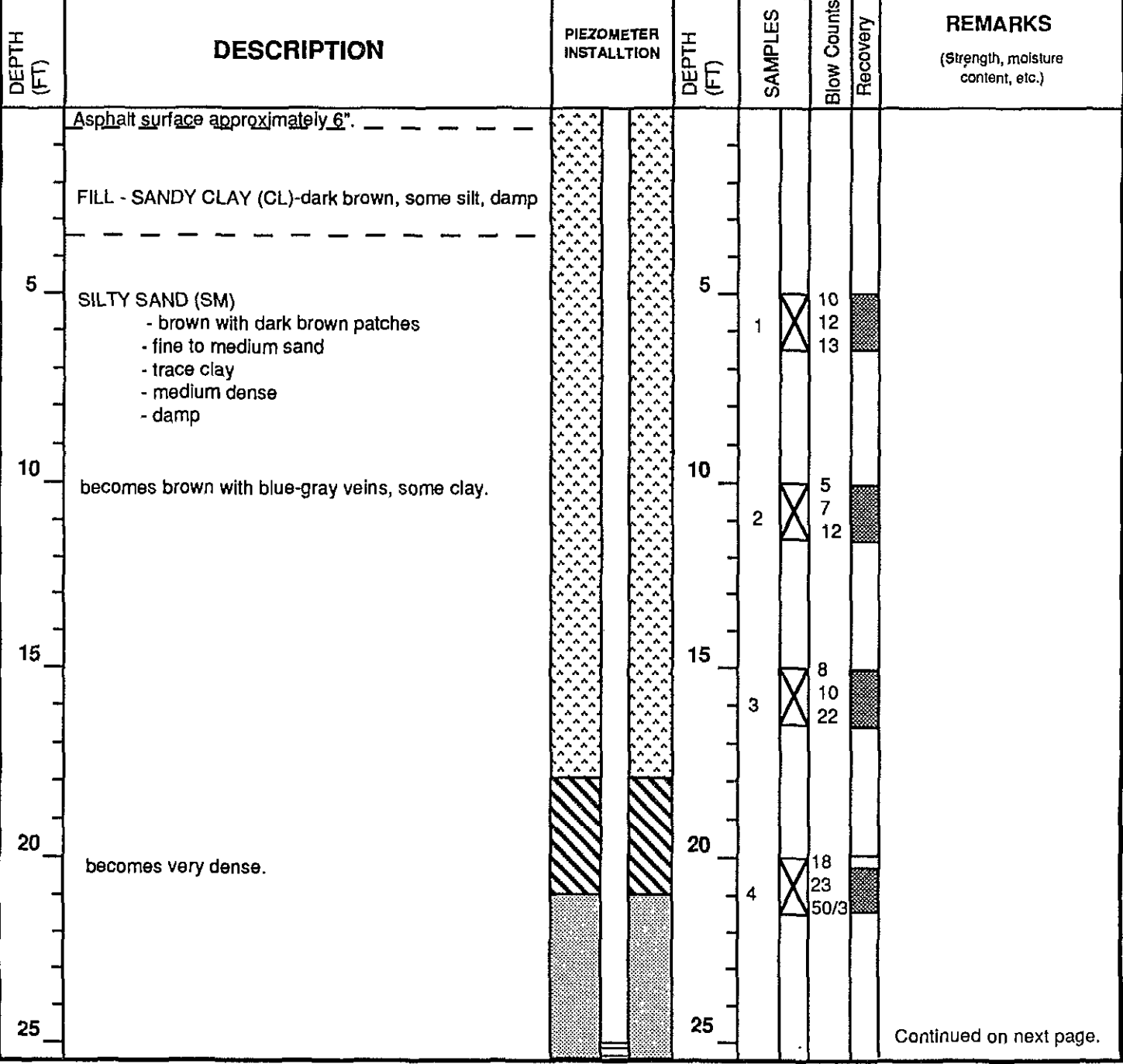
- Monitoring Well
- Soil Boring

chloroform 5 (gw) - analysis indicates compound in groundwater (gw) or soil (soil), concentration expressed as ppb

Project No. 90C0039A	City Center Environmental Assesment	PARCEL T12 - BORING AND MONITORING WELL LOCATIONS	FIGURE 2
Woodward-Clyde Consultants			

01-446B 1S/4W 35E5

LOCATION Parcel T-9, 12th & Clay Streets, Oakland, California		ELEVATION AND DATUM 34.61 feet (C.O.O.D.)	
AGENCY Sierra Pacific	DRILLER Derald/Aaron	DATE STARTED 2/8/90	
EQUIPMENT Mobile Drill B-53		DATE COMPLETED 2/8/90	
METHOD 8"-diam Hollow Stem Auger	DRILL BIT	COMPLETION DEPTH 37-1/2'	
CASING 2 in.-diameter Schedule 40 PVC		SAMPLERS Modified California 2-in.-diam.	
PERFORATIONS 0.020 in. slot	FROM 28' TO 38'	NO. OF SAMPLES	DIST. UNDIST. 6
PACK #3 Monterey sand	FROM 21' TO 38-1/2'	WATER LEVEL	ATD 27' COMPL 24 HR
TYPE OF SEALS	Activated 3/8" bentonite pellets	LOGGED BY	
	Sand cement grout	Lois Gruenberg	
		CHECKED BY Michael McGuire	



Continued on next page.

01-446B 15/4W 3SE5

Woodward-Clyde Consultants

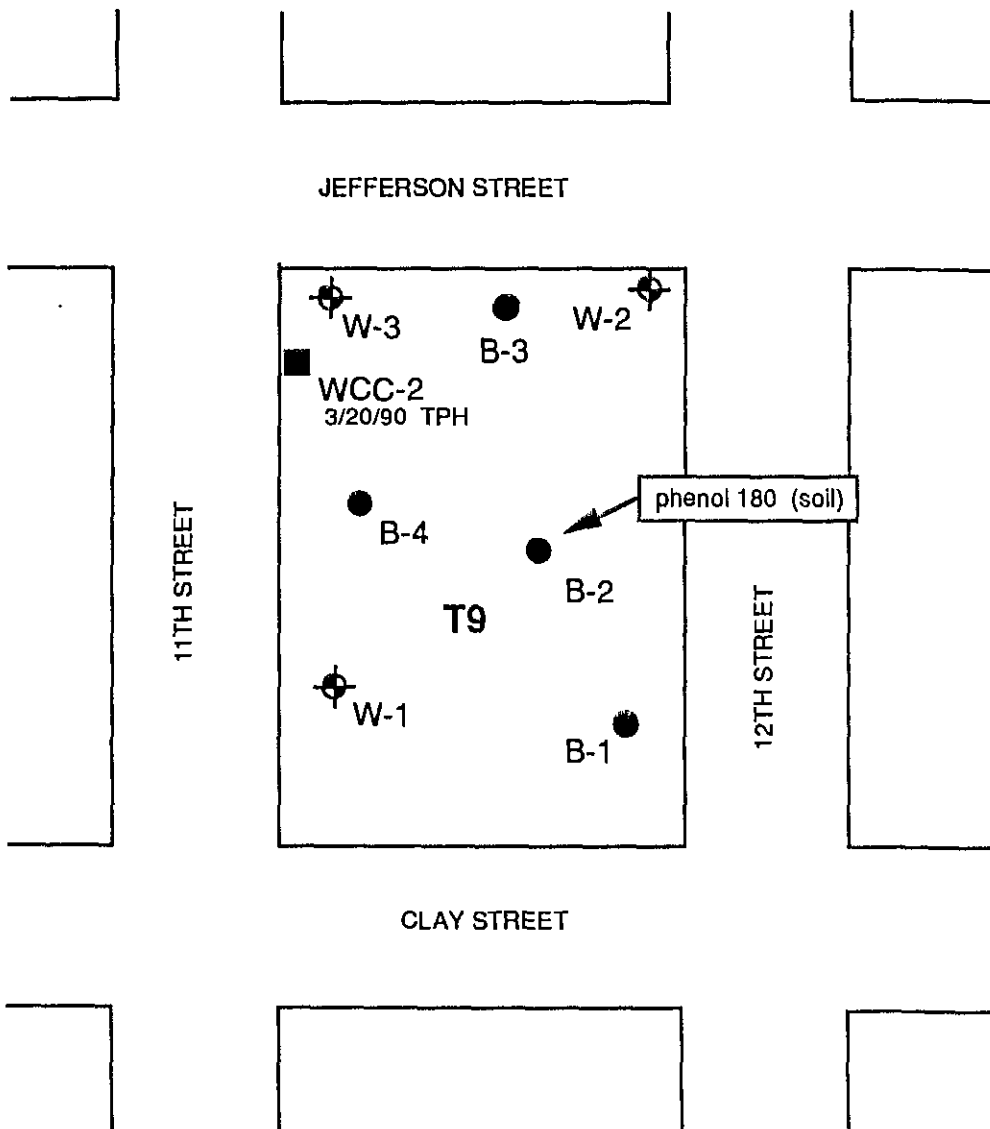


90C0039A

LOG OF MONITORING WELL

T-9 W-2

DEPTH (FT)	DESCRIPTION	PIEZOMETER INSTALLTION	DEPTH (FT)	SAMPLES	Blow Counts	Recovery	REMARKS (Strength, moisture content, etc.)
<p>25</p> <p>30</p> <p>35</p>	<p>SILTY SAND (SM) Continues</p> <p>becomes moist.</p> <p>▽ ATD</p> <p>▽ 3/13/90</p>		<p>25</p> <p>30</p> <p>35</p>	<p>5</p> <p>6</p>	<p>18</p> <p>29</p> <p>32</p> <p>14</p> <p>31</p> <p>45</p>		
<p>40</p> <p>45</p> <p>50</p> <p>55</p>	<p>Bottom of Boring at 38.5 feet</p>		<p>40</p> <p>45</p> <p>50</p> <p>55</p>				



groundwater gradient
= 0.0023 ft/ft

Approximate
Groundwater
Flow Direction

0 100
FEET

Legend:

- ⊕ Monitoring Well
- Soil Boring
- WCC Geotechnical Boring

phenol 180 (soil) - analysis indicates compound in groundwater (gw) or soil (soil), concentration expressed as ppb

Project No. 90C0039A	PARCEL T9 - BORING AND MONITORING WELL LOCATIONS	FIGURE 2
Woodward-Clyde Consultants		

01-4460

1S/4W 3SE6

Woodward-Clyde Consultants

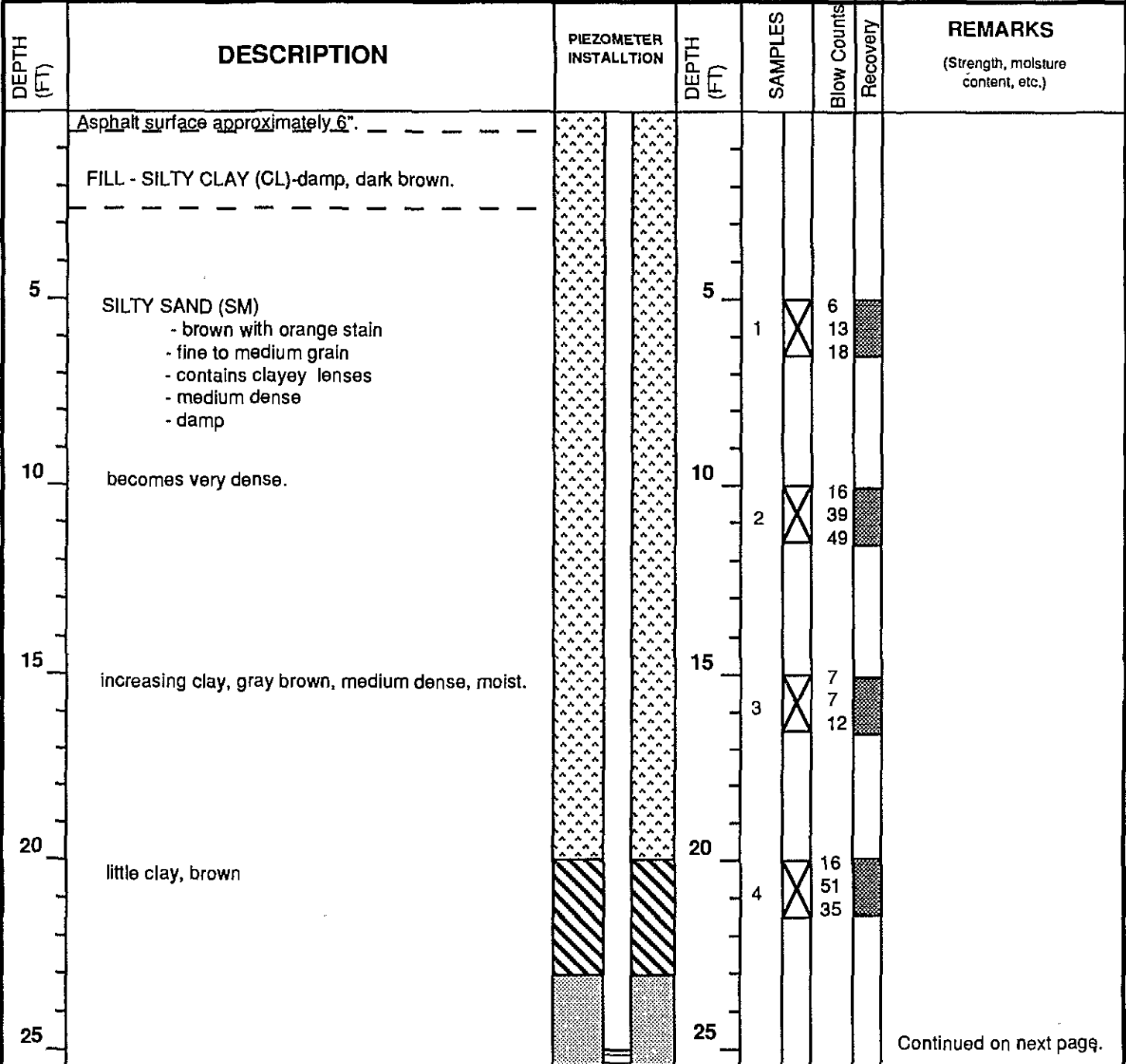


90C0039A

LOG OF MONITORING WELL

T-9 W-3

LOCATION Parcel T-9, 12th & Clay Streets, Oakland, California		ELEVATION AND DATUM 32.77 feet (C.O.O. D.)	
AGENCY Sierra Pacific	DRILLER Derald/Aaron	DATE STARTED 2/8/90	
EQUIPMENT Mobile Drill B-53		DATE COMPLETED 2/8/90	
METHOD 8"-diam Hollow Stem Auger	DRILL BIT	COMPLETION DEPTH 37-1/2'	
CASING 2 in.-diameter Schedule 40 PVC		SAMPLERS Modified California 2-in.-diam.	
PERFORATIONS 0.020 in. slot	FROM 25' TO 35'	NO. OF SAMPLES	DIST. UNDIST. 6
PACK #3 Monterey sand	FROM 23' TO 37-1/2'	WATER LEVEL	ATD 27' COMPL 24 HR
TYPE OF SEALS	Activated 3/8" bentonite pellets	FROM 20' TO 23'	LOGGED BY Lois Gruenberg
	Sand cement grout	FROM 0' TO 20'	



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01-446E

Woodward-Clyde Consultants

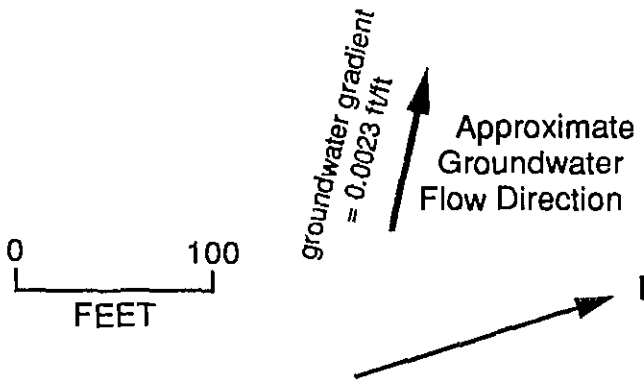
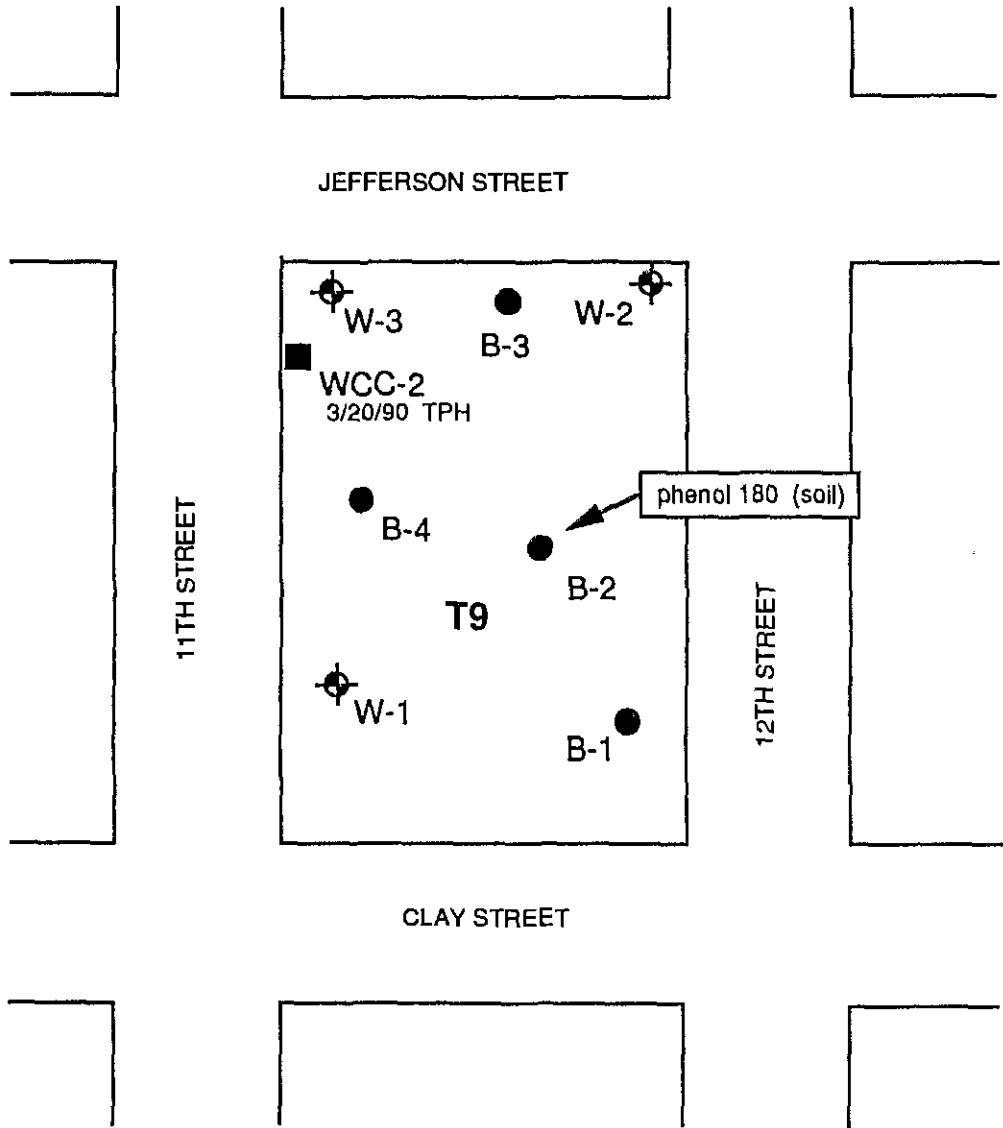


90C0039A

LOG OF MONITORING WELL

T-9 W-3

DEPTH (FT)	DESCRIPTION	PIEZOMETER INSTALLTION	DEPTH (FT)	SAMPLES	Blow Counts	Recovery	REMARKS (Strength, moisture content, etc.)
25	<p>SILTY SAND (SM) Continues</p> <p>increasing clay, gray, very moist to wet.</p> <p>▽ ATD ▽ 3/13/90</p> <p>little clay, gray.</p>		25	5	16 18 21		
30			30	6	16 21 25		
35			35				
40	Bottom of Boring at 38.5 feet		40				
45			45				
50			50				
55			55				



- Legend:**
- Monitoring Well
 - Soil Boring
 - WCC Geotechnical Boring
- phenol 180 (soil) - analysis indicates compound in groundwater (gw) or soil (soil), concentration expressed as ppb

Project No. 90C0039A		PARCEL T9 - BORING AND MONITORING WELL LOCATIONS	FIGURE 2
Woodward-Clyde Consultants			

Woodward-Clyde Consultants	90C0039A	LOG OF MONITORING WELL T-12 W-1
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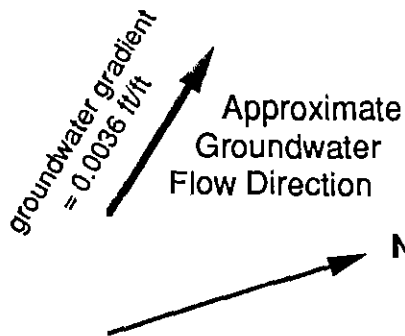
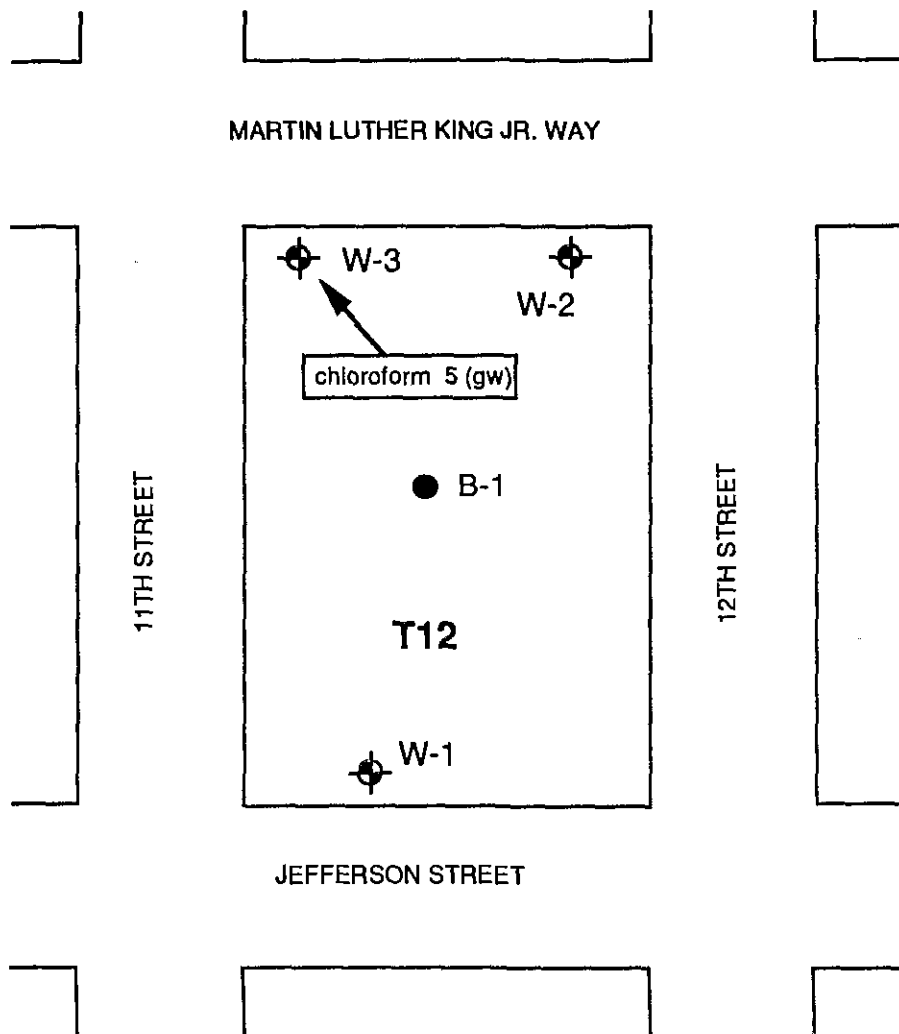
LOCATION Parcel T-12, 12th & Clay Streets, Oakland, California		ELEVATION AND DATUM 33.81 feet (C.O.O.D.)	
AGENCY Sierra Pacific		DRILLER Derald/Aaron	
EQUIPMENT Mobile Drill B-53		DATE STARTED 2/9/90	
METHOD 8"-diam Hollow Stem Auger		DRILL BIT	
CASING 2 in.-diameter Schedule 40 PVC		SAMPLERS Modified California 2-in.-diam.	
PERFORATIONS 0.020 in. slot		FROM 25'	TO 35'
PACK #3 Monterey sand		FROM 23'	TO 37-1/2'
TYPE OF SEALS		FROM 20'	TO 23'
Activated 3/8" bentonite pellets		FROM 0'	TO 20'
Sand cement grout			
		NO. OF SAMPLES DIST. 6 UNDIST.	
		WATER LEVEL ATD 27' COMPL 24 HR	
		LOGGED BY Lois Gruenberg	
		CHECKED BY Michael McGuire	

DEPTH (FT)	DESCRIPTION	PIEZOMETER INSTALLTION	DEPTH (FT)	SAMPLES	Blow Counts	Recovery	REMARKS <small>(Strength, moisture content, etc.)</small>
	Asphalt surface approximately 6".						
	FILL - SILTY SAND (SM)- light and dark brown, fine to medium grained, some silt, damp						
5	SILTY SAND (SM) - brown with orange stain - fine to medium sand - clay lenses - medium dense - damp		5	1	5 6 16		
10	becomes brown, very dense		10	2	16 36 46		
15	increasing clay, becomes gray brown, moist.		15	3	21 /6"		
20	little clay, brown, medium dense.		20	4	10 10 18		
25			25				

Continued on next page.



DEPTH (FT)	DESCRIPTION	PIEZOMETER INSTALLTION	DEPTH (FT)	SAMPLES	Blow Counts	Recovery	REMARKS (Strength, moisture content, etc.)
<p>25</p> <p>30</p> <p>35</p>	<p>SILTY SAND (SM) Continued</p> <p>▽ ATD ▽ 3/13/90</p> <p>becomes gray brown.</p>		<p>25</p> <p>30</p> <p>35</p>	<p>5</p> <p>6</p>	<p>10 16 21</p> <p>10 19 27</p>		
<p>40</p> <p>45</p> <p>50</p> <p>55</p>	<p>Bottom of Boring at 37.5 feet</p>		<p>40</p> <p>45</p> <p>50</p> <p>55</p>				



Legend:

-  Monitoring Well
-  Soil Boring

chloroform 5 (gw) - analysis indicates compound in groundwater (gw) or soil (soil), concentration expressed as ppb

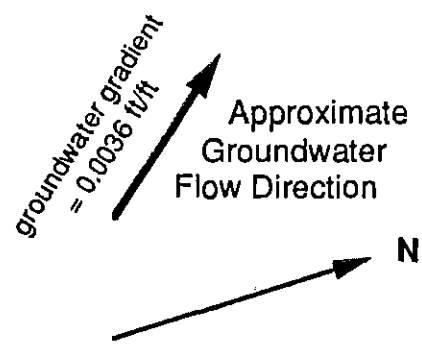
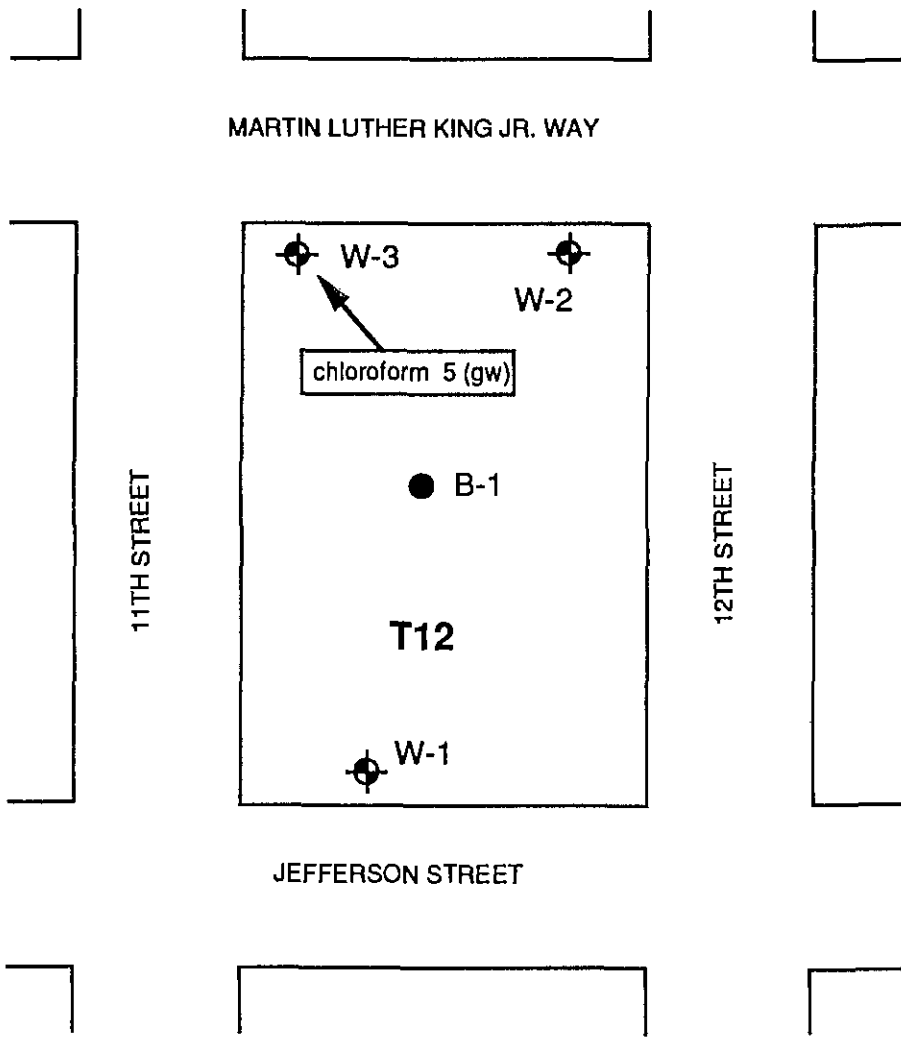
Project No. 90C0039A		PARCEL T12 - BORING AND MONITORING WELL LOCATIONS	FIGURE 2
Woodward-Clyde Consultants			

01-446E 1S/4W 35E8

LOCATION Parcel T-12, 12th & Clay Streets, Oakland, California		ELEVATION AND DATUM 32.34 feet (C.O.O. D.)	
AGENCY Sierra Pacific	DRILLER Derald/Aaron	DATE STARTED 2/12/90	
EQUIPMENT Mobile Drill B-53		DATE COMPLETED 2/12/90	
METHOD 8"-diam Hollow Stem Auger	DRILL BIT	COMPLETION DEPTH 37-1/2'	
CASING 2 in.-diameter Schedule 40 PVC		SAMPLERS Modified California 2-in.-diam.	
PERFORATIONS 0.020 in. slot	FROM 25' TO 35'	NO. OF SAMPLES	DIST. UNDIST. 6
PACK #3 Monterey sand	FROM 23' TO 37-1/2'	WATER LEVEL	ATD 27' COMPL 24 HR
TYPE OF SEALS	Activated 3/8" bentonite pellets	LOGGED BY	
	Sand cement grout	Lois Gruenberg	
	FROM 20' TO 23'	CHECKED BY	
	FROM 0' TO 20'	Michael McGuire	

DEPTH (FT)	DESCRIPTION	PIEZOMETER INSTALLTION	DEPTH (FT)	SAMPLES	Blow Counts	Recovery	REMARKS <small>(Strength, moisture content, etc.)</small>
5	<p>SILTY SAND (SM)</p> <ul style="list-style-type: none"> - brown with orange stain and blue-gray veins - fine to medium grain - some clay - medium dense - damp <p><i>becomes brown.</i></p> <p><i>increasing clay, becomes moist</i></p>		5	1	6 9 20		
10			2	9 12 18			
15			3				
20			4				
25			25				

Continued on next page.



Legend:

- Monitoring Well
- Soil Boring

chloroform 5 (gw) - analysis indicates compound in groundwater (gw) or soil (soil), concentration expressed as ppb

Project No. 90C0039A	PARCEL T12 - BORING AND MONITORING WELL LOCATIONS	FIGURE 2
Woodward-Clyde Consultants		

Person

01-446F 1S14W 3SE

Woodward-Clyde Consultants



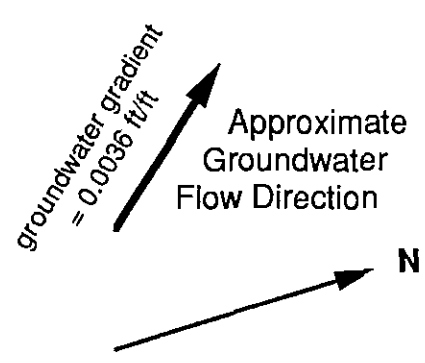
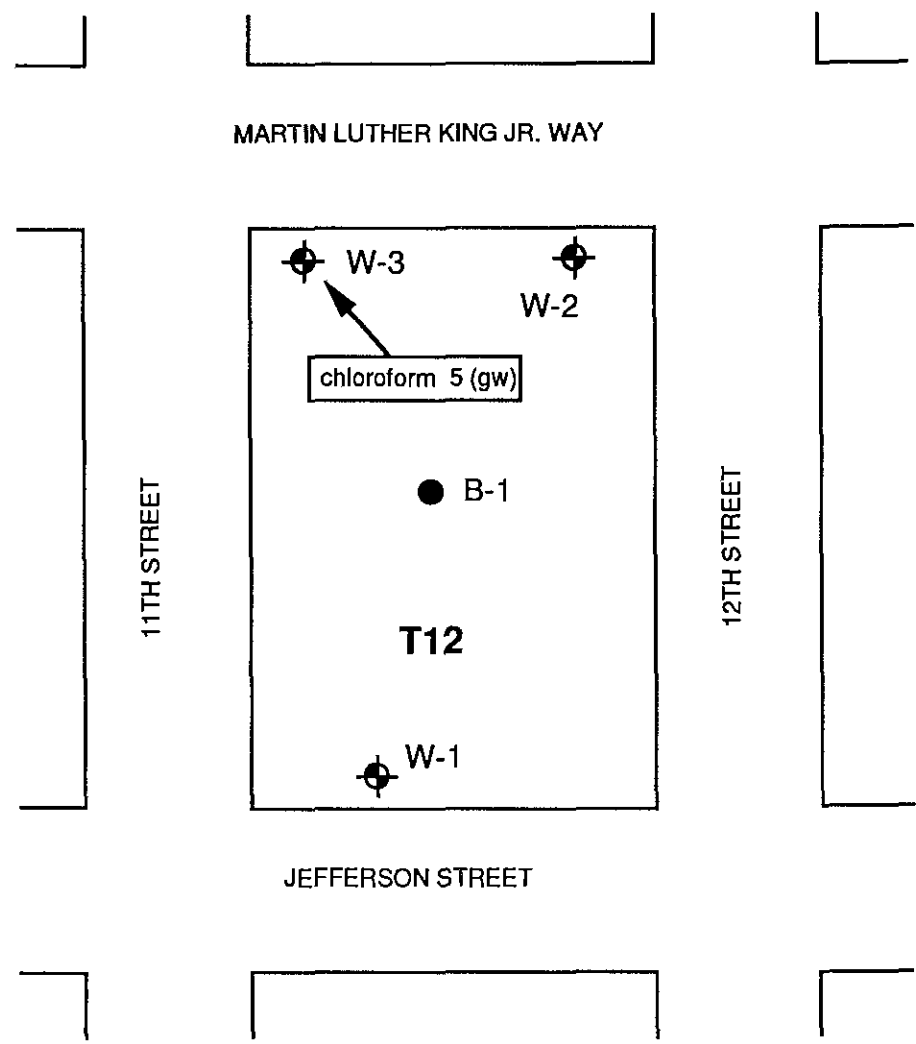
90C0039A



LOG OF BORING

T-12 B-1

LOCATION Parcel T-9, 12th & Clay Sts., Oakland, California		ELEVATION AND DATUM	
AGENCY Sierra Pacific	DRILLER Derald/Aaron	DATE STARTED 2/16/90	
EQUIPMENT Mobil Drill B-53		DATE COMPLETED 2/16/90	
METHOD 8"-diam Hollow Stem Auger	DRILL BIT	COMPLETION DEPTH 26-1/2'	
CASING		SAMPLERS Modified California 2-in.-diam.	
PERFORATIONS	FROM TO	NO. OF SAMPLES	DIST. UNDIST. 5
PACK	FROM TO	WATER LEVEL	ATD COMPL 24 HR
TYPE OF SEALS	FROM TO	LOGGED BY	
	Sand cement grout	FROM 0' TO 26-1/2'	Lois Gruenberg
		CHECKED BY Michael McGuire	

DEPTH (FT)	DESCRIPTION	DEPTH (FT)	SAMPLES	Blow Counts		REMARKS (Strength, moisture content, etc.)
				Recovery		
	Asphalt surface approximately 6".					
5	FILL - contains brick fragments and gravel	5	1			No recovery.
10	SILTY SAND (SM) - brown with orange stain - fine to medium sand - medium dense - damp	10	2	21 25 28		
15		15	3	17 19 25		
20		20	4	21 31 38		
25		25	5	28 24 38		
	Bottom of Boring at 26.5 feet					
30		30				



- Legend:**
-  Monitoring Well
 -  Soil Boring
- chloroform 5 (gw) - analysis indicates compound in groundwater (gw) or soil (soil), concentration expressed as ppb

Project No. 90C0039A		PARCEL T12 - BORING AND MONITORING WELL LOCATIONS	FIGURE 2
Woodward-Clyde Consultants			

11th & Clay

01-446915/4W 35E

Woodward-Clyde Consultants	90C0039A	LOG OF BORING T-9 B-3
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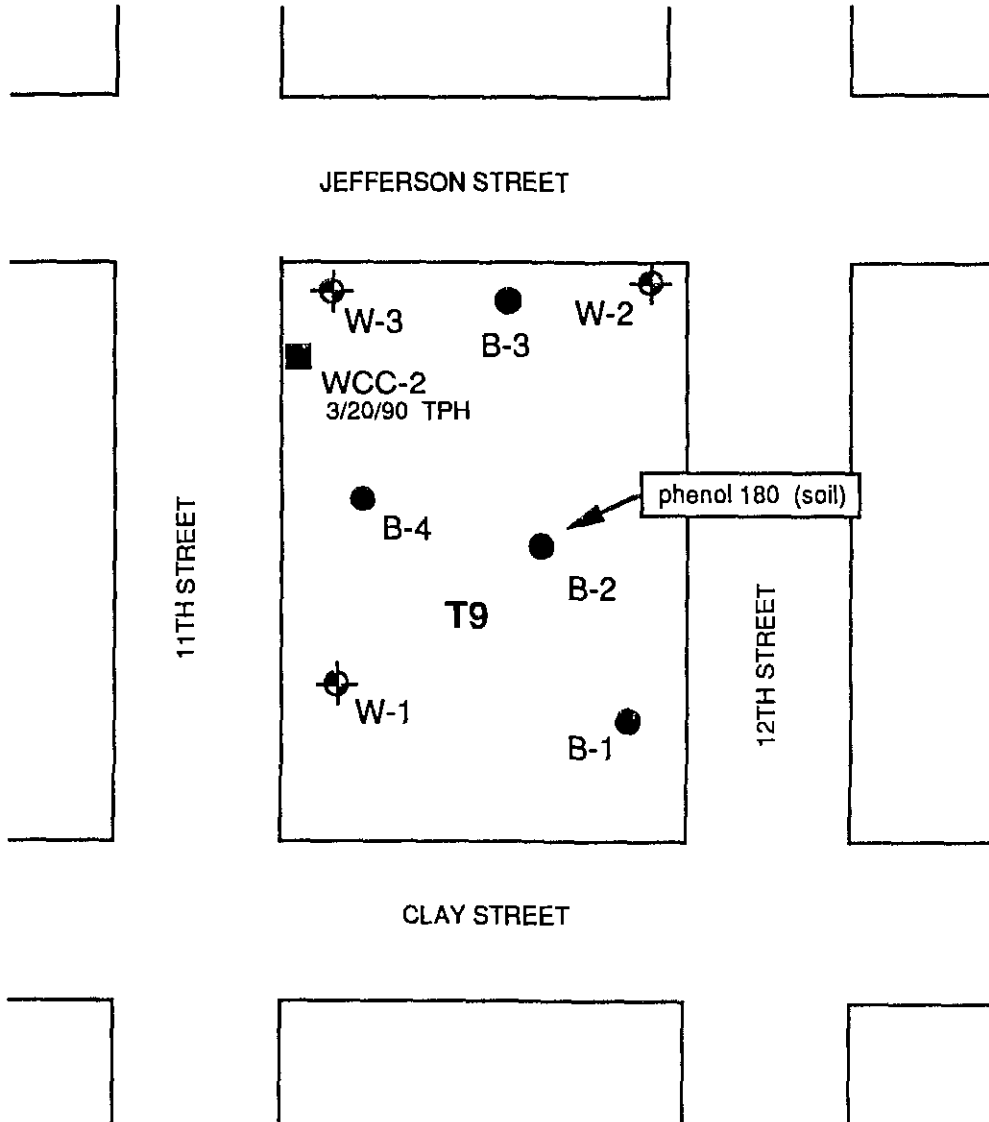
LOCATION Parcel T-9, 12th & Clay Sts., Oakland, California		ELEVATION AND DATUM	
AGENCY Sierra Pacific	DRILLER Derald/Aaron	DATE STARTED 2/15/90	
EQUIPMENT Mobil Drill B-53		DATE COMPLETED 2/15/90	
METHOD 8"-diam Hollow Stem Auger	DRILL BIT	COMPLETION DEPTH 26-1/2'	
CASING		SAMPLERS Modified California 2-in.-diam.	
PERFORATIONS	FROM TO	NO. OF SAMPLES	DIST. UNDIST. 5
PACK	FROM TO	WATER LEVEL	ATD COMPL 24 HR
TYPE OF SEALS	FROM TO	LOGGED BY	
	Sand cement grout	FROM 0' TO 26-1/2'	Lois Gruenberg
		CHECKED BY Michael McGuire	

DEPTH (FT)	DESCRIPTION	DEPTH (FT)	SAMPLES	Blow Counts	Recovery	REMARKS <small>(Strength, moisture content, etc.)</small>
	Asphalt surface approximately 6".					
	FILL - contains brick fragments					
5	SILTY SAND (SM) - brown with orange stain - fine to medium sand - medium dense - damp	5	1	6 13 21		
10		10	2	18 21 30		
15	becomes gray, some clay.	15	3	21 35 48		
20	becomes brown, no clay.	20	4	15 25 38		
25	becomes gray, some clay.	25	5	30 41 49		
30	Bottom of Boring at 26.5 feet	30				

01-446615/4W 35E

LOCATION Parcel T-9, 12th & Clay Sts., Oakland, California		ELEVATION AND DATUM	
AGENCY Sierra Pacific	DRILLER Derald/Aaron	DATE STARTED 2/16/90	
EQUIPMENT Mobil Drill B-53		DATE COMPLETED 2/16/90	
METHOD 8"-diam Hollow Stem Auger	DRILL BIT	COMPLETION DEPTH 26-1/2'	
CASING		SAMPLERS Modified California 2-in.-diam.	
PERFORATIONS	FROM TO	NO. OF SAMPLES	DIST. UNDIST. 5
PACK	FROM TO	WATER LEVEL	ATD COMPL 24 HR
TYPE OF SEALS	FROM TO	LOGGED BY	
Sand cement grout	FROM 0' TO 26-1/2'	Lois Gruenberg	
		CHECKED BY Michael McGuire	

DEPTH (FT)	DESCRIPTION	DEPTH (FT)	SAMPLES	Blow Counts	Recovery	REMARKS (Strength, moisture content, etc.)
	Asphalt surface approximately 6".					
	FILL - contains some brick fragments.					
5	SILTY SAND (SM) - brown - fine to medium sand - medium dense - damp	5	1	6 18 21		
10	becomes brown with orange stain.	10	2	13 20 30		
15	becomes brown.	15	3	18 24 31		
20	increasing clay.	20	4	18 25 38		
25	becomes brown with orange stain.	25	5	21 25 39		
	Bottom of Boring at 26.5 feet					
30		30				



groundwater gradient
= 0.0023 ft/ft

Approximate
Groundwater
Flow Direction

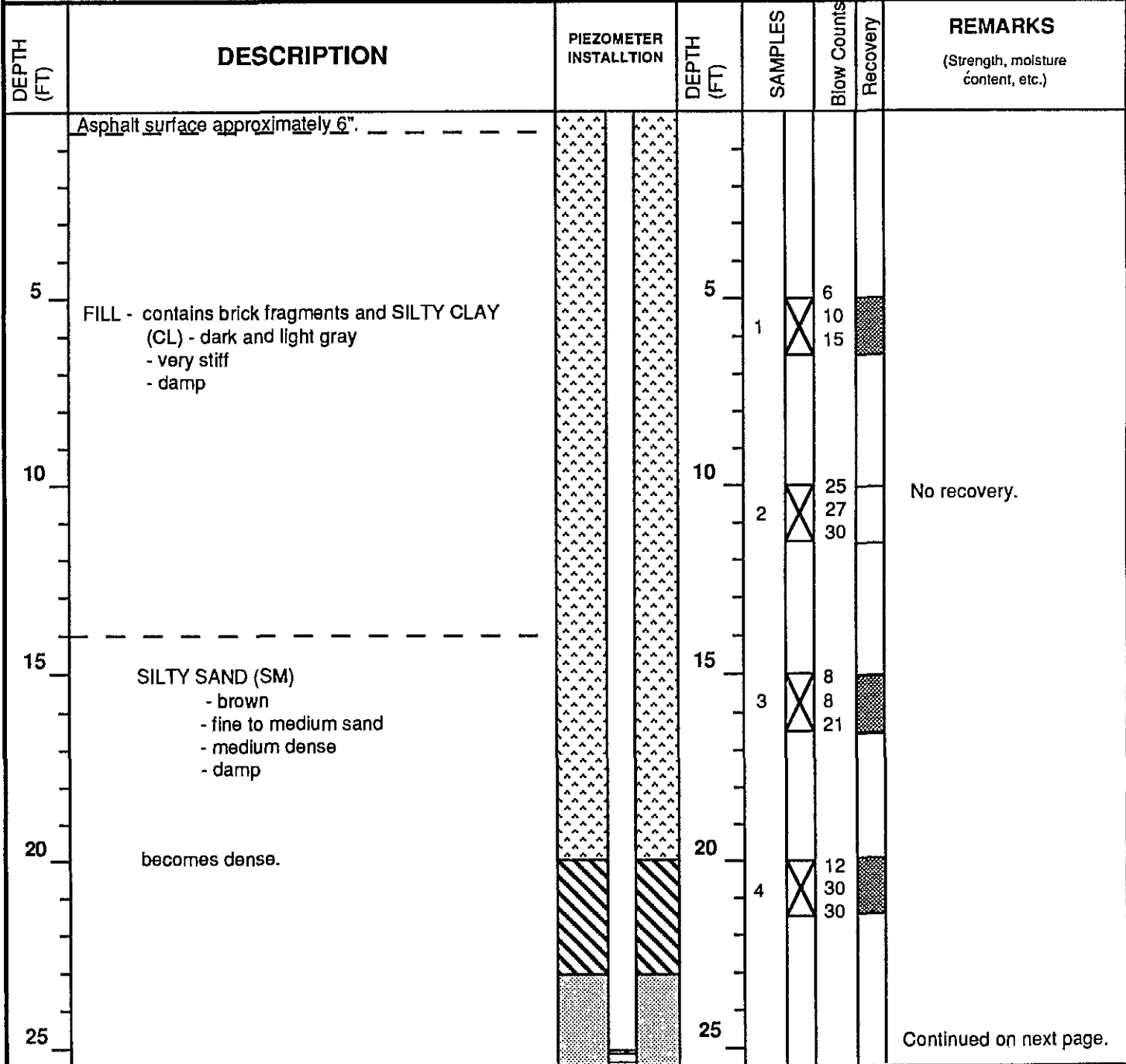
Legend:

- Monitoring Well
 - Soil Boring
 - WCC Geotechnical Boring
- phenol 180 (soil) - analysis indicates compound in groundwater (gw) or soil (soil), concentration expressed as ppb

Project No. 90C0039A	PARCEL T9 - BORING AND MONITORING WELL LOCATIONS	FIGURE 2
Woodward-Clyde Consultants		

01-446H 1S/4W 35 F8

LOCATION Parcel T-9, 12th & Clay Streets, Oakland, California		ELEVATION AND DATUM 33.93 feet (C. O. O. D.)	
AGENCY Sierra Pacific	DRILLER Derald/Aaron	DATE STARTED 2/13/90	
EQUIPMENT Mobile Drill B-53		DATE COMPLETED 2/13/90	
METHOD 8"-diam Hollow Stem Auger	DRILL BIT	COMPLETION DEPTH 37-1/2'	
CASING 2 in.-diameter Schedule 40 PVC		SAMPLERS Modified California 2-in.-diam.	
PERFORATIONS 0.020 in. slot	FROM 25' TO 35'	NO. OF SAMPLES	DIST.
PACK #3 Monterey sand	FROM 23' TO 37-1/2'	WATER LEVEL	UNDIST. 6
TYPE OF SEALS	FROM 20' TO 23'	ATD 27'	COMPL 24 HR
Activated 3/8" bentonite pellets	FROM 0' TO 20'	LOGGED BY Lois Gruenberg	
Sand cement grout		CHECKED BY Michael McGuire	



01-4464

Woodward-Clyde Consultants

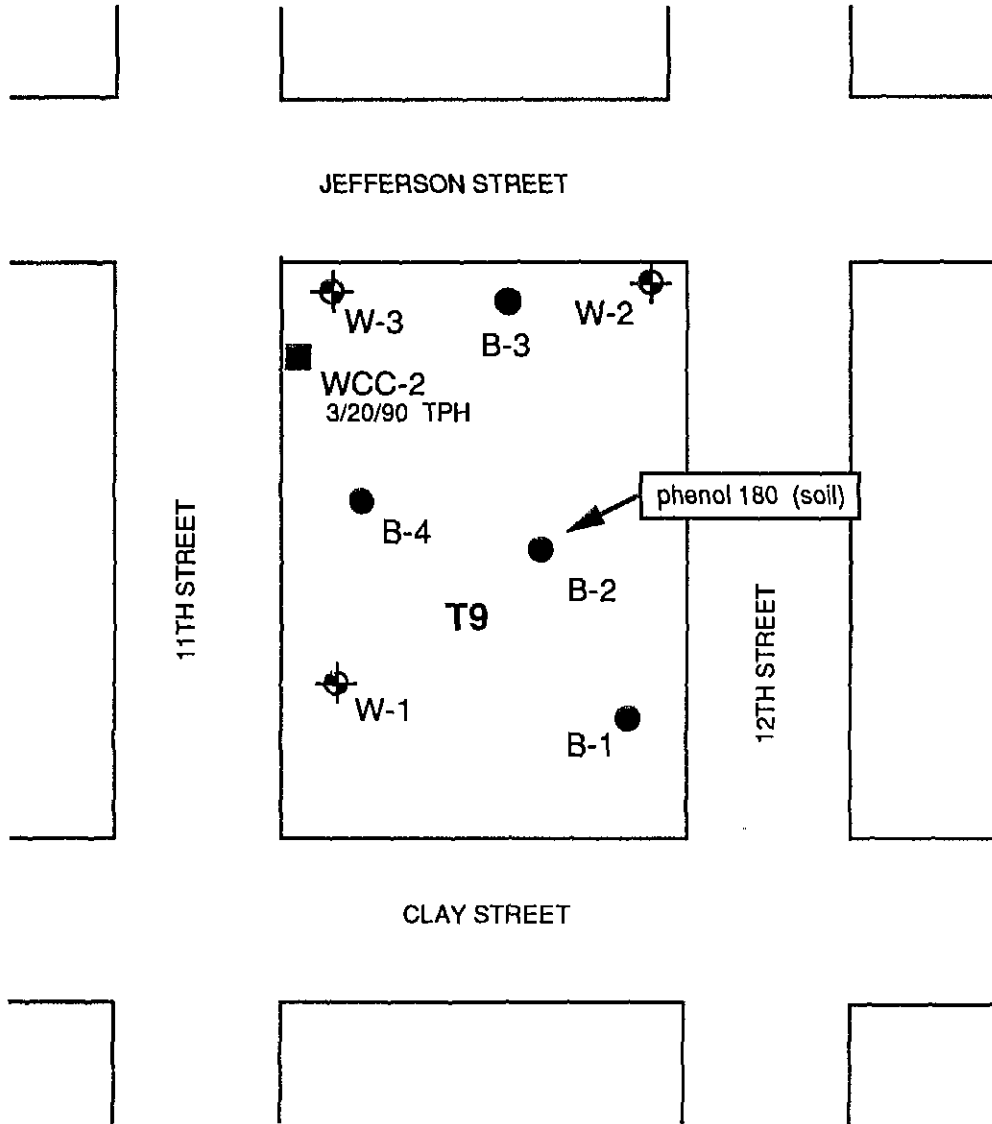


90C0039A

LOG OF MONITORING WELL

T-9 W-1

DEPTH (FT)	DESCRIPTION	PIEZOMETER INSTALLTION	DEPTH (FT)	SAMPLES	Blow Counts	Recovery	REMARKS (Strength, moisture content, etc.)
<p>25</p> <p>30</p> <p>35</p>	<p>SILTY SAND (SM) Continued</p> <p>Increasing clay, becomes moist.</p> <p>▽ ATD ▽ 3/13/90</p>		<p>25</p> <p>30</p> <p>35</p>	<p>5</p> <p>6</p>	<p>14</p> <p>18</p> <p>19</p> <p>20</p> <p>38</p> <p>45</p>		
<p>40</p> <p>45</p> <p>50</p> <p>55</p>	<p>Bottom of Boring at 37.5 feet</p>		<p>40</p> <p>45</p> <p>50</p> <p>55</p>				



groundwater gradient
= 0.0023 ft/ft

Approximate
Groundwater
Flow Direction

0 100
FEET

Legend:

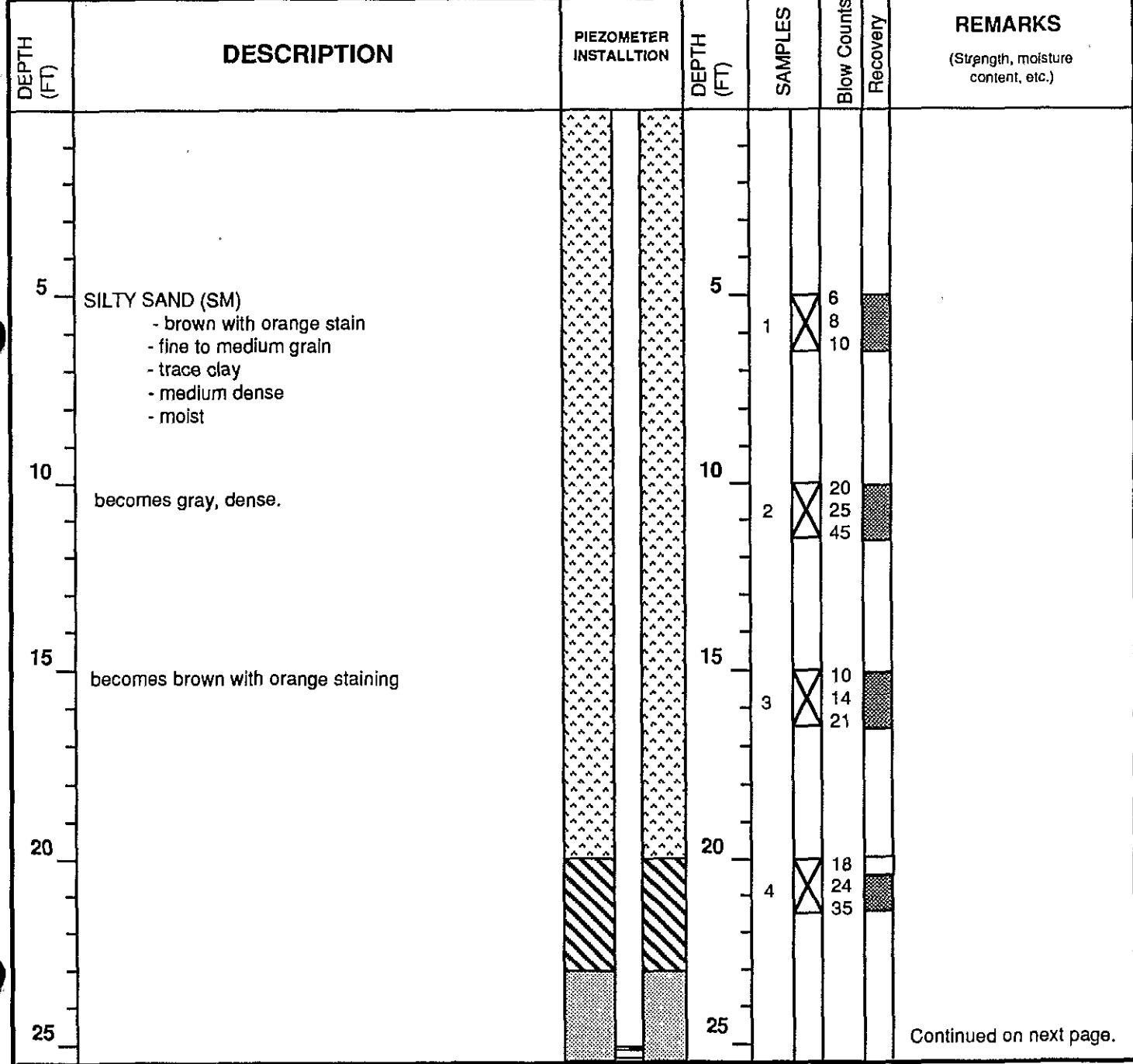
- ⊕ Monitoring Well
- Soil Boring
- WCC Geotechnical Boring

phenol 180 (soil) - analysis indicates compound in groundwater (gw) or soil (soil), concentration expressed as ppb

Project No. 90C0039A	PARCEL T9 - BORING AND MONITORING WELL LOCATIONS	FIGURE 2
Woodward-Clyde Consultants		

01-446 I 15/4W 35F9

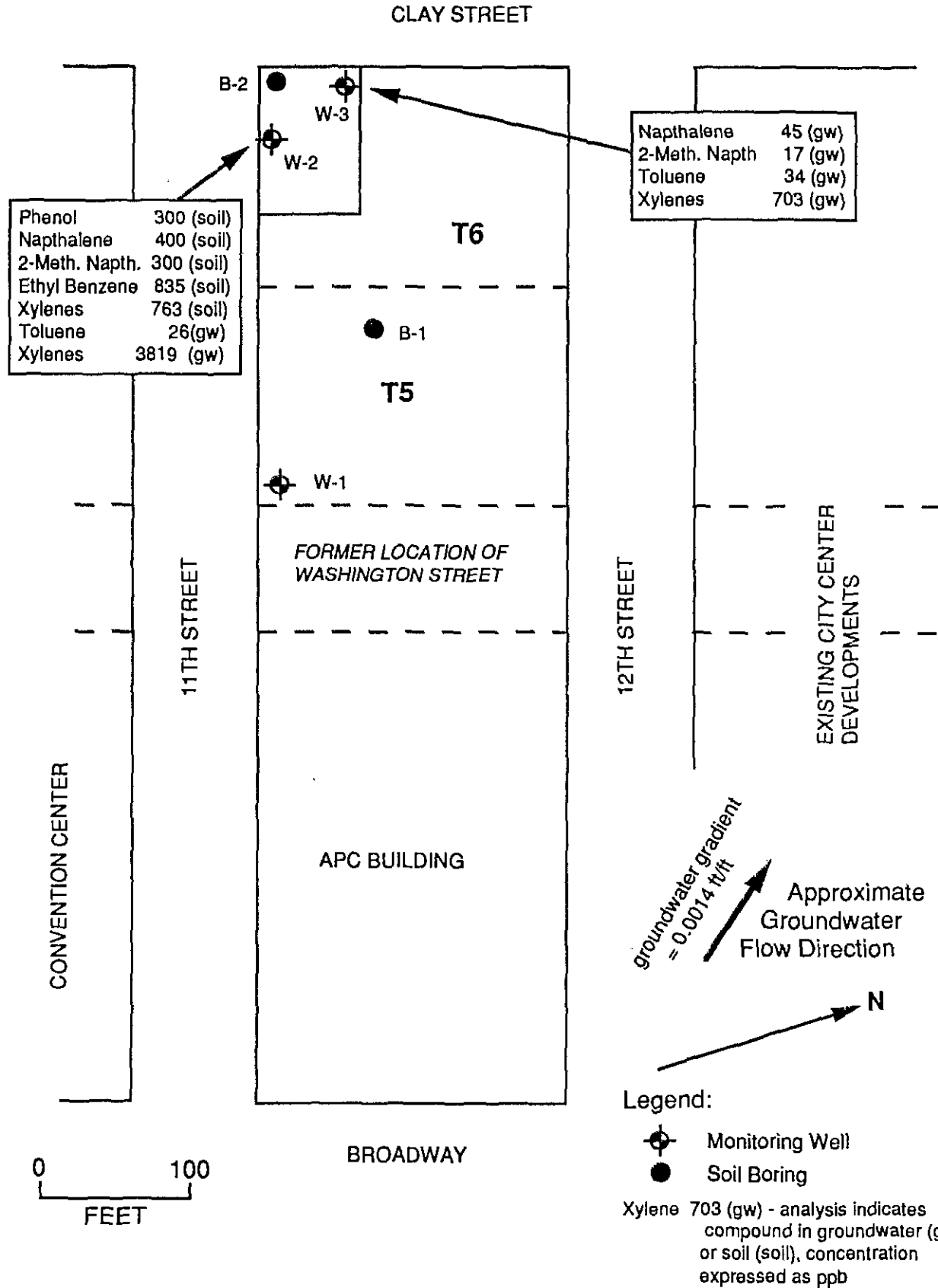
LOCATION Parcel T-6, 12th & Clay Streets, Oakland, California		ELEVATION AND DATUM 36.98 feet (C.O.O.D.)	
AGENCY Sierra Pacific		DRILLER Derald/Aaron	
EQUIPMENT Mobile Drill B-53		DATE STARTED 2/15/90	
METHOD 8"-diam Hollow Stem Auger		DATE COMPLETED 2/15/90	
CASING 2 in.-diameter Schedule 40 PVC		COMPLETION DEPTH 37-1/2'	
PERFORATIONS 0.020 in. slot		SAMPLERS Modified California 2-in.-diam.	
PACK #3 Monterey sand		NO. OF SAMPLES	UNDIST. 6
TYPE OF SEALS		WATER LEVEL	ATD 27'
FROM 25' TO 35'		COMPL	24 HR
FROM 23' TO 37-1/2'		LOGGED BY Lois Gruenberg	
FROM 20' TO 23'		CHECKED BY Michael McGuire	
FROM 0' TO 20'			



Continued on next page.

01-446I 1S/4W 35F9

DEPTH (FT)	DESCRIPTION	PIEZOMETER INSTALLTION	DEPTH (FT)	SAMPLES	Blow Counts	Recovery	REMARKS <small>(Strength, moisture content, etc.)</small>
25 30 35	becomes brown. ▽ ATD ▽ 3/13/90		25 30 35	5 6	20 34 48 29 39 42		
40 45 50 55	Bottom of Boring at 37.5 feet		40 45 50 55				



Project No. 90C0039A	PARCELS T5 AND T6 - BORING AND MONITORING WELL LOCATIONS	FIGURE 2
Woodward-Clyde Consultants		

Woodward-Clyde Consultants



90C0039A

LOG OF MONITORING WELL

T-6 W-2

LOCATION Parcel T-6, 12th & Clay Streets, Oakland, California		ELEVATION AND DATUM 34.61 feet (C.O.O.D.)	
AGENCY Sierra Pacific	DRILLER Derald/Aaron	DATE STARTED 2/14/90	
EQUIPMENT Mobile Drill B-53		DATE COMPLETED 2/14/90	
METHOD 8"-diam Hollow Stem Auger	DRILL BIT	COMPLETION DEPTH 37-1/2'	
CASING 2 in.-diameter Schedule 40 PVC		SAMPLERS Modified California 2-in.-diam.	
PERFORATIONS 0.020 in. slot	FROM 25' TO 35'	NO. OF SAMPLES	DIST. UNDIST. 6
PACK #3 Monterey sand	FROM 23' TO 37-1/2'	WATER LEVEL	ATD 27' COMPL 24 HR
TYPE OF SEALS	Activated 3/8" bentonite pellets	FRDM 20' TO 23'	LOGGED BY Lois Gruenberg
	Sand cement grout	FROM 0' TO 20'		CHECKED BY Michael McGuire

DEPTH (FT)	DESCRIPTION	PIEZOMETER INSTALLTION	DEPTH (FT)	SAMPLES	Blow Counts		RECOVERY	REMARKS (Strength, moisture content, etc.)
5	SILTY SAND (SM) - brown with orange stain - fine to medium grain - trace clay - medium dense - damp becomes dense. becomes gray.		5	1	6	12	15	Strong gasoline odor. Continued on next page.
10			2	16	35	38		
15			3	11	24	28		
20			4	20	40	45		
25			25					

01-4465

Woodward-Clyde Consultants

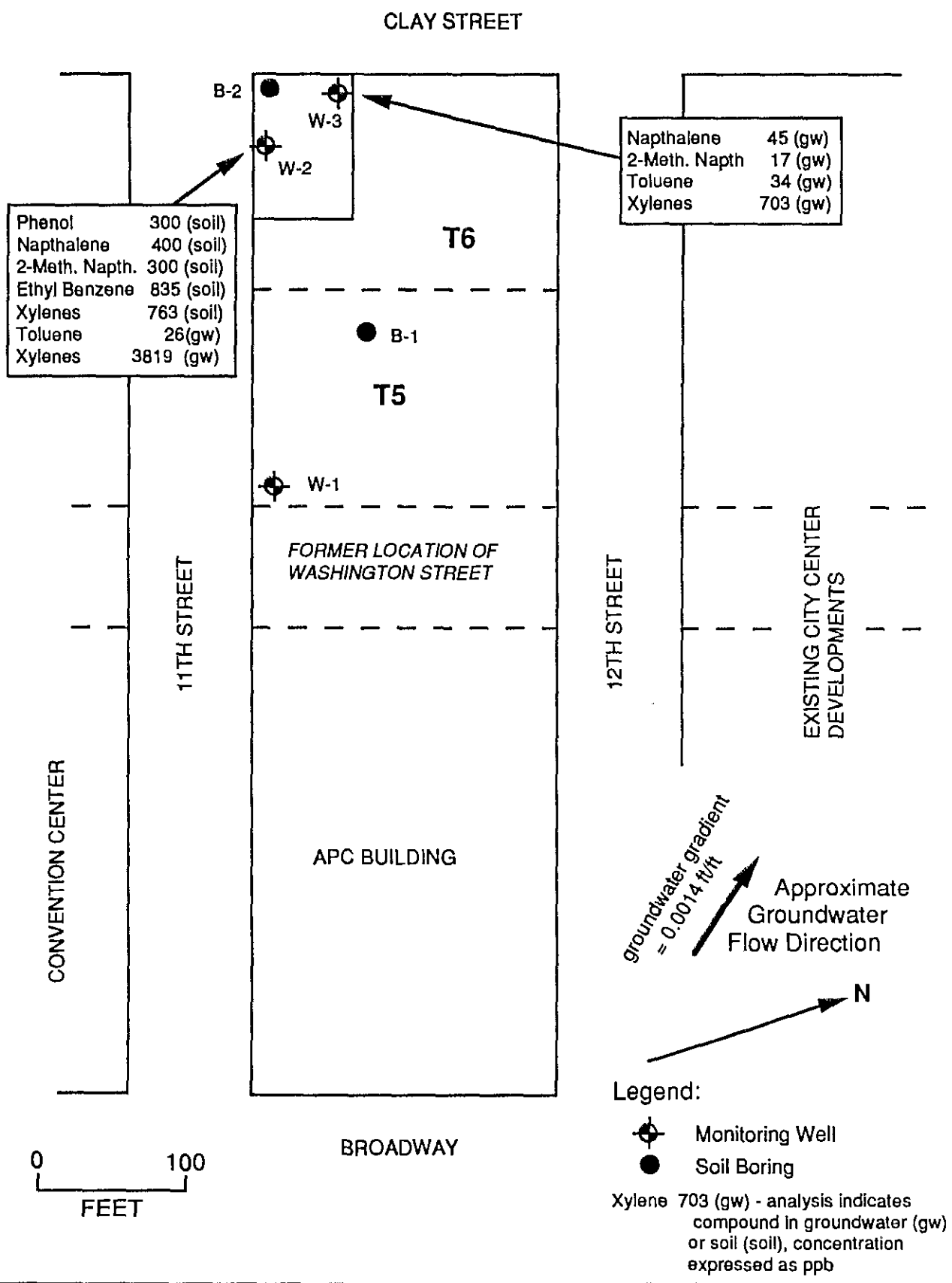


90C0039A

LOG OF MONITORING WELL

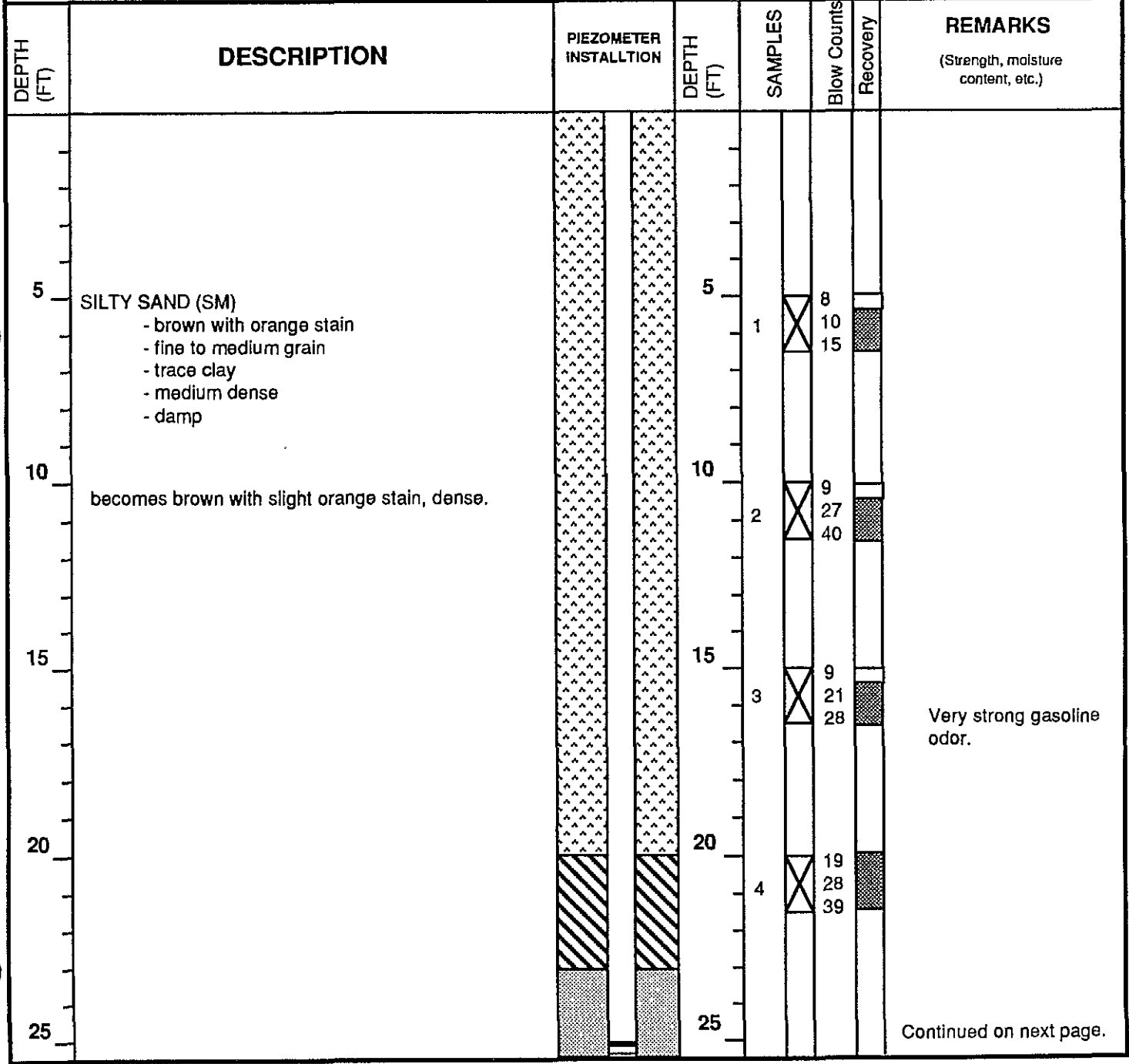
T-6 W-2

DEPTH (FT)	DESCRIPTION	PIEZOMETER INSTALLTION	DEPTH (FT)	SAMPLES	Blow Counts	Recovery	REMARKS (Strength, moisture content, etc.)
25 30 35	SILTY SAND (SM) Continued ∇ ATD ∇ 3/13/90		25 30 35	5 6	20 39 45 20 48 50/5		Strong gasoline odor.
40 45 50 55	Bottom of Boring at 37.5 feet		40 45 50 55				



Project No. 90C0039A	PARCELS T5 AND T6 - BORING AND MONITORING WELL LOCATIONS	FIGURE 2
Woodward-Clyde Consultants		

LOCATION Parcel T-6, 12th & Clay Streets, Oakland, California		ELEVATION AND DATUM 35.16 feet (C.O.O.D.)	
AGENCY Sierra Pacific		DRILLER Derald/Aaron	
EQUIPMENT Mobile Drill B-53		DATE STARTED 2/14/90	
METHOD 8"-diam Hollow Stem Auger		DATE COMPLETED 2/14/90	
CASING 2 in.-diameter Schedule 40 PVC		COMPLETION DEPTH 37-1/2'	
PERFORATIONS 0.020 in. slot		SAMPLERS Modified California 2-in.-diam.	
PACK #3 Monterey sand		NO. OF SAMPLES	DIST.
TYPE OF SEALS		UNDIST. 6	COMPL 24 HR
FROM 25' TO 35'		WATER LEVEL	ATD 27'
FROM 23' TO 37-1/2'		LOGGED BY Lois Gruenberg	
FROM 20' TO 23'		CHECKED BY Michael McGuire	
FROM 0' TO 20'			



01-446K

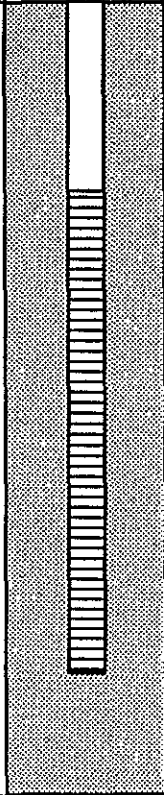

Woodward-Clyde Consultants

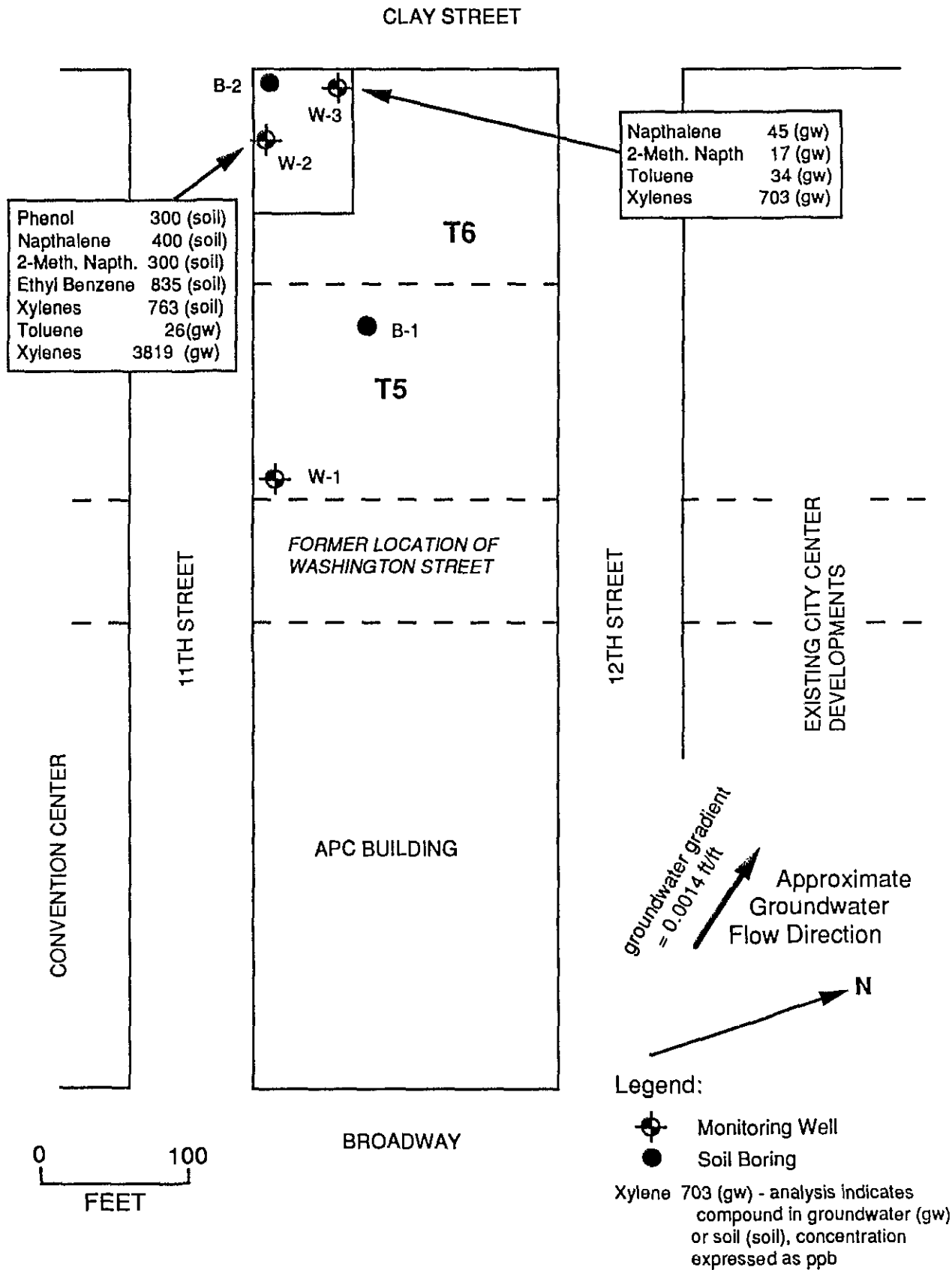


90C0039A

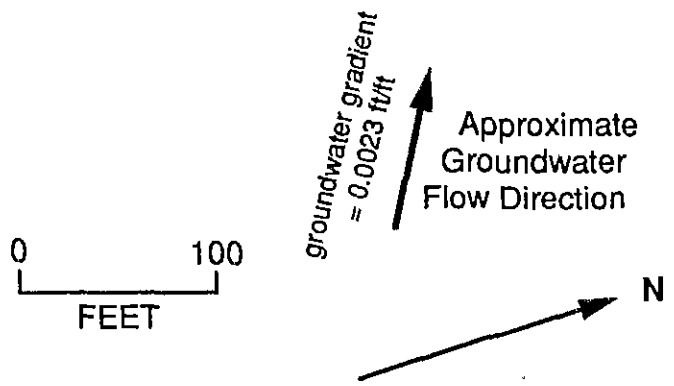
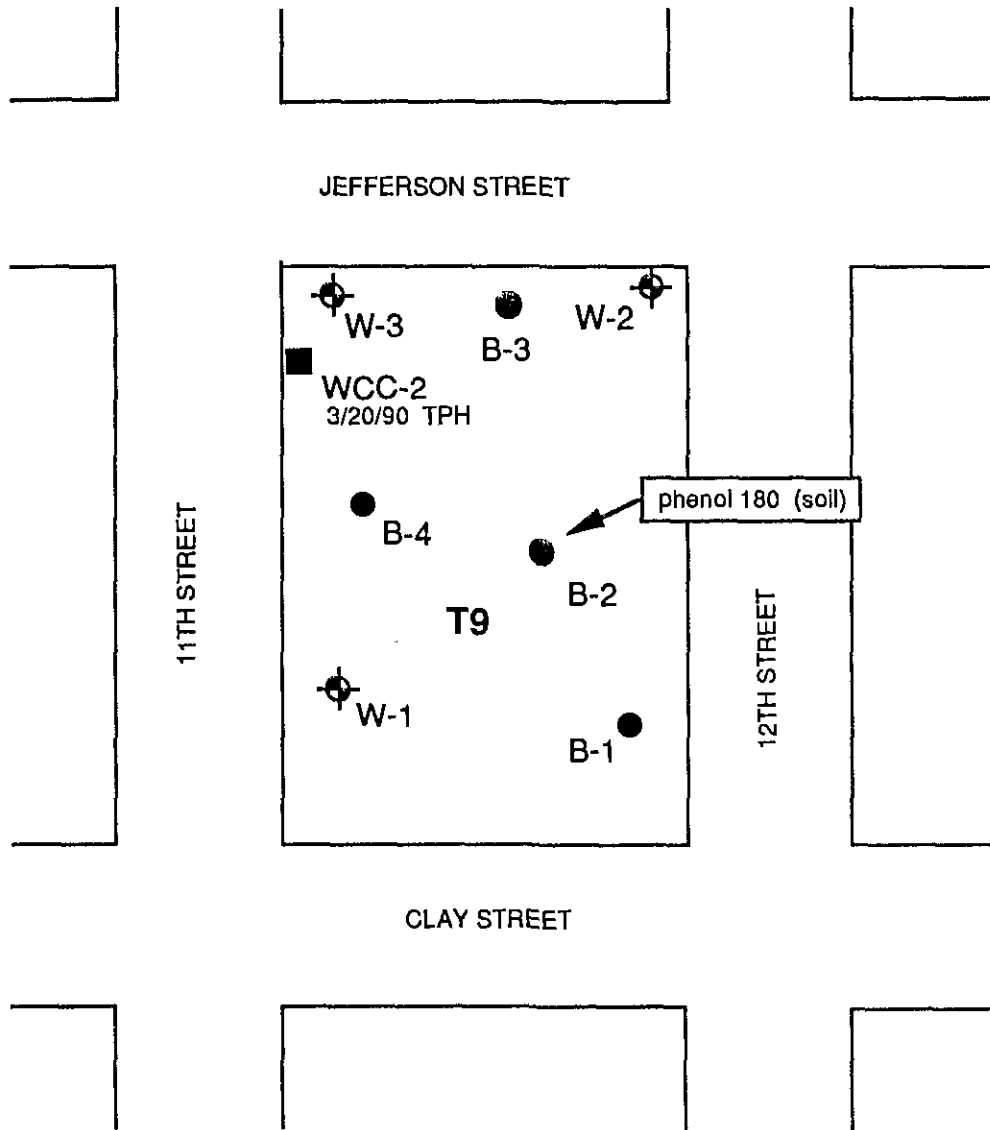
LOG OF MONITORING WELL

T-6 W-3

DEPTH (FT)	DESCRIPTION	PIEZOMETER INSTALLTION	DEPTH (FT)	SAMPLES	Blow Counts	Recovery	REMARKS (Strength, moisture content, etc.)
<p>25</p> <p>increasing silt, becomes light tan, moist.</p> <p>▽ ATD</p> <p>▽ 3/13/90</p> <p>30</p> <p>35</p>		<p>25</p> <p>30</p> <p>35</p>	<p>5</p> <p>6</p>	<p>16</p> <p>35</p> <p>41</p> <p>16</p> <p>29</p> <p>35</p>		<p>strong gasoline odor</p>	
<p>40</p> <p>45</p> <p>50</p> <p>55</p>	<p>Bottom of Boring at 37.5 feet</p>		<p>40</p> <p>45</p> <p>50</p> <p>55</p>				



Project No. 90C0039A	PARCELS T5 AND T6 - BORING AND MONITORING WELL LOCATIONS	FIGURE 2
Woodward-Clyde Consultants		



Legend:

- Monitoring Well
- Soil Boring
- WCC Geotechnical Boring

phenol 180 (soil) - analysis indicates compound in groundwater (gw) or soil (soil), concentration expressed as ppb

Project No. 90C0039A		PARCEL T9 - BORING AND MONITORING WELL LOCATIONS	FIGURE 2
Woodward-Clyde Consultants			

11th & Clay

01-446L1 S/4W 35F

Woodward-Clyde Consultants



90C0039A

LOG OF BORING

T-9 B-1

LOCATION Parcel T-9, 12th & Clay Sts., Oakland, California			ELEVATION AND DATUM		
AGENCY Sierra Pacific		DRILLER Derald/Aaron		DATE STARTED 2/13/90	
EQUIPMENT Mobil Drill B-53			DATE COMPLETED 2/13/90		
METHOD 8"-diam Hollow Stem Auger		DRILL BIT		COMPLETION DEPTH 26-1/2'	
CASING			SAMPLERS Modified California 2-in.-diam.		
PERFORATIONS		FROM	TO	NO. OF SAMPLES	DIST. UNDIST. 5
PACK		FROM	TO	WATER LEVEL	ATD COMPL 24 HR
TYPE OF SEALS	FROM		TO	LOGGED BY	
	Sand cement grout		FROM 0'	TO 26-1/2'	Lois Gruenberg
				CHECKED BY Michael McGuire	

DEPTH (FT)	DESCRIPTION	DEPTH (FT)	SAMPLES	Blow Counts		REMARKS (Strength, moisture content, etc.)
				Recovery		
	Asphalt surface approximately 6" - - - - -					
5	SILTY SAND (SM) - brown with orange stain - fine to medium sand - trace clay - loose - damp	5	1	3 4 6		
10	becomes brown, dense.	10	2	10 30 36		
15		15	3	12 21 30		
20	becomes brown with blue-gray veins.	20	4	29 35 50/3		
25	becomes light gray.	25	5	10 25		
				32		
30	Bottom of Boring at 26.5 feet	30				

11th & Broadway

15/4W 35F01-446M

Woodward-Clyde Consultants	90C0039A	LOG OF BORING T-6 B-1
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LOCATION Parcel T-6, 12th & Clay Sts., Oakland, California		ELEVATION AND DATUM	
AGENCY Sierra Pacific	DRILLER Derald/Aaron	DATE STARTED 2/16/90	
EQUIPMENT Mobil Drill B-53		DATE COMPLETED 2/16/90	
METHOD 8"-diam Hollow Stem Auger	DRILL BIT	COMPLETION DEPTH 16-1/2'	
CASING		SAMPLERS Modified California 2-in.-diam.	
PERFORATIONS	FROM TO	NO. OF SAMPLES	DIST. UNDIST. 3
PACK	FROM TO	WATER LEVEL	ATD 15' COMPL 24 HR
TYPE OF SEALS	FROM TO	LOGGED BY	
	Sand cement grout	FROM 0' TO 16-1/2'	Lois Gruenberg
		CHECKED BY Michael McGuire	

DEPTH (FT)	DESCRIPTION	DEPTH (FT)	SAMPLES	Blow Counts	Recovery	REMARKS <small>(Strength, moisture content, etc.)</small>
	Grass turf surface.					
5	SILTY SAND (SM) - mottled gray and brown with orange stain - fine to medium sand - trace clay - dense - damp	5	X	8 27 38		
10		10	X	18 25 38		
15		15	X			No recovery.
	Bottom of Boring at 16.5 feet					
20		20				
25		25				

Lic# C57-550205

1S/4W 35F 01-446W

LOCATION Parcel T-6, 12th & Clay Sts., Oakland, California		ELEVATION AND DATUM	
AGENCY Sierra Pacific	DRILLER Derald/Aaron	DATE STARTED 2/15/90	
EQUIPMENT Mobil Drill B-53		DATE COMPLETED 2/15/90	
METHOD 8"-diam Hollow Stem Auger	DRILL BIT	COMPLETION DEPTH 26.5'	
CASING		SAMPLERS Modified California 2-in.-diam.	
PERFORATIONS	FROM TO	NO. OF SAMPLES	DIST. UNDIST. 3
PACK	FROM TO	WATER LEVEL	ATD 26.5' COMPL 24 HR
TYPE OF SEALS	FROM TO	LOGGED BY	
	Sand cement grout	FROM 0' TO 26.5'	Lois Gruenberg
		CHECKED BY Michael McGuire	

DEPTH (FT)	DESCRIPTION	DEPTH (FT)	SAMPLES	Blow Counts	Recovery	REMARKS <small>(Strength, moisture content, etc.)</small>
	Grass turf surface.					
5	SILTY SAND (SM) - mottled gray and brown with orange stain - fine to medium sand - trace clay - dense - damp becomes brown with orange staining	5	1	2 2 2		
10		10	2	10 25 32		
15		15	3	20 23 30		
20		20	4	15 21 28		
25		25	5	28 39 42		
	▽ ATD Bottom of Boring at 26.5 feet					
30		30				

01-446LS/4W 35F

LOCATION Parcel T-9, 12th & Clay Sts., Oakland, California		ELEVATION AND DATUM	
AGENCY Sierra Pacific	DRILLER Derald/Aaron	DATE STARTED 2/13/90	
EQUIPMENT Mobil Drill B-53		DATE COMPLETED 2/13/90	
METHOD 8"-diam Hollow Stem Auger	DRILL BIT	COMPLETION DEPTH 26-1/2'	
CASING		SAMPLERS Modified California 2-in.-diam.	
PERFORATIONS	FROM TO	NO. OF SAMPLES	DIST. UNDIST. 5
PACK	FROM TO	WATER LEVEL	ATD COMPL 24 HR
TYPE OF SEALS	FROM TO	LOGGED BY	
Sand cement grout	FROM 0' TO 26-1/2'	Lois Gruenberg	
		CHECKED BY Michael McGuire	

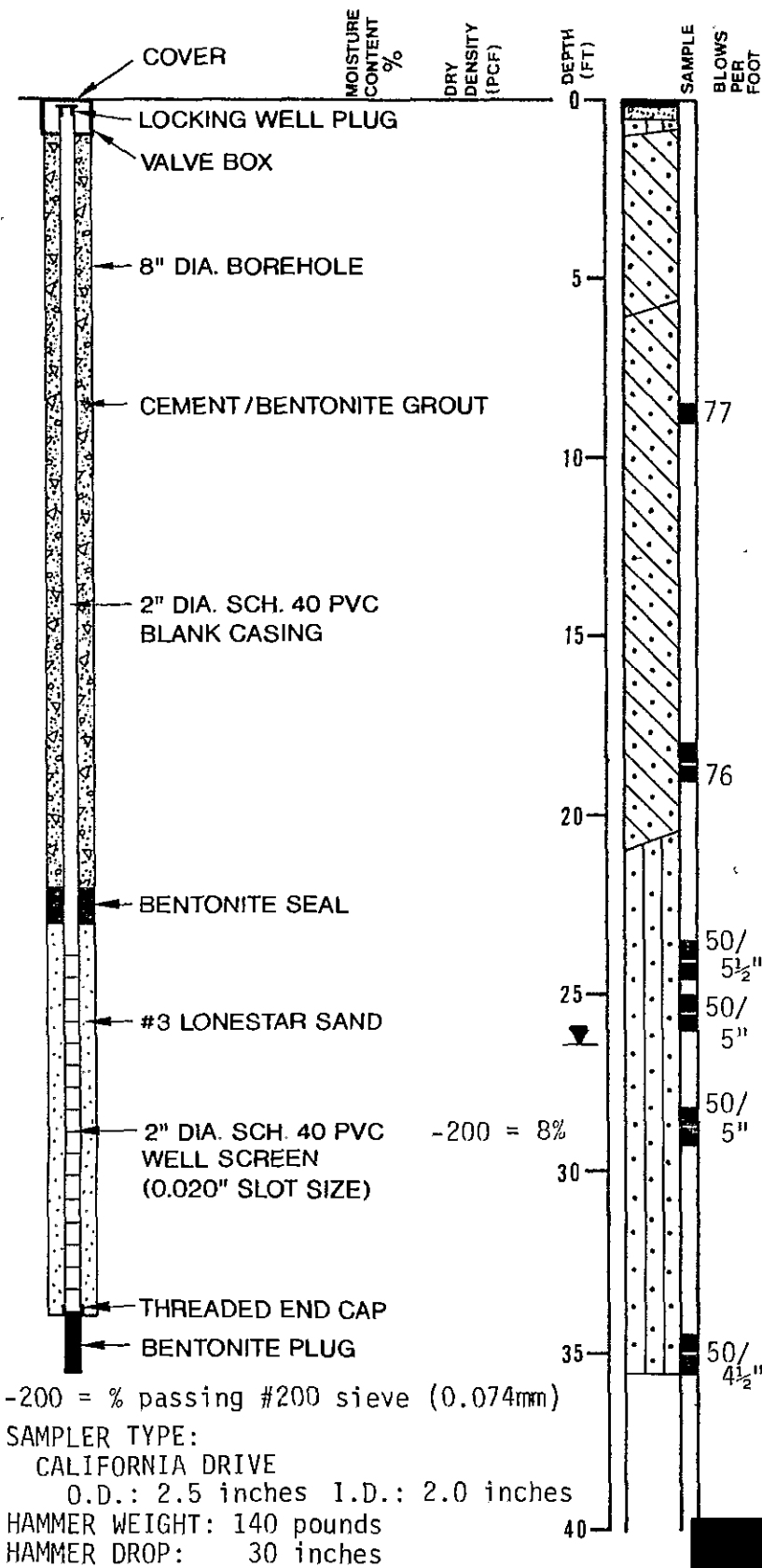
DEPTH (FT)	DESCRIPTION	DEPTH (FT)	SAMPLES	Blow Counts	Recovery	REMARKS (Strength, moisture content, etc.)
	Asphalt surface approximately 6" -----					
5	SILTY SAND (SM) - brown with orange stain - fine to medium sand - trace clay - loose - damp	5	1	6 8 6		
10	becomes very dense.	10	2	9 36 48		
15	becomes gray.	15	3	6 16 28		
20	becomes brown.	20	4	18 28 35		
25		25	5	21 38		
				49		
30	Bottom of Boring at 26.5 feet	30				

LOG OF TEST BORING 47

EQUIPMENT 8" Hollow Stem Auger

DATE DRILLED 3/15/90

ELEVATION --



ASPHALTIC CONCRETE - 2" thick
 CONCRETE SLAB - 4" thick
 GRAY SILTY GRAVELLY SAND (SM) medium dense, moist (fill)
 GRAY-BROWN CLAYEY SAND (SC) dense, moist, fine to medium grained sand (fill)
 RED-BROWN CLAYEY SAND (SC) very dense, moist

77 contains silty lenses

76 color change to mottled gray and brown

GRAY-BROWN SILTY SAND (SM-SP) dense, wet

50/5 1/2"
 50/5"
 50/5"
 50/4 1/2"

GROUNDWATER LEVEL 4/20/90

-200 = % passing #200 sieve (0.074mm)

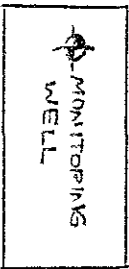
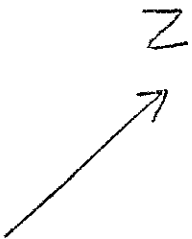
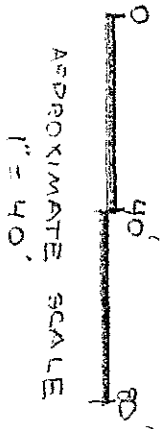
SAMPLER TYPE:
 CALIFORNIA DRIVE
 O.D.: 2.5 inches I.D.: 2.0 inches
 HAMMER WEIGHT: 140 pounds
 HAMMER DROP: 30 inches

Subsurface Consultants	13th & JEFFERSON - OAKLAND, CA		PLATE
	JOB NUMBER 430.003	DATE 4/19/90	APPROVED

Monitoring Well?

Driller: HEW

1514W 3508
01-451R



GROUNDWATER PROTECTION
ORDINANCE
PERM # 90170

13TH STREET

49

48

47

JEFFERSON

STREET

51

52

SCI # 430,003
13TH - Jefferson

01-4515
15/4W 35C9

LOG OF TEST BORING 48

EQUIPMENT 8" Hollow Stem Auger

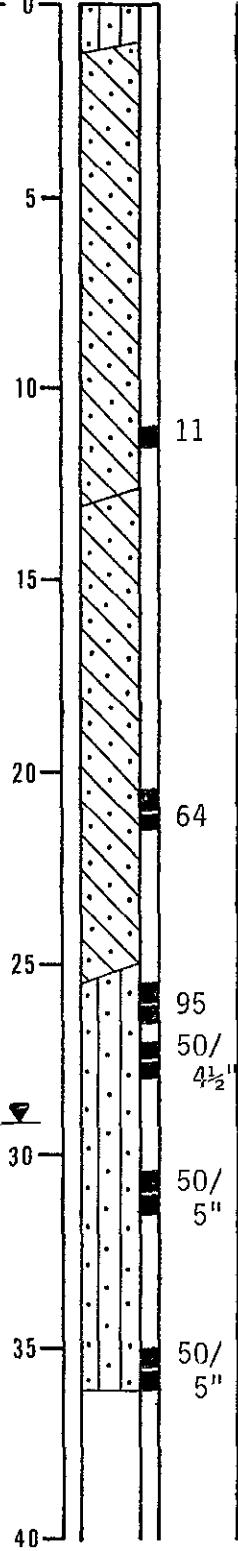
DATE DRILLED 3/15/90

ELEVATION --

MOISTURE CONTENT %
DRY DENSITY (PCF)

DEPTH (FT)

SAMPLE
BLOWS PER FOOT



BROWN SILTY SAND (SM)
loose to medium dense, with brick fragments and rubble (fill)
BROWN CLAYEY SAND (SC)
loose to medium dense, moist (fill)

BROWN CLAYEY SAND (SC)
dense, moist

decrease in clay content

GRAY-BROWN SILTY SAND (SM-SP)
very dense, moist

GROUNDWATER LEVEL 4/20/90

Monitoring Well?

Subsurface Consultants

13th & JEFFERSON - OAKLAND, CA

JOB NUMBER
430.003

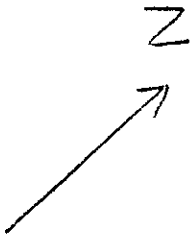
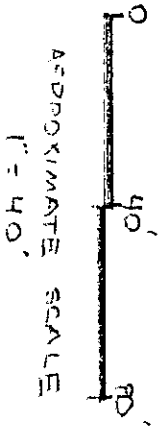
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4/23/90

APPROVED

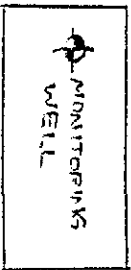
PLATE

Driller: HEW

1S/4W 35C9
01-451S



GROUNDWATER PROTECTION
ORDINANCE
PERM # 90170



13TH STREET

#49

#48

#47

JEFFERSON

STREET

#51

#52

SCI = 430,003
13TH & JEFFERSON

15/4W 35010

LOG OF TEST BORING 49

01-4518

EQUIPMENT 8" Hollow Stem Auger

DATE DRILLED 3/15/90

ELEVATION --

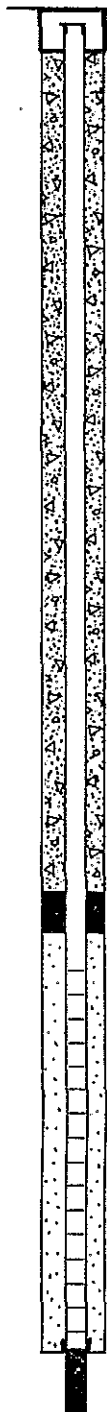
MOISTURE
CONTENT
%

DRY
DENSITY
(PCF)

DEPTH
(FT)

SAMPLE

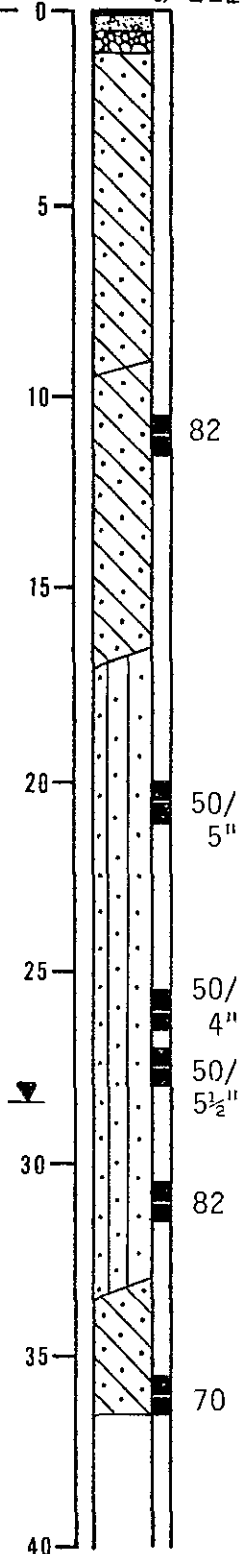
BLOWS
PER
FOOT



WELL DETAILS see Test Boring 47

SCH. 80 PVC CASING AND
WELL SCREEN FOR THIS WELL

-200 = 6%



ASPHALTIC CONCRETE - 2" thick
 CONCRETE SLAB - 4" thick
 BASE ROCK - 6" thick
 GRAY CLAYEY SAND (SC)
 dense, moist

GRAY-GREEN CLAYEY SAND (SC)
 very dense, moist

BROWN SILTY SAND (SM-SP)
 very dense, moist

becomes wet

GROUNDWATER LEVEL 4/20/90

GRAY-BROWN CLAYEY SAND (SC)
 dense, wet

Monitoring well?

Subsurface Consultants

13th & JEFFERSON - OAKLAND, CA

PLATE

JOB NUMBER

DATE

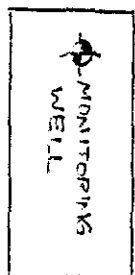
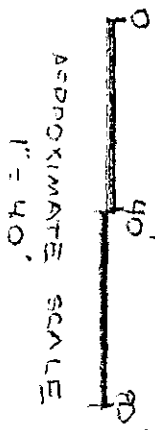
APPROVED

430.003

4/23/90

Driller: HEW

15/4W 35C10
0L 45 LT



GROUNDWATER PROTECTION
ORDINANCE
PERM # 90170

13TH STREET

JEFFERSON STREET

51

49

48

47

52

SCI # 420,003
13th & Jefferson

1S/4W 35C11

LOG OF TEST BORING 51

01-45LP

EQUIPMENT 8" Hollow Stem Auger

DATE DRILLED 3/20/90

ELEVATION --

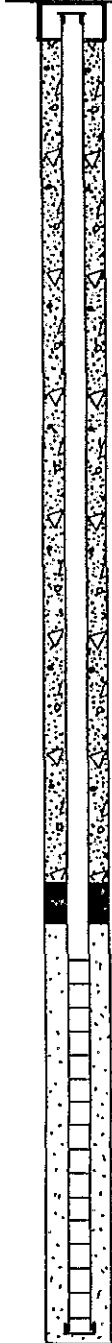
MOISTURE
CONTENT
%

DRY
DENSITY
(PCF)

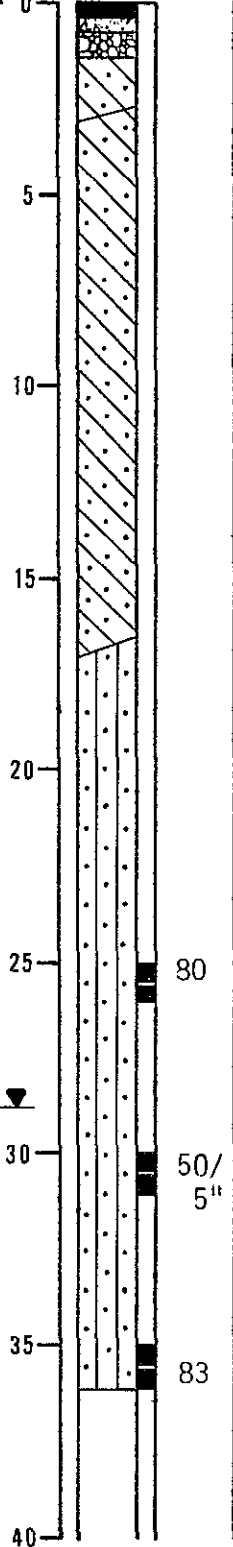
DEPTH
(FT)

SAMPLE

BLOWS
PER
FOOT



WELL DETAILS see Test Boring 47



ASPHALTIC CONCRETE - 4" thick
CONCRETE SLAB - 4" thick
BASE ROCK - 6" thick
BROWN CLAYEY GRAVELLY SAND (SC)
medium dense, moist (fill)
BROWN CLAYEY SAND (SC)
medium dense, moist

BROWN SILTY SAND (SM-SP)
very dense, moist

becomes wet
GROUNDWATER LEVEL 4/20/90

Monitoring Well?

Subsurface Consultants

13th & JEFFERSON - OAKLAND, CA

PLATE

JOB NUMBER

DATE

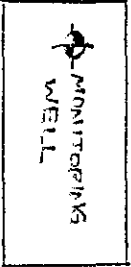
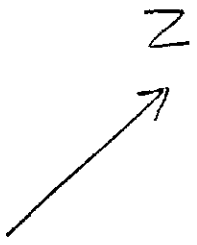
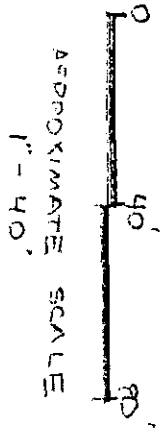
APPROVED

430.003

4/23/90

Driller: HEW

1S14W 35011
01-4513U



GROUNDWATER PROTECTION
ORDINANCE
PERM # 90170

13TH STREET

JEFFERSON STREET

51

52

49

48

47

SCI # 430,003
13TH & JEFFERSON

1514W 35C12

LOG OF TEST BORING 52

01-4514

EQUIPMENT 8" Hollow Stem Auger

DATE DRILLED 3/20/90

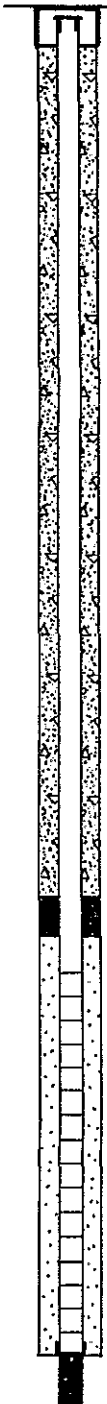
ELEVATION --

MOISTURE
CONTENT
%

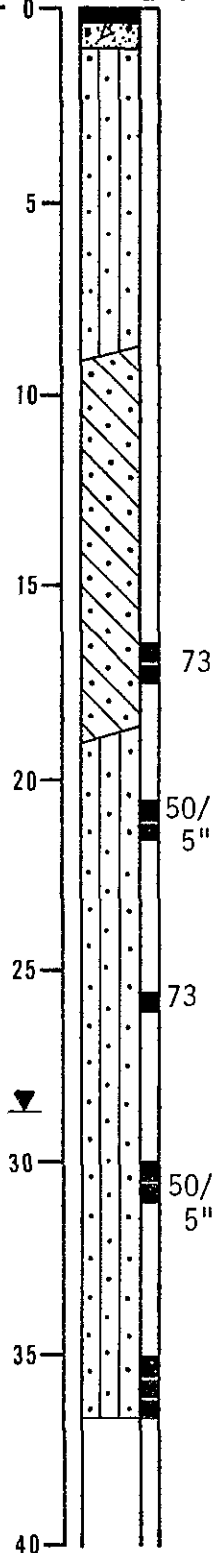
DRY
DENSITY
(PCF)

DEPTH
(FT)

SAMPLE
BLOWS
PER
FOOT



WELL DETAILS see Test Boring 47



ASPHALTIC CONCRETE - 4" thick
 CONCRETE SLAB - 8" thick
 BROWN SILTY SAND (SM)
 medium dense, moist

BROWN CLAYEY SAND (SC)
 medium dense, moist

GRAY-GREEN SILTY SAND (SM-SP)
 very dense, moist

GROUNDWATER LEVEL 4/20/90

decrease in silt content

-200 = 5%

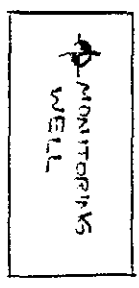
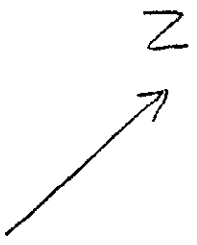
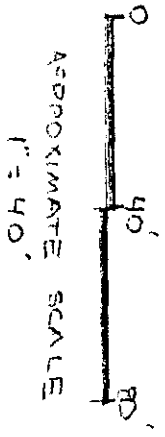
Monitoring Well?

Subsurface Consultants

13th & JEFFERSON - OAKLAND, CA		PLATE
JOB NUMBER	DATE	APPROVED
430.003	4/23/90	

Driller: HEW

IS/4W 35C12
01-451V



GROUNDWATER PROTECTION
ORDINANCE
PERM # 90170

13TH STREET

JEFFERSON STREET

#49

#48

#47

#51

#52

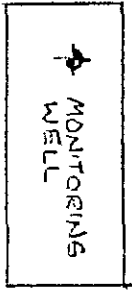
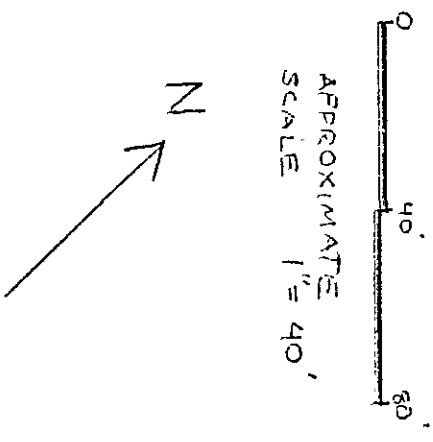
SCI # 420,003
13TH - Jefferson

15/4W 35D15
01-431V

CASTRO ST

14th STREET

MARTIN LUTHER KING JR, WAY



#46

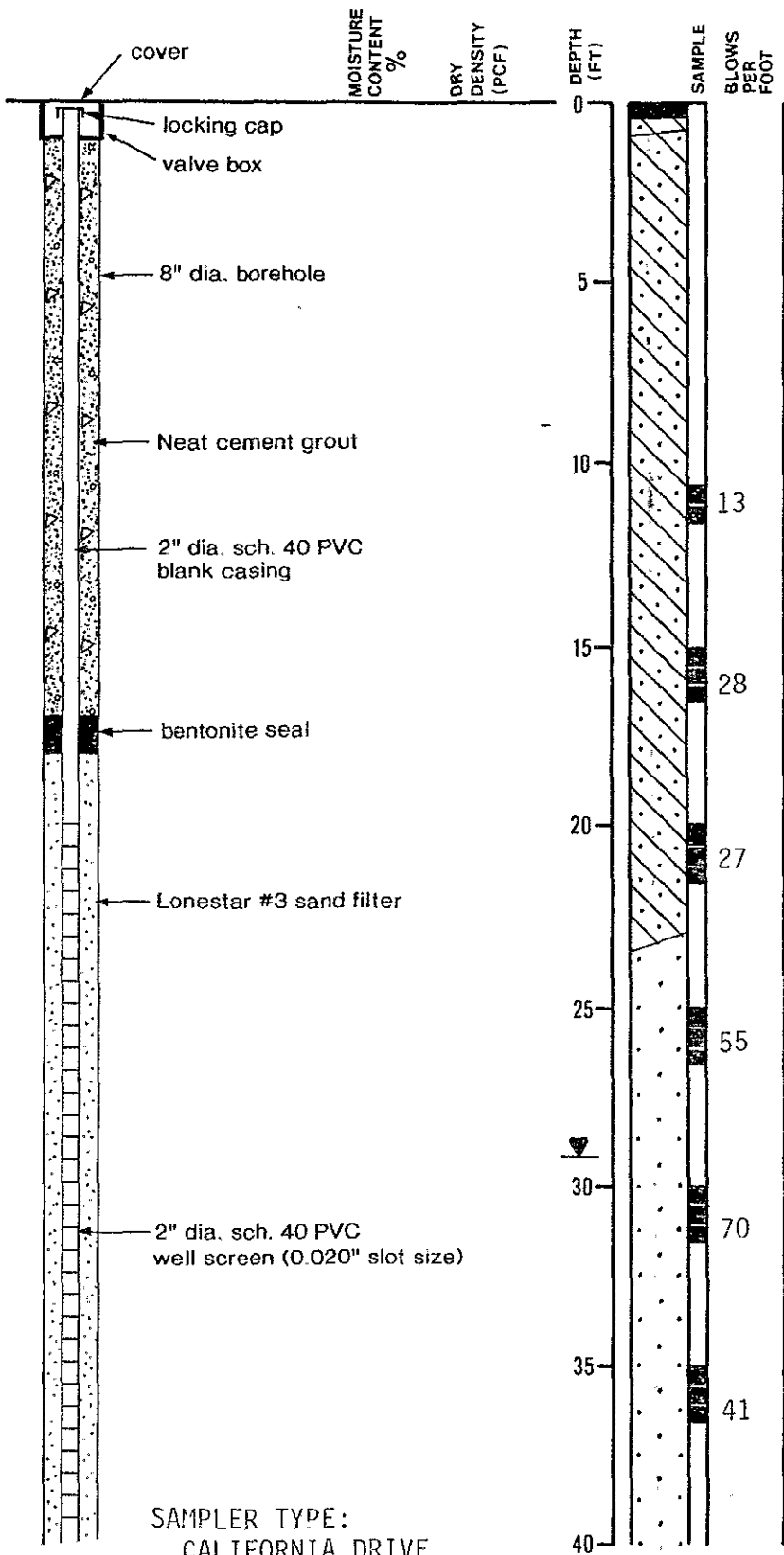
#46

SCI # 430.002
14th & MLK Jr Way

EQUIPMENT 8" Hollow Stem Auger

DATE DRILLED 12/1/89

ELEVATION --



ASPHALTIC CONCRETE - 4" thick
 RED CLAYEY SAND (SC)
 medium dense, moist
 BROWN CLAYEY SAND (SC)
 medium dense, moist

BROWN SAND (SP)
 very dense, moist

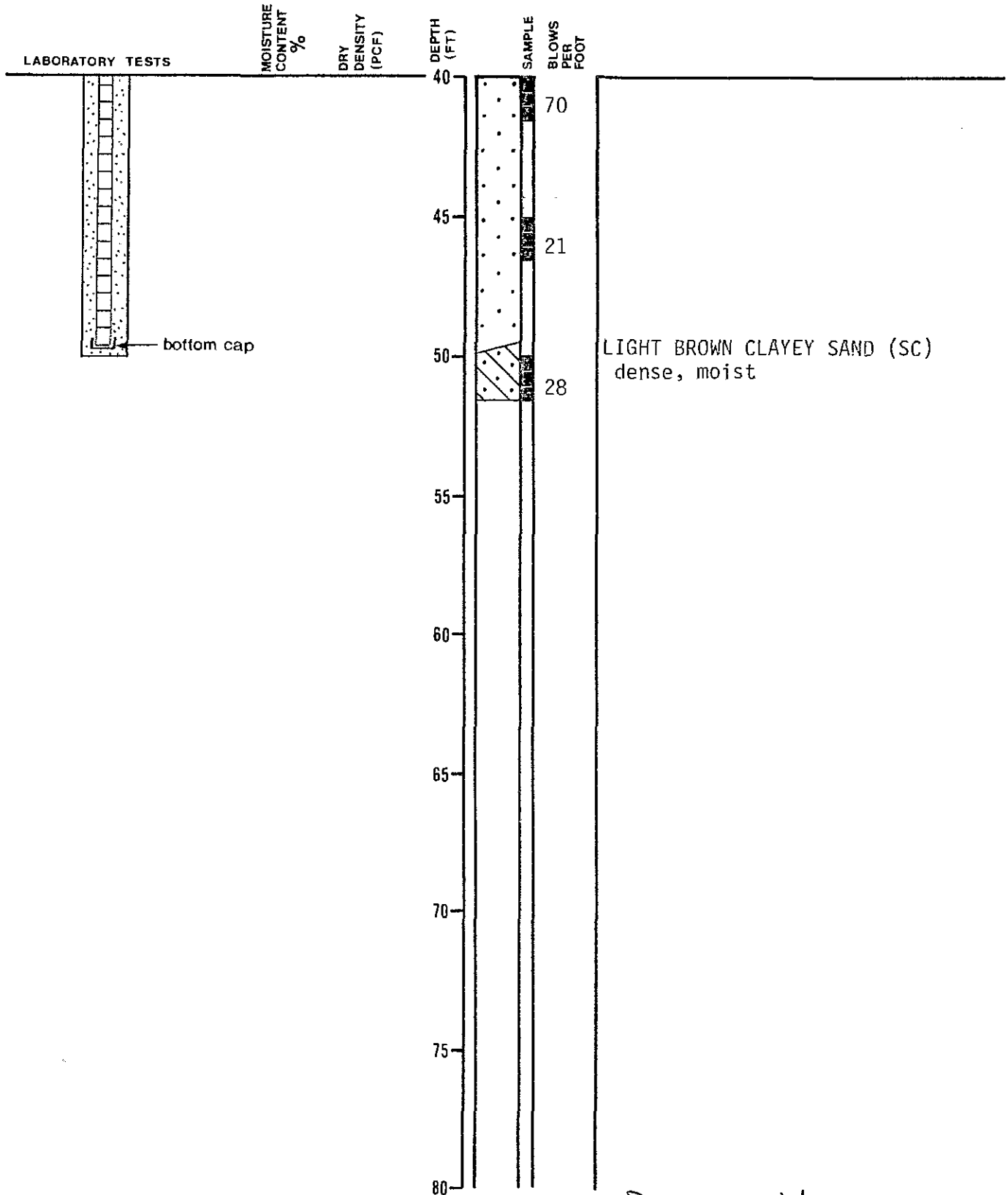
GROUNDWATER LEVEL 4/20/90

becomes wet

SAMPLER TYPE:
 CALIFORNIA DRIVE
 O.D.: 2.5 inches
 I.D.: 2.0 inches

HAMMER WEIGHT: 140 pounds
 HAMMER DROP: 30 inches

LOG OF TEST BORING 45



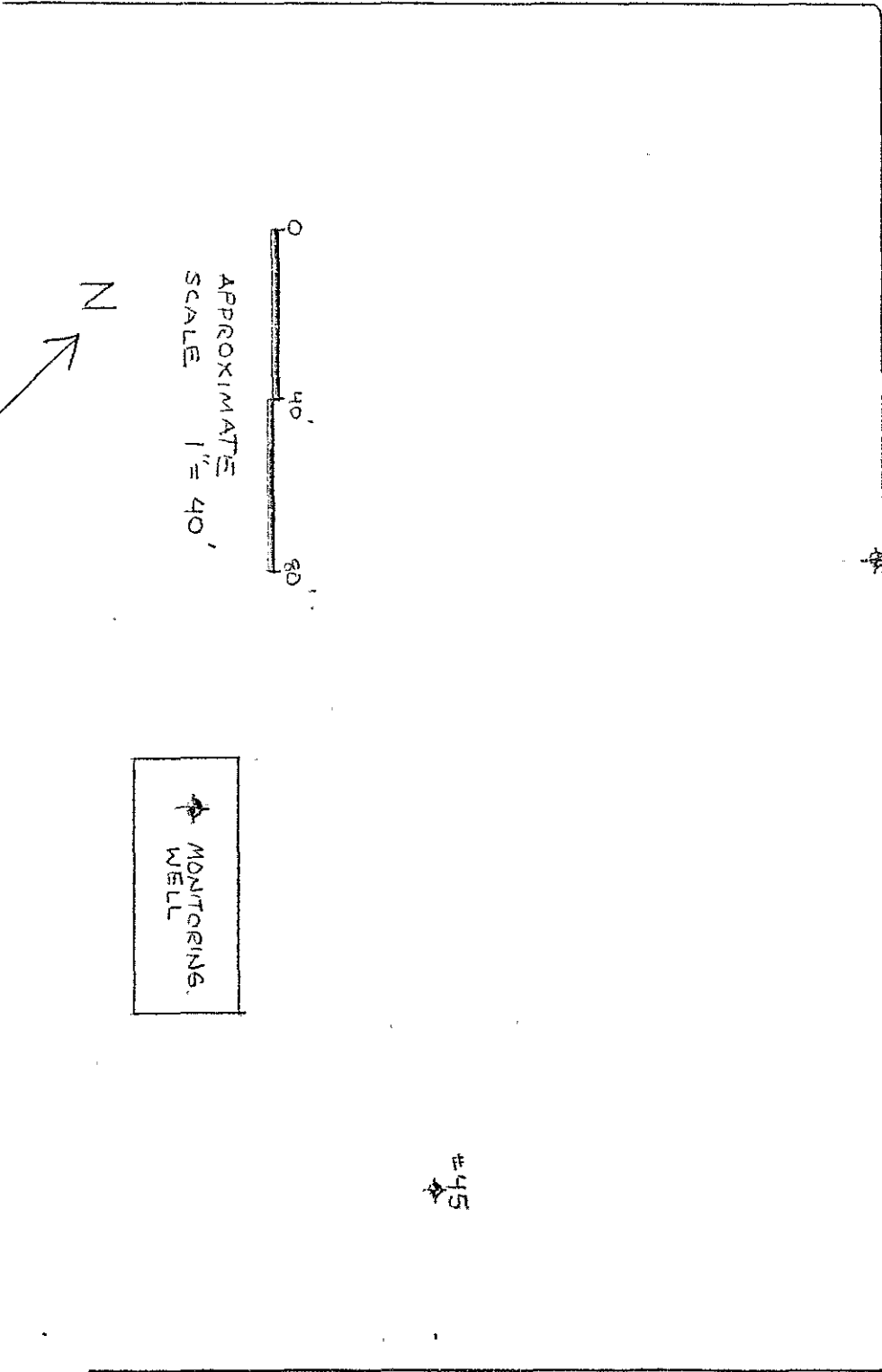
Driller: HEW

Subsurface Consultants	1330 MARTIN LUTHER KING JR. WAY - OAK.		PLATE
	JOB NUMBER 430.002	DATE 4/19/90		APPROVED

Owner: XXXXXXXXXX

1517W 35D14
01-451W

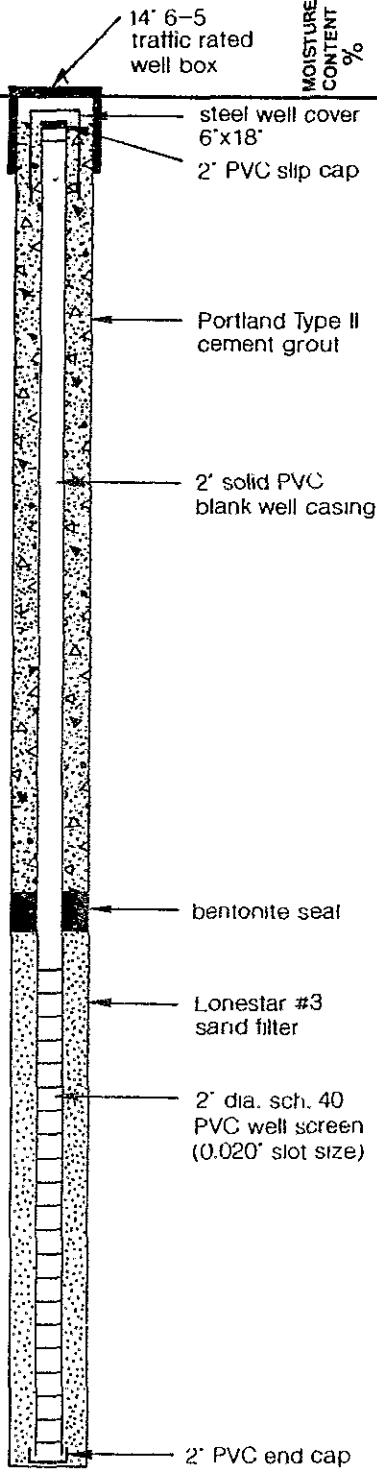
CASTRO ST



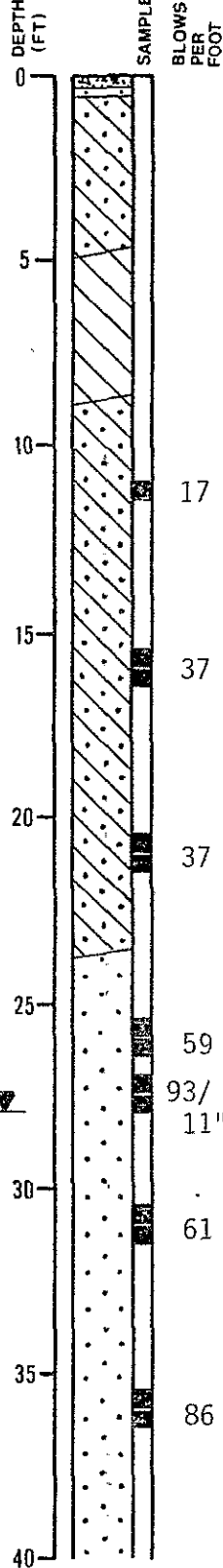
MARTIN LUTHER KING JR, WAY

14th STREET

SGI # 430.002
14th MLK Jr Way



MOISTURE CONTENT %
 DRY DENSITY (PCF)



EQUIPMENT 8" Hollow Stem Auger
 DATE DRILLED 11/28/89
 ELEVATION --

CONCRETE SLAB - 3" thick
 LIGHT BROWN SAND (SP)
 medium dense, moist
 DARK BROWN CLAYEY SAND (SC)
 medium dense, moist
 BROWN SANDY CLAY (CL)
 medium stiff, moist

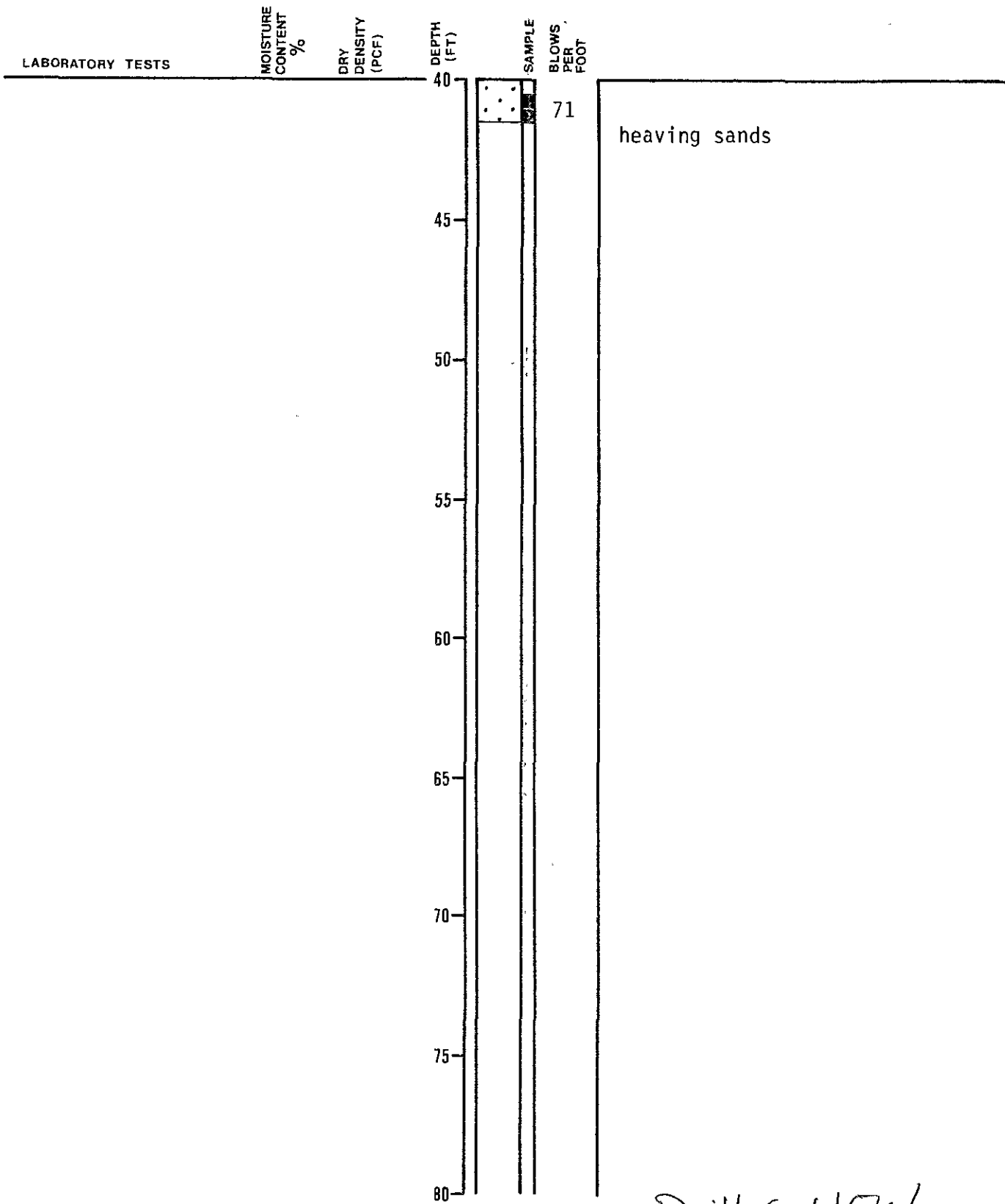
 BROWN CLAYEY SAND (SC)
 medium dense, moist

 clay content varies

 BROWN SAND (SP)
 very dense, moist
 GROUNDWATER LEVEL 4/20/90

01-451X 15/4W 35D15

LOG OF TEST BORING 46



Driller: HEW

Subsurface Consultants	1330 MARTIN LUTHER KING JR. WAY-OAK.		PLATE
	JOB NUMBER 430.002	DATE 3/19/90		APPROVED

Owner: [Redacted]

LEGEND

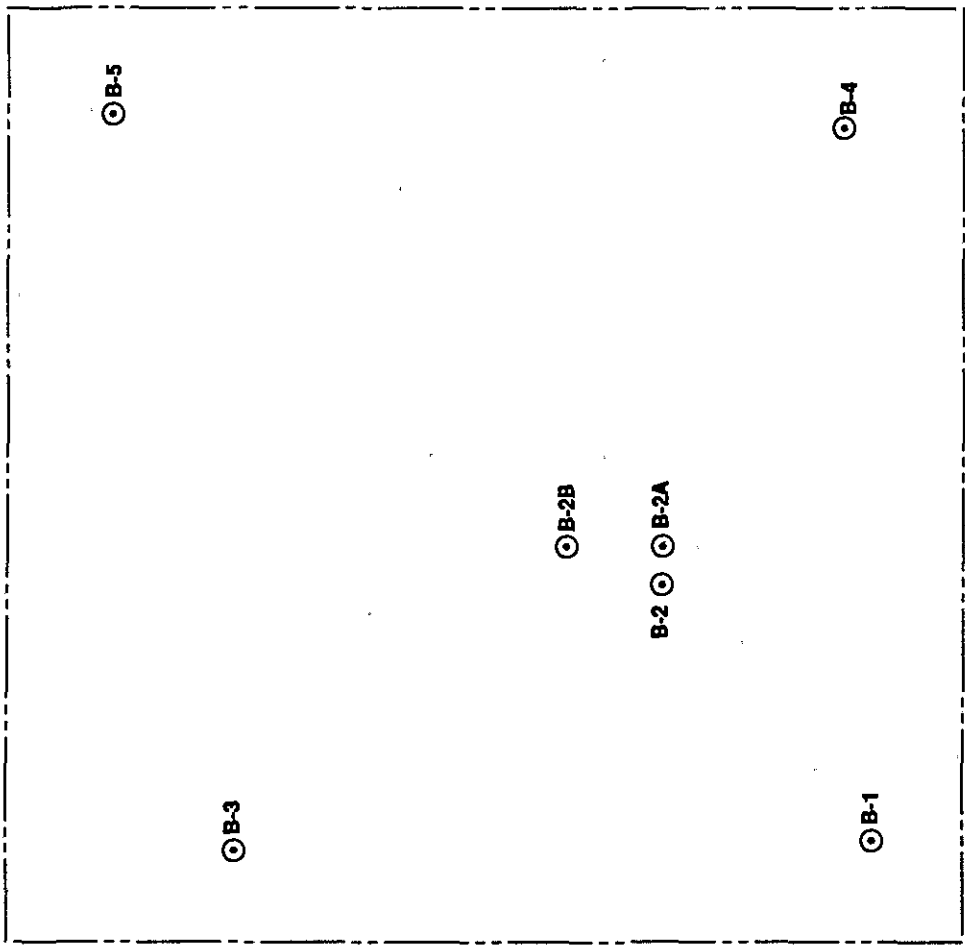
PROPERTY LINE

⊙ B-1

SOIL BORING

17th STREET

BROADWAY



DRAFTED BY: L. Sue DATE: 12-27-89

CHECKED BY: G. Kroth DATE: 12-27-89

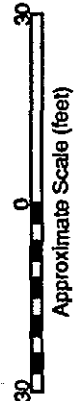
SITE PLAN AND BORING LOCATIONS

[Redacted] OAKLAND, CALIFORNIA

PROJECT NO. 10-2052-01

PLATE

2



Project [Redacted]		Boring No. B-2A
Number 10-2052-01		
Total Depth 8 feet	Sheet 1 of 2	

BORING AND MONITORING-WELL DATA SHEET
Location

Owner & Mailing Information [Redacted]	Township/Range/Section
Site Location (if different) 17th Street and Broadway, Oakland, CA	Other Identifiers

Well Location

Show coordinates or distances from surveyed reference point.

58 feet east and 46.7 feet north of SE corner of property

Drilling Operations

Drilling Company Han Driven	Driller/Crew Jeff Arnold/Bruce Korb		
Rig Make/Model International B-140, truck-mounted	Task	Start (Date, Time)	Finish (Date, Time)
Bit & Size Rock bit, 5-inch diameter	Drilling	12-19-89, 12:00	12-19-89, 13:00
Hammer Data	Completion		
Wt. 140 pounds	Development		
Drop 30 inches			

Well Development and Construction

Monumentation	Development Info.	Well Design	Size & Type	Top	Bottom
Ref. Pt. Description		Surface Casing			
Elevations		Casing			
Ref. Pt. Ground		Well Screen			
Datum		Gravel Pack			
Markings		Bentonite			
		Cement			

Field Hydrologic Operations

Weather	Date	Time	Water Level	Other Observations
Recent Rainfall? Irrigation?				
Nearby Wells Pumping?				
Ditches? Utility Courses?				

Remarks

Backfilled with cuttings. Repaired surface with asphalt to 1-foot depth.

Plate
A-4

01-452L
1S/4W 35B



LOG OF BORING

Project		Boring No. B-2A
Number 10-2052-01		
Total Depth 8 feet	Sheet 2 of 2	

Depth (feet)	Sample Number	Sample Type	Recovery (%)	Blows/Ft.	USCS	Description	Remarks	Well Construction
2						4-inch thick asphalt	Looks and color of redwood	
4						Wood		
8					SC	CLAYEY SAND - medium grained, medium yellow brown, moist	Auger refusal; NOSC NFWE	
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								

Designated Purpose(s) of Log
Environmental Assessment

Logged by G. Kroth	Date: 12-19-89	Plate A-5
Drafted by L. Sue	Date: 12-29-89	
Supervised by C. Bly-Chester		

Note: Logs are to be used only for designated purpose(s).

Project		Boring No. B-2B
Number 10-2052-01		
Total Depth 9 feet	Sheet 1 of 2	

BORING AND MONITORING-WELL DATA SHEET

Location

Owner & Mailing Information 	Township/Range/Section
	Other Identifiers
Site Location (if different) 17th Street and Broadway, Oakland, CA	

Well Location

Show coordinates or distances from surveyed reference point.

60 feet east and 61.5 feet north of SW corner of property

Drilling Operations

Drilling Company Han Driven	Driller/Crew Jeff Arnold/Bruce Korb		
Rig Make/Model International B-140, truck-mounted	Task	Start (Date, Time)	Finish (Date, Time)
Bit & Size Rock bit, 5-inch diameter	Drilling	12-19-89, 14:30	12-19-89, 15:15
Hammer Data Wt. Drop 140 pounds 30 inches	Completion		
	Development		

Well Development and Construction

Monumentation	Development Info.	Well Design	Size & Type	Top	Bottom
Ref. Pt. Description		Surface Casing			
Elevations		Casing			
Ref. Pt. Ground		Well Screen			
Datum		Gravel Pack			
Markings		Bentonite			
		Cement			

Field Hydrologic Operations

Weather	Date	Time	Water Level	Other Observations
Recent Rainfall? Irrigation?				
Nearby Wells Pumping?				
Ditches? Utility Courses?				

Remarks

Backfilled with cuttings. Repaired surface with asphalt to 1-foot depth.

Plate
A-6

01-452N
 IS/4W 35B



LOG OF BORING

Project		Boring No. B-3
Number 10-2052-01		
Total Depth 21 feet	Sheet 2 of 2	

Depth (feet)	Sample Number	Sample Type	Recovery (%)	Blows/Fl.	USCS	Description	Remarks	Well Construction
2						2-inch thick asphalt		
2 to 7.5						Fill - SILTY CLAYEY SAND - brown brick firm 2 to 7.5 feet		
5 to 7.5						marble from 5 to 7.5 feet		
8					SC	CLAYEY SAND with SILT - medium yellow brown, moist, dense		
10	1		100	56			NOSC	
12								
14					SM	SILTY SAND - medium grained, light yellow brown, moist		
16			100	56			Sampler refusal at 12 inches NOSC	
18								
20						saturated	▽	
22								
24								
26								
28								
30								

Designated Purpose(s) of Log Environmental Assessment
--

Logged by G. Kroth	Date: 12-19-89	Plate A-9
Drafted by L. Sue	Date: 12-29-89	
Supervised by C. Bly-Chester		

Note: Logs are to be used only for designated purpose(s).

01-4524S/4W 35B

Project		Boring No. B-4
Number 10-2052-01		
Total Depth 24 feet	Sheet 1 of 2	

BORING AND MONITORING-WELL DATA SHEET

Location

Owner & Mailing Information	Township/Range/Section
	Other Identifiers
Site Location (if different) 17th Street and Broadway, Oakland, CA	

Well Location

Show coordinates or distances from surveyed reference point.

19 feet west and 18.5 feet north
of SE corner of property

Drilling Operations

Drilling Company Han Driven		Driller/Crew Jeff Arnold/Bruce Korb		
Rig Make/Model International B-140, truck-mounted		Task	Start (Date, Time)	Finish (Date, Time)
Bit & Size Rock bit, 5-inch diameter		Drilling	12-19-89, 16:15	12-19-89, 18:00
Hammer Data Wt. 140 pounds Drop 30 inches		Completion		
		Development		

Well Development and Construction

Monumentation	Development Info.	Well Design	Size & Type	Top	Bottom
Ref. Pt. Description		Surface Casing			
Elevations		Casing			
Ref. Pt. Ground		Well Screen			
Datum		Gravel Pack			
Markings		Bentonite			
		Cement			

Field Hydrologic Operations

Weather	Date	Time	Water Level	Other Observations
Recent Rainfall? Irrigation?	12-19-89		23.5	First water encountered
Nearby Wells Pumping?				
Ditches? Utility Courses?				

Remarks

Backfilled with cuttings. Repaired surface with asphalt to 1-foot depth.

Plate
A-10

Date: 12-20-89 GK

Revision Date: _____

Project		Boring No. B-5
Number 10-2052-01		
Total Depth 21 feet	Sheet 1 of 2	

BORING AND MONITORING-WELL DATA SHEET

Location

Owner & Mailing Information 	Township/Range/Section
	Other Identifiers
Site Location (if different) 17th Street and Broadway, Oakland, CA	

Well Location

Show coordinates or distances from surveyed reference point.

17 feet west and 18 feet south of NE corner of property

Drilling Operations

Drilling Company Han Driven	Driller/Crew Jeff Arnold/Bruce Korb		
Rig Make/Model International B-140, truck-mounted	Task	Start (Date, Time)	Finish (Date, Time)
Bit & Size Rock bit, 5-inch diameter	Drilling	12-19-89	12-19-89
Hammer Data Wt. Drop 140 pounds 30 inches	Completion		
	Development		

Well Development and Construction

Monumentation	Development Info.	Well Design	Size & Type	Top	Bottom
Ref. Pt. Description		Surface Casing			
		Casing			
Elevations		Well Screen			
Ref. Pt. Ground		Gravel Pack			
Datum		Bentonite			
Markings		Cement			

Field Hydrologic Operations

Weather	Date	Time	Water Level	Other Observations
Recent Rainfall? Irrigation?	12-19-89		18.0	First water encountered
Nearby Wells Pumping?				
Ditches? Utility Courses?				

Remarks

Backfilled with cuttings. Repaired surface with asphalt to 1-foot depth.

Plate A-12

01-468T

James P. Bowers, PE
R. William Rudolph, Jr., PE

in - -
Add ✓

15/4W 35C7
15/4U 35C7.

July 16, 1990
SCI 430.007

Mr. John Esposito
Bramalea Pacific
1221 Broadway, Suite 1800
Oakland, California 94612

Well Destruction Report
Well Number 2 (SCI designation)
Permit No. 90225
13th and Jefferson Streets
Oakland, California

Dear Mr. Esposito:

This letter describes the methods and materials used to destroy a well near 13th and Jefferson Streets in Oakland, California. Subsurface Consultants, Inc. (SCI) encountered the well during excavation of gasoline contaminated soils at the site. The top of the well was encountered approximately 7 feet below street grade.

The well was located approximately 70 feet north of 13th Street and 63 feet west of Jefferson Street in Oakland, California, as shown on the attached Site Plan, Plate 1. The well consisted of an 8-inch-diameter steel casing positioned inside a 14-inch-diameter steel casing. The 14-inch casing was observed to be very corroded and appeared much older than the 8-inch casing. The 14-inch casing was in direct contact with native soils. The annulus between the 8 and 14 inch casings had been filled with sand. The well extended approximately 55 feet below the adjacent street grades. The top of the well was clogged with bricks and oily debris. Groundwater was encountered approximately 25 feet below street grade. A sample of the well water was obtained by SCI prior to well destruction and analytically tested. Analytical test results are summarized below.

Subsurface Consultants, Inc.

Lic # (57) 344454
Mr. Lucchi 118

Mr. John Esposito
Bramalea Pacific
SCI 430.007
July 16, 1990
Page 2

Table 1. CONTAMINANT CONCENTRATIONS IN WELL 2 WATER

<u>Sample</u>	<u>TEH¹</u> <u>mg/L⁵</u>	<u>O&G²</u> <u>mg/L</u>	<u>Benzene</u> <u>ug/L⁶</u>	<u>Other³</u> <u>VOCs</u> <u>ug/L</u>	<u>PNAs⁴</u> <u>ug/L</u>
Well 2	ND ⁷	50	6	ND	ND

-
- 1 TEH = Total Extractable Hydrocarbons, EPA 8015/3550
 - 2 O&G = Oil and Grease, Method SMWW 503E
 - 3 VOCs = Volatile Organic Compounds: EPA Methods 601 and 602
 - 4 PNAs = Polynuclear Aromatic Hydrocarbons
 - 5 mg/L = milligrams per liter or parts per million (ppm)
 - 6 ug/L = micrograms per liter or parts per billion (ppb)
 - 7 ND = None detected at concentrations above detection limits.
See analytical test reports for detection limits

The analytical results indicate that the well water contained low concentrations of oil and grease and benzene, a soluble constituent of gasoline. The well is situated in an area where gasoline contamination is present. The benzene is likely the result of this problem.

Initially, the 8-inch casing was removed utilizing a hoisting cable. Next, an 18-inch steel casing was driven into the ground around the outside of the remaining 14 inch well casing. The corroded 14-inch casing was subsequently drilled out using cable-tool drilling equipment. Cement grout was then pumped into the 18-inch casing using tremmie methods, displacing the water upwards. The tremmie pipe and the 18-inch casing remained below the grout/water interface so that a continuous column of grout was constructed. Approximately 8 cubic yards of neat cement grout (11 sacks of cement per cubic yard) were pumped into the well.

The water and drilling cuttings from the well were placed into a steel waste storage bin. The material was removed from the site under manifest by Hydro Tech, Inc. to the Valley Rock Disposal facility in Orland, California, which exclusively handles the disposal of drilling cuttings. Prior to disposal, a variety of chemical analyses were performed on the cuttings. The results are summarized below.

01-488
15/4W-38C7

Mr. John Esposito
Bramales Pacific
SCI 430.007
July 16, 1990
Page 3

Table 2. CONTAMINANT CONCENTRATIONS IN DRILLING CUTTINGS

Sample	TEH ¹ mg/kg ⁶	O&G ² mg/kg	Title 26 Metals mg/kg	BTXE ³ ug/kg ⁷	Semi VOC's ⁴ ug/kg	PCB's ⁵ ug/kg
Cuttings	ND	180	ND	ND	ND	ND

- 1 TEH = Total Extractable Hydrocarbons, EPA 8015/3550
- 2 O&G = Oil and Grease, Method SMWW 503E
- 3 BTXE = Benzene, Toluene, Xylene, Ethylbenzene
- 4 Semi-VOC's = Semi Volatile Organics, EPA 8270
- 5 PCB's = Polychlorinatedbiphenyls, EPA 8270
- 6 mg/kg = milligrams per kilogram or parts per million (ppm)
- 7 ug/kg = micrograms per kilogram or parts per billion (ppb)
- 8 ND = None detected at concentration above detection limits.
See analytical test reports for detection limits

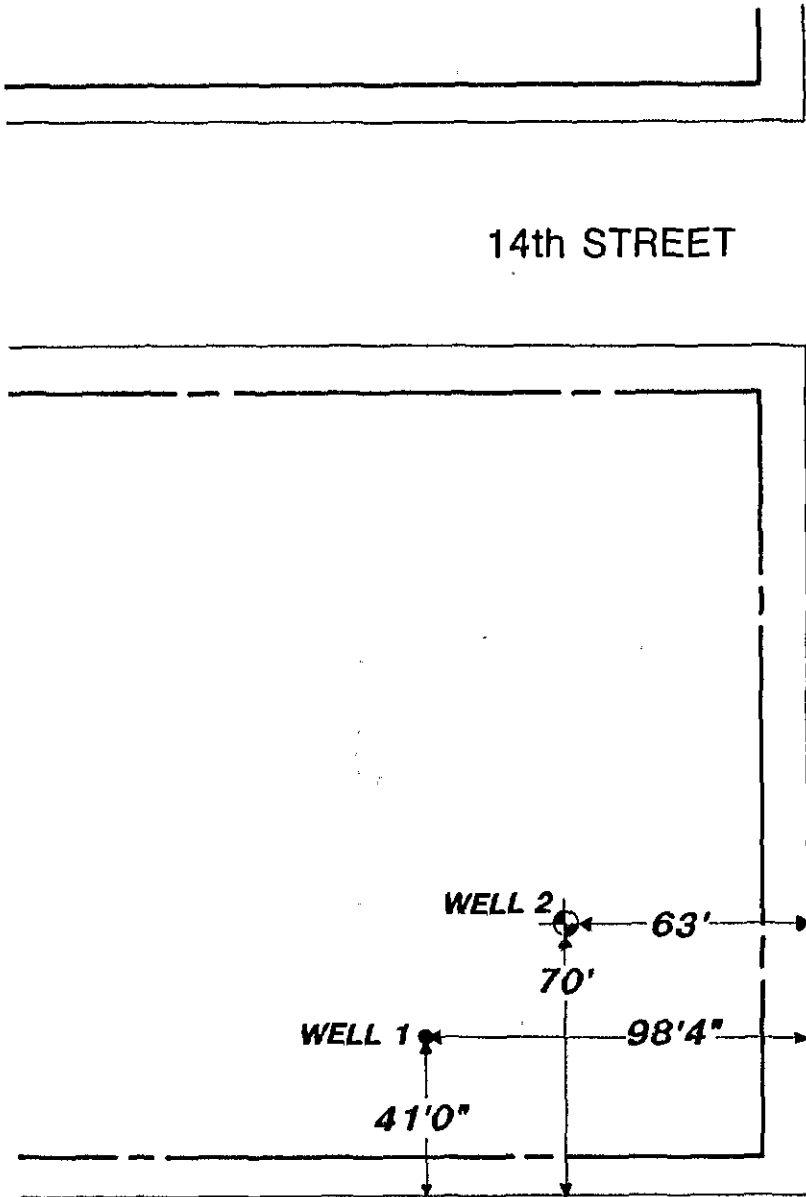
Groundwater monitoring wells have been constructed down-gradient of Well 2 as part of an assessment evaluating gasoline contamination. It is anticipated that groundwater remediation in the area will be required, and will be initiated in the near future.

If you have any questions regarding abandonment of this well, please call.

Yours very truly,
Subsurface Consultants, Inc.

Sean O. Carson
Sean O. Carson
Civil Engineer 45074 (expires 3/31/94)

SOC:JPB:RWR:nf

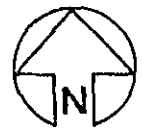


JEFFERSON STREET

True North

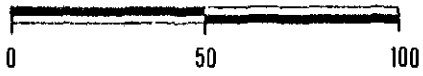


Reference North



NOTE: Dimensions measured from face of curb

APPROXIMATE SCALE (feet)



WELL LOCATIONS

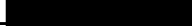
Subsurface Consultants

13th & JEFFERSON ST. - OAKLAND, CA			PLATE
JOB NUMBER	DATE	APPROVED	1
430.007	11/10/88		

Woodward-Clyde Consultants



PROJECT NAME



NO. 90C0039A

01-466C

MW Add 15/4w 35F

BORING NUMBER F1/B1			ELEVATION AND DATUM		
DRILLING AGENCY HEW Exploration		DRILLER Castro/Phil	DATE STARTED July 5, 1990		DATE FINISHED
DRILLING EQUIPMENT CME 45			COMPLETION DEPTH 30.0'		SAMPLER 2" Modified California Type
DRILLING METHOD 6" Solid Auger		DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 3
SIZE AND TYPE OF CASING NA			WATER LEVEL	FIRST 25'	COMPL. NA 24 HRS. NA
TYPE OF PERFORATION NA		FROM	TO	FL	LOGGED BY: W. Copeland
SIZE AND TYPE OF PACK NA		FROM	TO	FL	
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL	
	NO. 2 NA	FROM	TO	FL	
CHECKED BY:					

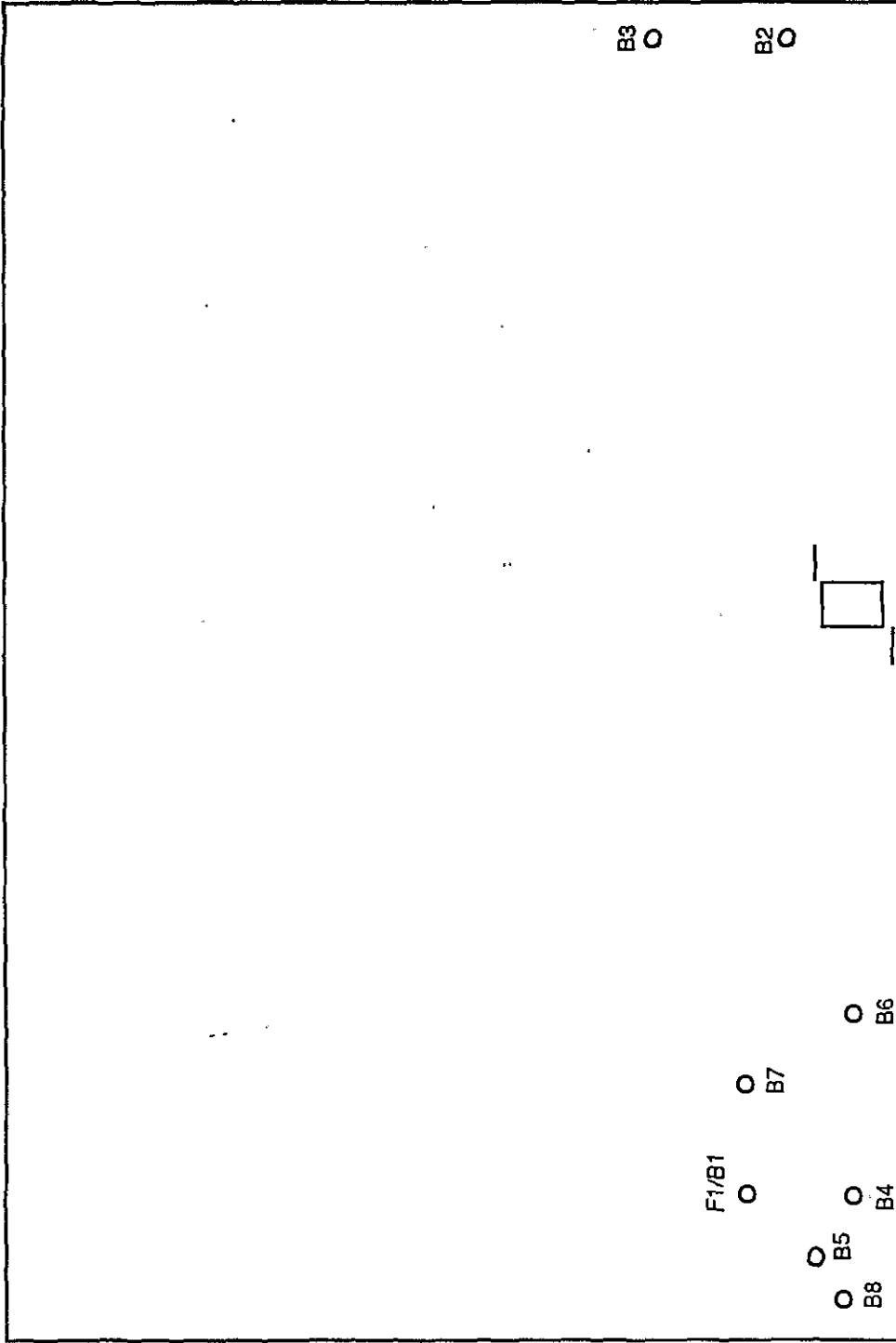
DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (Feet)	Blow	Counts	
	asphaltic concrete + gravel base							
	SILTY SAND (SM) dark brown, dry, fine grain sand, pieces of brick, wood (FILL) becomes light brown		1	F1-1		5	5	
			2	F1-2		3	4	
5	SILTY SAND (SM) mottled orange and brown, damp (NATIVE SOIL)	5						
10		10						
15	CLAYEY SAND (SC) brown, damp, slight plasticity	15	3	B1-1		7	13	No odor
20	SILTY SAND (SM) brown, moist, little clay becomes orange brown	20	4	B1-2				No odor
25		25	5	B1-3				No odor
30	Bottom of Boring at 30 feet	30						
35		35						

15/4435F

01-466 C-J

12th Street

Clay Street



Jefferson Street

Gate

11th Street

Figure 1

T9 Site Map
Boring Locations

Project No.
90C0039A

Woodward-Clyde Consultants

15/4W35A

01-4660

Woodward-Clyde Consultants

PROJECT NAME [REDACTED] NO. 90C0039A

BORING NUMBER B2		ELEVATION AND DATUM			
DRILLING AGENCY HEW Exploration		DRILLER Castro/Phil		DATE STARTED DATE FINISHED July 6, 1990	
DRILLING EQUIPMENT CME 45		COMPLETION DEPTH 30.0'		SAMPLER 2" Modified California Type	
DRILLING METHOD 6" Solid Auger		DRILL BIT		NO. OF SAMPLES DIST. NA UNDIST. 1	
SIZE AND TYPE OF CASING NA		WATER LEVEL FIRST 25'		COMPL. NA 24 HRS. NA	
TYPE OF PERFORATION NA		FROM TO FL		LOGGED BY: W. Copeland	
SIZE AND TYPE OF PACK NA		FROM TO FL			
TYPE OF SEAL NO. 1 NA		FROM TO FL			
		NO. 2 NA		FROM TO FL	
				CHECKED BY:	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (Feet)	Blow Counts		
	asphaltic concrete + gravel base							
5	SILTY CLAY (CH) greenish brown, damp, fine grain sand, some clay (FILL). decreasing clay, becomes medium to dark brown, contains little gravel to 1.5" diameter	5						
10		10						
15	SILTY SAND (SM) brown, moist, some clay, medium grain (NATIVE SOIL)	15						encountered concrete slab (?) possible floor slab
20		20						No odor
25	becomes slightly mottled gray and orange brown	25						No odor
25	▽ ATD	25	1	B2-1			16 27 37	No odor OVM=0 ppm
30	Bottom of Boring at 30 feet	30						No odor
35		35						

15/4/35F

01-466E

Woodward-Clyde Consultants



PROJECT NAME



No. 90C0039A

BORING NUMBER B3		ELEVATION AND DATUM			
DRILLING AGENCY HEW Exploration	DRILLER Castro/Phil	DATE STARTED DATE FINISHED		July 6, 1990	
DRILLING EQUIPMENT CME 45		COMPLETION DEPTH	30.0'	SAMPLER 2" Modified California Type	
DRILLING METHOD 6" Solid Auger	DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 1	
SIZE AND TYPE OF CASING NA		WATER LEVEL	FIRST 26'	COMPL. NA 24 HRS. NA	
TYPE OF PERFORATION NA	FROM TO FL.	LOGGED BY: T. Sawyer		CHECKED BY:	
SIZE AND TYPE OF PACK NA	FROM TO FL.				
TYPE OF SEAL	NO. 1 NA FROM TO FL. NO. 2 NA FROM TO FL.				

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (feet)	Blow Counts		
	asphaltic concrete + gravel base							
5	SILTY CLAY (CH) greenish brown, damp (FILL)	5						
15	SILTY SAND (SM) medium brown, damp, some clay, fine grain (NATIVE SOIL)	15						← encountered concrete slab (?) possible floor slab
20	CLAYEY SAND (SC) mottled orange brown and medium brown, moist, fine grain	20						No odor
25	SILTY SAND (SM) orange brown, moist, medium grain	25	1	B3-1	14	25		No odor OVM=0 ppm
30	Bottom of Boring at 30 feet	30						No odor

15/4/35 F



01-466F

BORING NUMBER B4			ELEVATION AND DATUM		
DRILLING AGENCY HEW Exploration		DRILLER Castro/Phil	DATE STARTED		DATE FINISHED July 6, 1990
DRILLING EQUIPMENT CME 45			COMPLETION DEPTH 30.0'	SAMPLER 2" Modified California Type	
DRILLING METHOD 6" Solid Auger		DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 2
SIZE AND TYPE OF CASING NA			WATER LEVEL	FIRST 27.5'	COMPL. NA 24 HRS. NA
TYPE OF PERFORATION NA		FROM	TO	FL	LOGGED BY: W. Copeland
SIZE AND TYPE OF PACK NA		FROM	TO	FL	
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL	
	NO. 2 NA	FROM	TO	FL	
CHECKED BY:					

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (Feet)	Blow Counts		
	asphaltic concrete + gravel base							
5	SAND (SP) dark brown, damp, fine grain, few brick fragments (FILL)	5						
10	SILTY SAND (SM) orange brown, moist, medium grain, some clay (NATIVE SOIL)	10						
20	SAND (SP) greenish brown, moist, medium grain	20						No odor
25	increasing clay	25	1	B4-1		11 13		Slight gasoline odor OVM = 8.8 ppm
25		25	2	B4-2		11 14 18		Moderate gasoline odor OVM = 96 ppm
30	Bottom of Boring at 30 feet	30						No odor
35		35						

15/4w 35F

01-466 G

Woodward-Clyde Consultants

PROJECT NAME

NO. 90C0039A

BORING NUMBER B5			ELEVATION AND DATUM		
DRILLING AGENCY HEW Exploration		DRILLER Castro/Phil	DATE STARTED DATE FINISHED July 6, 1990		
DRILLING EQUIPMENT CME 45			COMPLETION DEPTH 30.0'	SAMPLER 2" Modified California Type	
DRILLING METHOD 6" Solid Auger		DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 1
SIZE AND TYPE OF CASING NA			WATER LEVEL	FIRST 27'	COMPL. NA 24 HRS. NA
TYPE OF PERFORATION NA		FROM	TO	FL.	LOGGED BY: T. Sawyer
SIZE AND TYPE OF PACK NA		FROM	TO	FL.	
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL.	
	NO. 2 NA	FROM	TO	FL.	
			CHECKED BY:		

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES				REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (Feet)	Blow Counts	
	asphaltic concrete + gravel base						
	SAND (SP) dark brown, damp, fine grain, brick fragments (FILL)						
5	SAND (SP) medium brown to orange brown, damp, medium grain, some silt (NATIVE SOIL)	5					
10		10					
15	becomes orange brown, increasing clay	15					No odor
20		20					No odor
25	becomes greenish gray, moist, some clay	25					Slight gasoline odor
25	∇ ATP	25	1	B5-1	14	25	Moderate gasoline odor OVM = 56 ppm
30	Bottom of Boring at 30 feet	30					No odor
35		35					

15/4435F

01-466H

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PROJECT NAME [REDACTED]

NO. 90C0039A

BORING NUMBER B6			ELEVATION AND DATUM		
DRILLING AGENCY HEW Exploration		DRILLER Castro/Phil	DATE STARTED July 6, 1990		DATE FINISHED
DRILLING EQUIPMENT CME 45			COMPLETION DEPTH 26.0'	SAMPLER 2' Modified California Type	
DRILLING METHOD 6" Solid Auger		DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 1
SIZE AND TYPE OF CASING NA			WATER LEVEL	FIRST	COMPL. NA 24 HRS. NA
TYPE OF PERFORATION NA		FROM	TO	FL	LOGGED BY: T. Sawyer
SIZE AND TYPE OF PACK NA		FROM	TO	FL	CHECKED BY:
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL	
	NO. 2 NA	FROM	TO	FL	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (feet)	Blow Counts		
	asphaltic concrete + gravel base							
	SAND (SP) medium to dark brown, damp, fine grain, brick fragments (FILL)							
5	CLAYEY SAND (SC) orange brown, damp, medium grain (NATIVE SOIL)	5						
10	increasing clay, becomes mottled dark brown and orange brown	10						
15		15						No odor
20		20						No odor
25	SAND (SP) mottled orange and medium brown, moist	25	1	B6-1		14 16		No odor OVM = 0 ppm
	Bottom of Boring at 26 feet							
30		30						
35		35						

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BORING NUMBER B7			ELEVATION AND DATUM		
DRILLING AGENCY HEW Exploration		DRILLER Castro/Phil	DATE STARTED		DATE FINISHED July 6, 1990
DRILLING EQUIPMENT CME 45			COMPLETION DEPTH 27.0'		SAMPLER 2" Modified California Type
DRILLING METHOD 6" Solid Auger		DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 2
SIZE AND TYPE OF CASING NA			WATER LEVEL	FIRST	COMPL. NA 24 HRS. NA
TYPE OF PERFORATION NA		FROM	TO	FL	LOGGED BY: T. Sawyer
SIZE AND TYPE OF PACK NA		FROM	TO	FL	
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL	
	NO. 2 NA	FROM	TO	FL	
			LOGGED BY:		CHECKED BY:

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (Feet)	Blow Counts		
0	asphaltic concrete + gravel base							
5	SAND (SP) dark brown, damp, fine grain (FILL)	5						
10	CLAYEY SAND (SC) orange brown, damp, medium grain (NATIVE SOIL)	10						
15	decreasing clay, becomes mottled dark brown and orange brown	15						
20		20					No odor	
25	SAND (SP) orange brown, moist, medium grain increasing clay becomes greenish gray	25	1	B7-1	13 19		OVM = 0 ppm slight gasoline odor OVM = 9.3 ppm	
			2	B7-2	14 22		OVM = 0 ppm	
30	Bottom of Boring at 27 feet	30						
35		35						

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01-466J

Woodward-Clyde Consultants



PROJECT NAME



NO. 90C0039A

BORING NUMBER B8		ELEVATION AND DATUM					
DRILLING AGENCY HEW Exploration		DRILLER Castro/Phil		DATE STARTED DATE FINISHED July 6, 1990			
DRILLING EQUIPMENT CME 45		COMPLETION DEPTH 28.5'		SAMPLER 2" Modified California Type			
DRILLING METHOD 6" Solid Auger		DRILL BIT		NO. OF SAMPLES DIST. NA UNDIST. 3			
SIZE AND TYPE OF CASING NA		WATER LEVEL FIRST 25'		COMPL. NA 24 HRS. NA			
TYPE OF PERFORATION NA		FROM TO FL.		LOGGED BY: T. Sawyer			
SIZE AND TYPE OF PACK NA		FROM TO FL.				CHECKED BY:	
TYPE OF SEAL		FROM TO FL.					
NO. 1 NA		FROM TO FL.					
NO. 2 NA		FROM TO FL.					

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recon (feet)	Blow Counts		
	asphaltic concrete + gravel base							
5	SAND (SP) dark brown, damp, fine to medium grain (FILL)	5						
10	CLAYEY SAND (SC) orange brown, damp, medium grain (NATIVE SOIL)	10						
15	becomes medium to dark brown	15						
20	SAND (SP) medium brown, moist, medium grain	20					No odor	
25	increasing clay, becomes greenish gray	25	1	B8-1	11 15		Slight gasoline odor OVM = 0 ppm	
30	becomes orange brown, little clay	30	2	B8-2	10 21		weak gasoline odor OVM = 17.5 ppm	
30	Bottom of Boring at 28.5 feet	30	3	B8-3	19 30		OVM = 2.7 ppm	
35		35						

154435A

01-466K

IMV ✓
Add ✓
15/4W-35G56

Field location of boring: (See Plate 2)				Project No.: 7270		Date: 06/04/90		Boring No:				
				Client:				C-1				
				Location: 301 14th Street				Sheet 1				
				City: Oakland, California				of 2				
				Logged by: RSY		Driller: Bayland						
Drilling method: Hollow Stem Auger				(See Well Construction Detail)								
Hole diameter: 8-Inches				Top of Box Elevation: 30.82		Datum: MSL						
PID (ppm)	Blows/ft. or Pressure (psi)	Type of Sample	Sample Number	Depth (ft.)	Sample	Well Detail	Soil Group Symbol (USCS)	Water Level				
								23.0'	24.7'	22.5'	22.0'	
								Time	09:30	09:45	10:10	10:40
								Date	06/04/90	06/04/90	06/04/90	06/04/90
Description												
PAVEMENT SECTION - 4 inches												
SAND (SP) - yellow brown (10YR 5/6), loose, dry; 95% fine sand; 5% fines; no chemical odor.												
very dense; no chemical odor.												
dense; no chemical odor.												
COLOR CHANGE to grey (7.5YR 5/0) at 13.5 - 15.0 feet. wet; no chemical odor.												
chemical odor in cuttings at 16.0 feet.												
"soft" at 18.0 feet.												
COLOR CHANGE to grey (5Y 4/1) at 19.0 feet. moderate to strong chemical odor.												

Remarks:

Log of Boring

15/4W 35G56 Monitoring Well.

BORING NO. C-1

JOB NUMBER 7270	REVIEWED BY RG/CEG CWP 06/12/92	DATE 06/90	REVISED DATE	REVISED DATE
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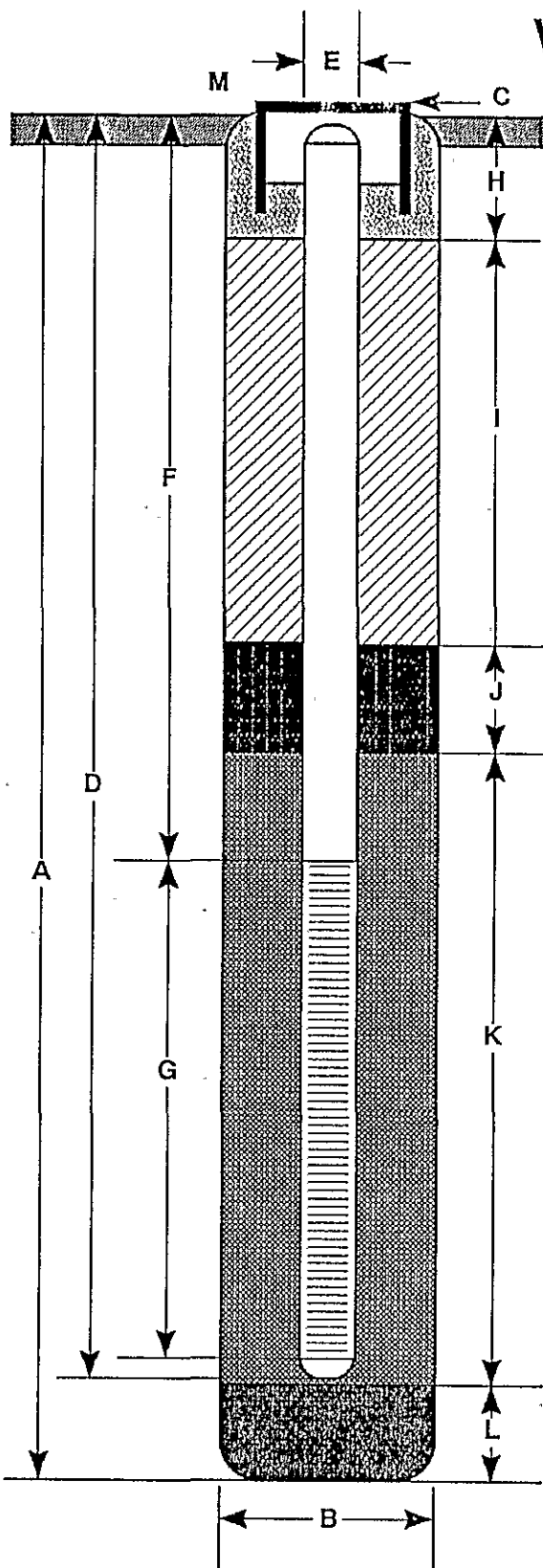
Liz # CS

01-466K

15/4W-35G56

Field location of boring: (See Plate 2)							Project No.: 7270	Date: 06/04/90	Boring No:
							Client: [REDACTED]		C-1
							Location: 301 14th Street		Sheet 2
							City: Oakland, California		of 2
							Logged by: RSY	Driller: Bayland	
Drilling method: Hollow Stem Auger							Casing installation data:		
Hole diameter: 8-Inches							Top of Box Elevation:		Datum:
PID (ppm)	Blows/ft or Pressure (ps)	Type of Sample	Sample Number	Depth (ft)	Sample	Well Detail	Soil Group Symbol (USCS)	Water Level	
								Time	
								Date	
								Description	
				21					
				22					
				23					
	8	S&H		24				saturated; weak chemical odor.	
	20		C-1-	25					
76	30		25.0						
				26					
				27					
				28					
	13			29				very dense, saturated; slight H ₂ S odor.	
	26	S&H	C-1-	30					
59	40		30.0						
				31					
				32					
				33					
	6	S&H		34				SILT (ML) - greyish brown (2.5Y 5/2), stiff, moist; 100% silt; no chemical odor.	
	7		C-1-	35					
0	9		35.0						
				36				Bottom of boring at 35.0 feet.	
				37				Bottom of sample at 35.0 feet.	
				38				06/04/90	
				39					
				40					
Remarks:									

WELL CONSTRUCTION DETAIL



- A Total Depth of Boring 35 ft.
- B Diameter of Boring 8 in.
Drilling Method Hollow Stem Auger
- C Top of Box Elevation 30.82 ft.
 Referenced to Mean Sea Level
 Referenced to Project Datum
- D Casing Length 33.5 ft.
Material Schedule 40 PVC
- E Casing Diameter 2 in.
- F Depth to Top Perforations 18.5 ft.
- G Perforated Length 15 ft.
Perforated Interval from 18.5 to 33.5 ft.
Perforation Type Factory Slot
Perforation Size 0.020 in.
- H Surface Seal from 0.0 to 1.5 ft.
Seal Material Cement Grout
- I Backfill from 1.5 to 14.5 ft.
Backfill Material Concrete Grout
- J Seal from 14.5 to 16.5 ft.
Seal Material Bentonite Pellets
- K Gravel Pack from 16.5 to 33.5 ft.
Pack Material Lonestar #2/12 Sand
- L Bottom Seal 1.5 ft.
Seal Material Bentonite Pellets
- M Christy box with locking well cap.

Note: Depths measured from initial ground surface.



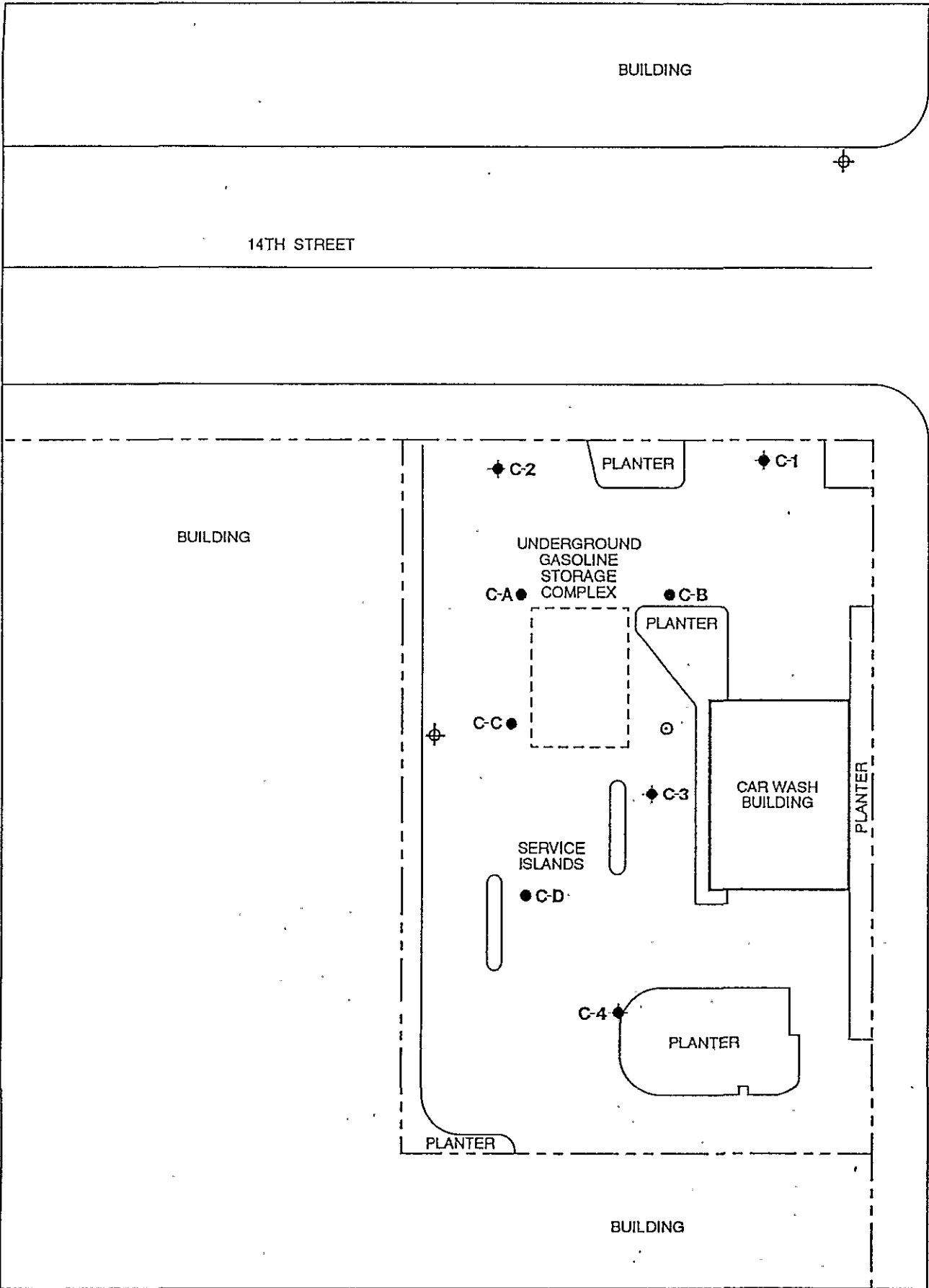
GeoStrategies Inc.

Well Construction Detail

WELL NO.

IS/4W 35656

C-1

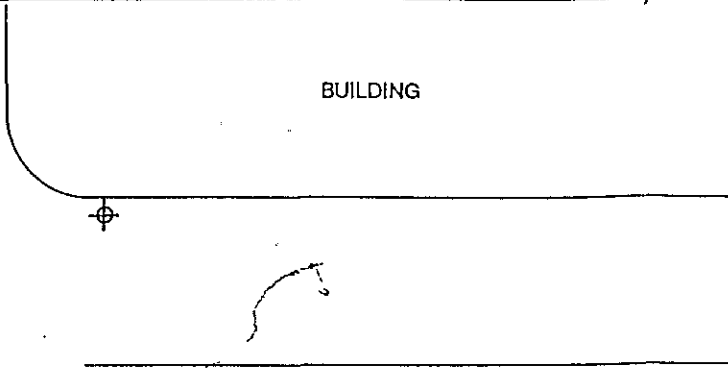


GeoStrategies Inc.

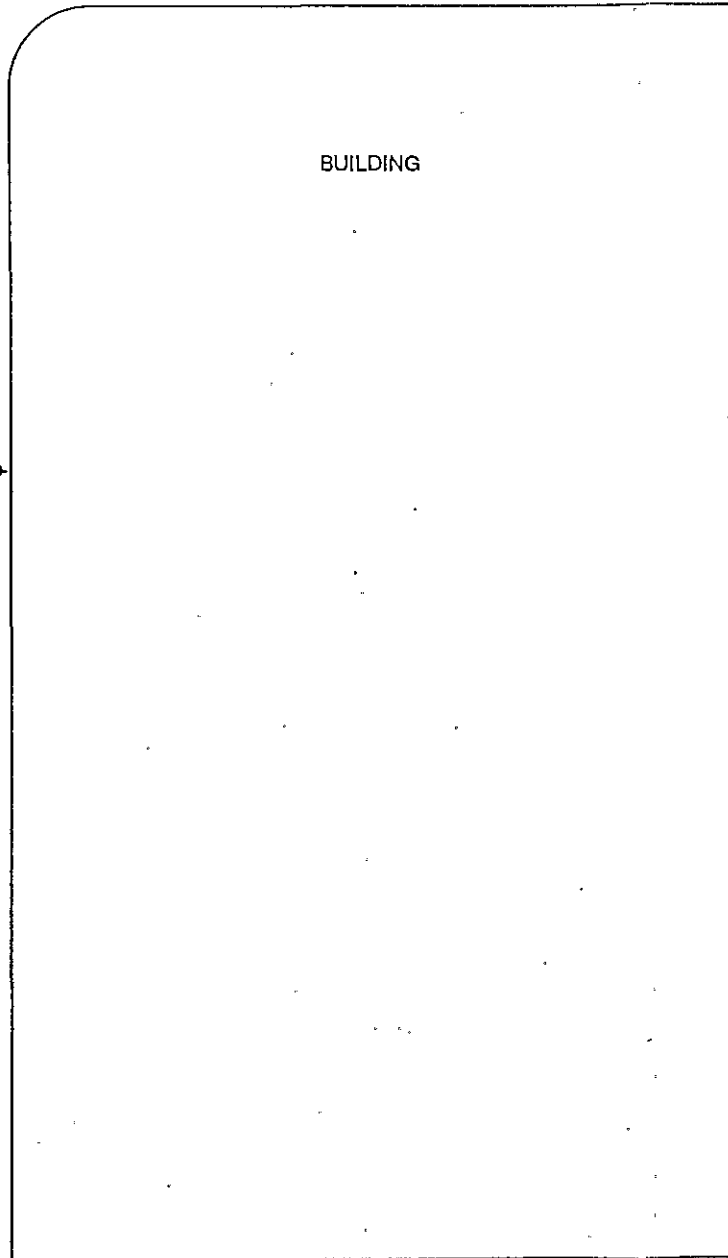
JOB NUMBER
7270

REVIEWED BY RG/CEG
CWP/CEG 1262

BUILDING

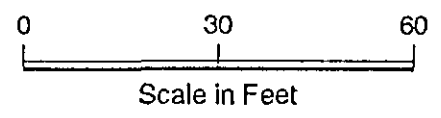


BUILDING



EXPLANATION

- ◆ C-1 Ground-water monitoring well location
- C-A Soil boring location
- ⊕ Proposed ground-water monitoring well location
- Proposed recovery well location



Site Plan
301 14th Street
Oakland, California

Lic - C57 - 37452
PLATE
2

01-466L

1S/4W-35G 57

Field location of boring: (See Plate 2)	Project No.: 7270	Date: 06/05/90	Boring No:
	Client: [REDACTED]		C-2
	Location: 301 14th Street		Sheet 1
	City: Oakland, California		of 2
	Logged by: RSY	Driller: Bayland	

Drilling method: Hollow Stem Auger	(See Well Construction Detail)
Hole diameter: 8-Inches	Top of Box Elevation: 30.91 Datum:

POD (ppm)	Blows/ft or Pressure (psf)	Type of Sample	Sample Number	Depth (ft)	Sample	Well Detail	Soil Group Symbol (USCS)	Description
				1				PAVEMENT SECTION - 2.0 feet
				2				
				3				
2	250 500	S&H push	C-2- 4.0	4				CLAYEY SAND (SC) - yellow brown (10YR 5/6), medium dense, moist; 85% fine sand; 15% clay; clay laminae; voids with oxidation stains.
				5				clay content decreases at 4.0 feet to 10%.
				6				
				7				
				8				
	9	S&H		9				
	15		C-2-	10				
4	18		10.0	10				SAND with CLAY (SP-SC) - dark yellow brown (10YR 4/6), dense, moist; 10% clay; trace well rounded gravel; no chemical odor.
				11				
				12				
				13				
	10	S&H		14				
	15		C-2-	15				no chemical odor.
40	24		15.0	15				
				16				
				17				
				18				
	10	S&H		19				COLOR CHANGE to olive (5Y 4/3) at 19.0 feet.
	20		C-2-	20				strong chemical odor.
240	29		20.0	20				

Remarks:

GSI GeoStrategies Inc. Log of Boring BORING NO. C-2

16/4W 35G 57 *Monitoring Well*

01-466L

15/4W-35G 57

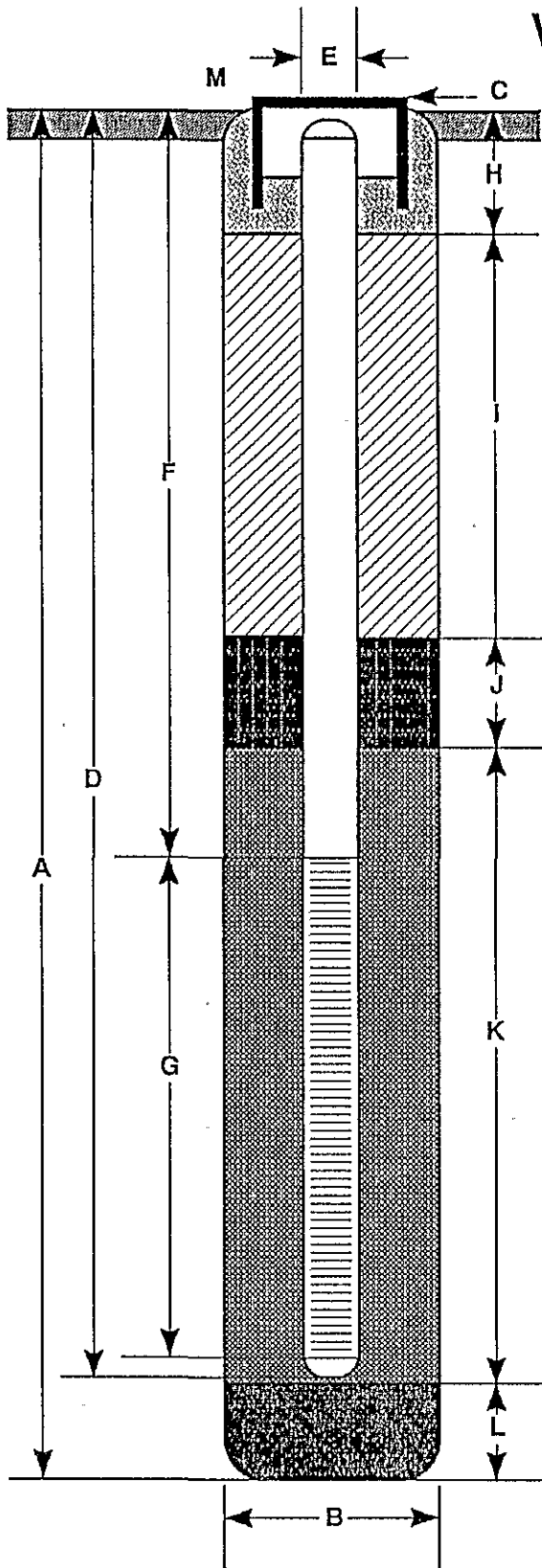
Field location of boring: (See Plate 2)	Project No.: 7270	Date: 06/05/90	Boring No:
	Client: [REDACTED]	C-2	
	Location: 3100 14th Street	Sheet 2	
	City: Oakland, California	of 2	
Logged by: RSY		Driller: Bayland	
Casing installation data:			

Drilling method: Hollow Stem Auger	Top of Box Elevation:	Datum:
Hole diameter: 8-Inches		

PID (ppm)	Blows/ft. or Pressure (ps)	Type of Sample	Sample Number	Depth (ft.)	Sample	Well Detail	Soil Group Symbol (USCS)	Water Level		Description
								Time	Date	
	12	S&H		21						
	22		C-2-	22						very dense, saturated; strong chemical odor.
370	36		22.5	23						
				24						
				25						
				26						
				27						
				28						
	3	S&H		29						
	19		C-2-	30						COLOR CHANGE to dark yellow brown (10YR 4/4) at 28.5 feet.
37	29		30.0	30						dense; no chemical odor.
				31						
				32						
				33						
	4	S&H		34						SILTY (ML) - olive (5Y 5/3), very stiff, moist, low plasticity; trace coarse sand and fine gravels; trace roots; no chemical odor.
	9		C-2-	35						
0	13		35.0	35						
				36						Bottom of boring at 35.0 feet.
				37						Bottom of sample at 35.0 feet.
				38						06/05/90
				39						
				40						

Remarks:

WELL CONSTRUCTION DETAIL



- A Total Depth of Boring _____ 35 ft.
- B Diameter of Boring _____ 8 in.
Drilling Method _____ Hollow Stem Auger
- C Top of Box Elevation _____ 30.91 ft.
 Referenced to Mean Sea Level
 Referenced to Project Datum
- D Casing Length _____ 33 ft.
Material _____ Schedule 40 PVC
- E Casing Diameter _____ 2 in.
- F Depth to Top Perforations _____ 18 ft.
- G Perforated Length _____ 15 ft.
Perforated Interval from _____ 18 to _____ 23 ft.
Perforation Type _____ Factory Slot
Perforation Size _____ 0.020 in.
- H Surface Seal from _____ 0.0 to _____ 1.5 ft.
Seal Material _____ Cement Grout
- I Backfill from _____ 1.5 to _____ 14 ft.
Backfill Material _____ Concrete Grout
- J Seal from _____ 14 to _____ 16 ft.
Seal Material _____ Bentonite Pellets
- K Gravel Pack from _____ 16 to _____ 33 ft.
Pack Material _____ Lonestar #2/12 Sand
- L Bottom Seal _____ 2 ft.
Seal Material _____ Bentonite Pellets
- M _____ Christy box with locking well cap.

Note: Depths measured from initial ground surface.



GeoStrategies Inc.

Well Construction Detail

WELL NO.

15/4W 35657

C-2

JOB NUMBER
7270

REVIEWED BY RG/CEG
UMP cell 12-02

DATE
06/90

REVISED DATE

REVISED DATE

01-466M

1S/4W-35G.58

Field location of boring: (See Plate 2)	Project No.: 7270	Date: 06/04/90	Boring No:
	Client:		C-3
	Location: 301 14th Street		
	City: Oakland, California		Sheet 1 of 2
	Logged by: RSY	Driller: Bayland	
Casing installation data:			

Drilling method: Hollow Stem Auger	(See Well Construction Detail)
Hole diameter: 8-inches	Top of Box Elevation: 31.02 Datum: MSL

PID (ppm)	Blows/ft or Pressure (psi)	Type of Sample	Sample Number	Depth (ft)	Sample	Well Detail	Soil Group Symbol (USCS)	Water Level		Time		Date		Description
								24.0	22.0	13:10	13:50	06/04/90	06/04/90	
				1										PAVEMENT SECTION - 1.5 feet
				2										
				3										
				4										
	450	S&H		5										
	500	push	C-3-											
0	500		5.0											
				6										
				7										
				8										
				9										
	250	S&H		10										decrease clay to 10%; no chemical odor.
	350	push	C-3-											
80	500		10.0											SAND with CLAY (SP-SC) - dark brown (10YR 4/3), dense, moist; 10% clay; no chemical odor.
				11										
				12										
				13										
				14										
	4	S&H		15										weak chemical odor.
	12		C-3-											
218	22		15.0											
				16										
				17										
				18										
				19										
	8	S&H		20										very dense; strong chemical odor.
	21		C-3-											
250	39		20.0											

Remarks:

01-466M

15/4W-35658

Field location of boring: (See Plate 2)	Project No.: 7270	Date: 06/04/90	Boring No:
	Client: [REDACTED]		C-3
	Location: 301 14th Street		
	City: Oakland, California		
	Logged by: RSY	Driller: Bayland	Sheet 2 of 2

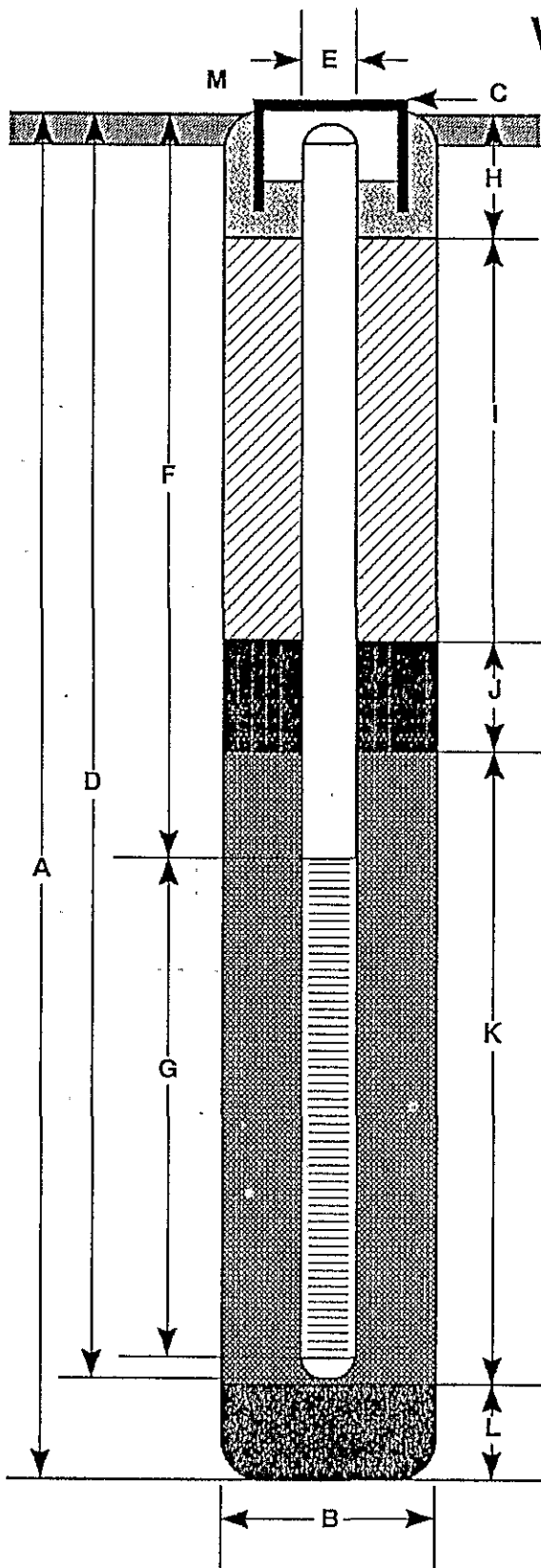
Drilling method: Hollow Stem Auger
 Hole diameter: 8-Inches
 Casing installation data:

Top of Box Elevation:	Datum:
Water Level	
Time	
Date	

PCD (ppm)	Blows/ft. or Pressure (psi)	Type of Sample	Sample Number	Depth (ft.)	Sample	Well Detail	Soil Group Symbol (USCS)	Description
				21				
				22				
				23				
	10	S&H		24				COLOR CHANGE to dark grey (5Y 4/1), dense, saturated; free product; strong chemical odor.
	19		C-3-	25				
675	29		25.0	25				
				26				
				27				
				28				
	8	S&H		29				dense; free product on sample rods; strong chemical odor.
	18		C-3-	30				
400	35		30.0	30				
				31				
				32				
				33				SILT (ML) - olive grey (5Y 5/2), very stiff, moist, low plasticity; rootholes; voids; slight oxidation; moderate chemical odor.
	5	S&H		34				
	11		C-3-	35				
250	14		35.0	35				Bottom of boring at 35.0 feet. Bottom of sample at 35.0 feet. 06/04/90
				36				
				37				
				38				
				39				
				40				

Remarks:

WELL CONSTRUCTION DETAIL



- A Total Depth of Boring _____ 35 ft.
- B Diameter of Boring _____ 8 in.
Drilling Method _____ Hollow Stem Auger
- C Top of Box Elevation _____ 31.02 ft.
 Referenced to Mean Sea Level
 Referenced to Project Datum
- D Casing Length _____ 33 ft.
Material _____ Schedule 40 PVC
- E Casing Diameter _____ 2 in.
- F Depth to Top Perforations _____ 18 ft.
- G Perforated Length _____ 15 ft.
Perforated Interval from _____ 18 to _____ 30 ft.
Perforation Type _____ Factory Slot
Perforation Size _____ 0.020 in.
- H Surface Seal from _____ 0.0 to _____ 1.5 ft.
Seal Material _____ Cement Grout
- I Backfill from _____ 1.5 to _____ 14 ft.
Backfill Material _____ Concrete Grout
- J Seal from _____ 14 to _____ 16 ft.
Seal Material _____ Bentonite Pellets
- K Gravel Pack from _____ 16 to _____ 33 ft.
Pack Material _____ Lonestar #2/12 Sand
- L Bottom Seal _____ 2 ft.
Seal Material _____ Bentonite Pellets
- M _____ Christy box with locking well cap.

Note: Depths measured from initial ground surface.



GeoStrategies Inc.

Well Construction Detail

WELL NO.

C-3

JOB NUMBER
7270

REVIEWED BY RG/CEG
UMP ucll/262

DATE
06/90

REVISED DATE

REVISED DATE

01-466N

15/4W-356.59

Field location of boring: (See Plate 2)	Project No.: 7270	Date: 06/04/90	Boring No:
	Client:		C-4
	Location: 301 14th Street		
	City: Oakland, California		Sheet 1
	Logged by: RSY	Driller: Bayland	of 2
Casing installation data:			

Drilling method: Hollow Stem Auger	(See Well Construction Detail)
Hole diameter: 8-Inches	Top of Box Elevation: 31.42 Datum: MSL

PIU (ppm)	Blows/ft or Pressure (psf)	Type of Sample	Sample Number	Depth (ft.)	Sample	Well Detail	Soil Group Symbol (USCS)	Water Level		Time	Date	Description
								23.5	22.5			
				1								PAVEMENT SECTION - 1.5 feet
				2								
		S&H	C-4-	3								
0	500	push	4.0	4								CLAYEY SAND (SC) - yellow brown (10YR 5/8), very dense, dry, low plasticity; 60% fine sand; 40% clay; large root in shoe; no chemical odor.
				5								
				6								
				7								
				8								decrease clay content to 10%.
	7	S&H		9								SAND with CLAY (SP-SC) - yellow brown (10YR 5/8), dense, moist; 10% clay; no chemical odor.
0	10		C-4-	10								
	13		10.0	11								
				12								
				13								
	5	S&H		14								clay 15-20%; no chemical odor.
	14		C-4-	15								
0	16		15.0	16								
				17								
				18								
	8	S&H		19								clay 5-10%; no chemical odor.
	19		C-4-	20								
20	29		20.0	20								

Remarks:

01-466N

15/4W-35659

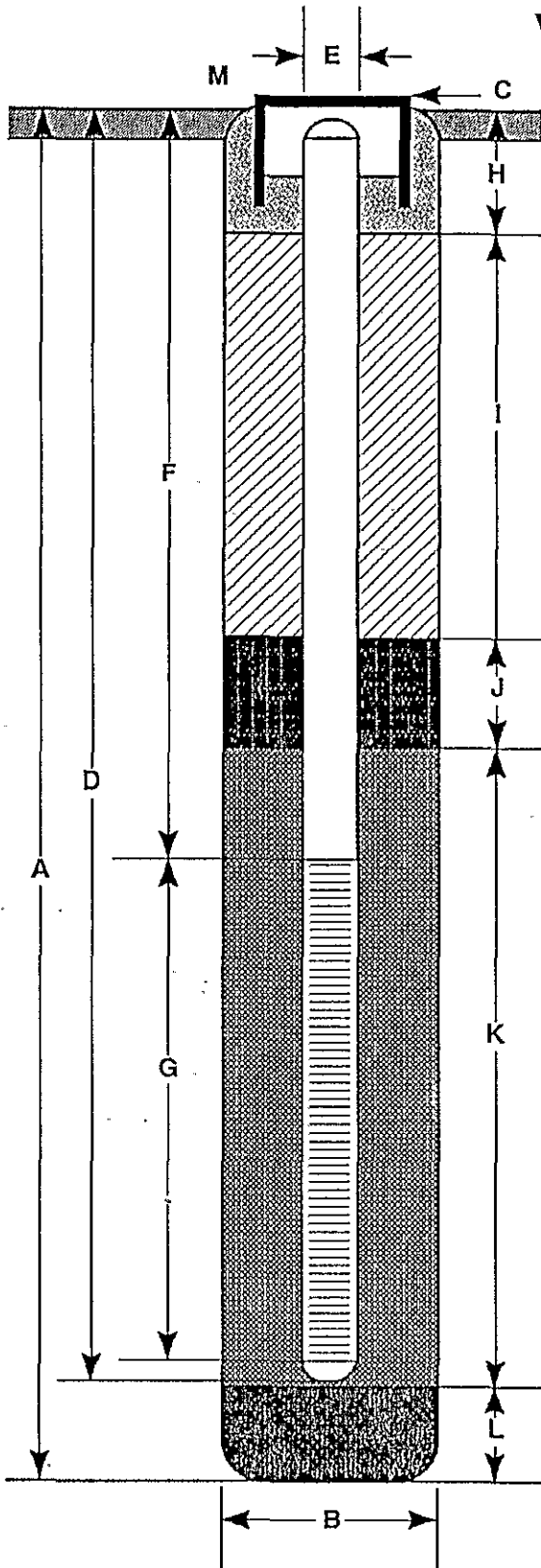
Field location of boring: (See Plate 2)	Project No.: 7270	Date: 06/04/90	Boring No:
	Client: [REDACTED]		C-4
	Location: 301 14th Street		Shoot 2
	City: Oakland, California		of 2
	Logged by: RSY	Driller: Bayland	

Drilling method: Hollow Stem Auger
 Hole diameter: 8-Inches
 Casing installation data:
 Top of Box Elevation: _____ Datum: _____

PID (ppm)	Blows/ft. or Pressure (psf)	Type of Sample	Sample Number	Depth (ft.)	Sample	Well Detail	Soil Group Symbol (USCS)	Water Level		Description
								Time	Date	
				21						
				22						
				23						
	14	S&H		24						very dense, saturated at 23.5 feet; no chemical odor.
	24		C-4-							
35	34		25.0	25						
				26						
				27						
				28						
	12	S&H		29						no chemical odor.
	24		C-4-							
0	32		30.0	30						
				31						
				32						
				33						
	5	S&H		34						SILT (ML) - olive (5Y 5/3), very stiff, moist, medium plasticity; 100% silt; trace coarse sand at 34.0 feet; slight oxidation.
	10		C-4-							
0	15		35	35						
				36						
				37						Bottom of boring at 35.0 feet. Bottom of sample at 35.0 feet. 06/04/90
				38						
				39						
				40						

Remarks:

WELL CONSTRUCTION DETAIL



- A Total Depth of Boring _____ 35 ft.
- B Diameter of Boring _____ 8 in.
Drilling Method _____ Hollow Stem Auger
- C Top of Box Elevation _____ 31.42 ft.
 Referenced to Mean Sea Level
 Referenced to Project Datum
- D Casing Length _____ 33 ft.
Material _____ Schedule 40 PVC
- E Casing Diameter _____ 2 in.
- F Depth to Top Perforations _____ 18 ft.
- G Perforated Length _____ 15 ft.
Perforated Interval from _____ 18 to _____ 33 ft.
Perforation Type _____ Factory Slot
Perforation Size _____ 0.020 in.
- H Surface Seal from _____ 0.0 to _____ 1.5 ft.
Seal Material _____ Cement Grout
- I Backfill from _____ 1.5 to _____ 14 ft.
Backfill Material _____ Concrete Grout
- J Seal from _____ 14 to _____ 16 ft.
Seal Material _____ Bentonite Pellets
- K Gravel Pack from _____ 16 to _____ 33 ft.
Pack Material _____ Lonestar #2/12 Sand
- L Bottom Seal _____ 2 ft.
Seal Material _____ Bentonite Pellets
- M _____ Christy box with locking well cap.

Note: Depths measured from initial ground surface.



GeoStrategies Inc.

Well Construction Detail

WELL NO.

15/4A 35659

C-4

01-4660 15/4435G

Field location of boring: (See Plate 2)								Project No.: 7270		Date: 06/04/90		Boring No:																																																																																																																																																																																																									
								Client:		Location: 301 14th Street		City: Oakland, California		Sheet 1 of 2																																																																																																																																																																																																							
Drilling method: Hollow Stem Auger								Top of Box Elevation:		Datum:		Casing installation data:																																																																																																																																																																																																									
Hole diameter: 8-Inches								Water Level: 23.5		Time: 11:30		Date: 06/04/90																																																																																																																																																																																																									
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:5%;">FD (ppm)</th> <th style="width:10%;">Blows/ft or Pressure (psf)</th> <th style="width:10%;">Type of Sample</th> <th style="width:10%;">Sample Number</th> <th style="width:5%;">Depth (ft)</th> <th style="width:5%;">Sample</th> <th style="width:5%;">Well Detail</th> <th style="width:5%;">Soil Group Symbol (USCS)</th> </tr> </thead> <tbody> <tr><td></td><td></td><td></td><td></td><td>1</td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td>2</td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td>3</td><td></td><td></td><td></td></tr> <tr><td></td><td>400</td><td>S&H</td><td></td><td>4</td><td></td><td></td><td></td></tr> <tr><td></td><td>500</td><td>push</td><td>C-A-</td><td>5</td><td></td><td></td><td></td></tr> <tr><td>0</td><td>500</td><td></td><td>5.0</td><td>5</td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td>6</td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td>7</td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td>8</td><td></td><td></td><td></td></tr> <tr><td></td><td>5</td><td>S&H</td><td></td><td>9</td><td></td><td></td><td></td></tr> <tr><td></td><td>13</td><td></td><td>C-A-</td><td>10</td><td></td><td></td><td></td></tr> <tr><td>0</td><td>16</td><td></td><td>10.0</td><td>10</td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td>11</td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td>12</td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td>13</td><td></td><td></td><td></td></tr> <tr><td></td><td>8</td><td>S&H</td><td></td><td>14</td><td></td><td></td><td></td></tr> <tr><td></td><td>20</td><td></td><td>C-A-</td><td>15</td><td></td><td></td><td></td></tr> <tr><td>111</td><td>20</td><td></td><td>15.0</td><td>15</td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td>16</td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td>17</td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td>18</td><td></td><td></td><td></td></tr> <tr><td></td><td>8</td><td>S&H</td><td></td><td>19</td><td></td><td></td><td></td></tr> <tr><td></td><td>20</td><td></td><td>C-A-</td><td>20</td><td></td><td></td><td></td></tr> <tr><td>230</td><td>30</td><td></td><td>20.0</td><td>20</td><td></td><td></td><td></td></tr> </tbody> </table>								FD (ppm)	Blows/ft or Pressure (psf)	Type of Sample	Sample Number	Depth (ft)	Sample	Well Detail	Soil Group Symbol (USCS)					1								2								3					400	S&H		4					500	push	C-A-	5				0	500		5.0	5								6								7								8					5	S&H		9					13		C-A-	10				0	16		10.0	10								11								12								13					8	S&H		14					20		C-A-	15				111	20		15.0	15								16								17								18					8	S&H		19					20		C-A-	20				230	30		20.0	20				Description					
FD (ppm)	Blows/ft or Pressure (psf)	Type of Sample	Sample Number	Depth (ft)	Sample	Well Detail	Soil Group Symbol (USCS)																																																																																																																																																																																																														
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CLAYEY SAND (SC) - yellow brown (10YR 5/6), stiff, dry; 65% fine sand; 35% clay; no chemical odor.																																																																																																																																																																																																																					
SAND (SP) - dark grey (5Y 4/1), medium dense, moist; 95% fine sand; 5% fines; no chemical odor.																																																																																																																																																																																																																					
COLOR CHANGE to very dark grey (5Y 4/1); no chemical odor.																																																																																																																																																																																																																					
strong chemical odor.																																																																																																																																																																																																																					

Remarks:



GeoStrategies Inc.

Log of Boring

15/4435G
Soil Boring

BORING NO.

C-A

01-4660

15/4W-35G

Field location of boring: (See Plate 2)							Project No.: 7270		Date: 06/04/90		Boring No:	
							Client: [REDACTED]		Location: 301 14th Street		C-A	
Drilling method: Hollow Stem Auger							City: Oakland, California		Sheet 2		of 2	
							Logged by: RSY		Driller: Bayland		Casing installation data:	
Hole diameter: 8-Inches							Top of Box Elevation:		Datum:			
PID (ppm)	Blows/ft. or Pressure (psf)	Type of Sample	Sample Number	Depth (ft.)	Sample	Well Detail	Soil Group Symbol (USCS)	Water Level				
								Time				
										Description		
				21								
				22								
				23								
	12	S&H		24						very dense, saturated; moderate chemical odor.		
	20		C-A-	25	*							
430	32		25.0									
				26						Bottom of boring at 25.0 feet.		
				27						Bottom of sample at 25.0 feet.		
				28						06/04/90		
				29								
				30								
				31								
				32								
				33								
				34								
				35								
				36								
				37								
				38								
				39								
				40								
Remarks:												

01-466P

15/4W-35G

Field location of boring: (See Plate 2)	Project No.: 7270	Date: 06/05/90	Boring No:
	Client:		C-B
	Location: 301 14th Street		
	City: Oakland, California		Sheet 1
	Logged by: RSY	Driller: Bayland	of 2

Drilling method: Hollow Stem Auger	Top of Box Elevation:	Datum:
Hole diameter: 8-Inches		

PID (ppm)	Blows/ft. or Pressure (psf)	Type of Sample	Sample Number	Depth (ft.)	Sample	Well Detail	Soil Group Symbol (USCS)	Water Level		Time	Date	Description
								23.5				
				1								PAVEMENT SECTION - 2.0 feet
				2								
				3								
0	350 500	S&H push	C-B- 4.0	4								SAND (SP) - dark yellow brown (10YR 4/6), dense, moist; 95% fine sand; 5% fines; trace roots; no chemical odor.
				5								
				6								
				7								
				8								
	4	S&H		9								COLOR CHANGE to olive grey (5Y 4/2) at 8.5 feet; medium dense; no chemical odor.
8	7 11		C-B- 10.0	10								
				11								
				12								
				13								
	7	S&H		14								
80	13 24		C-B- 15.0	15								dense; weak chemical odor.
				16								
				17								
				18								
	8	S&H		19								strong chemical odor.
420	20 28		C-B- 20.0	20								

Remarks:

DL-466P

15/4W-35G

Field location of boring: (See Plate 2)	Project No.: 7270	Date: 06/05/90	Boring No:
	Client:		C-B
	Location: 301 14th Street		
	City: Oakland, California		
	Logged by: RSY	Driller: Bayland	Sheet 2 of 2

Drilling method: Hollow Stem Auger	Casing Installation data:
Hole diameter: 8-Inches	Top of Box Elevation: Datum:

PID (ppm)	Blows/ft. or Pressure (psf)	Type of Sample	Sample Number	Depth (ft.)	Sample	Well Detail	Soil Group Symbol (USCS)	Water Level	Description		
								Time	Date		
				21							
				22							
				23							
	12	S&H		24							moderate chemical odor.
	22		C-B-	25							
500	34		25.0	25							
				26							
				27							Bottom of boring at 25.0 feet. Bottom of sample at 25.0 feet. 06/05/90
				28							
				29							
				30							
				31							
				32							
				33							
				34							
				35							
				36							
				37							
				38							
				39							
				40							

Remarks:

sheet missing 01-466 @

15/4W-35G

Field location of boring: (See Plate 2)							Project No.: 7270	Date: 06/05/90	Boring No:	
							Client:		C-C	
							Location: 301 14th Street			
							City: Oakland, California		Sheet 2	
							Logged by: RSY	Drillor: Bayland	of 2	
							Casing installation data:			
Drilling method: Hollow Stem Auger							Top of Box Elevation:			
Hole diameter: 8-Inches							Datum:			
FD (ppm)	Blows/ft. or Pressure (psf)	Type of Sample	Sample Number	Depth (ft.)	Sample	Well Detail	Soil Group Symbol (USCS)	Water Level		
								Time		
								Date		
								Description		
				21						
				22						
				23						
	13	S&H		24						saturated; free product; strong chemical odor.
	22		C-C-							
419	27		25.0	25						
				26						Bottom of boring at 25.0 feet.
				27						Bottom of sample at 25.0 feet.
				28						06/05/90
				29						
				30						
				31						
				32						
				33						
				34						
				35						
				36						
				37						
				38						
				39						
				40						
Remarks:										

01-466R


15/4W-35G

Field location of boring: (See Plate 2)	Project No.: 7270	Date: 06/05/90	Boring No:
	Client: [REDACTED]	C-D	
	Location: 301 14th Street	Sheet 1	
	City: Oakland, California	of 2	
Logged by: RSY		Driller: Bayland	
Casing installation data:			

Drilling method: Hollow Stem Auger	Top of Box Elevation:	Datum:
Hole diameter: 8-Inches		

PID (ppm)	Blow/ft. or Pressure (psf)	Type of Sample	Sample Number	Depth (ft.)	Sample	Well Detail	Soil Group Symbol (USCS)	Description	
								Water Level	Time
				1					PAVEMENT SECTION - 2.0 feet
				2					
				3					
	350 - 500/8"	S&H push	C-D-4.0	4					CLAYEY SAND (SC) - yellowish brown (10YR 5/6), very dense, dry; 75-80% fine sand; 20-25% clay; decreases to 10% at 4.0 feet; trace rootholes; no chemical odor.
0				5					
				6					
				7					
				8					SANDY with CLAY (SP-SC) - yellow brown (10YR 5/6), very dense, moist; 85-90% fine sand; 5-10% clay; no chemical odor.
	20	S&H		9					
	27		C-D-	10					
6	44		10.0	11					
				12					
				13					
	12	S&H		14					no chemical odor.
	28		C-D-	15					
16	36		15.0	16					
				17					
				18					
				19					very weak chemical odor.
	8	S&H		20					
	20		C-D-						
220	26		20.0						

Remarks:


GeoStrategies Inc.
Log of Boring
BORING NO. 15/4W 35G

Soil Boring

C-D

01-466R 1S/AW-35G

Field location of boring: (See Plate 2)	Project No.: 7270	Date: 06/05/90	Boring No:
	Client:		C-D
	Location: 301 14th Street		Sheet 2
	City: Oakland, California		of 2
	Logged by: RSY	Driller: Bayland	
Casing installation data:			

Drilling method: Hollow Stem Auger	Top of Box Elevation:	Datum:
Hole diameter: 8-Inches		

PID (ppm)	Blows/ft. or Pressure (ps)	Type of Sample	Sample Number	Depth (ft.)	Sample	Well Detail	Soil Group Symbol (USCS)	Water Level		Description
								Time	Date	
				21						moderate chemical odor in cuttings at 21.0 feet.
				22						
				23						
	12	S&H		24		∇				saturated; no fines; no chemical odor.
	24		C-D-							
22	36		25.0	25						
				26						
				27						Bottom of boring at 25.0 feet. Bottom of sample at 25.0 feet. 06/05/90
				28						
				29						
				30						
				31						
				32						
				33						
				34						
				35						
				36						
				37						
				38						
				39						
				40						

Remarks:

1S/AW-35G

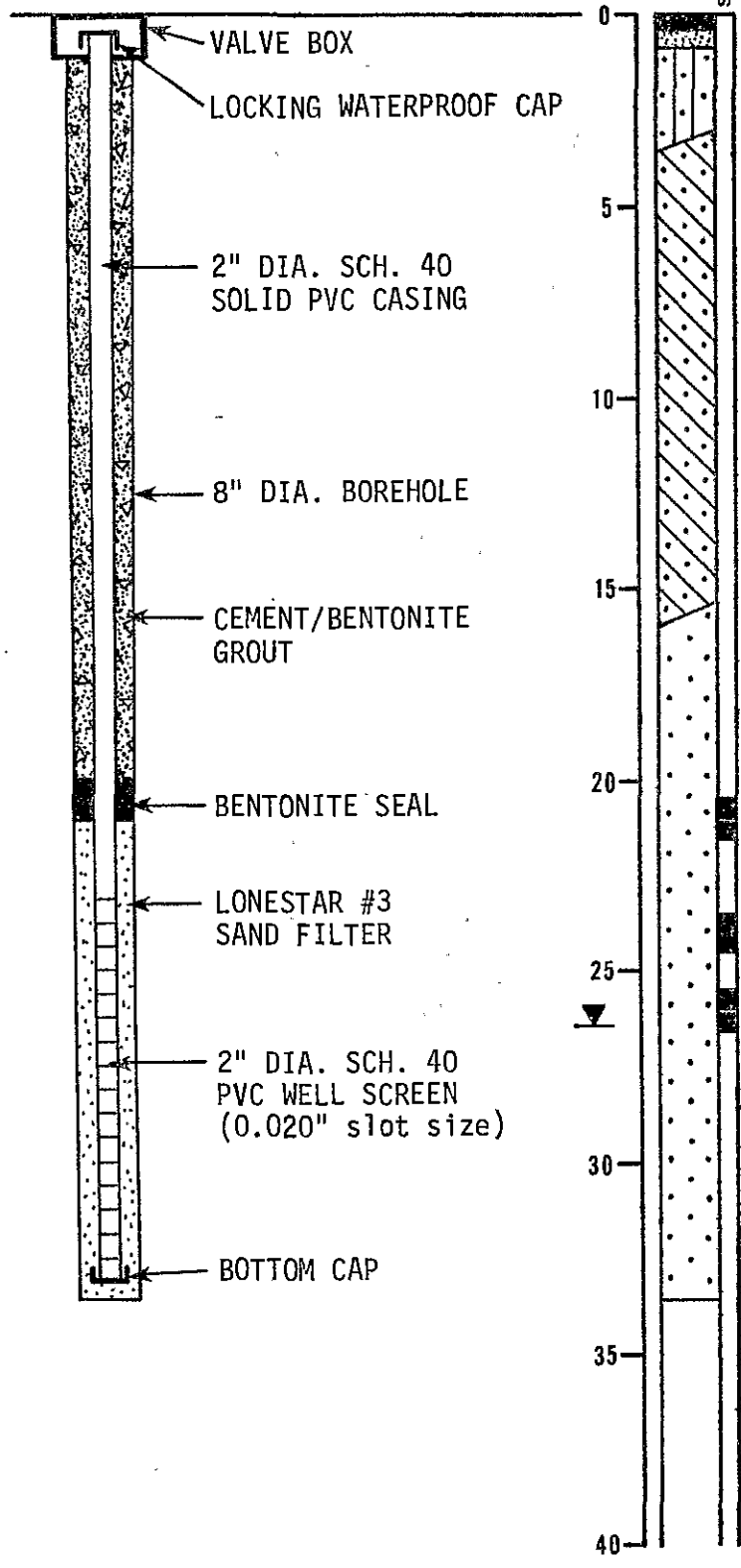
inv. 3/29/89

01-469 P IS/4W 35D17

Monitoring well

LOG OF TEST BORING 42

EQUIPMENT 8" Hollow Stem Auger
DATE DRILLED 3/29/89
ELEVATION --



DEPTH (FT)

DEPTH (FT)	SAMPLE	BLOWS PER FOOT	SOIL DESCRIPTION
0 - 1			ASPHALTIC CONCRETE - 4" thick
1 - 2			CONCRETE - 6" thick
2 - 4			GRAY SILTY SAND (SM) medium dense, moist
4 - 15			GRAY-GREEN CLAYEY SAND (SC) medium dense, moist
15 - 20			BROWN SAND (SP) dense, moist
20 - 21		51	
21 - 22		72	
22 - 23		65	GROUNDWATER LEVEL - 9/28/89
23 - 35			
35 - 40			

HEW Drilling

Subsurface Consultants

1330 MARTIN LUTHER KING, JR. WAY - OAK.
 JOB NUMBER 430.002 DATE 7/7/89 APPROVED

PLATE 23

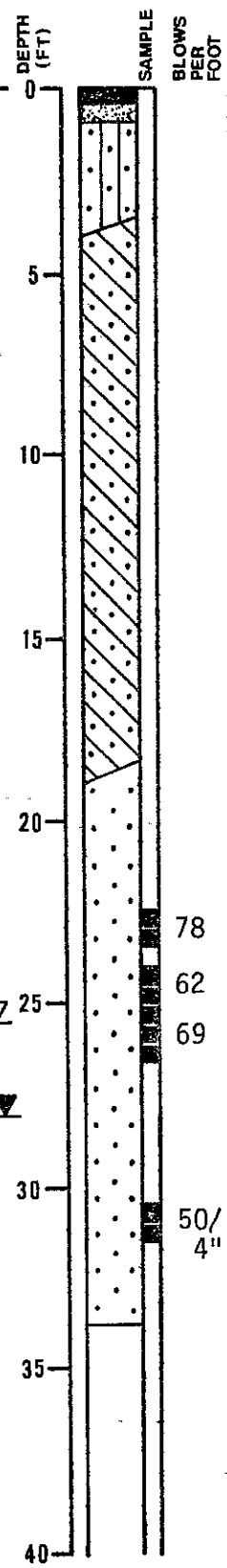
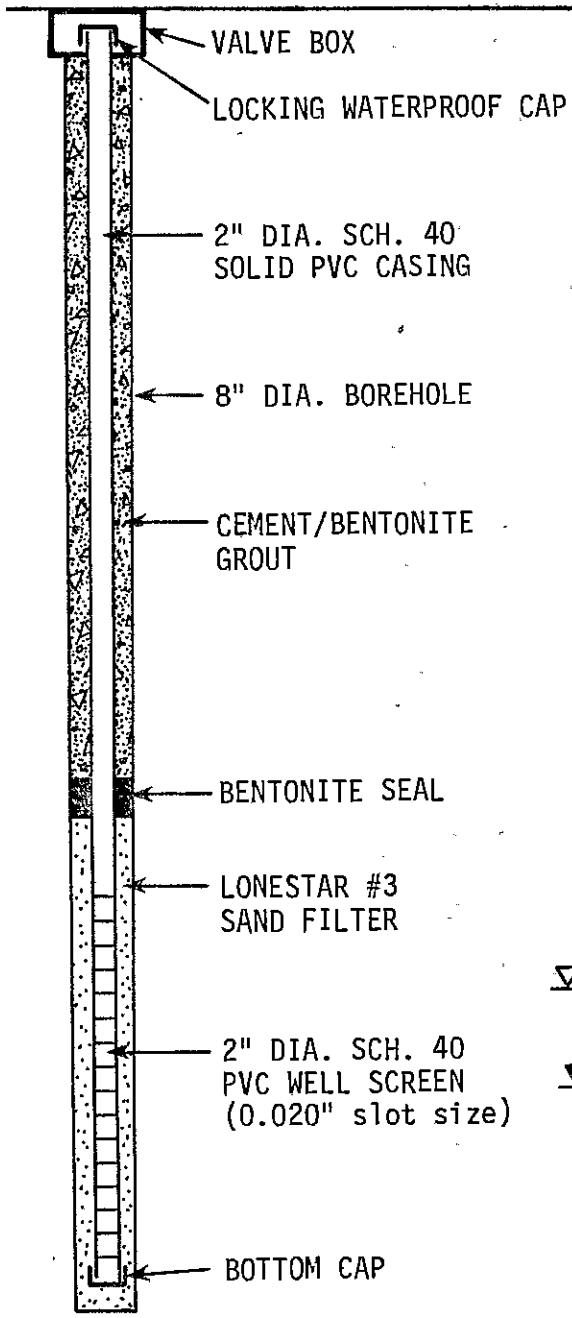
inv 200
monitoring well

01-469 @ 1S/4W 35D18

LOG OF TEST BORING 43

EQUIPMENT 8" Hollow Stem Auger
DATE DRILLED 3/30/89

ELEVATION --



ASPHALTIC CONCRETE - 4" thick
 CONCRETE - 6" thick
 BROWN SILTY SAND (SM)
 medium dense, moist
 color changes to gray-green
 color changes to brown

BROWN CLAYEY SAND (SC)
 medium dense, moist

BROWN SAND (SP)
 dense, moist

FREE PRODUCT SURFACE - 9/28/89
 27" thick

GROUNDWATER LEVEL 9/28/89

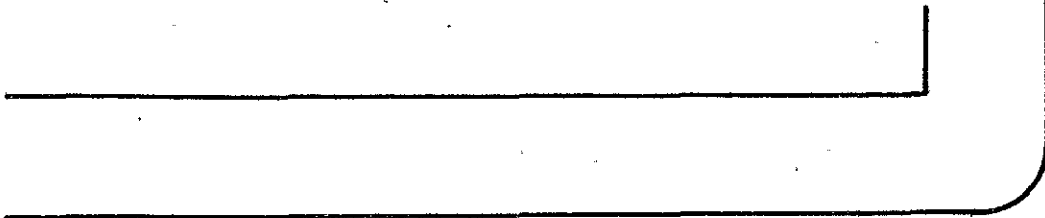
HEW Drilling

Subsurface Consultants

1330 MARTIN LUTHER KING, JR. WAY - OAK.
 JOB NUMBER 430.002 DATE 7/7/89 APPROVED

PLATE
24

30



31

MARTIN LUTHER KING. JR, WAY



40

41

42

30

28

14

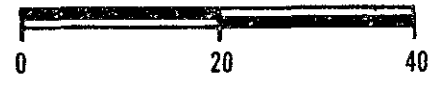
11

7

15



APPROXIMATE SCALE (feet)



9

01-4690 - 01469Q

1514W - 35D16-18

SIDEWALK

14th STREET

SIDEWALK

43

- ⊕ WELL ON PERMIT APPLICATION
- ✦ BORING OR PREVIOUSLY PERMITTED WELL

TANK



6

2

3

8

1A

1

16

HEW Drilling

SITE PLAN

Subsurface Consultants

1330 MARTIN LUTHER KING, JR. WAY - OAK.

PLATE

JOB NUMBER

DATE

APPROVED

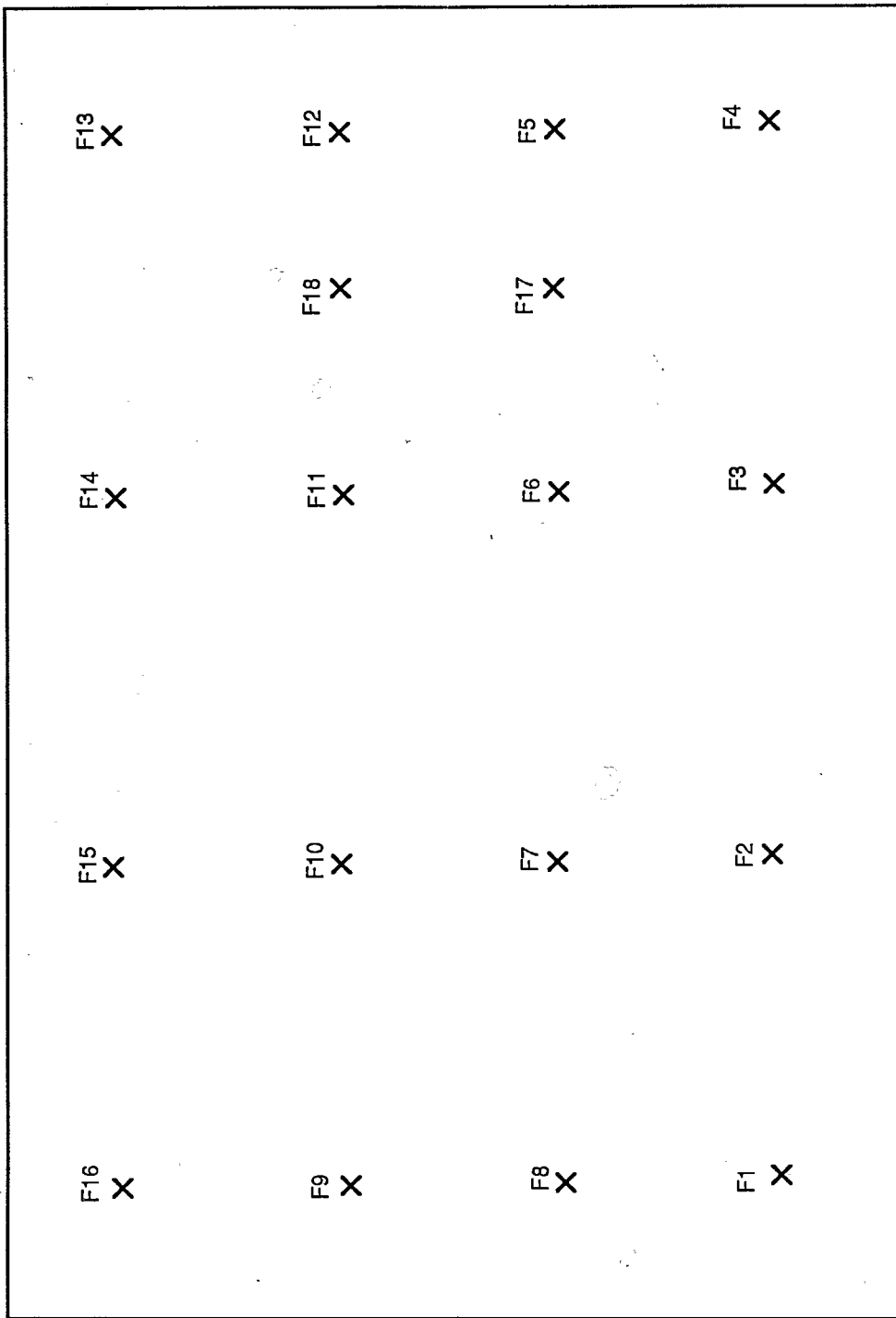
430.002

7/7/89

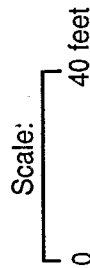
Jefferson Street

01-477 J J Z
01-478 A-B
1S/4W 35E

12th Street



11th Street



Project No. 90C0039D	Parcel T12 Boring Locations	Figure 2
Woodward-Clyde Consultants		

11th & Martin Luther King Jr. Way

Martin Luther King, Jr. Way

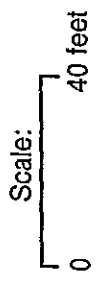
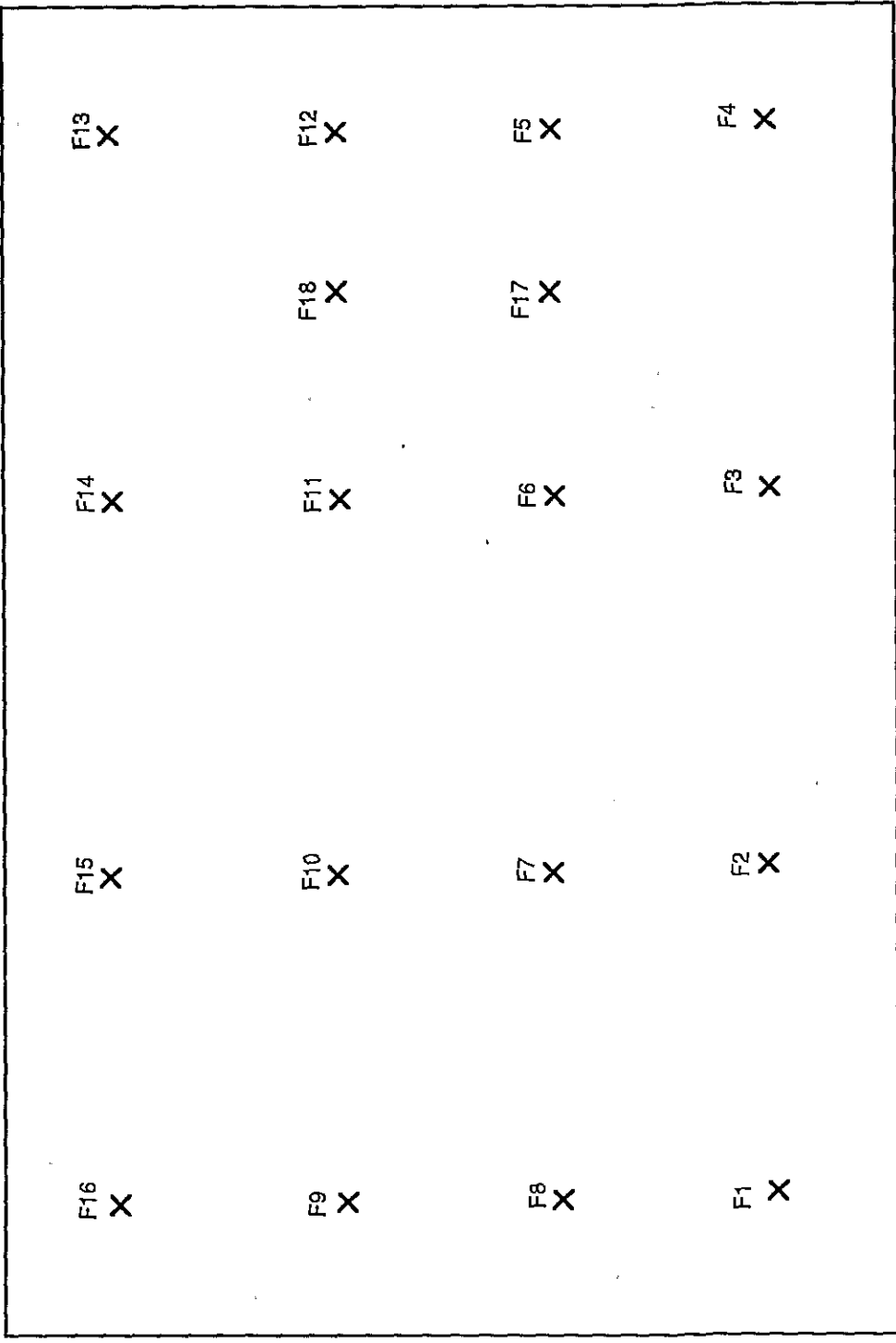
BORING NUMBER F1		DATE STARTED AUGUST 13, 1990	
DRILLING AGENCY HEW Drilling		DATE FINISHED	
DRILLER		ELEVATION AND DATUM NA	
DRILLING EQUIPMENT		COMPLETION DEPTH 5-1/2 Ft.	SAMPLER 2" Modified Calif. Type
DRILLING METHOD 6" Solid Auger		DRILL BIT NA	
SIZE AND TYPE OF CASING NA		NO. OF SAMPLES 3	
TYPE OF PERFORATION NA		FROM TO Ft.	DIST. 0
SIZE AND TYPE OF PACK NA		UNDIST. 3	
TYPE OF SEAL		WATER LEVEL NA	
NO. 1 NA	FROM TO Ft.	FIRST COMPL. 24 HRS.	
NO. 2 NA	FROM TO Ft.	LOGGED BY T. Kolbe	
		CHECKED BY	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
	Asphaltic concrete					
	GRAVEL (GM) red to red brown, little sand, clay	1	F1-1	14		
	SAND (SP-SM) dark brown, very fine, minor silt	2	F1-2	3		
				4		
5	SAND (SW-SC) light brown to red, little clay (native soil)	5	F1-3	5		
	Bottom of Boring at 5-1/2 ft.			9		
10		10				
15		15				
20		20				
25		25				
30		30				
35		35				

01-477 J U Z
01-478 A-B
1S/4W 35E

Jefferson Street

12th Street



11th Street

Martin Luther King, Jr. Way

Project No. 90C0039D	City Center ESA	Parcel T12 Boring Locations	Figure 2
Woodward-Clyde Consultants			

11th & Martin Luther King Jr. Way

01-477K 1S14W 35E

BORING NUMBER F2		DATE STARTED AUGUST 13, 1990	
DRILLING AGENCY HEW Drilling		DATE FINISHED	
DRILLER		ELEVATION AND DATUM NA	
DRILLING EQUIPMENT		COMPLETION DEPTH 4 Ft.	SAMPLER 2" Modified Calif. Type
DRILLING METHOD 6" Solid Auger		DRILL BIT NA	
SIZE AND TYPE OF CASING NA		NO. OF SAMPLES 2	DIST. 0 UNDIST. 2
TYPE OF PERFORATION NA		FROM	TO Ft.
SIZE AND TYPE OF PACK NA		FROM	TO Ft.
TYPE OF SEAL		LOGGED BY T. Kolbe	CHECKED BY
NO. 1	NA	FROM	TO Ft.
NO. 2	NA	FROM	TO Ft.

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
0	Asphaltic concrete	1	F2-1	7		
0	GRAVEL with SAND (GM) dark brown, little clay	1	F2-1	8		
0	SAND with GRAVEL (SP-SC) dark brown, little clay	2	F2-2	33		
5	SAND (SP) light brown to red, fine-grained, well sorted (native soil)	5				
4	Bottom of Boring at 4 ft.					

BORING NUMBER F3		DATE STARTED AUGUST 13, 1990	
DRILLING AGENCY HEW Drilling		DATE FINISHED	
DRILLER		ELEVATION AND DATUM NA	
DRILLING EQUIPMENT		COMPLETION DEPTH 7-1/2 Ft.	
DRILLING METHOD 6" Solid Auger		SAMPLER 2" Modified Calif. Type	
DRILL BIT NA		NO. OF SAMPLES 4	
SIZE AND TYPE OF CASING NA		DIST. 0	
TYPE OF PERFORATION NA		UNDIST. 4	
FROM TO Ft.		WATER LEVEL NA	
SIZE AND TYPE OF PACK NA		FIRST COMPL. 24 HRS.	
FROM TO Ft.		LOGGED BY T. Kolbe	
TYPE OF SEAL		CHECKED BY	
NO. 1 NA		FROM TO Ft.	
NO. 2 NA		FROM TO Ft.	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
	Asphaltic concrete					
	GRAVEL (GP) light brown to red, with little clay and silt		1	F3-1	13 10	
	SAND (SP-SM) dark brown, with little gravel, very fine-grained		2	F3-2	5 5	
5	SAND (SM) dark brown, very fine-grained (native soil)	5	3	F3-3	3 4	
	SAND (SP-SC) light brown to red, with little clay (native soil)		4	F3-4	12 27	
	Bottom of Boring at 7-1/2 ft.					

BORING NUMBER F4		DATE STARTED AUGUST 13, 1990	
DRILLING AGENCY HEW Drilling		DATE FINISHED	
DRILLER		ELEVATION AND DATUM NA	
DRILLING EQUIPMENT		COMPLETION DEPTH 4 Ft.	
DRILLING METHOD 6" Solid Auger		DRILL BIT NA	
DRILL BIT NA		SAMPLER 2" Modified Calif. Type	
SIZE AND TYPE OF CASING NA		NO. OF SAMPLES 2	
TYPE OF PERFORATION NA		DIST. 0	
TYPE OF PERFORATION NA		UNDIST. 2	
SIZE AND TYPE OF PACK NA		WATER LEVEL NA	
TYPE OF SEAL		FIRST COMPL. 24 HRS.	
NO. 1 NA		LOGGED BY T. Kolbe	
NO. 2 NA		CHECKED BY	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES		REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	blow counts	
	Asphaltic concrete				
	SAND (SP) dark brown, very fine-grained	1	F4-1	19	
	becomes light brown			14	
	SAND (SM)	2	F4-2	3	
	light brown to red, very fine-grained (native soil)			3	
5	Bottom of Boring at 4 ft.	5			
10		10			
15		15			
20		20			
25		25			
30		30			
35		35			

01-477N

1S/4W 35E

BORING NUMBER F5		DATE STARTED AUGUST 13, 1990	
DATE FINISHED		ELEVATION AND DATUM NA	
DRILLING AGENCY HEW Drilling	DRILLER		COMPLETION DEPTH 15-1/2 Ft.
DRILLING EQUIPMENT		SAMPLER 2" Modified Calif. Type	
DRILLING METHOD 6" Solid Auger	DRILL BIT NA		NO. OF SAMPLES 5
SIZE AND TYPE OF CASING NA		DIST. 0	
TYPE OF PERFORATION NA		UNDIST. 5	
SIZE AND TYPE OF PACK NA		WATER LEVEL NA	
TYPE OF SEAL		FIRST COMPL. 24 HRS.	
NO. 1 NA	FROM TO Ft.		LOGGED BY T. Kolbe
NO. 2 NA	FROM TO Ft.		CHECKED BY

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
0	Asphaltic concrete	0				
0	CLAYEY GRAVEL with SAND (GC) dark gray to black	1	F5-1	15	7	odor of oil
0		2	F5-2	15	10	
0		3	F5-3	15	10	
5	grades to	5				
5	CLAYEY SAND with GRAVEL (SC)	5				
10	SAND (SP) light green to olive gray, very fine-grained	10	F5-4	15	21	
10	becomes light brown to olive gray and clayey, wet, mottled with iron staining, very fine-grained	10				
15	Bottom of Boring at 15-1/2 ft.	15	F5-5	10	12	
15		15				
20		20				
25		25				
30		30				
35		35				

01-472φ 15/4W 35E

Woodward-Clyde Consultants

PROJECT NAME

No. 90C0039D

BORING NUMBER F6			DATE STARTED AUGUST 13, 1990		
DRILLING AGENCY HEW Drilling			DATE FINISHED		
DRILLER			ELEVATION AND DATUM NA		
DRILLING EQUIPMENT			COMPLETION DEPTH 5 Ft.		SAMPLER 2" Modified Calif. Type
DRILLING METHOD 6" Solid Auger			DRILL BIT NA		
SIZE AND TYPE OF CASING NA			NO. OF SAMPLES 2		
TYPE OF PERFORATION NA			FROM	TO	Ft. 0
SIZE AND TYPE OF PACK NA			FROM	TO	Ft. 2
TYPE OF SEAL			WATER LEVEL NA		FIRST COMPL. 24 HRS.
NO. 1 NA			FROM	TO	Ft.
NO. 2 NA			FROM	TO	Ft.
			LOGGED BY T. Kolbe		CHECKED BY

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
	Asphaltic concrete					
	GRAVEL (GP) light brown to red, (base rock)					
	SAND (SP) light brown to red, fine-grained becomes clayey					
5	Bottom of Boring at 5 ft.	5	1	F6-1	10 12	
			2	F6-2	4 4	
10		10				
15		15				
20		20				
25		25				
30		30				
35		35				

BORING NUMBER F7		DATE STARTED AUGUST 13, 1990	
DATE FINISHED		ELEVATION AND DATUM NA	
DRILLING AGENCY HEW Drilling	DRILLER		SAMPLER
DRILLING EQUIPMENT		COMPLETION DEPTH 5-1/2 Ft.	2" Modified Calif. Type
DRILLING METHOD 6" Solid Auger	DRILL BIT NA		
SIZE AND TYPE OF CASING NA		NO. OF SAMPLES 3	DIST. 0 UNDIST. 3
TYPE OF PERFORATION NA		FROM	TO Ft.
SIZE AND TYPE OF PACK NA		FROM	TO Ft.
TYPE OF SEAL		LOGGED BY T. Kolbe	CHECKED BY
NO. 1 NA	FROM	TO Ft.	
NO. 2 NA	FROM	TO Ft.	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
	Asphaltic concrete					
	GRAVEL (GP) (base rock)					
	CLAYEY GRAVEL with SAND (GC) light brown, few brick fragments, grades to sand (fill)					
5	SAND (SP) mottled with iron staining (native soil)	5	3	F7-3	4	
	Bottom of Boring at 5-1/2 ft.					
10		10				
15		15				
20		20				
25		25				
30		30				
35		35				

01-4770

1514W 35E

BORING NUMBER F8		DATE STARTED AUGUST 13, 1990	
DRILLING AGENCY HEW Drilling		DATE FINISHED	
DRILLER		ELEVATION AND DATUM NA	
DRILLING EQUIPMENT		COMPLETION DEPTH 9 Ft.	
DRILLING METHOD 6" Solid Auger		DRILL BIT NA	
SIZE AND TYPE OF CASING NA		SAMPLER 2" Modified Calif. Type	
TYPE OF PERFORATION NA		NO. OF SAMPLES 3	
SIZE AND TYPE OF PACK NA		DIST. 0	
TYPE OF SEAL		UNDIST. 3	
NO. 1 NA		WATER LEVEL NA	
NO. 2 NA		FIRST COMPL. 24 HRS.	
FROM TO Ft.		LOGGED BY T. Kolbe	
FROM TO Ft.		CHECKED BY	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
	Asphaltic concrete					
	GRAVEL (GP) light brown to red, with sand (base rock)					
	GRAVEL with SAND (GP) dark brown, CONTAINS brick and concrete fragments (fill)	1	F8-1	9	15	
5	becomes less sandy and gravelly with more brick and concrete fragments (fill)	2	F8-2	2	7	
		3	F8-3	4	3	
10	CLAYEY SAND (SC) light brown to red (native soil)					
	Bottom of Boring at 9 ft.					

BORING NUMBER F9		DATE STARTED AUGUST 13, 1990	
BILLING AGENCY HEW Drilling		DATE FINISHED	
DRILLER		ELEVATION AND DATUM NA	
DRILLING EQUIPMENT		COMPLETION DEPTH 9 Ft.	SAMPLER 2" Modified Calif. Type
DRILLING METHOD 6" Solid Auger		DRILL BIT NA	
SIZE AND TYPE OF CASING NA		NO. OF SAMPLES 3	DIST. 0 UNDIST. 3
TYPE OF PERFORATION NA		FROM	TO Ft.
SIZE AND TYPE OF PACK NA		FROM	TO Ft.
TYPE OF SEAL		LOGGED BY T. Kolbe	CHECKED BY
NO. 1 NA	FROM	TO Ft.	
NO. 2 NA	FROM	TO Ft.	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
	Asphaltic concrete					
	GRAVEL with SAND and SILT (GP-GM) dark brown, trace clay	1	F9-1	4		
5	CONCRETE dark brown and light gray, highly decomposed, trace silt and clay (fill) becomes silty and clayey with brick fragments (fill)	5	F9-2	2		
		3	F9-3	5		
10	CLAYEY SAND (SC) light brown to red (native soil) Bottom of Boring at 9 ft.	10				
15		15				
20		20				
25		25				
30		30				
35		35				

BORING NUMBER F10			DATE STARTED AUGUST 13, 1990		
DRILLING AGENCY HEW Drilling			DRILLER		
DRILLING EQUIPMENT			ELEVATION AND DATUM NA		
DRILLING METHOD 6" Solid Auger			DRILL BIT NA		COMPLETION DEPTH 6 Ft.
SIZE AND TYPE OF CASING NA			TYPE OF PERFORATION NA		SAMPLER 2" Modified Calif. Type
TYPE OF PERFORATION NA			FROM TO Ft.		NO. OF SAMPLES 2
SIZE AND TYPE OF PACK NA			FROM TO Ft.		DIST. 0
TYPE OF SEAL			NO. 1 NA		UNDIST. 2
TYPE OF SEAL			NO. 2 NA		WATER LEVEL NA
TYPE OF SEAL			FROM TO Ft.		FIRST COMPL. 24 HRS.
TYPE OF SEAL			FROM TO Ft.		LOGGED BY T. Kolbe
TYPE OF SEAL			FROM TO Ft.		CHECKED BY

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
	Asphaltic concrete					
	GRAVEL with CLAY and SAND (GP-GC) dark gray to black (base rock)	1	F10-1	6.4		
	SAND with CLAY (SP-SC) dark brown, contains brick and concrete fragments (fill)	2	F10-2	3.2		
	SAND with SILT (SP-SM) mottled light brown to dark brown (native soil)					
	Bottom of Boring at 6 ft.					

BORING NUMBER F11		DATE STARTED AUGUST 13, 1990	
BILLING AGENCY HEW Drilling		DRILLER	
DRILLING EQUIPMENT		ELEVATION AND DATUM NA	
DRILLING METHOD 6" Solid Auger		DRILL BIT NA	
SIZE AND TYPE OF CASING NA		COMPLETION DEPTH 6 Ft.	
TYPE OF PERFORATION NA		SAMPLER 2" Modified Calif. Type	
SIZE AND TYPE OF PACK NA		NO. OF SAMPLES 3	
TYPE OF SEAL		DIST. 0	
NO. 1 NA		UNDIST. 3	
NO. 2 NA		WATER LEVEL NA	
FROM TO Ft.		FIRST COMPL. 24 HRS.	
FROM TO Ft.		LOGGED BY T. Kolbe	
FROM TO Ft.		CHECKED BY	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
	Asphaltic concrete					
	GRAVEL with SAND and CLAY (GP-GC) (base rock)					
	SAND with SILT (SP-SM) dark gray to black, sand with brick and concrete fragments,	1	F11-1	6		
	SAND with SILT (SP-SM) mottled light brown to dark brown, trace clay (native soil) becomes light brown to red, less clayey	2	F11-2	2		
5	Bottom of Boring at 6 ft.	5	F11-3	4		

BORING NUMBER F12		DATE STARTED AUGUST 13, 1990	
DRILLING AGENCY HEW Drilling		DATE FINISHED	
DRILLER		ELEVATION AND DATUM NA	
DRILLING EQUIPMENT		COMPLETION DEPTH 16 Ft.	
DRILLING METHOD 6" Solid Auger		DRILL BIT NA	
DRILL BIT NA		SAMPLER 2" Modified Calif. Type	
SIZE AND TYPE OF CASING NA		NO. OF SAMPLES 7	
TYPE OF PERFORATION NA		DIST. 0	
TYPE OF PERFORATION NA		UNDIST. 7	
SIZE AND TYPE OF PACK NA		WATER LEVEL NA	
TYPE OF SEAL NO. 1 NA		FIRST COMPL. 24 HRS.	
TYPE OF SEAL NO. 2 NA		LOGGED BY T. Kolbe	
		CHECKED BY	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
	Asphaltic concrete					
	GRAVEL with CLAY and SAND (GP-GC) light brown to red (base rock)	1	F12-1	20	odor of oil	
	GRAVELLY CLAY (CL) dark greenish gray	2	F12-2	4 5	odor of oil	
5	becomes dark gray to black and sandy, silty	5	F12-3	4 5	odor of oil	
	contains fragments of wood, brick, and glass	4	F12-4	4 8	odor of oil	
10	SANDY GRAVEL (GP) dark gray to black, trace clay contains leaves, fragments of wood, brick, and glass (fill)	10	F12-5	1 2	odor of oil	
	SILTY CLAY (CL) dark gray to black, wet, contains wood and leaves (fill)	6	F12-6	18 15		
	SAND (SP) light greenish gray to olive green, moist, mottled with iron staining	15	F12-7	7 9		
	SILTY CLAYEY SAND (SM-SC) mottled light brown to brown, moist (native soil)					
	Bottom of Boring at 16 ft.					

BORING NUMBER F13		DATE STARTED		AUGUST 13, 1990	
DRILLING AGENCY HEW Drilling		DRILLER		ELEVATION AND DATUM NA	
DRILLING EQUIPMENT		COMPLETION DEPTH 7 Ft.		SAMPLER 2" Modified Calif. Type	
DRILLING METHOD 6" Solid Auger		DRILL BIT NA		NO. OF SAMPLES 3	
SIZE AND TYPE OF CASING NA		FROM TO Ft.		DIST. 0	
TYPE OF PERFORATION NA		FROM TO Ft.		UNDIST. 3	
SIZE AND TYPE OF PACK NA		FROM TO Ft.		WATER LEVEL NA	
TYPE OF SEAL		FROM TO Ft.		FIRST COMPL. 24 HRS.	
NO. 1 NA		FROM TO Ft.		LOGGED BY T. Kolbe	
NO. 2 NA		FROM TO Ft.		CHECKED BY	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
	Asphaltic concrete					
	GRAVEL (GP) light brown to red, trace sand, silt and clay (base rock)	1	F13-1	10	4	
	SILTY GRAVEL (GM) dark brown, trace concrete fragments (fill)					
5	GRAVELLY CLAY (CL) light greenish gray to olive green	5	F13-2	6	2	
	becomes mottled dark greenish gray to dark gray					
	Bottom of Boring at 7 ft.	3	F13-3	4	5	odor of oil
10		10				
15		15				
20		20				
25		25				
30		30				
35		35				

01-477W

1S/4W 35E

BORING NUMBER F14		DATE STARTED AUGUST 13, 1990	
DRILLING AGENCY HEW Drilling		DATE FINISHED	
DRILLER		ELEVATION AND DATUM NA	
DRILLING EQUIPMENT		COMPLETION DEPTH 4Ft.	
DRILLING METHOD 6" Solid Auger		DRILL BIT NA	
DRILL BIT NA		SAMPLER 2" Modified Calif. Type	
SIZE AND TYPE OF CASING NA		NO. OF SAMPLES 2	
TYPE OF PERFORATION NA		DIST. 0	
TYPE OF PERFORATION NA		UNDIST. 2	
SIZE AND TYPE OF PACK NA		WATER LEVEL NA	
TYPE OF SEAL NO. 1 NA		FIRST COMPL. 24 HRS.	
TYPE OF SEAL NO. 2 NA		LOGGED BY T. Kolbe	
		CHECKED BY	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
	Asphaltic concrete					
	GRAVELLY CLAY (CL) light brown to brown, concrete fragments (fill)	1	F14-1	4	encountered concrete foundation and moved 10 ft. west to drill to F14-2	
	becomes dark brown, sandy with little clay and gravel	2	F14-2	3		
5	Bottom of Boring at 4 ft.	5				
10		10				
15		15				
20		20				
25		25				
30		30				
35		35				

BORING NUMBER F15		DATE STARTED AUGUST 14, 1990	
DRILLING AGENCY HEW Drilling		DATE FINISHED	
DRILLER		ELEVATION AND DATUM NA	
DRILLING EQUIPMENT		COMPLETION DEPTH 11 Ft.	
DRILLING METHOD 6" Solid Auger		DRILL BIT NA	
DRILL BIT NA		SAMPLER 2" Modified Calif. Type	
SIZE AND TYPE OF CASING NA		NO. OF SAMPLES 6	
TYPE OF PERFORATION NA		DIST. 0	
FROM TO Ft.		UNDIST. 6	
SIZE AND TYPE OF PACK NA		WATER LEVEL NA	
FROM TO Ft.		FIRST COMPL. 24 HRS.	
TYPE OF SEAL		LOGGED BY T. Kolbe	
NO. 1 NA		CHECKED BY	
FROM TO Ft.			
NO. 2 NA			
FROM TO Ft.			

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES		REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	blow counts	
	Asphaltic concrete				
	GRAVEL (GP) light brown to red, trace sand, silt and clay (base rock)	1	F15-1	6	odor of oil
	CLAY (CL) brown to dark brown, trace silt, sand and concrete (fill)	2	F15-2	5	
	becomes sandy with gravel, few brick fragments	3	F15-3	3	
5	becomes clayey, mottled dark brown, decomposed concrete and brick fragments (fill)	4	F15-4	2	
		5	F15-5	5	
		6	F15-6	7	
10	SAND with SILT and CLAY (SP-SM) mottled light brown to brown (native soil)			21	
	Bottom of Boring at 11 ft.				

BORING NUMBER F17		DATE STARTED AUGUST 14, 1990	
DATE FINISHED		AUGUST 14, 1990	
DRILLING AGENCY HEW Drilling	DRILLER		ELEVATION AND DATUM NA
DRILLING EQUIPMENT		COMPLETION DEPTH 13 Ft.	SAMPLER 2" Modified Calif. Type
DRILLING METHOD 6" Solid Auger	DRILL BIT NA		
SIZE AND TYPE OF CASING NA		NO. OF SAMPLES 4	DIST. 0 UNDIST. 4
TYPE OF PERFORATION NA		FROM	TO Ft.
SIZE AND TYPE OF PACK NA		FROM	TO Ft.
TYPE OF SEAL		LOGGED BY T. Kolbe	CHECKED BY
NO. 1 NA	FROM	TO Ft.	
NO. 2 NA	FROM	TO Ft.	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
	Asphaltic concrete					
	GRAVEL (GP-GM) dark brown, trace sand and silt					odor of oil
5	GRAVEL (GP) black, trace silt and clay	5	1	F17-1	29	odor of oil
	contains wood chips		2	F17-2	23	odor of oil
10	SAND (SP) olive green, trace gravel and wood chips (fill)	10	3	F17-3	32	
	Bottom of Boring at 13 ft.		4	F17-4	1511	

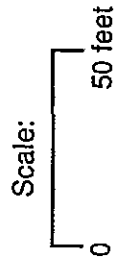
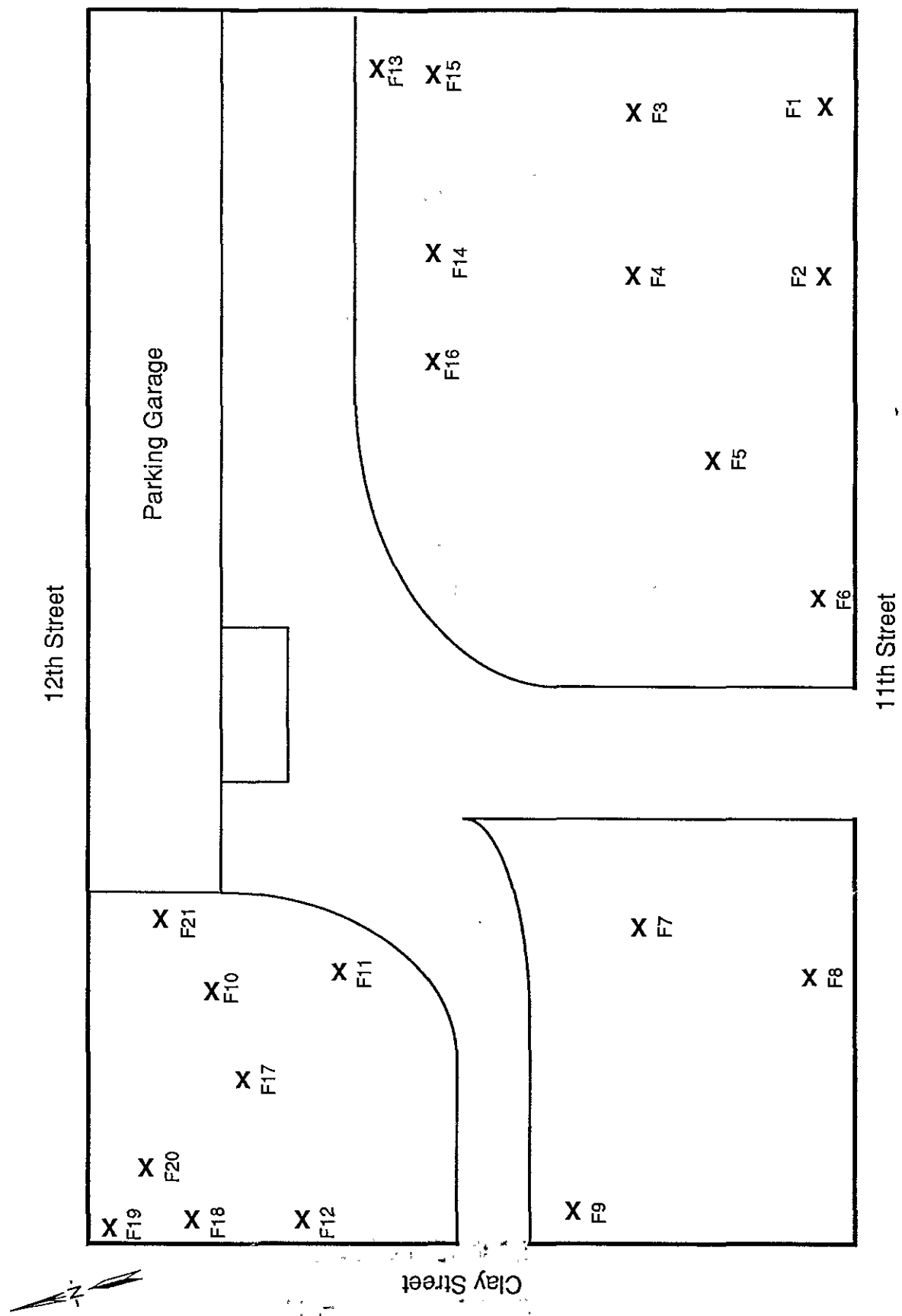
BORING NUMBER F18		DATE STARTED AUGUST 14, 1990	
DRILLING AGENCY HEW Drilling		DATE FINISHED	
DRILLER		ELEVATION AND DATUM NA	
DRILLING EQUIPMENT		COMPLETION DEPTH 11 Ft.	
DRILLING METHOD 6" Solid Auger		DRILL BIT NA	
DRILL BIT NA		SAMPLER 2" Modified Calif. Type	
SIZE AND TYPE OF CASING NA		NO. OF SAMPLES 3	
TYPE OF PERFORATION NA		DIST. 0	
FROM TO Ft.		UNDIST. 3	
SIZE AND TYPE OF PACK NA		WATER LEVEL NA	
FROM TO Ft.		FIRST COMPL. 24 HRS.	
TYPE OF SEAL		LOGGED BY T. Kolbe	
NO. 1 NA		CHECKED BY	
NO. 2 NA			

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
0-5	GRAVEL (GP) black, trace clay, some twigs (fill)	1	F18-1	2	3	odor of oil
5-10	SAND (SP) black, trace of clay and silt	2	F18-2	3	9	odor of oil
10-11	GRAVELLY SAND (SP) olive green, trace clay Bottom of Boring at 11 ft.	3	F18-3			odor of oil

BORING NUMBER F19		DATE STARTED		AUGUST 14, 1990	
DRILLING AGENCY HEW Drilling		DRILLER		ELEVATION AND DATUM NA	
DRILLING EQUIPMENT		COMPLETION DEPTH 1 Ft.		SAMPLER 2" Modified Calif. Type	
DRILLING METHOD 6" Solid Auger		DRILL BIT NA		NO. OF SAMPLES 0	
SIZE AND TYPE OF CASING NA		FROM TO Ft.		DIST. UNDIST.	
TYPE OF PERFORATION NA		FROM TO Ft.		WATER LEVEL NA	
SIZE AND TYPE OF PACK NA		FROM TO Ft.		FIRST COMPL. 24 HRS.	
TYPE OF SEAL	NO. 1 NA	FROM	TO	LOGGED BY T. Kolbe	
	NO. 2 NA	FROM	TO	CHECKED BY	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
0	Asphaltic Concrete	0				
0	GRAVEL (GP) (base rock)	0				
1	Bottom of Boring at 1 ft. at concrete foundation	1				
5		5				
10		10				
15		15				
20		20				
25		25				
30		30				
35		35				

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Project No. 90C0039C	Parcel T5 Boring Locations	Figure 1
Woodward-Clyde Consultants		

11th & Clay Streets

BORING NUMBER F1		DATE STARTED AUGUST 16, 1990	
DRILLING AGENCY HEW Drilling		DRILLER	
DRILLING EQUIPMENT		ELEVATION AND DATUM NA	
DRILLING METHOD 6" Solid Auger		DRILL BIT NA	
SIZE AND TYPE OF CASING NA		COMPLETION DEPTH 13 Ft.	
TYPE OF PERFORATION NA		SAMPLER 2" Modified Calif. Type	
SIZE AND TYPE OF PACK NA		NO. OF SAMPLES 5	
TYPE OF SEAL NO. 1 NA		DIST. 0	
TYPE OF SEAL NO. 2 NA		UNDIST. 5	
FROM TO Ft.		WATER LEVEL NA	
FROM TO Ft.		FIRST COMPL. 24 HRS.	
FROM TO Ft.		LOGGED BY W. Copeland	
FROM TO Ft.		CHECKED BY	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
0	grass	0				no visual evidence of contamination
0	SAND (SP) medium brown, moist, no debris	0	1	F1-1	7 8	
0	becomes siltier, slightly mottled brown and gray	0	2	F1-2	3 3	
5	contains fragments of brick, mortar, and gravel (fill)	5	3	F1-3	7 12	
0	contains wood chips, mortar, and few gravels to 3/4" dia. (fill)	0	4	F1-4	5 14	
10	SILTY SAND (SM) mottled reddish brown and gray, moist (native soil)	10	5	F1-5	23 26	
13	Bottom of Boring at 13 ft.	13				

BORING NUMBER F2		DATE STARTED		AUGUST 16, 1990	
DRILLING AGENCY HEW Drilling		DRILLER		ELEVATION AND DATUM NA	
DRILLING EQUIPMENT		COMPLETION DEPTH 5 Ft.		SAMPLER 2" Modified Calif. Type	
DRILLING METHOD 6" Solid Auger		DRILL BIT NA		NO. OF SAMPLES 3	
SIZE AND TYPE OF CASING NA		FROM TO Ft.		DIST. 0	
TYPE OF PERFORATION NA		FROM TO Ft.		UNDIST. 3	
SIZE AND TYPE OF PACK NA		FROM TO Ft.		WATER LEVEL NA	
TYPE OF SEAL		NO. 1 NA		FIRST COMPL. 24 HRS.	
		NO. 2 NA		LOGGED BY W. Copeland	
		FROM TO Ft.		CHECKED BY	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
0	grass	0				no visual evidence of contamination
1	SAND (SP)	1	F2-1	3	4	
2	mottled gray and brown, moist, little silt	2	F2-2	4	4	
5	becomes wet, contains a very small brick fragment (fill)	5	F2-3	4	14	
5	Bottom of Boring at 5 ft.	5				
10		10				
15		15				
20		20				
25		25				
30		30				
35		35				

BORING NUMBER F3			DATE STARTED AUGUST 16, 1990		
DATE FINISHED			ELEVATION AND DATUM NA		
DRILLING AGENCY HEW Drilling		DRILLER		COMPLETION DEPTH 5 Ft.	
DRILLING EQUIPMENT		DRILL BIT NA		SAMPLER 2" Modified Calif. Type	
DRILLING METHOD 6" Solid Auger			NO. OF SAMPLES 3		
SIZE AND TYPE OF CASING NA			DIST. 0		UNDIST. 3
TYPE OF PERFORATION NA			FROM TO Ft.		
SIZE AND TYPE OF PACK NA			WATER LEVEL NA		
TYPE OF SEAL			LOGGED BY W. Copeland		CHECKED BY
NO. 1 NA		FROM TO Ft.		FIRST COMPL. 24 HRS.	
NO. 2 NA		FROM TO Ft.			

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
	grass					
	SAND (SP) brown, moist, contains gravel up to 1/4" dia., small fragments of mortar (fill)	1	F3-1	8		
		2	F3-2	14		
	SILTY SAND (SM) mottled red brown and gray, moist (native soil)	3	F3-3	10		
5	Bottom of Boring at 5 ft.	5				
10		10				
15		15				
20		20				
25		25				
30		30				
35		35				

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PROJECT NAME [REDACTED]

No. 90C0039C

BORING NUMBER F4		DATE STARTED AUGUST 16, 1990	
DATE FINISHED		ELEVATION AND DATUM NA	
DRILLING AGENCY HEW Drilling		DRILLER	
DRILLING EQUIPMENT		COMPLETION DEPTH 4 Ft.	
DRILLING METHOD 6" Solid Auger		DRILL BIT NA	
DRILL BIT NA		SAMPLER 2" Modified Calif. Type	
SIZE AND TYPE OF CASING NA		NO. OF SAMPLES 2	
TYPE OF PERFORATION NA		DIST. 0	
FROM TO Ft.		UNDIST. 2	
SIZE AND TYPE OF PACK NA		WATER LEVEL NA	
FROM TO Ft.		FIRST COMPL. 24 HRS.	
TYPE OF SEAL		LOGGED BY W. Copeland	
NO. 1 NA		CHECKED BY	
FROM TO Ft.			
NO. 2 NA			
FROM TO Ft.			

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES				REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	recov. (ft)	blow counts	
0	grass						no visual contamination
0	SAND (SP) slightly mottled gray and brown, moist contains a small piece of wood (fill)	1	F4-1	8	11		
0		2	F4-2	9	10		
5	Bottom of Boring at 4 ft.	5					
10		10					
15		15					
20		20					
25		25					
30		30					
35		35					

BORING NUMBER F5		DATE STARTED		AUGUST 16, 1990	
DRILLING AGENCY HEW Drilling		DRILLER		ELEVATION AND DATUM NA	
DRILLING EQUIPMENT		COMPLETION DEPTH 6 Ft.		SAMPLER 2" Modified Calif. Type	
DRILLING METHOD 6" Solid Auger		DRILL BIT NA		NO. OF SAMPLES 3	
SIZE AND TYPE OF CASING NA		DIST. 0		UNDIST. 3	
TYPE OF PERFORATION NA		FROM TO Ft.		WATER LEVEL NA	
SIZE AND TYPE OF PACK NA		FROM TO Ft.		FIRST COMPL. 24 HRS.	
TYPE OF SEAL	NO. 1 NA	FROM TO Ft.		LOGGED BY W. Copeland	
	NO. 2 NA	FROM TO Ft.		CHECKED BY	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
0	grass	0				
0	SAND (SP)	0				
0	brown, moist, trace of silt	0				
5	SILTY SAND (SM)	5				
5	mottled gray, brown, and red brown, wet (native)	5				
6	Bottom of Boring at 6 ft.	6				
10		10				
15		15				
20		20				
25		25				
30		30				
35		35				

BORING NUMBER F6		DATE STARTED		AUGUST 16, 1990	
DRILLING AGENCY HEW Drilling		DRILLER		ELEVATION AND DATUM NA	
DRILLING EQUIPMENT		COMPLETION DEPTH 3 Ft.		SAMPLER 2" Modified Calif. Type	
DRILLING METHOD 6" Solid Auger		DRILL BIT NA		NO. OF SAMPLES 1	
SIZE AND TYPE OF CASING NA		DIST. 0		UNDIST. 1	
TYPE OF PERFORATION NA		FROM TO Ft.		WATER LEVEL NA	
SIZE AND TYPE OF PACK NA		FROM TO Ft.		FIRST COMPL. 24 HRS.	
TYPE OF SEAL		NO. 1 NA		FROM TO Ft.	
		NO. 2 NA		FROM TO Ft.	
		LOGGED BY W. Copeland		CHECKED BY	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES				REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	recov. (ft)	blow counts	
0	grass	0					
0	SAND (SP) mottled gray and reddish brown, moist (native soil)	0	1	F6-1	10	13	
5	encountered pipe (?), stopped drilling Bottom of Boring at 3 ft.	5					
10		10					
15		15					
20		20					
25		25					
30		30					
35		35					

BORING NUMBER F7		DATE STARTED		AUGUST 16, 1990	
BILLING AGENCY HEW Drilling		DRILLER		ELEVATION AND DATUM NA	
DRILLING EQUIPMENT		COMPLETION DEPTH 5 Ft.		SAMPLER 2" Modified Calif. Type	
DRILLING METHOD 6" Solid Auger		DRILL BIT NA		NO. OF SAMPLES 3	
SIZE AND TYPE OF CASING NA		DIST. 0		UNDIST. 3	
TYPE OF PERFORATION NA		FROM TO Ft.		WATER LEVEL NA	
SIZE AND TYPE OF PACK NA		FROM TO Ft.		FIRST COMPL. 24 HRS.	
TYPE OF SEAL		NO. 1 NA		FROM TO Ft.	
		NO. 2 NA		FROM TO Ft.	
				LOGGED BY W. Copeland	
				CHECKED BY	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
0	grass	1	F7-1	*	* pushed sampler	
0	GRAVELLY SAND (SP) dark brown, moist, gravel up to 3/4" dia. (fill)	2	F7-2	5		
0	SAND (SP) dry becomes light brown, damp, no gravel (native soil)	3	F7-3	11		
5	Bottom of Boring at 5 ft.	5				
10		10				
15		15				
20		20				
25		25				
30		30				
35		35				

BORING NUMBER F8		DATE STARTED AUGUST 16, 1990	
DRILLING AGENCY HEW Drilling		DATE FINISHED	
DRILLER		ELEVATION AND DATUM NA	
DRILLING EQUIPMENT		COMPLETION DEPTH 6 Ft.	
DRILLING METHOD 6" Solid Auger		DRILL BIT NA	
SAMPLER 2" Modified Calif. Type		NO. OF SAMPLES 3	
SIZE AND TYPE OF CASING NA		DIST. 0	
TYPE OF PERFORATION NA		UNDIST. 3	
FROM TO Ft.		WATER LEVEL NA	
SIZE AND TYPE OF PACK NA		FIRST COMPL. 24 HRS.	
FROM TO Ft.		LOGGED BY W. Copeland	
TYPE OF SEAL		CHECKED BY	
NO. 1 NA		FROM TO Ft.	
NO. 2 NA		FROM TO Ft.	

DEPTH (feet)	DESCRIPTION	SAMPLES				REMARKS (Drill rate, Fluid Loss, Odor, etc.)
		DEPTH (feet)	drive no.	sample no.	blow counts	
0	grass					
0	SAND (SP) dark brown, damp, trace of fine gravel and brick fragments (fill)	1	F8-1	20	14	
0		2	F8-2	11	7	
5	SAND (SP) light brown, dry, fine grained, black spots with orange rinds (native soil)	3	F8-3	10	17	
6	Bottom of Boring at 6 ft.					
10						
15						
20						
25						
30						
35						

BORING NUMBER F9		DATE STARTED AUGUST 16, 1990	
DATE FINISHED		ELEVATION AND DATUM NA	
DRILLING AGENCY HEW Drilling	DRILLER		SAMPLER
DRILLING EQUIPMENT		COMPLETION DEPTH 6 Ft.	2" Modified Calif. Type
DRILLING METHOD 6" Solid Auger	DRILL BIT NA		
SIZE AND TYPE OF CASING NA		NO. OF SAMPLES 3	DIST. 0 UNDIST. 3
TYPE OF PERFORATION NA		FROM TO Ft.	WATER LEVEL NA
SIZE AND TYPE OF PACK NA		FROM TO Ft.	FIRST COMPL. 24 HRS.
TYPE OF SEAL	NO. 1 NA	FROM TO Ft.	LOGGED BY W. Copeland
	NO. 2 NA	FROM TO Ft.		CHECKED BY

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
	grass					
	SILTY SAND (SM)					
	dark brown, wet, pieces of mortar and gravel up to 3/4" dia. (fill)	1	F9-1	3		
	becomes moist, lighter brown	2	F9-2	1		
5	becomes mottled red brown and gray tan, saturated (native soil)	5				
		3	F9-3	1		
	Bottom of Boring at 6 ft.					
10		10				
15		15				
20		20				
25		25				
30		30				
35		35				

BORING NUMBER F10		DATE STARTED AUGUST 16, 1990	
BILLING AGENCY HEW Drilling		DRILLER	
DRILLING EQUIPMENT		ELEVATION AND DATUM NA	
DRILLING METHOD 6" Solid Auger		DRILL BIT NA	
SIZE AND TYPE OF CASING NA		COMPLETION DEPTH 10 Ft.	
TYPE OF PERFORATION NA		SAMPLER 2" Modified Calif. Type	
SIZE AND TYPE OF PACK NA		NO. OF SAMPLES 3	
TYPE OF SEAL		DIST. 0	
NO. 1 NA		UNDIST. 3	
NO. 2 NA		WATER LEVEL NA	
FROM TO Ft.		FIRST COMPL. 24 HRS.	
FROM TO Ft.		LOGGED BY W. Copeland	
FROM TO Ft.		CHECKED BY	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
1	SILTY SAND (SM) mottled gray and red brown, damp, contains brick fragments and trace of fine gravel (fill)	1	F10-1	3		
2		2	F10-2	2		
5		3	F10-3	2		
5	SILTY SAND (SM) mottled gray and red brown, damp (native soil)					
10	Bottom of Boring at 10 ft.					

BORING NUMBER F11		DATE STARTED AUGUST 16, 1990	
DRILLING AGENCY HEW Drilling		DATE FINISHED	
DRILLER		ELEVATION AND DATUM NA	
DRILLING EQUIPMENT		COMPLETION DEPTH 4 Ft.	
DRILLING METHOD 6" Solid Auger		SAMPLER 2" Modified Calif. Type	
DRILL BIT NA		NO. OF SAMPLES 1	
SIZE AND TYPE OF CASING NA		DIST. 0	
TYPE OF PERFORATION NA		UNDIST. 1	
SIZE AND TYPE OF PACK NA		WATER LEVEL NA	
FROM TO Ft.		FIRST COMPL. 24 HRS.	
TYPE OF SEAL		LOGGED BY W. Copeland	
NO. 1 NA		CHECKED BY	
NO. 2 NA			

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
0	grass	0				
0	SILTY SAND (SM)	0				
0	light brown with black spots with orange rinds, damp, (native soil)	0				
4	Bottom of Boring at 4 ft.	4				
5		5				
10		10				
15		15				
20		20				
25		25				
30		30				
35		35				

BORING NUMBER F12		DATE STARTED		AUGUST 16, 1990	
DRILLING AGENCY HEW Drilling		DRILLER		ELEVATION AND DATUM NA	
DRILLING EQUIPMENT		COMPLETION		SAMPLER	
DRILLING METHOD 6" Solid Auger		DEPTH 5 Ft.		2" Modified Calif. Type	
DRILL BIT NA		NO. OF SAMPLES 3		DIST. 0	
SIZE AND TYPE OF CASING NA		NO. OF SAMPLES 3		DIST. 0	
TYPE OF PERFORATION NA		FROM		TO Ft. 3	
SIZE AND TYPE OF PACK NA		FROM		TO Ft. 3	
TYPE OF SEAL		NO. 1 NA		FROM TO Ft.	
		NO. 2 NA		FROM TO Ft.	
		LOGGED BY		CHECKED BY	
		W. Copeland			

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
0	grass	0				
0	SILTY SAND (SM)	0				
0	F12-1A: dark brown, damp, contains bricks, solid bricks up to 4 ft. (fill)	0		F12-1A	6	moved 2 ft. east and redrilled
0	F12-1B: mottled brown and red brown, (fill)	0		F12-1B	6	
5	Bottom of Boring at 5 ft.	5		F12-2		moved 10 ft. east and redrilled
10		10				
15		15				
20		20				
25		25				
30		30				
35		35				

BORING NUMBER F13		DATE STARTED AUGUST 16, 1990	
DRILLING AGENCY HEW Drilling		DATE FINISHED	
DRILLER		ELEVATION AND DATUM NA	
DRILLING EQUIPMENT		COMPLETION DEPTH 4 Ft.	
DRILLING METHOD 6" Solid Auger		SAMPLER 2" Modified Calif. Type	
DRILL BIT NA		NO. OF SAMPLES 2	
SIZE AND TYPE OF CASING NA		DIST. 0	
TYPE OF PERFORATION NA		UNDIST. 2	
FROM TO Ft.		WATER LEVEL NA	
SIZE AND TYPE OF PACK NA		FIRST COMPL. 24 HRS.	
FROM TO Ft.		LOGGED BY W. Copeland	
TYPE OF SEAL		CHECKED BY	
NO. 1 NA			
NO. 2 NA			

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
	grass					no evidence of contamination
	SAND (SP) light to medium brown, moist, trace of gravel to 1/4" dia. (fill?) becomes slightly mottled brown and red brown (native soil)		1	F13-1	7 15	
			2	F13-2	18 23	
5	Bottom of Boring at 4 ft.	5				
10		10				
15		15				
20		20				
25		25				
30		30				
35		35				

BORING NUMBER F14		DATE STARTED AUGUST 17, 1990	
DATE FINISHED		ELEVATION AND DATUM NA	
DRILLING AGENCY		DRILLER	
DRILLING EQUIPMENT small hand-held rotary auger		COMPLETION DEPTH 5 Ft.	
DRILLING METHOD 6" Solid Auger		DRILL BIT NA	
DRILLER		SAMPLER 2" hand driven type	
SIZE AND TYPE OF CASING NA		NO. OF SAMPLES 3	
TYPE OF PERFORATION NA		DIST. 0	
FROM TO Ft.		UNDIST. 3	
SIZE AND TYPE OF PACK NA		WATER LEVEL NA	
FROM TO Ft.		FIRST COMPL. 24 HRS.	
TYPE OF SEAL		LOGGED BY W. Copeland	
NO. 1 NA		CHECKED BY	
FROM TO Ft.			
NO. 2 NA			
FROM TO Ft.			

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
	grass					
	SAND (SP)					
	light brown, moist, little clay, trace of gravel to 1/4" dia., brick fragments (fill)	1	F14-1			sampler hand-driven 6 inches for each sample
		2	F14-2			
5	Bottom of Boring at 5 ft.	3	F14-3			
10						
15						
20						
25						
30						
35						

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BORING NUMBER F15		DATE STARTED AUGUST 17, 1990	
DATE FINISHED		ELEVATION AND DATUM NA	
DRILLING AGENCY		DRILLER	
DRILLING EQUIPMENT small hand-held rotary auger		COMPLETION DEPTH 6 Ft.	
DRILLING METHOD 6" Solid Auger		DRILL BIT NA	
DRILLER		SAMPLER 2" hand driven type	
SIZE AND TYPE OF CASING NA		NO. OF SAMPLES 4	
TYPE OF PERFORATION NA		DIST. 0	
FROM TO Ft.		UNDIST. 4	
SIZE AND TYPE OF PACK NA		WATER LEVEL NA	
FROM TO Ft.		FIRST COMPL. 24 HRS.	
TYPE OF SEAL		LOGGED BY D. Simpson	
NO. 1 NA		CHECKED BY	
FROM TO Ft.			
NO. 2 NA			
FROM TO Ft.			

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	recov. (ft)	
	grass		1	F15-1		sampler hand-driven 6 inches for each sample
	SAND (SP) light brown, little clay, gravel, concrete and brick fragments to 1-1/2" dia. (fill)		2	F15-2		
			3	F15-3		
			4	F15-4		
5	SILTY SAND (SM) mottled gray brown and red brown (native soil) Bottom of Boring at 6 ft.	5				
10		10				
15		15				
20		20				
25		25				
30		30				
35		35				

BORING NUMBER F16		DATE STARTED AUGUST 17, 1990	
DATE FINISHED		AUGUST 17, 1990	
DRILLING AGENCY		DRILLER	
ELEVATION AND DATUM NA		DRILLING EQUIPMENT small hand-held rotary auger	
DRILLING METHOD 6" Solid Auger		DRILL BIT NA	
COMPLETION DEPTH 6 Ft.		SAMPLER 2" hand driven type	
SIZE AND TYPE OF CASING NA		NO. OF SAMPLES 3	
TYPE OF PERFORATION NA		DIST. 0	
FROM TO Ft.		UNDIST. 3	
SIZE AND TYPE OF PACK NA		WATER LEVEL NA	
FROM TO Ft.		FIRST COMPL. 24 HRS.	
TYPE OF SEAL		LOGGED BY D. Simpson	
NO. 1 NA		CHECKED BY	
FROM TO Ft.			
NO. 2 NA			
FROM TO Ft.			

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
	grass					
	CLAYEY SAND (SC) light brown, contains brick and asphaltic concrete fragments to 1-1/2" dia. (fill)	1	F16-1	///		sampler hand-driven 6 inches for each sample
		2	F16-2	///		
		3	F16-3	///		
5	Bottom of Boring at 6 ft.	5				
10		10				
15		15				
20		20				
25		25				
30		30				
35		35				

BORING NUMBER F17		DATE STARTED AUGUST 17, 1990	
DATE FINISHED		ELEVATION AND DATUM NA	
DRILLING AGENCY		DRILLER	
DRILLING EQUIPMENT small hand-held rotary auger		COMPLETION DEPTH 5-1/2 Ft.	
DRILLING METHOD 6" Solid Auger		DRILL BIT NA	
DRILLER		SAMPLER 2" hand driven type	
SIZE AND TYPE OF CASING NA		NO. OF SAMPLES 2	
TYPE OF PERFORATION NA		DIST. 0	
FROM TO Ft.		UNDIST. 2	
SIZE AND TYPE OF PACK NA		WATER LEVEL NA	
FROM TO Ft.		FIRST COMPL. 24 HRS.	
TYPE OF SEAL		LOGGED BY D. Simpson	
NO. 1 NA		CHECKED BY	
FROM TO Ft.			
NO. 2 NA			
FROM TO Ft.			

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES				REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	recov. (ft)	blow counts	
	grass						
	GRAVELLY SILTY SAND (SP-SM) dark brown, very slightly moist, contains brick fragments (fill)	1	F17-1				sampler hand-driven 6 inches for each sample 50% recovery from F17-1
	SAND with CLAY (SP-SC) light brown and gray, very slightly moist, contains brick fragments and plastic (fill)	2	F17-2				
5	Bottom of Boring at 5-1/2 ft.	5	3				
10		10					
15		15					
20		20					
25		25					
30		30					
35		35					

BORING NUMBER F18		DATE STARTED AUGUST 17, 1990	
DATE FINISHED		AUGUST 17, 1990	
DRILLING AGENCY		DRILLER	
ELEVATION AND DATUM NA		DRILLING EQUIPMENT small hand-held rotary auger	
COMPLETION DEPTH 5-1/2 Ft.		SAMPLER 2" hand driven type	
DRILLING METHOD 6" Solid Auger		DRILL BIT NA	
SIZE AND TYPE OF CASING NA		NO. OF SAMPLES 2	
TYPE OF PERFORATION NA		DIST. 0	
FROM TO Ft.		UNDIST. 2	
SIZE AND TYPE OF PACK NA		WATER LEVEL NA	
FROM TO Ft.		FIRST COMPL. 24 HRS.	
TYPE OF SEAL NO. 1 NA		LOGGED BY D. Simpson	
FROM TO Ft.		CHECKED BY	
NO. 2 NA		FROM TO Ft.	

DEPTH (feet)	DESCRIPTION	SAMPLES				REMARKS (Drill rate, Fluid Loss, Odor, etc.)
		DEPTH (feet)	drive no.	sample no.	blow counts	
1	GRAVELLY SILTY SAND (SP-SM) dark brown, moist, contains brick fragments and cobbles (fill)	1	F18-1			sampler hand-driven 6 inches for each sample 0% recovery from F18-1, sample was hand-packed
5	SAND with CLAY (SP-SC) red brown, moist (native soil) Bottom of Boring at 5-1/2 ft.	5	F18-2			
10		10				
15		15				
20		20				
25		25				
30		30				
35		35				

BORING NUMBER F19		DATE STARTED		AUGUST 17, 1990	
DRILLING AGENCY		DRILLER		ELEVATION AND DATUM NA	
DRILLING EQUIPMENT small hand-held rotary auger		COMPLETION DEPTH 1 Ft.		SAMPLER 2" hand driven type	
DRILLING METHOD 6" Solid Auger		DRILL BIT NA		NO. OF SAMPLES 1	
SIZE AND TYPE OF CASING NA		DIST. 0		UNDIST. 1	
TYPE OF PERFORATION NA		FROM TO Ft.		WATER LEVEL NA	
SIZE AND TYPE OF PACK NA		FROM TO Ft.		FIRST COMPL. 24 HRS.	
TYPE OF SEAL		NO. 1 NA		FROM TO Ft.	
		NO. 2 NA		FROM TO Ft.	
		D. Simpson		CHECKED BY	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
1	GRAVEL with CLAY and SAND (GW-GC) light and dark brown, dry, very hard drilling (fill) Bottom of Boring at 1 ft.	1	F19-1		0% recovery from F19-1, sample was hand-packed drill refusal at 1 ft. depth	
5		5				
10		10				
15		15				
20		20				
25		25				
30		30				
35		35				

BORING NUMBER F20		DATE STARTED		AUGUST 17, 1990	
DRILLING AGENCY		DRILLER		ELEVATION AND DATUM NA	
DRILLING EQUIPMENT small hand-held rotary auger		COMPLETION DEPTH 4 Ft.		SAMPLER 2" hand driven type	
DRILLING METHOD 6" Solid Auger		DRILL BIT NA		NO. OF SAMPLES 1	
SIZE AND TYPE OF CASING NA		DIST. 0		UNDIST. 1	
TYPE OF PERFORATION NA		FROM TO Ft.		WATER LEVEL NA	
SIZE AND TYPE OF PACK NA		FROM TO Ft.		FIRST COMPL. 24 HRS.	
TYPE OF SEAL		NO. 1 NA		FROM TO Ft.	
		NO. 2 NA		FROM TO Ft.	
				LOGGED BY D. Simpson	
				CHECKED BY	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES			REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	blow counts	
1	GRAVEL with SILT and SAND (GP-GM) dark brown and gray, very slightly moist, contains large cobbles (fill)	1	F20-1			0% recovery from F20-1, sample was hand-packed
5	Bottom of Boring at 4 ft.	5				
10		10				
15		15				
20		20				
25		25				
30		30				
35		35				

BORING NUMBER F21		DATE STARTED AUGUST 17, 1990	
DATE FINISHED		ELEVATION AND DATUM NA	
DRILLING AGENCY		DRILLER	
DRILLING EQUIPMENT small hand-held rotary auger		COMPLETION DEPTH 3 Ft.	
DRILLING METHOD 6" Solid Auger		DRILL BIT NA	
DRILLER		SAMPLER 2" hand driven type	
SIZE AND TYPE OF CASING NA		NO. OF SAMPLES 1	
TYPE OF PERFORATION NA		DIST. 0	
FROM TO Ft.		UNDIST. 1	
SIZE AND TYPE OF PACK NA		WATER LEVEL NA	
FROM TO Ft.		FIRST COMPL. 24 HRS.	
TYPE OF SEAL		LOGGED BY D. Simpson	
NO. 1 NA		CHECKED BY	
NO. 2 NA			
FROM TO Ft.			

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES				REMARKS (Drill rate, Fluid Loss, Odor, etc.)
			drive no.	sample no.	recov. (ft)	blow counts	
5	GRAVEL with CLAY and SAND (GP-GC) medium brown, moist, contains some large cobbles, brick, concrete, and asphaltic concrete fragments, very hard drilling (fill) Bottom of Boring at 3 ft.	5	1	F21-1			0% recovery from F21-1, sample was hand-packed
10		10					
15		15					
20		20					
25		25					
30		30					
35		35					

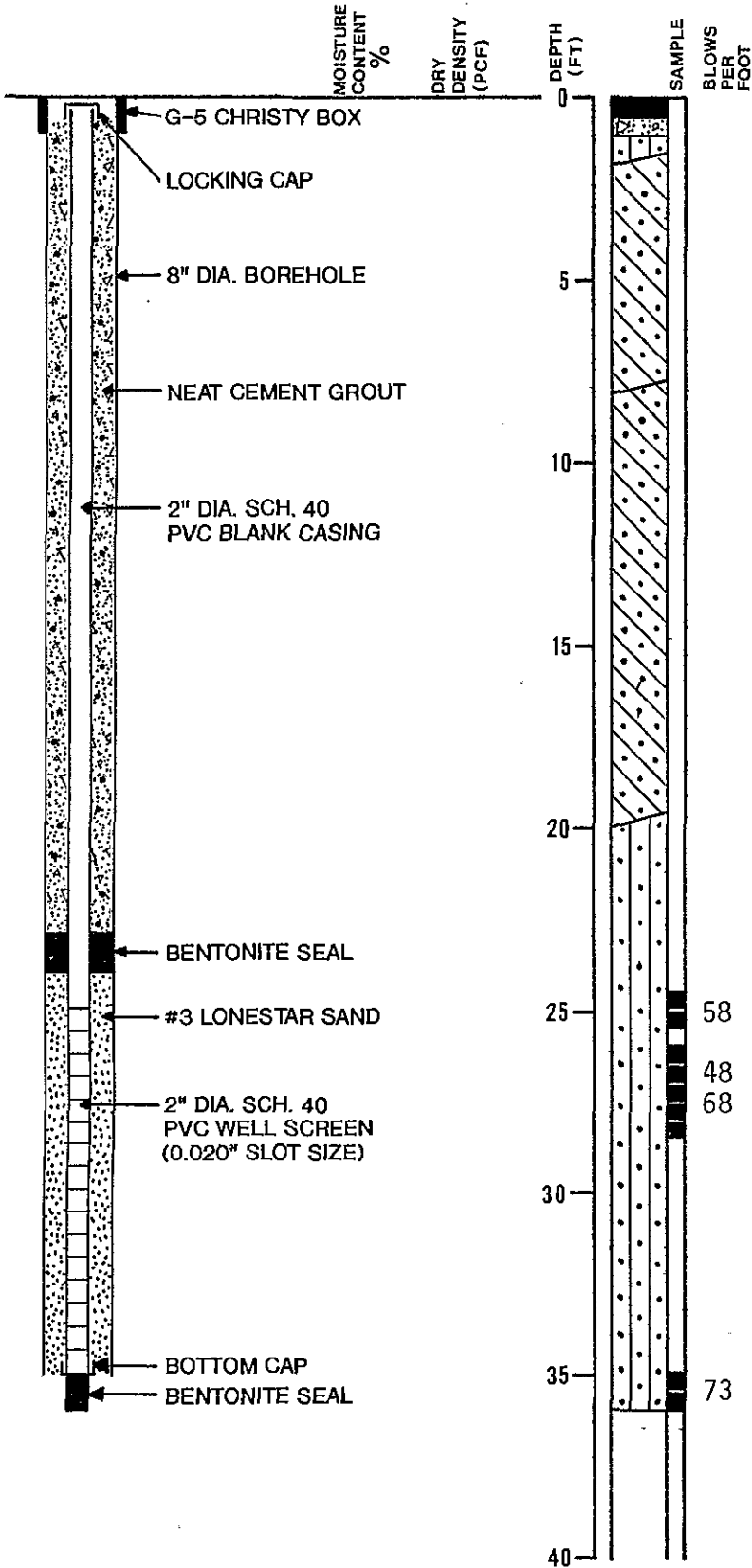
91069 01-488M
91044

LOG OF TEST BORING 58 IS/W 35D43

EQUIPMENT 8" Hollow Stem Auger

DATE DRILLED 1/29/91

ELEVATION --



ASPHALTIC CONCRETE - 7" thick
 CONCRETE SLAB - 6" thick
 GRAY GREEN GRAVELLY SAND (SM)
 loose to medium dense, moist
 (fill)
 GRAY GREEN CLAYEY SAND (SC)
 medium dense, moist

BROWN CLAYEY SAND (SC)
 medium dense, moist

BROWN SILTY SAND (SM)
 medium dense, moist

Subsurface Consultants

1330 MARTIN LUTHER KING JR. WAY

PLATE

JOB NUMBER

DATE

APPROVED

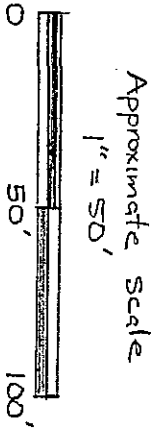
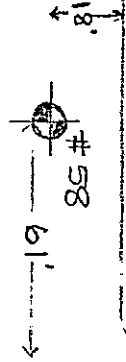
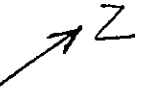
430.010

2/28/91

phone 415-268-0451

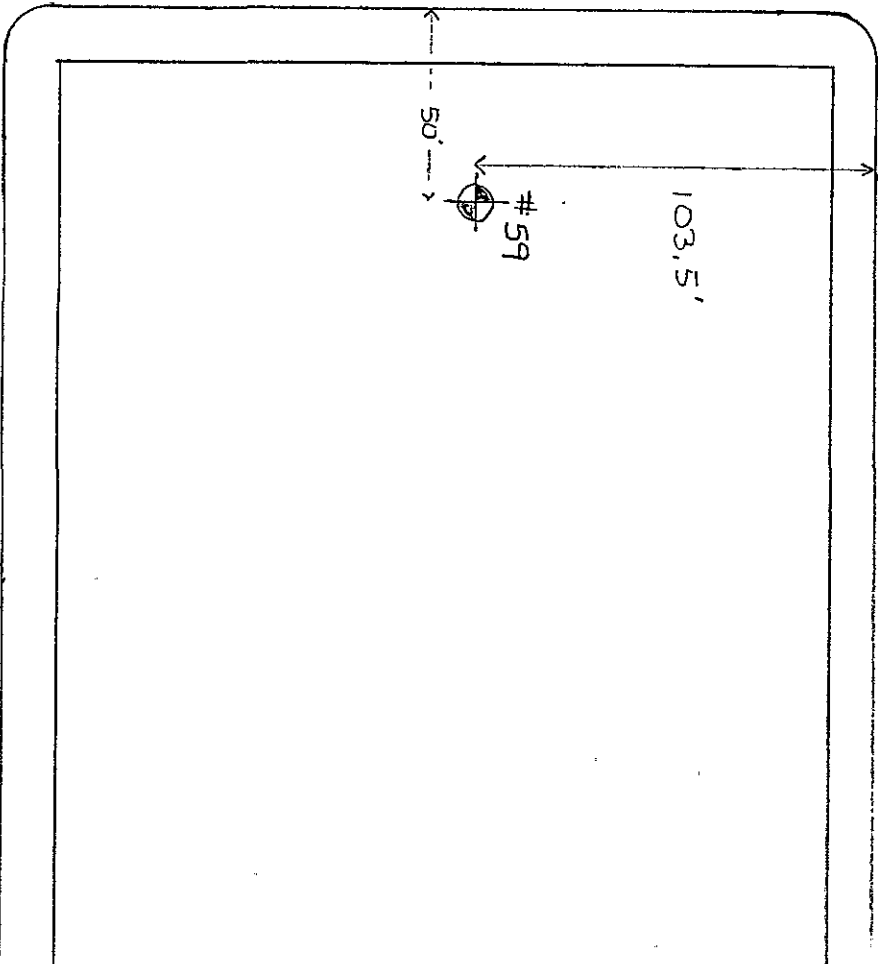
Lic # C57-596309
 RL Drilling

15/4W 35D43-44
01-488M+N



Martin Luther King, Jr. Way

14th Street



13th Street

01-488N

LOG OF TEST BORING 59

15/4W 35D/A

EQUIPMENT 8" Hollow Stem Auger

DATE DRILLED 1/29/91

ELEVATION --

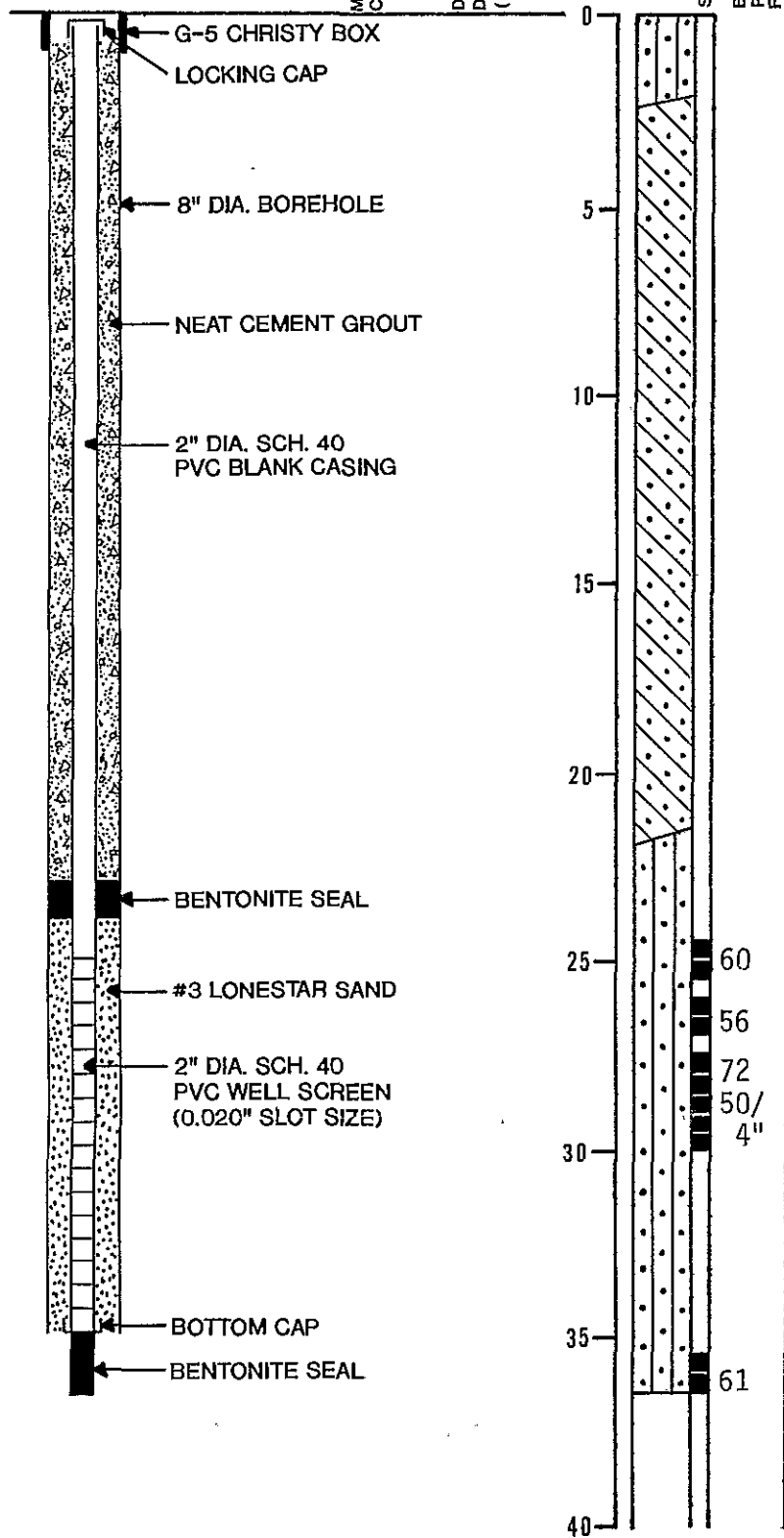
MOISTURE CONTENT %

DRY DENSITY (PCF)

DEPTH (FT)

SAMPLE

BLOWS PER FOOT



BROWN SILTY SAND (SM-SP)
medium dense, moist
BROWN CLAYEY SAND (SC)
medium dense, moist

MOTTLED RED & BROWN SILTY SAND (SM-SP)
medium dense, moist

Subsurface Consultants

13TH & JEFFERSON - OAKLAND, CA

JOB NUMBER
430.013

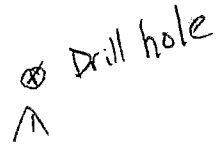
DATE
2/28/91

APPROVED

PLATE

01-494H
15/4W 35A

Snow
PARK



40'



19th St

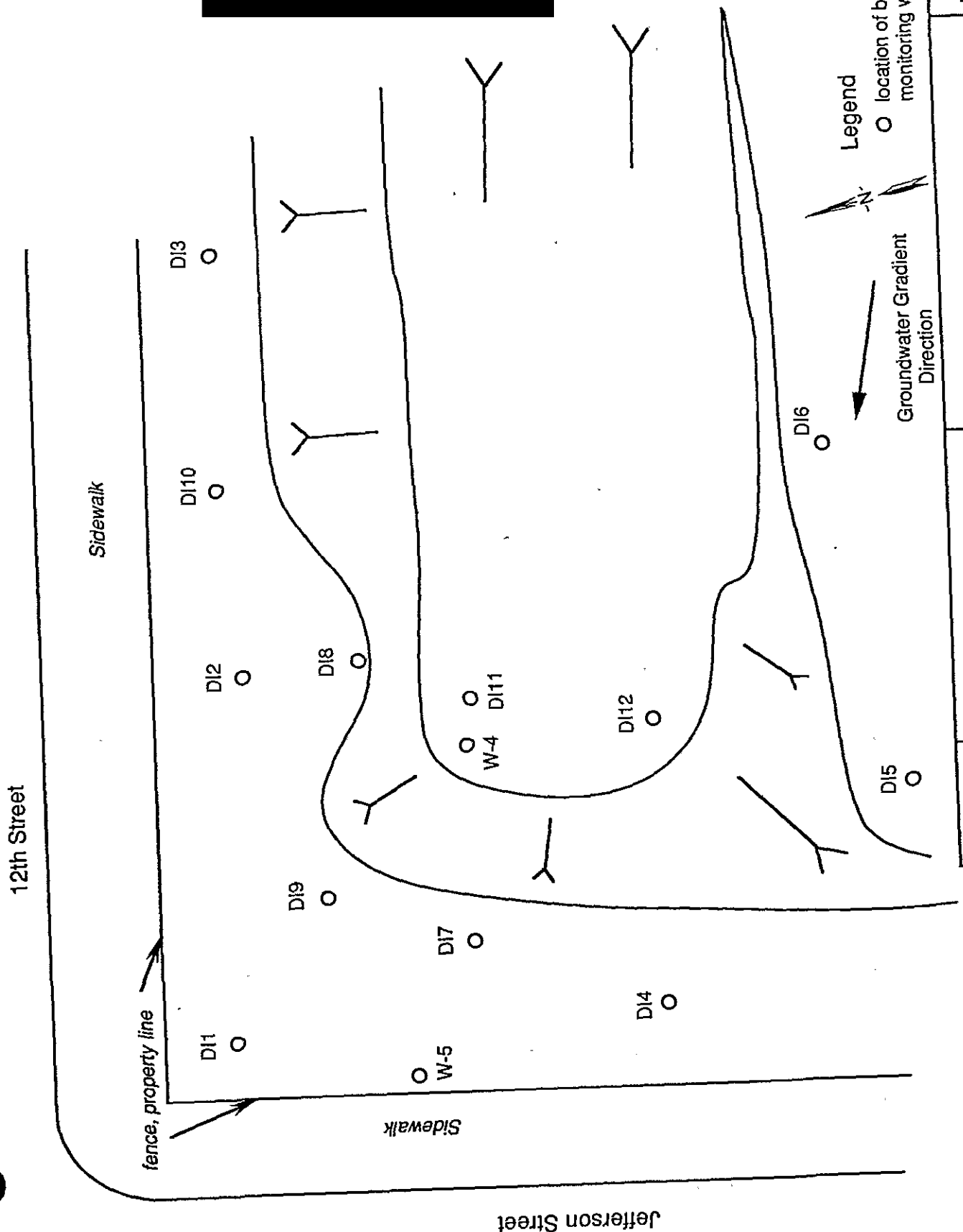
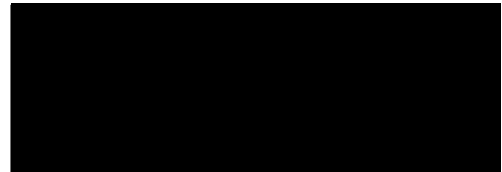
Alice St

Pitner Drilling
phone: 415-329-5630

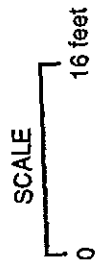
1S/4W 35D
1S/4W 35D46-47

01-494I-V

1S/4W-35D46-47



Project No. 90C0039B	1155 Clay Soil Removal	Boring Location Plan	Figure 1
Woodward-Clyde Consultants			





BORING NUMBER DI2		ELEVATION AND DATUM Approx. 29 feet	
DRILLING AGENCY HEW Exploration		DRILLER Castro	
DRILLING EQUIPMENT CME 75		DATE STARTED DATE FINISHED May 6, 1991	
DRILLING METHOD 8" Hollow-stem Auger		COMPLETION DEPTH 25 feet	
DRILL BIT		SAMPLER 2" Modified California Type	
NO. OF SAMPLES		DIST. NA	
UNDIST. 3		WATER LEVEL	
SIZE AND TYPE OF CASING NA		FIRST 23.5'	
COMPL. NA		24 HRS. NA	
TYPE OF PERFORATION NA		FROM TO FL	
SIZE AND TYPE OF PACK NA		FROM TO FL	
TYPE OF SEAL		FROM TO FL	
NO. 1 NA		FROM TO FL	
NO. 2 NA		FROM TO FL	
LOGGED BY: W. Copeland		CHECKED BY:	

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (Feet)	Blow Counts		
5	SILTY SAND (SM) reddish brown, moist, some clay, medium grain (NATIVE SOIL)	5						
10	little clay, damp	10						
15	some clay	15						No odor
20	becomes gray, moist	20	1	DI2-1	14 18			No odor, approx. el. 8'
25	▽ ATD	25	2	DI2-2	10 15			No odor, approx. el. 6' ▽ ATD
25		25	3	DI2-3	15 20			No odor
30	Bottom of Boring at 25 feet	30						
35		35						



BORING NUMBER D11			ELEVATION AND DATUM Approx. 33 feet		
DRILLING AGENCY HEW Exploration		DRILLER Castro	DATE STARTED May 6, 1991		DATE FINISHED
DRILLING EQUIPMENT CME 75			COMPLETION DEPTH 29 feet	SAMPLER 2" Modified California Type	
DRILLING METHOD 8" Hollow-stem Auger		DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 3
SIZE AND TYPE OF CASING NA			WATER LEVEL	FIRST 27.5'	COMPL. NA 24 HRS. NA
TYPE OF PERFORATION NA		FROM	TO	FL.	LOGGED BY: W. Copeland
SIZE AND TYPE OF PACK NA		FROM	TO	FL.	
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL.	
	NO. 2 NA	FROM	TO	FL.	CHECKED BY:

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (Feet)	Blow Counts		
5	SILTY SAND (SM) reddish brown, moist, some clay, medium grain (NATIVE SOIL)	5						
10	little clay, damp	10						
15	some clay	15						No odor
25	becomes gray, moist	25	1	D11-1	10	17		No odor, approx. el. 8'
27	▽ ATD	27	2	D11-2	15	27		No odor, approx. el. 6' ▽ ATD
30	Bottom of Boring at 29 feet	30	3	D11-3	16	28		No odor

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BORING NUMBER D13			ELEVATION AND DATUM Approx. 26 feet		
DRILLING AGENCY HEW Exploration		DRILLER Castro	DATE STARTED May 6, 1991		DATE FINISHED
DRILLING EQUIPMENT CME 75			COMPLETION DEPTH 22 feet	SAMPLER 2" Modified California Type	
DRILLING METHOD 8" Hollow-stem Auger		DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 3
SIZE AND TYPE OF CASING NA			WATER LEVEL	FIRST 20.5'	COMPL. NA 24 HRS. NA
TYPE OF PERFORATION NA		FROM	TO	FL.	LOGGED BY: W. Copeland
SIZE AND TYPE OF PACK NA		FROM	TO	FL.	
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL.	
	NO. 2 NA	FROM	TO	FL.	
CHECKED BY:					

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (Feet)	Blow Counts		
5	SILTY SAND (SM) reddish brown, moist, some clay, medium grain (NATIVE SOIL)	5						
10	little clay, damp	10						No odor
15	some clay	15						
20	becomes gray, moist	20	1	D13-1	12	16		No odor, approx. el. 8'
20	▽ ATD	20	2	D13-2	10	21		No odor, approx. el. 6'
20		20	3	D13-3	16	23		▽ ATD No odor
25	Bottom of Boring at 22 feet	25						
30		30						
35		35						



BORING NUMBER DI4			ELEVATION AND DATUM Approx. 32 feet		
DRILLING AGENCY HEW Exploration		DRILLER Castro	DATE STARTED May 6, 1991		DATE FINISHED
DRILLING EQUIPMENT CME 75			COMPLETION DEPTH 28 feet		SAMPLER 2" Modified California Type
DRILLING METHOD 8" Hollow-stem Auger		DRILL BIT	NO. OF SAMPLES	DIST. NA	UNDIST. 3
SIZE AND TYPE OF CASING NA			WATER LEVEL	FIRST 26.5'	COMPL. NA 24 HRS. NA
TYPE OF PERFORATION NA		FROM	TO	FL.	LOGGED BY: W. Copeland
SIZE AND TYPE OF PACK NA		FROM	TO	FL.	
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL.	
	NO. 2 NA	FROM	TO	FL.	
CHECKED BY:					

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES				REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (Feet)	Blow Counts	
5	SILTY SAND (SM) reddish brown, moist, little clay, medium grain (NATIVE SOIL) some clay	5					No odor
10							
15	becomes gray, moist ∇ ATO	15					No odor, approx. el. 8' No odor, approx. el. 6' ∇ ATO No odor
20							
25		1	DI4-1	8	15		
25		2	DI4-2	16	23		
30	Bottom of Boring at 28 feet	30	3	DI4-3	15	26	
35		35					



BORING NUMBER D15		ELEVATION AND DATUM Approx. 29 feet	
DRILLING AGENCY HEW Exploration	DRILLER Castro	DATE STARTED	DATE FINISHED May 6, 1991
DRILLING EQUIPMENT CME 75		COMPLETION DEPTH 23 feet	SAMPLER 2" Modified California Type
DRILLING METHOD 8" Hollow-stem Auger	DRILL BIT	NO. OF SAMPLES	DIST. NA UNDIST. 2
SIZE AND TYPE OF CASING NA		WATER LEVEL	FIRST 21.5' COMPL. NA 24 HRS. NA
TYPE OF PERFORATION NA	FROM TO FL.	LOGGED BY: W. Copeland CHECKED BY:	
SIZE AND TYPE OF PACK NA	FROM TO FL.		
TYPE OF SEAL	NO. 1 NA NO. 2 NA		

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES				REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (feet)	Blow Counts	
5	SILTY SAND (SM) reddish brown, moist, little clay, medium grain (NATIVE SOIL)	5					No odor
10	some clay	10					
15		15					No odor sample hand-packed from auger
20	becomes gray, moist	20		D15-2			
20	∇ ATD	20					∇ ATD
20		20	1	D15-1	17	28	No odor, approx. el. 8'
25	Bottom of Boring at 23 feet	25					
30		30					
35		35					



01-494P

(S/W) 35D

BORING NUMBER D16		ELEVATION AND DATUM Approx. 23.5 feet			
DRILLING AGENCY HEW Exploration		DRILLER Castro		DATE STARTED DATE FINISHED May 6, 1991	
DRILLING EQUIPMENT CME 75		COMPLETION DEPTH 20 feet		SAMPLER 2" Modified California Type	
DRILLING METHOD 8" Hollow-stem Auger		DRILL BIT		NO. OF SAMPLES DIST. NA UNDIST. 3	
SIZE AND TYPE OF CASING NA		WATER LEVEL FIRST 18.5'		COMPL. NA 24 HRS. NA	
TYPE OF PERFORATION NA		FROM TO FL		LOGGED BY: W. Copeland	
SIZE AND TYPE OF PACK NA		FROM TO FL			
TYPE OF SEAL NO. 1 NA		FROM TO FL			
NO. 2 NA		FROM TO FL			
CHECKED BY:					

DEPTH (feet)	DESCRIPTION	DEPTH (feet)	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
			Drive Number	Sample Number	Recov. (Feet)	Blow Counts		
5	SILTY SAND (SM) reddish brown, moist, little clay, medium grain (NATIVE SOIL)	5						
10	some clay	10						No odor
15	becomes gray, moist	15	1	D16-1	12 15			No odor, approx. el. 8'
20	∇ ATD	20	2	D16-2	12 19			No odor, approx. el. 6' ∇ ATD
20	Bottom of Boring at 20 feet	20	3	D16-3	16 28			No odor
25		25						
30		30						
35		35						

01-506

E 1S/4W-35D 48
F 1S/4W-35D 49
G 1S/4W-35D 50
H 1S/4W-35D 51

BORING LOCATION Dewatering Well #1 through #4			ELEVATION AND DATUM approx. 6 feet (C.O.D.)			
DRILLING AGENCY Viking		DRILLER	DATE STARTED		DATE FINISHED July 17, 1991	
DRILLING EQUIPMENT			COMPLETION DEPTH 20'		SAMPLER	
DRILLING METHOD 15" Bucket Auger		DRILL BIT	NO. OF SAMPLES	DST. NA	UNDST.	
SIZE AND TYPE OF CASING NA			WATER LEVEL	FIRST 5'	COMPL. 24 HRS.	
TYPE OF PERFORATION NA		FROM	TO	FL.	LOGGED BY:	
SIZE AND TYPE OF PACK NA		FROM	TO	FL.		CHECKED BY:
TYPE OF SEAL	NO. 1 NA	FROM	TO	FL.		
	NO. 2 NA	FROM	TO	FL.		

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		Water Content	DEPTH (feet)	SAMPLES					REMARKS (Drift Rate, Fluid Loss, Color, etc.)
		Lithology	Dewatering Well Installation			Drive Number	Sample Number	Recon. (Feet)	Blow Counts		
0	SILTY SAND (SM) very dark brown, fine grain, damp becomes gray, wet				0						
5	some clay				5						
	Gravel pack										
10	little clay				10						
	2" PVC slotted casing										
15					15						
20	Bottom of Boring at 20'				20						
25					25						
30					30						
35					35						

phone - 408 - 2654300
HSR, INC

FIELD LOG OF BORING NO. 1 SHEET 1 OF 1

PERMIT 91379

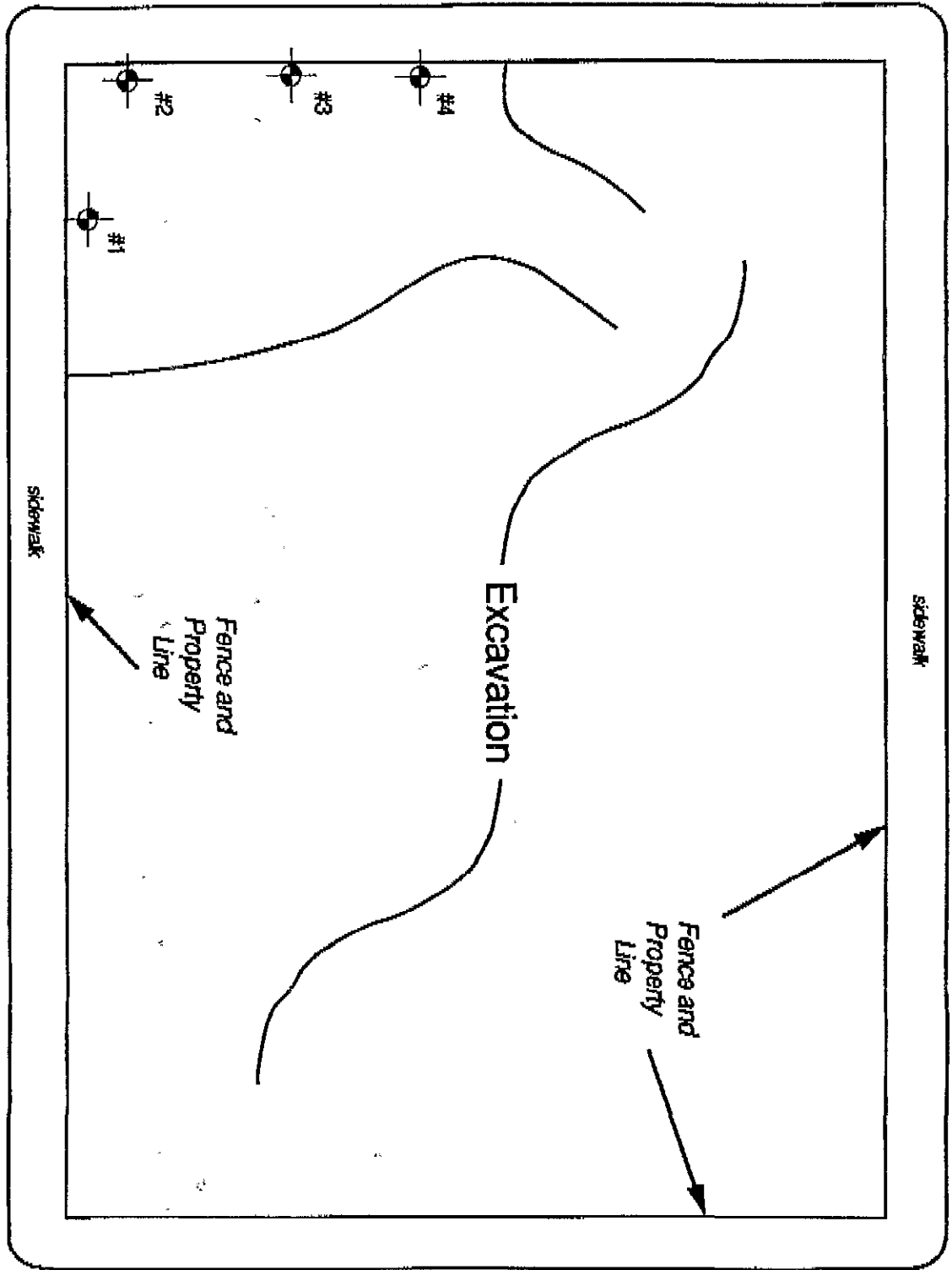
P02/

09-24-91 12:40PM

15/HW-25 D 48-51

01-506-E-11

Martin Luther King, Jr. Way



12th Street

sidewalk

Fence and Property Line

Excavation

Fence and Property Line

sidewalk

13th Street (closed)

Jefferson Street (closed)





Scale 0 40 feet











436

01-5256

15/4W 35 C#

Project: Oakland, California		Boring No. B-1		North: NA East: NA	
Date Started: 8/11/92		Total Depth: 120.0 ft	Ground Elev: 34.60	GW ATD:	
Date Completed: 8/11/92		Perforation: NA			From to
Logged By: D. Simpson Checked By: F. Chan		Pack: NA			From to
Drilling Co: Pitcher Drilling Driller: R. Medino		Seal: NA			From to
Drilling Method: Rotary-Wash		NA			From to
Drilling Equipment: Failing 750		Casing: NA		Drill Bit Diameter: 4-7/8"	
Sampler: See Boring Log Legend					

Depth (feet)	LITHOLOGIC DESCRIPTION	U.S.C.	WELL CONSTRUCTION	Sample	Blows Per Ft.	REMARKS
0	Concrete Pavement and Base Rock	SM				
0	SILTY SAND Loose, damp, brown, with trace of gravel, medium-grained sand (FILL)					
5	SILTY SAND Very dense, damp, orange-brown, with some clay	SM			81/10"	Sample 1
10	CLAYEY SAND Dense, moist, grayish red-brown	SC			46	Sample 2
15	Becomes very dense, and dark brown (at 14')				94	Sample 3 WC=14 DD=119 21% PASSING # 200 Sieve
20	SAND Very dense, moist, gray-brown, fine- to medium-grained sand	SP SM			50/3"	Sample 4
25					50/4"	Sample 5
30					50/4"	Sample 6
35	SANDY CLAY Hard, moist, gray-brown	CL			56	Sample 7 WC=22 DD=104 UC=8,200
40	SILTY CLAY Hard, moist, blue-gray	CL				
40	Becomes brown-gray to gray-brown (at 40.5")				Pushed	Sample 8



5 of 6

01-525Q

15/4W 35C #

Project: ████████████████████ Oakland, California		Boring No. B-1		North: NA East: NA		
Depth (feet)	LITHOLOGIC DESCRIPTION	U.S.C.	WELL CONSTRUCTION	Sample	Blows per Ft.	REMARKS
45	SILTY CLAY (continued) With fine gravel (at 44')	CL			82	WC=18 DD=112 UC=4,300 LL=35 PI=18 Sample 9
50	SANDY CLAY Stiff, moist, gray-brown, with some subrounded gravel (up to 1/2" in diameter) With increasing gravel content (between 50.5' and 51.5')	CL			50/6"	Sample 10 WC=17 DD=109 UC=1,600
55	Becomes brown and gray-brown mottled (at 54')				44	Sample 11 WC=20 DD=106 UC=3,500
65					94/11"	Sample 12
75	SILTY CLAY Very stiff, moist, gray-brown, with organic matter Becomes hard (at 76.5')	CL CH			Pushed 450 PSI	Sample 13 WC=23 DD=103 UC=2,700 LL=47 PI=26
85					84	Sample 14 WC=25 DD=98 UC=8,900
90						



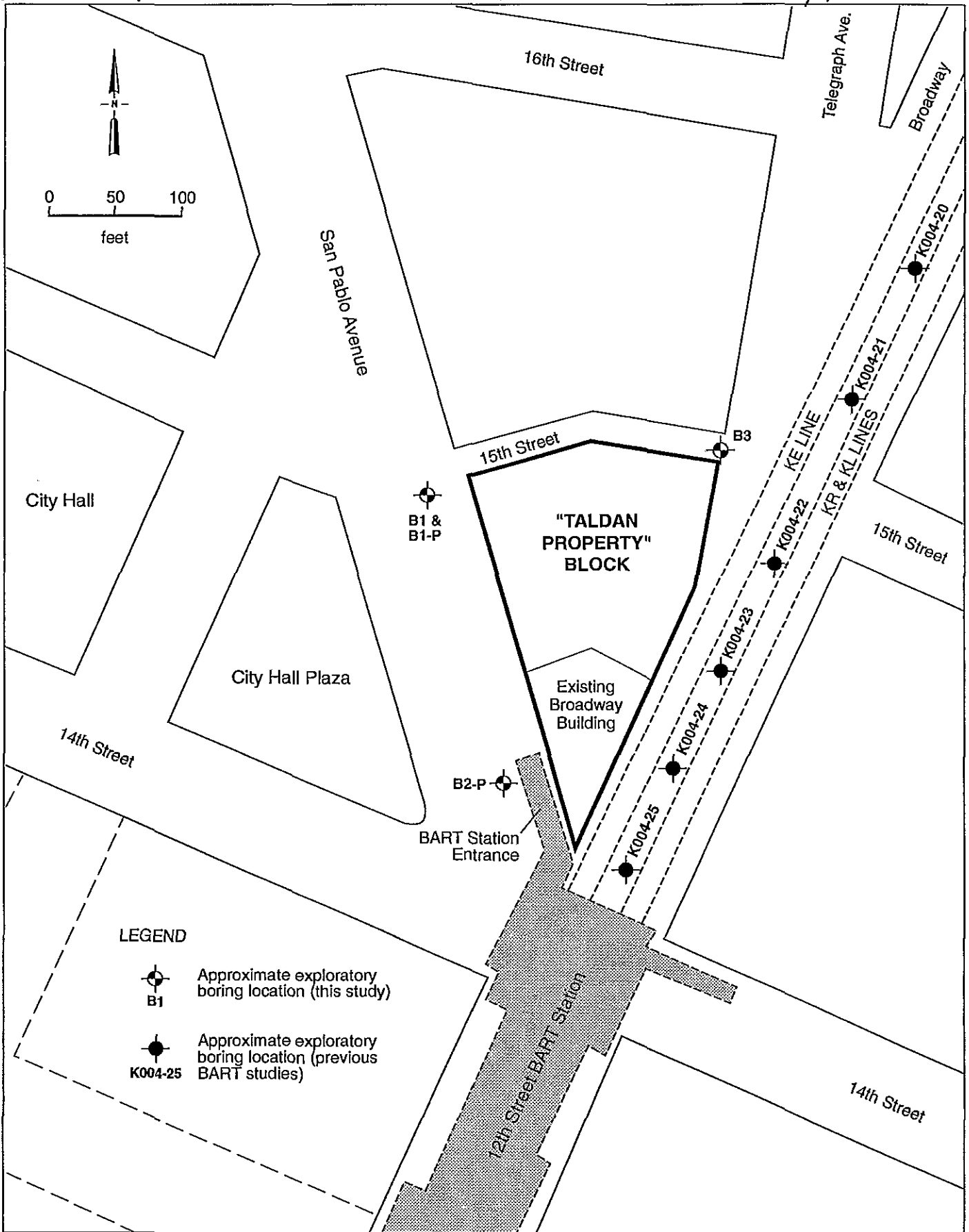
696

01-525Q

15/4W 35 C#

Project: [REDACTED] Oakland, California		Boring No. B-1		North: NA East: NA		
Depth (feet)	LITHOLOGIC DESCRIPTION	U.S.C.	WELL CONSTRUCTION	Sample	Blows Per Ft.	REMARKS
95	SILTY CLAY (continued) SILTY CLAY Very stiff, moist, green-gray	CL CH		X	46	Sample 15 WC=28
100	SAND Very dense, moist, gray, with some clay	SP		/		
105				/	Pushed 450 PSI	Sample 16
110	SILTY CLAY Hard, moist, blue-gray	CH				
115						
120	BOTTOM OF BORING (at 120 feet)				67	Sample 17 WC=27 DD=96 UC=7,200
125						
130						
135						





Project No. 92C0506A

Oakland, California

Woodward-Clyde Consultants

SITE AND BORING LOCATION PLAN

Figure 2

37

01-525Q-T

Project: ██████████ Oakland, California		BORING LOG LEGEND		North: NA East: NA
Date Started:		Total Depth:	Ground Elev:	GW ATD:
Date Completed:		Perforation: From to		
Logged By: Checked By:		Pack: From to		
Drilling Co: Driller:		Seal: From to		
Drilling Method:		From to		
Drilling Equipment:		Casing: Drill Bit Diameter:		
		Sampler:		

Depth (feet)	LITHOLOGIC DESCRIPTION	LITH.	SOIL BORING	Sample	Blows Per Ft	REMARKS
<div style="text-align: center;"> <p>SAMPLER KEY</p> <p>1-3/8-INCH I.D. STANDARD SPLIT SPOON SAMPLER</p> <p>2-INCH I.D. MODIFIED CALIFORNIA SAMPLER</p> <p>3-INCH I.D. DOUBLE-BARREL PITCHER CORING SAMPLER</p> <p>5</p> <p>MC = MOISTURE CONTENT (%) DD = DRY DENSITY (PCF) UC = UNCONFINED COMPRESSIVE STRENGTH (PSF) LL = LIQUID LIMIT PI = PLASTICITY INDEX</p> </div>						

4 of 5

01-525R

15/4W 35C16

Project: [REDACTED]		Boring No. B1-P		North: NA East: NA	
Date Started: 8/18/92		Total Depth: 41.5 ft	Ground Elev: 34.6	GW ATD: 26.0	
Date Completed: 8/18/92		Perforation: 0.02" Factory Slotted		From 20 to 41.5	
Logged By: B. Copeland		Checked By: F. Chan		Pack: #3 Monterey Sand	
Drilling Co: HEW Drilling		Driller:		From 18 to 41.5	
Drilling Method: Hollow Stem Auger		Seal: 3/8" Bentonite Pellets		From 16 to 18	
Drilling Equipment: CME 55		Cement Grout		From 0 to 16	
		Casing: 2" Sch. 40 PVC		Drill Bit Diameter: 8"	
		Sampler: See Boring Log Legend			

Depth (feet)	LITHOLOGIC DESCRIPTION	U.S.C.	WELL CONSTRUCTION	Sample	Blows Per Ft.	REMARKS
	Concrete Pavement					
	SILTY SAND Loose, damp, brown, with trace of gravel, medium-grained sand (FILL)	SM			11	Sample 1
5	SILTY SAND Very dense, damp, orange-brown, with some clay	SM			40	Sample 2 WC=9 DD=108 18% Passing #200 Sieve
10	CLAYEY SAND Dense, moist, grayish red-brown	SC			32	Sample 3 WC=12 DD=124 42% Passing #200 Sieve
15					31	Sample 4



545

01-525 R

15/4W 35C 16

Project: [REDACTED]	Boring No. B1-P	North: NA East: NA
---	------------------------	-----------------------

Depth (feet)	LITHOLOGIC DESCRIPTION	U.S.C.	WELL CONSTRUCTION	Sample	Blows Per Ft.	REMARKS	
	SAND Very dense, moist, gray-brown, fine-to medium-grained sand	SP SM			52	Sample 5	
25	(Water level at time of drilling - 26')					46	Sample 6 WC=19 DD=110 11% Passing #200 Sieve
30						34	Sample 7
35	SANDY CLAY Hard, moist, gray-brown	CL				21	Sample 8
40	SILTY CLAY Hard, moist, blue-gray	CL			25	Sample 9	
	BOTTOM OF BORING (at 41.5 feet)						



485

01-5255

15/4W 35C 17

* Project: [REDACTED]		Boring No. B2-P		North: NA East: NA	
Date Started: 8/17/92		Total Depth: 41.5 ft	Ground Elev: 35.40	GW ATD: 25.0	
Date Completed: 8/17/92		Perforation: 0.02" Factory Slotted		From 20 to 41.5	
Logged By: B. Copeland Checked By: F. Chan		Pack: #3 Monterey Sand		From 18 to 41.5	
Drilling Co: HEW Drilling Driller:		Seal: 3/8" Bentonite Pellets		From 16 to 18	
Drilling Method: Hollow Stem Auger		Cement Grout		From 0 to 16	
Drilling Equipment: CME 55		Casing: 2" Sch. 40 PVC		Drill Bit Diameter: 8"	
		Sampler: See Boring Log Legend			

Depth (feet)	LITHOLOGIC DESCRIPTION	U.S.C.	WELL CONSTRUCTION	Sample	Blows Per Ft.	REMARKS
0 - 1	Concrete Pavement					
1 - 5	SILTY SAND Loose, damp, brown, medium-grained, with some gravel (FILL)	SM			8	Sample 1 WC=20
5 - 9.5					11	Sample 2
9.5 - 15	CLAYEY SAND Medium dense, moist, gray-brown, medium-grained, sand Becomes orange-brown (at 9.5')	SC			27	Sample 3 WC=12 DD=125
15 - 18					27	Sample 4



545

01-5255

15/4W 35C 17




Project:		Boring No. B2-P		North: NA East: NA			
Depth (feet)	LITHOLOGIC DESCRIPTION	U.S.C.	WELL CONSTRUCTION	Sample	Blows Per Ft.	REMARKS	
	SILTY SAND Dense, moist, gray-brown	SM SP			51	Sample 5	
25	(Water Level at time of drilling - 25')					41	Sample 6 (No Recovery)
	(Water level 24 hours later - 26.8')					63	Sample 7
	Becomes very dense (at 28')					84	Sample 8 WC=21 DD=106
35	SANDY CLAY Stiff to very stiff, gray-brown	CL				22	Sample 9 WC=21 DD=104 UC=2,700
40	SILTY CLAY Very stiff, saturated, blue-gray, with some sand	CL			17	Sample 10 WC=22 DD=106 UC=4,800	
	BOTTOM OF BORING (at 41.5 feet)						








478

01-525T

1S/4W 35C #9

Project: [REDACTED]		Boring No. B3		North: NA East: NA	
Date Started: 8/19/92		Total Depth: 41.5 ft.	Ground Elev: 35.00	GW ATD: 25.5	
Date Completed: 8/19/92		Perforation: NA  From to			
Logged By: B. Copeland Checked By: F. Chan		Pack: NA  From to			
Drilling Co: HEW Drilling Driller:		Seal: NA  From to			
Drilling Method: Hollow Stem Auger		Casing: NA Drill Bit Diameter: 8"			
Drilling Equipment: CME 55		Sampler: See Boring Log Legend			


Depth (feet)	LITHOLOGIC DESCRIPTION	LITH.	SOIL BORING	Sample	Blows Per Ft	REMARKS
	Concrete Sidewalk					
	SAND Loose, damp, light brown, medium-grained (FILL)	SP SM			5	Sample 1
5	SILTY SAND Loose, damp, dark-brown, very fine-grained sand, with some rootlets (FILL)	SM			5	Sample 2 MC=5 DD=98
10	CLAYEY SAND Dense, damp, gray-brown	SC			34	Sample 3
15					40	Sample 4
20	SILTY SAND Dense, moist, dark gray-brown, medium- to fine-grained sand	SM SP			39	Sample 5 MC=19



B 9 5

01-525T

15/4W 35 CFF

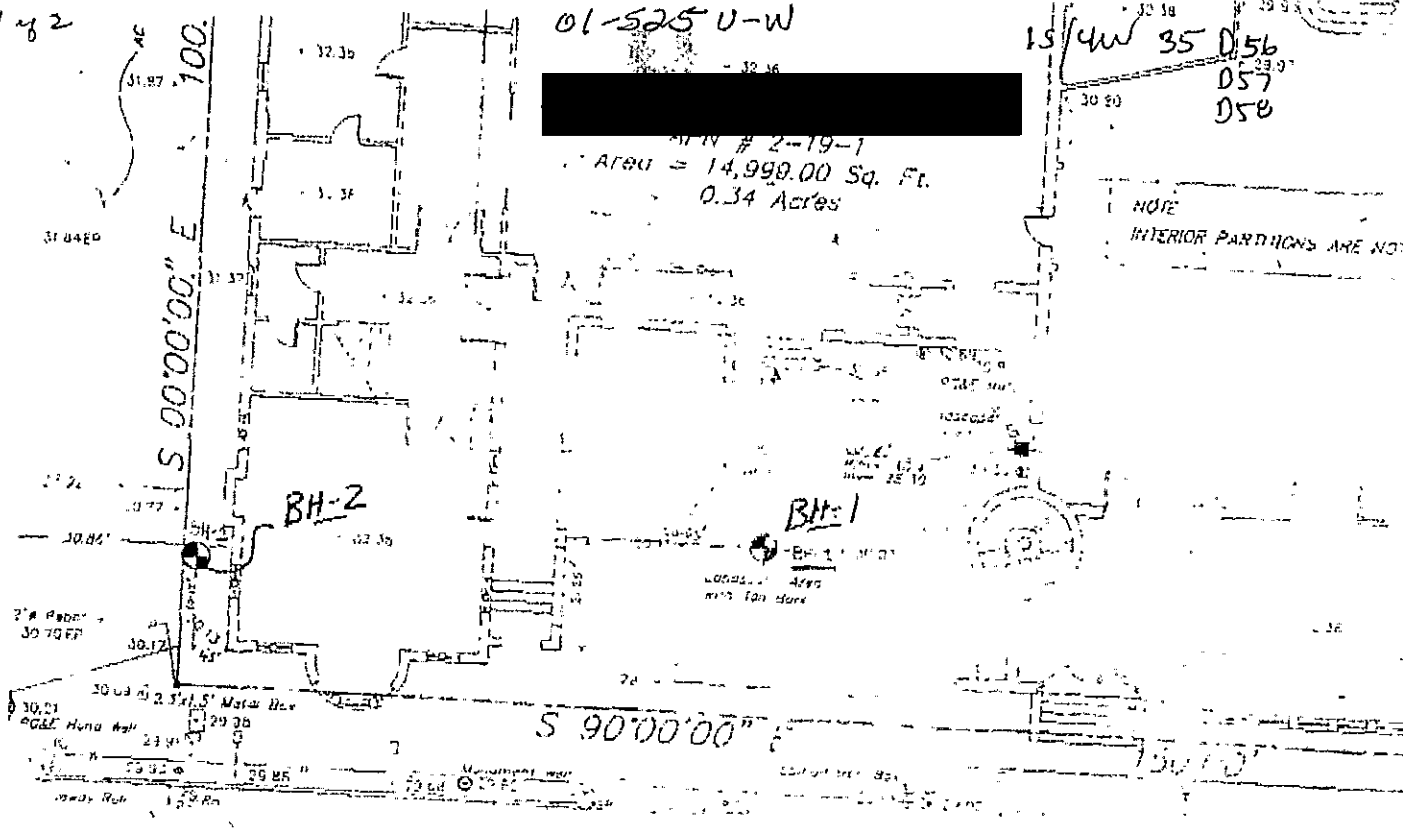
Project: [REDACTED]		Boring No. B3		North: NA East: NA		
Depth (feet)	LITHOLOGIC DESCRIPTION	LITH.	SOIL BORING	Sample	Blows Per Ft	REMARKS
	SILTY SAND (continued)	SM SP				DD=107
25	(Water level at time of drilling - 25.5')				42	Sample 6 (No Recovery)
	Becomes very dense (at 27')				64	Sample 7
30					62	Sample 8
35	SILTY CLAY Very stiff, saturated, gray-brown	CL			25	Sample 9 MC=22 DD=105 UC=5,300
40	SILTY CLAY Hard, saturated, greenish brown-gray, with brown spots and trace of gravel	CL CH			28	Sample 10 MC=21 DD=107 UC=5,900
45	BOTTOM OF BORING (at 41.5 feet)					



1 of 2

01-525 U-W

15' CW 35' 0.56
0.57
0.58



NOTE
INTERIOR PARTITIONS ARE NOT

14 TH STREET (80' R/W)

phone: [REDACTED]

01-

685 - 14TH ST, OAKLAND

[REDACTED]

PERMIT 92338

C57 - 384167

1s/4w 35D58

7/16/92

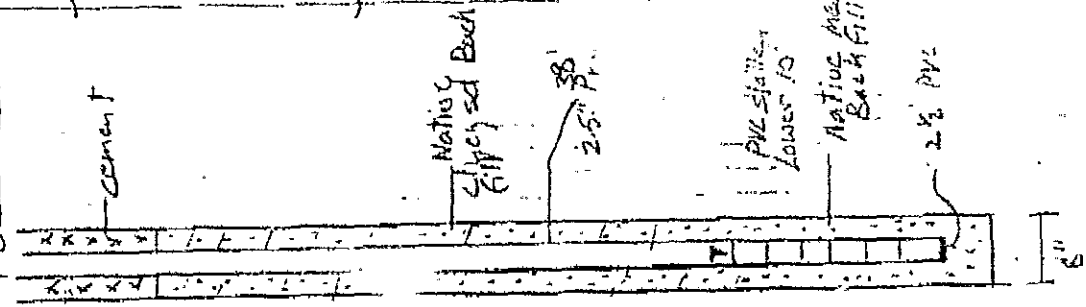
Materials

DM - silty med sd
med-fine sand
Tan-sy clay med sd
clay of w/18kph

Tan med sd
graced sd dist. to 12ly

20270

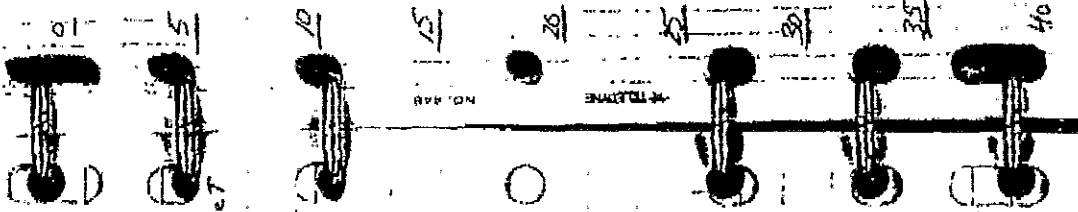
Bowell #3



BH-3

7/18/92

Start 219



920296

29.5' @ 4:45

BL

DESE
very dk brn silty sand - med sd
Tan-sy clay med sd - wet
Tan clay sd - wet
Tan grey clay med sd - wet becoming clayey

3, 3, 5

4, 13, 17

Tan-sy clay sd -

7, 11, 12

Tan-sy clay sd - med sd with clay

15, 27, 18

Tan-sy sd w/ clay SATURATED - med sand

15, 20, 21

Drilled to 90'
38 PVC in hole

BH-3

EL

Loc

GLT

Depth Tool

0-5 8" NSA

5-6.5 1.4" ①

6.5-10 8" NSA ②

10-11.5 1.4" ③

11.5-15

15-16.5 1.4" ④

16.5-25

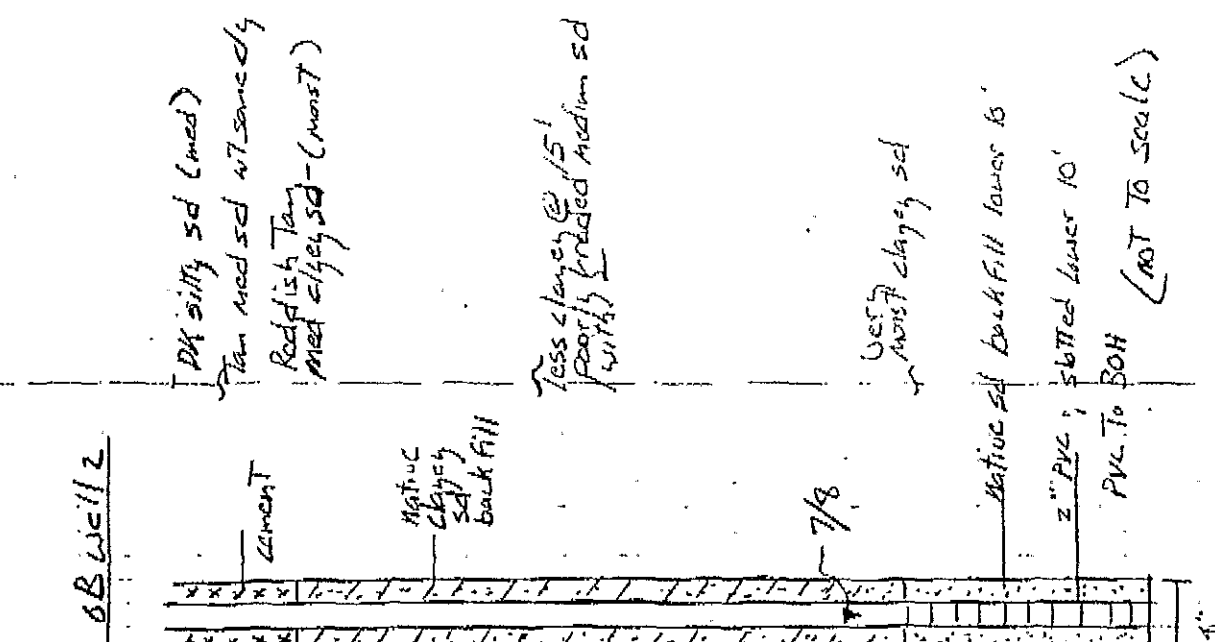
25-26.5 1.4" ⑤

26.5-35

35-36.5 1.4" ⑥

36.5-90

7/8/92
 BH-2
 0246 - F440



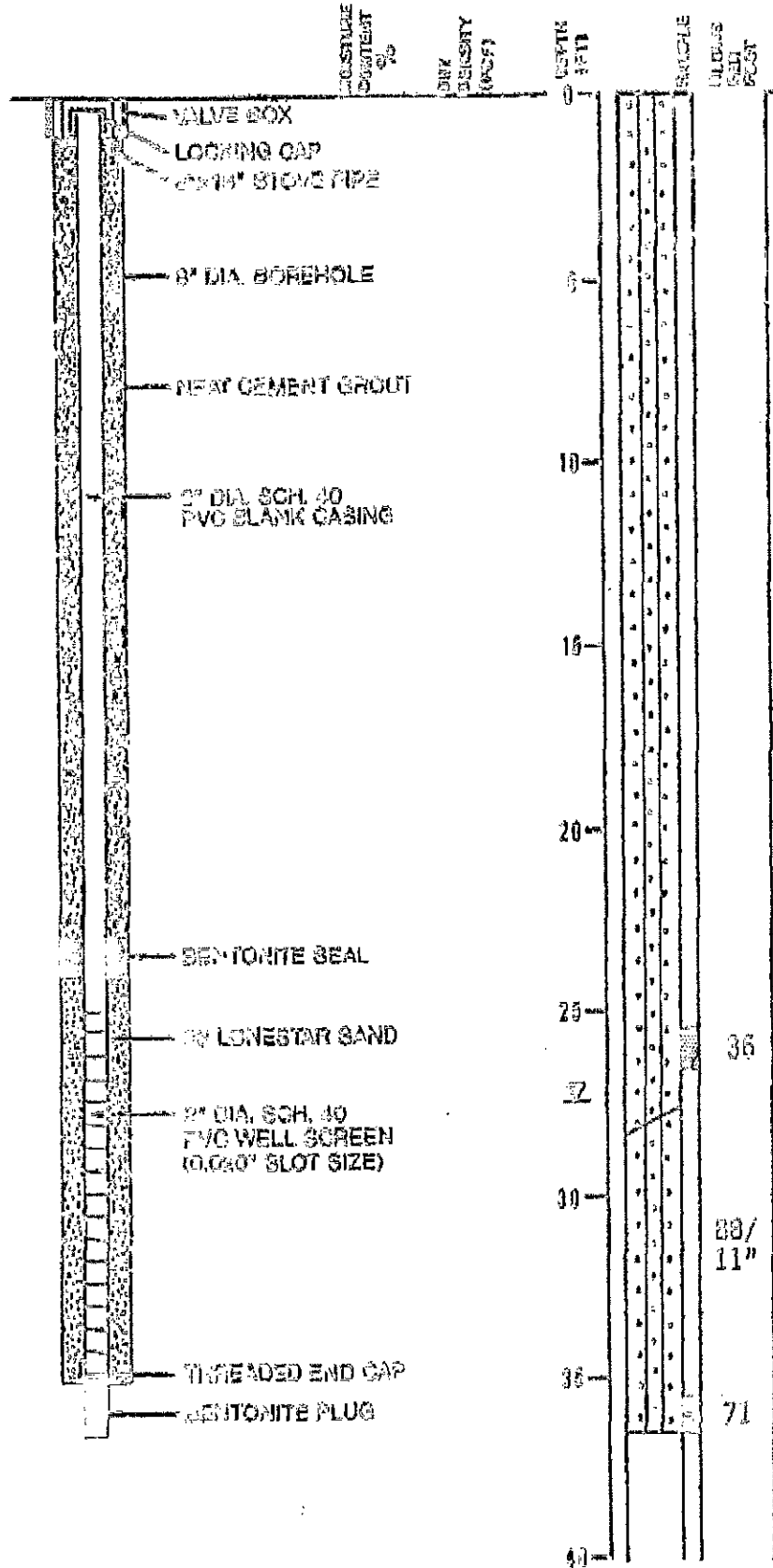
Depth	Tool	Notes
0-2	1.4"	DESC very dk gray - silty sd - moist Tan med sd - moist - some clay becoming clayey
2-3.5	1.4"	Tan - Reddish - clayey sd - moist
3.5-5.0	1.4"	Tan - gray w/ rust staining clayey med sd. Moist Tan - clayey sd -
5.0-6.5	1.4"	Tan med sd w/ clay moist - clayey sd
6.5-10	1.4"	Tan - gray - med clayey sd
10-11.5	1.4"	Tan gray - med sand (clayey) - very moist, no rust staining
11.5-15	1.4"	Tan - gray - med sand clayey saturated
15-16.5	2.4"	
16.5-20	1.4"	
20-21.5	1.4"	
21.5-30	1.4"	
30-31.5	1.4"	
31.5-40	1.4"	
40-41.5	1.4"	
	Bottom	

7/8/92
 BH-2
 0246 - F440

7/8/92
 BH-2
 0246 - F440

LOG OF TEST BORING 53

EQUIPMENT 8" Hollow Stem Auger
DATE DRILLED 9/19/90
ELEVATION 101.23 feet



BROWN SILTY SAND (SM)
medium dense, moist (fill)
0.15 of W 35c15

GROUNDWATER LEVEL 9/24/90
BROWN SILTY SAND (SM)
very dense, wet

Subsurface Consultants

13TH & JEFFERSON - OAKLAND, CA		DATE	APPROVED
JOB NUMBER	450,003	12/8/90	<i>[Signature]</i>

PLATE
11

01530N-U

N
1
3
4
35048
35049
35050
35051

-015042 35048
35049
35050
35051

RS-015042
35048
35049
35050
35051
D53
D54
D53

BORING LOCATION Dewatering Well #1 through #8				ELEVATION AND DATUM approx. 8 feet (C.O.D.)			
DRILLING AGENCY Viking				DRILLER			
DRILLING EQUIPMENT				DATE STARTED Nov. 7, 1991 to Nov. 8, 1991		DATE FINISHED	
DRILLING METHOD 15" Bucket Auger				COMPLETION DEPTH 20'		SAMPLER	
SIZE AND TYPE OF CASING NA				NO. OF SAMPLER NA		DIST. NA	
TYPE OF PERFORATION NA				FROM		TO	
SIZE AND TYPE OF PACK NA				FROM		TO	
TYPE OF SEAL				NO. 1 NA		FROM	
				NO. 2 NA		FROM	
				FROM		TO	
				FROM		TO	
				LOGGED BY:		CHECKED BY:	

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG		WATER LEVEL	SAMPLES					REMARKS (Drill Rate, Fluid Loss, Etc.)
		Lithology	Dewatering Well Installation		Depth (feet)	Drill Number	Sample Number	Block Number	Time		Notes
0	<p>∇_{ATD} SILTY SAND (SM) very dark brown, fine grain, damp becomes gray, wet</p> <p>5' some clay</p> <p>Gravel pack</p> <p>2" PVC slotted casing</p> <p>10' little clay</p>									
20	Bottom of Boring at 20'									
25										
30										
35										

FIELD LOG OF BORING NO. 1 SHEET 1 OF 1

ph: 408 - 265 4300
PERMIT 91631

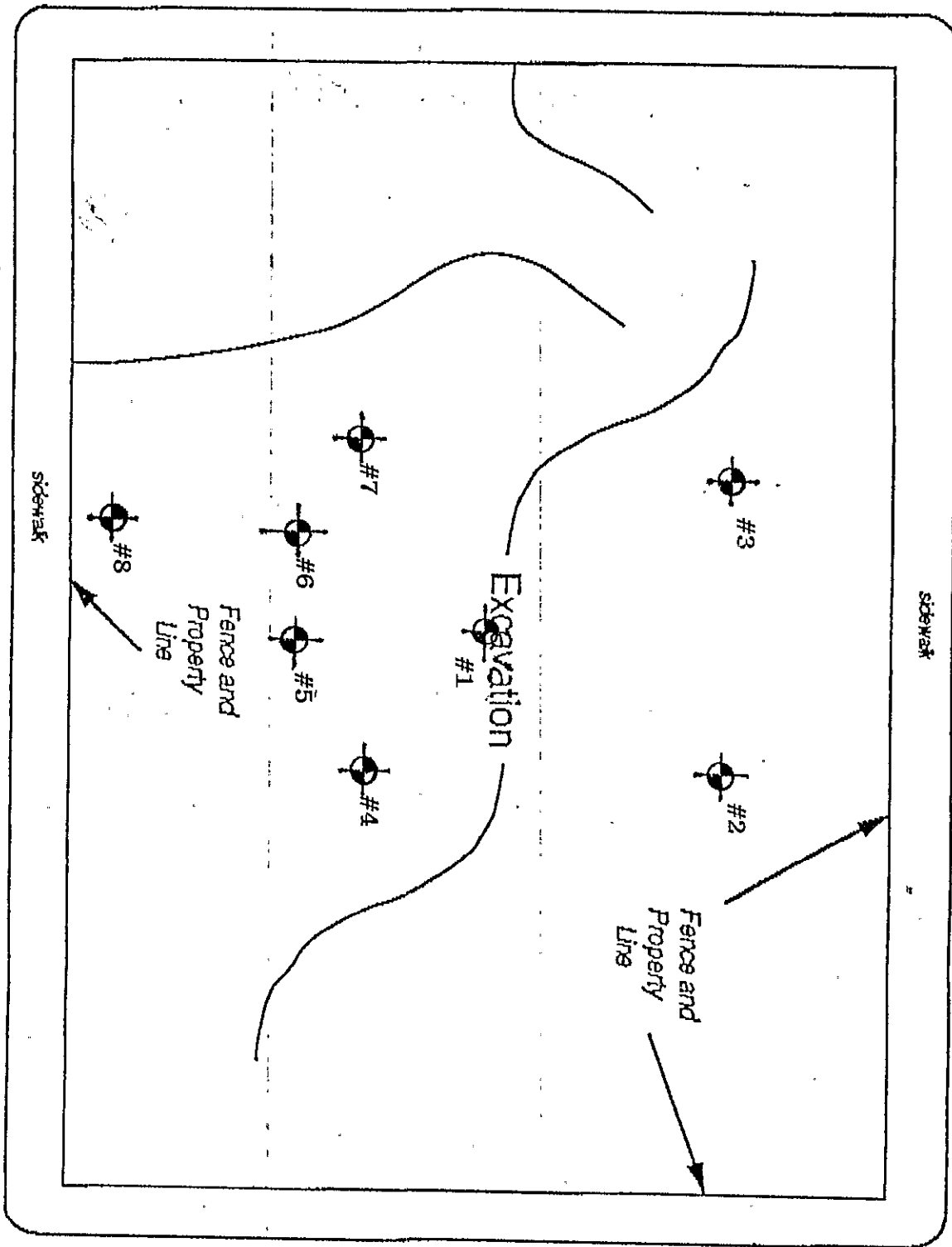
Lic# C57-476668
Viking

EA

01530N-U

Marlin Luther King, Jr. Way

13th Street (closed)



12th Street

sidewalk

Excavation #1

#3

#2

#7

#6

#5

#4

#8

Fence and Property Line

Fence and Property Line

Scale
0 40 feet

Jefferson Street (closed)



01-534Z

James P. Bowers, PE
R. William Rudolph, Jr., PE

01S04W35C12

January 11, 1993
SCI 430.014

Permit 92653

Ms. Jennifer Eberle
Alameda County Health Care Services Agency
80 Swan Way, Room 200
Oakland, California 94621

Well Destruction Report
Monitoring Well 49
13th and Jefferson Streets
Oakland, California

Dear Ms. Eberle:

This letter records the destruction of one groundwater monitoring well at the referenced site. Well 49 was installed in December 1990, as part of a groundwater contamination assessment for releases related to a concrete floor drain sump. Over the past two years, water samples from the well were obtained and analytically tested for petroleum hydrocarbons, i.e. oil & grease, total volatile and extractable hydrocarbons, benzene, toluene, xylene, and ethylbenzene (BTXE) and volatile organic chemicals (EPA 8010). To date, none of these compounds have been detected at concentrations in excess of detection limits. A site plan showing the location of the well is attached.

Because of construction activities in the area, associated with the [REDACTED] it was necessary to abandon the well. The well was destroyed on December 18, 1992 by HEW Drilling Company, in accordance with Alameda County, Zone 7 Water Agency requirements. The grout seal and sand pack were removed using hollow-stem auger drilling equipment. The casing was then removed and the borehole was filled with cement grout using tremie placement methods. Well materials and soil generated during well destruction were removed from the site.

■ Subsurface Consultants, Inc.

171 12th Street • Suite 201 • Oakland, California 94607 • Telephone 510-268-0461 • FAX 510-268-0137

963

01-5342

Ms. Jennifer Eberle
Alameda County Health Care Services Agency
SCI 430.014
January 11, 1993
Page 2

■ Subsurface Consultants, Inc.

If you have any questions, please call.

Yours very truly,

Subsurface Consultants, Inc.



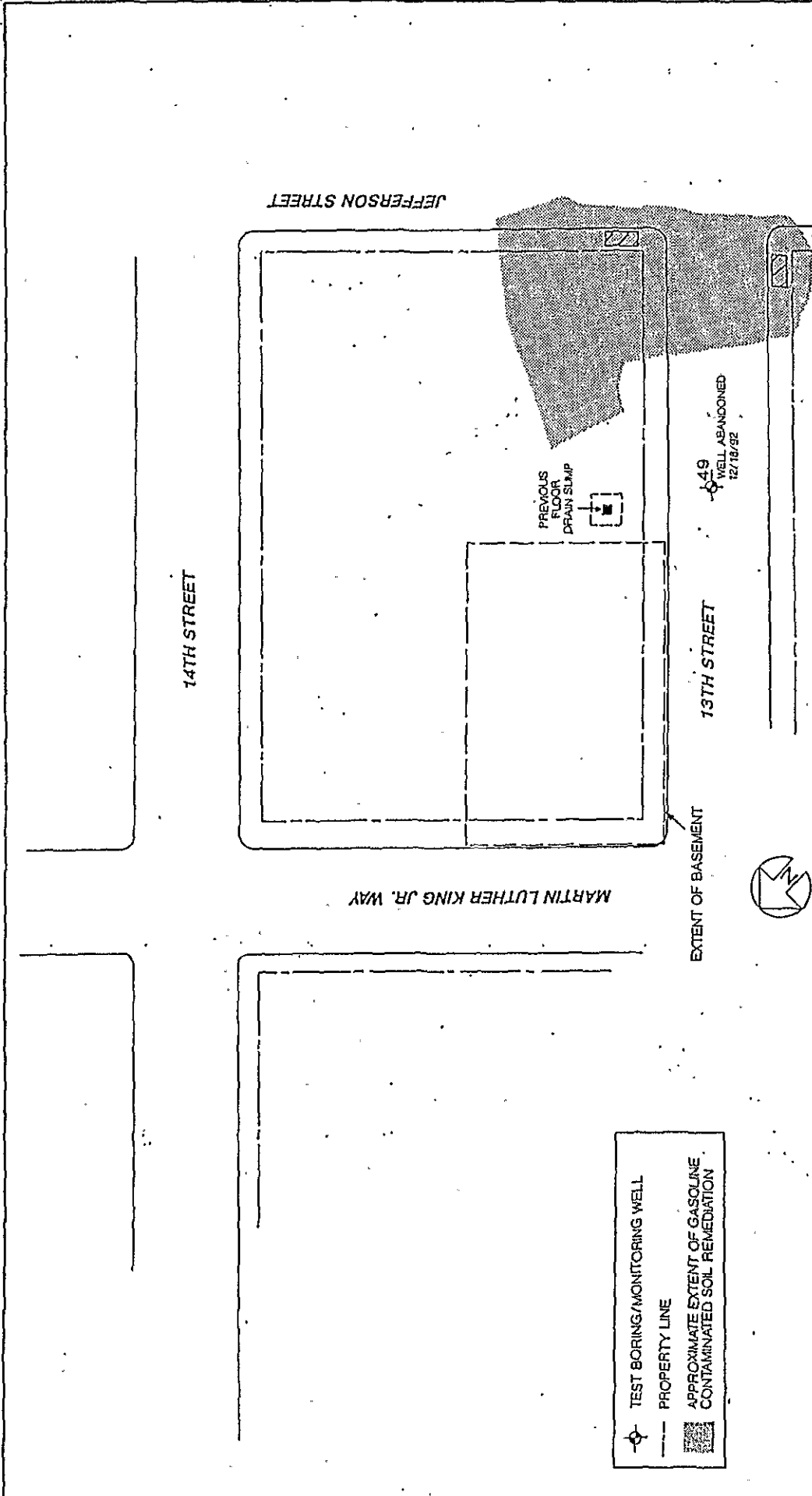
James P. Bowers
Geotechnical Engineer 157 (expires 3/31/95)

MK:JPB:egh

Attachment: Site Plan.

1 copy: Ms. Lois Parr
City of Oakland
Office of Economic Development & Employment
1333 Broadway, Suite 900
Oakland, California 94612

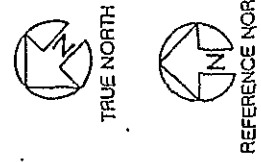
1 copy: Ms. Julie Carver
City of Oakland
Environmental Affairs
1333 Broadway, Suite 800
Oakland, California 94612



SITE PLAN	
JOB NUMBER 490014	DATE 12/22/92
APPROVED KX	
13TH & JEFFERSON - OAKLAND, CA	
PLATE 1	

Subsurface Consultants

APPROXIMATE SCALE (feet)



TEST BORING/MONITORING WELL

PROPERTY LINE

APPROXIMATE EXTENT OF GASOLINE CONTAMINATED SOIL REMEDIATION

15/410-35A1

01-801

LOG OF WELL,



1461 - Alice Street, Oakland.

Sand, dry -----	30	feet
Yellow clay -----	30 to 44	"
Blue clay -----	44 "	134 "
Gravel -----	134 "	136 "
Yellow clay -----	136 "	240 "
Gravel -----	240 "	250 "
Yellow clay -----	250 "	284 "

8" column 50' long in bottom of well.
well deepened by Florey.

September 22- 6.

10/4 W - 15/2 - 35 B & C

01-812



244 - Lake Drive Boulevard, Oakland.

Job #790. Boring Test hole at 16th. & Telegraph Avenue.

Labor.

September 16 - 3 men and tools, 8 hours	-----	\$ 25.00	
18 - 3 men and tools, 8 hours	-----	<u>25.00</u>	\$ 50.00

Hauling.

Hauling derrick & tools to Job, 1 hour		2.00	
Hauling derrick & tools to Shop 1 hour		<u>2.00</u>	4.00
			\$ 64.00

Formations passed through.

Soil		1-1/2 feet
Brown sand	1-1/2 to	20 "
Gray water sand	20 "	30 "
Blue clay	30 "	44 "

Notice of Intent No. _____
Local Permit No. or Date 77387

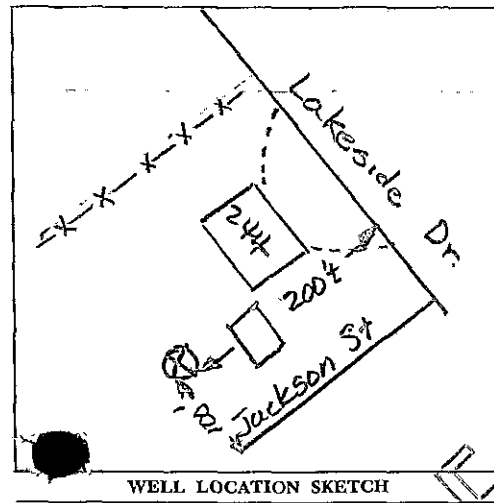
State Well No. 1S/4W 35A²
Other Well No. _____

(1) OWNER: _____
Address _____
City _____

(12) WELL LOG: Total depth _____ ft. Depth of completed well _____ ft.

from ft.	to ft.	Formation (Describe by color, character, size or material)
0	78	Brown Sandy Clay
78	83	Course Sand
83	95	Gravel with water

(2) LOCATION OF WELL (See instructions):
County _____ Owner's Well Number _____
Well address if different from above _____
Township _____ Range _____ Section _____
Distance from cities, roads, railroads, fences, etc. _____



(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well
Destruction (Describe destruction materials and procedures in Item 12)
(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Stock
Municipal
Other

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other Bucket
(6) GRAVEL PACK:
Yes No Size _____
Diameter of bore 10"
Packed from _____ to _____ ft.

(7) CASING INSTALLED: Steel Plastic Concrete
(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0'	100'	6"	3/16"	78'	100'	3/16"

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth 20 ft.
Were strata sealed against pollution? Yes No Interval _____ ft.
Method of sealing _____

(10) WATER LEVELS:
Depth of first water, if known 83 to 95 ft.
Standing level after well completion 30 ft.

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? Driller
Type of test Pump Bailer Air lift
Depth to water at start of test 30 ft. At end of test 75 ft.
Discharge 50 gal/min after 2 hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Electric log made? Yes No If yes, attach copy to this report

Work started 19 77 Completed 19 77

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
SIGNED Joe Foster
(Well Driller)
NAME Joe Foster Excavating
(Person, firm, or corporation) (Typed or printed)
Address Danville Well Drilling Co.
City PO Box 731 Zip _____
Danville, Calif.
License No. _____ Date of this report 1977

FIELD LOG

1S/4W 35A

LOCATION

DATE:

19th St + Alice St Oakland

4/22/91

DEPTH S.# LITH DESCRIPTION

0

v coarse sand loam
vdk grayish brown 10YR 3/2 v fine sandy loam } fill
gravelly sand

4

brown 10YR 4/3 v stiff sandy clay loam
sand is VF → F ...

8

brown 10YR 5/3 v stiff sandy clay loam
sand is up to Medium grained

12

16

H olive brown 2.5 Y 5/4 fine sandy loam

FIELD LOG

19/4W 35A

LOCATION

DATE:

DEPTH S.# LITH DESCRIPTION.

DEPTH	S.#	LITH	DESCRIPTION.
16			fine sandy clay loam
20			
			fine gravelly sand brown
24			1/4 drive brown 2.5Y 5/4 fine sandy clay loam
28			greyish brown 2.5Y 5/2 clay loam
32			

FIELD LOG

1S/4W 35A

LOCATION	DATE:
----------	-------

DEPTH	S.#	LITH	DESCRIPTION.
	32		
36			yellowish brown 10YR 5/4. silty clay " stiff
40			
			clay loam → silty clay loam
44			
48			

FIELD LOG

1S/4W 35A

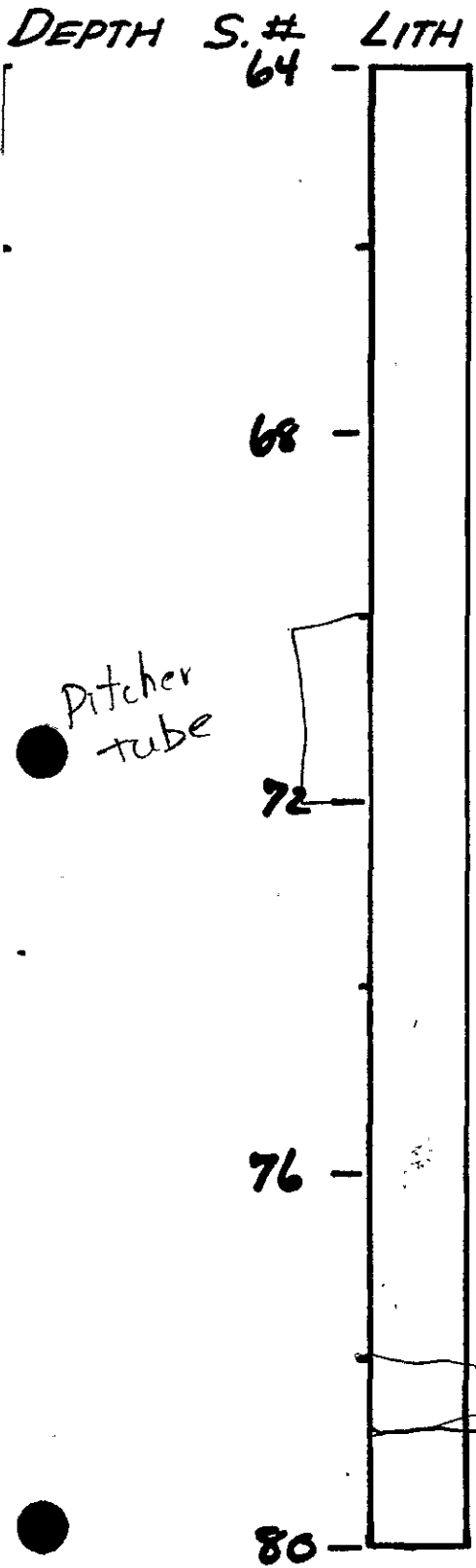
LOCATION	DATE:
----------	-------

DEPTH	S.#	LITH	DESCRIPTION.
	48		sandy loam → sand
			sandy gravel brown → dk brown fine sandstone some chert
52			
56			H yell brown 10% R 1/4 clay loam
			sandy gravel
60			
64			

FIELD LOG

1S/4W 35A

LOCATION	DATE:
----------	-------



DESCRIPTION.
pale brown 10YR 6/3 clay
v stiff

brown 10YR 5/3 clay
v stiff

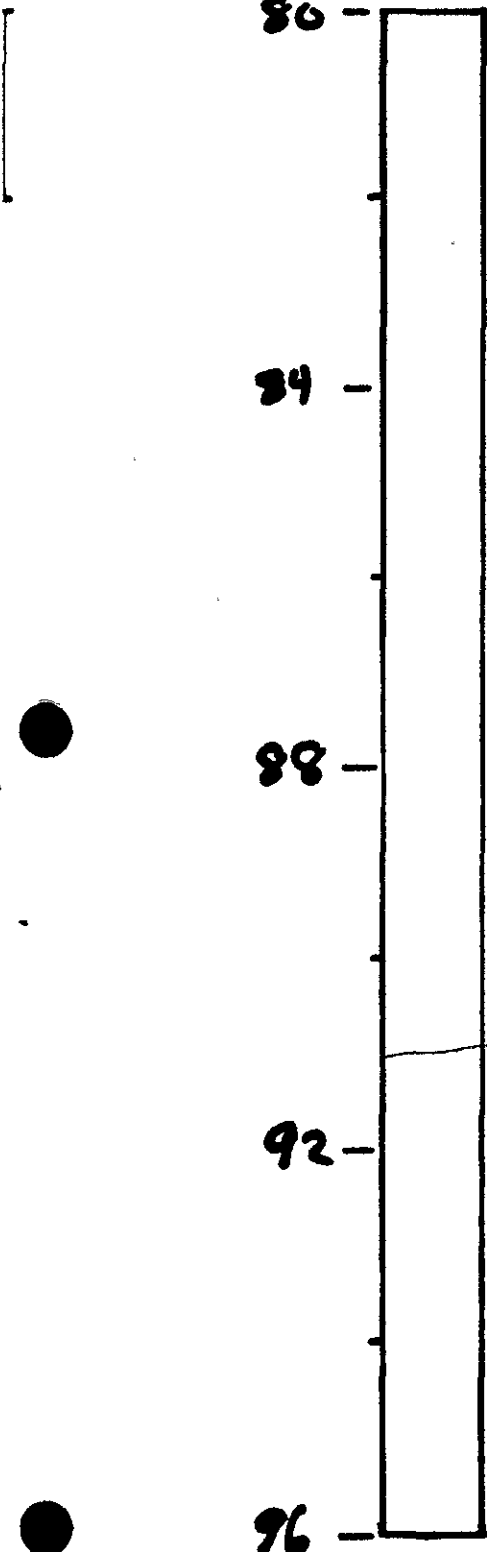
Sand to coarse size
clay

FIELD LOG

1S/4W 35A

LOCATION	DATE:
----------	-------

DEPTH S.# LITH DESCRIPTION.



olive grey 5Y 5/2 silty clay loam

fine gravelly sand

gravel is mostly
brown fine sandstone
chert

FIELD LOG

1S/4W 35A

LOCATION	DATE:
----------	-------

DEPTH	S.#	LITH	DESCRIPTION.
	96		
100			
104			
108			olive grey clay
			vdk greenish grey clay 5G 3/1 → 5G 3/1 v stiff
112			dk greenish grey 5G 4/1 clay v stiff

Pitcher barrel

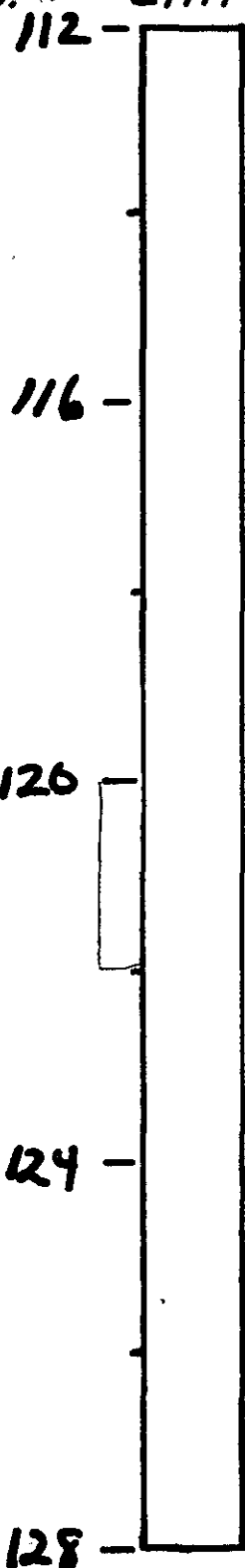
FIELD LOG

15/4W 35A

LOCATION

DATE:

DEPTH S.# LITH DESCRIPTION.



dk greenish grey 5 GR 4/1 clay

dk greenish grey 5 GR 4/1 clay
v stiff

softer

Pitcher tube

FIELD LOG

1S/4W 35A

LOCATION	DATE:
----------	-------

DEPTH	S. #	LITH	DESCRIPTION.
	128		
	132		silty clay
	136		
	140		
	144		

Pitcher tube

dk greenish grey 5 GY 4/1 silty clay medium stiff

Silt 15m

FIELD LOG

1S/4W 35A

LOCATION

DATE:

DEPTH S.# LITH DESCRIPTION.

144



sand
silt loam

silty clay loam dk greenish grey 5G 4/1

148

152

156

160

stiffen - clay dk greenish grey

FIELD LOG

1S/4W 35A

LOCATION	DATE:
----------	-------

DEPTH	S. #	LITH	DESCRIPTION.
	160		DK greenish grey 5G 4/1 Clay some small carbonate(?) nodules v shA
164			
168			brown 10YR 4/3 to yellowish brown 10YR 5/4 sandy clay loam
			sand v coarse size
			Clay to clay loam
172			
176			

Pitcher
tube

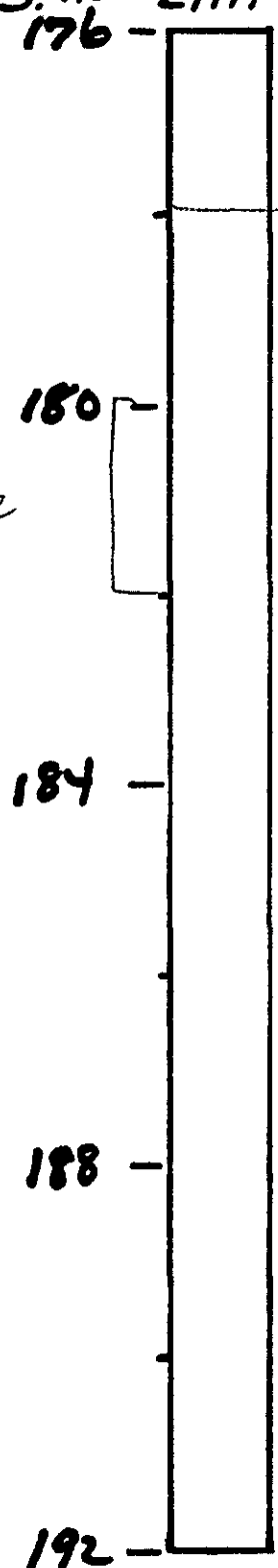


FIELD LOG

1514W 35A

LOCATION	DATE:
----------	-------

DEPTH S.# LITH DESCRIPTION.



dk greenish gray

Pitcher tube

dk greenish gray 5 GY 4/1 clay

FIELD LOG

1S/4W 35A

LOCATION

DATE:

DEPTH S.# LITH DESCRIPTION.

192

196

200

Pitcher
tube

olive grey 5Y 5/2 Clay
bottom of hole v stiff

204

208

ORIGINAL

File with DWR

STATE OF CALIFORNIA THE RESOURCES AGENCY DEPARTMENT OF WATER RESOURCES WATER WELL DRILLERS REPORT

INV. RD.

Do not fill in

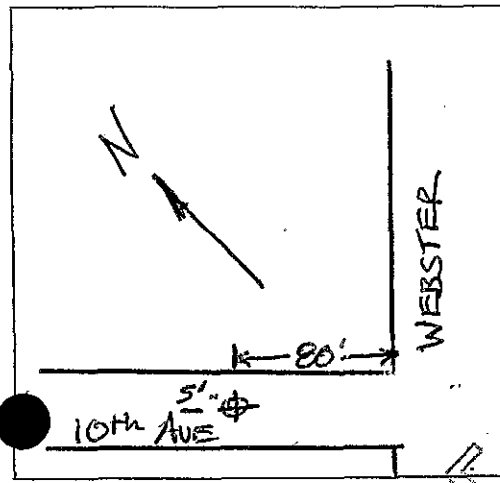
No. 195173

Permit No. or Date #87299

State Well No. 1S/W3595 Other Well No.

(1) OWNER: [Redacted] Address: [Redacted] City: [Redacted]

(2) LOCATION OF WELL (See instructions): County Alameda Owner's Well Number MW-5 Well address if different from above 10th & WEBSTER OAKLAND Township 1S Range 4W Section



(3) TYPE OF WORK: New Well [X] Deepening [] Reconstruction [] Reconditioning [] Horizontal Well [] Destruction [] (Describe destruction materials and procedures in Item 12) (4) PROPOSED USE: Domestic [] Irrigation [] Industrial [] Test Well [X] Stock [] Municipal [] Other []

(12) WELL LOG: Total depth 46.5 ft. Depth of completed well 42.0 ft. Table with columns for depth (ft.) and formation description.

(5) EQUIPMENT: Rotary [] Cable [] Other [X] auger Reverse [] Air [] Bucket []

(6) GRAVEL PACK: Marked Yes [X] No [] Size #3 Diameter of bore 12" Packed from 20 to 46.5 ft.

(7) CASING INSTALLED: Steel [] Plastic [X] Concrete [] Table with columns for From ft., To ft., Dia. in., Gage of Wall.

(8) PERFORATIONS: Table with columns for From ft., To ft., Slot size.

(9) WELL SEAL: Was surface sanitary seal provided? Yes [X] No [] If yes, to depth 18 ft. Were strata sealed against pollution? Yes [X] No [] Interval 18-20 ft. Method of sealing Bentonite

(10) WATER LEVELS: Depth of first water, if known _____ ft. Standing level after well completion _____ ft.

(11) WELL TESTS: Was well test made? Yes [] No [] If yes, by whom? _____ Type of test Pump [] Bailor [] Air lift [] Depth to water at start of test _____ ft. At end of test _____ ft. Discharge _____ gal/min after _____ hours Water temperature _____

WELL DRILLER'S STATEMENT: This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief. SIGNED [Signature] (Well Driller) NAME Bay Area Exploration (Person, firm, or corporation) (Typed or printed) Address P.O. Box 157 City Suisun, CA Zip 94585 License No. 522125 Date of this report 1-6-88

195173

15/KN 3595

Top of PVC Casing #87299
Elevation 37.86 ft

Equipment CME 55 Hollow Stem Auger
Elevation 38.5 ft Date 12/12/87

GROUND SURFACE

See below for Well Top Detail

12 IN. DIAMETER STEEL WELL HOUSING WITH LOCKING COVER
WATERPROOF WELL CAP

REINFORCED CONCRETE WELL HOUSING ENCLOSURE
BENTONITE-CEMENT SEAL

12 IN. DIAMETER BORING

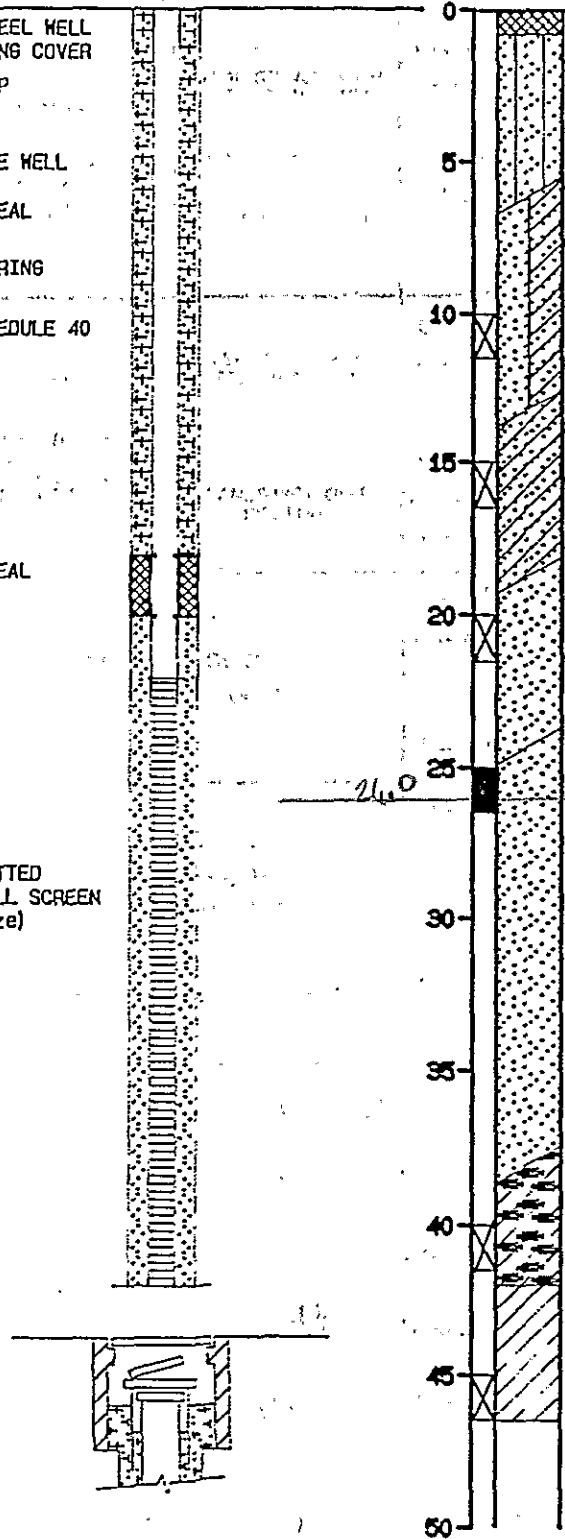
4 IN. DIAMETER SCHEDULE 40 PVC WELL CASING

BENTONITE PELLET SEAL

SAND FILTER PACK (size: Monterey #3)

4 IN. DIAMETER SLOTTED SCHEDULE 40 PVC WELL SCREEN (0.020 in. slot size)

BOTTOM CAP



0 CONCRETE

5 DARK BROWN (10YR 3/3) SILTY SAND (SH) medium dense, moist

10 YELLOWISH BROWN (10YR 5/6) SAND WITH CLAY (SP-SC) medium dense, poorly sorted

15 DARK YELLOWISH BROWN (10YR 4/4) CLAYEY SAND (SC) medium dense

20 BROWN (7.5YR 4/4) SAND (SP) poorly sorted, very fine to fine grained

24.0 OLIVE-GRAY (5YR 5/2) SAND (SP) dense, poorly sorted

30 color change to BROWN (2.5Y 4/4)

35

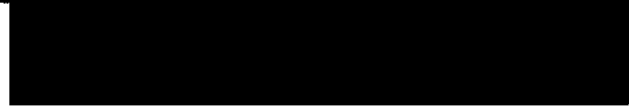
40 BROWN (10YR 5/3) SANDY GRAVEL WITH CLAY (GC) hard

45 OLIVE (5Y 4/3) CLAY WITH SILT (CL) stiff

50 bottom of boring at 46.5 ft
Boring extended from 42.0 to 46.5 ft using 7" diameter auger



Harding Lawson Associates
Engineers and Geoscientists



Oakland, California

PLATE

A4

ORIGINAL
File with DWR

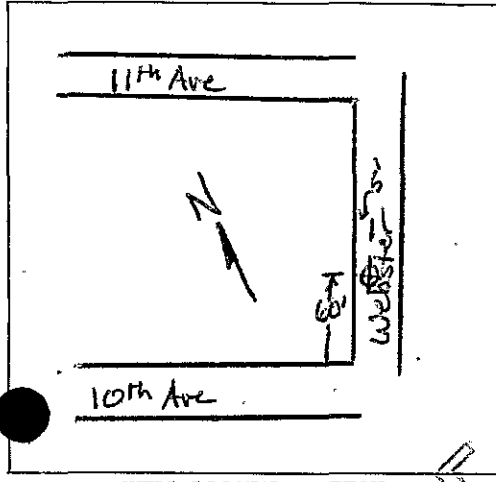
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in
No. 195174
State Well No. 1S/W3593
Other Well No.

Permit No. or Date AS 7299

(1) OWNER: [Redacted]

(2) LOCATION OF WELL (See instructions):
County Alameda Owner's Well Number MW-3
Well address if different from above 10th & Webster Oakland
Township LS Range 4W Section _____
Distance from cities, roads, railroads, fences, etc. _____



(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well
Destruction (Describe destruction materials and procedures in Item 12)
(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Stock
Municipal
Other

(12) WELL LOG: Total depth 41.5 Depth of completed well 40 ft.

from ft.	to ft.	Formation (Describe by color, character, size or material)
0.0	0.3	Asphalt
0.3	1.3	Sandy gravel (GP) fill
1.3	6.5	Dark yellow brown poorly sorted sand (SP), medium dense
6.5	13.5	Dark yellow brown poorly sorted sand (SP) medium dense
13.5	18.5	Dark yellow brown clayey sand (SQ), medium dense
18.5	23.5	Brown silty sand (SM), hard
23.5	39.5	Olive gray poorly sorted sand (SP), hard Color change to brown at 31.0'
39.5	41.5	Pale olive lean clay (CL), stiff

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other auger Bucket

(6) GRAVEL PACK: Monterey
Yes No Size #3
Diameter of bore 12"
Packed from 18 to 40 ft.

(7) CASING INSTALLED:
Steel Plastic Concrete

(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	20	4	Sch40	20	40	.020

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth 16 ft.
Were strata sealed against pollution? Yes No Interval 16-18 ft.
Method of sealing Bentonite

(10) WATER LEVELS:
Depth of first water, if known _____ ft.
Standing level after well completion _____ ft.

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? _____
Type of test Pump Bailer Air lift
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Electric log made? Yes No If yes, attach copy to this report

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
SIGNED _____ (Well Driller)
NAME Bay Area Exploration
(Person, firm, or corporation) (Typed or printed)
Address P.O. Box 157
City Suisun, CA Zip 94585
License No. 522125 Date of this report 1-6-88

#195174 1S/KW 3593

Top of PVC Casing #87299
Elevation 38.35 ft

Equipment CHE 55 Hollow Stem Auger
Elevation 39.0 ft Date 12/10/87

GROUND SURFACE See below for Well Top Detail

12 IN. DIAMETER STEEL WELL HOUSING WITH LOCKING COVER WATERPROOF WELL CAP

REINFORCED CONCRETE WELL HOUSING ENCLOSURE BENTONITE-CEMENT SEAL

11 IN. DIAMETER BORING

4 IN. DIAMETER SCHEDULE 40 PVC WELL CASING

BENTONITE PELLET SEAL

SAND FILTER PACK (size: Monterey #3)

4 IN. DIAMETER SLOTTED SCHEDULE 40 PVC WELL SCREEN (0.020 in. slot size)

BOTTOM CAP

Depth (ft) Sample

0 ASPHALT
ENGINEERED FILL
DARK YELLOWISH BROWN (10YR 4/4-5/6) SAND (SP) medium dense, poorly sorted, fine to very fine grained

5
DARK YELLOWISH BROWN (10YR 4/4) SAND WITH CLAY (SP-SC)

10

15 DARK YELLOWISH BROWN (10YR 4/4) CLAYEY SAND (SC) medium dense, moist, very fine to fine grained

20 BROWN (7.5Y 4/4) SILTY SAND (SM) hard, moist, very fine to fine grained

25 OLIVE-GRAY (5Y 5/2) SAND (SP) hard, poorly sorted, wet, fine to very fine grained

27.0

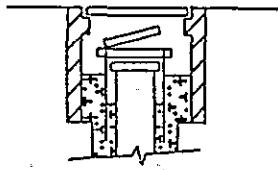
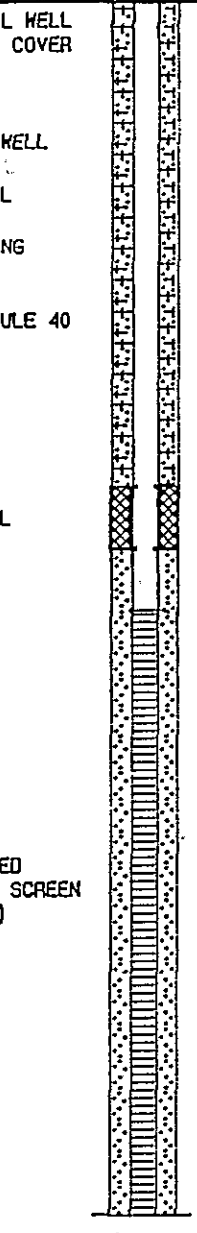
30 BROWN (7.5Y 4/4) SAND (SP) dense, poorly sorted, fine grained

35

40 OLIVE (5Y 4/3) CLAY (CL) stiff
bottom of boring at 41.5 ft

45

50



APPENDIX D

APPENDIX B

APPENDIX C

Harding Lawson Associates
Engineers and Geoscientists

Log of Boring and Well Completion Detail MW-3

PLATE



A2

Oakland, California

DRAWN: [Redacted] JOB NUMBER: 9382, 012.02 APPROVED: [Redacted] DATE: 1/88 REVISION: [Redacted] DATE: [Redacted]

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

INV. ✓
AD. ✓

Do not fill in
No. 195175

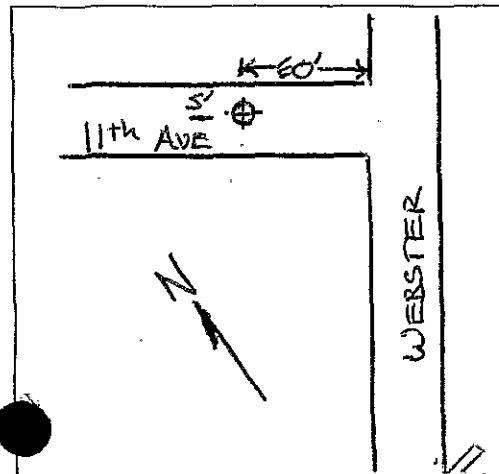
Notice of Intent No. _____
Permit No. or Date # 87279

State Well No. 15FW3592
Other Well No. _____

(1) OWNER:

(2) LOCATION OF WELL (See instructions):

County Alameda Owner's Well Number MW-2
Well address if different from above 11th & WEBSTER, OAKLAND
Township 1S Range 4W Section _____
Distance from cities, roads, railroads, fences, etc. _____



(3) TYPE OF WORK:

- New Well Deepening
 - Reconstruction
 - Reconditioning
 - Horizontal Well
 - Destruction (Describe destruction materials and procedures in Item 12)
- (4) PROPOSED USE:
- Domestic
 - Irrigation
 - Industrial
 - Test Well
 - Stock
 - Municipal
 - Other

(12) WELL LOG: Total depth 45.5 ft. Depth of completed well 45.0 ft.

from ft.	to ft.	Formation (Describe by color, character, size or material)
0.0	0.3	Asphalt
0.3	1.5	Sandy gravel (GP) very dense fill
1.5	9.5	Dark yellow brown poorly sorted clayey sand (SC), medium dense, moist
9.5	21.0	Dark yellow brown poorly sorted sand with lean clay (SP-SC), dense, moist
21.0	24.7	Dark yellow brown poorly sorted clayey sand (SC), very dense, moist
24.7	35.0	Olive gray poorly sorted sand (SP), dense
35.0	40.5	Brown poorly sorted sand (SP) hard, wet
40.5	43.5	Brown sandy lean clay (CL), trace gravelly silt
43.5	45.5	Pale olive lean clay with silt (CL), stiff

(5) EQUIPMENT:

- Rotary Reverse
- Cable Air
- Other auger Bucket

(6) GRAVEL PACK: Monterey

- Yes No Size #3
- Diameter of bore 12"
- Packed from 18 to 45 ft.

(7) CASING INSTALLED:

- Steel Plastic Concrete

(8) PERFORATIONS:

Type of perforation or size of screen			
From ft.	To ft.	Dia. in.	Gage or Wall
0	20	4	Sch 40

(9) WELL SEAL:

Was surface sanitary seal provided? Yes No If yes, to depth 16 ft.
Were strata sealed against pollution? Yes No Interval 16-18 ft.
Method of sealing BENTONITE

(10) WATER LEVELS:

Depth of first water, if known _____ ft.
Standing level after well completion _____ ft.

(11) WELL TESTS:

Was well test made? Yes No If yes, by whom? _____
Type of test Pump Bailor Air lift
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Electric log made? Yes No If yes, attach copy to this report

Work started: 12-8 19 87 Completed 12-8 19 87

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief

SIGNED: _____ (Well Driller)
NAME Bay Area Exploration
(Person, firm, or corporation) (Typed or printed)
Address P.O. Box 157
City Suisun, CA Zip 94585
License No. 522125 Date of this report 1-6-88

#87299

195175

15/FW3592

Top of PVC Casing
Elevation 39.55 ft

Equipment COME 55 Hollow Stem Auger
Elevation 40.1 ft Date 12/8/87

GROUND SURFACE

See below for
Well Top Detail

12 IN. DIAMETER STEEL WELL
HOUSING WITH LOCKING COVER
WATERPROOF WELL CAP

REINFORCED CONCRETE WELL
HOUSING ENCLOSURE
BENTONITE-CEMENT SEAL

12 IN. DIAMETER BORING

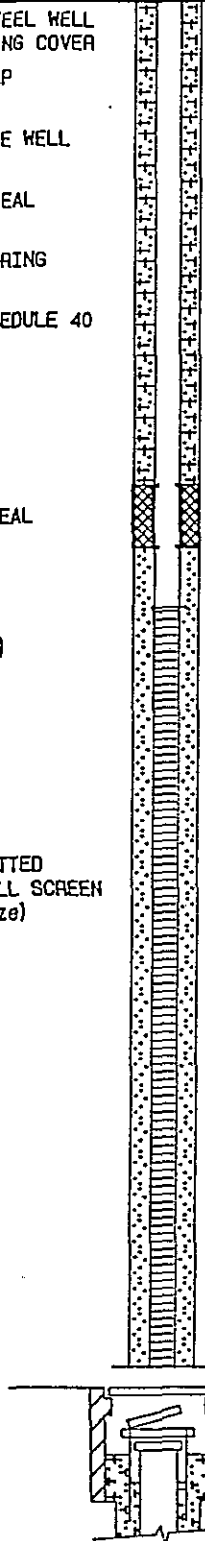
4 IN. DIAMETER SCHEDULE 40
PVC WELL CASING

BENTONITE PELLET SEAL

SAND FILTER PACK
(size: Monterey #3)

4 IN. DIAMETER SLOTTED
SCHEDULE 40 PVC WELL SCREEN
(0.020 in. slot size)

BOTTOM CAP



Depth (ft)
Sample

0
5
10
15
20
25
30
35
40
45
50

ASPHALT
ENGINEERED FILL
DARK YELLOWISH BROWN (10YR 4/4-6/5) CLAYEY SAND (SC) medium dense, moist, very fine grained

DARK YELLOWISH BROWN (10YR 5/6) SAND WITH CLAY (SP-SC) dense, moist, very fine to fine grained

OLIVE (5Y 4/2) SAND WITH CLAY (SP-SC) medium dense, moist, very fine to fine grained

DARK YELLOWISH BROWN (10YR 5/6) CLAYEY SAND (SC) very dense, moist, very fine grained

OLIVE (5Y 5/2-4/2) SAND (SP) dense, wet, fine grained

BROWN (10YR 4/3) SAND (SP) hard, poorly sorted, fine grained

BROWN (10YR 5/3) SANDY CLAY (CL) with gravel, medium stiff, wet, fine sand and gravel

OLIVE (5Y 4/3) CLAY WITH SILT (CL) moist

bottom of boring at 45.5 ft

26.0



Harding Lawson Associates
Engineers and Geoscientists

Log of Boring and Well Completion Detail MW-2

PLATE

Oakland, California

A1

DRAWN

JOB NUMBER
9382, 012.02

APPROVED

DATE
1/88

REVISED

DATE

ORIGINAL

File with DWR

STATE OF CALIFORNIA THE RESOURCES AGENCY DEPARTMENT OF WATER RESOURCES WATER WELL DRILLERS REPORT

INV. AP.

Do not fill in

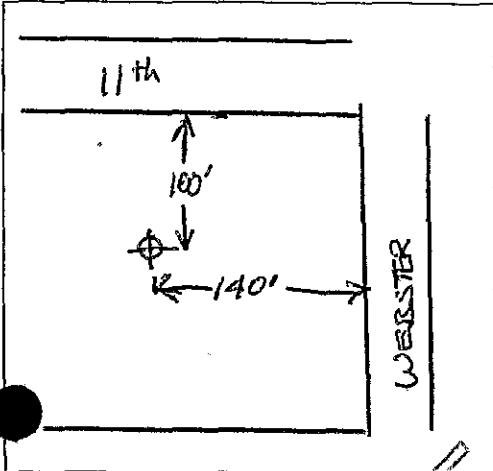
No. 195180

Permit No. or Date #87299

State Well No. 1S/W 3594 Other Well No.

(1) OWNER:

(2) LOCATION OF WELL (See instructions): County Alameda Owner's Well Number MW-4 Well address if different from above 11th & Webster, Oakland Township 1S Range 4W Section Distance from cities, roads, railroads, fences, etc.



(3) TYPE OF WORK:

- New Well [X] Deepening [] Reconstruction [] Reconditioning [] Horizontal Well [] Destruction [] (Describe destruction materials and procedures in Item 12) (4) PROPOSED USE: Domestic [] Irrigation [] Industrial [] Test Well [X] Stock [] Municipal [] Other []

(12) WELL LOG: Total depth 45.5 ft. Depth of completed well 44 ft. from ft. to ft. Formation (Describe by color, character, size or material)

Table with 3 columns: Depth (ft.), Formation (color, character, size or material). Rows include: 0.0 - 0.3 Concrete; 0.3 - 5.2 Dark brown poorly sorted silty sand (SM) medium dense, moist; 5.2 - 25.7 Yellowish brown poorly sorted sand with clay (SP-SC) medium dense, very fine to fine, grainy; Color change to brownish yellow at 14'; Color change to yellowish brown at 21.5'; 25.7 - 40.3 Olive gray poorly sorted sand (SP) dense, wet; 40.3 - 43.5 Pale olive sand, silt (ML), medium stiff; 43.5 - 45.5 Pale olive lean clay with silt (cl).

(5) EQUIPMENT:

- Rotary [] Reverse [] Cable [] Air [] Other [X] auger Bucket []

(6) GRAVEL PACK: Monterey #3 Yes [X] No [] Size #3 Diameter of bore 12" Packed from 18 to 44 ft.

(7) CASING INSTALLED:

Table with 4 columns: From ft., To ft., Dia. in., Gage or Wall. Row 1: +1, 19, 4, Sch40

(8) PERFORATIONS:

Table with 4 columns: From ft., To ft., Slot size. Row 1: 19, 44, 020

(9) WELL SEAL:

Was surface sanitary seal provided? Yes [X] No [] If yes, to depth 16 ft. Were strata sealed against pollution? Yes [X] No [] Interval 16-18 ft. Method of sealing Bentonite

(10) WATER LEVELS:

Depth of first water, if known ft. Standing level after well completion ft.

(11) WELL TESTS:

Was well test made? Yes [] No [] If yes, by whom? Type of test Pump [] Bailer [] Air lift [] Depth to water at start of test ft. At end of test ft. Discharge gal/min after hours Water temperature Chemical analysis made? Yes [] No [] If yes, by whom? Electric log made? Yes [] No [] If yes, attach copy to this report

Work started 12-9 19 87 Completed 12-9 19 87

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

SIGNED [Signature] (Well Driller)

NAME Bay Area Exploration (Person, firm, or corporation) (Typed or printed)

Address P.O. Box 157 City Suisun, CA Zip 94585

License No. 522125 Date of this report 1-6-88

195180

15/4W3597

Top of PVC Casing #87299
Elevation 41.71 ft

Equipment CHE-55 Hollow Stem Auger
Elevation 40.4 ft Date 12/9/87

GROUND SURFACE

See below for Well Top Detail

12 IN. DIAMETER STEEL WELL HOUSING WITH LOCKING COVER WATERPROOF WELL CAP

BENTONITE-CEMENT SEAL

11 IN. DIAMETER BORING

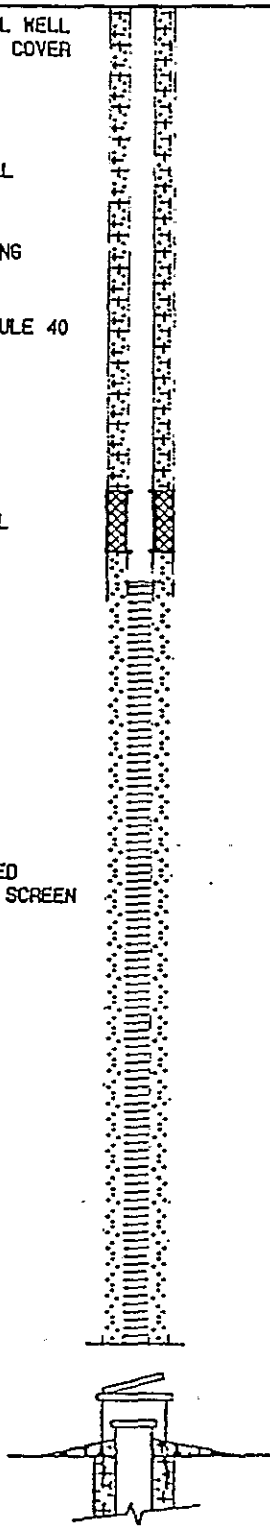
4 IN. DIAMETER SCHEDULE 40 PVC WELL CASING

BENTONITE PELLETS SEAL

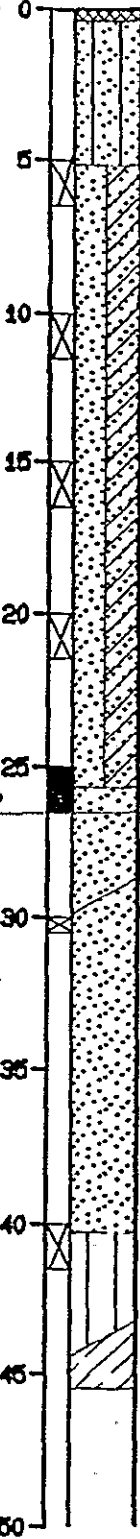
SAND FILTER PACK (size: Monterey #3)

4 IN. DIAMETER SLOTTED SCHEDULE 40 PVC WELL SCREEN (0.020 in. slot size)

BOTTOM CAP



Depth (ft)
Sample



CONCRETE
DARK BROWN (10YR 3/3) SILTY SAND (SM) medium dense, very fine to fine grained

YELLOWISH BROWN (10YR 5/6) SAND WITH CLAY (SC-SP) medium dense, poorly sorted, very fine to fine grained

color change to BROWNISH YELLOW (10YR 6/6) medium dense, moist, very fine to fine grained

color change to YELLOWISH BROWN (10YR 5/4)

OLIVE-GRAY (5YR 5/2-4/2) SAND (SP) dense, poorly sorted fine grained
BROWN (10YR 5/3) SAND (SP) dense, poorly sorted

PALE OLIVE (5Y 6/3) SANDY SILT (ML) medium stiff, very fine grained

PALE OLIVE (5Y 6/3) CLAY WITH SILT (CL) stiff, bottom of boring at 45.5 ft

APPENDIX D

APPENDIX B

APPENDIX C



Harding Lawson Associates
Engineers and Geoscientists

Log of Boring and Well Completion Detail MW-4

P-2-E



A3

Oakland, California

DRAWN JCS NUMBER APPROVED DATE REVISED DATE
9382, 012.02 1/88

ORIGINAL

File with DWR

Notice of Intent No.

Permit No. or Date

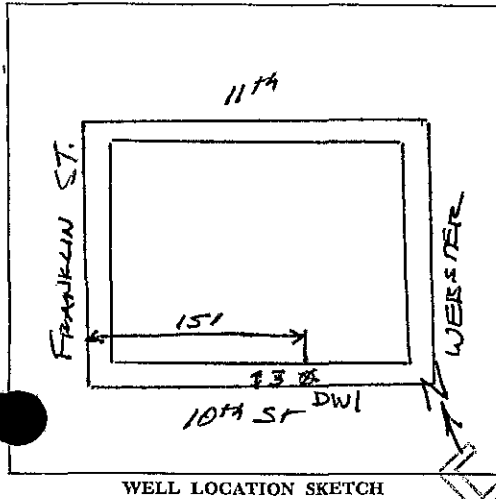
RECEIVED
MAY 17 1988
HARDING LAWSON ASSOC.
DEPARTMENT OF WATER RESOURCES

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

INV. ✓
AD. ✓
Do not fill in
No. 195181
State Well No. 15/4W359/1
Other Well No.

(1) OWNER: Name [Redacted]
Address One City Hall Plaza
City Oakland, CA Zip 94612

(2) LOCATION OF WELL (See instructions):
County Alameda Owner's Well Number DW1
Well address if different from above
Township 1S Range 4W Section
Distance from cities, roads, railroads, fences, etc.



(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well
Destruction (Describe destruction materials and procedures in Item 12)
(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Stock
Municipal
Other

(12) WELL LOG: Total depth 66 ft. Depth of completed well 64 ft.

from ft.	to ft.	Formation (Describe by color, character, size or material)
0.0	46.0	Dark Brown Sand (SP) Medium dense, moist, very fine to fine sand
-	-	Color change to grayish brown at 15'
-	-	Color change to light brown at 27'
41.0	49.0	light brown lean clay w/ silt (CH) stiff, saturated with gravel 42-43.01
49.0	54.0	Olive gray sand (SP) dense, saturated, fine to fine grained
54.0	57.0	Yellowish brown silty sand (SM) dense, saturated
57.0	61.0	Yellowish brown silt (ML) stiff, saturated
61.0	65.0	Yellowish brown sand (SP) sand (SW) stringer-58-58.5' medium dense to dense, saturated, fine to medium grained
65.0	66.0	Monterey Olive gray clay (CL) stiff, moist

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other Bucket

(6) GRAVEL PACK:
Yes No Size Monterey
Diameter of bore 14 3/4, 7/8
Packed from 47 to 66 ft.

(7) CASING INSTALLED:

From ft.	To ft.	Dia. in.	Gage or Wall
0.5	45	8.5	Sch40
0.5	64	4	Sch40

(8) PERFORATIONS:

From ft.	To ft.	Slot size
49	64	.020

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth 44 ft.
Were strata sealed against pollution? Yes No Interval 44-47 ft.
Method of sealing Bentonite

(10) WATER LEVELS:
Depth of first water, if known 38 ft.
Standing level after well completion ft.

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom?
Type of test Pump Bailer Air lift
Depth to water at start of test ft. At end of test ft.
Discharge gal/min after hours Water temperature
Chemical analysis made? Yes No If yes, by whom?
Electric log made? Yes No If yes, attach copy to this report

Work started 03/31 1988 Completed 04/01 1988
WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
SIGNED [Signature]
(Well Driller)
NAME Exploration Drilling Services
(Person, firm, or corporation) (Typed or printed)
Address 1206 Johnson Street
City Redwood City, CA Zip 94061
License No. 431604 Date of this report 5/9/88

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

INV. ✓
AD. ✓

Do not fill in

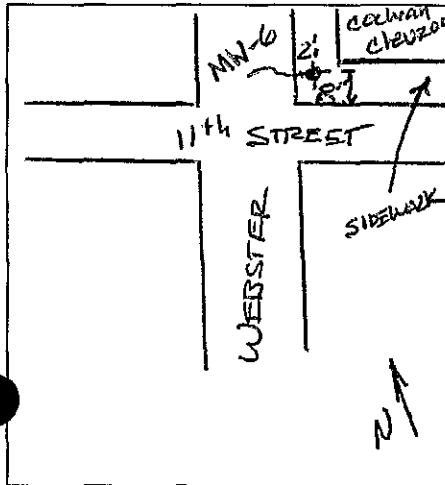
No. 259761

Notice of Intent No. _____
Local Permit No. or Date _____

State Well No. 15/XW30597
Other Well No. _____

(1) OWNER: Name _____
Address _____
City _____
(2) LOCATION OF WELL (See instructions):
County Alameda Owner's Well Number MW-6
Well address if different from above 11th Webster, Oakland
Township 1S Range 4W Section _____
Distance from cities, roads, railroads, fences, etc. _____

(12) WELL LOG: Total depth <u>45</u> ft. Completed depth <u>44</u> ft.	
from ft.	to ft. Formation (Describe by color, character, size or material)
0 - 0.5	Concrete
0.65 - 4.0	Dark Brown Silty Sand (SM) Medium Dense, Moist, Very Fine to Fine Sand
4.0 - 25	Yellowish-Brown Sand with Clay (SR) Dense, Moist, Very Fine to Fine Sand
-	Color Change to Brownish-Yellow (10yr. 6/6) at 15.0'
25 - 37.5	Olive Gray Sand (SP) Dense, Saturated, Very Fine to Fine Sand
37.5 - 44	Brown sandy clay (CL) very stiff to hard, saturated, few coarse gravel
44 - 45	Olive clay with silt (CL), hard, saturated



(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well
Destruction (Describe destruction materials and procedures in Item 12)
(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Municipal
Other (Describe)

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other Bucket
HOLLOW Stem Auger

(6) GRAVEL PACK: Monterey
Yes No
Diameter of bore 10 3/4
Packed from 18 to 45 ft.

(7) CASING INSTALLED:
Steel Plastic Concrete

From ft.	To ft.	Dia. in.	Gage or Wall
0	45	4.0	sch. 40

(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Slot size
20	44	.020

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth 16 ft.
Were strata sealed against pollution? Yes No Interval 16-18 ft.
Method of sealing Bentonite

Work started 3/1/1988 Completed 3/1/1988

(10) WATER LEVELS:
Depth of first water, if known 25.0 ft.
Standing level after well completion _____ ft.

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? _____
Type of test Pump Bailer Air lift
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Was electric log made Yes No If yes, attach copy to this report

Signed _____ (Well Driller)
NAME Hew Drilling
(Person/firm, or corporation) (Typed or printed)
Address P.O. Box 52182
City Palo Alto, CA ZIP 94303
License No. 384167 Date of this report _____

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 259762

Notice of Intent No. _____
Local Permit No. or Date _____

State Well No. NS/4W 35910
Other Well No. _____

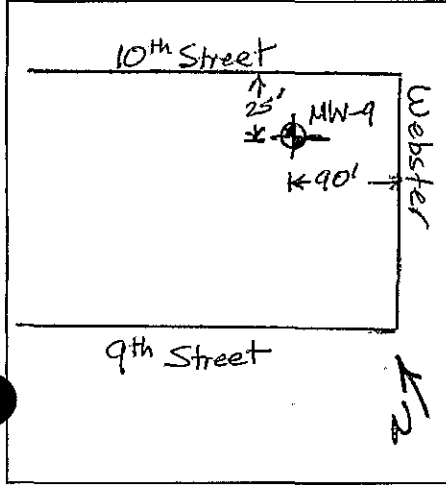
(1) OWNER:

(2) LOCATION OF WELL (See instructions):

County Alameda Owner's Well Number MW-9
Well address if different from above 10th Webster, Oakland
Township 1S Range 4W Section _____
Distance from cities, roads, railroads, fences, etc. _____

(12) WELL LOG: Total depth 41.5 ft. Completed depth 40 ft.
from ft. to ft. Formation (Describe by color, character, size or material)

0- 0.5 Asphalt
0.5- 3.5 Yellowish-Brown Sand(SP),
Medium Dense, Moist
3.5- 5.5 Dark Brown Silty Sand(SM)
Medium Dense, Moist, Very
Fine to Fine Sand
5.5- 21.0 Dark Yellowish-Brown Sand
(SP) Dense, Moist, Very
Fine to Fine Sand, Few Clay



WELL LOCATION SKETCH

(3) TYPE OF WORK:

New Well Deepening
Reconstruction
Reconditioning
Horizontal Well
Destruction (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:

Domestic
Irrigation
Industrial
Test Well
Municipal
Other (Describe)

40.7- 41.5 Pale Olive Clay Hard,
Saturated

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other Bucket
Hollostem Auger

(6) GRAVEL PACK:
Yes No Size Monterys
Diameter of bore 10 3/4
Packed from 18 to 40 ft.

(7) CASING INSTALLED:
Steel Plastic Concrete

(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	40	4	sch. 40	20	44	.020

(9) WELL SEAL:

Was surface sanitary seal provided? Yes No If yes, to depth 16 ft.
Were strata sealed against pollution? Yes No Interval 16-18 ft.
Method of sealing _____

Work started 3/1/1988 Completed 3/1/1988

(10) WATER LEVELS:

Depth of first water, if known 25.5 ft.
Standing level after well completion _____ ft.

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

(11) WELL TESTS:

Was well test made? Yes No If yes, by whom? _____
Type of test Pump Air lift
Bailer
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Was electric log made Yes No If yes, attach copy to this report

Signed _____ (Well Driller)
NAME Hew Drilling
Address P.O. Box 51182
City Palo Alto, CA ZIP 94303
License No. 384167 Date of this report _____

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

MW. ✓
AD. ✓

Do not fill in

No. 259763

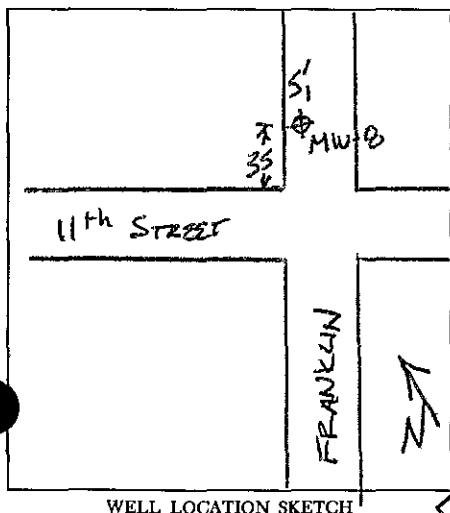
Notice of Intent No. _____
Local Permit No. or Date _____

State Well No. 15/4W3599
Other Well No. _____

(1) OWNER: [Redacted]
(2) LOCATION OF WELL (See instructions):
County Alameda Owner's Well Number MW-8
Well address if different from above 11th-Franklin, Oakland
Township 15 Range 4W Section _____
Distance from cities, roads, railroads, fences, etc. _____

(12) WELL LOG: Total depth 41 ft. Completed depth 40.0 ft.

from ft.	to ft.	Formation (Describe by color, character, size or material)
0	0.5	Asphalt
0.5	1.0	Cobblestones
1.0	6.0	Dark brown silty sand (SM) medium dense, moist with gravel
6.0	24.0	Yellowish brown sand with clay (SR) medium dense moist, very fine to fine sand
24.0	25.8	Olive gray sand (SP) dense, wet, very fine to fine sand
25.8	37.0	Brown sand (SP) dense saturated very fine to fine sand
37.0	39.8	Brown clayey gravel (GC) dense, saturated
39.8	40.5	Pale olive clay, stiff saturated, few sand



(3) TYPE OF WORK:
 New Well Deepening
 Reconstruction
 Reconditioning
 Horizontal Well
 Destruction (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
 Domestic
 Irrigation
 Industrial
 Test Well
 Municipal
 Other (Describe)

(5) EQUIPMENT:
 Rotary Reverse
 Cable Air
 Other Bucket
Hollow Stem Auger

(6) GRAVEL PACK: Monterey
 Yes No Size No. 3
 Diameter of bore 10 3/4
 Packed from 18 to 40 ft.

(7) CASING INSTALLED:
 Steel Plastic Concrete

From ft.	To ft.	Dia. in.	Gage or Wall
0.5	40	4	Sch 40

(8) PERFORATIONS:
 Type of perforation or size of screen

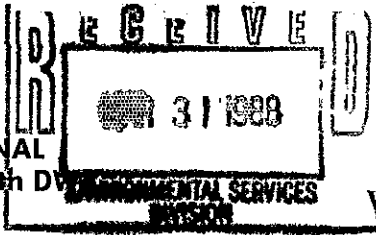
From ft.	To ft.	Slot size
20	40	.020

(9) WELL SEAL:
 Was surface sanitary seal provided? Yes No If yes, to depth 16 ft.
 Were strata sealed against pollution? Yes No Interval 16-18 ft.
 Method of sealing Bentonite

(10) WATER LEVELS:
 Depth of first water, if known 24.5 ft.
 Standing level after well completion _____ ft.

(11) WELL TESTS:
 Was well test made? Yes No If yes, by whom? _____
 Type of test Pump Bailer Air lift
 Depth to water at start of test _____ ft. At end of test _____ ft.
 Discharge _____ gal/min after _____ hours Water temperature _____
 Chemical analysis made? Yes No If yes, by whom? _____
 Was electric log made Yes No If yes, attach copy to this report

WELL DRILLER'S STATEMENT:
 This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
 Signed _____ (Well Driller)
 NAME HEW Drilling
 Address P.O. Box 51182
 City Palo Alto, CA ZIP 94303
 License No. 384167 Date of this report 3-28-88



ORIGINAL File with DWR

STATE OF CALIFORNIA THE RESOURCES AGENCY DEPARTMENT OF WATER RESOURCES WATER WELL DRILLERS REPORT

INV. ✓ AD. ✓

Do not fill in

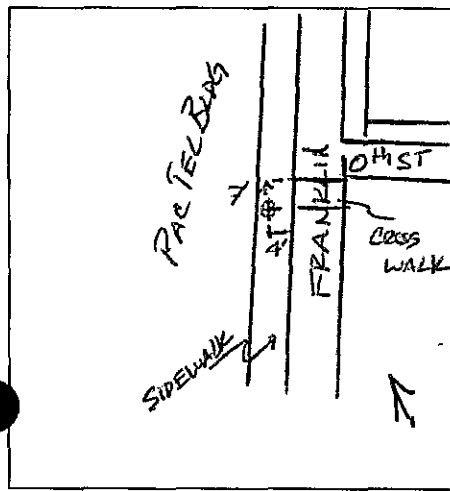
No. 259764

Notice of Intent No. Local Permit No. or Date

State Well No. 15/KW359P Other Well No.

(1) OWNER: (2) LOCATION OF WELL (See instructions): County Alameda Owner's Well Number MW-7 Well address if different from above 10th & Franklin Township 15 Range 4W Section Distance from cities, roads, railroads, fences, etc.

Table with 3 columns: Depth (ft.), Formation (Describe by color, character, size or material), and Well Log entries. Includes entries like Concrete, Base rock, Dark brown silty sand, etc.



(3) TYPE OF WORK: New Well [X] Deepening [] Reconstruction [] Reconditioning [] Horizontal Well [] Destruction [] (Describe destruction materials and procedures in Item 12) (4) PROPOSED USE: Domestic [X] Irrigation [] Industrial [] Test Well [X] Municipal [] Other [X] (Describe)

(5) EQUIPMENT: Rotary [] Cable [] Other [X] Reverse [] Air [] Bucket [] Hollow stem Auger

(6) GRAVEL PACK: Monterey Yes [] No [X] Diameter of bore 10 2 4 Packed from 18 to 43 ft.

(7) CASING INSTALLED: Steel [] Plastic [X] Concrete [] Table with columns: From ft., To ft., Dia. in., Gage or Wall, From ft., To ft., Slot size.

(8) PERFORATIONS: Type of perforation or size of screen

(9) WELL SEAL: Was surface sanitary seal provided? Yes [X] No [] If yes, to depth 16 ft. Were strata sealed against pollution? Yes [X] No [] Interval 16-18 ft. Method of sealing Bentonite

Work started 3/7 1988 Completed 3/7 1988

(10) WATER LEVELS: Depth of first water, if known 26.0 ft. Standing level after well completion

WELL DRILLER'S STATEMENT: This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

(11) WELL TESTS: Was well test made? Yes [] No [] Type of test Pump [] Bailer [] Air lift [] Depth to water at start of test ft. At end of test ft. Discharge gal/min after hours Water temperature Chemical analysis made? Yes [] No [] If yes, by whom? Was electric log made Yes [] No [] If yes, attach copy to this report

Signed HEW Drilling (Well Driller) NAME HEW Drilling (Person, firm, or corporation) (Typed or printed) Address P.O. Box 51182 City Palo Alto, CA ZIP 94303 License No. 384167 Date of this report 3/28/88

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

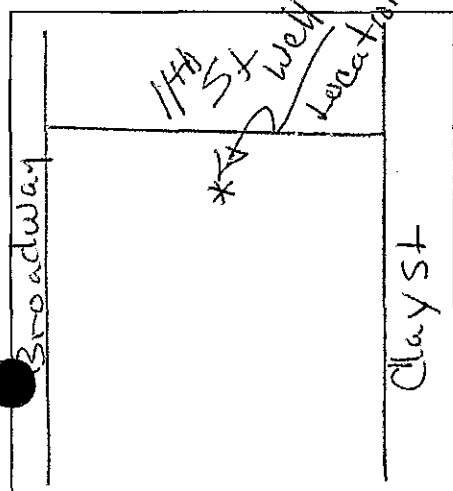
Do not fill in
No. 291733

Notice of Intent No. _____
Local Permit No. or Date 90383

State Well No. 1514W-35 F12
Other Well No. _____

(1) OWNER: Name _____
Address _____
City _____
(2) LOCATION OF WELL (See instructions):
County ZONE "7" Owner's Well Number _____
Well address if different from above 1111 BROADWAY
Township OAKLAND Range _____ Section _____
Distance from cities, roads, railroads, fences, etc. _____

(12) WELL LOG: Total depth 480ft. Completed depth 470 ft.	
from ft.	to ft. Formation (Describe by color, character, size or material)
0	15 fine sand & gravel with brown clay
15	45 tan clay & sand
45	55 blue clay
55	72 sand & gravel
72	75 brown clay
75	312 blue clay
312	318 sand
318	425 blue clay
425	435 brown sand & blue clay
435	475 sandy shale/getting hard
475	480 hard rock dark gray



(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well
Destruction (Describe destruction materials and procedures in Item 12)
(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Municipal
Other (Describe)

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other Bucket

(6) GRAVEL PACK: PEA
Yes No Size 1/8"-2"
Diameter of bore 12"
Packed from 90' to 470 ft.

(7) CASING INSTALLED:

From ft.	To ft.	Dia. in.	Gage or Wall
Steel 0	50	16	.250
Plastic 0	470	6 sch 40	

(8) PERFORATIONS: SAW CUT SCREEN

From ft.	To ft.	Slot size
180	240	.032
300	340	.032
360	380	.032

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth 90 ft.
Were strata sealed against pollution? Yes No Interval _____ ft.
Method of sealing CEMENT NEAT

(10) WATER LEVELS:
Depth of first water, if known UKN ft.
Standing level after well completion UKN ft.

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? DRILLER
Type of test Pump Bailer Air lift
Depth to water at start of test _____ ft. At end of test 400 ft.
Discharge 25 gal/min after 1 hours Water temperature UKN
Chemical analysis made? Yes No If yes, by whom? _____
Was electric log made Yes No If yes, attach copy to this report

Work started 9/7 19 90 Completed 9/23 19 90

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Signed _____ (Well Driller)
NAME GLENN MARTELL & SON, INC.
Address 1818 LOVERIDGE RD.
City PITTSBURG, CA ZIP 94565
License No. 510952 Date of this report 11/28/90

291733

GEO-HYDRO-DATA

INCORPORATED

GROUNDWATER LOG

COMPANY : ██████████
 WELL : 1
 LOCATION/FIELD : OAKLAND
 COUNTY : ALAMEDA
 STATE : CALIFORNIA, U.S.A.
 SECTION : N/A
 TOWNSHIP : N/A
 RANGE : N/A

OTHER SERVICES:
 INVOICE-
 7283
 300 PPM

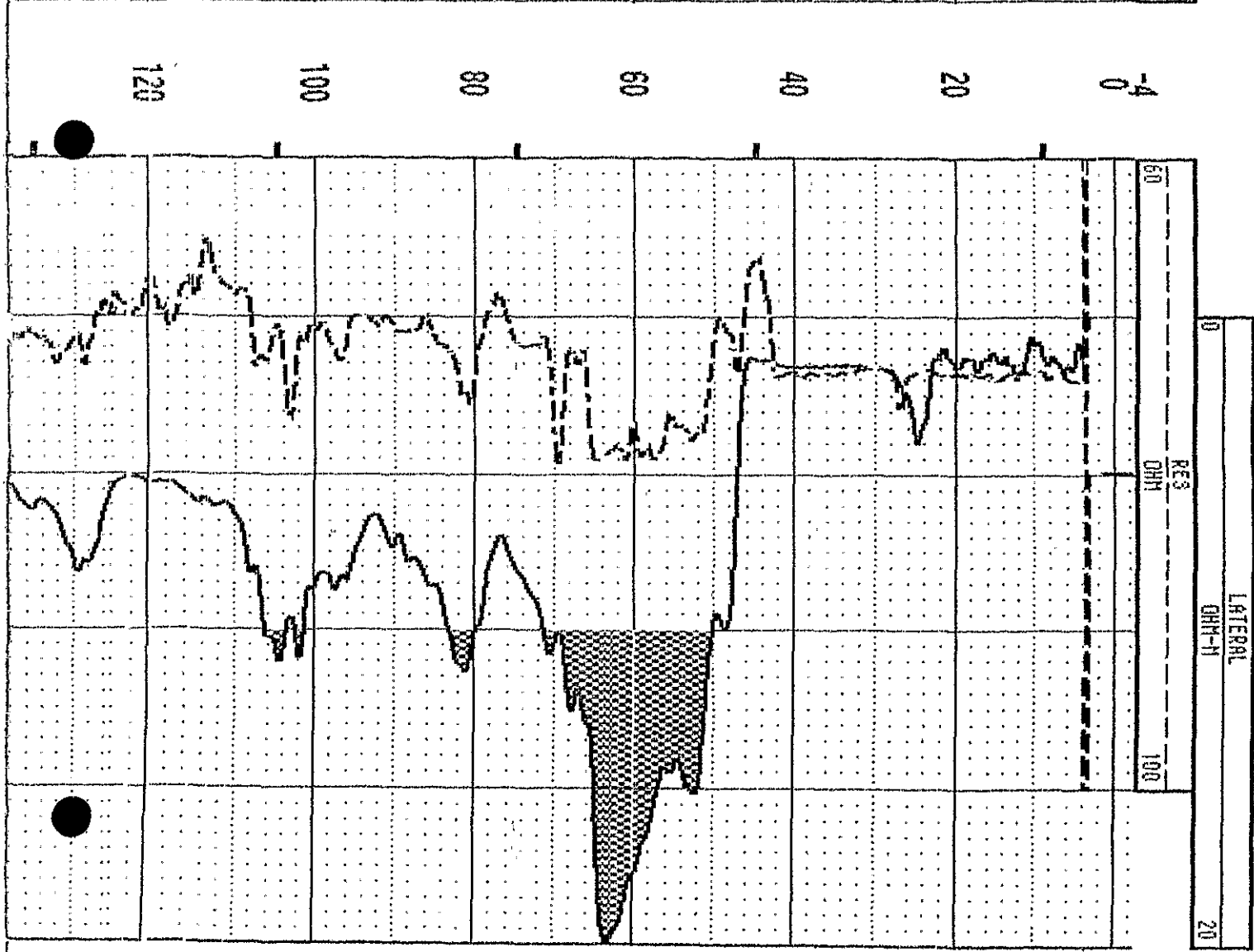
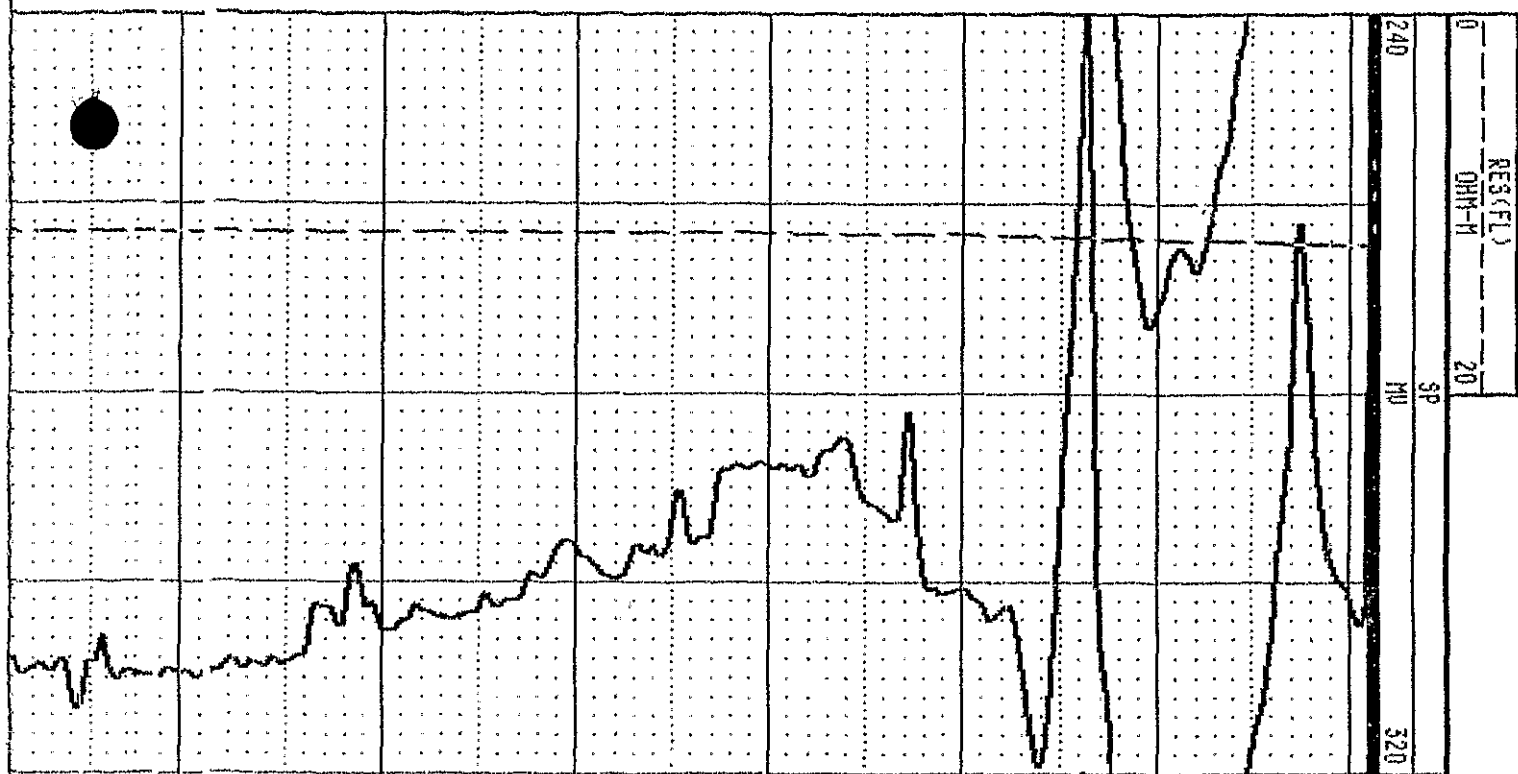
DATE : 09/14/90 PERMANENT DATUM : G.L.
 DEPTH DRILLER : 400 FEET ELEV. PERM. DATUM: N/A
 LOG BOTTOM : 400.00 LOG MEASURED FROM: G.L.
 LOG TOP : -2.30 DRL MEASURED FROM: G.L.
 CASING DRILLER : 50 LOGGING UNIT : 2
 CASING TYPE : STEEL FIELD OFFICE : STOCKTON, CA
 CASING THICKNESS: .125 RECORDED BY : D SHANHOLTZR

BIT SIZE : 6.75 BOREHOLE FLUID : CLAY/GEL FILE : ORIGINAL
 MAGNETIC DECL. : - RM : - LOG TYPE : 9041A
 MATRIX DENSITY : - RM TEMPERATURE : - LOG : 0
 FLUID DENSITY : - MATRIX DELTA T : - PLOT : GHD 4
 NEUTRON MATRIX : M/A FLUID DELTA T : - THRESH: 300
 REMARKS :

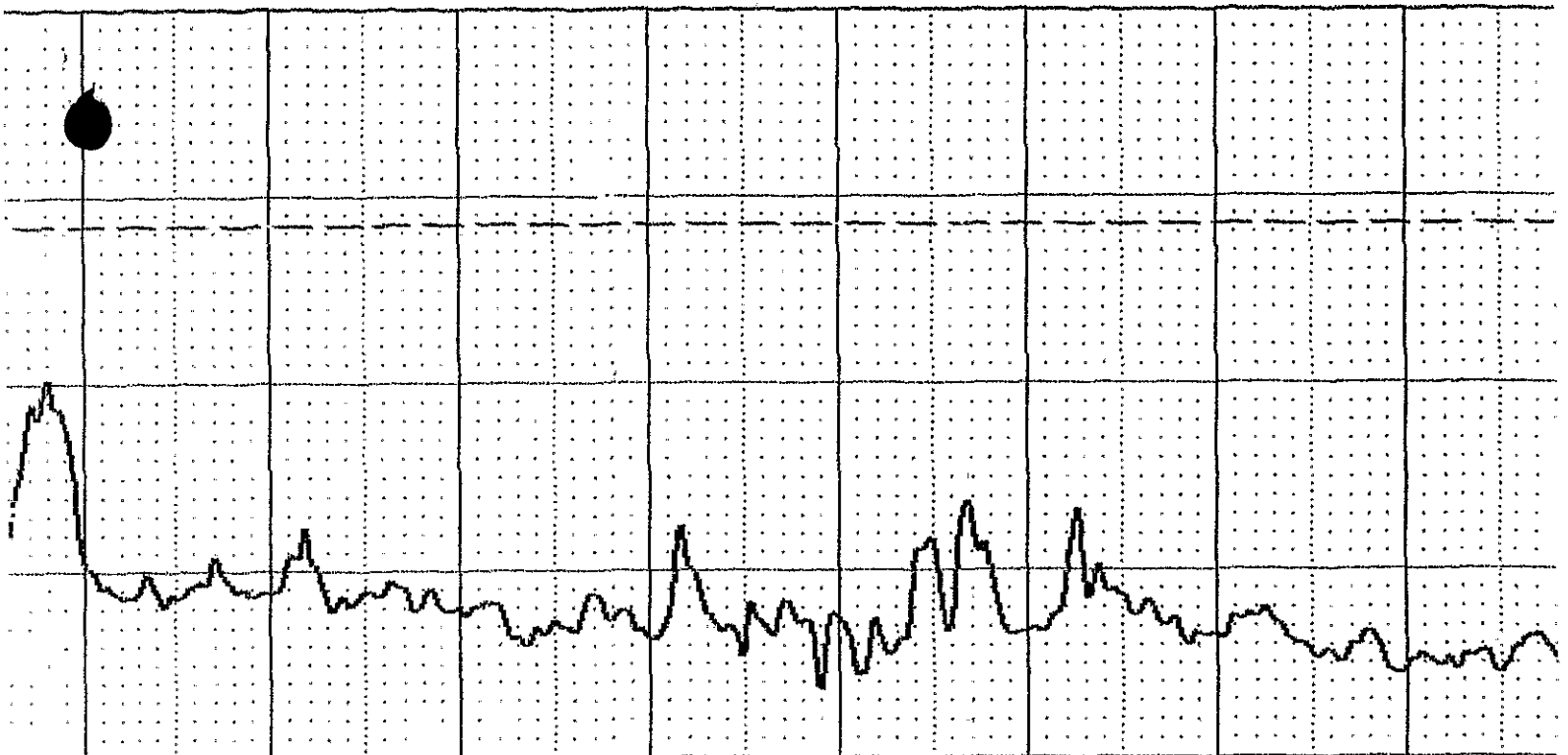
DRILLED BY GLENN MARTEL AND SON DRILLING, PITTSBURG, CA. WITNESSED-DRILLER
 WATER QUALITY-

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

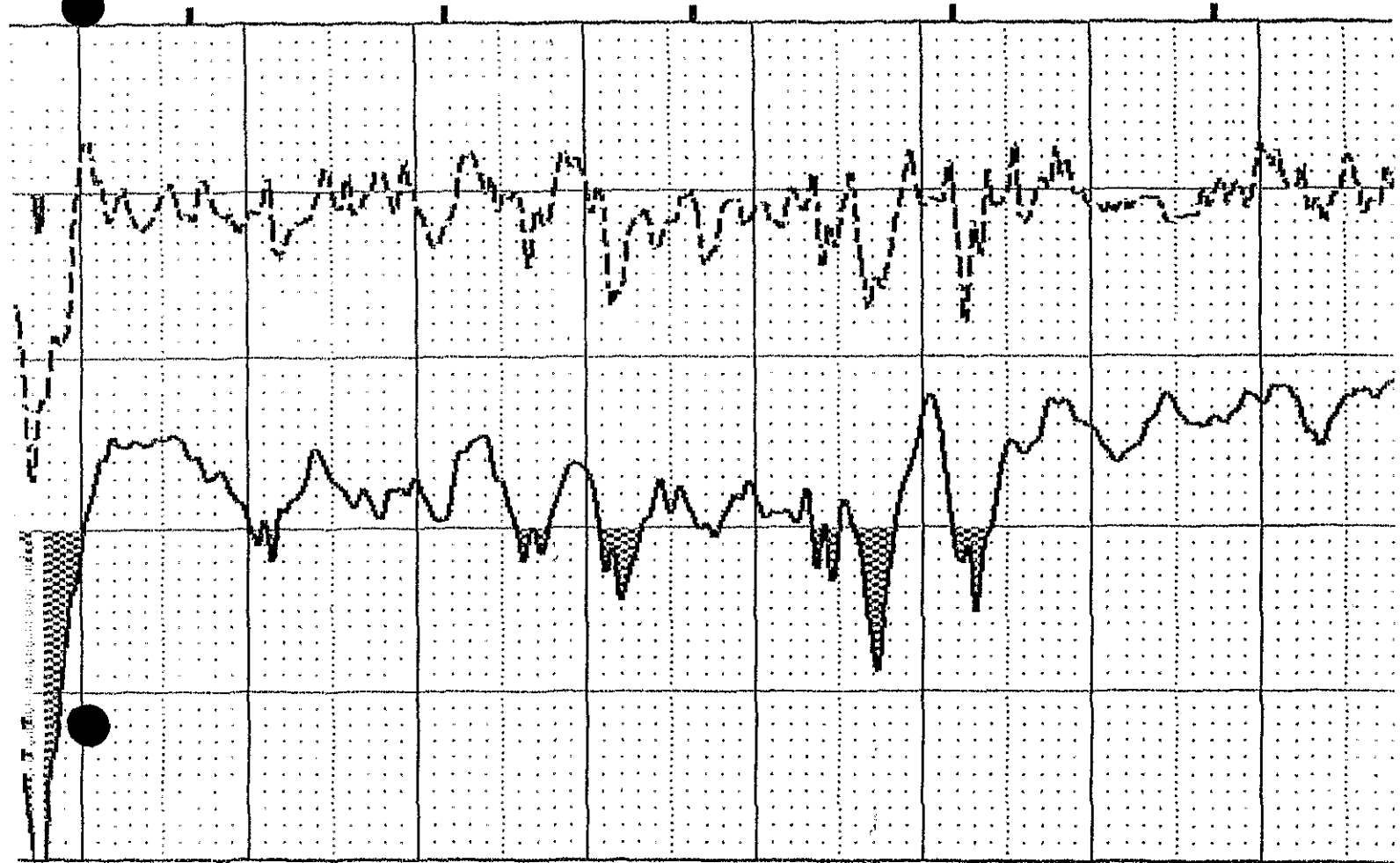
291753

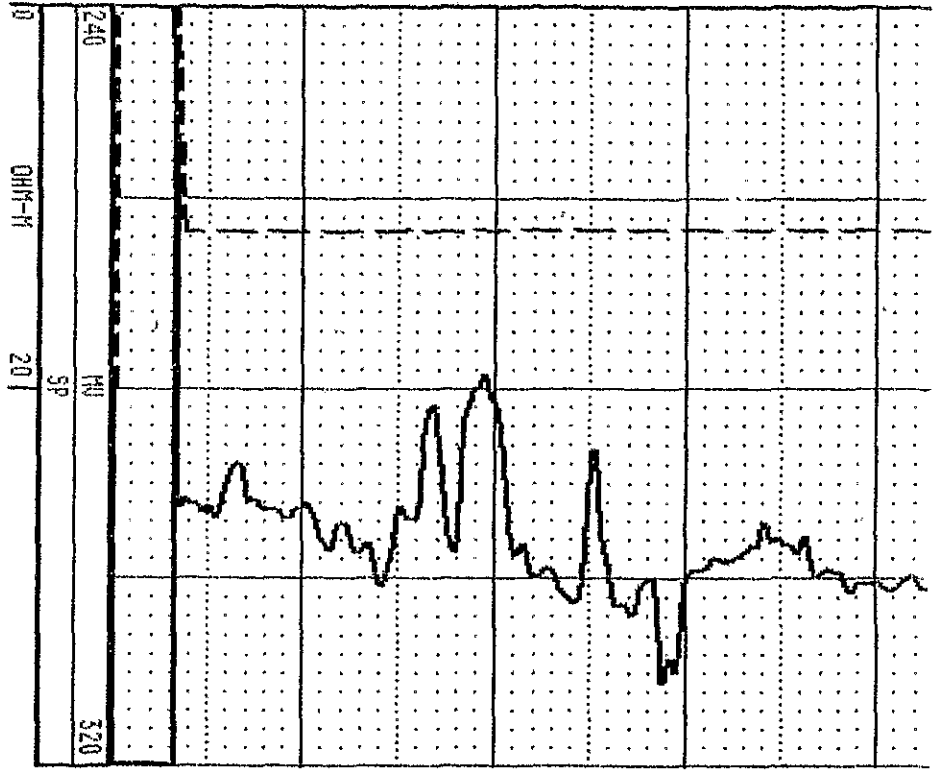


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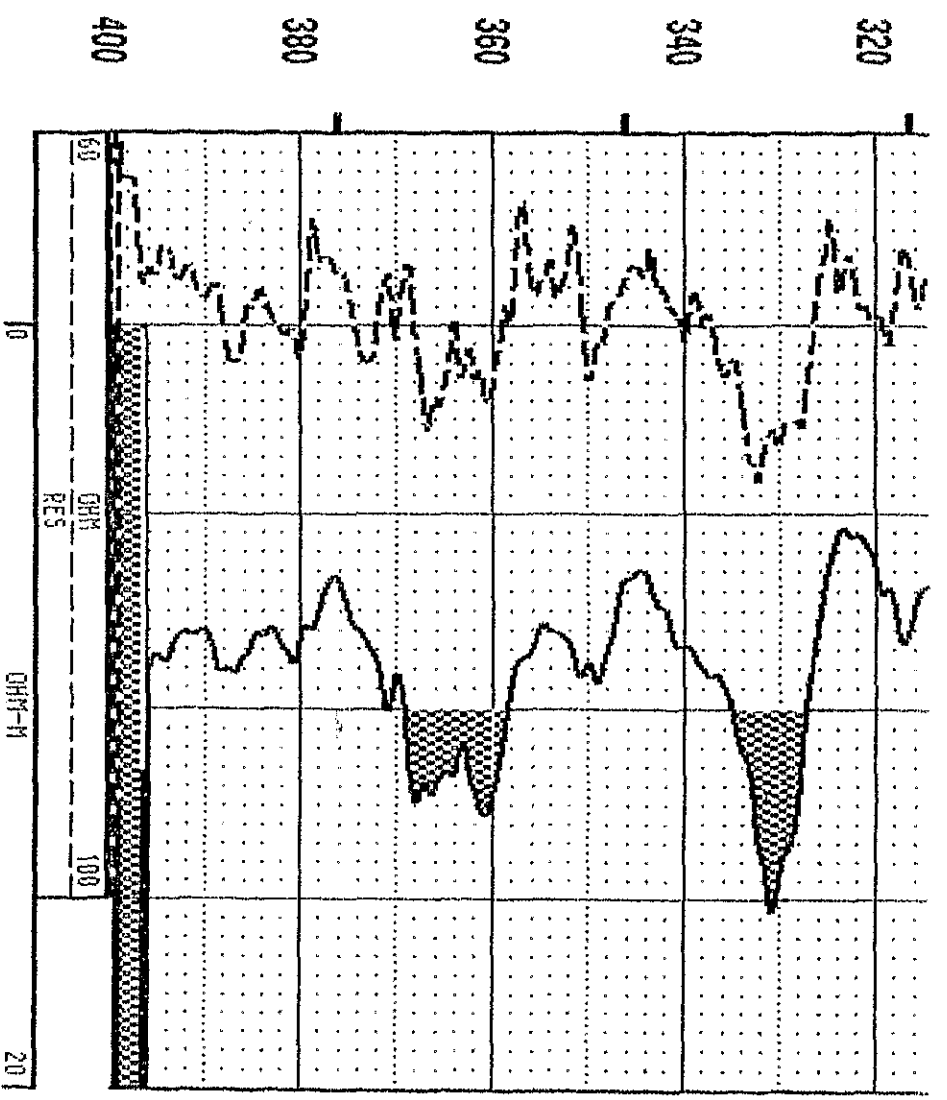


300 280 260 240 220 200 180 160





RES(FL)



LATERAL

14TH STREET 316095A- 1S/4W 35D19-4C

V-19

V-10⁺
V-4⁺ V-7⁺ V-13⁺ V-28⁺

V-27⁺
V-16⁺ V-11⁺ V-5⁺

V-20⁺ V-14⁺ V-8⁺ V-2⁺

MARTIN LUTHER KING JR. WAY

V-23⁺ V-17⁺ V-12⁺ V-6⁺

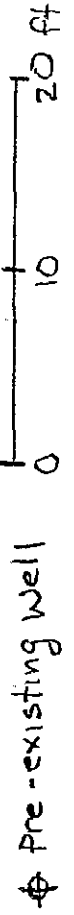
V-15⁺ V-9⁺ V-3⁺ V-24⁺ 43⁺

V-18⁺

EW-2



V-5⁺ NEW WELL



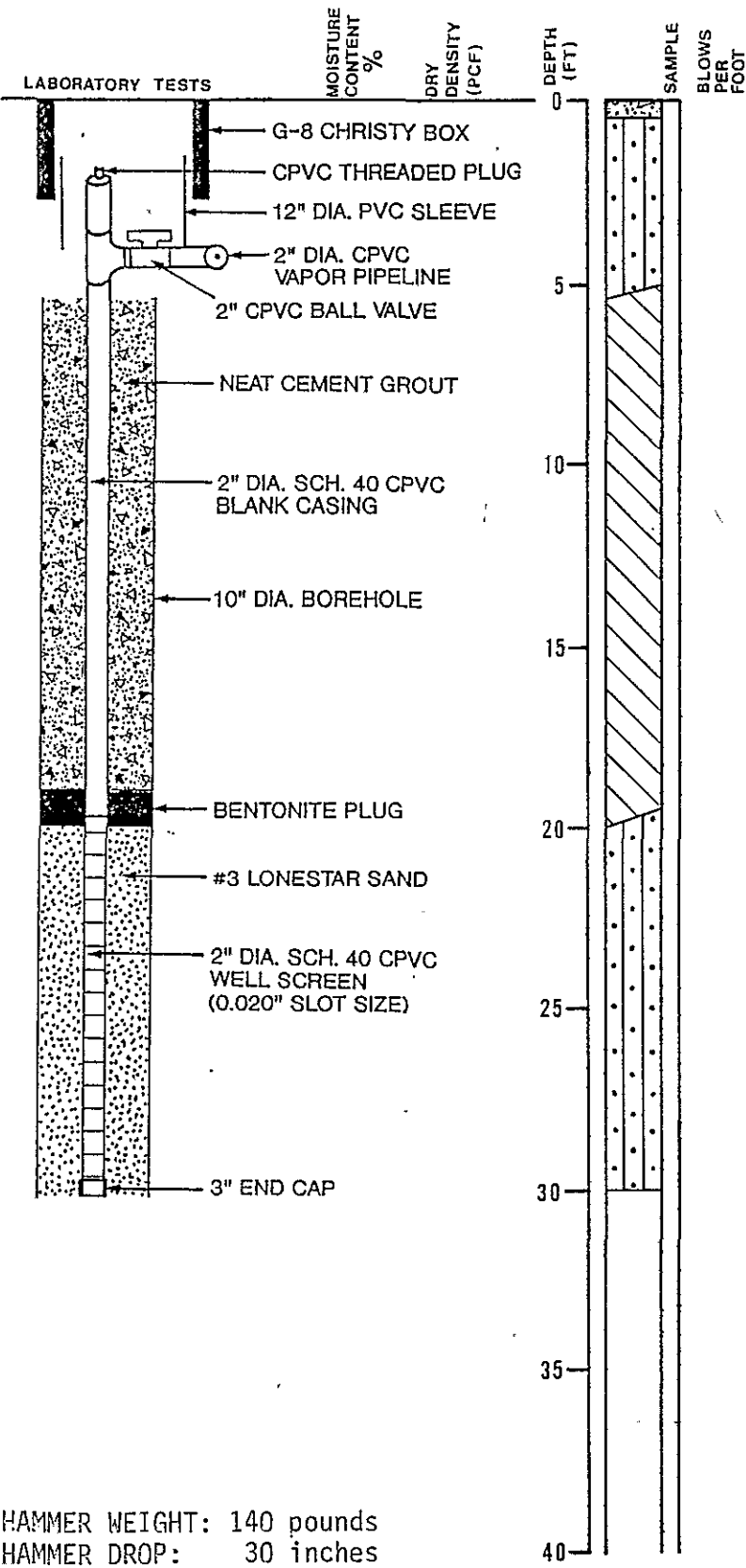
SCALE

OAKLAND

ZONE 7 PERMIT # 90699

LOG OF TEST BORING V-1

EQUIPMENT 10" Hollow Stem Auger
 DATE DRILLED 11/6/99
 ELEVATION --



CONCRETE SLAB - 6" thick
 BROWN SILTY SAND (SM)
 medium dense, moist

BROWN CLAYEY SAND (SC)
 medium dense, moist

BROWN SILTY SAND (SM/SP)
 dense, moist

HAMMER WEIGHT: 140 pounds
 HAMMER DROP: 30 inches

Subsurface Consultants	14TH & MARTIN LUTHER KING JR. WAY		PLATE
	JOB NUMBER 430.011	DATE 12/12/90		APPROVED

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 316095A-V

Notice of Intent No. _____
Local Permit No. or Date 90699 (Zone 7)

State Well No. 15/4W 35D19-40
Other Well No. _____

(1) OWNER: Name _____ (12) WELL LOG: Total depth 30 ft. Completed depth 30 ft.
Address _____ from ft. to ft. Formation (Describe by color, character, size or material)
City _____

(2) LOCATION OF WELL (See instructions):
County ALAMEDA Owner's Well Number V1-V24
Well address if different from above MARTIN LUTHER KING DR.
Township _____ Range 214TH ST., OAKLAND Section _____
Distance from cities, roads, railroads, fences, etc. _____

SEE ATTACHED MAP

(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well
Destruction (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Municipal
Other (Describe)

WELL LOCATION SKETCH

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other Bucket
SUGAR

(6) GRAVEL PACK:
Yes No Size 1/8" SAND
Diameter of bore 10" ~~12"~~
Packed from 30 to 19 ft.

(7) CASING INSTALLED: Steel Plastic Concrete

(8) PERFORATIONS: Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	20	3"	SE440	20	30	2020
		2"				

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth 18 ft.
Were strata sealed against pollution? Yes No Interval 0-18 ft.
Method of sealing BENTONINE PELLETS & NEAT CEMENT

(10) WATER LEVELS:
Depth of first water, if known 19 ft.
Standing level after well completion _____ ft.

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? _____
Type of test Pump Bailer Air lift
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Was electric log made Yes No If yes, attach copy to this report

SEE ATTACHED LOGS

NOT FOR PUBLIC USE SEC. 13752

Work started 11/5 19 90 Completed 11/13 19 90
WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Signed Kieland (Well Driller)
NAME SOILS EXPLORATION SERVICES, INC.
(Person, firm, or corporation) (Typed or printed)
Address 561 BUCKEYE ST.
City VACAVILLE ZIP 95687
License No. C57 562626 Date of this report 12/19/90

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 316095 ^B

Notice of Intent No. _____
Local Permit No. or Date 90699 (Zone 7)

State Well No. 15/4W 35 D19-40
Other Well No. _____

(1) OWNER: _____

Address _____

City _____

(18) WELL LOG: Total depth 30 ft. Completed depth 30 ft.
from ft. to ft. Formation (Describe by color, character, size or material)

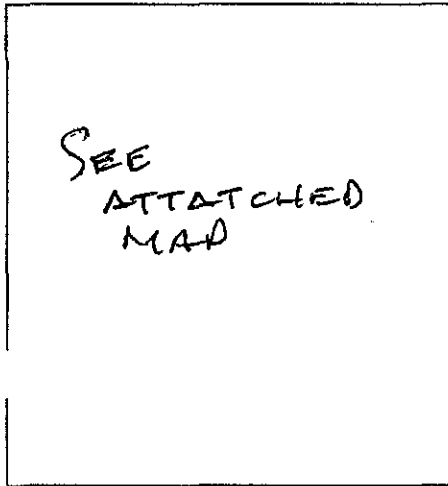
(2) LOCATION OF WELL (See instructions):

County ALAMEDA Owner's Well Number N1-V24

Well address if different from above MARTIN LUTHER KING DR.

Township _____ Range 2 14TH ST., OAKLAND Section _____

Distance from cities, roads, railroads, fences, etc. _____



- (3) TYPE OF WORK:
- New Well Deepening
 - Reconstruction
 - Reconditioning
 - Horizontal Well
 - Destruction (Describe destruction materials and procedures in Item 12)

- (4) PROPOSED USE:
- Domestic
 - Irrigation
 - Industrial
 - Test Well
 - Municipal
 - Other (Describe)

WELL LOCATION SKETCH

(5) EQUIPMENT:

- Rotary Reverse
- Cable Air
- Other AUGER Bucket

(6) GRAVEL PACK:

- Yes No Size 3/32 SAND
- Diameter of bore 10" _____
- Packed from 30 to 19 ft.

(7) CASING INSTALLED:

- Steel Plastic Concrete

(8) PERFORATIONS:

Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	20	2"	5x440	20	30	0.020

(9) WELL SEAL:

Was surface sanitary seal provided? Yes No If yes, to depth 18 ft.

Were strata sealed against pollution? Yes No Interval 0-18 ft.

Method of sealing BENTONITE PELLETS & NEAT CEMENT

(10) WATER LEVELS:

Depth of first water, if known 29 ft.

Standing level after well completion _____ ft.

(11) WELL TESTS:

Was well test made? Yes No If yes, by whom? _____

Depth of test _____ ft. Pump Bailer Air lift

Depth to water at start of test _____ ft. At end of test _____ ft.

Discharge _____ gal/min after _____ hours Water temperature _____

Chemical analysis made? Yes No If yes, by whom? _____

Was electric log made? Yes No If yes, attach copy to this report

SEE ATTACHED LOGS
SEE ATTACHED MAP
PUBLIC USE ONLY
WATER CODE SEC 43752

Work started 11/5 19 90 Completed 11/13 19 90

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Signed Richard [Signature] (Well Driller)

NAME SOILS EXPLORATION SERVICES, INC. (Person, firm, or corporation) (Typed or printed)

Address 561 BUCKEYE ST.

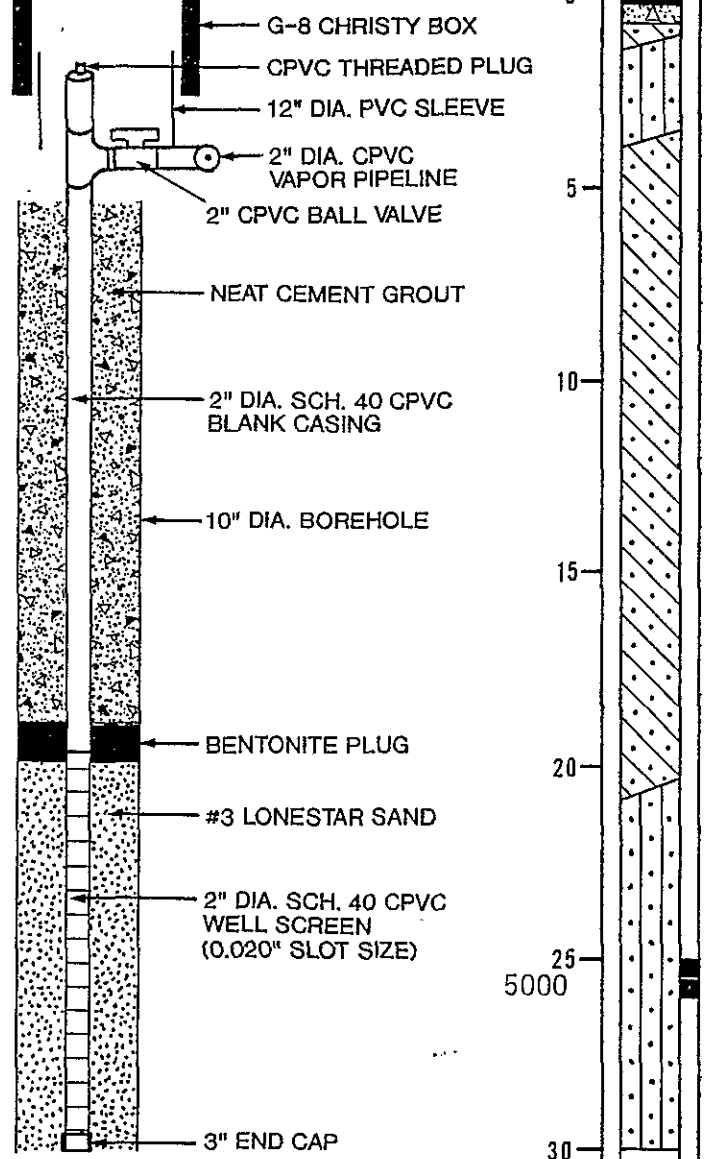
City VACAVILLE ZIP 95687

License No. CS7 582126 Date of this report 12/19/90

LOG OF TEST BORING V-2

EQUIPMENT 10" Hollow Stem Auger
 DATE DRILLED 11/13/90
 ELEVATION --

MOISTURE CONTENT %
 DRY DENSITY (PCF)
 OVM (ppm)
 DEPTH (FT)
 SAMPLE
 BLOWS PER FOOT



ASPHALT CONCRETE - 3" thick
 CONCRETE PAVEMENT - 6" thick
 BROWN GRAVELLY SAND (SC)
 medium dense, moist (fill)
 BROWN SILTY SAND (SM)
 medium dense, moist
 BROWN CLAYEY SAND (SC)
 dense, moist

sandy lens at 12 feet

BROWN SILTY SAND (SM-SP)
 dense, moist

5000 61

HAMMER WEIGHT: 140 pounds
 HAMMER DROP: 30 inches

Subsurface Consultants

14TH & MARTIN LUTHER KING JR. WAY

JOB NUMBER
 430.011

DATE
 12/12/90

APPROVED

PLATE

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATERWELL DRILLERS REPORT

Do not fill in
No. 316095 ^C
State Well No. 15/4W 35 D19-40
Other Well No. _____

Notice of Intent No. _____
Local Permit No. or Date 90699 (Zone 7)

(1) OWNER: Name _____
Address _____
City _____

WELL LOG: Total depth 30 ft. Completed depth 30 ft.
from ft. to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions):
County ALAMEDA Owner's Well Number N1-V24
Well address if different from above MARTIN LUTHER KING JR.
Township _____ Range _____ Section _____
Distance from cities, roads, railroads, fences, etc. _____

SEE ATTACHED MAP

- (3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well

Destruction (Describe destruction materials and procedures in Item 12)

- (4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Municipal
Other (Describe)

WELL LOCATION SKETCH

- (5) EQUIPMENT:
Rotary Reverse
Cable Air
Other Bucket

- (6) GRAVEL RACK:
Yes No Size #3 SAND
Diameter of bore 10" ^{10 1/2"}
Racked from 30 to 19 ft.

- (7) CASING INSTALLED:
Steel Plastic Concrete

- (8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	20	2"	5/4 40	20	30	0.020

- (9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth 18 ft.
Were strata sealed against pollution? Yes No Interval 0-18 ft.
Method of sealing BENTONITE PELLETS & NEAT CEMENT

- (10) WATER LEVELS:
Depth of first water, if known 29 ft.
Standing level after well completion _____ ft.

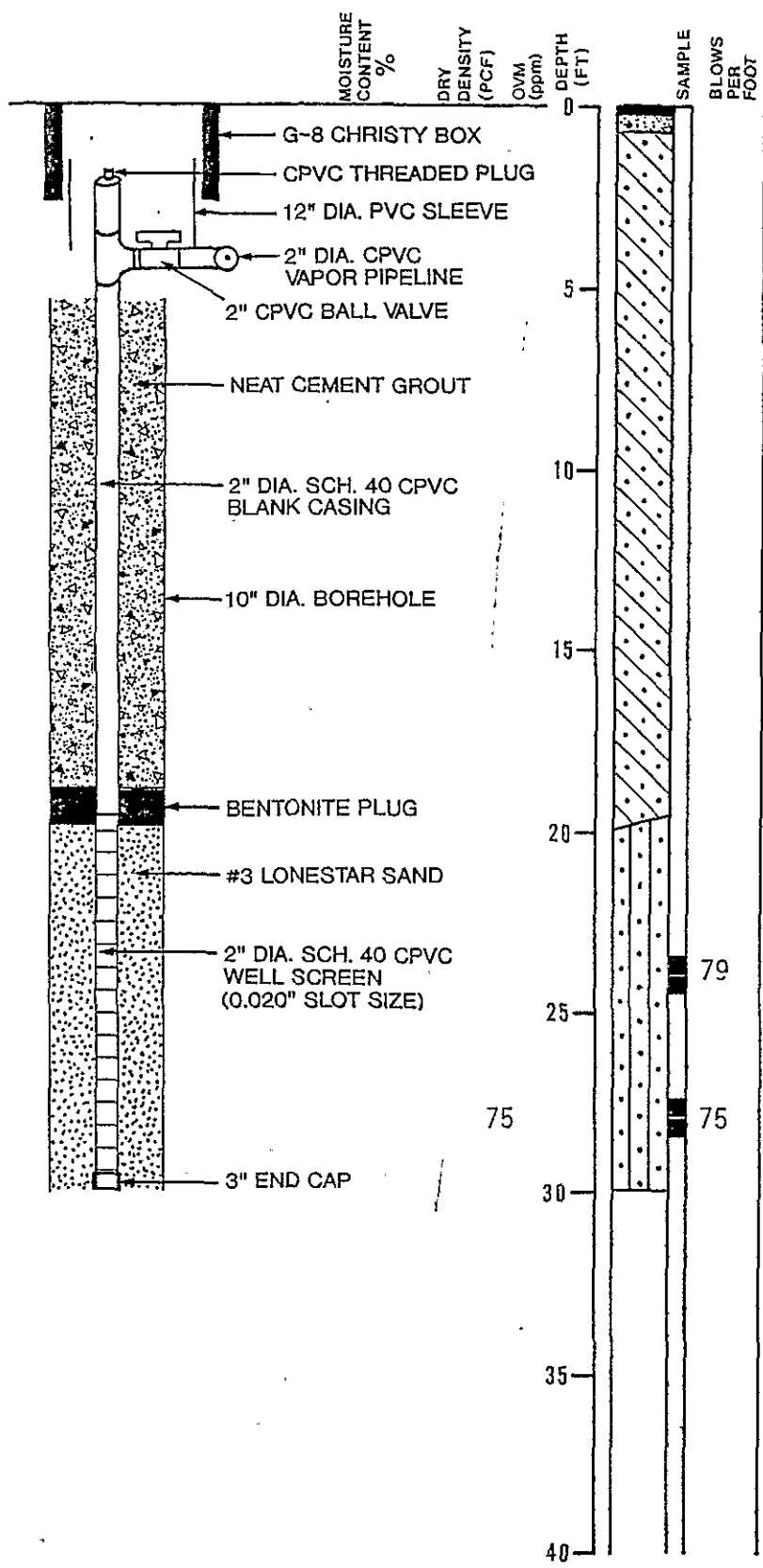
- (11) WELL TESTS:
Was well test made? Yes No If yes, by whom? _____
Type of test _____ Pump Bailer Air lift
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Was electric log made? Yes No If yes, attach copy to this report

SEE ATTACHED LOGS

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Signed Richard [Signature] (Well Driller)
NAME SOILS EXPLORATION SERVICES, INC.
Address 561 BUCKEYE ST.
City VACAVILLE ZIP 95687
License No. C57 582 626 Date of this report 12/19/90

LOG OF TEST BORING V-3

EQUIPMENT 10" Hollow Stem Auger
 DATE DRILLED 11/12/90
 ELEVATION --



Subsurface Consultants

14TH & MARTIN LUTHER KING JR. WAY
 JOB NUMBER 430.011
 DATE 12/12/90
 APPROVED

PLATE

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 316095 ~~A~~ ^D

Notice of Intent No. _____
Local Permit No. or Date 90699 (Zone 7)

State Well No. 15/4W 35 D19-40
Other Well No. _____

(1) OWNER: [Redacted]
Address [Redacted]
City [Redacted]

(12) WELL LOG: Total depth 30 ft. Completed depth 30 ft.
from ft. to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions):
County ALAMEDA Owner's Well Number N1-V24
Well address if different from above MARTIN LUTHER KING JR.
214TH ST., OAKLAND
Township _____ Range _____ Section _____
Distance from cities, roads, railroads, fences, etc. _____

SEE ATTACHED MAP

(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well
Destruction (Describe destruction materials and procedures in Item 12)
(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Municipal
Other (Describe)

WELL LOCATION SKETCH

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other Auger Bucket

(6) GRAVEL RACK:
Yes No Size #3 Sand
Diameter of bore 10"
Packed from 30 to 19 ft.

(7) CASING INSTALLED:
Steel Plastic Concrete

(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall
0	20	2"	5/4 40

From ft.	To ft.	Slot size
20	30	0020

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth 18 ft.
Were strata sealed against pollution? Yes No Interval 0-18 ft.
Method of sealing BENTONITE PELLETS & NEUT CEMENT

(10) WATER LEVELS:
Depth of first water, if known 19 ft.
Standing level after well completion _____ ft.

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? _____
Type of test Pump Bailer Air lift
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Was electric log made? Yes No If yes, attach copy to this report

Work started 11/5 19 90 Completed 11/13 19 90

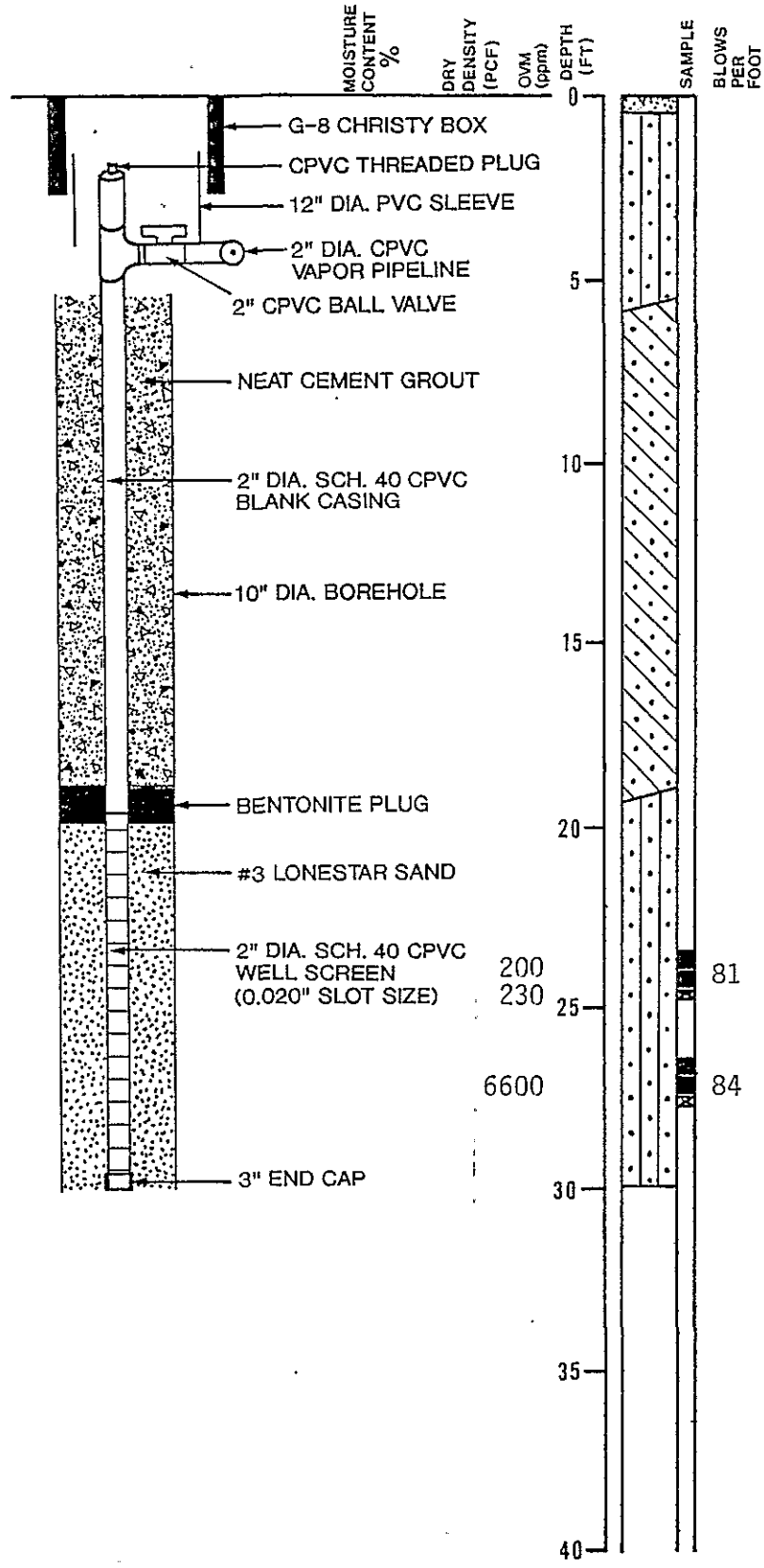
WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Signed Richard [Signature] (Well Driller)
NAME SOILS EXPLORATION SERVICES, INC.
Address 561 BUCKEYE ST.
City VACAVILLE ZIP 95687
License No. CS7 582 126 Date of this report 12/19/90

LOG OF TEST BORING V-4

EQUIPMENT 10" Hollow Stem Auger

DATE DRILLED 11/5/90

ELEVATION --



CONCRETE SLAB - 6" thick
 BROWN SILTY SAND (SM)
 medium dense, moist

BROWN CLAYEY SAND (SC)
 medium dense, moist

BROWN SILTY SAND (SM-SP)
 dense, moist

Subsurface Consultants

14TH & MARTIN LUTHER KING JR. WAY

PLATE

JOB NUMBER
 430.011

DATE
 12/12/90

APPROVED

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATERWELL DRILLERS' REPORT

Do not fill in

No. 316095 E-7

Notice of Intent No. _____
Local Permit No. or Date 90699 (Zone 7)

State Well No. 15/4W 35D19-40
Other Well No. _____

(1) OWNER: _____
Address _____
City _____

(18) WELL LOG: Total depth 30 ft. Completed depth 30 ft.
from ft. to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions):
County ALAMEDA Owner's Well Number N1-V24
Well address if different from above MARTIN LUTHER KING JR.
Township _____ Range 2 14TH ST., OAKLAND Section _____
Distance from cities, roads, railroads, fences, etc. _____

SEE ATTACHED MAP

(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well
Destruction (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Municipal
Other (Describe)

WELL LOCATION SKETCH

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other AUGER Bucket

(6) GRAVEL PACK:
Yes No Size 1/2 SAND
Diameter of bore 10"
Packed from 30 to 19 ft.

(7) CASING INSTALLED:
Steel Plastic Concrete

(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	20	2"	5x4x4	20	30	0.020

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth 13 ft.
Were strata sealed against pollution? Yes No Interval 0-13 ft.
Method of sealing BENTONITE PELLETS & NEAT CEMENT

(10) WATER LEVELS:
Depth of first water, if known 29 ft.
Standing level after well completion _____ ft.

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? _____
Type of test Pump Bailor Air lift
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Was electric log made? Yes No If yes, attach copy to this report

Work started 11/5 19 90 Completed 1/13 19 90

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

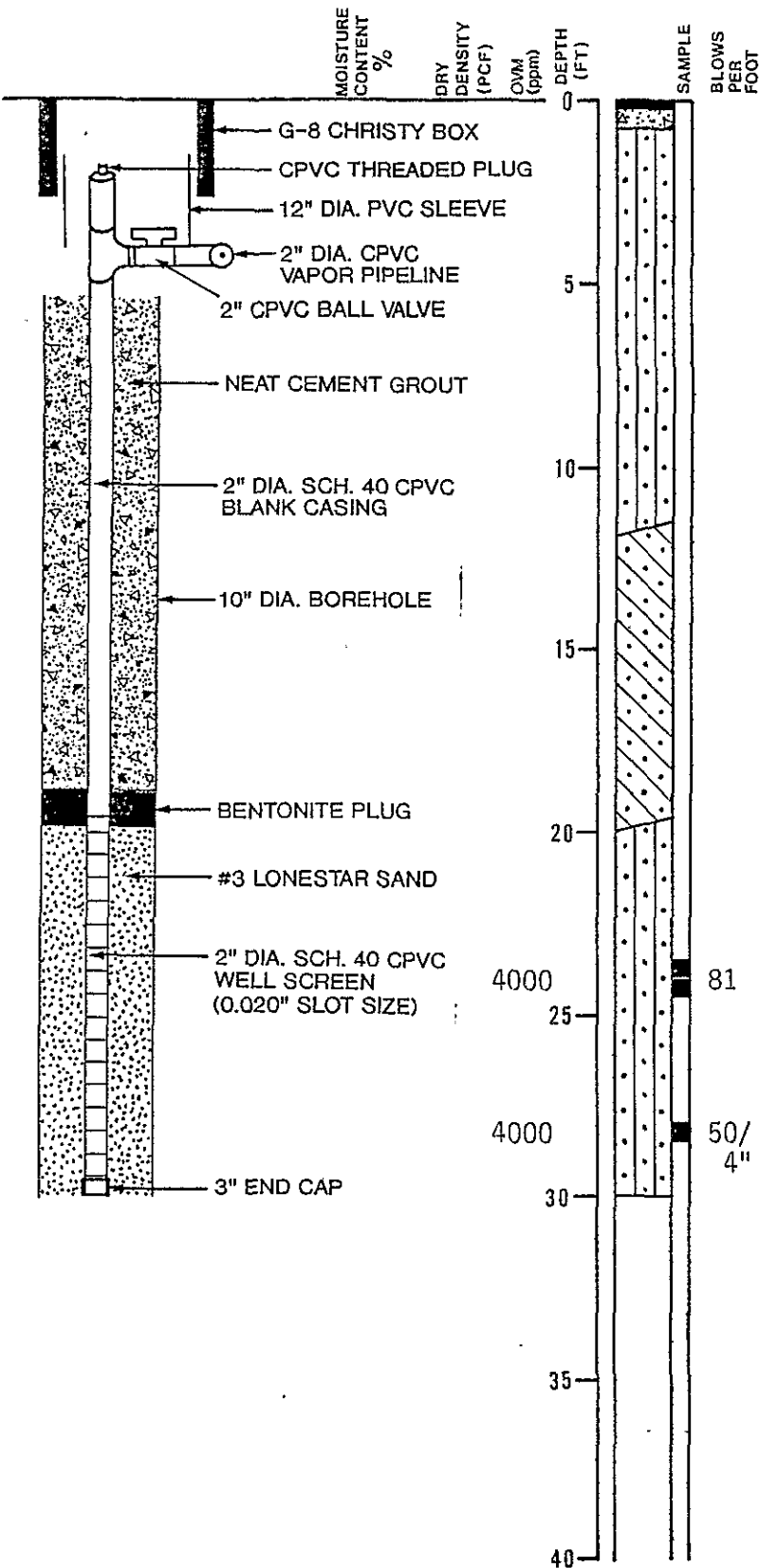
Signed Richard [Signature] (Well Driller)
NAME SOILS EXPLORATION SERVICES, INC.
Address 561 BUCKEYE ST.
City VACAVILLE ZIP 95687
License No. CS7 582126 Date of this report 12/19/90

LOG OF TEST BORING V-5

EQUIPMENT 10" Hollow Stem Auger

DATE DRILLED 11/6/90

ELEVATION --



ASPHALT CONCRETE - 3" thick
 CONCRETE PAVEMENT - 6" thick
 GRAY BROWN SILTY SAND (SM)
 medium dense, moist
 color changes to brown at 3 feet

BROWN CLAYEY SAND (SC)
 medium dense to dense, moist

BROWN SILTY SAND (SM-SP)
 dense, moist

strong odor

81
 50/
 4"

Subsurface Consultants

14TH & MARTIN LUTHER KING JR. WAY

PLATE

JOB NUMBER
 430.011

DATE
 12/12/90

APPROVED

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 316095 ~~F-4~~

Notice of Intent No. _____
Local Permit No. or Date 90699 (Zone 7)

State Well No. 15/4W 35D19-40
Other Well No. _____

(1) OWNER: Name _____
Address _____
City _____

(18) WELL LOG: Total depth 30 ft. Completed depth 30 ft.
from ft. to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions):
County ALAMEDA Owner's Well Number 11-V24
Well address if different from above MARTIN LUTHER KING JR.
TOWNSHIP _____ Range 2 1/4th ST., OAKLAND Section _____
Distance from cities, roads, railroads, fences, etc. _____

SEE ATTACHED MAP

(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well

Destruction (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Municipal
Other (Describe)

WELL LOCATION SKETCH

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other Bucket
Auger

(6) GRAVEL PACK:
Yes No Size 3 Sand
Diameter of bore 10 1/2"
Packed from 30 to 19 ft.

(7) CASING INSTALLED:
Steel Plastic Concrete
From ft. To ft. Dia. in. Gage or Wall
0 20 2" 5/4 40
2"

(8) PERFORATIONS:
Type of perforation or size of screen
From ft. To ft. Slot size
20 30 0.020

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth 18 ft.
Were strata sealed against pollution? Yes No Interval 0-18 ft.
Method of sealing BENTONITE PELLETS + NEAT CEMENT

(10) WATER LEVELS:
Depth of first water, if known 19 ft.
Standing level after well completion _____ ft.

(11) WELL TESTS:
Was well test made? Yes No
Type of test Pump Bailer Air lift
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Was electric log made Yes No If yes, attach copy to this report

Work started 11/5 19 90 Completed 11/13 19 90
WELL DRILLER'S STATEMENT:

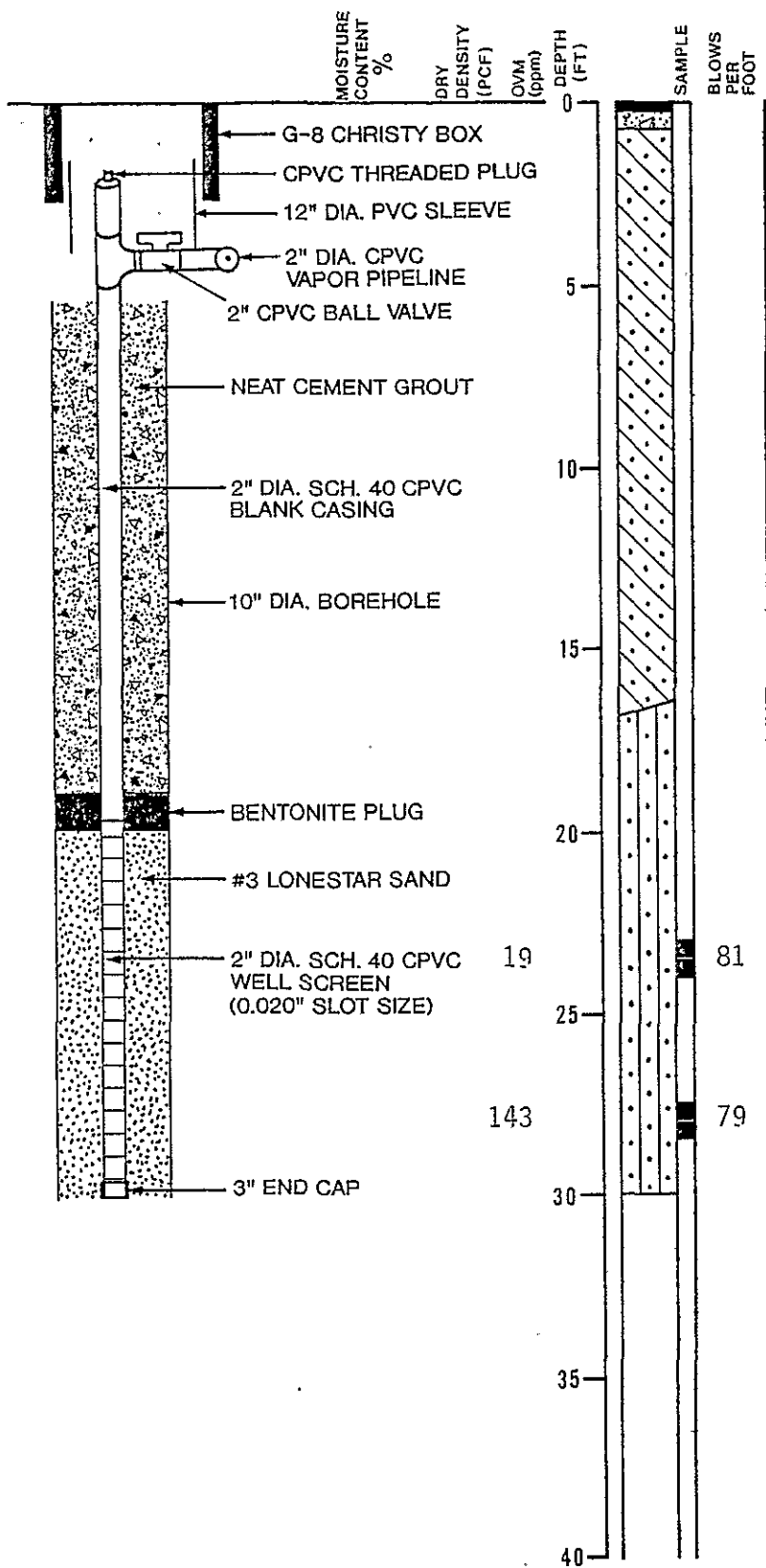
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Signed Richard [Signature] (Well Driller)
NAME SOILS EXPLORATION SERVICES, INC.
Address 561 BUCKEYE ST.
City VACAVILLE ZIP 95687
License No. C57 582 026 Date of this report 12/19/90

LOG OF TEST BORING V-6

EQUIPMENT 10" Hollow Stem Auger

DATE DRILLED 11/12/90

ELEVATION --



ASPHALT CONCRETE - 3" thick
 CONCRETE PAVEMENT - 6" thick
 BROWN CLAYEY SAND (SC)
 medium dense, moist

BROWN SILTY SAND (SM-SP)
 dense, moist

Subsurface Consultants

14TH & MARTIN LUTHER KING JR. WAY

JOB NUMBER

430.011

DATE

12/12/90

APPROVED

PLATE

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 316095 ~~6-7~~

Notice of Intent No. _____
Local Permit No. or Date 90699 (Zone 7)

State Well No. 15/4W 35D19-40
Other Well No. _____

(1) OWNER: _____
Address _____
City _____

(12) WELL LOG: Total depth 30 ft. Completed depth 30 ft.
from ft. to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions):
County ALAMEDA Owner's Well Number NI-V24
Well address if different from above MARTIN LUTHER KING JR.
TOWNSHIP _____ Range _____ Section _____
Distance from cities, roads, railroads, fences, etc. _____

SEE ATTACHED MAP

(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well
Destruction (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Municipal
Other (Describe)

WELL LOCATION SKETCH

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other AUGER Bucket

(6) GRAVEL PACK:
Yes No Size #3 SAND
Diameter of bore 10" ~~12"~~
Packed from 30 to 19 ft.

(7) CASING INSTALLED:
Steel Plastic Concrete

(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	20	2"	SM440	20	30	0.020

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth 18 ft.
Were strata sealed against pollution? Yes No Interval 0-18 ft.
Method of sealing BENTONITE PELLETS & NEAT CEMENT

(10) WATER LEVELS:
Depth of first water, if known 29 ft.
Standing level after well completion _____ ft.

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? _____
Type of test _____ Pump Bailer Air lift
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Was electric log made? Yes No If yes, attach copy to this report

Work started 11/5 19 90 Completed 11/13 19 90

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Signed Richard [Signature] (Well Driller)

NAME SOILS EXPLORATION SERVICES, INC. (Person, firm, or corporation) (Typed or printed)

Address 561 BUCKEYE ST.

City VACAVILLE ZIP 95687

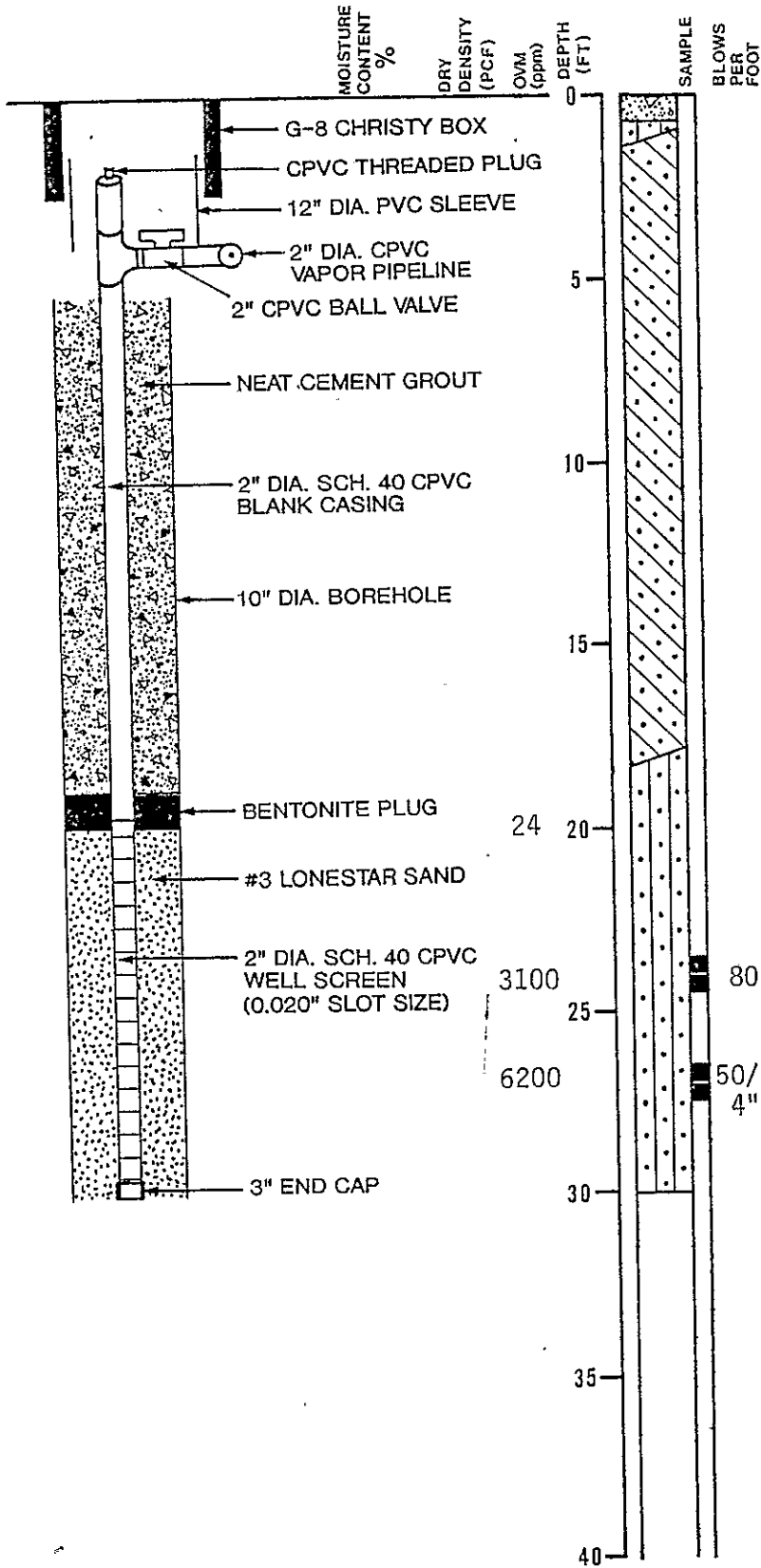
License No. CS7 582105 Date of this report 12/19/90

LOG OF TEST BORING V-7

EQUIPMENT 10" Hollow Stem Auger

DATE DRILLED 11/5/90

ELEVATION --



CONCRETE SLAB - 8" thick
 DARK BROWN SILTY SAND (SM-SP)
 medium dense, moist, with
 cobbles (fill)
 BROWN CLAYEY SAND (SC)
 medium dense, moist

BROWN SILTY SAND (SM-SP)
 dense, moist

Subsurface Consultants

14TH & MARTIN LUTHER KING JR. WAY

PLATE

JOB NUMBER 430.011

DATE 12/12/90

APPROVED

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS' REPORT

Do not fill in

No. 316095 ~~AT~~

Notice of Intent No. _____
Local Permit No. or Date 90699 (Zone 7)

State Well No. 15/4W 35 D19-40
Other Well No. _____

(1) OWNER: Name _____
Address _____
City _____

(12) WELL LOG: Total depth 30 ft. Completed depth 30 ft.
from ft. to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions):
County ALAMEDA Owner's Well Number 11-124
Well address if different from above MARTIN LUTHER KING JR.
TOWNSHIP _____ Range _____ Section _____
Distance from cities, roads, railroads, fences, etc. _____

SEE ATTACHED MAP

(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well

Destruction (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Municipal
Other
(Describe)

WELL LOCATION SKETCH

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other AUGER Bucket

(6) GRAVEL RACK:
Yes No Size 3 SAND
Diameter of bore 10
Racked from 30 to 19 ft.

(7) CASING INSTALLED:
Steel Plastic Concrete

(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall
0	20	2"	5/4 40

From ft.	To ft.	Slot size
20	30	0.020

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth 18 ft.
Were strata sealed against pollution? Yes No Interval 0-18 ft.
Method of sealing BENTONITE PELLETS & NEAT CEMENT

(10) WATER LEVELS:
Depth of first water, if known 19 ft.
Standing level after well completion _____ ft.

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? _____
Type of test Pump Bailer Air lift
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Was electric log made? Yes No If yes, attach copy to this report

Work started 11/5 19 90 Completed 11/13 19 90

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Signed Richard [Signature] (Well Driller)

NAME SOILS EXPLORATION SERVICES, INC.
(Person, firm, or corporation) (Typed or printed)

Address 561 BUCKEYE ST.

City VACAVILLE ZIP 95687

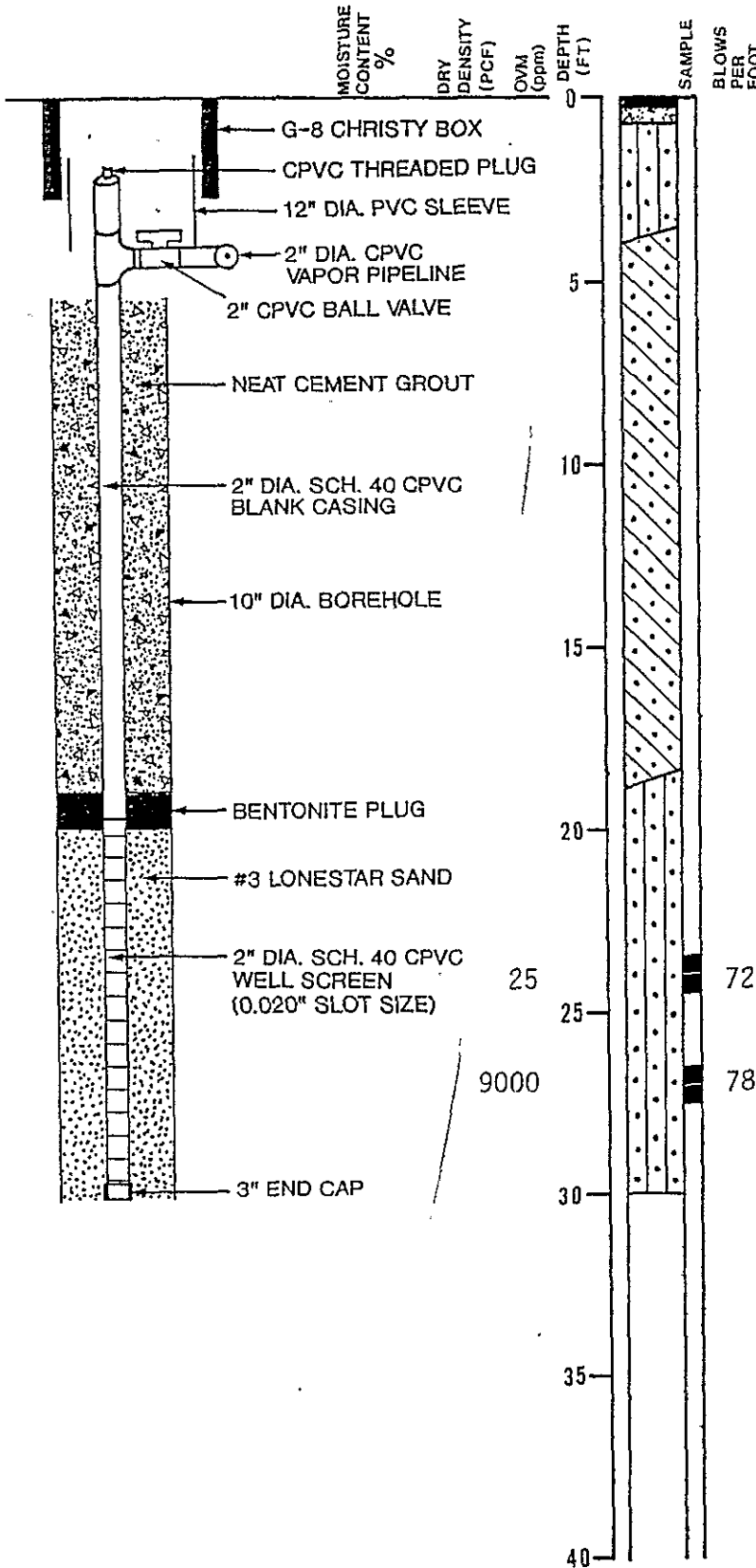
License No. C57 582 026 Date of this report 12/19/90

LOG OF TEST BORING V-8

EQUIPMENT 10" Hollow Stem Auger

DATE DRILLED 11/9/90

ELEVATION --



ASPHALT CONCRETE - 3" thick
 CONCRETE PAVEMENT - 5" thick
 BROWN SILTY SAND (SM-SP)
 medium dense, moist
 BROWN CLAYEY SAND (SC)
 medium dense, moist

BROWN SILTY SAND (SM-SP)
 dense, moist

strong odor

becomes gray-green

Subsurface Consultants

14TH & MARTIN LUTHER KING JR. WAY

PLATE

JOB NUMBER
430.011

DATE
12/12/90

APPROVED

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATERWELL DRILLERS REPORT

Do not fill in

No. 316095 **ATP**

Notice of Intent No. _____
Local Permit No. or Date 90699 (Zone 7)

State Well No. 15/4W 35D19-40
Other Well No. _____

(1) OWNER: Name _____
Address _____
City _____

(12) WELL LOG: Total depth 30 ft. Completed depth 30 ft.
from ft. to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions):
County ALAMEDA Owner's Well Number N1-V24
Well address if different from above MARTIN LUTHER KING JR
Township _____ Range 2 14TH ST., OAKLAND Section _____
Distance from cities, roads, railroads, fences, etc. _____

SEE ATTACHED MAP

(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well
Destruction (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Municipal
Other (Describe)

WELL LOCATION SKETCH

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other Bucket
AUGER

(6) GRAVEL RACK:
Yes No Size 3/8 SAND
Diameter of bore 10
Racked from 30 to 19 ft.

(7) CASING INSTALLED:
Steel Plastic Concrete

From ft.	To ft.	Dia. in.	Gage or Wall
0	20	2"	SM 440

(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Slot size
20	30	0.020

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth 18 ft.
Were strata sealed against pollution? Yes No Interval 0-18 ft.
Method of sealing BENTONINE PELLETS & NEAT CEMENT

(10) WATER LEVELS:
Depth of first water, if known 19 ft.
Standing level after well completion _____ ft.

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? _____
Type of test _____ Pump Bailer Air lift
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Was electric log made Yes No If yes, attach copy to this report

Work started 11/5 19 90 Completed 11/13 19 90

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Signed Richard [Signature] (Well Driller)
NAME SOILS EXPLORATION SERVICES, INC.
Address 561 BUCKEYE ST.
City VACAVILLE ZIP 95687
License No. CS7 582126 Date of this report 12/19/90

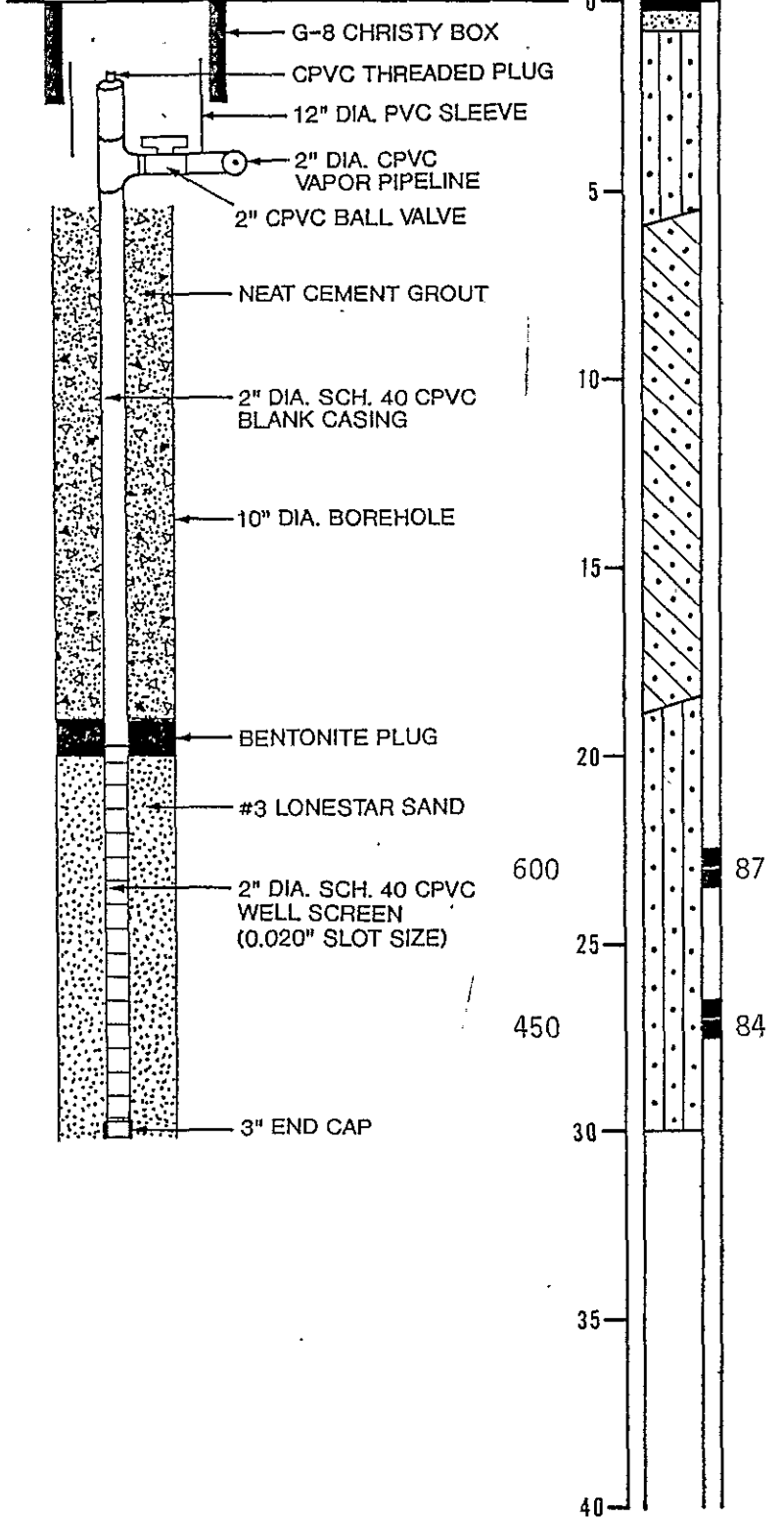
LOG OF TEST BORING V-11

EQUIPMENT 10" Hollow Stem Auger

DATE DRILLED 11/7/90

ELEVATION --

MOISTURE CONTENT %	DRY DENSITY (PCF)	CVM (ppm)	DEPTH (FT)	SAMPLE	BLOWS PER FOOT
--------------------	-------------------	-----------	------------	--------	----------------



ASPHALT CONCRETE - 3" thick
 CONCRETE PAVEMENT - 6" thick
 BROWN SILTY SAND (SM)
 medium dense, moist

BROWN CLAYEY SAND (SC)
 medium dense, moist

BROWN SILTY SAND (SM-SP)
 dense, moist

600	87
450	84

Subsurface Consultants

14TH & MARTIN LUTHER KING JR. WAY

PLATE

JOB NUMBER
430.011

DATE
12/12/90

APPROVED

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS' REPORT

Do not fill in

No. 316095AJ

Notice of Intent No. _____
Local Permit No. or Date 90699 (Zone 7)

State Well No. 15/4W 35D19-40
Other Well No. _____

(1) OWNER: _____
Address _____
City _____

(18) WELL LOG: Total depth 30 ft. Completed depth 30 ft.
from ft. to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions):
County ALAMEDA Owner's Well Number N1-V24
Well address if different from above MARTIN LUTHER KING JR.
Township _____ Range 2 14TH ST., OAKLAND Section _____
Distance from cities, roads, railroads, fences, etc. _____

SEE ATTACHED MAP

(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well
Destruction (Describe destruction materials and procedures in Item 12)
(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Municipal
Other (Describe)

SEE ATTACHED LOGS

WELL LOCATION SKETCH

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other AUGER Bucket

(6) GRAVEL RACK:
Yes No Size 3 SAND
Diameter of bore 10
Racked from 30 to 19 ft.

(7) CASING INSTALLED:
Steel Plastic Concrete
From ft. To ft. Dia. in. Gage or Wall
0 20 2 1/2" 5/16" 40
2"

(8) PERFORATIONS:
Type of perforation or size of screen
From ft. To ft. Slot size
20 30 0.020

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth 13 ft.
Were strata sealed against pollution? Yes No Interval 0-13 ft.
Method of sealing BENTONITE PELLETS + NEAT CEMENT

(10) WATER LEVELS:
Depth of first water, if known 19 ft.
Standing level after well completion _____ ft.

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? _____
Type of test Pump Bailer Air lift
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Was electric log made Yes No If yes, attach copy to this report

Work started 11/5 19 90 Completed 11/13 19 90

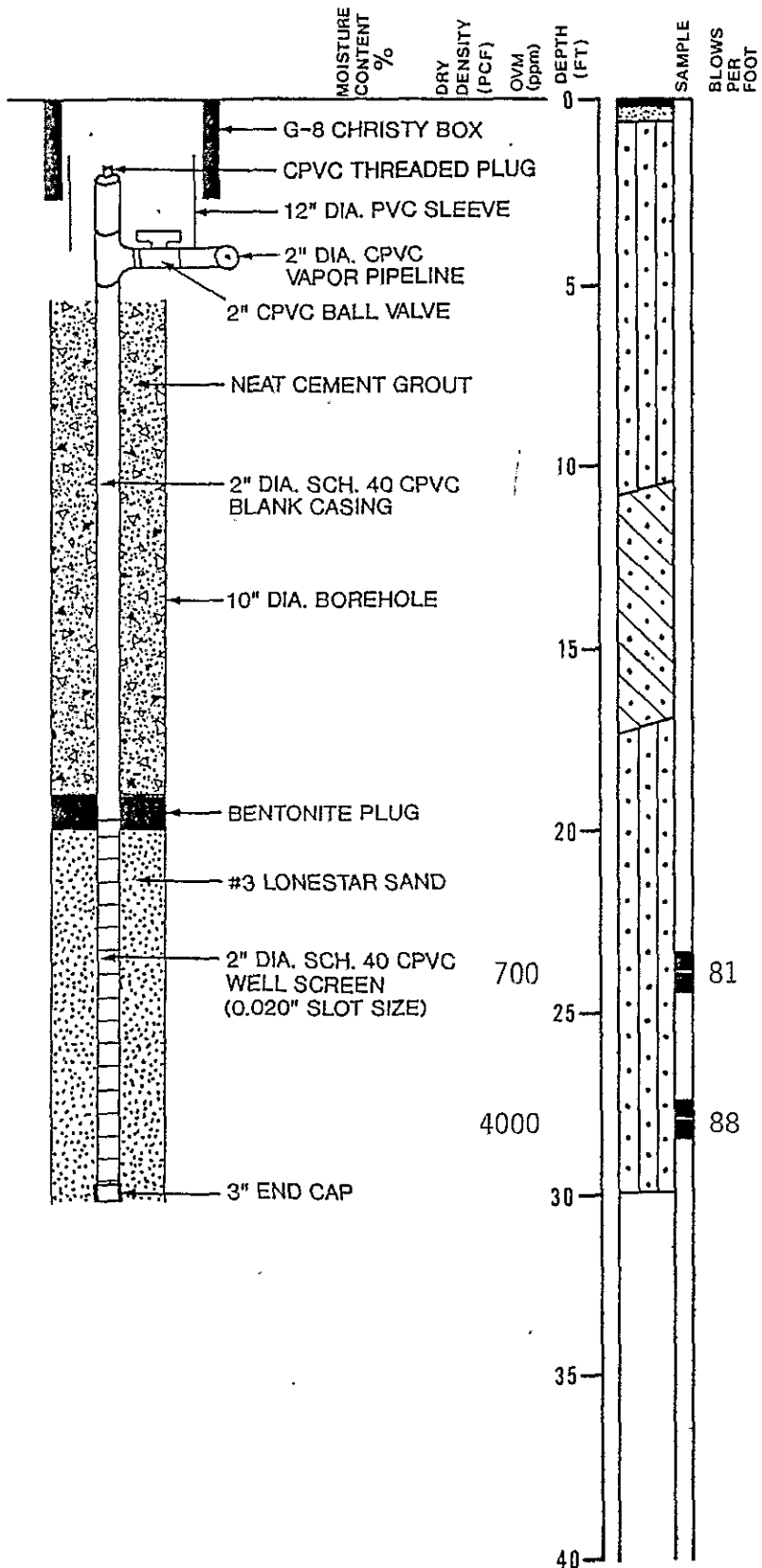
WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Signed Richard [Signature] (Well Driller)
NAME SOILS EXPLORATION SERVICES, INC.
Address 561 BUCKEYE ST.
City VACAVILLE ZIP 95687
License No. CS7 582126 Date of this report 12/19/90

LOG OF TEST BORING V-12

EQUIPMENT 10" Hollow Stem Auger

DATE DRILLED 11/9/90

ELEVATION --



ASPHALT CONCRETE - 3" thick
 CONCRETE PAVEMENT - 5" thick
 DARK BROWN SILTY SAND (SM)
 medium dense, moist

BROWN CLAYEY SAND (SC)
 medium dense, moist

BROWN SILTY SAND (SM-SP)
 dense, moist

Subsurface Consultants

14TH & MARTIN LUTHER KING JR. WAY

JOB NUMBER
430.011

DATE
12/12/90

APPROVED

PLATE

STATE OF CALIFORNIA
THE RESOURCES AGENCY

ORIGINAL
File with DWR

DEPARTMENT OF WATER RESOURCES
WATERWELL DRILLERS REPORT

Do not fill in

No. **316095 E-1**

Notice of Intent No. _____
Local Permit No. or Date **90699 (Zone 7)**

State Well No. **1S/4W 35D19-40**
Other Well No. _____

(1) OWNER: Name _____
Address _____
City _____

(12) WELL LOG: Total depth **30** ft. Completed depth **30** ft.
from ft. to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions):
County **ALAMEDA** Owner's Well Number **VI-V24**
Well address if different from above **MARTIN LUTHER KING DR. 214TH ST., OAKLAND**
Township _____ Range _____ Section _____
Distance from cities, roads, railroads, fences, etc. _____

SEE ATTACHED MAP

(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well
Destruction (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Municipal
Other (Describe)

WELL LOCATION SKETCH

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other Bucket
AUGER

(6) GRAVEL RACK:
Yes No Size **#3 SAND**
Diameter of bore **10** inches
Racked from **30** to **19** ft.

(7) CASING INSTALLED:
Steel Plastic Concrete

(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	20	2"	4/40	20	30	20/20

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth **18** ft.
Were strata sealed against pollution? Yes No Interval **0-18** ft.
Method of sealing **BENTONITE PELLETS & GROUT CEMENT**

Work started **11/5** 19 **90** Completed **11/13** 19 **90**

(10) WATER LEVELS:
Depth of first water, if known **19** ft.
Standing level after well completion _____ ft.

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? _____
Type of test Pump Bailer Air lift
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Was electric log made? Yes No If yes, attach copy to this report

Signed **Richard [Signature]** (Well Driller)
NAME **SOILS EXPLORATION SERVICES, INC.**
(Person, firm, or corporation) (Typed or printed)
Address **561 BUCKEYE ST.**
City **VACAVILLE** ZIP **95687**
License No. **CS7 582-06** Date of this report **12/19/90**

SEE ATTACHED LOGS

DRAFT FOR REVIEW ONLY

LOG OF TEST BORING V-13

EQUIPMENT 10" Hollow Stem Auger

DATE DRILLED 11/7/90

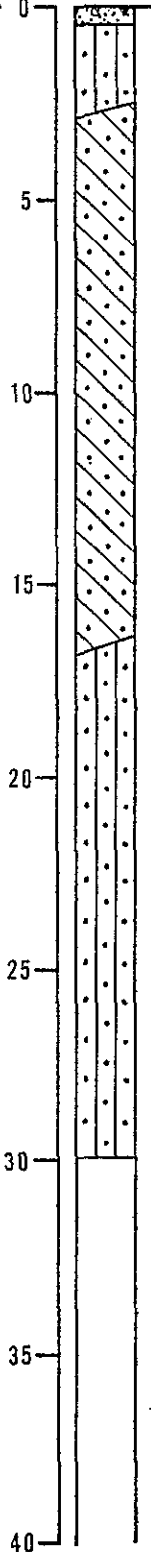
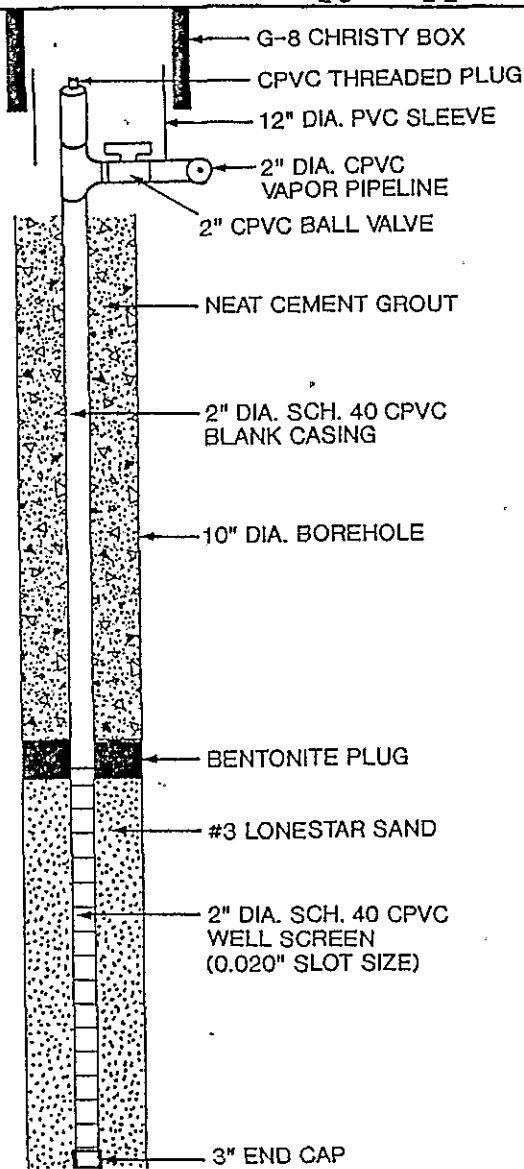
ELEVATION --

MOISTURE
CONTENT
%
DRY
DENSITY
(PCF)

DEPTH
(FT)

SAMPLE

BLOWS
PER
FOOT



CONCRETE SLAB - 6" thick
 BROWN SILTY SAND (SM)
 medium dense, moist
 BROWN CLAYEY SAND (SC)
 medium dense, moist

BROWN SILTY SAND (SM-SP)
 medium dense, moist

Subsurface Consultants

14TH & MARTIN LUTHER KING JR. WAY

JOB NUMBER
430.011

DATE
12/12/90

APPROVED

PLATE

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 316095

Notice of Intent No. _____
Local Permit No. or Date 90699 (Zone 7)

State Well No. 15/4W 35D19-40
Other Well No. _____

(1) OWNER: [Redacted]
Address [Redacted]
City [Redacted]

(18) WELL LOG: Total depth 30 ft. Completed depth 30 ft.
from ft. to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions):
County ALAMEDA Owner's Well Number 11-V24
Well address if different from above MARTIN LUTHER KING JR.
Township Range Section
Distance from cities, roads, railroads, fences, etc. _____

SEE ATTACHED MAP

(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well
Destruction (Describe destruction materials and procedures in Item 12)
(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Municipal
Other (Describe)

SEE ATTACHED LOGS

WELL LOCATION SKETCH

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other Bucket
(6) GRAVEL PACK:
Yes No Size #3 SAND
Diameter of bore 10"
Packed from 30 to 19 ft.

(7) CASING INSTALLED: Steel Plastic Concrete
(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	20	2"	5/4 40	20	30	0.020

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth 18 ft.
Were strata sealed against pollution? Yes No Interval 0-18 ft.
Method of sealing BENTONITE PELLETS (NEAT CEMENT)

(10) WATER LEVELS:
Depth of first water, if known 29 ft.
Standing level after well completion _____ ft.

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? _____
Type of test Pump Bailer Air lift
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Was electric log made Yes No If yes, attach copy to this report

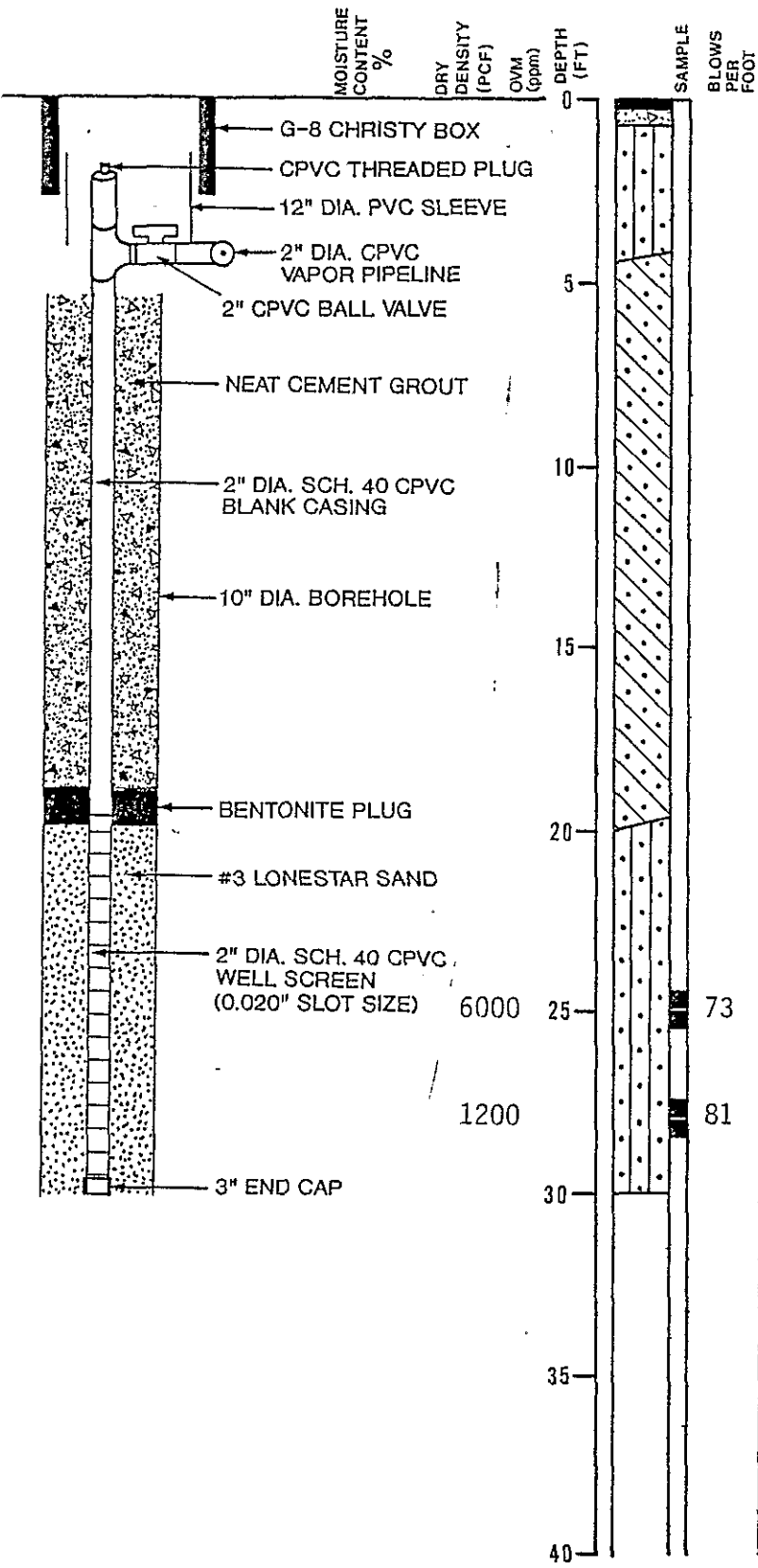
Work started 11/5 19 90 Completed 11/13 19 90

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Signed Richard [Signature] (Well Driller)
NAME SOILS EXPLORATION SERVICES, INC.
Address 561 BUCKEYE ST.
City VACAVILLE ZIP 95687
License No. CS7 58206 Date of this report 12/19/90

1658

LOG OF TEST BORING V-14

EQUIPMENT 10" Hollow Stem Auger
 DATE DRILLED 11/7/90
 ELEVATION --



ASPHALT CONCRETE - 3" thick
 CONCRETE PAVEMENT - 5" thick
 BROWN SILTY SAND (SM)
 medium dense, moist
 BROWN CLAYEY SAND (SC)
 medium dense, moist
 BROWN SILTY SAND (SM-SP)
 dense, moist

Subsurface Consultants

14TH & MARTIN LUTHER KING JR. WAY
 JOB NUMBER 430.011
 DATE 12/12/90
 APPROVED

PLATE

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATERWELL DRILLERS REPORT

Do not fill in

No. 316095M

Notice of Intent No. _____
Local Permit No. or Date 90699 (Zone 7)

State Well No. 15/4W 35D19-40
Other Well No. _____

(1) OWNER: _____
Address _____
City _____

(18) WELL LOG: Total depth 30 ft. Completed depth 30 ft.
from ft. to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions):
County ALAMEDA Owner's Well Number N1-V24
Well address if different from above MARTIN LUTHER KING DR.
Township _____ Range 2 14TH ST., OAKLAND Section _____
Distance from cities, roads, railroads, fences, etc. _____

SEE ATTACHED MAP

(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well
Destruction (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Municipal
Other (Describe)

WELL LOCATION SKETCH

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other Bucket

(6) GRAVEL PACK:
Yes No Size #3 SAND
Diameter of bore 10"
Packed from 30 to 19 ft.

(7) CASING INSTALLED:
Steel Plastic Concrete

(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	20	2"	5/4 40	20	30	0.020

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth 18 ft.
Were strata sealed against pollution? Yes No Interval 0-18 ft.
Method of sealing BENTONITE PELLETS & NEAT CEMENT

(10) WATER LEVELS:
Depth of first water, if known 19 ft.
Standing level after well completion _____ ft.

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? _____
Type of test Pump Bailer Air lift
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Was electric log made? Yes No If yes, attach copy to this report

Work started 11/5 19 90 Completed 1/13 19 90
WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Signed Richard [Signature] (Well Driller)
NAME SOILS EXPLORATION SERVICES, INC.
Address 561 BUCKEYE ST.
City VACAVILLE ZIP 95687
License No. CS7 582 026 Date of this report 12/19/90

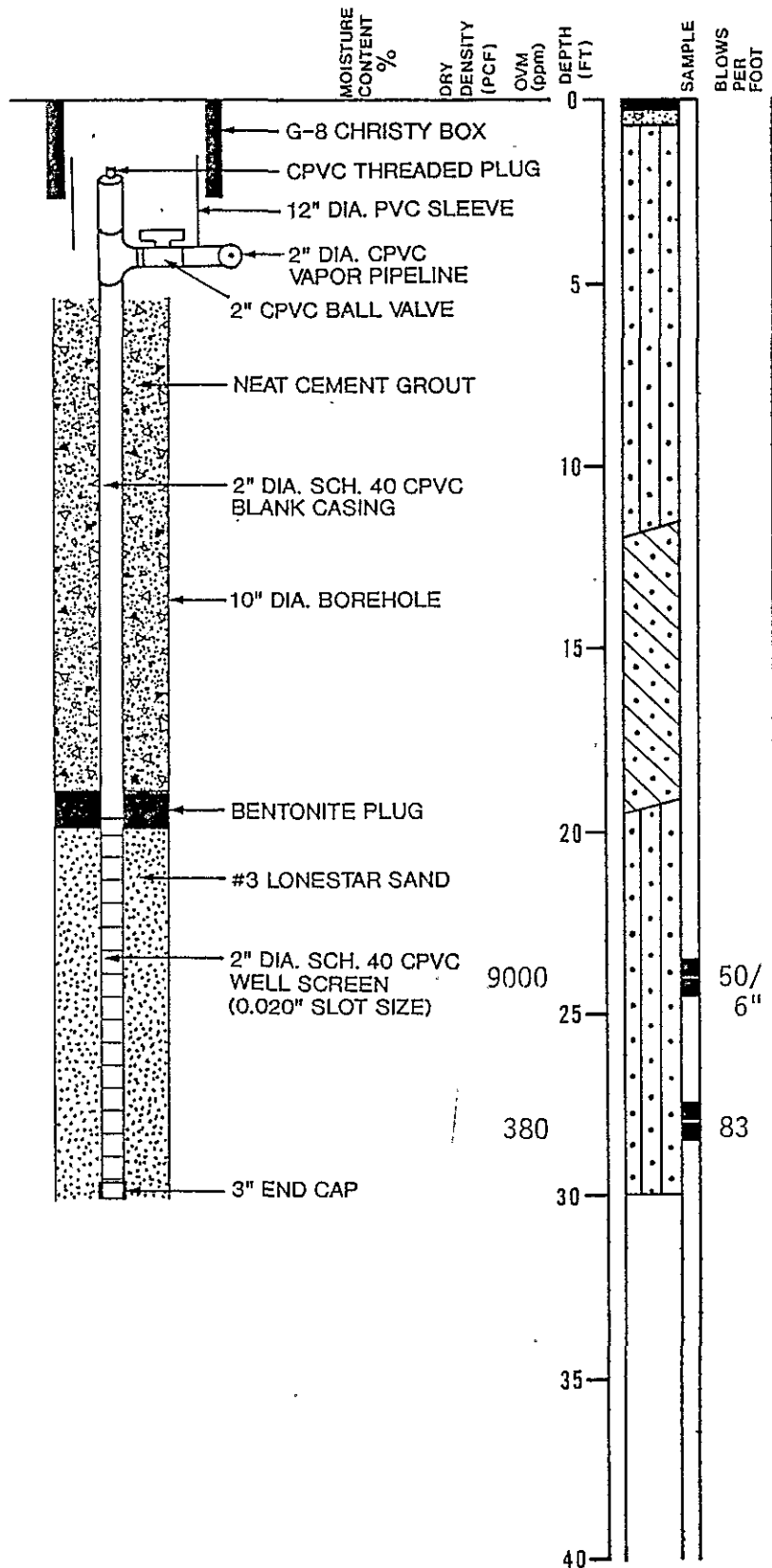
1658

LOG OF TEST BORING V-15

EQUIPMENT 10" Hollow Stem Auger

DATE DRILLED 11/12/90

ELEVATION --



ASPHALT CONCRETE - 4" thick
 CONCRETE PAVEMENT - 5" thick
 BROWN SILTY SAND (SM-SP)
 medium dense, moist

BROWN CLAYEY SAND (SC)
 medium dense to dense, moist

BROWN SILTY SAND (SM-SP)
 dense, moist

Subsurface Consultants

14TH & MARTIN LUTHER KING JR. WAY

PLATE

JOB NUMBER

DATE

APPROVED

430.011

12/12/90

Signature area

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 316095A-~~F~~

Notice of Intent No. _____
Local Permit No. or Date 90699 (Zone 7)

State Well No. 15/4W 35D19-40
Other Well No. _____

(1) OWNER: _____
Address _____
City _____

(10) WELL LOG: Total depth 30 ft. Completed depth 30 ft.
from ft. to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions):
County ALAMEDA Owner's Well Number N1-V24
Well address if different from above MARTIN LUTHER KING JR.
214TH ST., OAKLAND
Township _____ Range _____ Section _____
Distance from cities, roads, railroads, fences, etc. _____

SEE ATTACHED MAP

(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well
Destruction (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Municipal
Other (Describe)

WELL LOCATION SKETCH

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other AUGER Bucket

(6) GRAVEL PACK:
Yes No Size 3 SAND
Diameter of bore 10
Packed from 30 to 19 ft.

(7) CASING INSTALLED:
Steel Plastic Concrete

(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	20	2"	SAH 40	20	30	0.020

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth 18 ft.
Were strata sealed against pollution? Yes No Interval 0-18 ft.
Method of sealing BENTONITE PELLETS & NEAT CEMENT

Work started 11/5 19 90 Completed 11/13 19 90

(10) WATER LEVELS:
Depth of first water, if known 19 ft.
Standing level after well completion _____ ft.

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? _____
Type of test Pump Bailer Air lift
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Was electric log made? Yes No If yes, attach copy to this report

Signed Richard [Signature] (Well Driller)
NAME SOILS EXPLORATION SERVICES, INC.
Address 561 BUCKEYE ST.
City VACAVILLE ZIP 95687
License No. CS7 582 126 Date of this report 12/19/90

1658

316095N

15/4W 35D32

LOG OF TEST BORING V-16

EQUIPMENT 10" Hollow Stem Auger

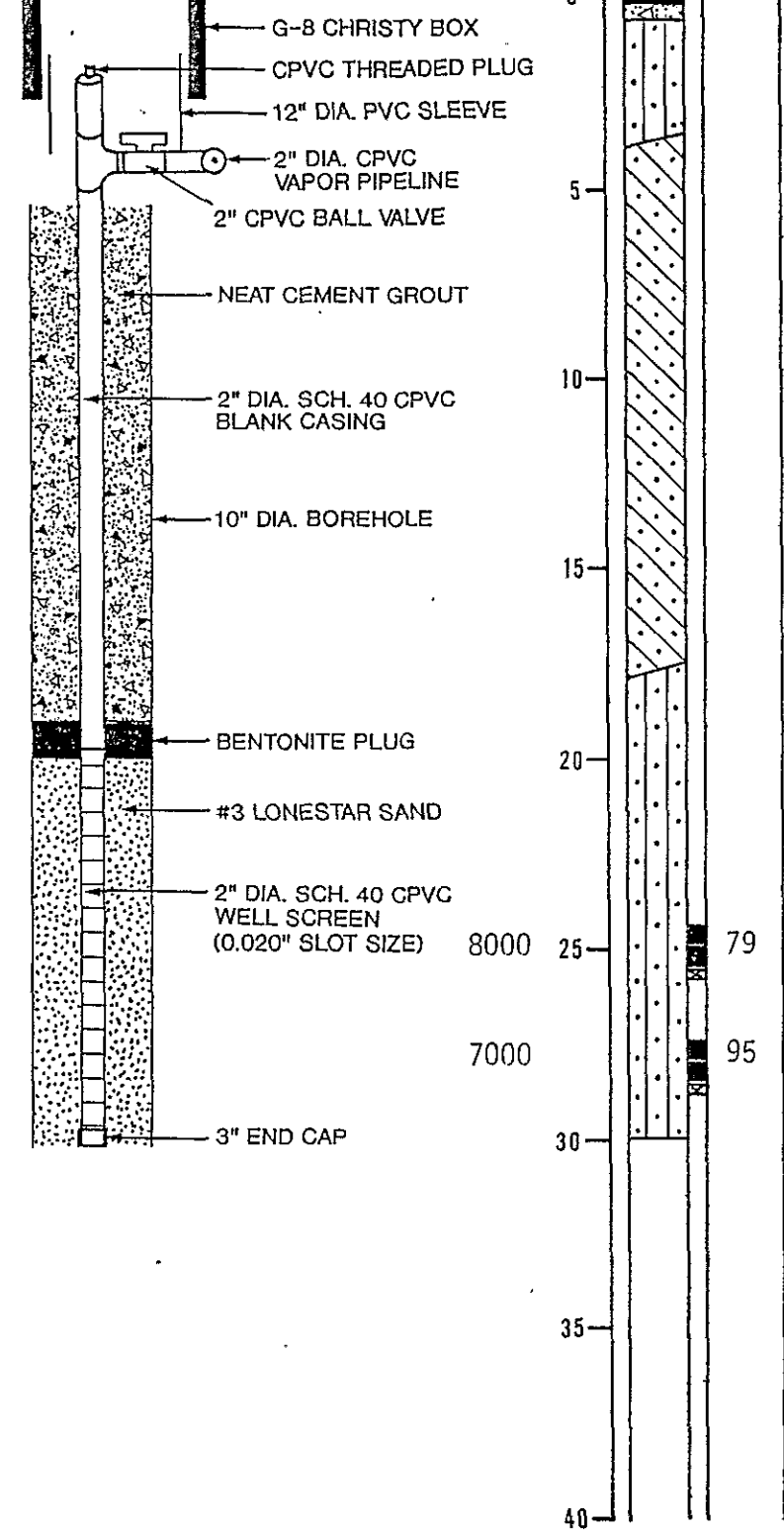
DATE DRILLED 11/7/90

ELEVATION --

LABORATORY TESTS

MOISTURE CONTENT %
 DRY DENSITY (PCF)
 OVM (ppm)
 DEPTH (FT)

SAMPLE
 BLOWS PER FOOT



ASPHALT CONCRETE - 3" thick
 CONCRETE PAVEMENT - 5" thick
 GRAY BROWN SILTY SAND (SM)
 medium dense, moist
 GRAY GREEN CLAYEY SAND (SC)
 medium dense, moist

BROWN SILTY SAND (SM-SP)
 dense, moist

Subsurface Consultants

14TH & MARTIN LUTHER KING JR. WAY

JOB NUMBER
430.011

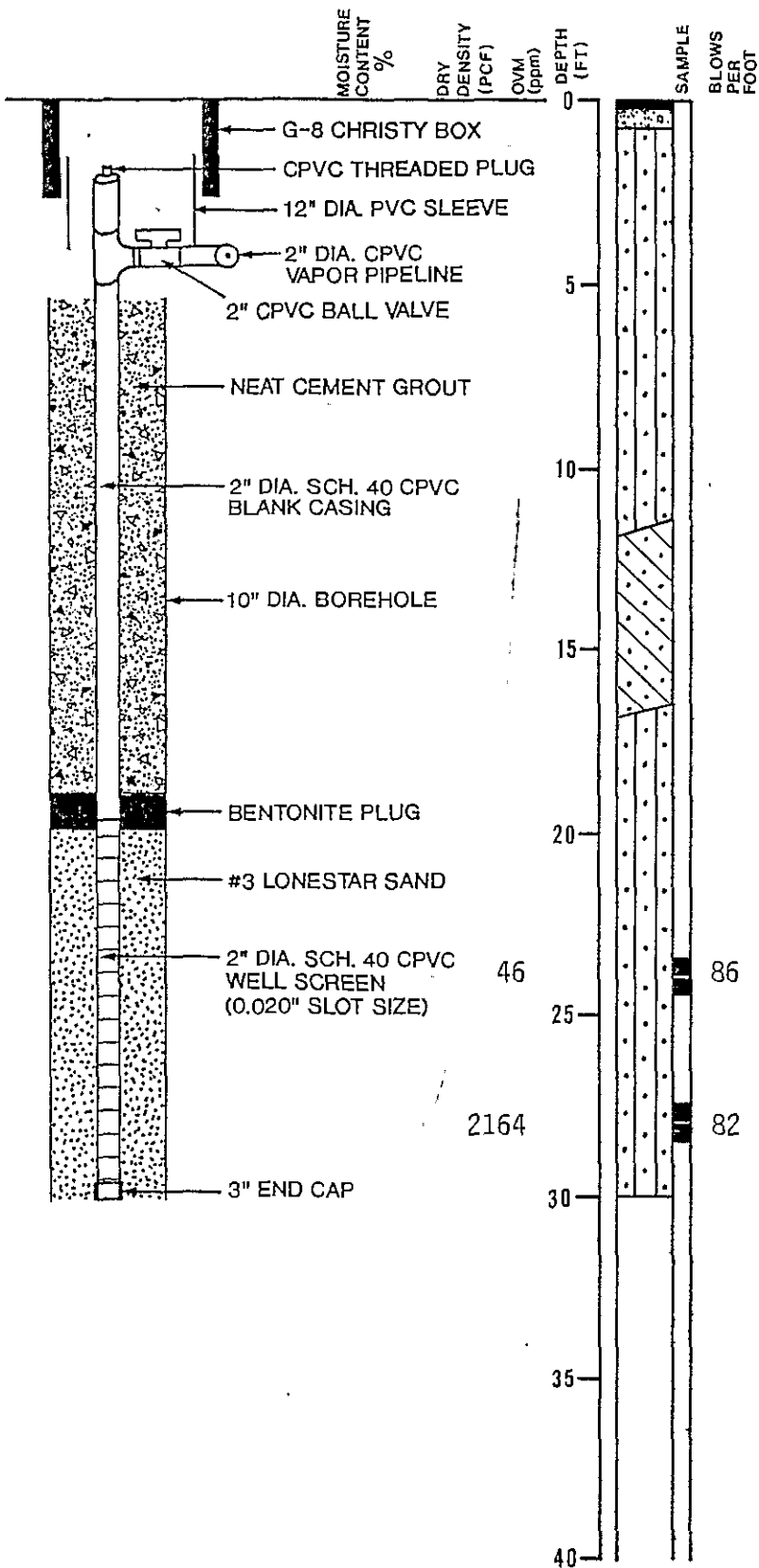
DATE
12/12/90

APPROVED

PLATE

LOG OF TEST BORING V-17

EQUIPMENT 10" Hollow Stem Auger
 DATE DRILLED 11/9/90
 ELEVATION --



ASPHALT CONCRETE - 3" thick
 CONCRETE PAVEMENT - 6" thick
 BROWN SILTY SAND (SM)
 medium dense, moist

BROWN CLAYEY SAND (SC)
 medium dense, moist

BROWN SILTY SAND (SM-SP)
 dense, moist

Subsurface Consultants

14TH & MARTIN LUTHER KING JR. WAY

PLATE

JOB NUMBER
 430.011

DATE
 12/12/90

APPROVED

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATERWELL DRILLERS REPORT

Do not fill in

No. 316095 ~~P-7~~

Notice of Intent No. _____
Local Permit No. or Date 90699 (Zone 7)

State Well No. 15/4W 35D19-40
Other Well No. _____

(1) OWNER: Name _____
Address _____
City _____

(18) WELL LOG: Total depth 30 ft. Completed depth 30 ft.
from ft. to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions):
County ALAMEDA Owner's Well Number N1-V24
Well address if different from above MARTIN LUTHER KING DR.
Township _____ Range _____ Section _____
Distance from cities, roads, railroads, fences, etc. _____

SEE ATTACHED MAP

(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well
Destruction (Describe destruction materials and procedures in Item 12)
(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Municipal
Other (Describe)

SEE ATTACHED LOGS

WELL LOCATION SKETCH

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other Auger Bucket

(6) GRAVEL PACK:
Yes No Size 35 SAND
Diameter of bore 10" ~~12"~~
Packed from 30 to 19 ft.

(7) CASING INSTALLED:
Steel Plastic Concrete

(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall
0	20	2"	Screen 40

From ft.	To ft.	Slot size
20	30	0.020

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth 18 ft.
Were strata sealed against pollution? Yes No Interval 0-18 ft.
Method of sealing BENTONINE PELLETS NEAT CEMENT

Work started 11/5 19 90 Completed 11/13 19 90

(10) WATER LEVELS:
Depth of first water, if known 19 ft.
Standing level after well completion _____ ft.

WELL DRILLER'S STATEMENT:

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? _____
Type of test _____ Pump Bailer Air lift
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Was electric log made? Yes No If yes, attach copy to this report

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Signed Richard [Signature] (Well Driller)
NAME SOILS EXPLORATION SERVICES, INC.
(Person, firm, or corporation) (Typed or printed)
Address 561 BUCKEYE ST.
City VACAVILLE ZIP 95687
License No. C57 582 026 Date of this report 12/19/90

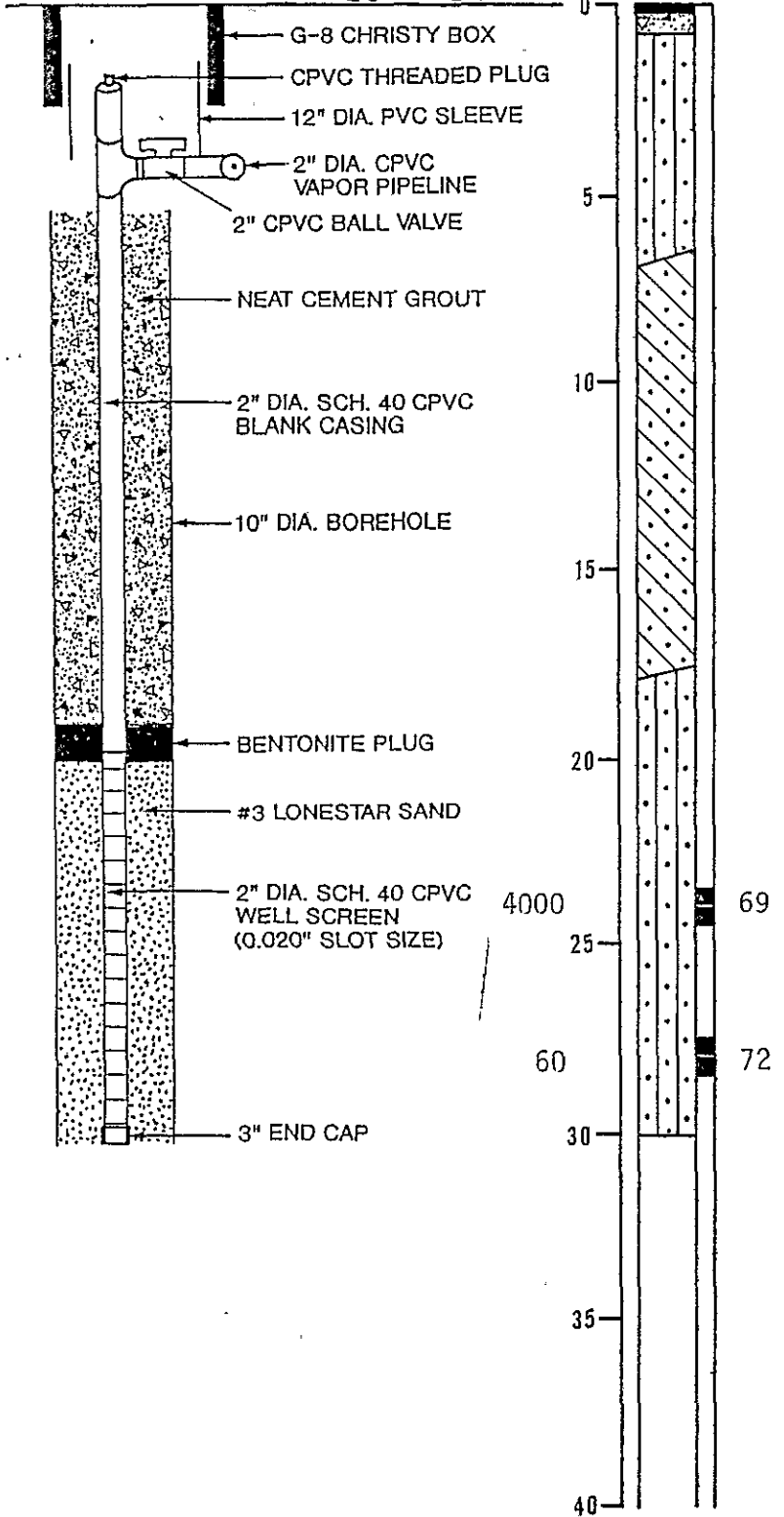
LOG OF TEST BORING V-18

EQUIPMENT 10" Hollow Stem Auger

DATE DRILLED 11/9/90

ELEVATION --

MOISTURE CONTENT %	DRY DENSITY (PCF)	OVUM (ppm)	DEPTH (FT)	SAMPLE	BLOWS PER FOOT
--------------------	-------------------	------------	------------	--------	----------------



ASPHALT CONCRETE - 3" thick
 CONCRETE PAVEMENT - 6" thick
 BROWN SILTY SAND (SM)
 medium dense, moist

BROWN CLAYEY SAND (SC)
 medium dense, moist

BROWN SAND (SM-SP)
 dense, moist

Subsurface Consultants

14TH & MARTIN LUTHER KING JR. WAY

PLATE

JOB NUMBER
430.011

DATE
12/12/90

APPROVED

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS' REPORT

Do not fill in

No. 316095 **Q**

Notice of Intent No. _____
Local Permit No. or Date 90699 (Zone 7)

State Well No. 15/4W 35D19-40
Other Well No. _____

(1) OWNER: _____
Address _____
City _____

(12) WELL LOG: Total depth 30 ft. Completed depth 30 ft.
from ft. to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions):
County ALAMEDA Owner's Well Number V1-V24
Well address if different from above MARTIN LUTHER KING DR.
214TH ST., OAKLAND
Township _____ Range _____ Section _____
Distance from cities, roads, railroads, fences, etc. _____

SEE ATTACHED MAP

(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well
Destruction (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Municipal
Other (Describe)

WELL LOCATION SKETCH

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other Bucket
AUGER

(6) GRAVEL RACK:
Yes No Size #3 SAND
Diameter of bore 10 inches
Racked from 30 to 19 ft.

(7) CASING INSTALLED:
Steel Plastic Concrete

(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	20	2"	5/4x40	20	30	0.020

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth 18 ft.
Were strata sealed against pollution? Yes No Interval 0-18 ft.
Method of sealing BENTONINE PELLETS & NEUT CEMENT

Work started 11/5 19 90 Completed 11/13 19 90

(10) WATER LEVELS:
Depth of first water, if known 19 ft.
Standing level after well completion _____ ft.

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? _____
Type of test _____ Pump Bailor Air lift
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Was electric log made Yes No If yes, attach copy to this report

Signed Richard [Signature] (Well Driller)

NAME SOILS EXPLORATION SERVICES, INC.
(Person, firm, or corporation) (Typed or printed)

Address 561 BUCKEYE ST.
City VACAVILLE ZIP 95687
License No. CS7 582126 Date of this report 12/19/90

316095Q

15/4W 35D35

LOG OF TEST BORING V-19

EQUIPMENT 10" Hollow Stem Auger
 DATE DRILLED 11/6/90
 ELEVATION --

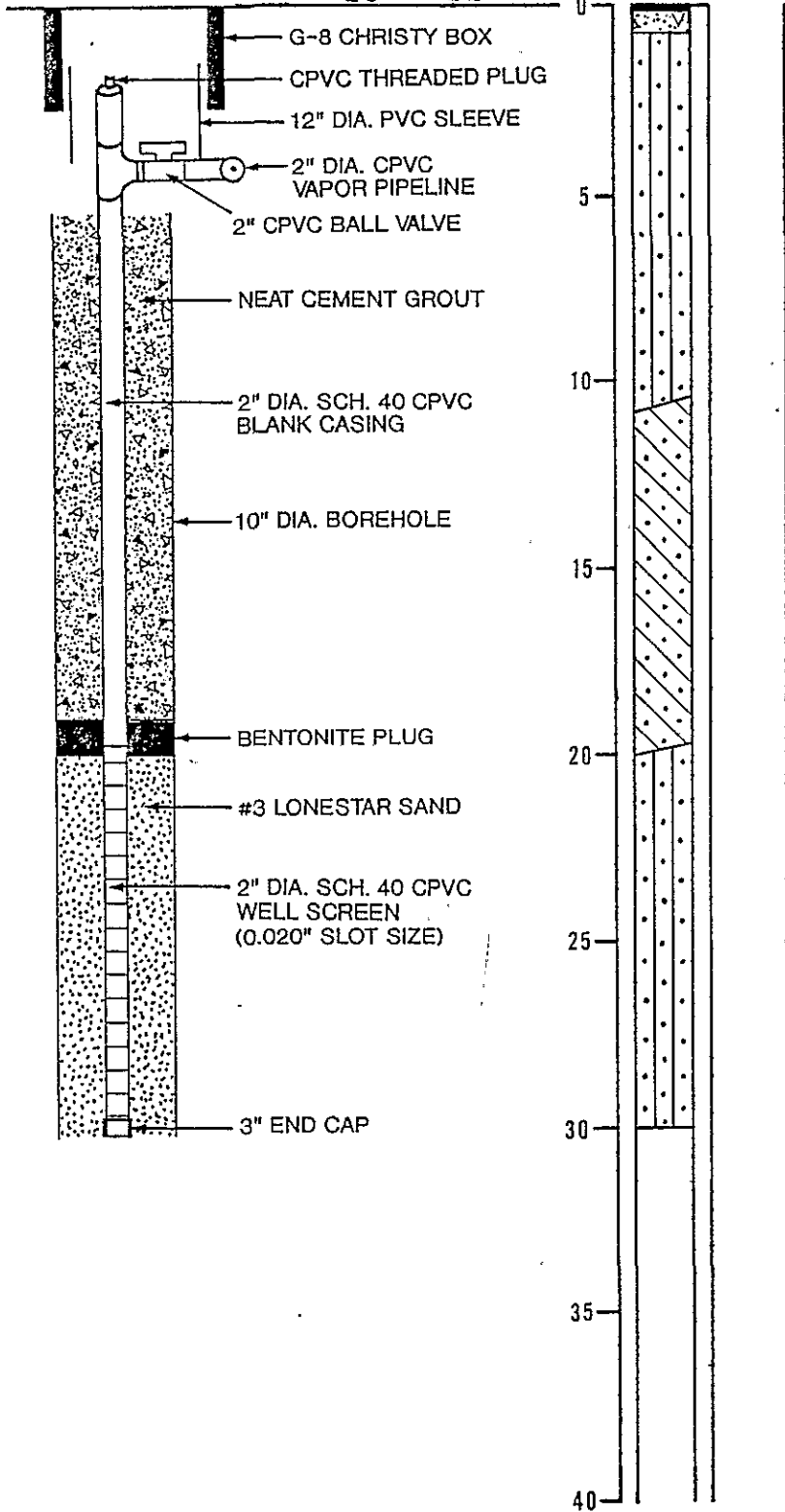
MOISTURE
CONTENT
%

DRY
DENSITY
(PCF)

DEPTH
(FT)

SAMPLE

BLOWS
PER
FOOT



ASPHALT CONCRETE - 2" thick
 CONCRETE PAVEMENT - 7" thick
 GRAY BROWN SILTY SAND (SM)
 medium dense, moist

BROWN CLAYEY SAND (SC)
 medium dense, moist

BROWN SILTY SAND (SM-SP)
 dense, moist

Subsurface Consultants

14TH & MARTIN LUTHER KING JR. WAY

PLATE

JOB NUMBER
430.011

DATE
12/12/90

APPROVED

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 316095 **RE**

Notice of Intent No. _____
Local Permit No. or Date 90699 (Zone 7)

State Well No. 15/4W 35D19-40
Other Well No. _____

(1) OWNER: _____
Address _____
City _____

(12) WELL LOG: Total depth 30 ft. Completed depth 30 ft.
from ft. to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions):
County ALAMEDA Owner's Well Number VI-V24
Well address if different from above MARTIN LUTHER KING JR. E 14TH ST., OAKLAND
Township _____ Range _____ Section _____
Distance from cities, roads, railroads, fences, etc. _____

SEE ATTACHED MAP

(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well

Destruction (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Municipal
Other (Describe)

WELL LOCATION SKETCH

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other Bucket
AUGER

(6) GRAVEL PACK:
Yes No Size #3 SAND
Diameter of bore 10"
Packed from 30 to 19 ft.

(7) CASING INSTALLED:

Steel <input type="checkbox"/>	Plastic <input checked="" type="checkbox"/>	Concrete <input type="checkbox"/>	
From ft.	To ft.	Dia. in.	Gage or Wall
0	20	2"	40

(8) PERFORATIONS:

From ft.	To ft.	Slot size
20	30	0.020

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth 18 ft.
Were strata sealed against pollution? Yes No Interval 0-18 ft.
Method of sealing BENTONITE PELLETS & NEAT CEMENT

(10) WATER LEVELS:
Depth of first water, if known 19 ft.
Standing level after well completion _____ ft.

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? _____
Type of test _____ Pump Bailer Air lift
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Was electric log made? Yes No If yes, attach copy to this report

Work started 11/5 19 90 Completed 11/13 19 90
WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

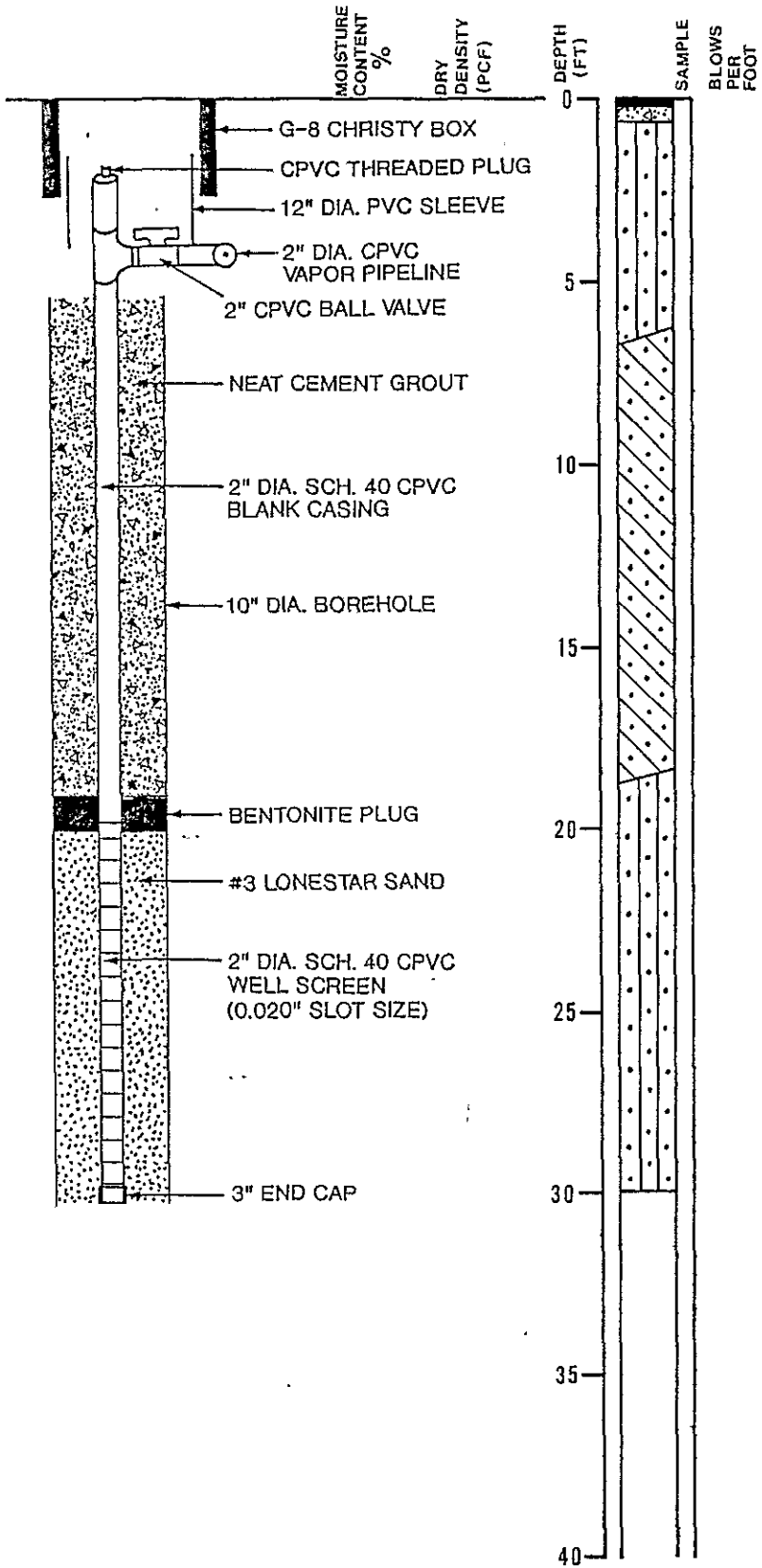
Signed Richard [Signature] (Well Driller)
NAME SOILS EXPLORATION SERVICES, INC.
(Person, firm, or corporation) (Typed or printed)
Address 561 BUCKEYE ST.
City VACAVILLE ZIP 94987
License No. C57 582 005 Date of this report 12/19/90

LOG OF TEST BORING V-20

EQUIPMENT 10" Hollow Stem Auger

DATE DRILLED 11/8/90

ELEVATION --



ASPHALT CONCRETE - 3" thick
 CONCRETE PAVEMENT - 5" thick
 BROWN SILTY SAND (SM)
 medium dense, moist

BROWN CLAYEY SAND (SC)
 medium dense, moist

BROWN SILTY SAND (SM-SP)
 dense, moist

strong odor

Subsurface Consultants

14TH & MARTIN LUTHER KING JR. WAY

PLATE

JOB NUMBER

DATE

APPROVED

430.011

12/12/90

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY

DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 316095 **ASV**

Notice of Intent No. _____
Local Permit No. or Date 90699 (Zone 7)

State Well No. 15/4W 35D19-40
Other Well No. _____

(1) OWNER: _____
Address _____
City _____

(12) WELL LOG: Total depth 30 ft. Completed depth 30 ft.
from ft. to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions):
County ALAMEDA Owner's Well Number VI-V24
Well address if different from above MARTIN LUTHER KING JR. 214TH ST., OAKLAND
Township _____ Range _____ Section _____
Distance from cities, roads, railroads, fences, etc. _____

SEE ATTACHED MAP

(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well
Destruction (Describe destruction materials and procedures in Item 12)
(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Municipal
Other (Describe)

SEE ATTACHED LOGS

WELL LOCATION SKETCH

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other Bucket
AUGER

(6) GRAVEL RACK:
Yes No Size #3 SAND
Diameter of bore 10"
Racked from 30 to 19 ft.

(7) CASING INSTALLED:

From ft.	To ft.	Dia. in.	Gage or Wall
0	20	2"	5/4 40

(8) PERFORATIONS:

From ft.	To ft.	Slot size
20	30	0.020

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth 18 ft.
Were strata sealed against pollution? Yes No Interval 0-18 ft.
Method of sealing BENTONITE PELLETS & NEAT CEMENT

(10) WATER LEVELS:
Depth of first water, if known 19 ft.
Standing level after well completion _____ ft.

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? _____
Type of test _____ Pump Bailer Air lift
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Was electric log made? Yes No If yes, attach copy to this report

Work started 11/5 19 90 Completed 11/13 19 90

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Signed Richard J. [Signature] (Well Driller)
NAME SOILS EXPLORATION SERVICES, INC.
Address 561 BUCKEYE ST.
City VACAVILLE ZIP 95687
License No. CS7 582126 Date of this report 12/19/90

1658

LOG OF TEST BORING V-22

EQUIPMENT 10" Hollow Stem Auger

DATE DRILLED 11/8/90

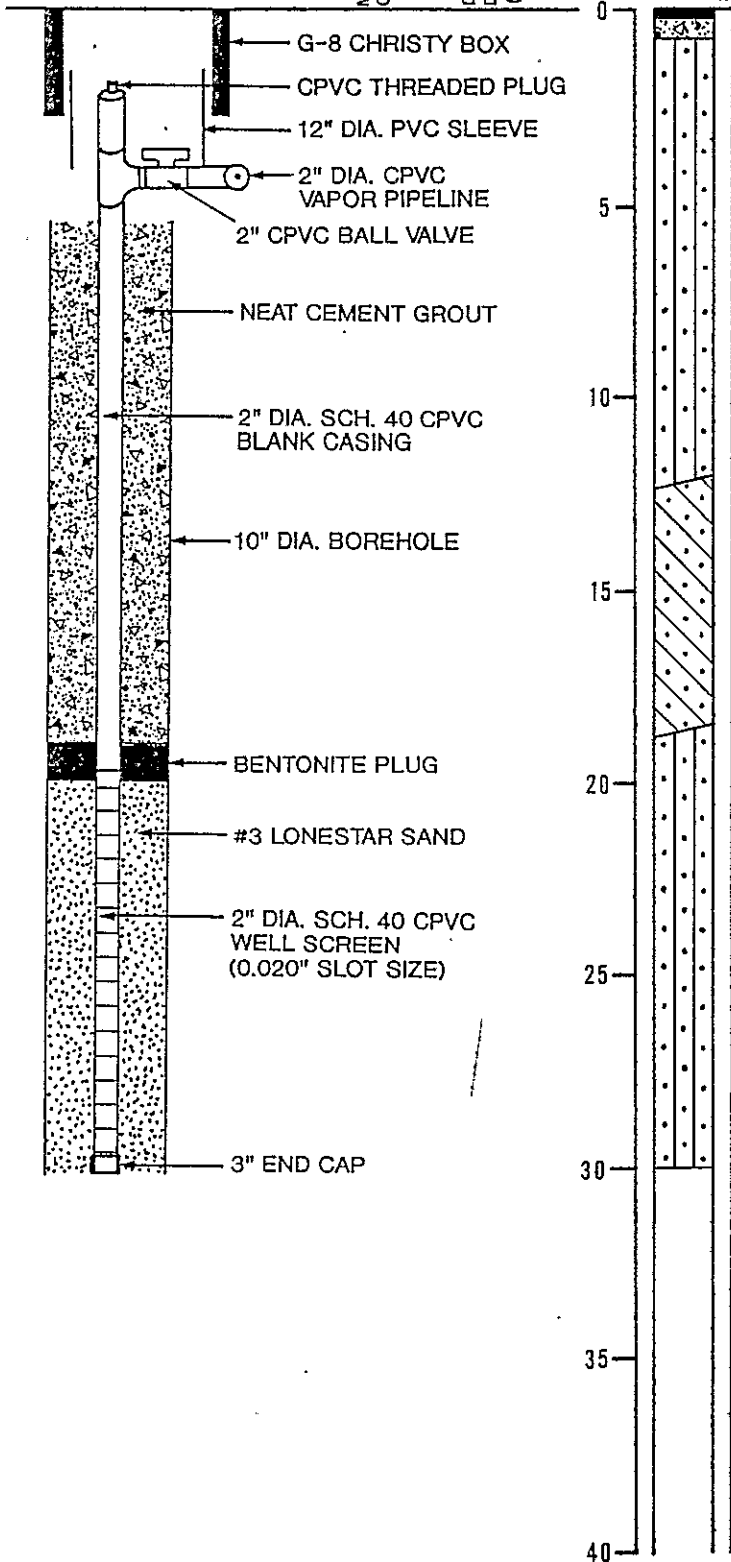
ELEVATION --

MOISTURE CONTENT %
DRY DENSITY (PCF)

DEPTH (FT)

SAMPLE

BLOWS PER FOOT



ASPHALT CONCRETE - 3.5" thick
CONCRETE PAVEMENT - 5.5" thick
GRAY BROWN SILTY SAND (SM)
medium dense, moist

GRAY GREEN SANDY CLAY (SC)
medium dense, moist

color changes to brown at 17.5 feet

BROWN SILTY SAND (SM-SP)
medium dense to dense, moist

slight odor

Subsurface Consultants

14TH & MARTIN LUTHER KING JR. WAY

JOB NUMBER

DATE

APPROVED

430.011

12/12/90

PLATE

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 316095A7F

Notice of Intent No. _____
Local Permit No. or Date 90699 (Zone 7)

State Well No. 15/4W 35D19-40
Other Well No. _____

(1) OWNER: _____
Address _____
City _____

(12) WELL LOG: Total depth 30 ft. Completed depth 30 ft.
from ft. to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions):
County ALAMEDA Owner's Well Number N1-V24
Well address if different from above MARTIN LUTHER KING DR.
Township _____ Range 2 14TH ST, OAKLAND Section _____
Distance from cities, roads, railroads, fences, etc. _____

SEE ATTACHED MAP

(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well
Destruction (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Municipal
Other (Describe)

WELL LOCATION SKETCH

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other Bucket
Auger

(6) GRAVEL RACK:
Yes No Size #3 SAND
Diameter of bore 10"
Racked from 30 to 19 ft.

(7) CASING INSTALLED:
Steel Plastic Concrete

(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall
0	20	2"	54440

From ft.	To ft.	Slot size
20	30	2020

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth 18 ft.
Were strata sealed against pollution? Yes No Interval 0-18 ft.
Method of sealing BENTONINE PELLETS GROUT CEMENT

(10) WATER LEVELS:
Depth of first water, if known 29 ft.
Standing level after well completion _____ ft.

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? _____
Type of test Pump Bailer Air lift
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Was electric log made Yes No If yes, attach copy to this report

SEE ATTACHED LOGS
PUBLIC USE
WATER CODE SEC 13752
Work started 11/5 19 90 Completed 11/13 19 90

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Signed Richard [Signature] (Well Driller)
NAME SOILS EXPLORATION SERVICES, INC.
Address 561 BUCKEYE ST.
City VALACVILLE ZIP 95687
License No. C57 582 025 Date of this report 12/19/90

1658

LOG OF TEST BORING V-23

EQUIPMENT 10" Hollow Stem Auger

DATE DRILLED 11/8/90

ELEVATION --

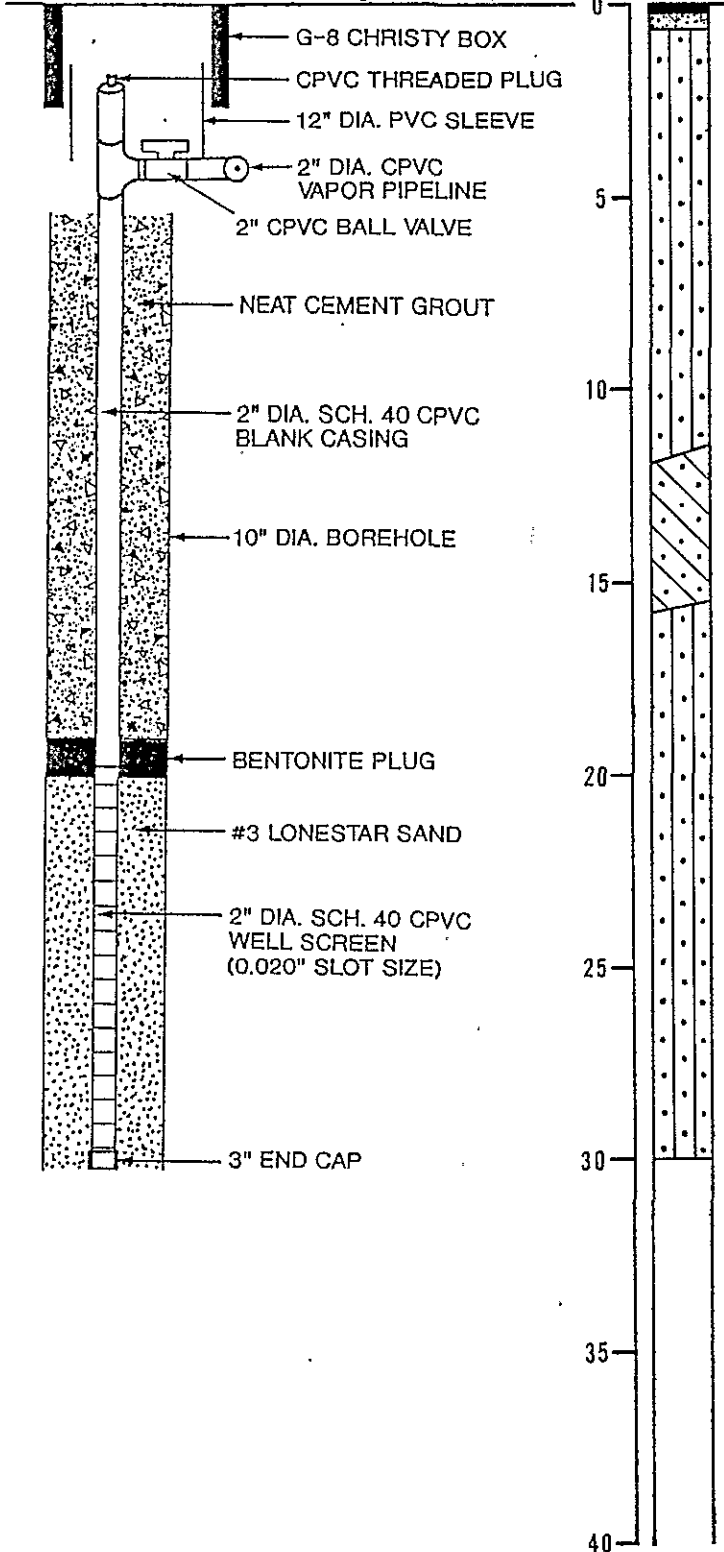
MOISTURE
CONTENT
%

DRY
DENSITY
(PCF)

DEPTH
(FT)

SAMPLE

BLOWS
PER
FOOT



ASPHALT CONCRETE - 3" thick
 CONCRETE PAVEMENT - 5" thick
 BROWN SILTY SAND (SM)
 medium dense, moist

BROWN CLAYEY SAND (SC)
 medium dense, moist

BROWN SILTY SAND (SM-SP)
 dense, moist

very strong odor at 28 feet

Subsurface Consultants

14TH & MARTIN LUTHER KING JR. WAY

JOB NUMBER
430.011

DATE
12/12/90

APPROVED

PLATE

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY

DEPARTMENT OF WATER RESOURCES
WATERWELL DRILLERS REPORT

Do not fill in

No. 316095-4

Notice of Intent No. _____
Local Permit No. or Date 90699 (Zone 7)

State Well No. 15/4W 35D19-40
Other Well No. _____

(1) OWNER: Name _____
Address _____
City _____

(19) WELL LOG: Total depth 30 ft. Completed depth 30 ft.
from ft. to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions):

County ALAMEDA Owner's Well Number V1-V24
Well address if different from above MARTIN LUTHER KING DR.
Township _____ Range E 14TH ST., OAKLAND Section _____
Distance from cities, roads, railroads, fences, etc. _____

SEE ATTACHED MAP

- (3) TYPE OF WORK:
- New Well Deepening
 - Reconstruction
 - Reconditioning
 - Horizontal Well
 - Destruction (Describe destruction materials and procedures in Item 12)

- (4) PROPOSED USE:
- Domestic
 - Irrigation
 - Industrial
 - Test Well
 - Municipal
 - Other (Describe)

WELL LOCATION SKETCH

(5) EQUIPMENT:

- Rotary Reverse
- Cable Air
- Other Auger Bucket

(6) GRAVEL PACK:

- Yes No Size #3 SAND
- Diameter of bore 10" _____
- Packed from 30 to 19 ft.

(7) CASING INSTALLED:

- Steel Plastic Concrete

(8) PERFORATIONS:

Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	20	2"	5/4 40	20	30	0.020

(9) WELL SEAL:

Was surface sanitary seal provided? Yes No If yes, to depth 18 ft.
 Were strata sealed against pollution? Yes No Interval 0-18 ft.
 Method of sealing BENTONINE PELLETS GROUT CEMENT

(10) WATER LEVELS:

Depth of first water, if known 19 ft.
 Standing level after well completion _____ ft.

(11) WELL TESTS:

Was well test made? Yes No If yes, by whom? _____
 Type of test Pump Bailer Air lift
 Depth to water at start of test _____ ft. At end of test _____ ft.
 Discharge _____ gal/min after _____ hours Water temperature _____
 Chemical analysis made? Yes No If yes, by whom? _____
 Was electric log made? Yes No If yes, attach copy to this report

Work started 11/5 19 90 Completed 1/13 19 90

WELL DRILLER'S STATEMENT:

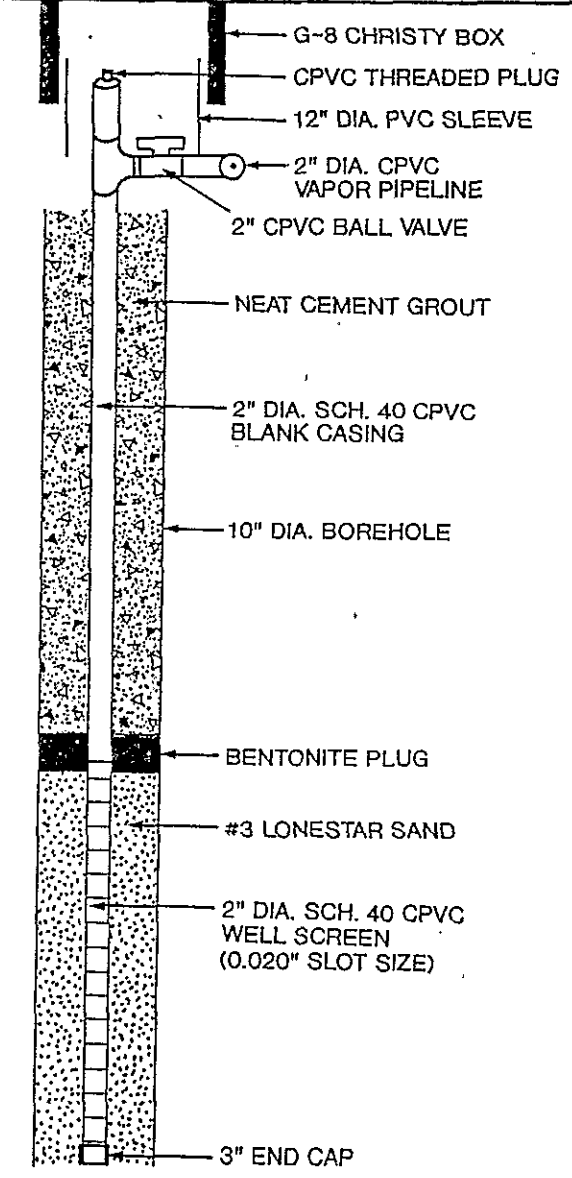
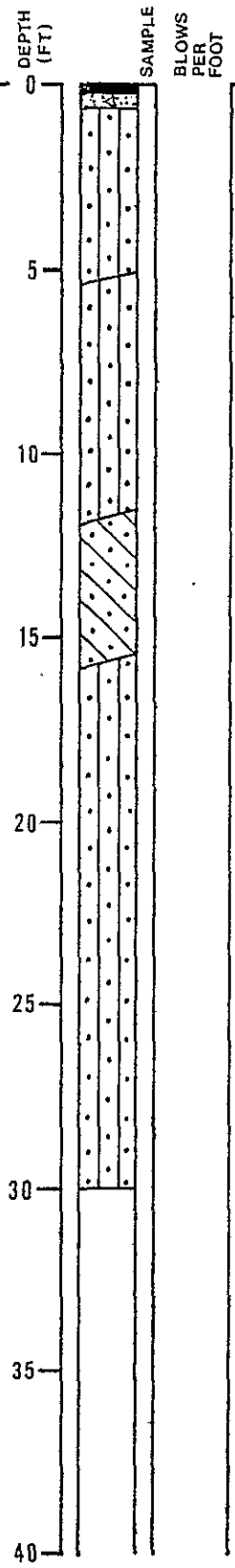
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Signed Richard [Signature] (Well Driller)
 NAME SOILS EXPLORATION SERVICES, INC.
 Address 561 BUCKEYE ST.
 City VACAVILLE ZIP 95687
 License No. C57 582 026 Date of this report 12/19/90

LOG OF TEST BORING V-24

EQUIPMENT 10" Hollow Stem Auger
 DATE DRILLED 11/8/90
 ELEVATION --

MOISTURE CONTENT %
 DRY DENSITY (PCF)



ASPHALT CONCRETE - 3" thick
 CONCRETE PAVEMENT - 5" thick
 BROWN SILTY SAND (SM)
 medium dense, moist (fill)
 cobblestone fragments at 3 feet
 ceramic fragments at 5 feet
 GRAY GREEN SILTY SAND (SM)
 medium dense, moist
 becomes brown at 8 feet

BROWN CLAYEY SAND (SC)
 medium dense, moist

BROWN SILTY SAND (SM-SP)
 dense, moist

Subsurface Consultants

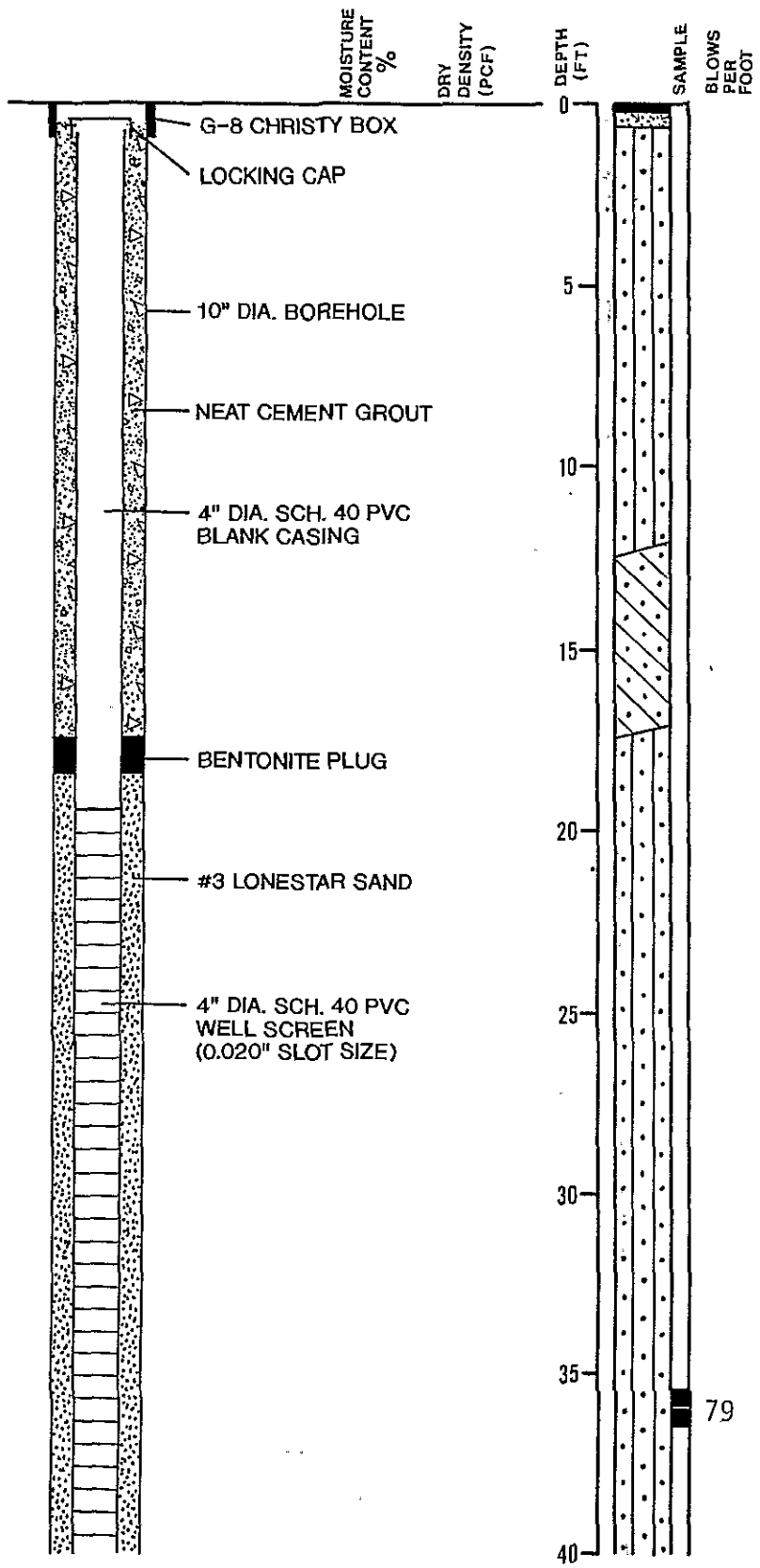
14TH & MARTIN LUTHER KING JR. WAY
 JOB NUMBER 430.011
 DATE 12/12/90
 APPROVED

PLATE

EQUIPMENT CME-55 10" Hollow Stem Auger

DATE DRILLED 11/13/90

ELEVATION --

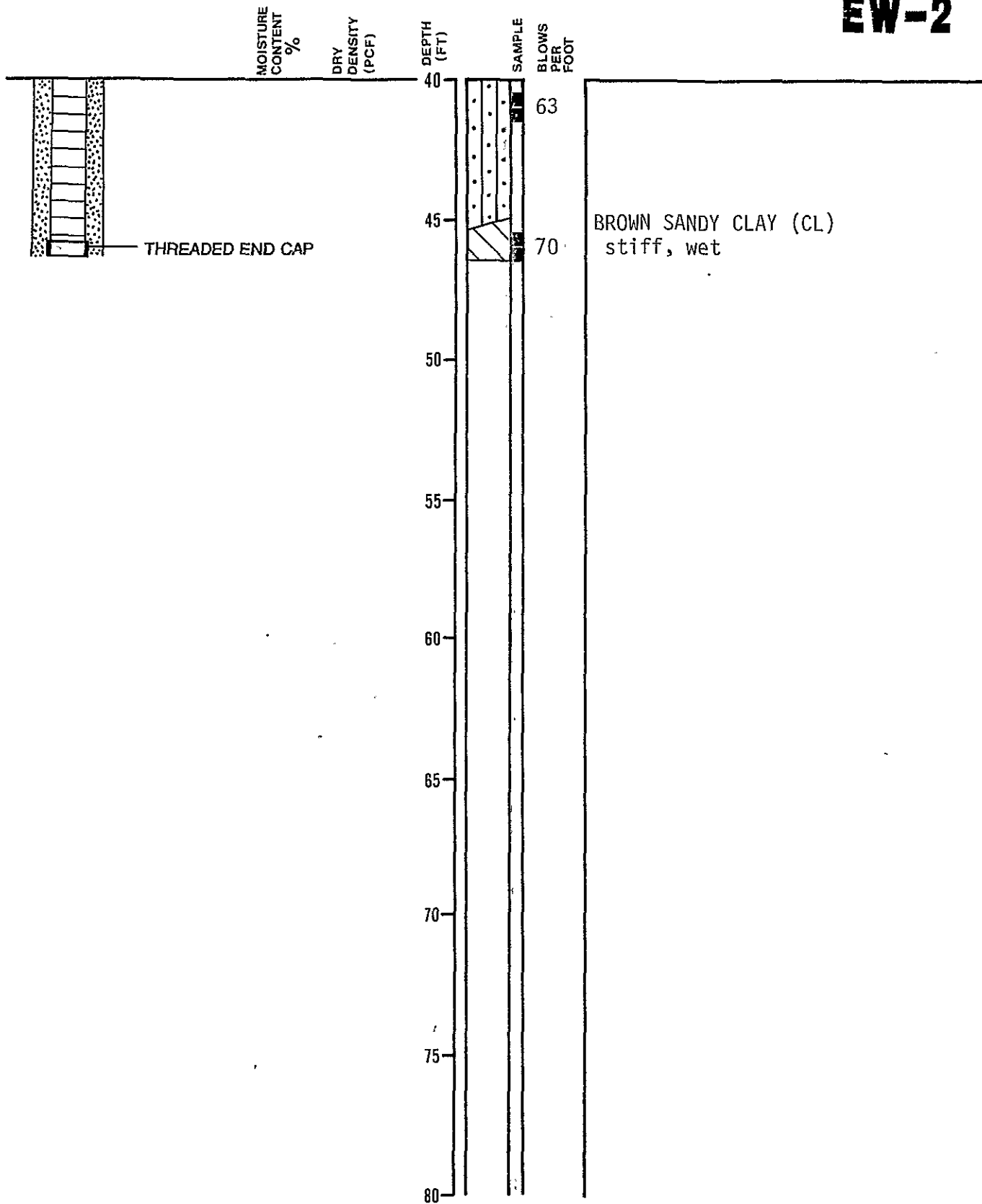


ASPHALT CONCRETE - 3" thick
 CONCRETE PAVEMENT - 5" thick
 BROWN SILTY SAND (SM)
 medium dense, moist

BROWN CLAYEY SAND (SC)
 medium dense, moist

BROWN SILTY SAND (SM-SP)
 dense, moist

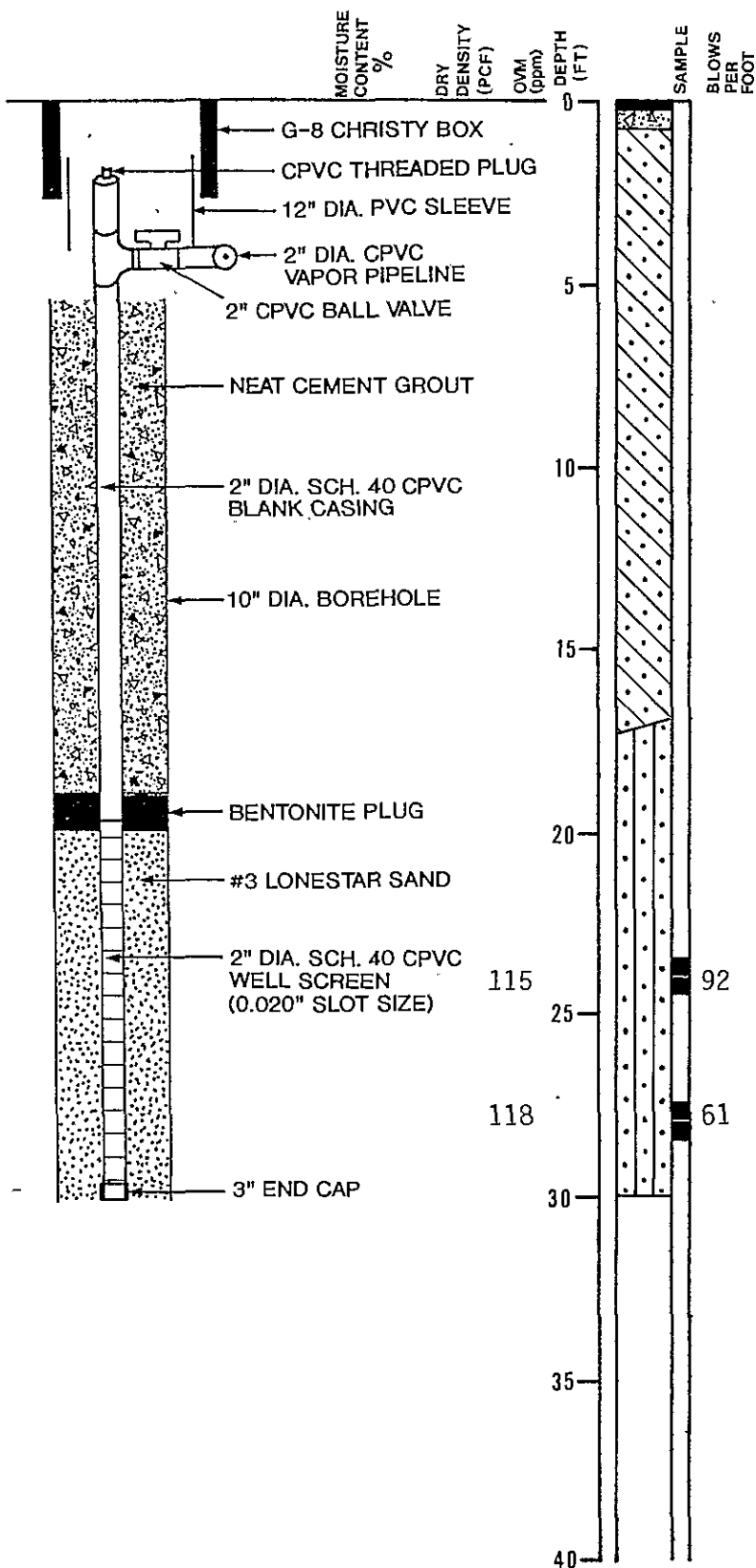
LOG OF TEST BORING EW-2



Subsurface Consultants	14TH & MARTIN LUTHER KING JR. WAY		PLATE
	JOB NUMBER 430.011	DATE 12/12/90		APPROVED

LOG OF TEST BORING V-9

EQUIPMENT 10" Hollow Stem Auger
 DATE DRILLED 11/12/90
 ELEVATION --



ASPHALT CONCRETE - 3" thick
 CONCRETE PAVEMENT - 6" thick
 BROWN CLAYEY SAND (SC)
 medium dense, moist (fill)

BROWN SILTY SAND (SM-SP)
 dense, moist

<h2>Subsurface Consultants</h2>	14TH & MARTIN LUTHER KING JR. WAY		PLATE
	JOB NUMBER 430.011	DATE 12/12/90		APPROVED

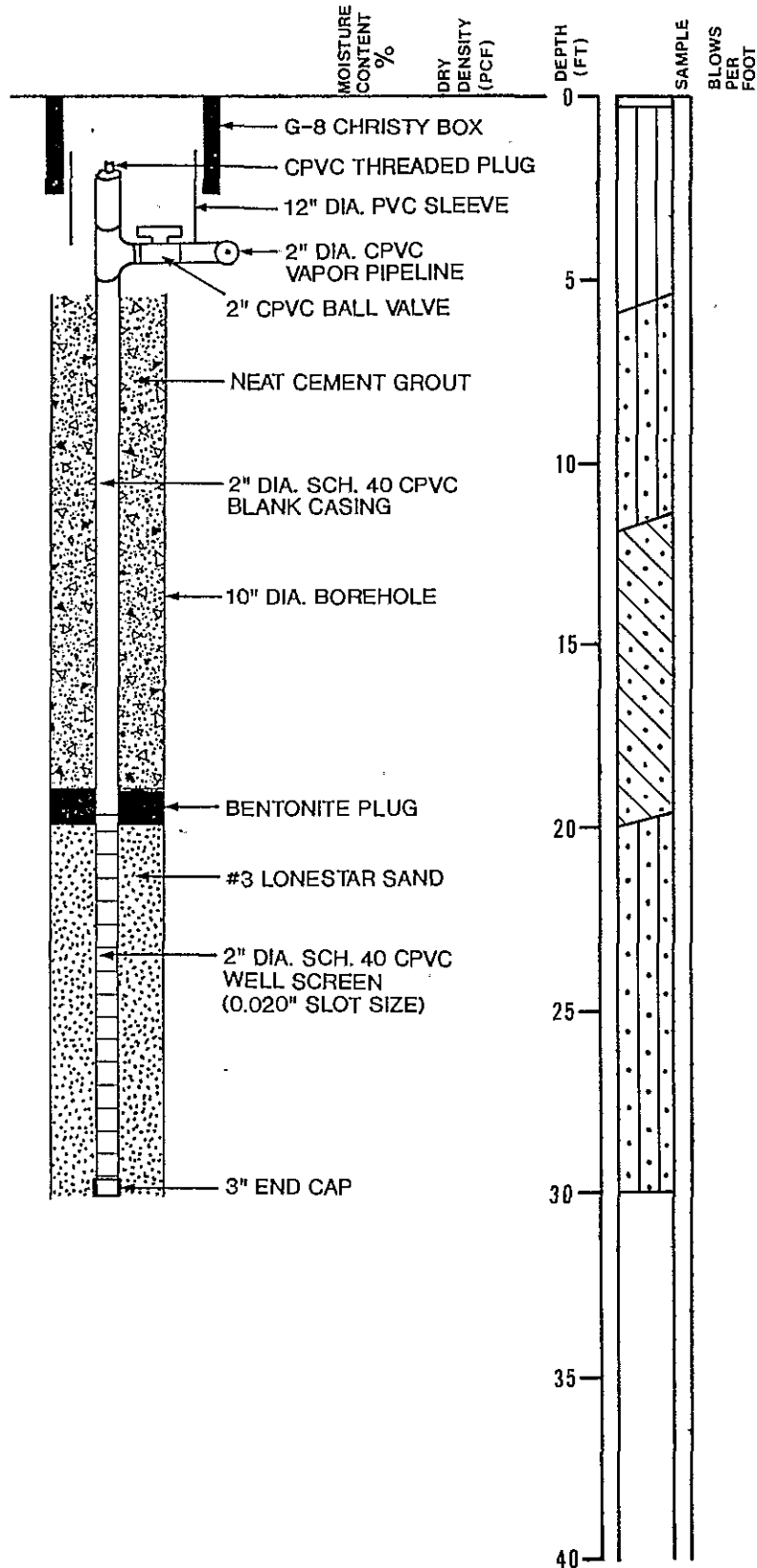
#316095

1S/4W 35D

42

LOG OF TEST BORING V-10

EQUIPMENT 10" Hollow Stem Auger
 DATE DRILLED 11/6/90
 ELEVATION --



LAWN
 BROWN SANDY SILT (ML)
 medium stiff, dry (topsoil)
 organic content decreases

BROWN SILTY SAND (SM)
 medium dense, moist

BROWN CLAYEY SAND (SC)
 medium dense, moist

BROWN SILTY SAND (SM-SP)
 dense, moist

Subsurface Consultants

14TH & MARTIN LUTHER KING JR. WAY

PLATE

JOB NUMBER
430.011

DATE
12/12/90

APPROVED

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY

DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 316095-1-Y

Notice of Intent No. _____
Local Permit No. or Date 90699 (Zone 7)

State Well No. 15/4W 35D19-40
Other Well No. _____

(1) OWNER: [Redacted]
Address [Redacted]
City [Redacted]

(18) WELL LOG: Total depth 30 ft. Completed depth 30 ft.
from ft. to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions):
County ALAMEDA Owner's Well Number V1-V24
Well address if different from above MARTIN LUTHER KING DR.
Township _____ Range _____ Section _____
Distance from cities, roads, railroads, fences, etc. _____

SEE ATTACHED MAP

(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well
Destruction (Describe destruction materials and procedures in Item 12)
(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Municipal
Other (Describe)

SEE ATTACHED LOGS
PUBLIC USE

WELL LOCATION SKETCH

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other Bucket
Auger

(6) GRAVEL PACK:
Yes No Size #3 SAND
Diameter of bore 10"
Packed from 30 to 19 ft.

(7) CASING INSTALLED:
Steel Plastic Concrete
From ft. To ft. Dia. in. Gage or Wall
0 20 2" 5/16

(8) PERFORATIONS:
Type of perforation or size of screen
From ft. To ft. Slot size
20 30 0.020

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth 18 ft.
Were strata sealed against pollution? Yes No Interval 0-18 ft.
Method of sealing BENTONINE PELLETS INERT CEMENT

Work started 11/5 19 90 Completed 11/13 19 90

(10) WATER LEVELS:
Depth of first water, if known 19 ft.
Standing level after well completion _____ ft.

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? _____
Type of test _____ Pump Bailer Air lift
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Was electric log made? Yes No If yes, attach copy to this report

Signed Richard [Signature] (Well Driller)
NAME SOILS EXPLORATION SERVICES, INC.
Address 561 BUCKEYE ST.
City VACAVILLE ZIP 95687
License No. C57 502026 Date of this report 12/19/90

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Invo
Add ✓

Do not fill in

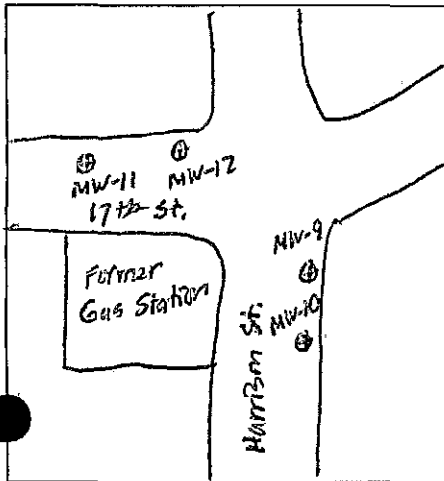
No. 327763

State Well No. 15/4W 35A-11-14
Other Well No. _____

Notice of Intent No. _____
Local Permit No. or Date 90802

(1) OWNER: _____
Address _____
City _____

(2) LOCATION OF WELL (See instructions): MW-9 →
County Alameda Owner's Well Number MW-12
Well address if different from above 1633 Harrison St, Oakland, CA
Township 15 Range 4W Section 35
Distance from cities, roads, railroads, fences, etc. Lake Merritt is 3/4 mile
to the east. Wells located on 17th and Harrison St.
in Oakland.



WELL LOCATION SKETCH

(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well
Destruction (Describe
destruction materials and pro-
cedures in Item 12)

(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Municipal
Other Monitor
(Describe)

(5) EQUIPMENT: See attached
Rotary Reverse
Cable Air
Other Bucket

(6) WELL RACK:
Yes No Size _____
Diameter of bore _____
Racked from _____ ft.

(7) CASING INSTALLED:
Steel Plastic Concrete

(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
See attached logs						

(9) WELL SEAL: See attached logs
Was surface sanitary seal provided? Yes No If yes, to depth _____ ft.
Were strata sealed against pollution? Yes No Interval _____ ft.
Method of sealing _____

(10) WATER LEVELS: See attached logs
Depth of first water, if known _____ ft.
Standing level after well completion _____ ft.

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? _____
Type of test Pump Bailer Air lift
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Was electric log made Yes No If yes, attach copy to this report

(12) WELL LOG: Total depth _____ ft. Completed depth _____ ft.
from ft. to ft. Formation (Describe by color, character, size or material)

See attached logs

NOT FOR PUBLIC USE SEC. 13752

Work started June 18 1990 Completed June 20 1990
WELL DRILLER'S STATEMENT:

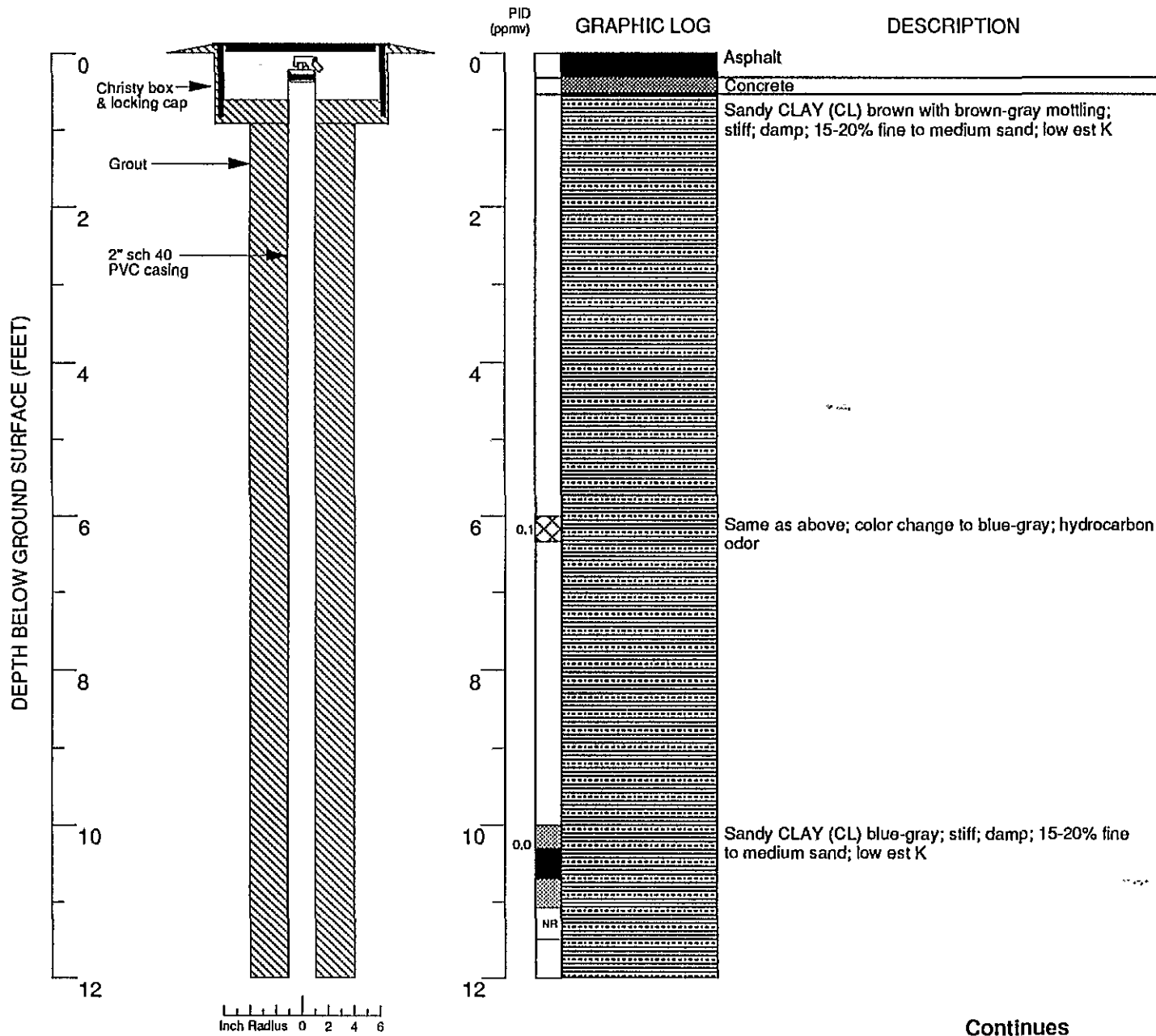
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Signed David D. Reichert (agent WGR) for B&F Drilling
(Well Driller) of Rancho Cordova, CA.

NAME Western Geologic Resources, Inc.
(Person, firm, or corporation) (Typed or printed)

Address 2169 E. Francisco Blvd
City San Rafael CA ZIP 94901

License No. 519428 Date of this report 8-9-90



Continues

Logged by: Julie Noffke Project Mgr: Len Niles Dates Drilled: 6/20/90	Drilling Company: B & F Drilling Co., Inc. Drilling Method: 8" Follow stem auger Driller: Bruce Cox	Well Head Completion: Christy box & locking cap Type of Sampler: 2" split barrel TD (Total Depth): 27.5 ft.
---	---	---

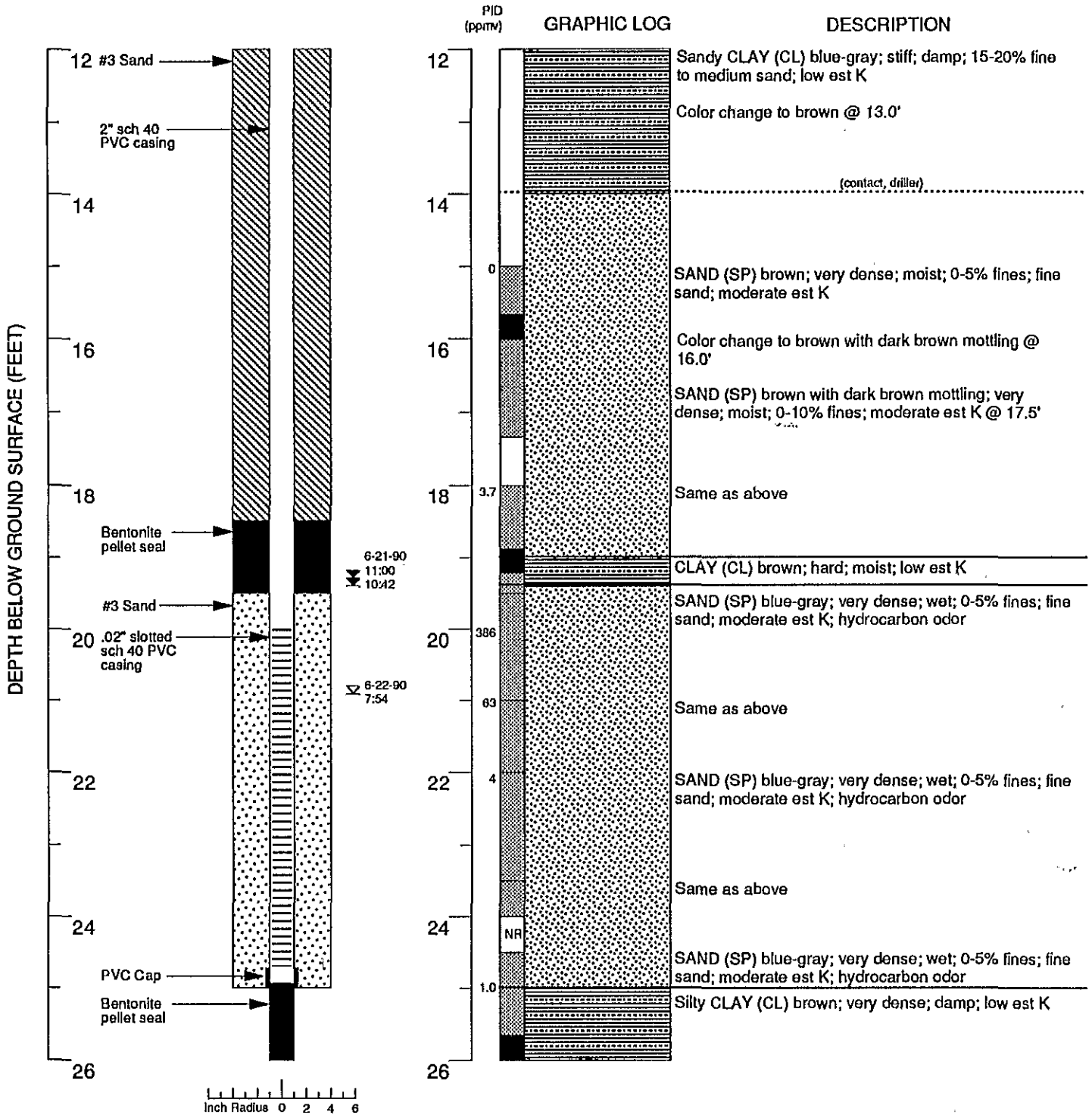
EXPLANATION	
☒ Water level during drilling	——— Contacts: Solid where certain
☒ Water level in completed well	..... Dotted where approximate
☒ Location of recovered drill sample	- - - Dashed where uncertain
☒ Location of sample sealed for chemical analysis	////// Hachured where gradational
☒ Sieve sample	est K Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
☒ Grab sample	NR No recovery

Boring Log and Well Completion Details
 MW-9 (Boring B-16)
15/4 W 35 A 11
 [Redacted]
 Oakland, California

MONITOR WELL

9

WESTERN GEOLOGIC RESOURCES, INC. 1-012.04



Continues

EXPLANATION

- ▼ Water level during drilling
- ⊠ Water level in completed well
- ▣ Location of recovered drill sample
- Location of sample sealed for chemical analysis
- ▤ Sieve sample
- ⊞ Grab sample
- Contacts: Solid where certain
- ⋯ Dotted where approximate
- - - Dashed where uncertain
- ▨ Hachured where gradational
- est K Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
- NR No recovery

Boring Log and Well Completion Details
MW-9 (Boring B-16)

15/42 35 A 11

Oakland, California

WESTERN GEOLOGIC RESOURCES, INC.

MONITOR WELL

9

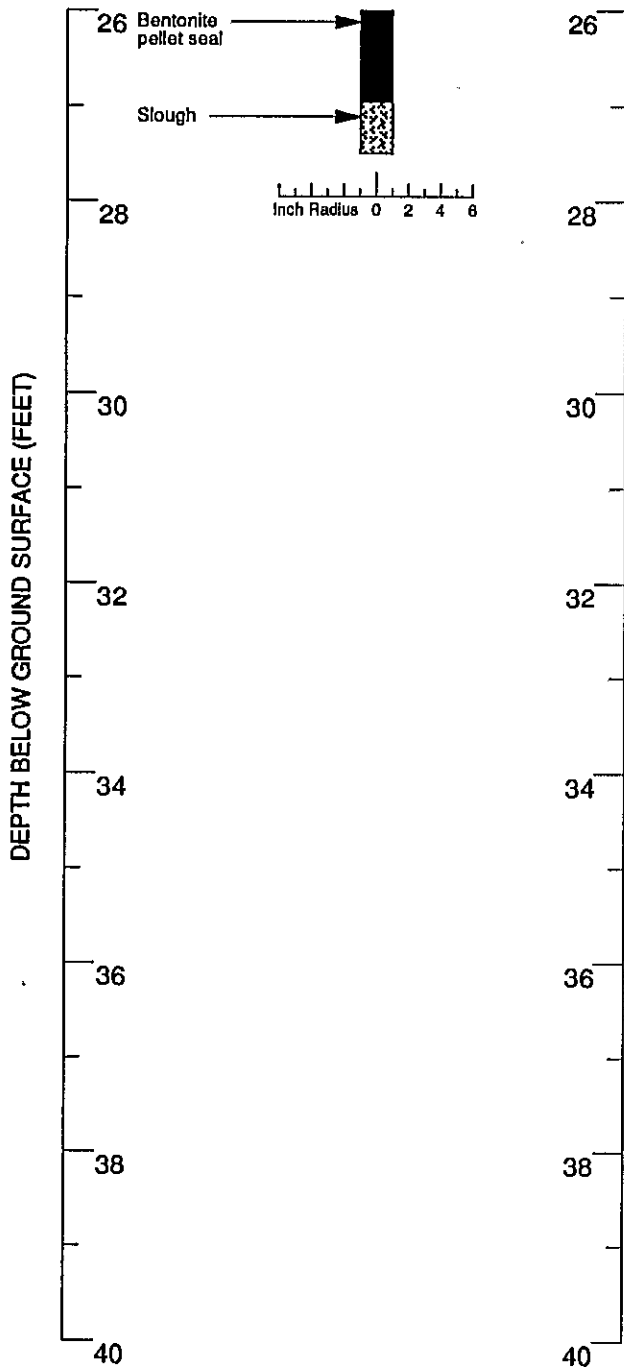
1-012.04

327160A

PID
(ppm)

GRAPHIC LOG

DESCRIPTION



26 Silty CLAY (CL) brown; very dense; damp; low est K
 TD @ 27.5 ft.

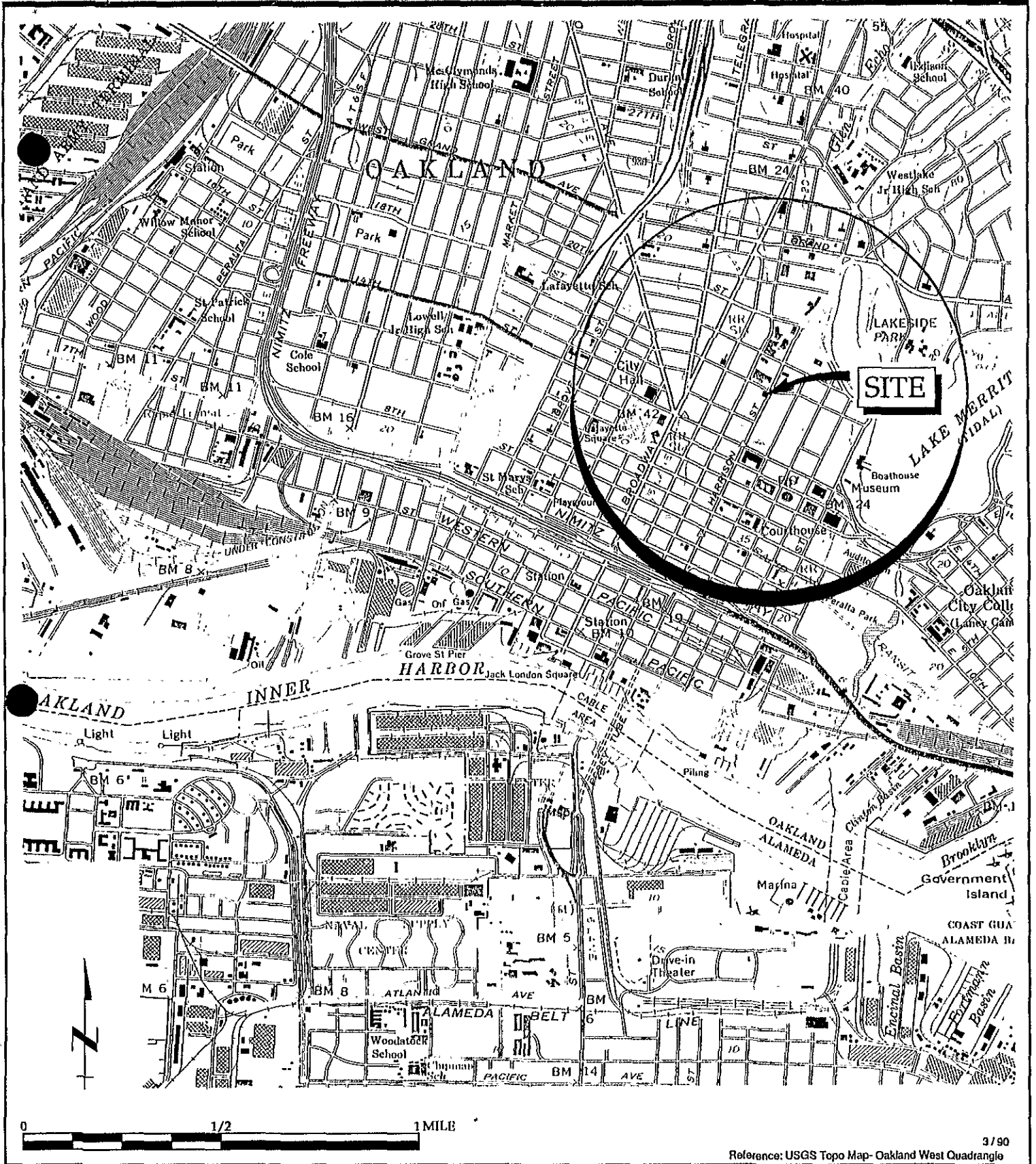
EXPLANATION	
Water level during drilling	Contacts: Solid where certain
Water level in completed well	Dotted where approximate
Location of recovered drill sample	Dashed where uncertain
Location of sample sealed for chemical analysis	Hatched where gradational
Sieve sample	est K Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
Grab sample	NR No recovery

Boring Log and Well Completion Details
 MW-9 (Boring B-16)

1514435A11

[Redacted]
 Oakland, California

MONITOR WELL
 9
 1-012.04

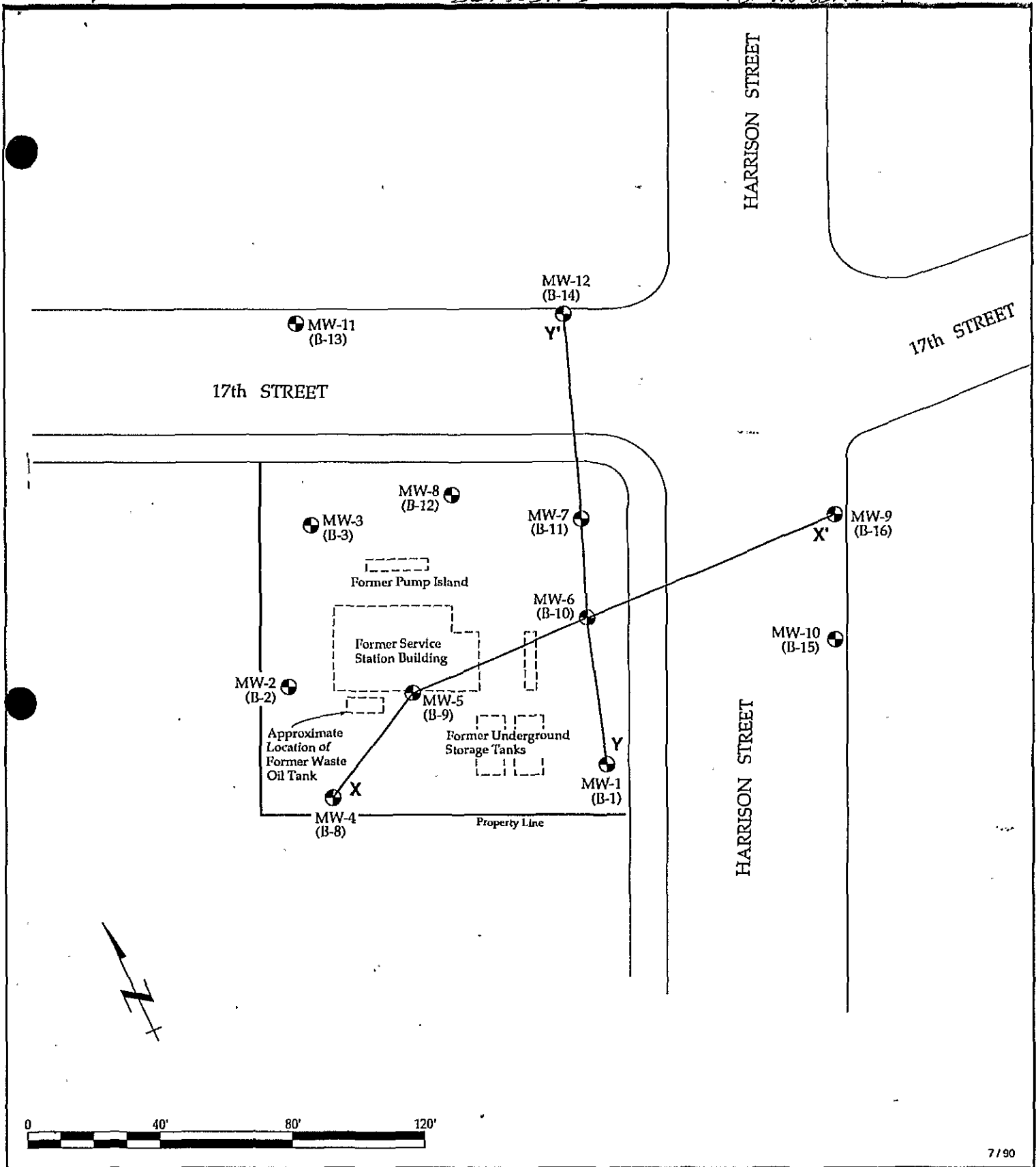


Site Location Map

17th and Harrison Streets, Oakland, California

FIGURE

1



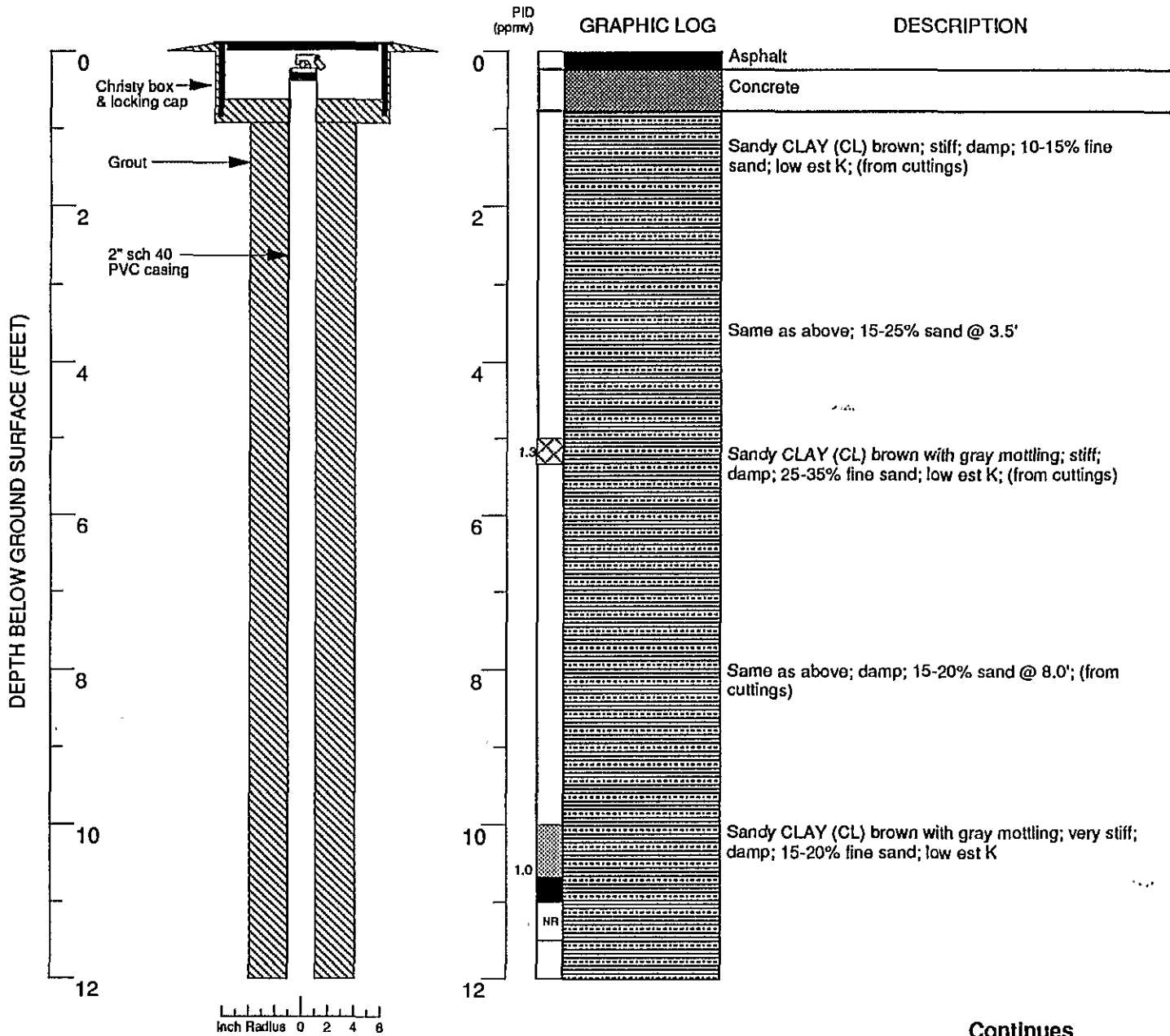
7/90

EXPLANATION	
	MW-1 Monitor Well (Boring) location (B-1)
	Generalized hydrogeologic cross-section location

Site Map with Monitor Well and Generalized Hydrogeologic Cross-Section X-X' and Y-Y' Locations
 [Redacted]
 1633 Harrison Street,
 Oakland, California

WESTERN GEOLOGIC RESOURCES, INC.

FIGURE
3
 1-012.04



Continues

Logged by: Justin Power
Project Mgr: Len Niles
Dates Drilled: 6/20/90

Drilling Company: B & F Drilling Co., Inc.
Drilling Method: 8" Hollow stem auger
Driller: Bruce Cox

Well Head Completion: Christy box & locking cap
Type of Sampler: 2" split barrel
TD (Total Depth): 27.0 ft.

EXPLANATION

- ☒ Water level during drilling
- ☒ Water level in completed well
- ▣ Location of recovered drill sample
- ▣ Location of sample sealed for chemical analysis
- ▣ Sieve sample
- ☒ Grab sample
- Contacts: Solid where certain
- Dotted where approximate
- - - Dashed where uncertain
- ▨ Hachured where gradational
- est K Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
- NR No recovery

Boring Log and Well Completion Details
MW-10 (Boring B-15)

15/4W 35A12

Oakland, California

WESTERN GEOLOGIC RESOURCES, INC.

MONITOR WELL

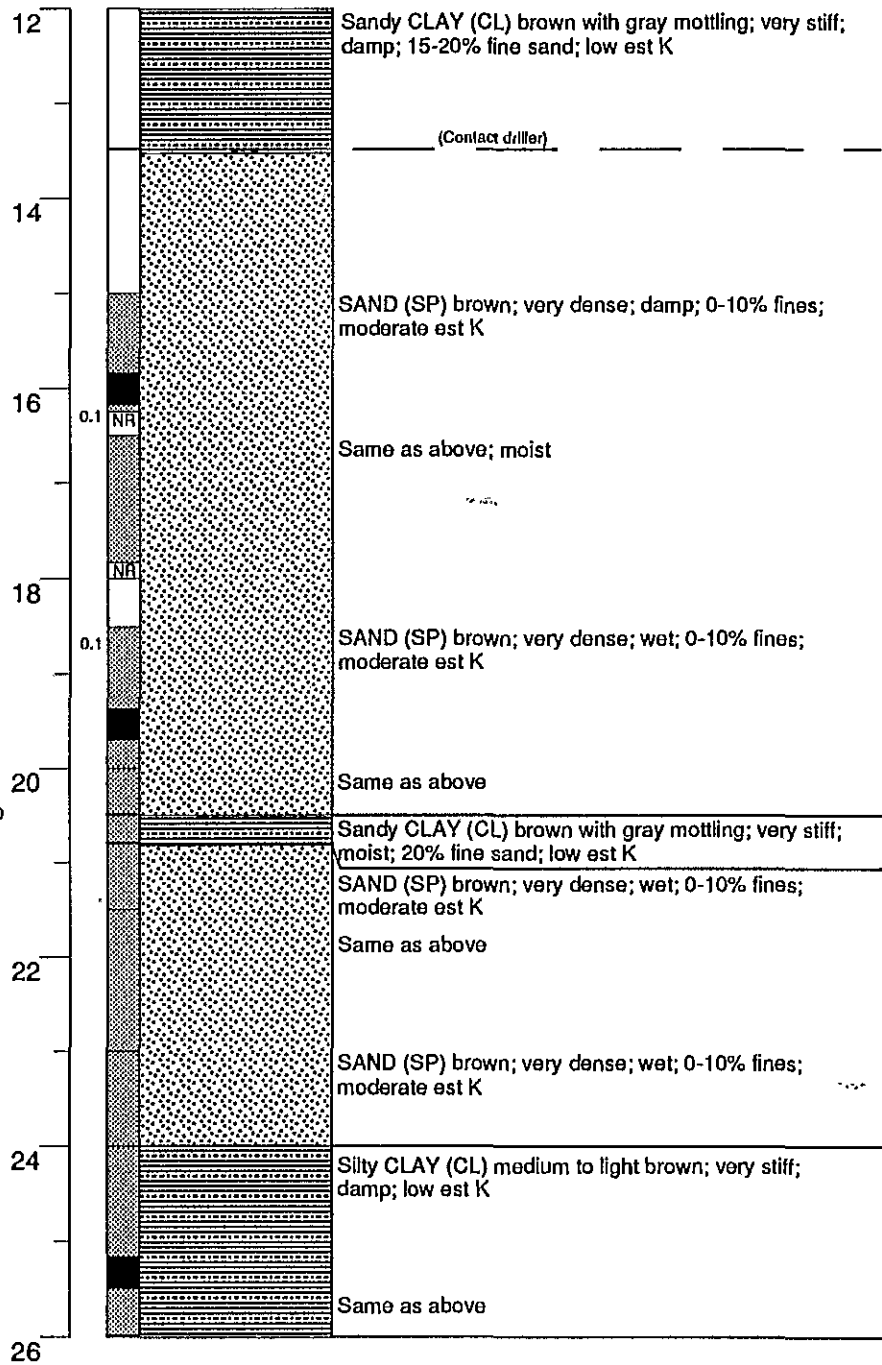
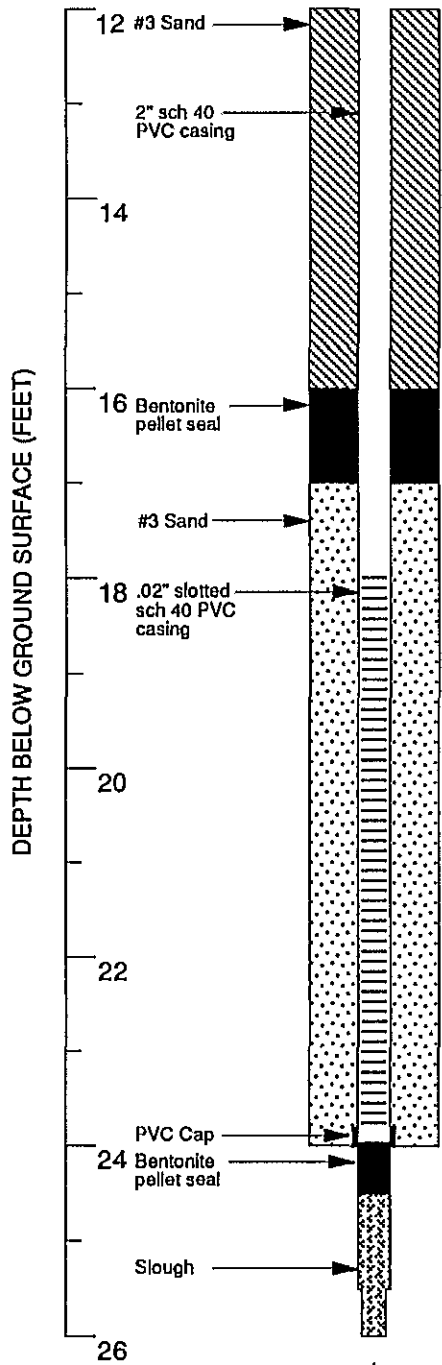
10

1-012.04

PID (ppmv)

GRAPHIC LOG

DESCRIPTION



Continues

EXPLANATION	
▼	Water level during drilling
⚡	Water level in completed well
▣	Location of recovered drill sample
■	Location of sample sealed for chemical analysis
▤	Sieve sample
⊠	Grab sample
—	Contacts; Solid where certain
⋯	Dotted where approximate
- - -	Dashed where uncertain
////	Hachured where gradational
est K	Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
NR	No recovery

Boring Log and Well Completion Details
 MW-10 (Boring B-15)
B/4A 35A12
 [Redacted]
 Oakland, California

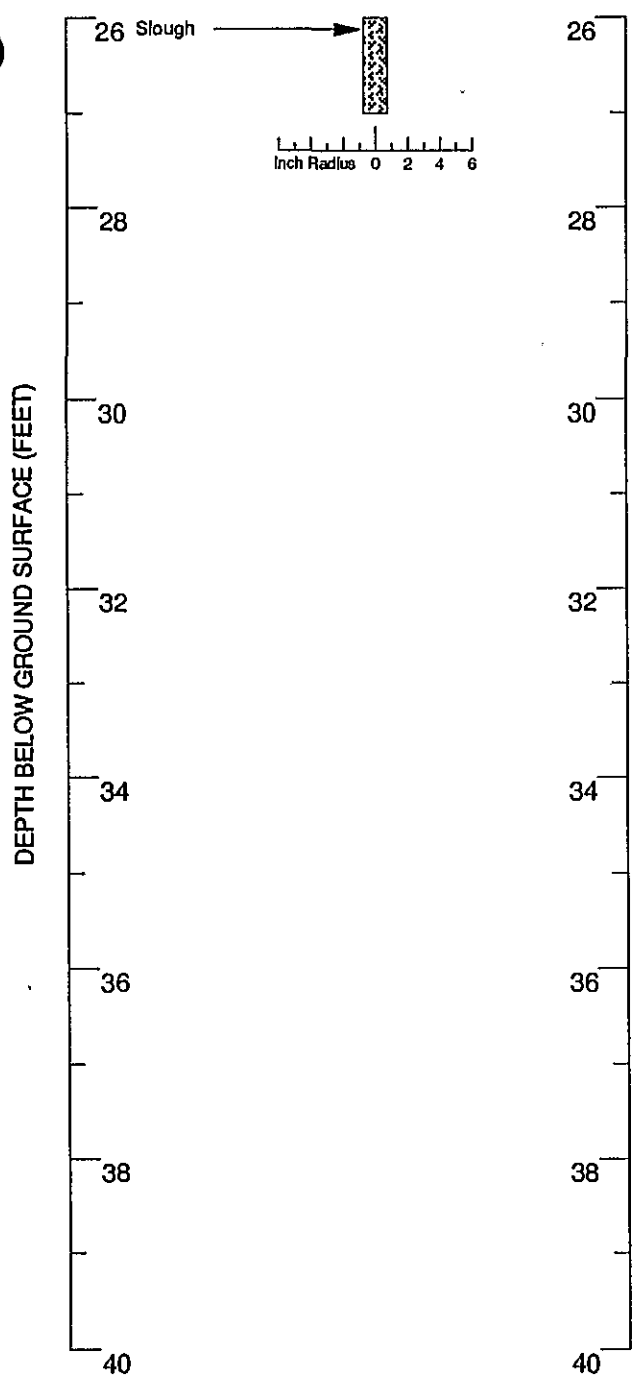
MONITOR WELL
10
 1-012.04

227760 B

PID
(ppmv)

GRAPHIC LOG

DESCRIPTION



DEPTH (FEET)	DESCRIPTION
26.5 - 27.0	SAND (SP) brown; very dense; wet; 0-10% fines; moderate est K TD @ 27.0 ft.
28	
30	
32	
34	
36	
38	
40	

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Grab sample
- Contacts: Solid where certain
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
- NR No recovery

Boring Log and Well Completion Details
MW-10 (Boring B-15)

15/4/11 35A12

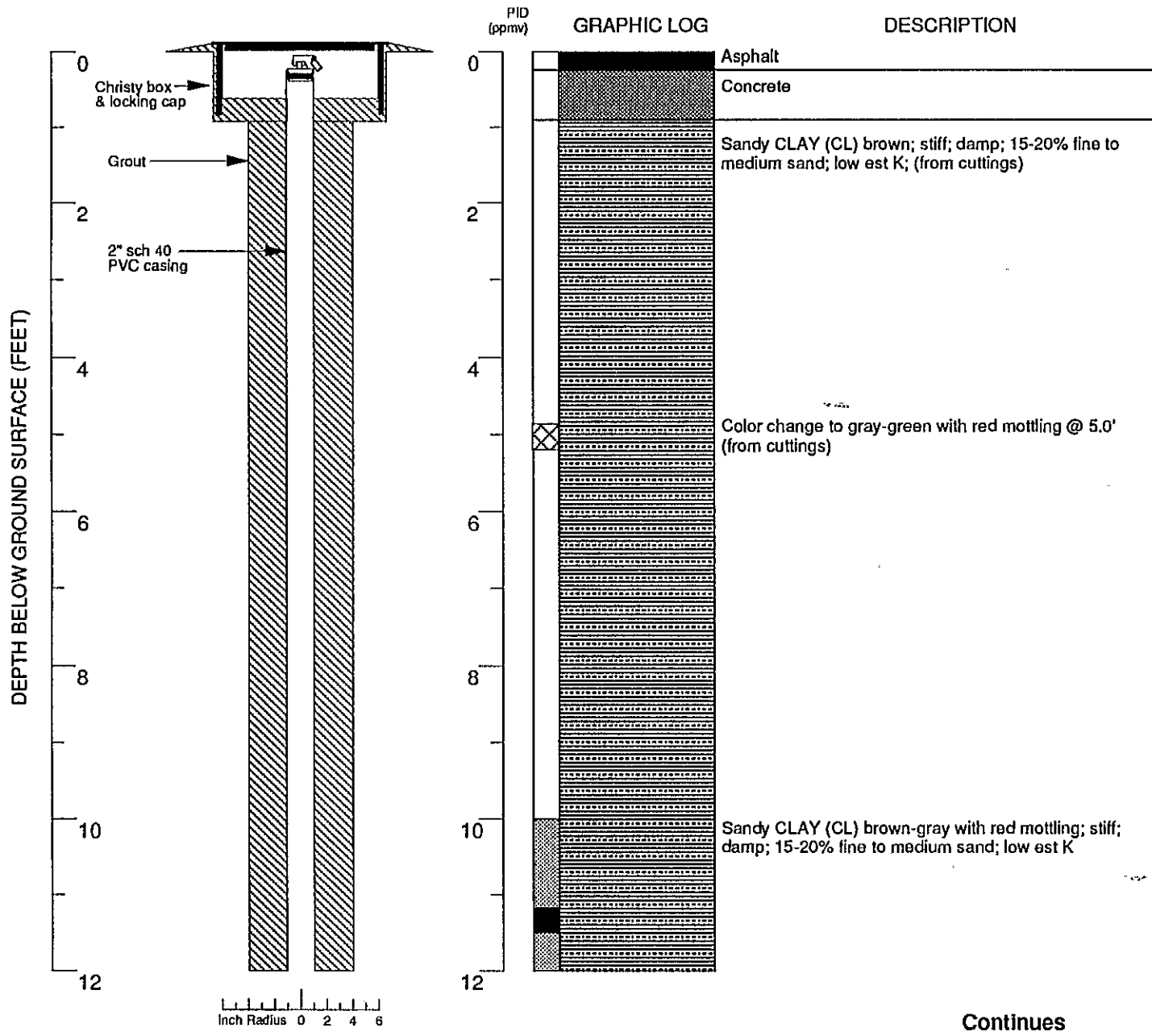
Oakland, California

WESTERN GEOLOGIC RESOURCES, INC.

MONITOR WELL

10

1-012.04



Continues

Logged by: Julie Noffke
 Project Mgr: Len Niles
 Dates Drilled: 6/18/90

Drilling Company: B & F Drilling Co., Inc.
 Drilling Method: 8" Hollow stem auger
 Driller: Bruce Cox

Well Head Completion: Christy box & locking cap
 Type of Sampler: 2" split barrel
 TD (Total Depth): 29.5 ft.

EXPLANATION

- ☒ Water level during drilling
- ☒ Water level in completed well
- ▣ Location of recovered drill sample
- Location of sample sealed for chemical analysis
- ▣ Sieve sample
- ☒ Grab sample
- Contacts: Solid where certain
- Dotted where approximate
- - - Dashed where uncertain
- ////// Hachured where gradational
- est K Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
- NR No recovery

Boring Log and Well Completion Details
 MW-11 (Boring B-13)

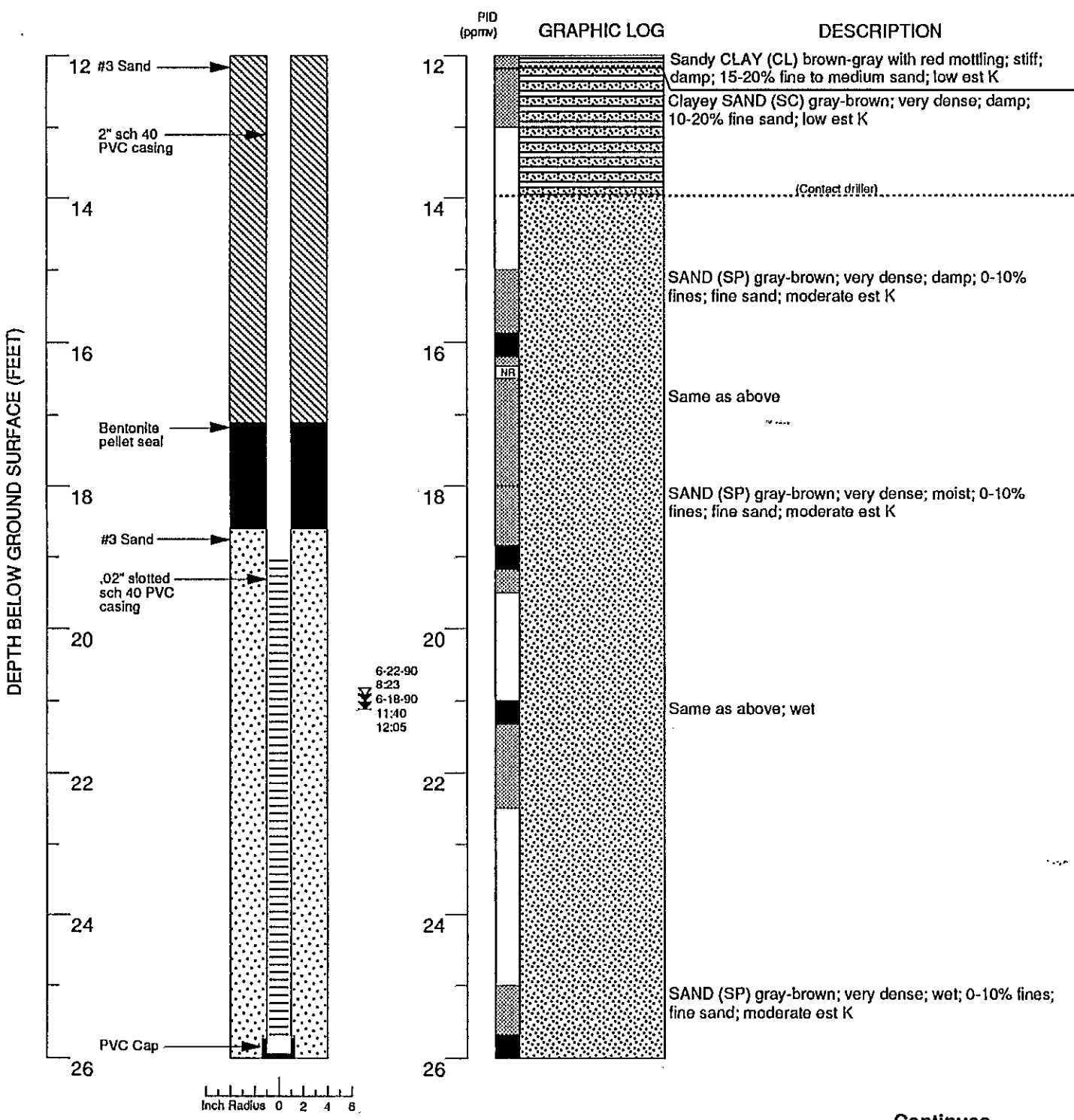
15/44 35A13



Oakland, California

MONITOR WELL

11



Continues

EXPLANATION	
	Water level during drilling
	Water level in completed well
	Location of recovered drill sample
	Location of sample sealed for chemical analysis
	Sieve sample
	Grab sample
	Contacts: Solid where certain
	Dotted where approximate
	Dashed where uncertain
	Hachured where gradational
est K	Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
NR	No recovery

Boring Log and Well Completion Details
MW-11 (Boring B-13)

15/40 35A-3

Oakland, California

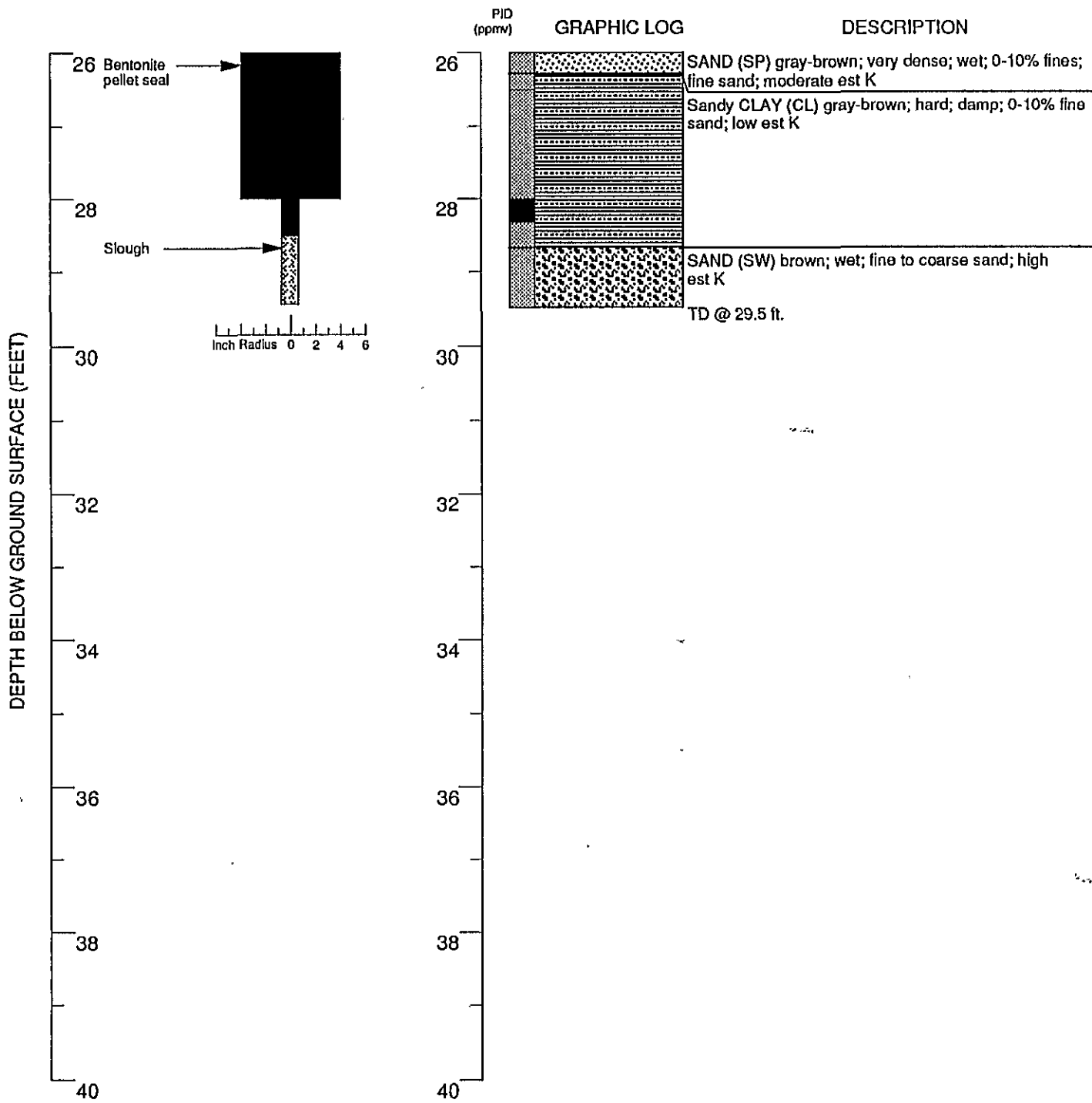
WESTERN GEOLOGIC RESOURCES, INC.

MONITOR WELL

11

1-012.04

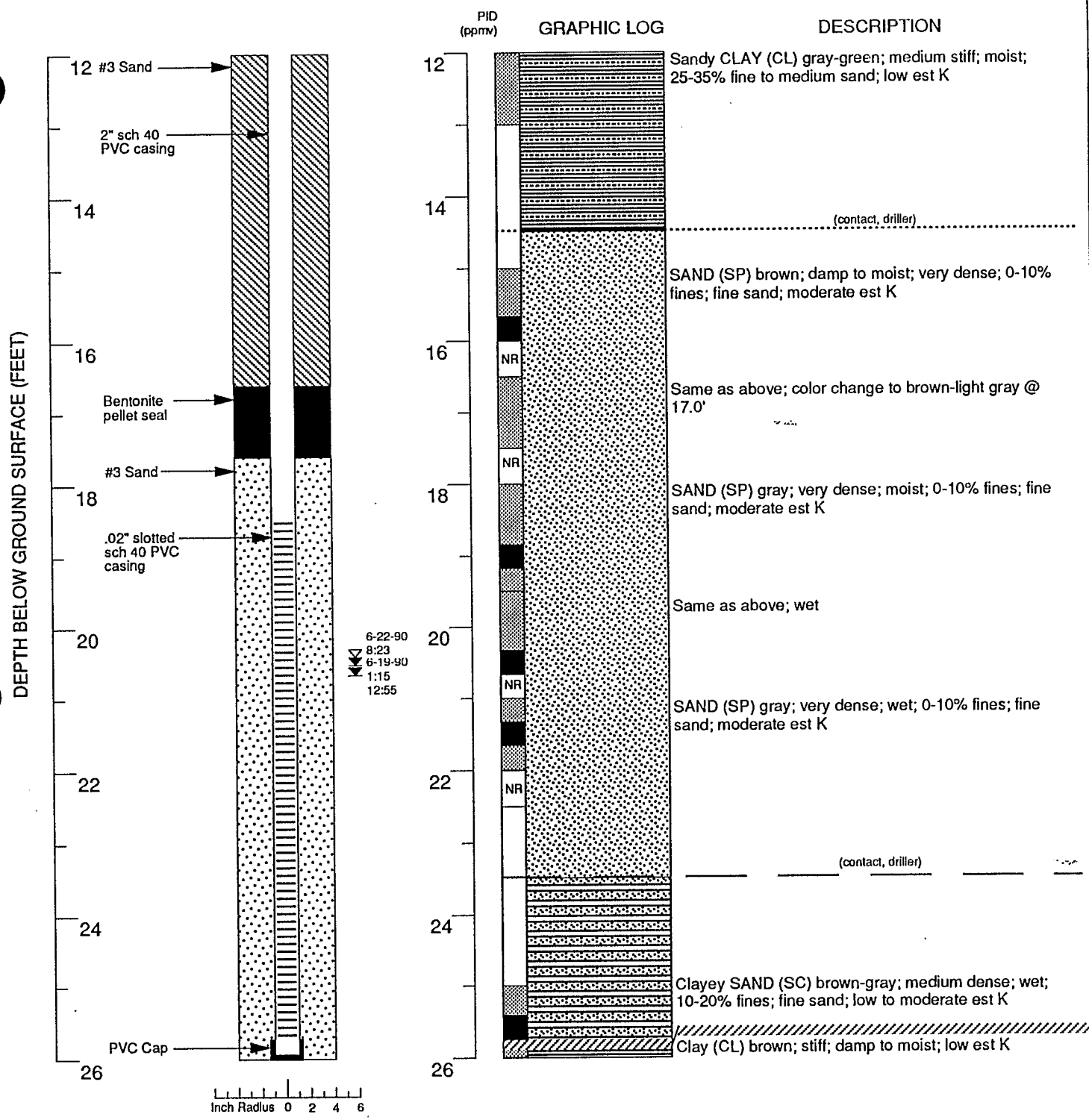
327763C



EXPLANATION	
Water level during drilling	Contacts: Solid where certain
Water level in completed well	Dotted where approximate
Location of recovered drill sample	Dashed where uncertain
Location of sample sealed for chemical analysis	Hachured where gradational
Sieve sample	est K Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
Grab sample	NR No recovery

Boring Log and Well Completion Details
 MW-11 (Boring B-13)
16/44 35A13
 [Redacted]
 Oakland, California

MONITOR WELL
11
 1-012.04



EXPLANATION

Water level during drilling	Contacts: Solid where certain
Water level in completed well	Dotted where approximate
Location of recovered drill sample	Dashed where uncertain
Location of sample sealed for chemical analysis	Hachured where gradational
Sieve sample	est K Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
Grab sample	NR No recovery

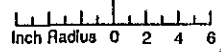
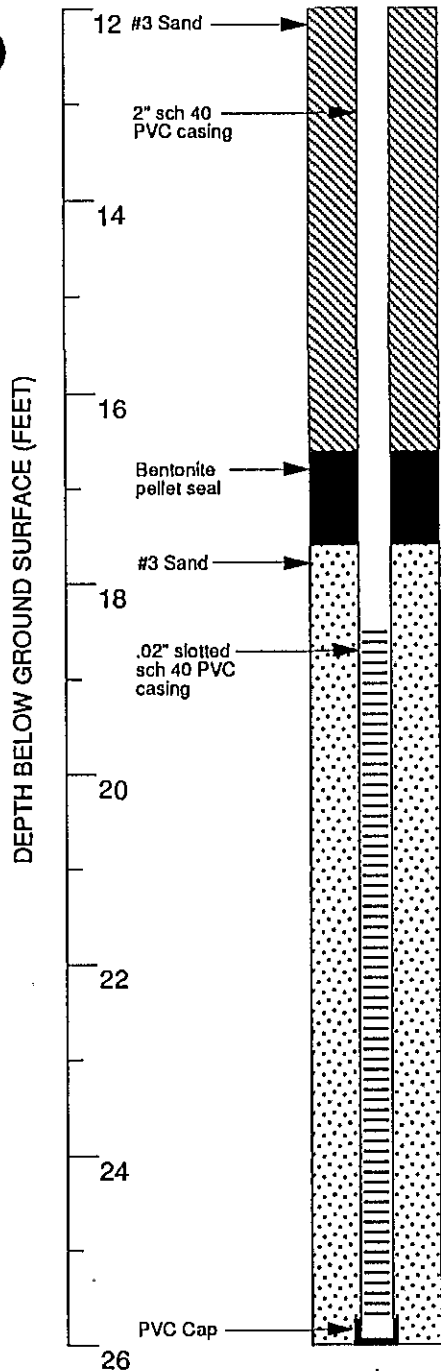
Boring Log and Well Completion Details
MW-12 (Boring B-14)
15144 35 A14
 Oakland, California
WESTERN GEOLOGIC RESOURCES, INC.

MONITOR WELL
12
 1-012.04

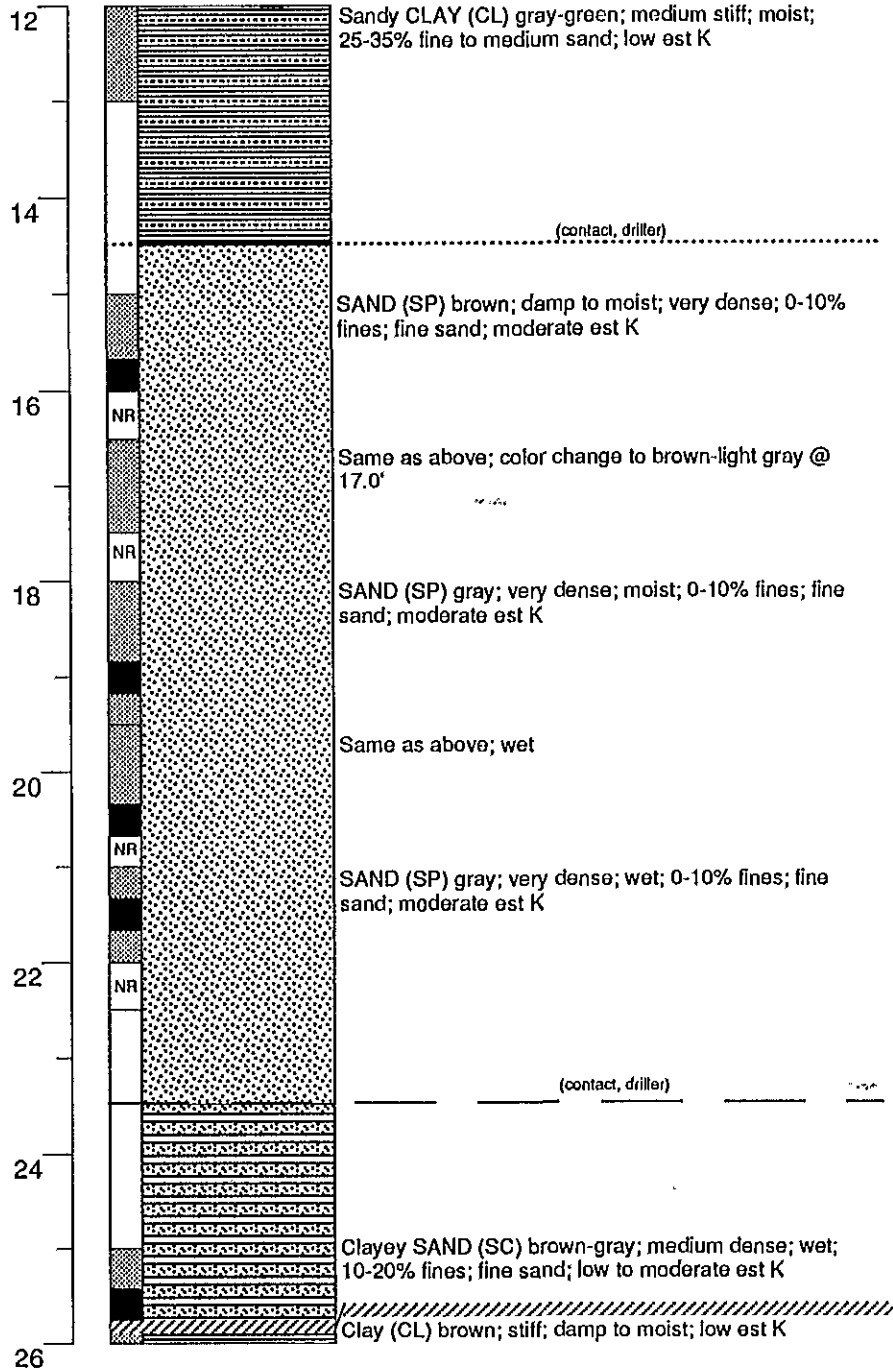
PID (ppmv)

GRAPHIC LOG

DESCRIPTION



6-22-90
8:23
6-19-90
1:15
12:55



Continues

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Grab sample
- Contacts: Solid where certain
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
- NR No recovery

Boring Log and Well Completion Details
MW-12 (Boring B-14)

15144 35A14

Oakland, California

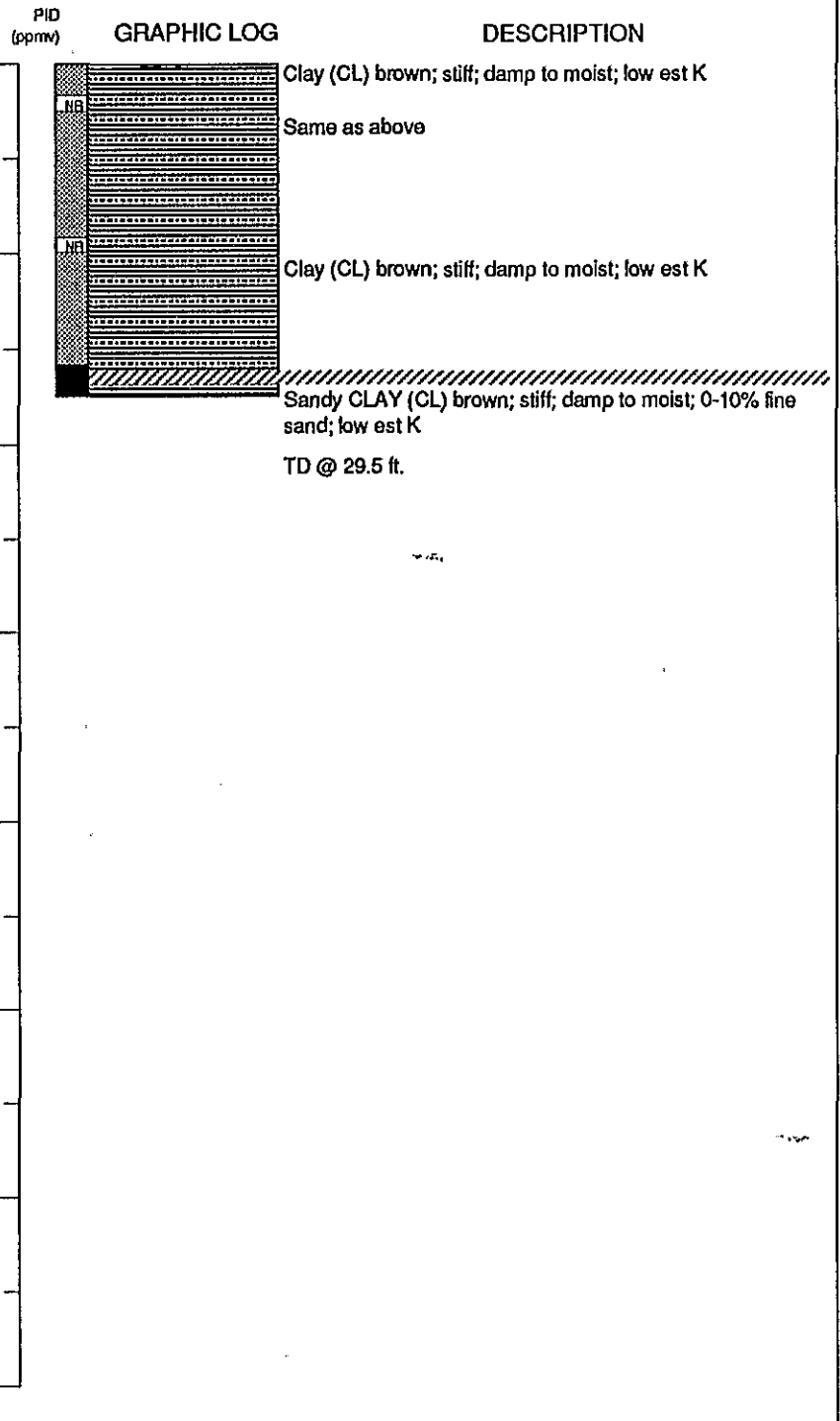
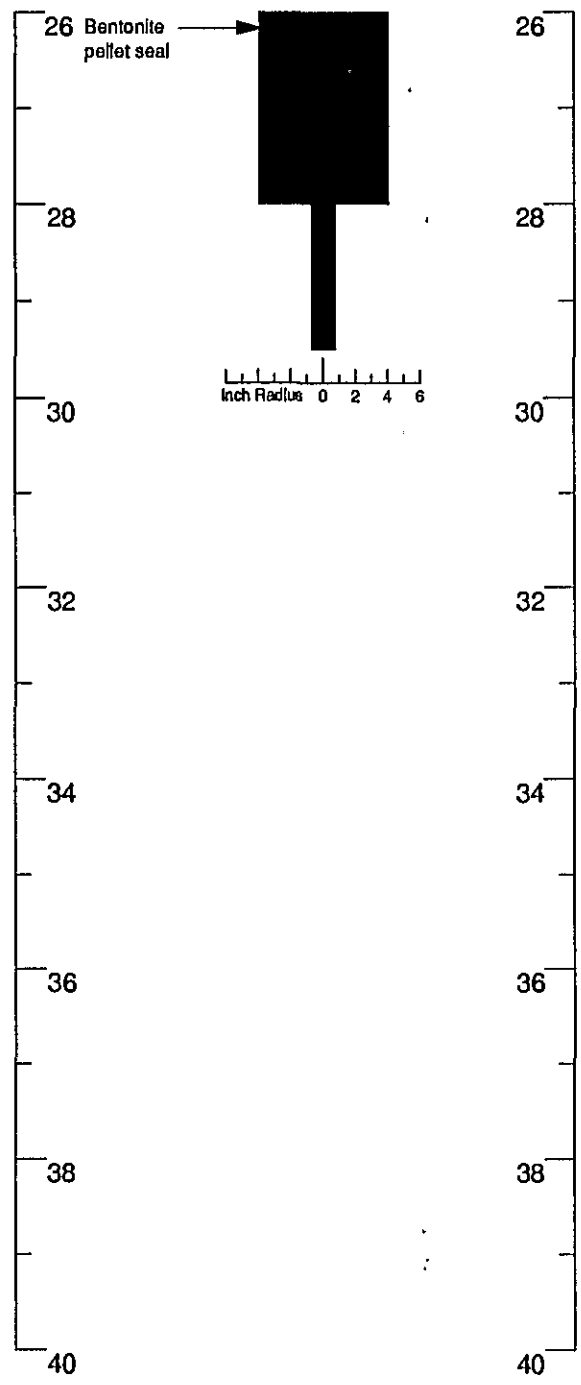
WESTERN GEOLOGIC RESOURCES, INC.

MONITOR WELL

12

1-012.04

DEPTH BELOW GROUND SURFACE (FEET)



EXPLANATION	
	Water level during drilling
	Water level in completed well
	Location of recovered drill sample
	Location of sample sealed for chemical analysis
	Sieve sample
	Grab sample
	Contacts: Solid where certain
	Dotted where approximate
	Dashed where uncertain
	Hatched where gradational
est K	Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
NR	No recovery

Boring Log and Well Completion Details
 MW-12 (Boring B-14)
1514438A14
 [Redacted]
 Oakland, California

MONITOR WELL
12
 1-012.04

inv ✓
Add ✓

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 340401

Notice of Intent No. _____
Local Permit No. or Date 90225

31754

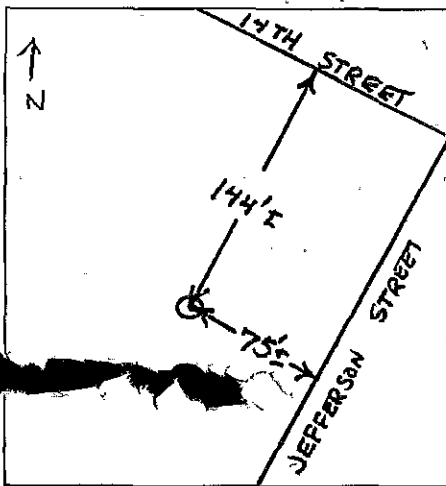
State Well No. 1S/4W-3567
Other Well No. _____

(1) OWNER: _____
Address _____
City _____

(12) WELL LOG: Total depth _____ ft. Completed depth _____ ft.
from ft. to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions):
County Alameda Owner's Well Number _____
Well address if different from above 13th & Jefferson
Township 1 south Range 4 west Section 35
Distance from cities, roads, railroads, fences, etc. 144'± from 14th
Street curb, 75'± from Jefferson
Street curb.

1. Excavated down to 14" casing. Set 18" casing over the 14" and backfilled.
2. Removed 8" casing.
3. Drilled down 53' below datum (Datum 17' below sidewalk.)
4. Filled hole with 11 sack grout as casing was removed.



(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well
Destruction (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Municipal
Other (Describe)

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other Bucket

(6) GRAVEL PACK:
Yes No Size _____
Diameter of bore _____
Packed from _____ to _____ ft.

(7) CASING INSTALLED:
Steel Plastic Concrete

(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth 70 ft.
Were strata sealed against pollution? Yes No Interval _____ ft.
Method of sealing 11 sack sand cement grout.

(10) WATER LEVELS:
Depth of first water, if known _____ ft.
Standing level after well completion _____ ft.

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? _____
Pump Bailer Air lift
ft. to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Was electric log made Yes No If yes, attach copy to this report

Work started April 12, 1990 Completed April 23, 1990
WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Signed J. DeLucchi (Well Driller)
NAME DeLucchi Well & Pump, Inc.
(Person, firm, or corporation) (Typed or printed)
Address 35137 Mission Blvd.
City Fremont, CA. ZIP 94536-1598
License No. C57 394454 Date of this report May 7, 1990

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 346335

Notice of Intent No. _____
Local Permit No. or Date 91249

State Well No. 15/4W 35D45
Other Well No. _____

(1) OWNER: _____
Address _____
City _____

(12) WELL LOG: Total depth 32 ft. Completed depth 32 ft.
from ft. to ft. Formation (Describe by color, character, size or material)
0 - 10 BROWN SAND (SM-SP)

(2) LOCATION OF WELL (See instructions):
County ALAMEDA Owner's Well Number 60
Well address if different from above NEAR INTERSECTION OF 13TH ST
AND MARTIN LUTHER KING JR. WAY
Township _____ Range _____ Section _____
Distance from cities, roads, railroads, fences, etc. _____

10 - 30 GRAY SAND (SM-SP)
30 - 32 GRAY SILTY CLAY (CL)

SEE ATTACHED
SITE PLAN

(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well
Destruction (Describe destruction materials and procedures in Item 12)
(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Municipal
Other EXTRACTION

WELL LOCATION SKETCH

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other Bucket

(6) GRAVEL PACK:
Yes No Size 1/4"
Diameter of bore 12 IN.
Packed from 10 to 32 ft.

(7) CASING INSTALLED:
Steel Plastic Concrete

(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall
0	12	4	SCH 40

From ft.	To ft.	Slot size
12	32	0.02 1/4

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth _____ ft.
Were strata sealed against pollution? Yes No Interval 0-9 ft.
Method of sealing CEMENT/BENTONITE GROUT

Work started 5/14 1991 Completed 5/14 1991

(10) WATER LEVELS:
Depth of first water, if known 11 ft.
Standing level after well completion 10 ft.

WELL DRILLER'S STATEMENT:

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? _____
Type of test 3A Pump Bailer Air lift
Depth of test at start of test NA ft. At end of test NA ft.
Discharge NA gal/min after _____ hours Water temperature NA
Chemical analysis made? Yes No If yes, by whom? _____
Was electric log made Yes No If yes, attach copy to this report

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

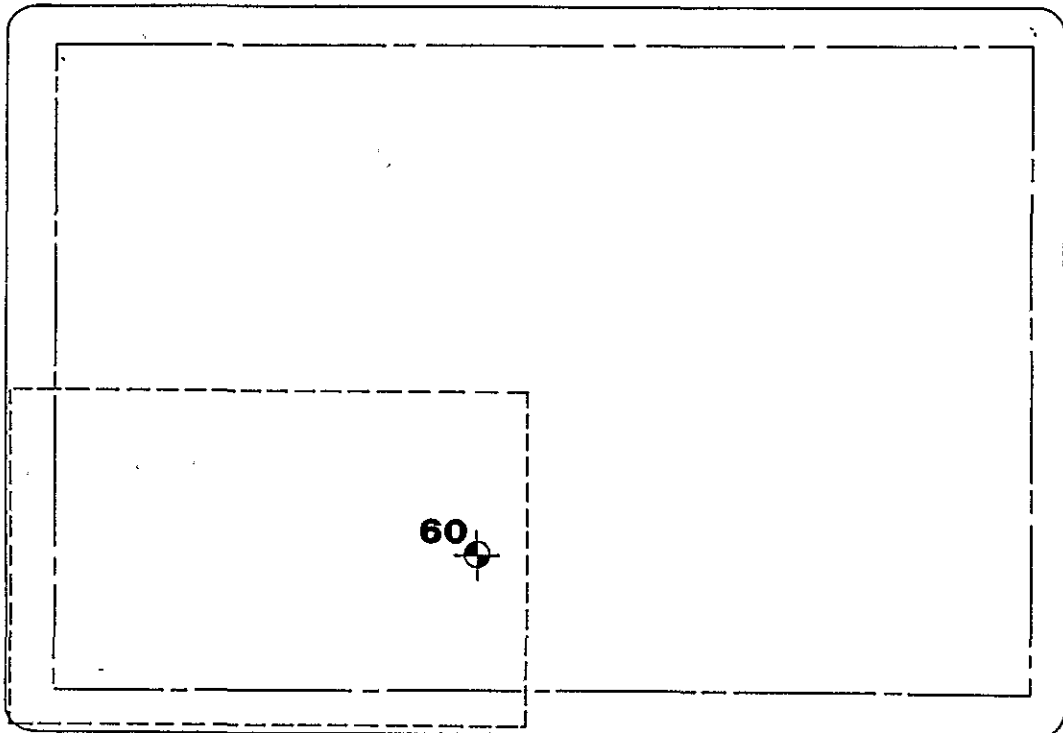
Signed Richard H. Lake Richard H. Lake
(Well Driller)
NAME Pitcher Drilling CO.
(Person, firm, or corporation) (Typed or printed)
Address P.O. Box 50367
City Palo Alto, CA 94303 ZIP _____
License No. 263085 C-57 Date of this report 5/28/91

346335
1S/4W 3SD4S

14TH STREET

MARTIN LUTHER KING JR. WAY

JEFFERSON STREET



13TH STREET

	TEST BORING
	PROPERTY LINE
	EXTENT OF BASEMENT



APPROXIMATE SCALE (feet)

SITE PLAN

Subsurface Consultants

13TH & JEFFERSON - OAKLAND, CA

JOB NUMBER	DATE	APPROVED
430.014	5/28/91	

PLATE

1

DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

ORIGINAL
File with DWR

No. 364247

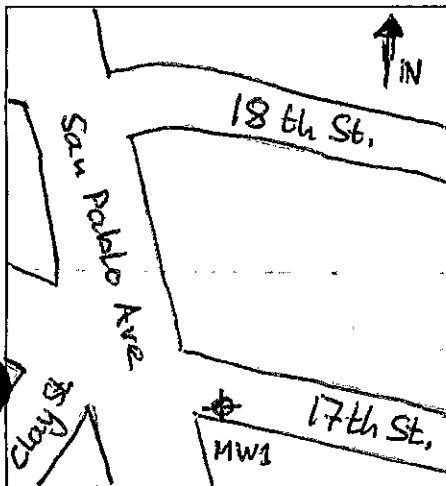
Notice of Intent No. _____
Local Permit No. or Date 91011

State Well No. 1514W 35C13
Other Well No. _____

(12) WELL LOG: Total depth 28.5 ft. Completed depth 28.5 ft.
from ft. to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions):

County Alameda Owner's Well Number MW1
Well address if different from above 545 17th Street, Oakland
Township 1 South Range 4 West Section 26
Distance from cities, roads, railroads, fences, etc. on street, 4 ft from S-curb



WELL LOCATION SKETCH

(3) TYPE OF WORK:

- New Well Deepening
- Reconstruction
- Reconditioning
- Horizontal Well
- Destruction (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:

- Domestic
- Irrigation
- Industrial
- Test Well
- Municipal
- Other (Describe)

(5) EQUIPMENT:

- Rotary Reverse
- Cable Air
- Other Bucket
- 3" Hollow Stem Auger

(6) GRAVEL PACK:

- Yes No Size 12-20
- Diameter of bore 21"
- Packed from 16 to 28.5 ft.

(7) CASING INSTALLED:

- Steel Plastic Concrete

(8) PERFORATIONS:

Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Cage or Wall	From ft.	To ft.	Slot size
0	28.5	21"	Sch 40	18	28.5	0.01"
						factory stotted

(9) WELL SEAL:

Was surface sanitary seal provided? Yes No If yes, to depth 16.10 ft.
Were strata sealed against pollution? Yes No Interval _____ ft.
Method of sealing Portland I-II Cement, Bentonite

Work started 1/18 1991 Completed 1/18 1991

(10) WATER LEVELS:

Depth of first water, if known 23 ft.
Standing level after well completion 22.94 ft.

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

(11) WELL TESTS:

Was well test made? Yes No If yes, by whom? _____
Type of test _____ Pump Air lift Bailor
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? CKY INC.
Was electric log made Yes No If yes, attach copy to this report

Signed Joel R. Kushins, Project Manager

NAME JOEL R. KUSHINS, P.E.
(Person, firm, or corporation) (Typed or printed)
Address WOODWARD-CLYDE CONSULTANTS
City 500-12TH ST OAKLAND ZIP 94607
License No. CO29367 Date of this report 3-11-91

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

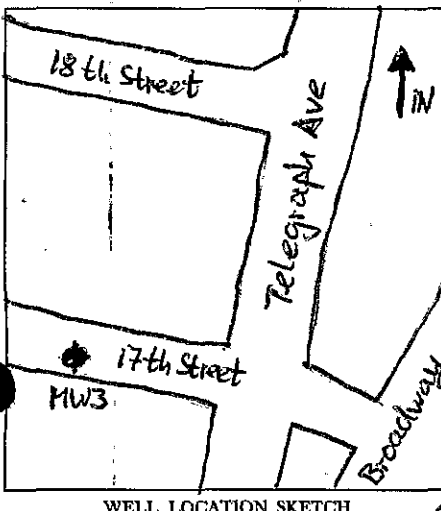
Do not fill in

No. **364249**

Notice of Intent No. _____
Local Permit No. or Date **91011**

State Well No. **1S/4W 35C14**
Other Well No. _____

(2) LOCATION OF WELL (See instructions):
County Alameda Owner's Well Number MW3
Well address if different from above 508 17th Street, Oakland
Township 1S Range 4W Section 26
Distance from cities, roads, railroads, fences, etc. on street, 15 ft from S curb



(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well
Destruction (Describe destruction materials and procedures in Item 12)
(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Municipal
Other (Describe)

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other Bucket
8" Hollow Stem Auger

(6) GRAVEL PACK:
Yes No Size #2-12
Diameter of bore 8"
Packed from 4 to 26.5 ft.

(7) CASING INSTALLED:

From ft.	To ft.	Dia. in.	Gage or Wall
0	26.5	2"	Sch 40

(8) PERFORATIONS:

From ft.	To ft.	Slot size
16	26	0.010" factory slotted

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth 14.0 ft.
Were strata sealed against pollution? Yes No Interval _____ ft.
Method of sealing Portland I-II Cement/Bentonite

(10) WATER LEVELS:
Depth of first water, if known 20 ft.
Standing level after well completion 19.36 ft.

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? _____
Type of test _____ Pump Bailer Air lift
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? CKY INC.
Was electric log made Yes No If yes, attach copy to this report

(12) WELL LOG: Total depth 26.5 ft. Completed depth 26.5 ft.

from ft.	to ft.	Formation (Describe by color, character, size or material)
0	0.75	Asphalt and Concrete
0.75	2.0	Fill
2.0	4.5	SILTY SAND, brown, little clay, trace fine gravel, wet, loose (S)
4.5	6.0	SAND and CLAY, gray and orange brown mottled, damp, very stiff and dense, low plasticity (SC/CL)
6.0	26.5	SAND, orange brown, fine to med. sand, trace coarse sand, damp to moist, loose (SW) grades to grayish brown

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Signed Joel R. Kushin
NAME: WOODWARD - CLYDE CONSULTANTS
(Person, firm, or corporation) (Typed or printed)
Address 500 - 12TH ST, SUITE 500
City Oakland CA ZIP 94607
License No. C029367 Date of this report 3-11-91

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 372128

Notice of Intent No. _____

State Well No. 1S/4W 35461

Local Permit No. or Date _____

Other Well No. _____

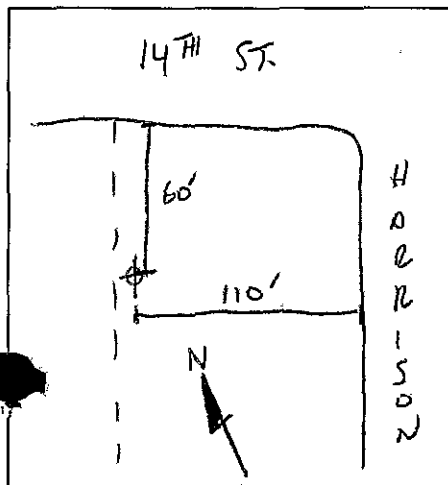
(1) OWNER:

(12) WELL LOG: Total depth 36 ft. Completed depth 34 ft.
from ft. to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions):

County ALAMEDA Owner's Well Number C-5
Well address if different from above 301 14TH ST. OAKLAND
Township _____ Range _____ Section 294816
Distance from cities, roads, railroads, fences, etc.
110' WEST OF HARRISON
60' SOUTH OF 14TH ST

0 - 1.5 - PAVEMENT SECTION
1.5 - 8 - SAND - YELLOWISH BROWN
- MEDIUM DENSE.
8 - 13.5 - SILTY SAND - BROWNISH
- YELLOW DENSE
13.5 - 35.5 - SAND - DARK YELLOWISH
- BROWN OLIVE AT 19.5 FEET
- VERY DENSE
35.5 - 36.0 - CLAYEY SILT - OLIVE
- STIFF



(3) TYPE OF WORK:

- New Well Deepening
- Reconstruction
- Reconditioning
- Horizontal Well
- Destruction (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:

- Domestic
- Irrigation
- Industrial
- Test Well
- Municipal
- Other (Describe)

WELL LOCATION SKETCH

(5) EQUIPMENT:

- Rotary Reverse
- Cable Air
- Other Bucket
- HOLLOW STEM DRILL

(6) GRAVEL PACK:

- Yes No
- Size #20
- Diameter of bore 3"
- Packed from 18 to 34 ft.

(7) CASING INSTALLED:

- Steel Plastic Concrete

(8) PERFORATIONS:

Type of perforation or size of screen FACTORY SLOT

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	34	2	SCH. 40	18	34	0.020"

(9) WELL SEAL:

- Was surface sanitary seal provided? Yes No If yes, to depth 14 ft.
- Were strata sealed against pollution? Yes No Interval 2 ft.
- Method of sealing _____

Work started 10/18 1990 Completed 10/18 1990

(10) WATER LEVELS:

Depth of first water, if known ~ 23.5 ft.
Standing level after well completion ~ 22.1 ft.

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

(11) WELL TESTS:

- Was well test made? Yes No If yes, by whom? _____
- Type of test _____ Pump Bailer Air lift
- Depth to water at start of test _____ ft. At end of test _____ ft.
- Discharge _____ gal/min after _____ hours Water temperature _____
- Chemical analysis made? Yes No If yes, by whom? Superior Labs
- Was electric log made Yes No If yes, attach copy to this report

Signed GSI FOR ED GREEN
(Well Driller)
NAME BAYLAND DRILLING
(Person, firm, or corporation) (Typed or printed)
Address 600 CRANE ST.
City FOSTER CITY ZIP 94404
License No. C57-374152 Date of this report 10/22/90

ORIGINAL
File with DWR

DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

No. **372129**

Notice of Intent No. _____
Local Permit No. or Date _____

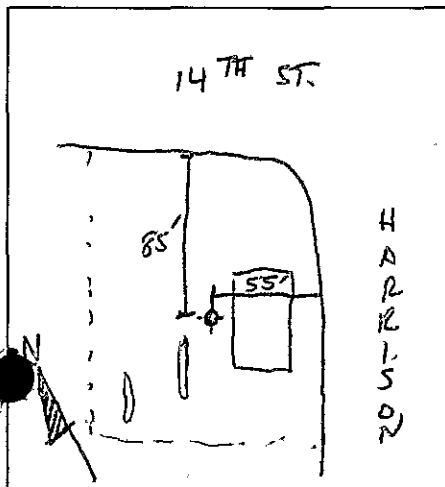
State Well No. 1S14W 35G60
Other Well No. _____

(1) OWNER: _____
Address _____
City _____

(12) WELL LOG: Total depth 32 ft. Completed depth 32 ft.
from ft. to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions):
County ALAMEDA Owner's Well Number CR-1
Well address if different from above 301 14TH ST, OAKLAND
Township _____ Range _____ Section 19-4816
Distance from cities, roads, railroads, fences, etc.
85' SOUTH OF 14TH ST.
55' WEST OF HARRISON ST.

0 - 1.5 - PAVEMENT SECTION
1.5 - 7.0 - SAND - DARK
- YELLOWISH BROWN, DENSE
7.0 - 12.5 - SILTY SAND - OLIVE,
- MEDIUM DENSE
12.5 - 32.0 - SAND - OLIVE, DENSE
32.0 - 32.2 - SILT - OLIVE, STIFF



WELL LOCATION SKETCH

(3) TYPE OF WORK:
New Well Deepening
Reconstruction
Reconditioning
Horizontal Well
Destruction (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic
Irrigation
Industrial
Test Well
Municipal
Other (Describe)

(5) EQUIPMENT:
Rotary Reverse
Cable Air
Other Bucket
HOLLOW STEM AUGER

(6) GRAVEL PACK:
Yes No Size 1/2" - 1/4"
Diameter of bore 12 1/2"
Packed from 16 to 32 ft.

(7) CASING INSTALLED:
Steel Plastic Concrete

(8) PERFORATIONS:
Type of perforation or size of screen CONTINUOUS NEAR

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	32.0	2	SCN 40	18.0	32.0	0.020"

(9) WELL SEAL:
Was surface sanitary seal provided? Yes No If yes, to depth 14 ft.
Were strata sealed against pollution? Yes No Interval 2 ft.
Method of sealing _____

Work started 10/18 1990 Completed 10/18 1990

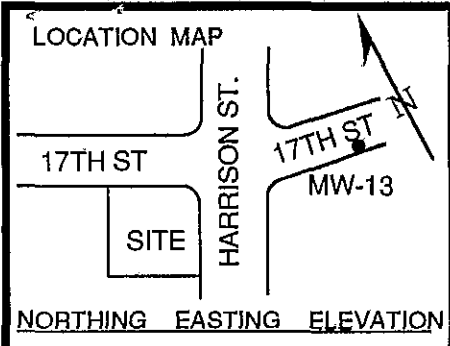
(10) WATER LEVELS:
Depth of first water, if known 23.0 ft.
Standing level after well completion N/A ft.

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? _____
Type of test _____ Pump Bailer Air lift
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge _____ gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? Superior Labs
Was electric log made Yes No If yes, attach copy to this report

Signed ESS FOR ED GREEN (Well Driller)
NAME BAYLAND DRILLING
(Person, firm, or corporation) (Typed or printed)
Address 600 CRANE ST
City FOSTER CITY ZIP 94404
License No. C57-374152 Date of this report 10/22/90

phone 415-352 4800



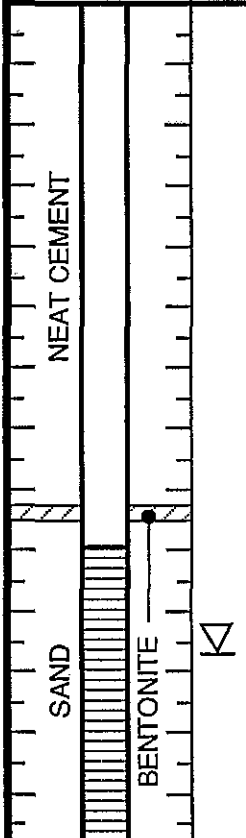
PACIFIC ENVIRONMENTAL GROUP, INC.

WELL NO. MW-13
PAGE 1 OF 1

PROJECT NO. 320-90.01
 LOGGED BY: SVG
 DRILLER: WEST HAZMAT
 DRILLING METHOD: HSA
 SAMPLING METHOD: CAL MOD
 CASING TYPE: Sch 40 PVC
 SLOT SIZE: 0.020"
 GRAVEL PACK: 2 x 12 SAND

CLIENT: [REDACTED]
 DATE DRILLED: 10-3-91
 LOCATION: 1633 Harrison St.
 HOLE DIAMETER: 8"
 HOLE DEPTH: 28'
 WELL DIAMETER: 2"
 WELL DEPTH: 28'
 CASING STICKUP: NA

WELL COMPLETION	MOISTURE CONTENT	PID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
				2		[Pattern]	SM	ASPHALT CONCRETE
	Dp			4		[Pattern]		SILTY SAND; yellow brown; 15-20% silty fines; medium sand; well sorted sand; dense; no product odor. @4.5': 6" thick concrete slab
	Dp	0	push	6		[Pattern]	ML	SANDY SILT; dark brown; low plasticity; silty fines; 20-30% fine to medium sand; stiff; no product odor.
	Dp	0	49	10		[Pattern]	SM	SILTY SAND; yellow brown; 15-20% silty fines; medium sand; well sorted sand; very dense; no product odor.
	Dp	0	>50	16		[Pattern]		
	Dp/Wt	0	>50	20		[Pattern]		@21': color change to light gray; no product odor.
	Wt	1.4	45	26		[Pattern]		@25': increase in fines to 30-40%; faint product odor.
	Dp	0		28		[Pattern]	ML	SANDY SILT; light brown; low plasticity; silty fines; 20-30% fine sand; stiff; no product odor.
				30				BOTTOM OF BORING AT 28'
				32				
				34				
				36				
				38				
				40				
				42				
				44				



ORIGINAL
File with DWR

STATE OF CALIFORNIA
WELL COMPLETION REPORT

DWR USE ONLY - DO NOT FILL IN
 1 S 14 W 3 S 11 S - 16
 STATE WELL NO./STATION NO.
 LATITUDE LONGITUDE
 APN/TRS/OTHER

Page ___ of ___
 Owner's Well No. MW-13 & MW-14
 Date Work Began 10-3-91, Ended 10-4-91
 Local Permit Agency AWT 05 91481 Permit Date Aug 27, 1991
 No. 397130A,B

GEOLOGIC LOG

WELL OWNER

ORIENTATION (✓) VERTICAL HORIZONTAL ANGLE _____ (SPECIFY)
 DEPTH TO FIRST WATER _____ (Ft.) BELOW SURFACE
 DESCRIPTION
 Describe material, grain size, color, etc.
 A MUMS
 B MW-14
 See Attached
 Paving Logs
 TOTAL DEPTH OF BORING _____ (Feet)
 TOTAL DEPTH OF COMPLETED WELL _____ (Feet)

WELL LOCATION
 Address 1633 Harrison St @ 17th
 City Oakland
 County Alameda
 APN Book _____ Page _____ Parcel _____
 Township _____ Range _____ Section _____
 Latitude _____ Longitude _____
 DEG. MIN. SEC. NORTH Longitude DEG. MIN. SEC. WEST
LOCATION SKETCH
 NORTH _____ SOUTH _____
 WEST _____ EAST _____
 See Attached
 Illustrate or Describe Distance of Well from Landmarks such as Roads, Buildings, Fences, Rivers, etc. PLEASE BE ACCURATE & COMPLETE.
ACTIVITY (✓)
 NEW WELL
 MODIFICATION/REPAIR
 _____ Deepen
 _____ Other (Specify)
 DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")
PLANNED USE(S)
 MONITORING
WATER SUPPLY
 Domestic
 Public
 Irrigation
 Industrial
 "TEST WELL"
 CATHODIC PROTECTION
 OTHER (Specify)
 DRILLING METHOD Hollow Stem FLUID _____
WATER LEVEL & YIELD OF COMPLETED WELL
 DEPTH OF STATIC WATER LEVEL _____ (Ft.) & DATE MEASURED _____
 ESTIMATED YIELD* _____ (GPM) & TEST TYPE _____
 TEST LENGTH _____ (Hrs.) TOTAL DRAWDOWN _____ (Ft.)
 * May not be representative of a well's long-term yield.

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	CASING(S)						DEPTH FROM SURFACE Ft. to Ft.	ANNULAR MATERIAL TYPE						
		TYPE (✓)				MATERIAL / GRADE	INTERNAL DIAMETER (Inches)		GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)	CE- MENT (✓)	BEN- TONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)	
BLANK	SCREEN	CON- DUCTOR	FILL PIPE												
0 to 18		X					CONCRETE	2	SEA 40	.020					
18 to 28		X										X			
													X	sand 2x12	

ATTACHMENTS (✓)
 Geologic Log
 Well Construction Diagram
 Geophysical Log(s)
 Soil/Water Chemical Analyses
 Other _____
 ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT
 I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.
 NAME R. Barrick for West Hazmat
 (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
 ADDRESS 23953 Saklan, Hayward, Ca 94545
 CITY STATE ZIP
 Signed R. Barrick for W.H. DATE SIGNED 12-16-91 C-57 LICENSE NUMBER 07554979
 WELL DRILLER/AUTHORIZED REPRESENTATIVE



Proj. 320-90-01

15/4W 35A15-16
397/30A.1.B

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94566 (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

(1) LOCATION OF PROJECT 1633 Harrison St. C 17th
Oakland, Ca
(Kaiser) on 17th street

PERMIT NUMBER 91481
LOCATION NUMBER _____

This permit is good for 2 wells on Harrison & 4 on-site Borings.
PERMIT CONDITIONS

(2) CLIENT EA
[Redacted]

Circled Permit Requirements Apply

(3) APPLICANT
Name Pacific Environmental Group, Inc
Consultant for Chevron
Address 1601 Civic Center Plaza Phone (408) 984 6536
City Santa Clara, Ca Zip 95050

A. GENERAL

1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(4) DESCRIPTION OF PROJECT
Water Well Construction Geotechnical Investigation _____
Cathodic Protection _____ General _____
Well Destruction _____ Contamination _____

B. WATER WELLS, INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic, irrigation, and monitoring wells unless a lesser depth is specially approved.

(5) PROPOSED WATER WELL USE
Domestic _____ Industrial _____ Irrigation _____
Municipal _____ Monitoring Other _____

C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

(6) PROPOSED CONSTRUCTION
Drilling Method:
Mud Rotary _____ Air Rotary _____ Auger _____
Cable _____ Other Hollow Stem Auger

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

DRILLER'S LICENSE NO. C57-554979

E. WELL DESTRUCTION. See attached.

WELL PROJECTS
- Drill Hole Diameter 8 In. Maximum _____
- Casing Diameter 2 In. Depth ~26 ft.
- Surface Seal Depth ~18 ft. Number 1

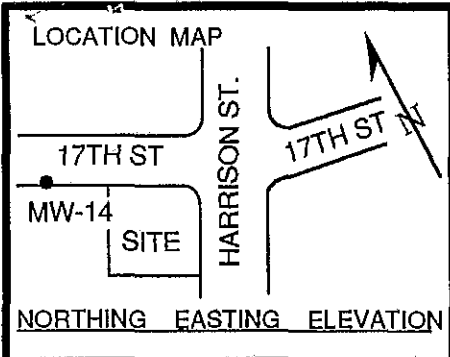
GEOTECHNICAL PROJECTS
Number of Borings _____ Maximum _____
Hole Diameter _____ In. Depth _____ ft.

(7) ESTIMATED STARTING DATE ~ Sept. 9
ESTIMATED COMPLETION DATE ~ Sept 9 *pending encroachment w/ City of Oakland*

(8) I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

Approved Wyman Hong Date 27 Aug 91
Wyman Hong

APPLICANT'S SIGNATURE [Signature] Date _____



PACIFIC ENVIRONMENTAL GROUP, INC.

WELL NO. MW-14
PAGE 1 OF 1

PROJECT NO. 320-90.01
LOGGED BY: SVG
DRILLER: WEST HAZMAT
DRILLING METHOD: HSA
SAMPLING METHOD: CAL MOD
CASING TYPE: Sch 40 PVC
SLOT SIZE: 0.020"
GRAVEL PACK: 2 x 12 SAND

CLIENT: [REDACTED]
DATE DRILLED: 10-3-91
LOCATION: 1633 Harrison St.
HOLE DIAMETER: 8"
HOLE DEPTH: 28.5'
WELL DIAMETER: 2"
WELL DEPTH: 27'
CASING STICKUP: NA

WELL COMPLETION	MOISTURE CONTENT	PID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
NEAT CEMENT SAND BENTONITE	Dp	0	5	2		[Pattern]	GM	ASPHALT CONCRETE
				4		[Pattern]	SM	SILTY GRAVEL - FILL; light gray; 20-30% silty fines; coarse gravel to 1"; very dense; no product odor.
				6		[Pattern]		SILTY SAND - yellowish brown; 15-20% silty fines; medium sand; well sorted sand; loose; no product odor.
				8		[Pattern]		@8': 4" thick concrete slab.
	Dp	0	30	10		[Pattern]		@10.5': change in color to light gray.
				12		[Pattern]		
	Dp/Mst	0	>50	14		[Pattern]	SP-SM	SAND to SILTY SAND; yellowish brown; 5-10% silty fines; medium sand; well sorted sand; very dense; no product odor.
				16		[Pattern]		
	Wt	0	>50	20		[Pattern]		@20': wet; no product odor.
				22		[Pattern]		
Wt	0	>50	24		[Pattern]			
			26		[Pattern]			
Dry		0	push	28		[Pattern]	ML	SILT; light tan; silty fines; 0-5% very fine sand; very stiff; no product odor.
				30				BOTTOM OF BORING AT 28.5'
				32				
				34				
				36				
				38				
				40				
				42				
				44				

STATE OF CALIFORNIA
WELL COMPLETION REPORT

DWR USE ONLY - DO NOT FILL IN

15/41W 135A119
STATE WELL NO./STATION NO.

LATITUDE LONGITUDE

APN/TRS/OTHER

Page 1 of 4
 Owner's Well No. MW-15
 Date Work Began 12/16/92 Ended 12/16/92
 Local Permit Agency Town of Alameda County
 Permit No. 92286 Permit Date 1 Jan 92

GEOLOGIC LOG

WELL OWNER

ORIENTATION (✓) VERTICAL HORIZONTAL ANGLE _____ (SPECIFY)

DEPTH TO FIRST WATER _____ (Ft.) BELOW SURFACE

DEPTH FROM SURFACE	DESCRIPTION
Ft. to Ft.	Describe material, grain size, color, etc.
See attached well log	

WELL LOCATION
 Address: 1633 Harrison St. #9-0020
 City: Oakland
 County: Alameda
 APN Book _____ Page _____ Parcel _____
 Township _____ Range _____ Section _____
 Latitude _____ Longitude _____

LOCATION SKETCH

See attached map

ACTIVITY (✓)
 NEW WELL
 MODIFICATION/REPAIR
 — Deepen
 — Other (Specify) _____
 DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")
PLANNED USE(S)
 MONITORING
WATER SUPPLY
 — Domestic
 — Public
 — Irrigation
 — Industrial
 — "TEST WELL"
 — CATHODIC PROTECTION
 — OTHER (Specify) _____

TOTAL DEPTH OF BORING _____ (Feet)
 TOTAL DEPTH OF COMPLETED WELL _____ (Feet)

DRILLING METHOD Auger FLUID _____
WATER LEVEL & YIELD OF COMPLETED WELL
 DEPTH OF STATIC WATER LEVEL 11.74 (Ft.) & DATE MEASURED 12/16/92
 ESTIMATED YIELD* _____ (GPM) & TEST TYPE _____
 TEST LENGTH _____ (hrs.) TOTAL DRAWDOWN _____ (Ft.)
 * May not be representative of a well's long-term yield.

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	CASING(S)						DEPTH FROM SURFACE Ft. to Ft.	ANNULAR MATERIAL TYPE			
		TYPE (✓)	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)	CE-MENT (✓)		BEN-TONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)	
0 to 13	8.5	X	PVC	2	Sch 40	—	0 to 8.5	X				
13 to 28	8.5	X	PVC	2	Sch 40	0.02	8.5 to 11		X			
							11 to 30				Lapis Lutte #3 SAND	

ATTACHMENTS (✓)
 Geologic Log
 Well Construction Diagram
 Geophysical Log(s)
 Soil/Water Chemical Analyses
 Other M&P
 ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT
 I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.
 NAME KVILHAUG WELL DRILLING & Pump Co INC.
 ADDRESS 1109 # LANDINI LN CITY CONCORD STATE CA ZIP 94520
 Signed [Signature] DATE SIGNED 28 JAN 93 482390
 WELL DRILLER/AUTHORIZED REPRESENTATIVE C-57 LICENSE NUMBER

P. 2 of 4

403114

1514W 35AC9

LEGEND

- MONITORING WELL
- SOIL BORING



16 ○

15 ○

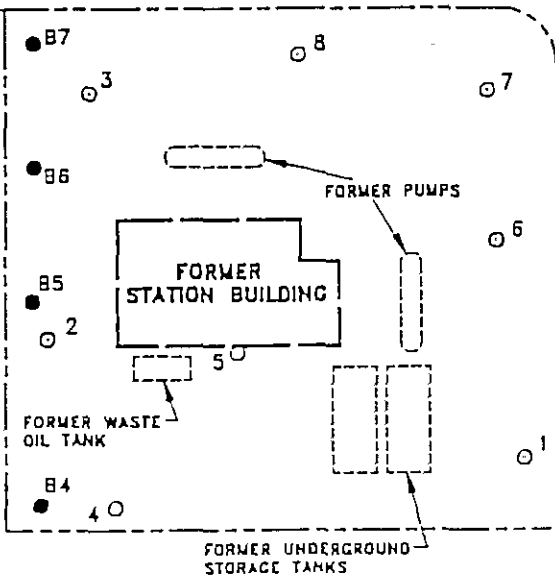
11 ○

12 ○

17th STREET

13 ○

14 ○



HARRISON STREET

9 ○

10 ○



GROUNDWATER TECHNOLOGY

4057 PORT CHICAGO HWY.
 CONCORD, CA 94520
 (510) 871-2367

SITE PLAN

CLIENT:



LOCATION:

1633 HARRISON STREET
 OAKLAND, CALIFORNIA

REV. NO.:

0

DATE:

1/15/93

PM IAW	PE/RG DIKE	DESIGNED TW	DETAILED ML	ACAD FILE: SP193	PROJECT NO.: 020302499	FIGURE: 2
-----------	---------------	----------------	----------------	---------------------	---------------------------	--------------

DWR USE ONLY - DO NOT FILL IN

1.5 / 14W 13.51A20

STATE WELL NO./STATION NO.

LATITUDE LONGITUDE

APN/TRS/OTHER

Page 1 of 4
Owner's Well No. MW-16 No. 403115
Date Work Began 12/08/92, Ended 12/08/92
Local Permit Agency Zone 7 / Alameda County
Permit No. 92286 Permit Date 1 Jan 93

GEOLOGIC LOG

WELL OWNER

ORIENTATION (∠) _____ VERTICAL _____ HORIZONTAL _____ ANGLE _____ (SPECIFY)

DEPTH TO FIRST WATER _____ (Ft.) BELOW SURFACE

DEPTH FROM SURFACE		DESCRIPTION <i>Describe material, grain size, color, etc.</i>
Ft.	to Ft.	
		<p>See attached well log</p>

WELL LOCATION

Address 1633 Harrison St #9-0020
City Oakland, CA
County Alameda
APN Book _____ Page _____ Parcel _____
Township _____ Range _____ Section _____
Latitude _____ Longitude _____

LOCATION SKETCH NORTH

See attached map

WEST EAST

ACTIVITY (∠)

NEW WELL

MODIFICATION/REPAIR

___ Deepen

___ Other (Specify) _____

___ DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USE(S) (∠)

MONITORING

WATER SUPPLY

___ Domestic

___ Public

___ Irrigation

___ Industrial

___ "TEST WELL"

___ CATHODIC PROTECTION

___ OTHER (Specify) _____

SOUTH

Illustrate or Describe Distance of Well from Landmarks such as Roads, Buildings, Fences, Rivers, etc. PLEASE BE ACCURATE & COMPLETE.

TOTAL DEPTH OF BORING _____ (Feet)

TOTAL DEPTH OF COMPLETED WELL _____ (Feet)

DRILLING METHOD Augers FLUID _____

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH OF STATIC WATER LEVEL 19.74 (Ft.) & DATE MEASURED 12/16/92

ESTIMATED YIELD* _____ (GPM) & TEST TYPE _____

TEST LENGTH _____ (Hrs.) TOTAL DRAWDOWN _____ (Ft.)

* May not be representative of a well's long-term yield.

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	CASING(S)						ANNULAR MATERIAL					
		TYPE (∠)				MATERIAL/ GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)	TYPE			
		BLANK	SCREEN	CON-DUCTOR	FILL PIPE								
0 to 15	8.5	X				PVC	2	Sch 40		X			
15 to 30	8.5		X			PVC	2	SCH 40	0.02		X		Lapis Lustre #3

ATTACHMENTS (∠)

Geologic Log

Well Construction Diagram

___ Geophysical Log(s)

___ Soil/Water Chemical Analyses

Other Map

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME KVILHAUG WELL DRILLING + PUMP CO INC.
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

1109 LANDINI LN CONCORD CA 94520
ADDRESS CITY STATE ZIP

Signed [Signature] 28 JAN 93 482390
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

1S/4W 35A20

P-2 of 4

403115

LEGEND

- MONITORING WELL
- SOIL BORING



16 ○

11 ○

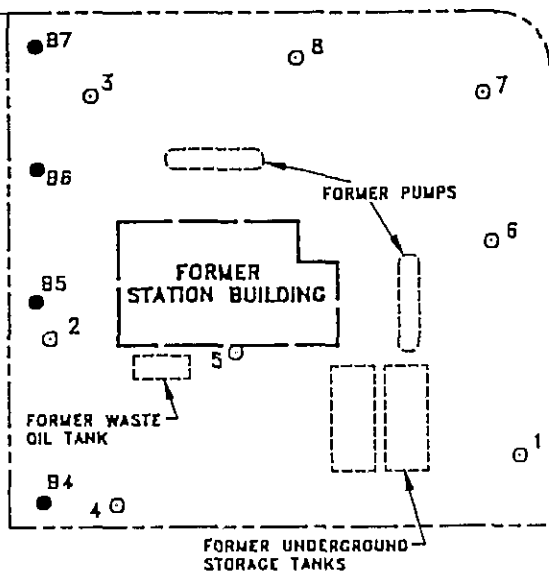
12 ○

15 ○

17th STREET

13 ○

14 ○



HARRISON STREET

9 ○

10 ○



GROUNDWATER TECHNOLOGY

4057 PORT CHICAGO HWY.
CONCORD, CA 94520
(510) 871-2387

SITE PLAN

CLIENT:

LOCATION:

1633 HARRISON STREET
OAKLAND, CALIFORNIA

REV. NO.:

0

DATE:

1/15/93

PM

JAW

PE/RC

DIRK

DESIGNED

TW

DETAILED

ML

ACAD FILE:

SP193

PROJECT NO.:

020302499

FIGURE:

2

ORIGINAL
File with DWR

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

DWR USE ONLY - DO NOT FILL IN

STATE WELL NO./STATION NO.

LATITUDE LONGITUDE

APN/TRS/OTHER

Page 1 of
Owner's Well No. MW4, MW5 & MW6 No. 413652A
Date Work Began 09/30/92, Ended 10/01/92
Local Permit Agency Alameda County Flood Control & Water Dist.
Permit No. 92-453 Permit Date 09/08/92 Zone 7

GEOLOGIC LOG

WELL OWNER

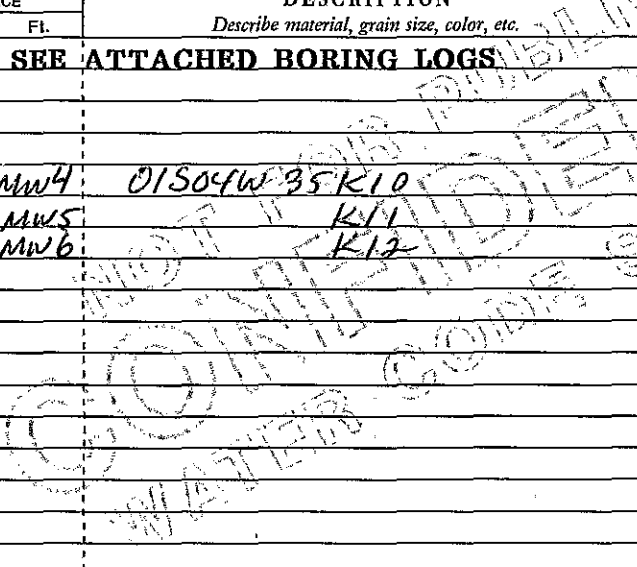
ORIENTATION (∠) VERTICAL HORIZONTAL ANGLE (SPECIFY)

DEPTH TO FIRST WATER (Ft.) BELOW SURFACE

DEPTH FROM SURFACE		DESCRIPTION
Ft.	to Ft.	

SEE ATTACHED BORING LOGS

A MW4 01504W 35K10
B MW5 K11
C MW6 K12



WELL LOCATION

Address 800 Harrison Street (#0752)
City Oakland, CA
County Alameda County
APN Book Page Parcel
Township 1 S Range 3 W Section
Latitude Longitude

LOCATION SKETCH

SEE ATTACHED SITE PLAN

ACTIVITY (∠)
 NEW WELL
MODIFICATION/REPAIR
 Deepen
 Other (Specify)
 DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")
PLANNED USE(S) (∠)
 MONITORING
WATER SUPPLY
 Domestic
 Public
 Irrigation
 Industrial
 "TEST WELL"
 CATHODIC PROTECTION
 OTHER (Specify)

WEST EAST SOUTH NORTH

Illustrate or Describe Distance of Well from Landmarks such as Roads, Buildings, Fences, Rivers, etc. PLEASE BE ACCURATE & COMPLETE.

TOTAL DEPTH OF BORING (Feet)
TOTAL DEPTH OF COMPLETED WELL (Feet)

DRILLING METHOD Hollow Stem Auger FLUID No
WATER LEVEL & YIELD OF COMPLETED WELL
DEPTH OF STATIC WATER LEVEL 23' (Ft.) & DATE MEASURED 09/30/92
ESTIMATED YIELD* (GPM) & TEST TYPE
TEST LENGTH (Hrs.) TOTAL DRAWDOWN (Ft.)
* May not be representative of a well's long-term yield.

DEPTH FROM SURFACE	BORE-HOLE DIA. (Inches)	CASING(S)						DEPTH FROM SURFACE	ANNULAR MATERIAL					
		TYPE (∠)				MATERIAL / GRADE	INTERNAL DIAMETER (Inches)		GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)	TYPE			
Ft.	to Ft.	BLANK	SCREEN	CON- DUCTOR	FILL PIPE									GE- MENT (∠)	BEN- TONITE (∠)	FILL (∠)	FILTER PACK (TYPE/SIZE)
SEE ATTACHED WELL CONSTRUCTION / COMPLETION DIAGRAM														

ATTACHMENTS (∠)

Geologic Log
 Well Construction Diagram
 Geophysical Log(s)
 Soil/Water Chemical Analyses
 Other Site Plan & Location Map
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Woodward Drilling
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

ADDRESS P.O. Box 336, Rio Vista, California 94571-0336
CITY STATE ZIP

Signed Deanna A. Harding As Agent 01/06/92 581639
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

BORING LOG

Project No. KEI-P90-1103		Boring Diameter	9"	Logged By W.W. <i>JGG</i> <i>CEG 1633</i>
		Casing Diameter	2"	
Project Name 800 Harrison St., Oakland		Well Cover Elevation		Date Drilled 9/30/92
Boring No. MW4		Drilling Method	Hollow-stem Auger	Drilling Company Woodward Drilling Co.

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description
		0		3 inches of asphalt over gravel base.
			CL	Clay, stiff, moist, very dark gray (10YR 3/1).
12/17/23		5	SP	Sand, estimated at 5-10% silt, moist, brown (10YR 4/3).
				Sand, estimated at 5-10% silt, trace clay, sand is fine-grained, dense, moist, light yellowish brown (10YR 6/4).
13/15/18		10		Sand, estimated at 5-10% silt, trace clay and gravel to 3/8 inches in diameter, dense, moist, pale brown (10YR 6/3) mottled with yellowish brown (10YR 5/4).
11/21/38		15		Sand, estimated at 5-10% silt and trace clay, dense, moist, pale brown (10YR 6/3) mottled with yellowish brown (10YR 5/4).
10/16/24		20		Sand, estimated at 5-10% silt, dense, moist to very moist, light brownish gray (10YR 6/2).

413652A

BORING LOG

Project No. KEI-P90-1103		Boring Diameter 9" Casing Diameter 2"	Logged By JGG W.W. CEG 1633
Project Name 800 Harrison St., Oakland		Well Cover Elevation	Date Drilled 9/30/92
Boring No. MW4		Drilling Method Hollow-stem Auger	Drilling Company Woodward Drilling Co.

Penetration blows/6"	G. W. level	Depth (feet) Samples	Stratigraphy USCS	Description
16/19/25			SP	Color change Sand, estimated at 5% silt, sand is fine-grained, dense, saturated, greenish gray (5GY 5/1).
17/19/26				Color change Sand, estimated at 5% silt, sand is fine-grained, dense, saturated, grayish brown (10YR 5/2).
14/28/31			SC-CL	Clayey sand/sandy clay, estimated at 10% silt, trace gravel to 3/8 inches in diameter, sand is fine-grained, very dense/hard, very moist, light brownish gray (2.5Y 6/2).
				TOTAL DEPTH: 33'

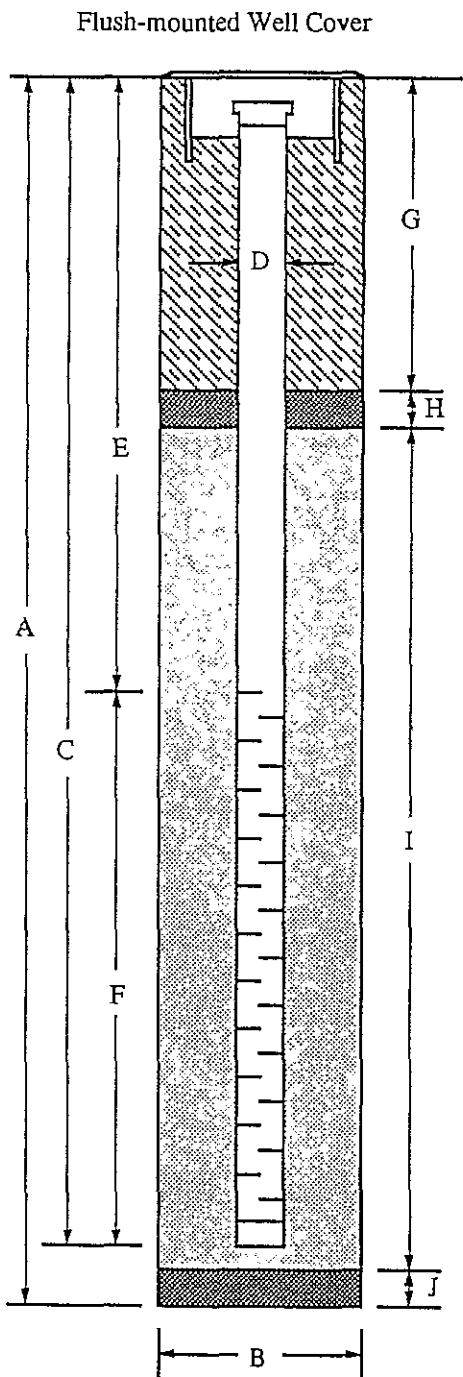
413652A

WELL COMPLETION DIAGRAM

PROJECT NAME: ██████████ 800 Harrison St., Oakland WELL NO. MW4

PROJECT NUMBER: KEI-P90-1103

WELL PERMIT NO.: 92453



- A. Total Depth : 33'
- B. Boring Diameter: 9"
Drilling Method: Hollow Stem Auger
- C. Casing Length: 33'
Material: Schedule 40 PVC
- D. Casing Diameter: OD = 2.375"
ID = 2.067"
- E. Depth to Perforations: 15'
- F. Perforated Length: 18'
Perforation Type: Machined Slot
Perforation Size: 0.020"
- G. Surface Seal: 11'
Seal Material: Neat Cement
- H. Seal: 2'
Seal Material: Bentonite
- I. Filter Pack: 20'
Pack Material: RMC Lonestar Sand
Size: #3
- J. Bottom Seal: None
Seal Material: N/A

ORIGINAL
File with DWR

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

DWR USE ONLY - DO NOT FILL IN

STATE WELL NO./STATION NO.

LATITUDE LONGITUDE

APN/TRS/OTHER

Page 1 of

Owner's Well No. MW4, MW5 & MW6 No. 413652A ^B

Date Work Began 09/30/92, Ended 10/01/92

Local Permit Agency Alameda County Flood Control & Water Dist.

Permit No. 92-453 Permit Date 09/08/92 Zone 7

GEOLOGIC LOG

ORIENTATION (∠) VERTICAL HORIZONTAL ANGLE (SPECIFY)

DEPTH TO FIRST WATER (FL) BELOW SURFACE

DEPTH FROM SURFACE

Ft. to Ft.

DESCRIPTION

Describe material, grain size, color, etc.

SEE ATTACHED BORING LOGS

A MW4 01504W 35K10
B MW5 K11
C MW6 K12

(Large circular stamp: SOIL CODE)

TOTAL DEPTH OF BORING _____ (Feet)

TOTAL DEPTH OF COMPLETED WELL _____ (Feet)

WELL OWNER

WELL LOCATION

Address 800 Harrison Street (#0752)

City Oakland, CA

County Alameda County

APN Book _____ Page _____ Parcel _____

Township 1 S Range 3 W Section _____

Latitude _____ Longitude _____

LOCATION SKETCH

SEE ATTACHED SITE PLAN

Activity (∠)

NEW WELL

MODIFICATION/REPAIR

Deepen

Other (Specify)

DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USE(S) (∠)

MONITORING

WATER SUPPLY

Domestic

Public

Irrigation

Industrial

"TEST WELL"

CATHODIC PROTECTION

OTHER (Specify)

Illustrate or Describe Distance of Well from Landmarks such as Roads, Buildings, Fences, Rivers, etc. PLEASE BE ACCURATE & COMPLETE.

DRILLING METHOD Hollow Stem Auger FLUID No. _____

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH OF STATIC WATER LEVEL 23' (Ft.) & DATE MEASURED 09/30/92

ESTIMATED YIELD* _____ (GPM) & TEST TYPE _____

TEST LENGTH _____ (Hrs.) TOTAL DRAWDOWN _____ (Ft.)

* May not be representative of a well's long-term yield.

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	CASING(S)					DEPTH FROM SURFACE Ft. to Ft.	ANNULAR MATERIAL			
		TYPE (∠)	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)		CEMENT (∠)	BENTONITE (∠)	FILL (∠)	FILTER PACK (TYPE/SIZE)
SEE ATTACHED WELL CONSTRUCTION / COMPLETION DIAGRAM											

ATTACHMENTS (∠)

Geologic Log

Well Construction Diagram

Geophysical Log(s)

Soil/Water Chemical Analyses

Other Site Plan & Location Map

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Woodward Drilling
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

ADDRESS P.O. Box 336, Rio Vista, California 94571-0336 CITY STATE ZIP

Signed Woodward Drilling As Agent DATE SIGNED 01/06/92 581639 C-57 LICENSE NUMBER

413652B

01504W35K11


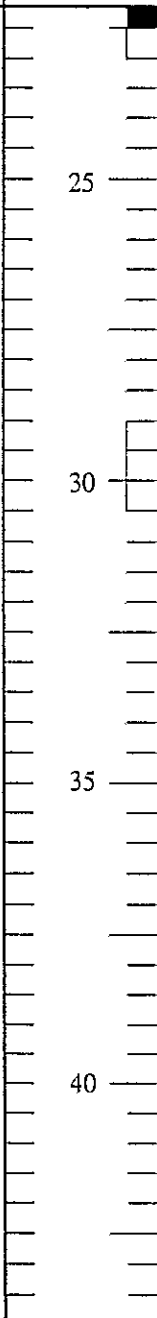
BORING LOG

Project No. KEI-P90-1103		Boring Diameter 9" Casing Diameter 2"		Logged By JGG W.W. CEG 1633	
Project Name [REDACTED] 800 Harrison St., Oakland		Well Cover Elevation		Date Drilled 10/1/92	
Boring No. MW5		Drilling Method Hollow-stem Auger		Drilling Company Woodward Drilling Co.	
Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description	
		0		9 inches of concrete pavement over sand base.	
				Sand, estimated at 5% silt, sand is fine-grained, medium dense, moist, brown (10YR 4/3).	
13/19/31		5		Sand, estimated at 10% silt and 5% clay, sand is fine-grained, dense, moist, greenish gray (5GY 5/1) with olive (5Y 5/3) and yellowish brown (10YR 5/6), mottled.	
10/16/25		10	SP	Sand, estimated at 10-15% silt, trace clay, sand is fine-grained, dense, moist, light olive gray (5Y 6/2).	
13/24/35		15		Sand, estimated at 10% silt, trace clay, sand is fine-grained, very dense, moist, greenish gray (5GY 5/1).	
13/25/31		20		Sand, estimated at 5% silt, very dense, moist to very moist, greenish gray (5GY 5/1).	
23					

413652B

BORING LOG

Project No. KEI-P90-1103	Boring Diameter	9"	Logged By JGG W.W. CEG 1633
	Casing Diameter	2"	
Project Name 800 Harrison St., Oakland	Well Cover Elevation	Date Drilled 10/1/92	
Boring No. MW5	Drilling Method Hollow-stem Auger	Drilling Company Woodward Drilling Co.	

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description
31/55			SP	Sand, estimated at 5% silt, sand is fine-grained, very dense, saturated, dark greenish gray (5GY 4/1).
21/29/30		30	CL-SC	Sand, trace silt, sand is fine-grained, dense to very dense, saturated, grayish brown (10YR 5/2).
				Sandy clay/clayey sand, estimated 5-10% silt, sand is fine-grained, hard to very dense, moist, light brownish gray (2.5Y)
				TOTAL DEPTH: 32'

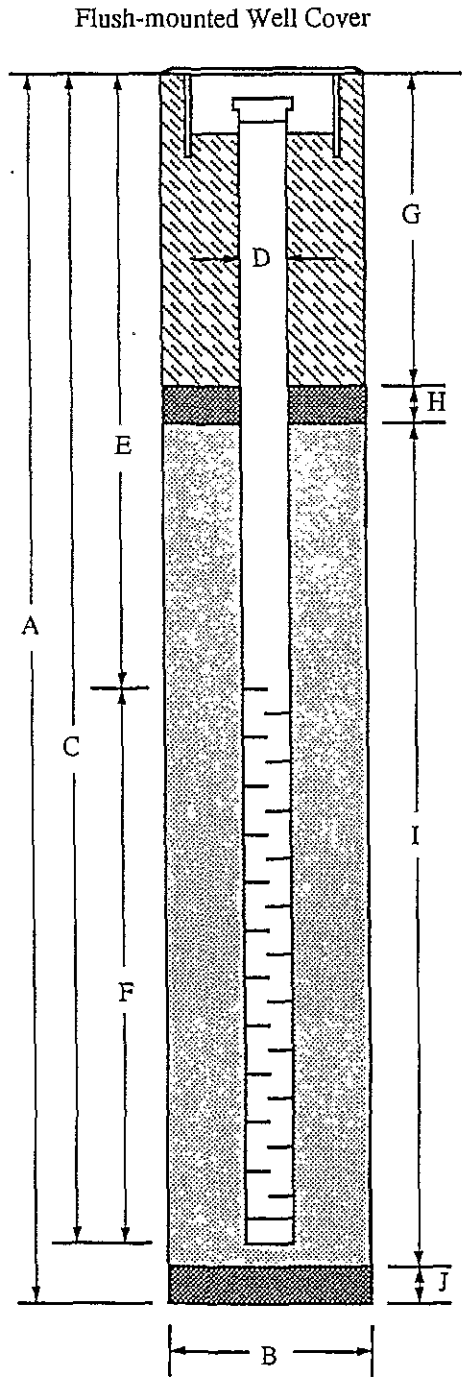
413652B

WELL COMPLETION DIAGRAM

PROJECT NAME: XXXXXXXXXX 800 Harrison St., Oakland WELL NO. MW5

PROJECT NUMBER: KEI-P90-1103

WELL PERMIT NO.: 92543



- A. Total Depth : 32'
- B. Boring Diameter: 9"
Drilling Method: Hollow Stem Auger
- C. Casing Length: 32'
Material: Schedule 40 PVC
- D. Casing Diameter: OD = 2.375"
ID = 2.067"
- E. Depth to Perforations: 15'
- F. Perforated Length: 17'
Perforation Type: Machined Slot
Perforation Size: 0.020"
- G. Surface Seal: 11'
Seal Material: Neat Cement
- H. Seal: 2'
Seal Material: Bentonite
- I. Filter Pack: 19'
Pack Material: RMC Lonestar Sand
Size: #3
- J. Bottom Seal: None
Seal Material: N/A

ORIGINAL
File with DWR

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

DWR USE ONLY - DO NOT FILL IN

STATE WELL NO./STATION NO.									
LATITUDE					LONGITUDE				
APN/TRS/OTHER									

Page 1 of
 Owner's Well No. MW4, MW5 & MW6 No. 4136528C
 Date Work Began 09/30/92, Ended 10/01/92
 Local Permit Agency Alameda County Flood Control & Water Dist.
 Permit No. 92-453 Permit Date 09/08/92 Zone 7

DEPTH FROM SURFACE		DESCRIPTION	WELL LOCATION	
Ft.	to Ft.		Address	City
		SEE ATTACHED BORING LOGS A MW4 01S04W 35K10 B MW5 K11 C MW6 K12 	<u>800 Harrison Street (#0752)</u>	<u>Oakland, CA</u>
			County <u>Alameda County</u>	APN Book <u> </u> Page <u> </u> Parcel <u> </u>
			Township <u>1 S</u> Range <u>3 W</u> Section <u> </u>	Latitude <u> </u> Longitude <u> </u>
			Latitude <u> </u> NORTH <u> </u> WEST <u> </u>	Longitude <u> </u> NORTH <u> </u> WEST <u> </u>
			LOCATION SKETCH NORTH SEE ATTACHED SITE PLAN SOUTH <i>Illustrate or Describe Distance of Well from Landmarks such as Roads, Buildings, Fences, Rivers, etc. PLEASE BE ACCURATE & COMPLETE.</i>	
			ACTIVITY () <input checked="" type="checkbox"/> NEW WELL MODIFICATION/REPAIR <input type="checkbox"/> Deepen <input type="checkbox"/> Other (Specify) <u> </u> <input type="checkbox"/> DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG") PLANNED USE(S) () <input checked="" type="checkbox"/> MONITORING WATER SUPPLY <input type="checkbox"/> Domestic <input type="checkbox"/> Public <input type="checkbox"/> Irrigation <input type="checkbox"/> Industrial <input type="checkbox"/> "TEST WELL" <input type="checkbox"/> CATHODIC PROTECTION <input type="checkbox"/> OTHER (Specify) <u> </u>	
DRILLING METHOD <u>Hollow Stem Auger</u> FLUID No <u> </u> WATER LEVEL & YIELD OF COMPLETED WELL DEPTH OF STATIC WATER LEVEL <u>23'</u> (Ft.) & DATE MEASURED <u>09/30/92</u> ESTIMATED YIELD * <u> </u> (GPM) & TEST TYPE <u> </u> TEST LENGTH <u> </u> (Hrs.) TOTAL DRAWDOWN <u> </u> (Ft.) * May not be representative of a well's long-term yield.				
TOTAL DEPTH OF BORING <u> </u> (Feet) TOTAL DEPTH OF COMPLETED WELL <u> </u> (Feet)				

DEPTH FROM SURFACE	BORE-HOLE DIA. (Inches)	CASING(S)					DEPTH FROM SURFACE	ANNULAR MATERIAL				
		TYPE ()	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)		CE-MENT ()	BEN-TONITE ()	FILL ()	FILTER PACK (TYPE/SIZE)	
Ft.	to Ft.	BLANK	SCREEN	CON-DUCTOR	FILL PIPE		Ft.	to Ft.				
SEE ATTACHED WELL CONSTRUCTION / COMPLETION DIAGRAM												

ATTACHMENTS ()

- Geologic Log
- Well Construction Diagram
- Geophysical Log(s)
- Soil / Water Chemical Analyses
- Other Site Plan & Location Map

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Woodward Drilling
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

ADDRESS P.O. Box 336, Rio Vista, California 94571-0336
CITY STATE ZIP

Signed Cherina L. Hudson As Agent 01/06/92 581639
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

413652C

BORING LOG

Project No. KEI-P90-1103		Boring Diameter 9" Casing Diameter 2"		Logged By JGG W.W. CEG 163B	
Project Name 800 Harrison St., Oakland		Well Cover Elevation		Date Drilled 9/30/92	
Boring No. MW6		Drilling Method Hollow-stem Auger		Drilling Company Woodward Drilling Co.	
Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description	
47/50-5"		25	SP	Sand, trace silt, sand is fine-grained, very dense, saturated, greenish gray (5GY 5/1).	
21/29/30		30	SM-ML	Sand, estimated at 5% silt, very dense, saturated, dark yellowish brown (10YR 4/4).	
				Silty sand/sandy silt, trace clay, sand is fine-grained, very dense to hard, moist, pale brown (10YR 6/3).	
		35		TOTAL DEPTH: 32'	
		40			

413652c

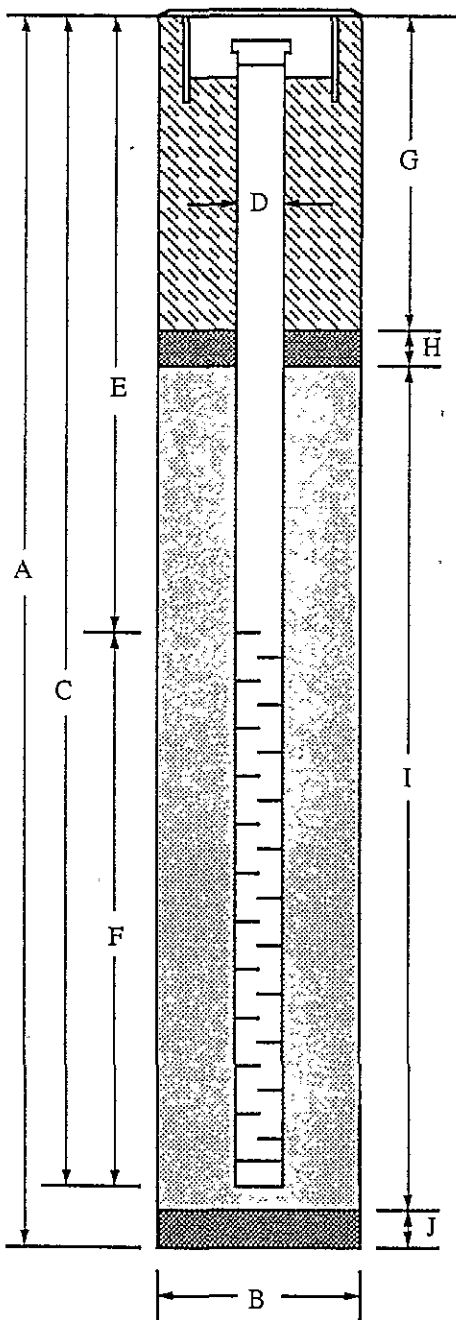
WELL COMPLETION DIAGRAM

PROJECT NAME: XXXXXXXXXX 800 Harrison St., Oakland WELL NO. MW6

PROJECT NUMBER: KEI-P90-1103

WELL PERMIT NO.: 92543

Flush-mounted Well Cover



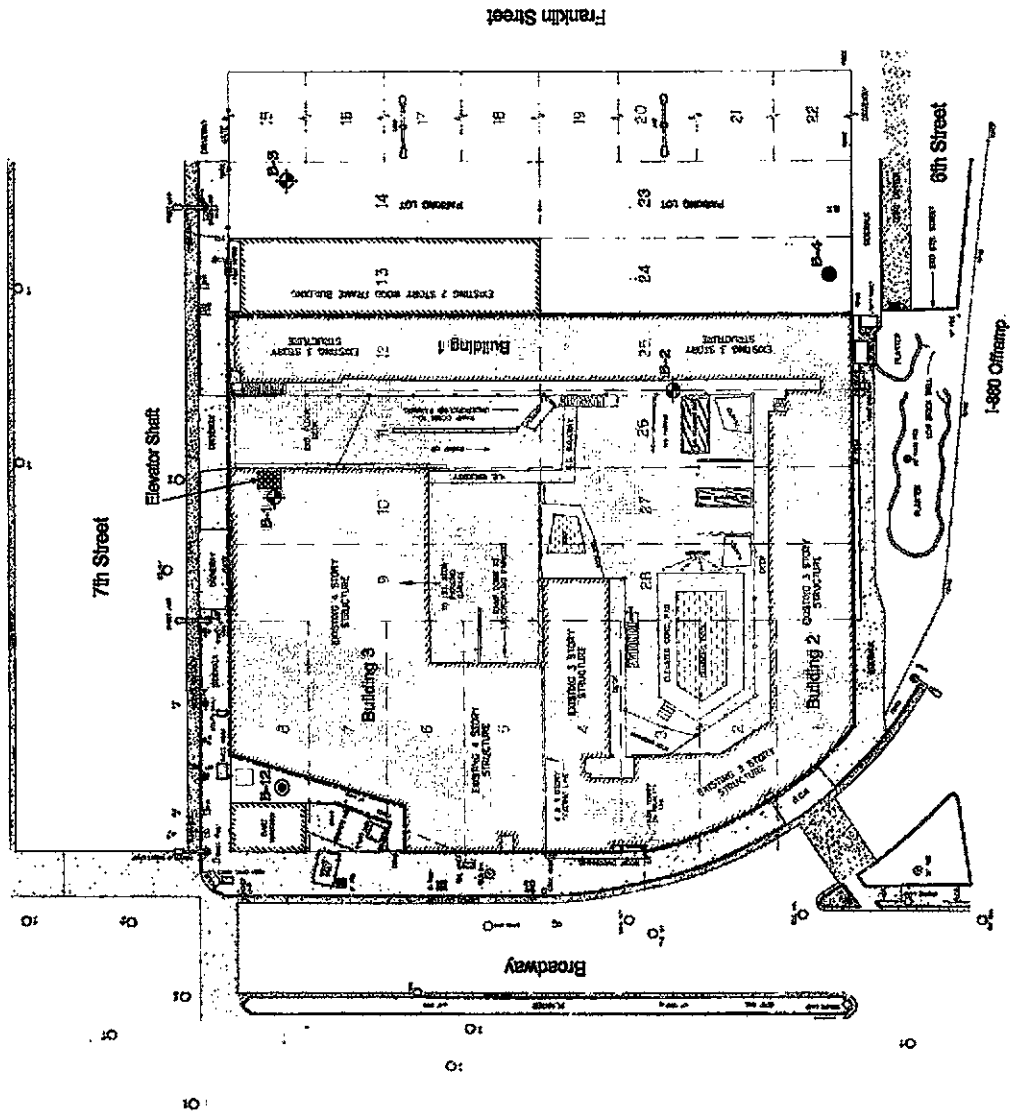
- A. Total Depth : 32'
- B. Boring Diameter: 9"
Drilling Method: Hollow Stem Auger
- C. Casing Length: 32'
Material: Schedule 40 PVC
- D. Casing Diameter: OD = 2.375"
ID = 2.067"
- E. Depth to Perforations: 15'
- F. Perforated Length: 17'
Perforation Type: Machined Slot
Perforation Size: 0.020"
- G. Surface Seal: 11'
Seal Material: Neat Cement
- H. Seal: 2'
Seal Material: Bentonite
- I. Filter Pack: 19'
Pack Material: RMC Lonestar Sand
Size: #3
- J. Bottom Seal: None
Seal Material: N/A

0029863

EXPLANATION

- ◆ B-1 Trashwell & Rollo Monitoring Well
- B-4 Trashwell & Rollo Boring
- ⊙ B-12 BAKT Bot Boring

NOTE:
Wells B-1 and B-2 are located in the sediment gaszone.



Scale: 1" = 40'
 Bay Area Land Surveying, A/LTA / NCSM Licensed Surveyors
 License No. 11, 12, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.



SITE PLAN
 423 Seventh Street,
 Oakland, California

The San Joaquin Company Inc.

Project Number: 0004.095
 Drawn by: GNM Date: 01/25/05

FIG 2

PROJECT: [Redacted] **Oakland, California** **Log of Boring B-1** PAGE 1 OF 1

Boring location: See Site Plan, Figure 2 **Logged by:** C. Tan
Date started: 11/5/04 **Date finished:** 11/5/04
Drilling method: 6" Hollow Stem Auger, Portable Rig
Hammer weight/drop: 70 lbs./30-inches **Hammer type:** Safety Hammer
Sampler: Standard Penetration Test (SPT) with Liners **Laboratory Test Data**

DEPTH (feet)	SAMPLES			LITHOLOGY	MATERIAL DESCRIPTION	Well Construction	Laboratory Test Data		
	Sampler Type	Sample	SPT N-Value ¹				Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
Ground Surface Elevation: 19.3 feet ²									
1					6-inch Concrete Slab				
2					SILTY SAND (SM) yellow-brown, medium dense, moist	Light Duty Well-Head Box			
3	SPT		12			Portland Cement Grout Seal	20.7	10.8	115
4						Bentonite Seal			
5									
6	SPT		18					12.6	117
7				SM					
8									
9									
10						No. 2 Monterey Sand Filter Pack			
11	SPT		15				18.9		117
12									
13						2in. Dia PVC Well Casing with 0.02-in. Aperture Machine-cut Slots			
14									
15					(1:30 PM, 11/15/04)				
16	SPT		38		SAND with SILT (SP-SM) brown, dense, wet				
17				SP-SM					
18									
19									
20									
21	SPT		25/ 6"		grading very dense	Threaded Casing Cap			
22									
23									
24									
25									
26									
27									
28									
29									
30									

TEST GEOTECH LOG 403401.GPJ TR.GDT 12/16/04

Boring terminated at a depth of 21 feet below ground surface.
 Boring backfilled with cement grout.
 Groundwater encountered at a depth of 15 feet during drilling.
 2" monitoring well installed in boring.

¹ SPT blow counts converted to SPT N-Values using a factor of 0.6.
² Elevations based on City of Oakland datum (COD).

Treadwell & Rollo

Project No.: 0004.095 Figure:

ORIGINAL
File with DWR

Page 1 of 5

Owner's Well No. B-2

Date Work Began 11/04/04, Ended 11/04/04

Local Permit Agency Alameda County Public Works Agency

Permit No. WO4-1139 Permit Date 11/01/04

STATE OF CALIFORNIA
WELL COMPLETION REPORT

Refer to Instruction Pamphlet

No. e029864

DWR USE ONLY — DO NOT FILL IN

01504W35

STATE WELL NO./STATION NO.

LATITUDE _____ LONGITUDE _____

APN/TRS/OTHER _____

GEOLOGIC LOG

ORIENTATION ()		DRILLING METHOD	FLUID	(SPECIFY)
<input checked="" type="checkbox"/> VERTICAL		<u>Hollow Stem</u>		<u>N/A</u>
DEPTH FROM SURFACE		DESCRIPTION		
FL	to	Describe material, grain size, color, etc.		
		<p>See</p> <p>Attached</p> <p>Well Log</p>		

WELL LOCATION

Address 423 Seventh St.

City Oakland

County Alameda

APN Book 7 Page 3 Parcel 001-0197-007

Township 1S Range 4W Section 35

Latitude 37 47 56 NORTH Longitude 122 16 25 WEST

LOCATION SKETCH

ACTIVITY ()

NEW WELL

MODIFICATION/REPAIR

— Deepen

— Other (Specify) _____

— DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USES ()

WATER SUPPLY

— Domestic — Public

— Irrigation — Industrial

MONITORING

TEST WELL _____

CATHODIC PROTECTION _____

HEAT EXCHANGE _____

DIRECT PUSH _____

INJECTION _____

VAPOR EXTRACTION _____

SPARGING _____

REMEDIATION _____

OTHER (SPECIFY) _____

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER 15 (FL) BELOW SURFACE

DEPTH OF STATIC WATER LEVEL 9.74 (FL) & DATE MEASURED 11/12/04

ESTIMATED YIELD * N/A (GPM) & TEST TYPE N/A

TEST LENGTH N/A (Hrs.) TOTAL DRAWDOWN N/A (FL)

* May not be representative of a well's long-term yield.

TOTAL DEPTH OF BORING 31.5 (Feet)

TOTAL DEPTH OF COMPLETED WELL 26 (Feet)

DEPTH FROM SURFACE	BORE-HOLE DIA. (Inches)	CASING (S)					
		TYPE ()	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)	
0 to 6	6	<input checked="" type="checkbox"/> BLANK	PVC	2	SCH 80	—	
6 to 26	6	<input checked="" type="checkbox"/> SCREEN	PVC	2	SCH 80	0.02	
		<input type="checkbox"/> DRON					
		<input type="checkbox"/> DUCTOR					
		<input type="checkbox"/> FILL PIPE					

DEPTH FROM SURFACE	ANNULAR MATERIAL TYPE			
		CE-MENT ()	BEN-TONITE ()	FILL ( )	FILTER PACK (TYPE/SIZE)
0 to 2.5	<input checked="" type="checkbox"/>			
2.5 to 5		<input checked="" type="checkbox"/>		
5 to 30			<input checked="" type="checkbox"/>	2/16 SAND

- ATTACHMENTS ()**
- Geologic Log
 - Well Construction Diagram
 - Geophysical Log(s)
 - Soil/Water Chemical Analyses
 - Other Site Map
- ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME D.J. Watkins, P.E.
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

1120 Hollywood Avenue, Suite 3 Oakland CA 94602

ADDRESS CITY STATE ZIP

Signed D.J. Watkins DATE SIGNED 09/10/05 REGISTERED ENGINEER NUMBER GE882

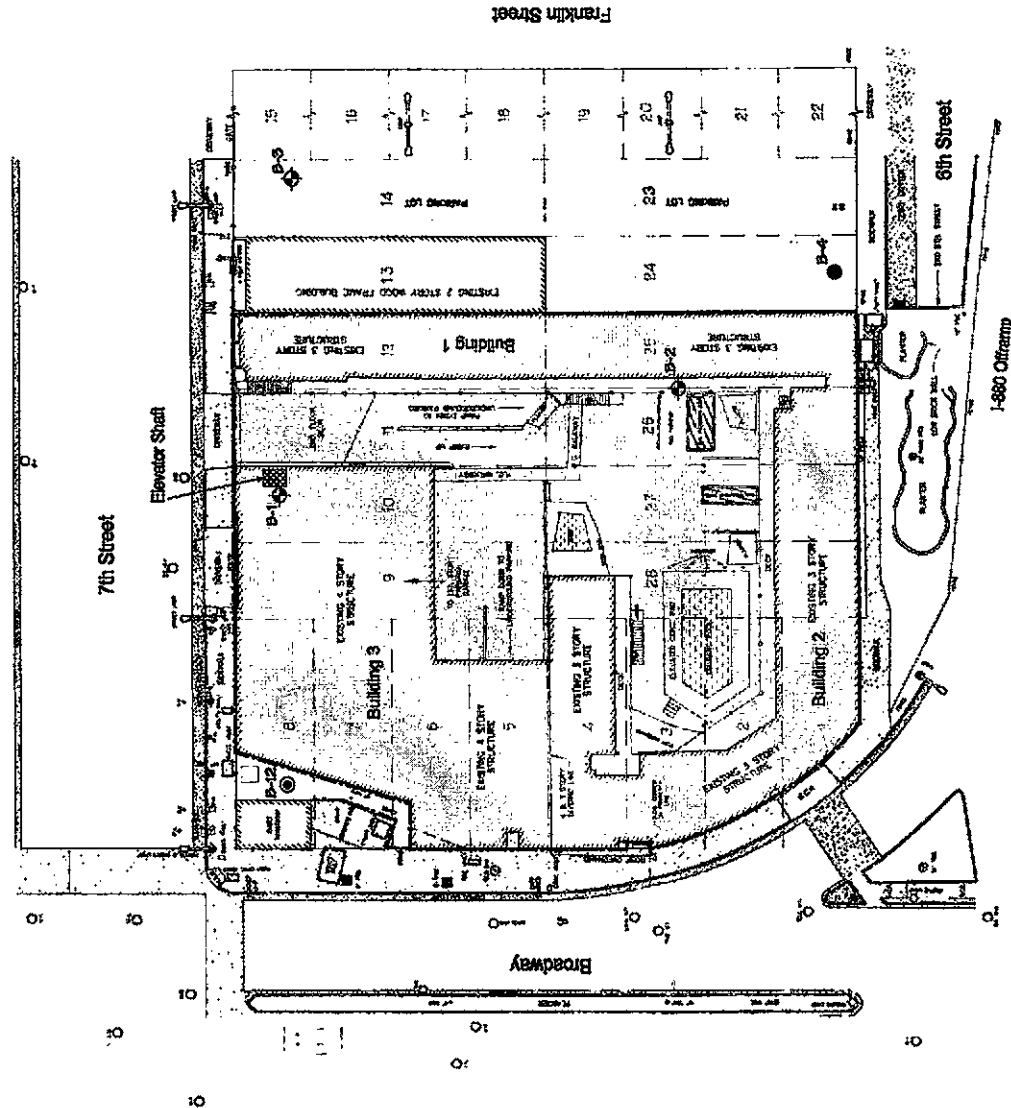
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED REGISTERED ENGINEER NUMBER

0298200

EXPLANATION

- ◻ B-1 Treadwell & Rollo Monitoring Well
- B-4 Treadwell & Rollo Boring
- ◎ B-12 BART Grid Boring

NOTE:
Wells B-1 and B-2 are located in the basement garage.



Scale Meter:
 Site Area Land Surveying - ALTA / ACSU Land Title Service
 License No. 12755
 1233 N. 1st St., Ste. 200, Oakland, CA 94612
 (415) 763-3800
 (415) 763-3801
 Fax: (415) 763-3802
 Drawing No. ASN 122-040-01-Sub 4-02-077



0 20 40
 SCALE IN FEET

SITE PLAN
 423 Seventh Street,
 Oakland, California

The San Joaquin Company Inc.

Project Number: 0004,095
 Drawn by: GNM | Date: 01/25/05

FIG 2

0029864

PROJECT:		Oakland, California		Log of Boring B-2		PAGE 1 OF 2			
Boring location: See Site Plan, Figure 2				Logged by: C. Tan					
Date started: 11/4/04		Date finished: 11/4/04							
Drilling method: 6" Hollow Stem Auger, Portable Rig									
Hammer weight/drop: 70 lbs./30-inches		Hammer type: Safety Hammer		Laboratory Test Data					
Sampler: Standard Penetration Test (SPT) with Liners									
DEPTH (feet)	SAMPLES			LITHOLOGY	MATERIAL DESCRIPTION	Well Construction	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
	Sampler Type	Sample	SPT N-Value ¹						
Ground Surface Elevation: 20 feet ²									
1					8-inch Concrete Slab				
2					SILTY SAND (SM) yellow-brown, medium dense, moist	Light Duty Well-Head Box			
3	SPT		27			Portland Cement Grout Seal	21.4	11.0	108
4						Bentonite Seal			
5				SM					
6	SPT		19						
7									
8									
9									
10					▼ 11/12/04	No. 2 Monterey Sand Filter Pack			
11	SPT		18		CLAYEY SAND (SC) yellow-brown, medium dense, moist				
12									
13									
14									
15				SC	∇ (1:30 PM, 11/04/04) grading dense, wet				
16	SPT		43				19.5		111
17						2in. Dia PVC Well Casing with 0.02-in. Aperture Machine-cut Slots			
18									
19									
20									
21	SPT		28/ 5"		SAND with SILT (SP-SM) brown, very dense, wet		18.1		109
22									
23									
24									
25				SP-SM					
26	SPT		28/ 5"			Threaded Casing Cap			
27									
28									
29									
30									

TEST GEOTECH LOG 403401.GR1 TR.GDT 12/16/04

Treadwell & Rollo

Project No.: 0004.095	Figure:
-----------------------	---------

DEPTH (feet)	SAMPLES			LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA			
	Sampler Type	Sample	SPT N-Value ¹			Well Construction	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
31	SPT		25/ 3'	SP-SM	SAND with SILT (SP-SM) (continued)				
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									
56									
57									
58									
59									
60									

TEST GEOTECH LOG 403401.GPJ TR.GDT 12/18/04

Boring terminated at a depth of 31.5 feet below ground surface.
 Boring backfilled with cement grout.
 Groundwater encountered at a depth of 15 feet during drilling.
 2" monitoring well installed in boring.

¹ SPT blow counts converted to SPT N-Values using a factor of 0.5.
² Elevations based on City of Oakland datum (COD).

Treadwell & Rollo

Project No.: 0004.095	Figure:
-----------------------	---------

ORIGINAL
File with DWR

Page 1 of 5

Owner's Well No. B-3

Date Work Began 11/04/04, Ended 11/05/04

Local Permit Agency Alameda County Public Works Agency

Permit No. WO4-1140 Permit Date 11/01/04

STATE OF CALIFORNIA
WELL COMPLETION REPORT

Refer to Instruction Pamphlet

No. e029866

DWR USE ONLY - DO NOT FILL IN

01504W35

STATE WELL NO./STATION NO.

LATITUDE LONGITUDE

APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (°) VERTICAL HORIZONTAL ANGLE _____ (SPECIFY)

DRILLING METHOD Hollow Stem FLUID N/A

DEPTH FROM SURFACE		DESCRIPTION <i>Describe material, grain size, color, etc.</i>
Fl.	to Fl.	
		<p>See Attached Well Log</p>

TOTAL DEPTH OF BORING 40.2 (Feet)

TOTAL DEPTH OF COMPLETED WELL 40.2 (Feet)

Address 423 Seventh St.

City Oakland

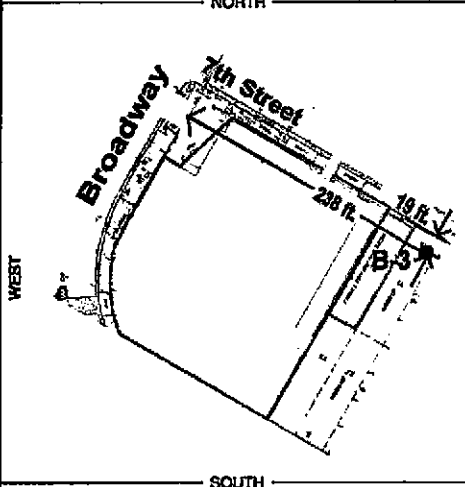
County Alameda

APN Book 7 Page 3 Parcel 001-0197-008

Township 1S Range 4W Section 35

Latitude 37 47 56 NORTH Longitude 122 16 24 WEST

LOCATION SKETCH NORTH ACTIVITY (°) NEW WELL



- MODIFICATION/REPAIR
- Deepen
- Other (Specify) _____
- DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG") _____
- PLANNED USES (°)
- WATER SUPPLY
- Domestic Public
- Irrigation Industrial
- MONITORING
- TEST WELL _____
- CATHODIC PROTECTION _____
- HEAT EXCHANGE _____
- DIRECT PUSH _____
- INJECTION _____
- VAPOR EXTRACTION _____
- SPARGING _____
- REMEDIATION _____
- OTHER (SPECIFY) _____

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER 20 (Fl.) BELOW SURFACE

DEPTH OF STATIC WATER LEVEL 10.51 (Fl.) & DATE MEASURED 11/12/04

ESTIMATED YIELD N/A (GPM) & TEST TYPE N/A

TEST LENGTH N/A (Hrs.) TOTAL DRAWDOWN N/A (Fl.)

* May not be representative of a well's long-term yield.

DEPTH FROM SURFACE	BORE-HOLE DIA. (Inches)	CASING (S)							
		TYPE (°)				MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
		BLANK	SCREEN	CON-DUCTOR	FILL PIPE				
0 to 6	6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PVC	2	SCH 80	---
6 to 40.2	6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PVC	2	SCH 80	0.02

DEPTH FROM SURFACE	ANNULAR MATERIAL			
	TYPE			
	CE-MENT (°)	BEN-TONITE (°)	FILL (°)	FILTER PACK (TYPE/SIZE)
0 to 2.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.5 to 5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5 to 40.2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2/16 SAND

- ATTACHMENTS (°)**
- Geologic Log
- Well Construction Diagram
- Geophysical Log(s)
- Soil/Water Chemical Analyses
- Other Site Map
- ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME D.J. Watkins, P.E.
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

1120 Hollywood Avenue, Suite 3 Oakland CA 94602

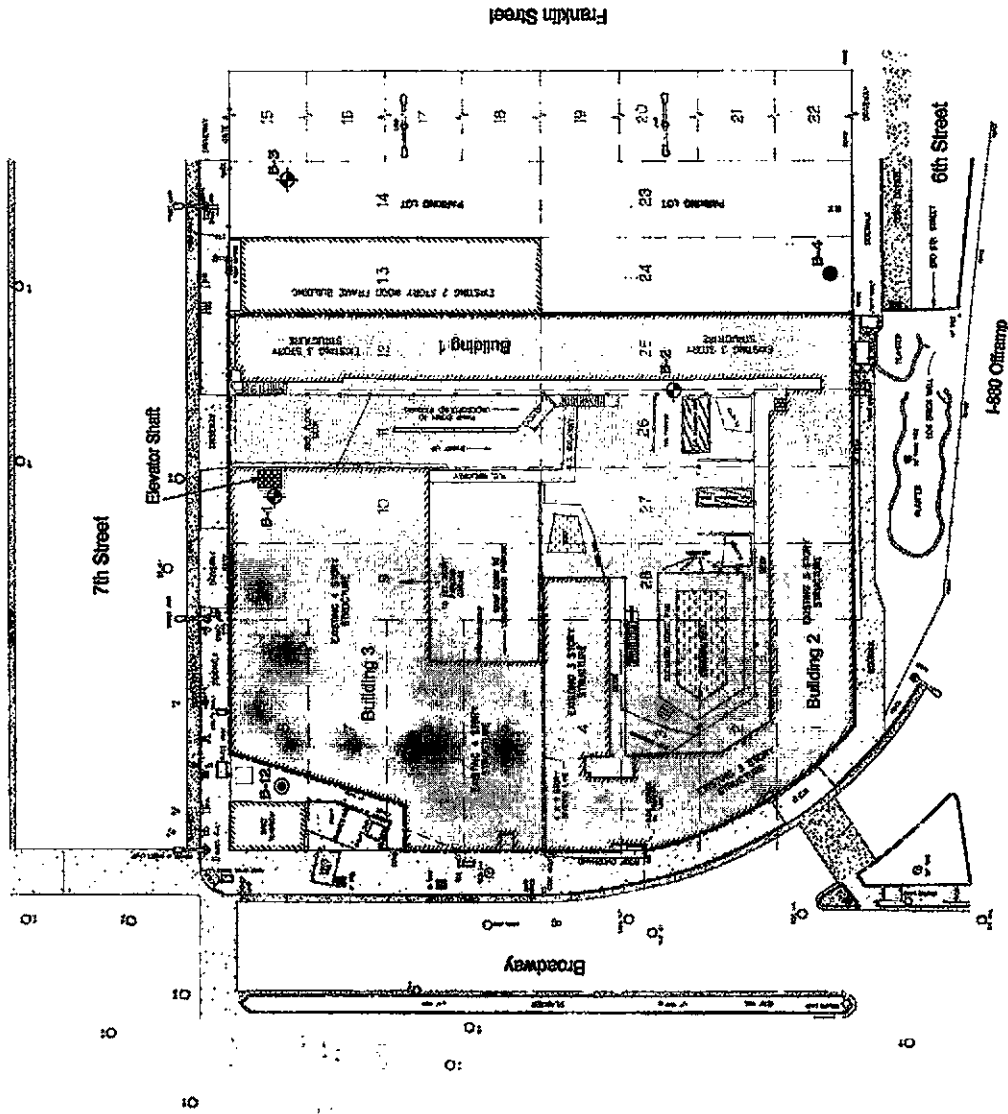
ADDRESS CITY STATE ZIP

Signed D.J. Watkins DATE SIGNED 09/10/05 GE882
WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED ENGINEER OF RECORD

EXPLANATION

- ⊕ B-1 Treadwell & Radio Monitoring Well
- B-4 Treadwell & Radio Boring
- ⊕ B-12 BAKT Soil Boring

NOTE:
Wells B-1 and B-2 are located in the basement garage.



SITE PLAN
423 Seventh Street,
Oakland, California

Project Number: 0004.D95
Drawn by: GNM Date: 01/25/05

The Sun Jeacquin Company Inc.

FIG 2

Scale Meter
Soil Test Lead Company - ALTA / ACS-1 Lead Test Service
12500 1st Street, Suite 100, Oakland, CA 94612 (415) 761-1111
12500 1st Street, Suite 100, Oakland, CA 94612 (415) 761-1111
12500 1st Street, Suite 100, Oakland, CA 94612 (415) 761-1111
12500 1st Street, Suite 100, Oakland, CA 94612 (415) 761-1111
12500 1st Street, Suite 100, Oakland, CA 94612 (415) 761-1111
12500 1st Street, Suite 100, Oakland, CA 94612 (415) 761-1111
12500 1st Street, Suite 100, Oakland, CA 94612 (415) 761-1111
12500 1st Street, Suite 100, Oakland, CA 94612 (415) 761-1111
12500 1st Street, Suite 100, Oakland, CA 94612 (415) 761-1111



0 20 40
SCALE IN FEET

PROJECT: [Redacted] **Oakland, California** **Log of Boring B-3** PAGE 1 OF 2

Boring location: See Site Plan, Figure 2 **Logged by:** C. Tan
Date started: 11/4/04 **Date finished:** 11/4/04
Drilling method: 8" Hollow Stem Auger, CME-75
Hammer weight/drop: 140 lbs./30-inches **Hammer type:** Automatic Hammer
Sampler: Standard Penetration Test (SPT) with Liners

DEPTH (feet)	SAMPLES			LITHOLOGY	MATERIAL DESCRIPTION	Well Construction	Laboratory Test Data			
	Sampler Type	Sample	SPT N-Value				Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft	
Ground Surface Elevation: 26.6 feet ²										
1					1-1/2-inches Asphalt Concrete (AC) over 5-inches Aggregate Base (AB)	FILL				
2				SM	SILTY SAND (SM) yellow-brown, medium dense, moist, with trace fine gravel				13.6	109
3	SPT	▲	13	SM						
4					SAND with SILT (SP-SM) yellow-brown, dense, moist	Light Duty Well-Head Box Portland Cement Grout Seal Bentonite Seal				
5				SP-SM					14.6	115
6	SPT	▲	32	SP-SM						
7						No. 2 Monterey Sand Filter Pack				
8										
9										
10					CLAYEY SAND (SC) yellow-brown, dense, moist	2in. Dia PVC Well Casing with 0.02-in. Aperture Machine-cut Slots				
11	SPT	▲	38	SC	▼ 11/12/04			21.5	11.8	115
12										
13										
14										
15										
16	SPT	▲	32	SC				13.4	118	
17										
18										
19										
20					▽ (8:20 AM, 11/04/04)					
21	SPT	▲	59		SAND with SILT (SP-SM) brown, very dense, wet			18.9	111	
22										
23										
24					color change to olive-brown					
25										
26	SPT	▲	64	SP-SM						
27										
28										
29										
30										

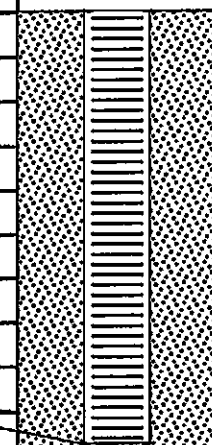
TEST GEOTECH LOG 403401.GPJ TR.G00T 12/20/04

Treadwell & Rollo

Project No.: 0004.095 Figure:

PROJECT: ██████████
Oakland, California

Log of Boring B-3

DEPTH (feet)	SAMPLES			LITHOLOGY	MATERIAL DESCRIPTION	Well Construction	Laboratory Test Data		
	Sampler Type	Sample	SPT N-Value ¹				Friss %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
31	SPT	▲	67	SP-SM	sand heaving into augers				
32									
33									
34									
35									
36	SPT	▲	23						
37									
38									
39	SPT	▲	109						
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
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54									
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58									
59									
60									

TEST GEOTECH LOG 4034.01.GPJ TR.GDT 12/2004

Boring terminated at a depth of 40 feet below ground surface.
Boring backfilled with cement grout.
Groundwater encountered at a depth of 20 feet during drilling.
2" monitoring well installed in boring.

¹ SPT blow counts converted to SPT N-Values using a factor of 0.5.
² Elevations based on City of Oakland datum (COD).

Treadwell & Rollo

Project No.: 0004.095 Figure:

ORIGINAL
File with DWR

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

DWR USE ONLY - DO NOT FILL IN

01S04W35

STATE WELL NO./STATION NO.

LATITUDE _____ LONGITUDE _____

APN/TRS/OTHER _____

Page 1 of 4

Owner's Well No. B-1 No. e029868

Date Work Began 09/16/05, Ended 09/16/05

Local Permit Agency Alameda County Public Works Agency

Permit No. W2005-0777 Permit Date 08/12/05

GEOLOGIC LOG

ORIENTATION () VERTICAL _____ HORIZONTAL _____ ANGLE _____ (SPECIFY)

DEPTH FROM SURFACE _____

FL. to FL. _____

DRILLING METHOD N/A FLUID N/A

DESCRIPTION

Describe material, grain size, color, etc.

Well closed by tremie injection of Portland cement Type I/II grout, followed by pressure grouting until pressure of 10 psi held for minimum of 5 minutes. After grouting, casing removed by excavation from surface to depth of 8 ft. BGS.

See
Attached
Well Log

WELL LOCATION

Address 423 Seventh St.

City Oakland

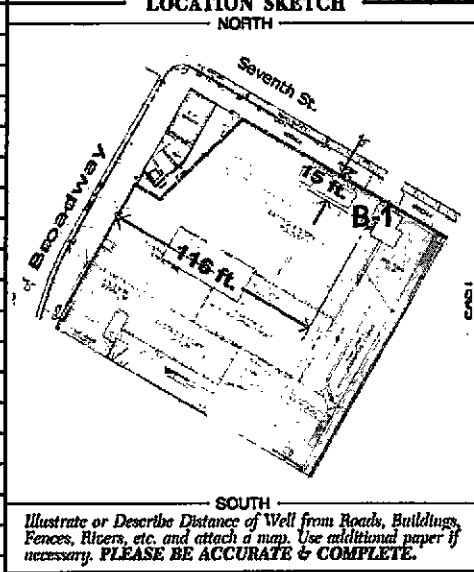
County Alameda

APN Book 7 Page 3 Parcel 001-0197-007

Township 1S Range 4W Section 35

Latitude 37 47 58 NORTH Longitude 122 16 24 WEST

DEG. MIN. SEC. DEG. MIN. SEC.



ACTIVITY ()

NEW WELL

MODIFICATION/REPAIR

Deepen

Other (Specify) _____

DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USES ()

WATER SUPPLY

Domestic Public

Irrigation Industrial

MONITORING

TEST WELL

CATHODIC PROTECTION

HEAT EXCHANGE

DIRECT PUSH

INJECTION

VAPOR EXTRACTION

SPARGING

REMEDIATION

OTHER (SPECIFY) _____

TOTAL DEPTH OF BORING 0 (Feet)

TOTAL DEPTH OF COMPLETED WELL 0 (Feet)

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER _____ (FL) BELOW SURFACE

DEPTH OF STATIC WATER LEVEL _____ (FL) & DATE MEASURED _____

ESTIMATED YIELD * N/A (GPM) & TEST TYPE N/A

TEST LENGTH N/A (Hrs.) TOTAL DRAWDOWN N/A (FL)

* May not be representative of a well's long-term yield.

DEPTH FROM SURFACE FL. to FL.	BORE-HOLE DIA. (Inches)	CASING (S)							
		TYPE ()				MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
BLANK	SCREEN	CON-DUCTOR	FILL PIPE						
	N/A					N/A Well Destroyed	N/A Well Destroyed		

DEPTH FROM SURFACE FL. to FL.	ANNULAR MATERIAL TYPE			
	CE-MENT ()	BEN-TONITE ()	FILL ()	FILTER PACK (TYPE/SIZE)
	N/A Well Destroyed			

ATTACHMENTS ()

Geologic Log

Well Construction Diagram

Geophysical Log(s)

Soil/Water Chemical Analyses

Other Site Map

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME D.J. Watkins, P.E.
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

ADDRESS 1120 Hollywood Avenue, Suite 3 Oakland CA 94602

City STATE ZIP

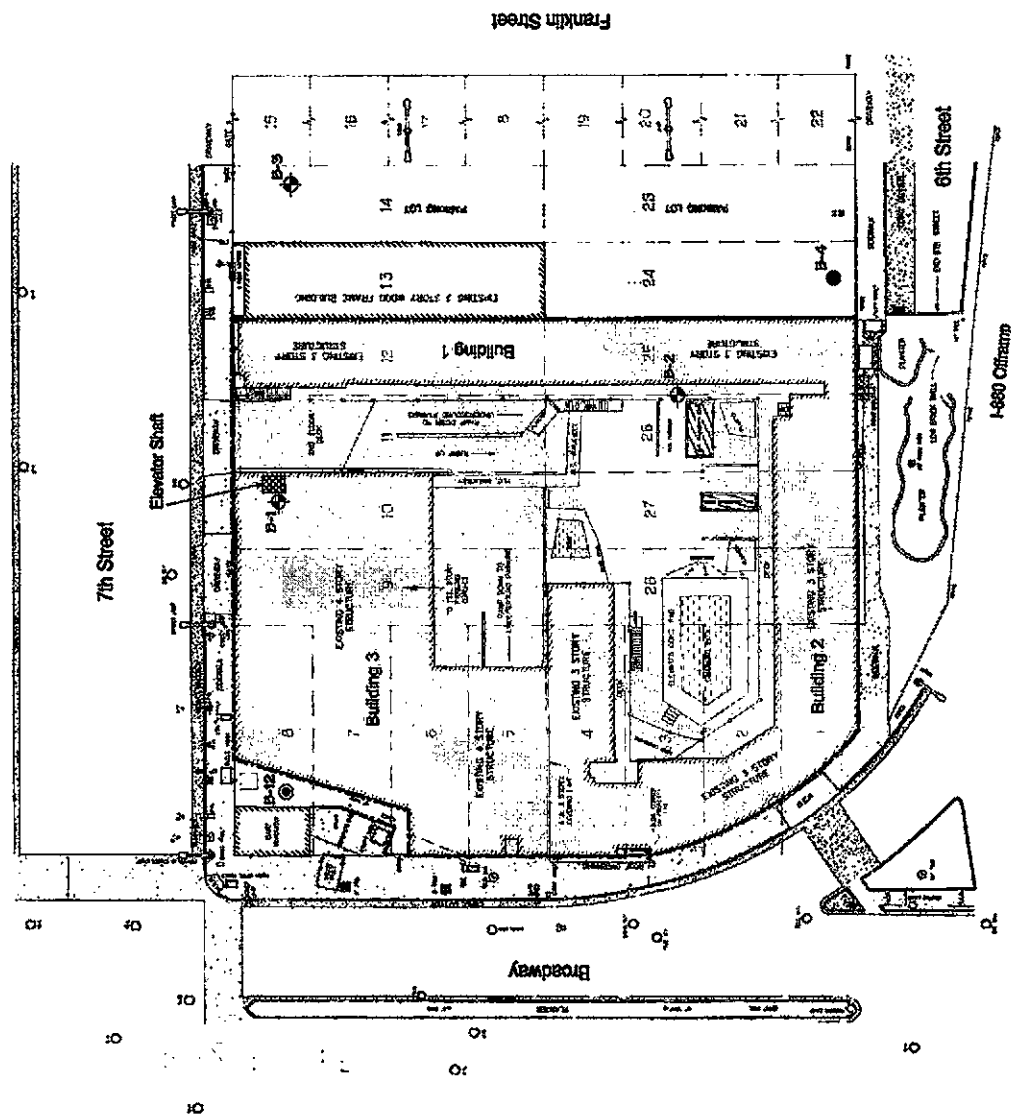
Signed D.J. Watkins DATE SIGNED 09/20/05

WELL DRILLER/AUTHORIZED REPRESENTATIVE ENGINEER OF RECORD
63636858-36368

EXPLANATION

- ◆ B-1 Trashed & Echo Monitoring Well
- B-4 Trashed & Echo Boring
- ⊙ B-12 BAKT Soil Boring

NOTE:
Wells B-1 and B-2 are located in the basement garage.



Read Map
 -See Map and Surroundings - ALTA/ACSM Land Title Survey
 L20-A, S.S. 10, 11, 12, 20, 21, 22, 23, 24, 25 and The block of lots
 1, 2, 3, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25
 Block 1, Lot 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25
 Block 1, Lot 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25
 Drawing No. ALTA 195-040-010-S, Job # 05-677



0 20 40
 SCALE IN FEET

SITE PLAN
 423 Seventh Street,
 Oakland, California

The San Joaquin Company Inc.

Project Number: 0004.095
 Drawn by: CNM | Date: 01/25/05

FIG 2

PROJECT: [Redacted] **Oakland, California** **Log of Boring B-1** PAGE 1 OF 1

Boring location: See Site Plan, Figure 2 **Logged by:** C. Tan

Date started: 11/5/04 **Date finished:** 11/5/04

Drilling method: 6" Hollow Stem Auger, Portable Rig

Hammer weight/drop: 70 lbs./30-inches **Hammer type:** Safety Hammer

Sampler: Standard Penetration Test (SPT) with Liners

DEPTH (feet)	SAMPLES		LITHOLOGY	MATERIAL DESCRIPTION	Well Construction	Laboratory Test Data		
	Sampler Type	Sample SPT N-Value ¹				Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
Ground Surface Elevation: 19.3 feet ²								
1				6-inch Concrete Slab				
2				SILTY SAND (SM) yellow-brown, medium dense, moist	Light Duty Well-Head Box			
3	SPT	12			Portland Cement Grout Seal	20.7	10.8	115
4					Bentonite Seal			
5								
6	SPT	18					12.6	117
7								
8			SM					
9								
10					No. 2 Monterey Sand Filter Pack			
11	SPT	15					16.9	117
12								
13					2in. Dia PVC Well Casing with 0.02-in. Aperture Machine-cut Slots			
14								
15								
16	SPT	38		SAND with SILT (SP-SM) brown, dense, wet				
17								
18			SP-SM					
19								
20								
21	SPT	25/ 6"		grading very dense	Threaded Casing Cap			
22								
23								
24								
25								
26								
27								
28								
29								
30								

TEST GEOTECH LOG 403401.GPJ TR.GDT 12/16/04

Boring terminated at a depth of 21 feet below ground surface.
 Boring backfilled with cement grout.
 Groundwater encountered at a depth of 15 feet during drilling.
 2" monitoring well installed in boring.

¹ SPT blow counts converted to SPT N-Values using a factor of 0.5.
² Elevations based on City of Oakland datum (COD).

Treadwell & Rollo

Project No.: 0004.095 Figure:

ORIGINAL
File with DWR

Page 1 of 5

Owner's Well No. B-2

Date Work Began 08/26/05, Ended 08/26/05

Local Permit Agency Alameda County Public Works Agency

Permit No. W2005-0778 Permit Date 08/12/05

STATE OF CALIFORNIA
WELL COMPLETION REPORT

Refer to Instruction Pamphlet

No. e029869

DWR USE ONLY - DO NOT FILL IN
01504435
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION () VERTICAL _____ HORIZONTAL _____ ANGLE _____ (SPECIFY)
DRILLING METHOD N/A FLUID N/A

DEPTH FROM SURFACE _____
DESCRIPTION
Describe material, grain size, color, etc.
Well closed by tremie injection of Portland cement Type I/II grout followed by pressure-grouting until pressure of 10 psi held for minimum of 5 minutes. After grouting, casing removed by excavation from surface to depth of 8 ft. BGS.

See
Attached
Well Log

TOTAL DEPTH OF BORING 0 (Feet)

TOTAL DEPTH OF COMPLETED WELL 0 (Feet)

WELL LOCATION

Address 423 Seventh St.

City Oakland

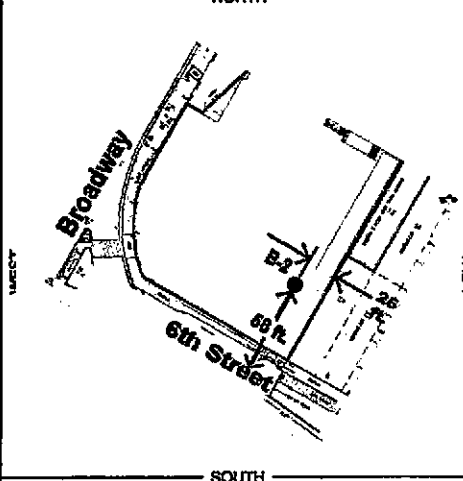
County Alameda

APN Book 7 Page 3 Parcel 001-0197-007

Township 1S Range 4W Section 35

Latitude 37 47 56 NORTH Longitude 122 16 25 WEST
DEG. MIN. SEC. DEG. MIN. SEC.

LOCATION SKETCH



- ACTIVITY ()
- NEW WELL
 - MODIFICATION/REPAIR
 - Deepen
 - Other (Specify)
 - DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")
 - PLANNED USES ()
 - WATER SUPPLY
 - Domestic
 - Public
 - Irrigation
 - Industrial
 - MONITORING
 - TEST WELL
 - CATHODIC PROTECTION
 - HEAT EXCHANGE
 - DIRECT PUSH
 - INJECTION
 - VAPOR EXTRACTION
 - SPARGING
 - REMEDICATION
 - OTHER (SPECIFY)

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER _____ (Ft.) BELOW SURFACE

DEPTH OF STATIC WATER LEVEL _____ (Ft.) & DATE MEASURED _____

ESTIMATED YIELD * N/A (GPM) & TEST TYPE N/A

TEST LENGTH N/A (Ft.) TOTAL DRAWDOWN N/A (Ft.)

* May not be representative of a well's long-term yield.

DEPTH FROM SURFACE Fl. to Fl.	BORE-HOLE DIA. (Inches)	CASING (S)						DEPTH FROM SURFACE Fl. to Fl.	ANNULAR MATERIAL TYPE				
		TYPE ()				MATERIAL / GRADE	INTERNAL DIAMETER (Inches)		GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)	CE-MENT ()	BEN-TONITE ()	FILL ( )	FILTER PACK (TYPE/SIZE)

- ATTACHMENTS ()
- Geologic Log
 - Well Construction Diagram
 - Geophysical Log(s)
 - Soil/Water Chemical Analyses
 - Other Site Map

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

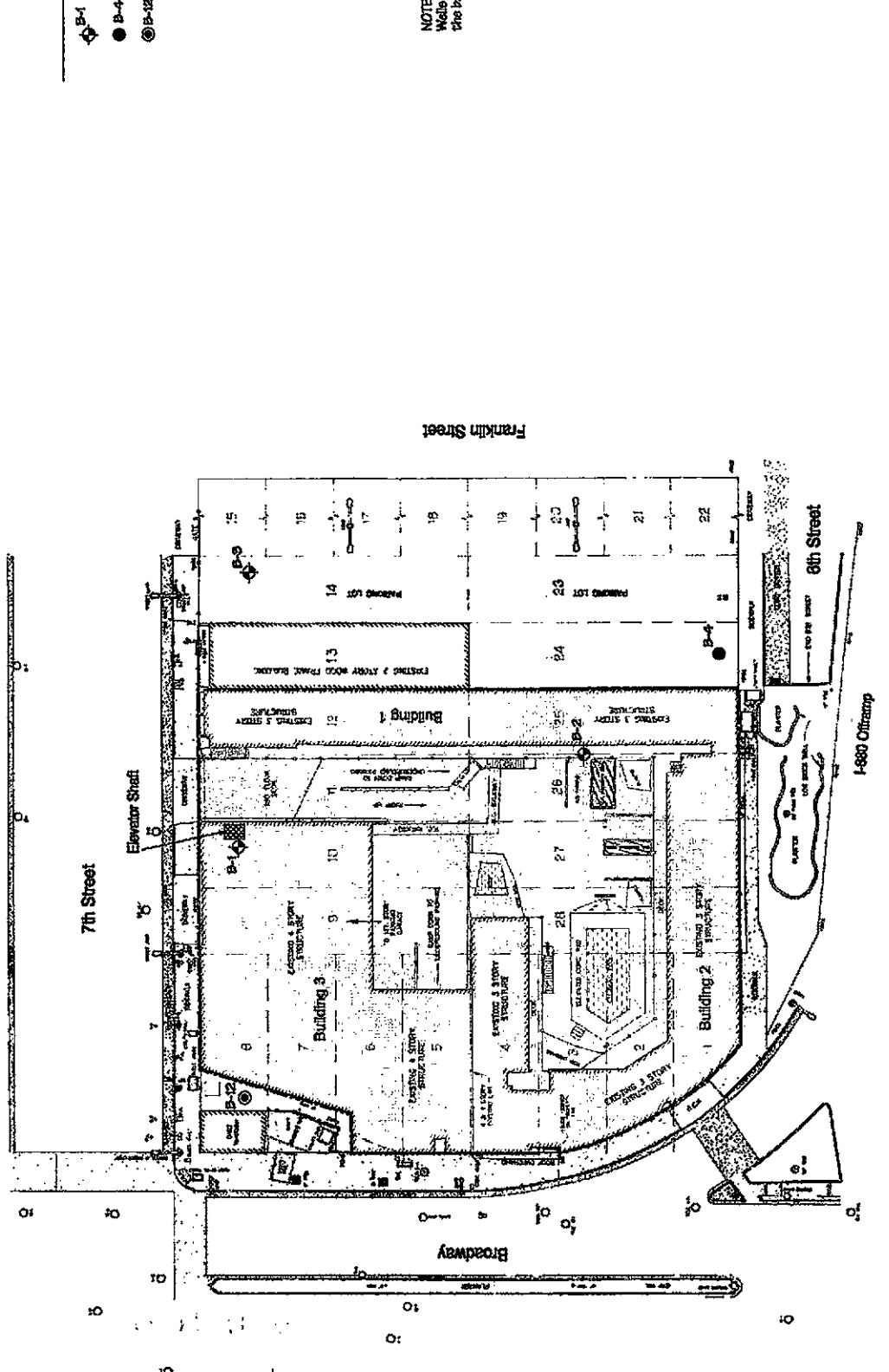
I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.
NAME D.J. Watkins, P.E.
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
1120 Hollywood Avenue, Suite 3
ADDRESS CITY Oakland STATE CA ZIP 94602
Signed D.J. Watkins DATE SIGNED 08/20/05
WELL DEALER/AUTHORIZED REPRESENTATIVE ENGINEER OF RECORD
6-570-50685-004 NUMBER

002,9867

EXPLANATION

- ◆ B-1 Trasdwell & Rkolo Monitoring Well
- B-4 Trasdwell & Rkolo Boring
- ◎ B-12 BART Soil Boring

NOTE:
Wells B-1 and B-2 are located in
the basement garage.



SITE PLAN
423 Seventh Street,
Oakland, California

Project Number: 0004,095
Drawn by: GNM | Date: 01/25/05

The San Joaquin Company Inc.

FIG 2

San Joaquin
1000 Broadway Street, 15th Floor
San Francisco, CA 94103
City of Oakland, 1500 Broadway Street, 15th Floor
Oakland, CA 94612
Phone: 415.774.6700
Fax: 415.774.6701
www.sanjoaquin.com



PROJECT: ██████████ Oakland, California	Log of Boring B-2
PAGE 1 OF 2	

Boring location: See Site Plan, Figure 2	Logged by: C. Tan
Date started: 11/4/04	Date finished: 11/4/04
Drilling method: 6" Hollow Stem Auger, Portable Rig	
Hammer weight/drop: 70 lbs./30-inches	Hammer type: Safety Hammer
Sampler: Standard Penetration Test (SPT) with Liners	

DEPTH (feet)	SAMPLES			LITHOLOGY	MATERIAL DESCRIPTION	Well Construction	Laboratory Test Data		
	Sampler Type	Sample	SPT N-Value				Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
Ground Surface Elevation: 20 feet ²									
1					6-inch Concrete Slab				
2					SILTY SAND (SM) yellow-brown, medium dense, moist	Light Duty Well-Head Box			
3	SPT		27			Portland Cement Grout Seal	21.4	11.0	108
4						Bentonite Seal			
5				SM					
6	SPT		19						
7									
8									
9									
10					▼ 11/12/04	No. 2 Monterey Sand Filter Pack			
11	SPT		18		CLAYEY SAND (SC) yellow-brown, medium dense, moist				
12									
13									
14									
15					∇ (1:30 PM, 11/04/04) grading dense, wet				
16	SPT		43	SC			19.5		111
17						2in. Dia PVC Well Casing with 0.02-in. Aperture Machine-cut Slots			
18									
19									
20									
21	SPT		25/ 6"		SAND with SILT (SP-SM) brown, very dense, wet		18.1		109
22									
23									
24									
25				SP-SM					
26	SPT		25/ 6"			Threaded Casing Cap			
27									
28									
29									
30									

TEST GEOTECH LOG 403401.GPJ TR.GDT 12/16/04

Treadwell & Rollo

Project No.: 0004.095	Figure:
-----------------------	---------

DEPTH (feet)	SAMPLES			LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA			
	Sampler Type	Sample	SPT N-Value*			Well Construction	Frises**	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
31	SPT		25/9	SP-SM	SAND with SILT (SP-SM) (continued)				
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									
56									
57									
58									
59									
60									

TEST GEOTECH LOG 403401.GPJ TR.CDT 12/18/04

Boring terminated at a depth of 31.5 feet below ground surface.
 Boring backfilled with cement grout.
 Groundwater encountered at a depth of 15 feet during drilling.
 2" monitoring well installed in boring.

* SPT blow counts converted to SPT N-Values using a factor of 0.5.
 ** Elevations based on City of Oakland datum (COD).

Treadwell & Rollo

Project No.: 0004.095	Figure:
--------------------------	---------

DWR USE ONLY - DO NOT FILL IN

01504435

STATE WELL NO./STATION NO.

LATITUDE _____ LONGITUDE _____

APN/TRS/OTHER _____

GEOLOGIC LOG

ORIENTATION (✓) VERTICAL HORIZONTAL ANGLE _____ (SPECIFY)

DRILLING METHOD N/A FLUID N/A

DEPTH FROM SURFACE _____

Fl. to Fl. _____

DESCRIPTION
Describe material, grain size, color, etc.

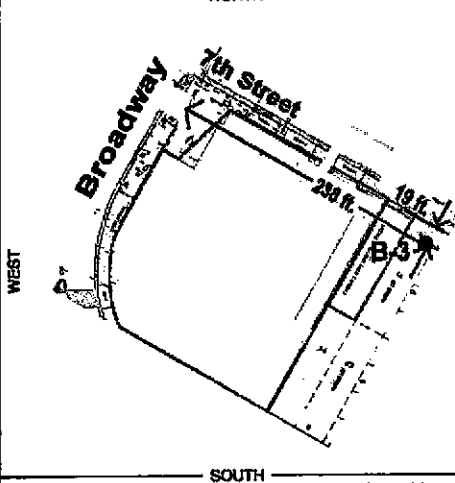
Well closed by tremie injection of Portland cement Type I/II grout, followed by pressure-grouting until pressure of 10 psi held for minimum of 5 minutes. Well-head casing removed and resulting excavation back-filled with concrete laid to conform with paving.

See
Attached
Well Log

WELL LOCATION

Address 423 Seventh St.
City Oakland
County Alameda
APN Book 7 Page 3 Parcel 001-0197-008
Township 1S Range 4W Section 35
Latitude 37 47 56 NORTH Longitude 122 16 24 WEST

LOCATION SKETCH



ACTIVITY (✓)

NEW WELL

MODIFICATION/REPAIR

Deepen

Other (Specify) _____

DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USES (✓)

WATER SUPPLY

Domestic Public

Irrigation Industrial

MONITORING _____

TEST WELL _____

CATHODIC PROTECTION _____

HEAT EXCHANGE _____

DIRECT PUSH _____

INJECTION _____

VAPOR EXTRACTION _____

SPARGING _____

REMEDICATION _____

OTHER (SPECIFY) _____

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER _____ (FL) BELOW SURFACE

DEPTH OF STATIC WATER LEVEL _____ (FL) & DATE MEASURED _____

ESTIMATED YIELD * N/A (GPM) & TEST TYPE N/A

TEST LENGTH N/A (Hrs.) TOTAL DRAWDOWN N/A (FL)

* May not be representative of a well's long-term yield.

TOTAL DEPTH OF BORING 0 (Feet)
TOTAL DEPTH OF COMPLETED WELL 0 (Feet)

DEPTH FROM SURFACE Fl. to Fl.	BORE-HOLE DIA. (Inches)	CASING (S)						DEPTH FROM SURFACE Fl. to Fl.	ANNULAR MATERIAL					
		TYPE (✓)				MATERIAL / GRADE	INTERNAL DIAMETER (Inches)		GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)	CE- MENT (✓)	BEN- TONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
BLANK	SCREEN	COAL DUCTOR	FILL PIPE											
N/A Well Destroyed						Destroyed	N/A Well Destroyed	N/A Well Destroyed	N/A Well Destroyed	N/A Well Destroyed				

ATTACHMENTS (✓)

- Geologic Log
- Well Construction Diagram
- Geophysical Log(s)
- Soil/Water Chemical Analyses
- Other Site Map

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME D.J. Watkins, P.E.
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

ADDRESS 1120 Hollywood Avenue, Suite 3 CITY Oakland STATE CA ZIP 94602

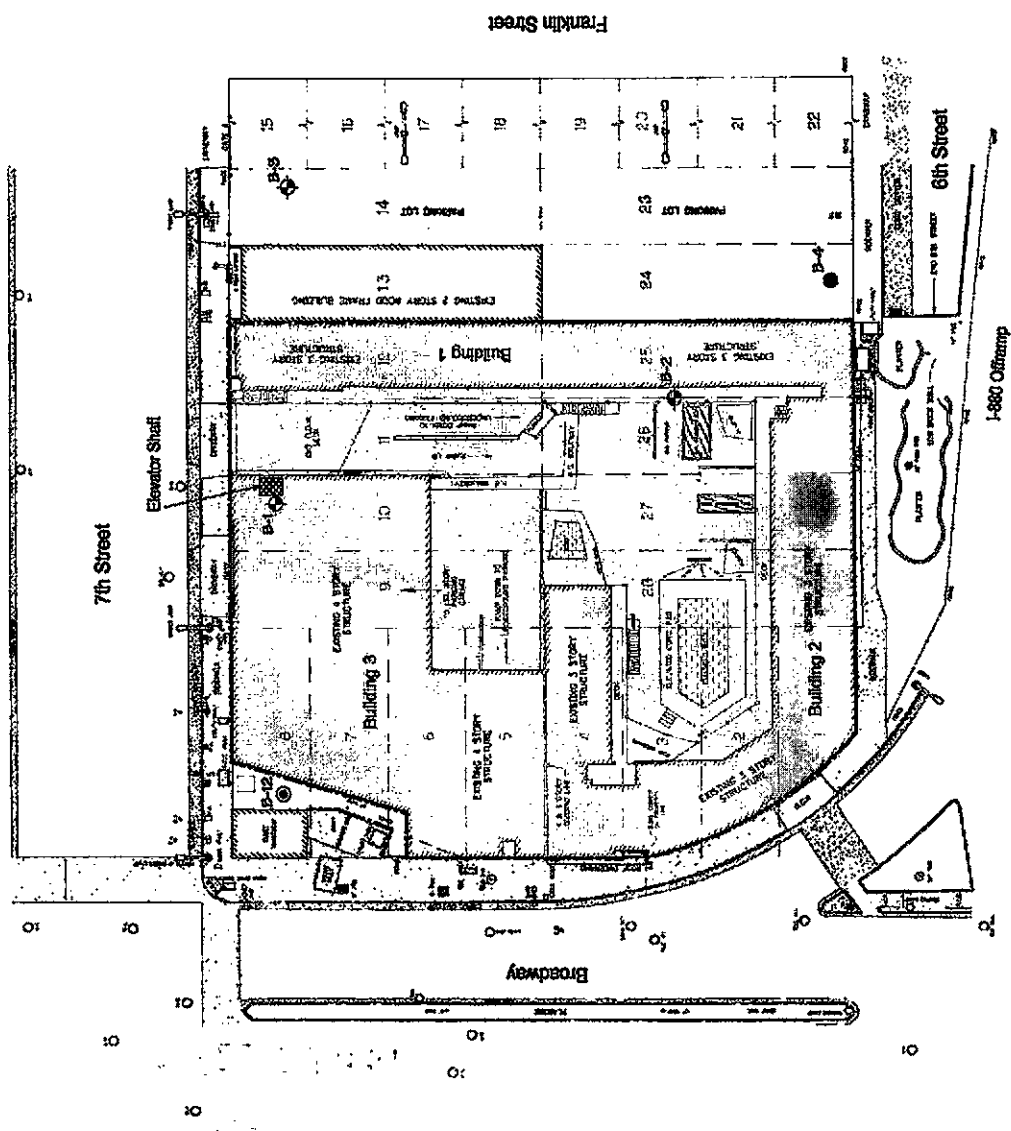
Signed D.J. Watkins DATE SIGNED 09/20/05
WELL DRILLER/AUTHORIZED REPRESENTATIVE ENGINEER OF RECORD
CASE LICENSE NUMBER

002970

EXPLANATION

- ◆ B-1 Treaswell & Rollo Monitoring Well
- B-4 Treaswell & Rollo Boring
- ⊙ B-12 BACT Soil Boring

NOTE:
Wells B-1 and B-2 are located in the basement garage.



Project Number: 0004,095
 Drawn by: GNM | Date: 01/25/05

The San Joaquin Company Inc.

FIG 2

SITE PLAN
 423 Seventh Street,
 Oakland, California

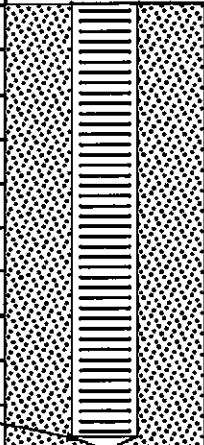
Base Map:
 Bay Area Land Surveying - ALTA / ACM Land Title Survey
 Lots 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28 and the corner of Lots
 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100
 Bay Area Land Surveying
 2525 Bonita Road, Richmond, CA (925) 272-0222
 Drawing No. ALTA 125-040-00-01, 002 P02-017

PROJECT:		Oakland, California		Log of Boring B-3		PAGE 1 OF 2			
Boring location: See Site Plan, Figure 2				Logged by: C. Tan					
Date started: 11/4/04		Date finished: 11/4/04							
Drilling method: 8" Hollow Stem Auger, CME-75									
Hammer weight/drop: 140 lbs./30-inches		Hammer type: Automatic Hammer		Laboratory Test Data					
Sampler: Standard Penetration Test (SPT) with Liners									
DEPTH (feet)	SAMPLES			LITHOLOGY	MATERIAL DESCRIPTION	Well Construction	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
	Sampler Type	Sample	SPT N-Value						
Ground Surface Elevation: 26.6 feet ²									
1					1-1/2-inches Asphalt Concrete (AC) over 5-inches Aggregate Base (AB)				
2				SM	SILTY SAND (SM) yellow-brown, medium dense, moist, with trace fine gravel				
3	SPT		13					13.6	109
4									
5					SAND with SILT (SP-SM) yellow-brown, dense, moist				
6	SPT		32	SP-SM		Light Duty Well-Head Box		14.6	115
7						Portland Cement Grout Seal			
8						Bentonite Seal			
9									
10									
11	SPT		38		CLAYEY SAND (SC) yellow-brown, dense, moist			21.5	11.6
12						No. 2 Monterey Sand Filter Pack			
13									
14									
15				SC					
16	SPT		32					13.4	118
17						2in. Dia PVC Well Casing with 0.02-in. Aperture Machine-cut Slots			
18									
19									
20									
21	SPT		59		(8:20 AM, 11/04/04) SAND with SILT (SP-SM) brown, very dense, wet			18.9	111
22									
23									
24									
25					color change to olive-brown				
26	SPT		64	SP-SM					
27									
28									
29									
30									

TEST GEOTECH LOG 403401.GPJ TRL.GDT 12/20/04

Treadwell & Rollo

Project No.: 0004.095 Figure:

DEPTH (feet)	SAMPLES			LITHOLOGY	MATERIAL DESCRIPTION	Well Construction	Laboratory Test Data		
	Sampler Type	Sample	SPT N-Value ¹				Flow	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
31	SPT	▲	67	SP-SM	sand heaving into augers				
32									
33									
34									
35									
36	SPT	▲	23						
37									
38									
39	SPT	▲	109						
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
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57									
58									
59									
60									

TEST GEOTECH LOG 403401.GPJ TR.SPT 12/20/04

Boring terminated at a depth of 40 feet below ground surface.
 Boring backfilled with cement grout.
 Groundwater encountered at a depth of 20 feet during drilling.
 2" monitoring well installed in boring.

¹ SPT blow counts converted to SPT N-Values using a factor of 0.5.
² Elevations based on City of Oakland datum (COD).

Treadwell & Rollo

Project No.: 0004.095	Figure:
-----------------------	---------

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California Well Completion Report

Refer to Instruction Pamphlet

No. **049746**

Page 1 of 1
Owner's Well Number EW-5
Date Work Began 5/19/09 Date Work Ended 5/19/09
Local Permit Agency AC PWA
Permit Number W2009-0395 Permit Date 5/1/09

DWR Use Only - Do Not Fill In	
01504W35	
State Well Number/Site Number	
Latitude N Longitude W	
APN/TRS/Other	

Geologic Log

Orientation Vertical Horizontal Angle Specify _____

Drilling Method _____ Drilling Fluid _____

Depth from Surface _____ Description _____

Well Owner

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS Well: EW-5

Project Name _____ Project Location: 250 8th Street, Oakland, CA Page 1 of 1

Driller: V&W Drilling Type of Rig: Hollow-Stem Auger Size of Drill: 10.0" Diameter

Logged By: Robert Kitay, P.G. Date Drilled: May 19, 2009 Checked By: Robert Kitay, P.G.

WATER AND WELL DATA

Depth of Water First Encountered: 21' Total Depth of Well Completed: 30'

Static Depth of Water in Well: NA Well Screen Type and Diameter: 4" Diameter Sch. 40 PVC

Total Depth of Boring: 30.5' Type and Size of Soil Sampler: 2.0" I.D. Split-Barrel

Well Location

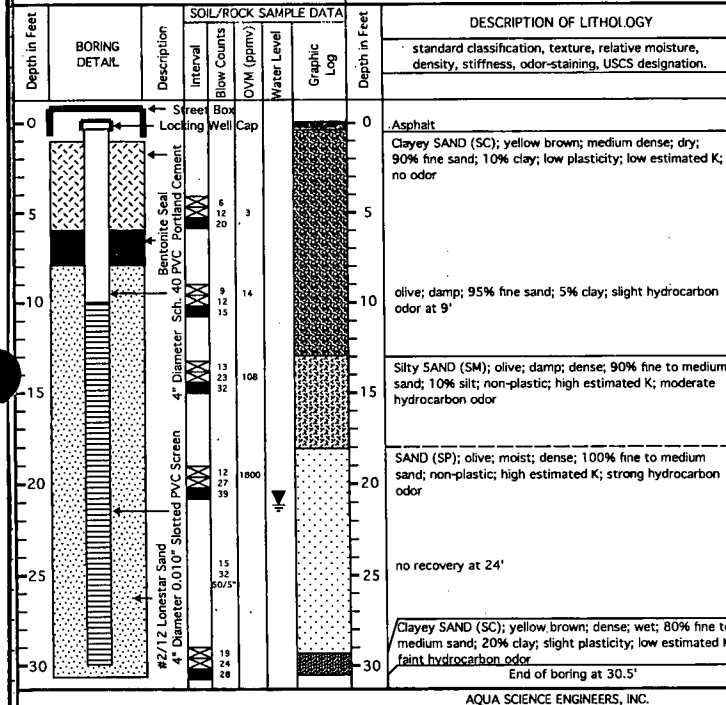
Address 250 8th Street
City Oakland County Alameda

Latitude _____ N Longitude _____ W

Datum _____ Decimal Lat. _____ Decimal Long. _____

APN Book _____ Page _____ Parcel _____

Township 15 Range 4W Section 35



Location Sketch
(Sketch must be drawn by hand after form is printed.)

Activity

New Well
 Modification/Repair
 Deepen
 Other
 Destroy

Planned Uses

Water Supply
 Domestic Public
 Irrigation Industrial
 Cathodic Protection
 Dewatering
 Heat Exchange
 Injection
 Monitoring
 Remediation
 Sparging
 Test Well
 Vapor Extraction
 Other

Total Depth of Completed Well _____ Feet

Water Level and Yield of Completed Well

Depth to first water _____ (Feet below Surface)

Depth to Static _____

Water Level _____ (Feet) Date Measured _____

Estimated Yield * _____ (GPM) Test Type _____

Test Length _____ (Hours) Total Drawdown _____ (Feet)

*May not be representative of a well's long term yield.

Casings								Annular Material		
Depth from Surface	Borehole Diameter	Type	Material	Wall Thickness	Outside Diameter	Screen Type	Slot Size if Any	Depth from Surface	Fill	Description
Feet to Feet	(Inches)			(Inches)	(Inches)		(Inches)	Feet to Feet		

Attachments

Geologic Log
 Well Construction Diagram
 Geophysical Log(s)
 Soil/Water Chemical Analyses
 Other _____

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name V&W Drilling Inc
 Person, Firm or Corporation
3800 Duce Creek Dr Stockton CA 95215
 Address City State Zip
 Signed [Signature] Date Signed 7/9/09 C-57 License Number 720904
 C-57 Licensed Water Well Contractor

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

Well Completion Report

State of California

Refer to Instruction Pamphlet

No. e049747

Page 1 of 1
 Owner's Well Number EW-2
 Date Work Began 5/19/09 Date Work Ended 5/19/09
 Local Permit Agency ACPWA
 Permit Number W2009-0395 Permit Date 5-7-09

DWR Use Only - Do Not Fill In

01504W35

State Well Number/Site Number

Latitude _____ Longitude _____

APN/TRS/Other _____

Geologic Log

Orientation Vertical Horizontal Angle Specify _____

Drilling Method _____ Drilling Fluid _____

Depth from Surface _____ Description _____

Feet to Feet Describe material, grain size, color, etc

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS Well: EW-2

Project Name _____ Project Location: 250 8th Street, Oakland, CA Page 1 of 1

Driller: V&W Drilling Type of Rig: Hollow-Stem Auger Size of Drill: 10.0" Diameter

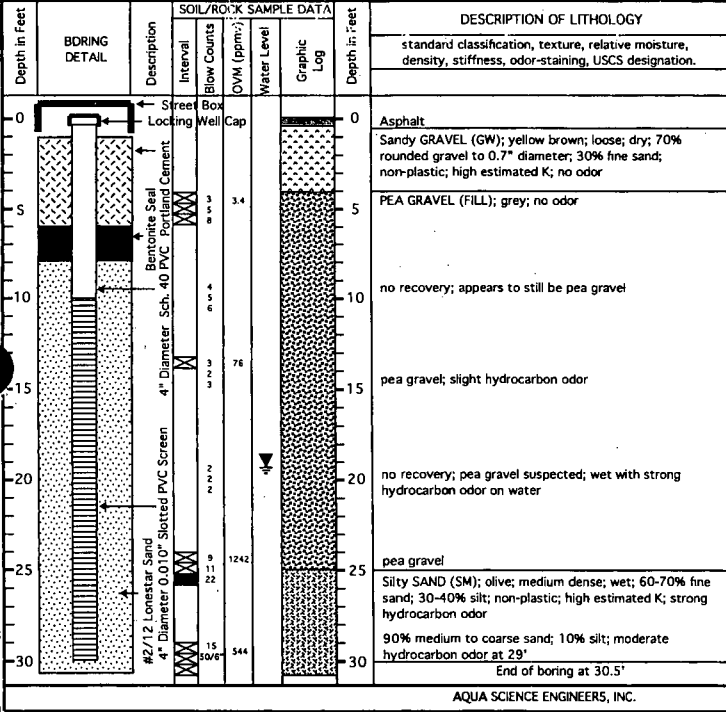
Logged By: Robert Kitay, P.G. Date Drilled: May 19, 2009 Checked By: Robert Kitay, P.G.

WATER AND WELL DATA

Depth of Water First Encountered: 19' Total Depth of Well Completed: 30'

Static Depth of Water in Well: NA Well Screen Type and Diameter: 4" Diameter Sch. 40 PVC

Total Depth of Boring: 30.5' Type and Size of Soil Sampler: 2.0" I.D. Split-Barrel



Total Depth of Completed Well _____ Feet

Well Owner

Well Location

Address 250 8th Street

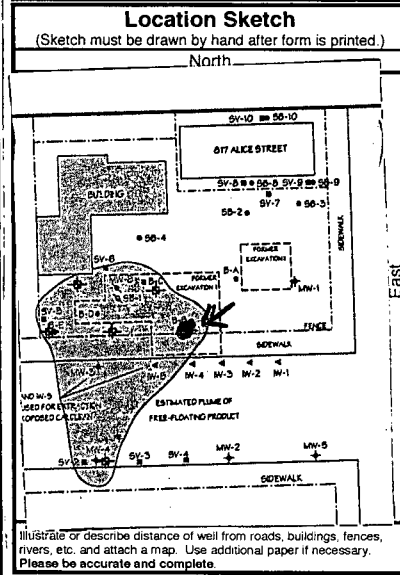
City Oakland County Alameda

Latitude _____ N Longitude _____ W

Datum _____ Decimal Lat. _____ Decimal Long. _____

APN Book _____ Page _____ Parcel _____

Township 13 Range 4W Section 35



Activity

New Well

Modification/Repair

Deepen

Other _____

Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

Water Supply

Domestic Public

Irrigation Industrial

Cathodic Protection

Dewatering

Heat Exchange

Injection

Monitoring

Remediation

Sparging

Test Well

Vapor Extraction

Other _____

Water Level and Yield of Completed Well

Depth to first water _____ (Feet below surface)

Depth to Static _____

Water Level _____ (Feet) Date Measured _____

Estimated Yield * _____ (GPM) Test Type _____

Test Length _____ (Hours) Total Drawdown _____ (Feet)

*May not be representative of a well's long term yield.

Casings							
Depth from Surface	Borehole Diameter	Type	Material	Wall Thickness	Outside Diameter	Screen Type	Slot Size if Any
Feet to Feet	(Inches)			(Inches)	(Inches)		(Inches)

Annular Material		
Depth from Surface	Fill	Description
Feet to Feet		

Attachments

Geologic Log

Well Construction Diagram

Geophysical Log(s)

Soil/Water Chemical Analyses

Other _____

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name V&W Drilling, Inc.

Person, Firm or Corporation _____

Address 3806 DICK CREEK DR City Stockton State CA Zip 95215

Signed [Signature] Date Signed 7/9/09 C-57 License Number 720904

C-57 Licensed Water Well Contractor

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California
Well Completion Report

Page 1 of 1
 Owner's Well Number EW-3
 Date Work Began 5/19/09 Date Work Ended 5/19/09
 Local Permit Agency ACPWA
 Permit Number W2009-0395 Permit Date 5/17/09

Refer to Instruction Pamphlet
No. e049748

DWR Use Only - Do Not Fill In

01504W35
 State Well Number/Site Number
 Latitude N Longitude W
 APN/TRS/Other

Geologic Log
 Orientation Vertical Horizontal Angle Specify _____
 Drilling Method _____ Drilling Fluid _____

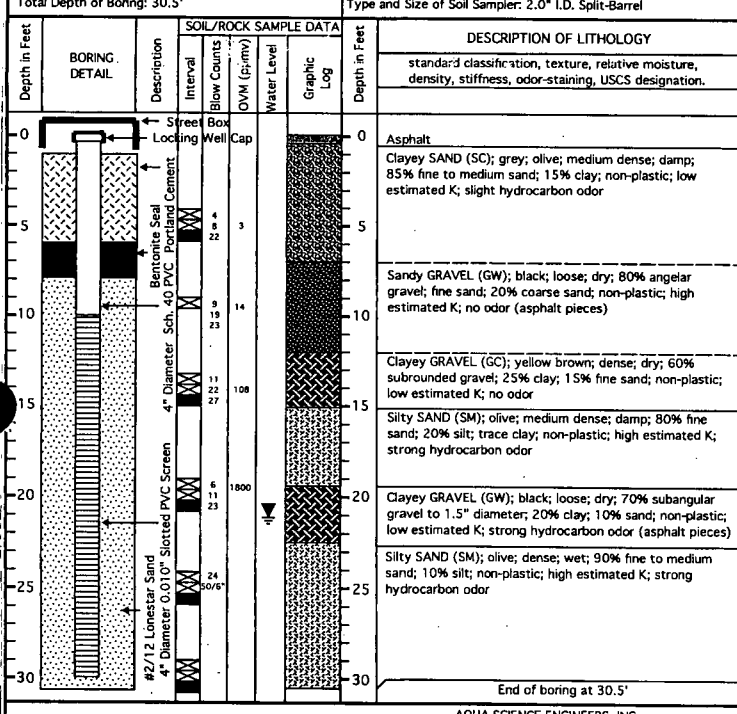
Depth from Surface _____ Description _____

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS Well: EW-3

Project Name _____ Project Location: 250 8th Street, Oakland, CA Page 1 of 1
 Driller: V&W Drilling Type of Rig: Hollow-Stem Auger Size of Drill: 10.0" Diameter
 Logged By: Robert Kitay, P.G. Date Drilled: May 19, 2009 Checked By: Robert Kitay, P.G.

WATER AND WELL DATA

Depth of Water First Encountered: 21' Total Depth of Well Completed: 30'
 Static Depth of Water in Well: NA Well Screen Type and Diameter: 4" Diameter Sch. 40 PVC
 Well Screen Slot Size: 0.010"
 Total Depth of Boring: 30.5' Type and Size of Soil Sampler: 2.0" I.D. Split-Barrel

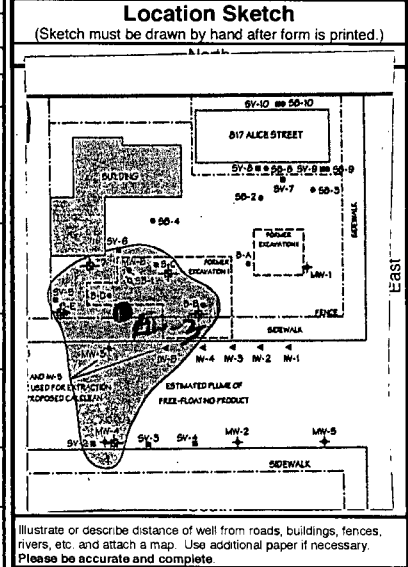


Total Depth of Boring _____ Feet
 Total Depth of Completed Well _____ Feet

Well Owner

Well Location

Address 250 8th Street
 City Oakland County Alameda
 Latitude _____ N Longitude _____ W
 Datum _____ Decimal Lat. _____ Decimal Long. _____
 APN Book _____ Page _____ Parcel _____
 Township 15 Range 4W Section 35



Activity

New Well
 Modification/Repair
 Deepen
 Other _____
 Destroy
 Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

Water Supply
 Domestic Public
 Irrigation Industrial
 Cathodic Protection
 Dewatering
 Heat Exchange
 Injection
 Monitoring
 Remediation
 Sparging
 Test Well
 Vapor Extraction
 Other _____

Water Level and Yield of Completed Well

Depth to first water _____ (Feet below surface)
 Depth to Static _____
 Water Level _____ (Feet) Date Measured _____
 Estimated Yield * _____ (GPM) Test Type _____
 Test Length _____ (Hours) Total Drawdown _____ (Feet)
 *May not be representative of a well's long term yield.

Casings							Annular Material			
Depth from Surface	Borehole Diameter	Type	Material	Wall Thickness	Outside Diameter	Screen Type	Slot Size if Any	Depth from Surface	Fill	Description
Feet to Feet	(Inches)			(Inches)	(Inches)		(Inches)	Feet to Feet		

Attachments

Geologic Log
 Well Construction Diagram
 Geophysical Log(s)
 Soil/Water Chemical Analyses
 Other _____

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name V&W Drilling, Inc
 Person, Firm or Corporation
3806 Duce Creek Dr. Stockton CA 95215
 Address City State Zip
 Signed KFS Date Signed 5/19/09 C-57 License Number 720904
 C-57 Licensed Water Well Contractor

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File Original with DWR

State of California Well Completion Report

Refer to Instruction Pamphlet No. e049749

Page 1 of 1
Owner's Well Number EW-4
Date Work Began 5/19/09 Date Work Ended 5/19/09
Local Permit Agency ACPWA
Permit Number W2009-0395 Permit Date 5/1/09

DWR Use Only - Do Not Fill In

0 1 5 0 4 W 3 5

State Well Number/Site Number

Latitude Longitude

APN/TRS/Other

Geologic Log

Orientation Vertical Horizontal Angle Specify _____

Drilling Method _____ Drilling Fluid _____

Depth from Surface _____ Description _____

Feet to Feet Describe material, grain size, color, etc

Well Owner

[Redacted]

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS Well: EW-4

Project Name _____ Project Location: 250 8th Street, Oakland, CA Page 1 of 1

Driller: V&W Drilling Type of Rig: Hollow-Stem Auger Size of Drill: 10.0" Diameter

Logged By: Robert Kitay, P.G. Date Drilled: May 19, 2009 Checked By: Robert Kitay, P.G.

WATER AND WELL DATA

Total Depth of Well Completed: 30'

Depth of Water First Encountered: 21'

Well Screen Type and Diameter: 4" Diameter Sch. 40 PVC

Static Depth of Water in Well: NA Well Screen Slot Size: 0.010"

Total Depth of Boring: 30.5' Type and Size of Soil Sampler: 2.0" I.D. Split-Barrel

Well Location

Address 250 8th Street

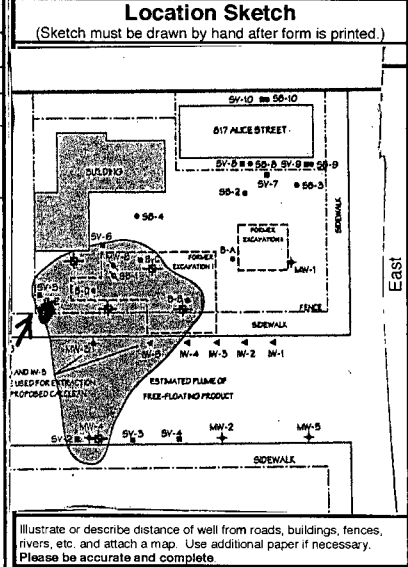
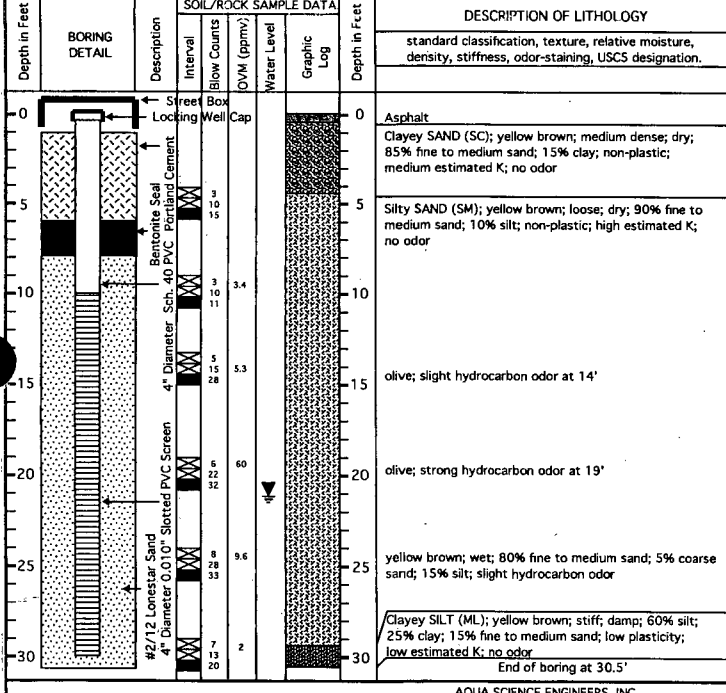
City Oakland County Alameda

Latitude _____ N Longitude _____ W

Datum _____ Decimal Lat. _____ Decimal Long. _____

APN Book _____ Page _____ Parcel _____

Township 13 Range 4W Section 35



Activity

New Well
 Modification/Repair
 Deepen
 Other
 Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

Water Supply
 Domestic Public
 Irrigation Industrial

Cathodic Protection
 Dewatering
 Heat Exchange
 Injection
 Monitoring
 Remediation
 Sparging
 Test Well
 Vapor Extraction
 Other

Water Level and Yield of Completed Well

Depth to first water _____ (Feet below surface)

Depth to Static _____

Water Level _____ (Feet) Date Measured _____

Estimated Yield * _____ (GPM) Test Type _____

Test Length _____ (Hours) Total Drawdown _____ (Feet)

*May not be representative of a well's long term yield.

Total Depth of Completed Well _____ Feet

Casings

Depth from Surface Feet to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)

Annular Material

Depth from Surface Feet to Feet	Fill	Description

Attachments

Geologic Log
 Well Construction Diagram
 Geophysical Log(s)
 Soil/Water Chemical Analyses
 Other _____

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name V&W Drilling, Inc
 Person, Firm or Corporation

Address 3806 Duerksen City Stockton State CA Zip 95215

Signed KRS Date Signed 7/9/09 C-57 License Number 720904

C-57 Licensed Water Well Contractor

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California Well Completion Report

Refer to Instruction Pamphlet

No. **e066667**

Page 1 of 1

Owner's Well Number EW-1

Date Work Began 5-19-09

Date Work Ended 5-19-09

Permit Agency ACPWA

Permit Number W 2009-0395 Permit Date 5-7-09

DWR Use Only - Do Not Fill In

011504W35

State Well Number/Site Number

Latitude N Longitude W

APN/TRS/Other

Geologic Log

Orientation Vertical Horizontal Angle Specify _____

Drilling Method _____ Drilling Fluid _____

Depth from Surface		Description
Feet	Feet	

Well Owner

Well Location

Address 250 8th Street

City Oakland County Alameda

Latitude _____ N Longitude _____ W

Datum _____ Decimal Lat. _____ Decimal Long. _____

APN Book _____ Page _____ Parcel _____

Township 15 Range 4W Section 35

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS

Well: EW-1

Project Name _____ Project Location: 250 8th Street, Oakland, CA Page 1 of 1

Driller: V&W Drilling Type of Rig: Hollow-Stem Auger Size of Drill: 10.0" Diameter

Logged By: Robert Kitay, P.G. Date Drilled: May 19, 2009 Checked By: Robert Kitay, P.G.

WATER AND WELL DATA

Depth of Water First Encountered: 19'

Static Depth of Water in Well: NA

Total Depth of Boring: 30.5'

Total Depth of Well Completed: 30'

Well Screen Type and Diameter: 4" Diameter Sch. 40 PVC

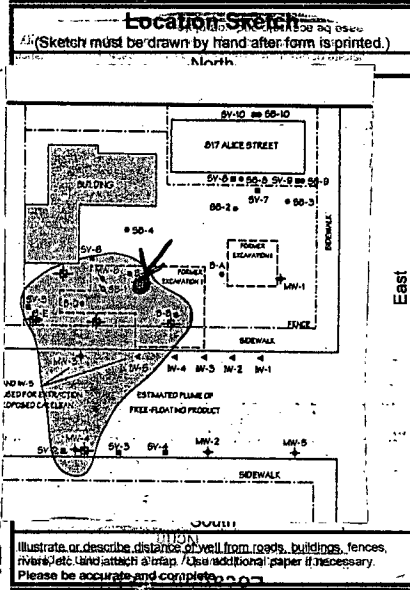
Well Screen Slot Size: 0.010"

Type and Size of Soil Sampler: 2.0" I.D. Split-Barrel

Depth in Feet	BDRING DETAIL	SOIL/ROCK SAMPLE DATA			Depth in Feet	DESCRIPTION OF LITHOLOGY
		Description	Interval	Flow Counts		
0	Free Box Locking Well Cap				0	Asphalt
5	Bentonite Seal				5	Sandy GRAVEL (GW); brown; loose; dry; 70% rounded gravel to 0.7" diameter; 30% fine sand; non-plastic; high estimated K; no odor
10	4" Diameter Sch. 40 PVC Portland Cement				10	PEA GRAVEL (FILL); moderate hydrocarbon odor
15	4" Diameter Sch. 40 PVC Screen				15	Silty SAND (SP); olive; loose; dry; 90-95% fine to medium sand; 5-10% silt; non-plastic; high estimated K; moderate hydrocarbon odor
20	4" Diameter Sch. 40 PVC Screen				20	moderate to strong hydrocarbon odor
25	4" Diameter Sch. 40 PVC Screen				25	moist to wet; moderate hydrocarbon odor
30	4" Diameter Sch. 40 PVC Screen				30	olive; wet; dense; 90% fine sand; 10% silt; moderate hydrocarbon odor

End of boring at 30.5'

AQUA SCIENCE ENGINEERS, INC.



Activity

New Well

Modification/Repair

Deepen

Other

Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

Water Supply

Domestic Public

Irrigation Industrial

Cathodic Protection

Dewatering

Heat Exchange

Injection

Monitoring

Remediation

Sparging

Test Well

Vapor Extraction

Other

Water Level and Yield of Completed Well

Depth to first water _____ (Feet below surface)

Depth to Static _____

Water Level _____ (Feet) Date Measured _____

Estimated Yield * _____ (GPM) Test Type _____

Test Length _____ (Hours) Total Drawdown _____ (Feet)

*May not be representative of a well's long term yield.

Casings								Annular Material		
Depth from Surface	Borehole Diameter	Type	Material	Wall Thickness	Outside Diameter	Screen Type	Slot Size if Any	Depth from Surface	Fill	Description
Feet to Feet	(Inches)			(Inches)	(Inches)		(Inches)	Feet to Feet		

Attachments

Geologic Log

Well Construction Diagram

Geophysical Log(s)

Soil/Water Chemical Analyses

Other _____

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name V&W Drilling, Inc

Person, Firm or Corporation _____

Address 3800 Rock Creek Dr City Stockton State CA Zip 95215

Signed [Signature] Date Signed 7/9/09 C-57 License Number 720904

C-57 Licensed Water Well Contractor

File Original with DWR

Well Completion Report

Page 1 of 1

Owner's Well Number SVP-1

Date Work Began 08/05/2009 Date Work Ended 8/5/2009

Permit Agency Alameda County Public Works Agency

Permit Number W2009-0612 Permit Date 7/1/09

DWR Use Only - Do Not Fill In

01504W35
State Well Number/Site Number

Latitude N Longitude W

APN/TRS/Other

Geologic Log

Orientation Vertical Horizontal Angle Specify _____

Drilling Method Air Drilling Drilling Fluid _____

Depth from Surface Feet to Feet	Description Describe material, grain size, color, etc.	CONTACT DEPTH (ft)	WELL DIAGRAM
0 to 5	ASPHALT Silty SAND(SM); very dark brown (10YR 2/2); dry; 40% silt, 60% sand.	0.5	
5 to 4.75		5.0	

U.S.C.S. GRAPHIC LOG: SM

EXTENT DEPTH (ft) U.S.C.S. GRAPHIC LOG LITHOLOGIC DESCRIPTION CONTACT DEPTH (ft) WELL DIAGRAM

Total Depth of Boring 5 Feet

Total Depth of Completed Well 4.75 Feet

Well Owner

Well Location

Address 105 Fifth street

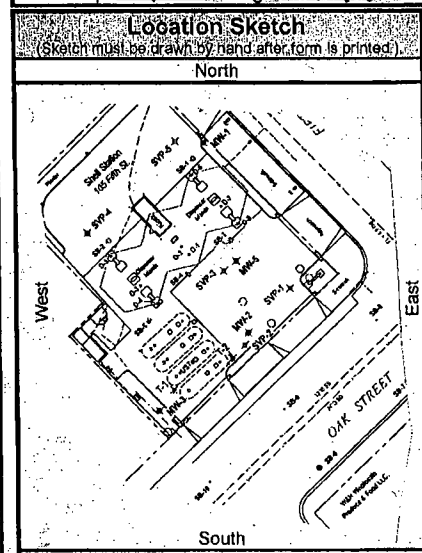
City Oakland County Alameda

Latitude _____ N Longitude _____ W

Datum _____ Decimal Lat. _____ Decimal Long. _____

APN Book _____ Page _____ Parcel _____

Township 15 Range 4W Section 35



Activity

New Well
 Modification/Repair
 Deepen
 Other
 Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

Water Supply
 Domestic Public
 Irrigation Industrial

Cathodic Protection
 Dewatering
 Heat Exchange
 Injection
 Monitoring
 Remediation
 Sparging
 Test Well
 Vapor Extraction
 Other Vapor Point

Water Level and Yield of Completed Well

Depth to first water _____ (Feet below surface)

Depth to Static _____

Water Level _____ (Feet) Date Measured _____

Estimated Yield * _____ (GPM) Test Type _____

Test Length _____ (Hours) Total Drawdown _____ (Feet)

*May not be representative of a well's long term yield.

Casings								Annular Material			
Depth from Surface Feet to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)	Depth from Surface Feet to Feet	Fill	Description	
0	4.66	3	Tubing	Teflon	0.25			0	0.5	Well box	Flush mount cover
4.66	4.75	3	Screen	Polyethylene	0.25	Filter		0.5	4.14	Cement	Portland
								4.14	4.4	Bentonite	Bentonite
								4.4	5	Filter Pack	Sand 2/12 Monterey

Attachments

Geologic Log
 Well Construction Diagram
 Geophysical Log(s)
 Soil/Water Chemical Analyses
 Other _____

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Gregg Drilling & Testing, Inc.
 Person, Firm or Corporation

950 Howe Rd Martinez CA 94553
 Address City State Zip

Signed [Signature] Date Signed 9/3/09
 C-57 Licensed Water Well Contractor C-57 License Number

File Original with DWR

State of California Well Completion Report

Refer to Instruction Pamphlet
No. e0097672

DWR Use Only - Do Not Fill In

0115 04W 35

State Well Number/Site Number

Latitude N Longitude W

APN/TRS/Other

Page 1 of 1

Owner's Well Number SVP-2

Work Began 08/05/2009

Date Work Ended 8/5/2009

Permit Agency Alameda County Public Works Agency

Permit Number W2009-0612

Permit Date 7/1/09

Geologic Log

Orientation Vertical Horizontal Angle Specify _____

Drilling Method Air Drilling Drilling Fluid _____

Depth from Surface Description

Feet to Feet Describe material, grain size, color, etc.

EXCIT	DEPTH (log)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (log)	WELL DIAGRAM
	0			ASPHALT	0.5	<p>Flush-grade 5" well box 1/4" teflon sample tubing Portland Type III Bentonite Seal Monterey Sand #2/12 1" Polyethylene vapor screen Bottom of Boring @ 5 lg</p>
	4.66			Clayey Silt (ML); very dark brown (10YR 2/2); dry, 40% clay, 60% silt.	4.75	
	5					

Well Owner

Well Location

Address 105 Fifth street

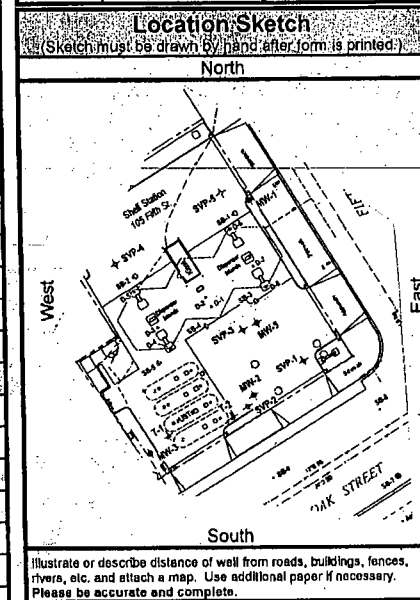
City Oakland County Alameda

Latitude _____ N Longitude _____ W

Datum _____ Decimal Lat. _____ Decimal Long. _____

APN Book _____ Page _____ Parcel _____

Township 15 Range 4W Section 35



Activity

New Well
 Modification/Repair
 Deepen
 Other
 Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

Water Supply
 Domestic Public
 Irrigation Industrial

Cathodic Protection
 Dewatering
 Heat Exchange
 Injection
 Monitoring
 Remediation
 Sparging
 Test Well
 Vapor Extraction
 Other Vapor Point

Water Level and Yield of Completed Well

Depth to first water _____ (Feet below surface)

Depth to Static _____

Water Level _____ (Feet) Date Measured _____

Estimated Yield * _____ (GPM) Test Type _____

Test Length _____ (Hours) Total Drawdown _____ (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface	Borehole Diameter	Type	Material	Wall Thickness	Outside Diameter	Screen Type	Slot Size if Any
Feet to Feet	(Inches)			(Inches)	(Inches)		(Inches)
0	4.66	3	Tubing	Teflon	0.25		
4.66	4.75	3	Screen	Polyethylene	0.25	Filter	

Annular Material

Depth from Surface	Fill	Description
Feet to Feet		
0	0.5	Well box
0.5	4.14	Cement
4.14	4.4	Bentonite
4.4	5	Filter Pack
		Sand 2/12 Monterey

Attachments

Geologic Log
 Well Construction Diagram
 Geophysical Log(s)
 Soil/Water Chemical Analyses
 Other _____

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Gregg Drilling & Testing, Inc.

Person, Firm or Corporation _____

Address 950 Howe Rd. City Martinez State CA Zip 94553

Signed [Signature] Date Signed 9/3/09

C-57 Licensed Water Well Contractor C-57 License Number 485765

File Original with DWR

Page 1 of 1

Owner's Well Number SVP-3

Work Began 08/05/2009

Date Work Ended 8/5/2009

Permit Agency Alameda County Public Works Agency

Permit Number W2009-0612

Permit Date 7/1/09

State of California Well Completion Report

Refer to Instruction Pamphlet
No. **e0097673**

DWR Use Only - Do Not Fill In

01504W35

State Well Number/Site Number

Latitude _____ N Longitude _____ W

Latitude

Longitude

APN/TRS/Other

Geologic Log			
Orientation <input checked="" type="radio"/> Vertical <input type="radio"/> Horizontal <input type="radio"/> Angle Specify _____		Drilling Method <u>Air Drilling</u> Drilling Fluid _____	
Depth from Surface _____ Feet to _____ Feet		Description: Describe material, grain size, color, etc.	
EXTENT DEPTH (ft)	U.S.C.S. GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft) WELL DIAGRAM
	SM	ASPHALT SILTY SAND(SM); very dark brown (10YR 2/2); dry; 40% silt, 60% sand.	0.5 Flush-Grade 5" well box 1/4" Ioffon sample tubing Portland Type VII Bentonite Seal Montrey Sand #2/12 1" Polyethylene vapor screen Bottom of Boring @ 5 ftg
5			5.0
Total Depth of Boring <u>5</u> Feet		Total Depth of Completed Well <u>4.75</u> Feet	

Well Owner	
Well Location	
Address <u>105 Fifth street</u>	
City <u>Oakland</u> County <u>Alameda</u>	
Latitude _____ N Longitude _____ W	
Datum _____ Decimal Lat. _____ Decimal Long. _____	
APN Book _____ Page _____ Parcel _____	
Township <u>15</u> Range <u>4W</u> Section <u>35</u>	
Location Sketch (Sketch must be drawn by hand after form is printed.)	
Activity <input checked="" type="radio"/> New Well <input type="radio"/> Modification/Repair <input type="radio"/> Deepen <input type="radio"/> Other <input type="radio"/> Destroy <small>Observe procedures and materials under "GEOLOGIC LOG"</small>	
Planned Uses <input type="radio"/> Water Supply <input type="checkbox"/> Domestic <input type="checkbox"/> Public <input type="checkbox"/> Irrigation <input type="checkbox"/> Industrial <input type="radio"/> Cathodic Protection <input type="radio"/> Dewatering <input type="radio"/> Heat Exchange <input type="radio"/> Injection <input type="radio"/> Monitoring <input type="radio"/> Remediation <input type="radio"/> Sparging <input type="radio"/> Test Well <input type="radio"/> Vapor Extraction <input checked="" type="radio"/> Other <u>Vapor Point</u>	
Water Level and Yield of Completed Well Depth to first water _____ (Feet below surface) Depth to Static _____ Water Level _____ (Feet) Date Measured _____ Estimated Yield * _____ (GPM) Test Type _____ Test Length _____ (Hours) Total Drawdown _____ (Feet) *May not be representative of a well's long term yield.	

Casings							Annular Material				
Depth from Surface Feet to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size If Any (Inches)	Depth from Surface Feet to Feet	Fill	Description	
0	4.66	3	Tubing	Teflon			0.25	0	0.5	Well box	Flush mount cover
4.66	4.75	3	Screen	Polyethylene			0.25	0.5	4.14	Cement	Portland
								4.14	4.4	Bentonite	Bentonite
								4.4	5	Filter Pack	Sand 2/12 Monterey

Attachments
<input type="checkbox"/> Geologic Log <input type="checkbox"/> Well Construction Diagram <input type="checkbox"/> Geophysical Log(s) <input type="checkbox"/> Soil/Water Chemical Analyses <input type="checkbox"/> Other _____
Attach additional information, if it exists.

Certification Statement	
I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief	
Name <u>Gregg Drilling & Testing, Inc.</u>	
Person, Firm or Corporation	
<u>950 Howe Rd</u>	<u>Martinez</u>
Address	City
Signed <u>[Signature]</u>	CA <u>94553</u>
	State <u>485765</u>
	Zip
C-57 Licensed Water Well Contractor	Date Signed <u>9/3/09</u>
	C-57 License Number

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0097676

Page 1 of 1

Owner's Well Number SVP-4

Date Work Began 08/07/2009

Date Work Ended 8/7/2009

Permit Agency Alameda County Public Works Agency

Permit Number W2009-0612

Permit Date 7/1/09

DWR Use Only - Do Not Fill In

0 1 5 0 4 W 3 5

State Well Number/Site Number

Latitude N Longitude W

APN/TRS/Other

Geologic Log

Orientation Vertical Horizontal Angle Specify _____

Drilling Method Air Drilling Drilling Fluid _____

Depth from Surface _____ Description _____

EXTENT	DEPTH (log)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (log)	WELL DIAGRAM
				ASPHALT Silty SAND(SM); very dark brown (10YR 2/2); dry; 40% silt, 60% sand.	0.5	<p>Flush-grade 5" well box 1/4" teflon sample tubing Portland Type III Bentonite Seal Monterey Sand #2/12 1" Polyethylene vapor screen Bottom of Boring @ 5 fbg</p>
					5.0	

Well Owner

Name _____

Address _____

City Oakland County Alameda

Datum _____ Decimal Lat. _____ Decimal Long. _____

APN Book _____ Page _____ Parcel _____

Township 15 Range 4W Section 35

Well Location

Address 105 Fifth street

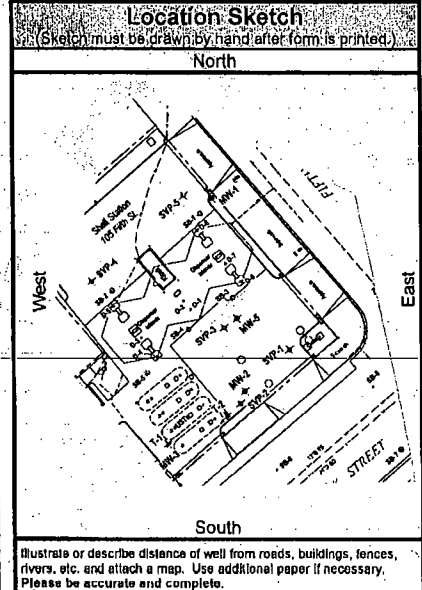
City Oakland County Alameda

Latitude _____ N Longitude _____ W

Datum _____ Decimal Lat. _____ Decimal Long. _____

APN Book _____ Page _____ Parcel _____

Township 15 Range 4W Section 35



Activity

New Well
 Modification/Repair
 Deepen
 Other _____
 Destroy
Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

Water Supply
 Domestic Public
 Irrigation Industrial
 Cathodic Protection
 Dewatering
 Heat Exchange
 Injection
 Monitoring
 Remediation
 Sparging
 Test Well
 Vapor Extraction
 Other Vapor Point

Water Level and Yield of Completed Well

Depth to first water _____ (Feet below surface)
 Depth to Static _____
 Water Level _____ (Feet) Date Measured _____
 Estimated Yield * _____ (GPM) Test Type _____
 Test Length _____ (Hours) Total Drawdown _____ (Feet)
 *May not be representative of a well's long term yield.

Total Depth of Boring 5 Feet

Total Depth of Completed Well 4.75 Feet

Casings

Depth from Surface Feet to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size If Any (Inches)
0	4.66	3	Tubing	Teflon	0.25		
4.66	4.75	3	Screen	Polyethylene	0.25	Filter	

Annular Material

Depth from Surface Feet to Feet	Fill	Description
0	0.5	Well box
0.5	4.14	Cement
4.14	4.4	Bentonite
4.4	5	Filter Pack
		Sand 2/12 Monterey

Attachments

Geologic Log
 Well Construction Diagram
 Geophysical Log(s)
 Soil/Water Chemical Analyses
 Other _____

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

Name Gregg Drilling & Testing, Inc.
 Person, Firm or Corporation
950 Howe Rd City Martinez State CA Zip 94553
 Signed [Signature] Date Signed 9/3/09 State CA License Number 485165
C-57 License Water Well Contractor

File Original with DWR

Well Completion Report

Refer to Instruction Pamphlet
No. **00097678**

Page 1 of 1

Owner's Well Number SVP-5

Date Work Began 08/07/2009

Date Work Ended 8/7/2009

Permit Agency Alameda County Public Works Agency

Permit Number W2009-0612

Permit Date 7/1/09

DWR Use Only Do Not Fill In

01504W35

State Well Number/Site Number

Latitude N Longitude W

APN/TRS/Other

Geologic Log

Orientation Vertical Horizontal Angle Specify _____

Drilling Method Air Drilling Drilling Fluid _____

Depth from Surface _____ Description _____

EXTENT DEPTH (log)	U.S.C.S. GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (log)	WELL DIAGRAM
0		ASPHALT	0.5	
0		SILTY SAND(SM) ; very dark brown (10YR 2/2); dry; 40% silt, 60% sand.	5.0	
5	SM			

Labels in Well Diagram: Flush-grade 5" well box, 1/4" nylon sample tubing, Portland Type III, Bentonite Seal, Monterey Sand #2/12, 1" Polyethylene vapor screen, Bottom of Boring @ 5 ftg.

Total Depth of Boring 5 Feet

Total Depth of Completed Well 4.75 Feet

Well Owner

Well Location

Address 105 Fifth street

City Oakland County Alameda

Latitude _____ N Longitude _____ W

Datum _____ Decimal Lat. _____ Decimal Long. _____

APN Book _____ Page _____ Parcel _____

Township 15 Range 4W Section 35

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North

South

West

East

Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.

Activity

New Well

Modification/Repair

Deepen

Other _____

Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

Water Supply

Domestic Public

Irrigation Industrial

Cathodic Protection

Dewatering

Heat Exchange

Injection

Monitoring

Remediation

Sparging

Test Well

Vapor Extraction

Other Vapor Point

Water Level and Yield of Completed Well

Depth to first water _____ (Feet below surface)

Depth to Static _____

Water Level _____ (Feet) Date Measured _____

Estimated Yield * _____ (GPM) Test Type _____

Test Length _____ (Hours) Total Drawdown _____ (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size If Any (Inches)
0	<u>4.66</u>	<u>3</u>	<u>Tubing</u>	<u>Teflon</u>	<u>0.25</u>		
<u>4.66</u>	<u>4.75</u>	<u>3</u>	<u>Screen</u>	<u>Polyethylene</u>	<u>0.25</u>	<u>Filter</u>	

Annular Material

Depth from Surface Feet to Feet	Fill	Description
0	<u>0.5</u>	<u>Well box</u>
<u>0.5</u>	<u>4.14</u>	<u>Cement</u>
<u>4.14</u>	<u>4.4</u>	<u>Bentonite</u>
<u>4.4</u>	<u>5</u>	<u>Filter Pack</u>
		<u>Sand 2/12 Monterey</u>

Attachments

Geologic Log

Well Construction Diagram

Geophysical Log(s)

Soil/Water Chemical Analyses

Other _____

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Gregg Drilling & Testing, Inc.

Person, Firm or Corporation

950 Howe Rd City Martinez State CA Zip 94553

Signed [Signature] Date Signed 9/3/09 C-57 License Number 485165

C-57 Licensed Water Well Contractor

File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet
No. e0098087

DWR Use Only - Do Not Fill In

015104W 35

State Well Number/Site Number

N W

Latitude Longitude

APN/TRS/Other

Page 1 of 1

Owner's Well Number SV-6

Date Work Began 08/31/2009

Date Work Ended 8/31/2009

Local Permit Agency Alameda County Public Works Agency

Permit Number W2009-0313

Permit Date 4/23/09

Geologic Log

Orientation Vertical Horizontal Angle Specify _____

Drilling Method _____ Drilling Fluid _____

Depth from Surface

Feet to Feet Description Describe material, grain size, color, etc

0	0.2	Asphalt: 2 inches thick
0.2	0.8	Concrete: 8 inches thick
0.8	5.5	SAND w/ Silt: Brown, 10% silt, 90% medium grained sand, non-plastic, high estimated permeability

Well Owner

Well Location

Address 1432 Harrison St

City Oakland County Alameda

Latitude 37° 48' 11" N Longitude 122° 16' 0" W

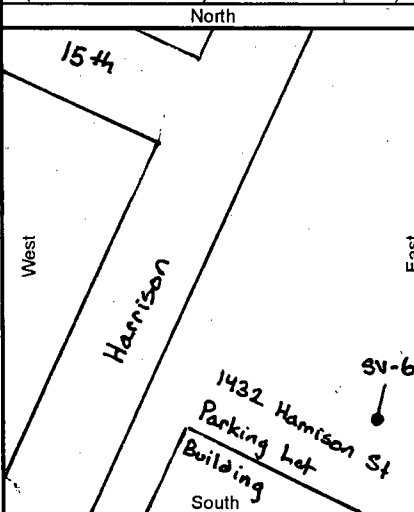
Datum _____ Decimal Lat. _____ Decimal Long. _____

APN Book _____ Page _____ Parcel _____

Township 15 Range 4W Section 35

Location Sketch

(Sketch must be drawn by hand after form is printed.)



Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.

Activity

- New Well
- Modification/Repair
- Deepen
- Other _____
- Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

- Water Supply
 - Domestic Public
 - Irrigation Industrial
- Cathodic Protection
- Dewatering
- Heat Exchange
- Injection
- Monitoring
- Remediation
- Sparging
- Test Well
- Vapor Extraction
- Other Vapor Sampling

Total Depth of Boring 5.5 Feet

Total Depth of Completed Well 5.5 Feet

Water Level and Yield of Completed Well

Depth to first water _____ (Feet below surface)

Depth to Static _____

Water Level _____ (Feet) Date Measured _____

Estimated Yield * _____ (GPM) Test Type _____

Test Length _____ (Hours) Total Drawdown _____ (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface	Borehole Diameter	Type	Material	Wall Thickness	Outside Diameter	Screen Type	Slot Size if Any
Feet to Feet	(Inches)			(Inches)	(Inches)		(Inches)
0	4' 10"	3	Blank	1/4" Teflon	1/4"		
4' 10"	5' 4"	3	Screen	Stainless Steel		Probe	

Annular Material

Depth from Surface	Fill	Description
Feet to Feet		
0	3.5	Bentonite Hydrated
3.5	4.5	Bentonite Dry Granular
4.5	5.5	Filter Pack Monterey 2/12

Attachments

- Geologic Log
- Well Construction Diagram
- Geophysical Log(s)
- Soil/Water Chemical Analyses
- Other _____

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Grogg Drilling

Person, Firm or Corporation _____

Address 950 Howe Road City Martinez State CA Zip 94553

Signed [Signature] Date Signed 10/14/09 C-57 License Number 485165

C-57 Licensed Water Well Contractor

State of California Well Completion Report

Refer to Instruction Pamphlet

No. **e0098088**

DWR Use Only - Do Not Fill In

01S04W35

State Well Number/Site Number

N W

Latitude Longitude

APN/TRS/Other

Page 1 of 1

Owner's Well Number SV-7

Date Work Began 08/31/2009 Date Work Ended 8/31/2009

Local Permit Agency Alameda County Public Works Agency

Permit Number W2009-0313 Permit Date 4/23/09

Geologic Log

Orientation Vertical Horizontal Angle Specify _____

Drilling Method _____ Drilling Fluid _____

Depth from Surface		Description
Feet	to Feet	Describe material, grain size, color, etc
0	0.5	Concrete: 6 inches thick
0.5	5.8	Silty SAND: Pale brown, 20% silt, 80% fine grained sand, non-plastic, high estimated permeability

Total Depth of Boring 5.8 Feet

Total Depth of Completed Well 5.8 Feet

Well Owner

Well Location

Address 1432 Harrison St

City Oakland County Alameda

Latitude 37° 48' 11" N Longitude 122° 15' 59" W

Dec. Min. Sec. Dec. Min. Sec.

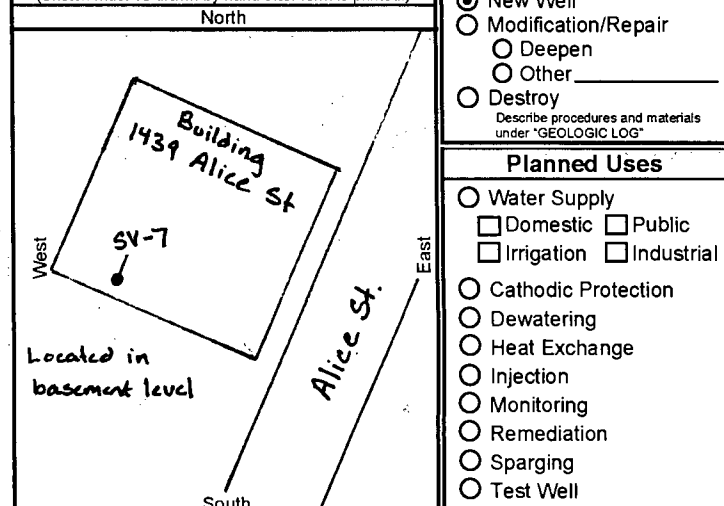
Datum _____ Decimal Lat. _____ Decimal Long. _____

APN Book _____ Page _____ Parcel _____

Township 1S Range 4W Section 35

Location Sketch

(Sketch must be drawn by hand after form is printed.)



Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.

Activity

- New Well
 - Modification/Repair
 - Deepen
 - Other _____
 - Destroy
- Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

- Water Supply
 - Domestic Public
 - Irrigation Industrial
- Cathodic Protection
- Dewatering
- Heat Exchange
- Injection
- Monitoring
- Remediation
- Sparging
- Test Well
- Vapor Extraction
- Other Vapor Sampling

Water Level and Yield of Completed Well

Depth to first water _____ (Feet below surface)

Depth to Static _____

Water Level _____ (Feet) Date Measured _____

Estimated Yield * _____ (GPM) Test Type _____

Test Length _____ (Hours) Total Drawdown _____ (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface	Borehole Diameter	Type	Material	Wall Thickness	Outside Diameter	Screen Type	Slot Size if Any
Feet to Feet	(Inches)			(Inches)	(Inches)		(Inches)
0	4'10"	Blank	1/4" Teflon		1/4"		
4'10"	5'4"	Screen	Stainless Steel			Probe	

Annular Material

Depth from Surface	Fill	Description
Feet to Feet		
0	3.5	Bentonite Hydrated
3.5	4.5	Bentonite Dry Grannular
4.5	5.8	Filter Pack Monterey 2/12

Attachments

- Geologic Log
- Well Construction Diagram
- Geophysical Log(s)
- Soil/Water Chemical Analyses
- Other _____

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Grey Drilling
 Person, Firm or Corporation
950 Howe Road
 Address
Martinez City
 CA 94553 State
 Signed [Signature] Date Signed 10/14/09
 C-57 Licensed Water Well Contractor
 State 485165 Zip
 C-57 License Number

Well Completion Report

Refer to Instruction Pamphlet

No. e0098089

DWR Use Only - Do Not Fill In

01504N35

State Well Number/Site Number

N W

Latitude Longitude

APN/TRS/Other

Geologic Log

Orientation Vertical Horizontal Angle Specify _____

Drilling Method _____ Drilling Fluid _____

Depth from Surface

Description

Feet to Feet Describe material, grain size, color, etc

0	0.5	Concrete: 6 inches thick
0.5	5.8	Silty SAND: Pale brown, 20% silt, 80% fine grained sand, non-plastic, high estimated permeability

Well Owner

Well Location

Address 1432 Harrison St

City Oakland County Alameda

Latitude 37° 48' 10" N Longitude 122° 15' 58" W

Datum _____ Decimal Lat. _____ Decimal Long. _____

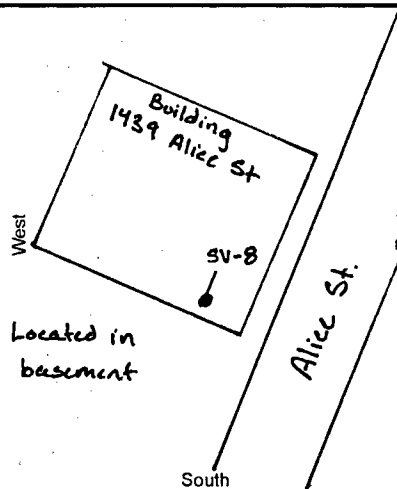
APN Book _____ Page _____ Parcel _____

Township 15 Range 4W Section 35

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North



Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.

Activity

- New Well
- Modification/Repair
 - Deepen
 - Other _____
- Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

- Water Supply
 - Domestic Public
 - Irrigation Industrial
- Cathodic Protection
- Dewatering
- Heat Exchange
- Injection
- Monitoring
- Remediation
- Sparging
- Test Well
- Vapor Extraction
- Other Vapor Sampling

Total Depth of Boring 5.8 Feet

Total Depth of Completed Well 5.8 Feet

Casings

Depth from Surface Feet to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
0	4'10"	Blank	1/4" Teflon		1/4"		
4'10"	5'4"	Screen	Stainless Steel			Probe	

Annular Material

Depth from Surface Feet to Feet	Fill	Description
0	3.5	Bentonite
3.5	4.5	Bentonite
4.5	5.8	Filter Pack
		Monterey 2/12

Attachments

- Geologic Log
- Well Construction Diagram
- Geophysical Log(s)
- Soil/Water Chemical Analyses
- Other _____

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Gregg Drilling

Person, Firm or Corporation _____

Address 950 Howe Road City Martinez State CA Zip 94553

Signed [Signature] Date Signed 10/14/09 C-57 License Number 485165

C-57 Licensed Water Well Contractor

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California
Well Completion Report

Refer to Instruction Pamphlet
No. e0098293

Page 1 of 1

Owner's Well Number MW-14

Date Work Began 07/28/2009

Date Work Ended 7/28/2009

Local Permit Agency Alameda County Public Works Agency

Permit Number W2009-0648

Permit Date 7/16/09

DWR Use Only - Do Not Fill In

011504W35K

State Well Number/Site Number

Latitude N Longitude W

APN/TRS/Other

Geologic Log		
Orientation <input checked="" type="radio"/> Vertical <input type="radio"/> Horizontal <input type="radio"/> Angle Specify		
Drilling Method <u>Hollow Stem Auger</u> Drilling Fluid		
Depth from Surface	Description	
Feet to Feet	Describe material, grain size, color, etc	
0	2	Asphalt concrete overburden and baserock/fill
2	5	Fine-grained sand w/ silt and clay (SM-SC) Merritt Sand
5	10	Fine-grained sand w/ silt and clay (SM-SC) Merritt Sand
10	15	Fine-grained sand w/ silt and clay (SM-SC) Merritt Sand
15	20	Fine-grained sand w/ silt and clay (SM-SC) Merritt Sand
20	25	Fine-grained sand w/ silt and clay (SM-SC) Merritt Sand
Total Depth of Boring <u>25</u> Feet		
Total Depth of Completed Well <u>22</u> Feet		

Well Owner

Well Location

Address 245 8th Street

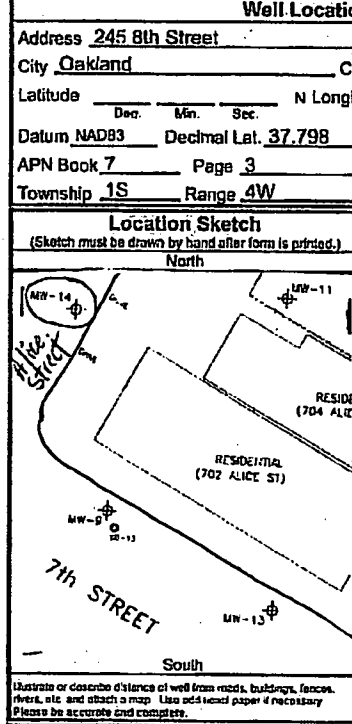
City Oakland County Alameda

Latitude Dec. Min. Sec. N Longitude Dec. Min. Sec. W

Datum NAD83 Decimal Lat. 37.798 Decimal Long. -122.269

APN Book 7 Page 3 Parcel 01017901300

Township 1S Range 4W Section 35 **K**



Activity

New Well
 Modification/Repair
 Deepen
 Other
 Destroy

Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

Water Supply
 Domestic Public
 Irrigation Industrial

Cathodic Protection
 Dewatering
 Heat Exchange
 Injection
 Monitoring
 Remediation
 Sparging
 Test Well
 Vapor Extraction
 Other

Water Level and Yield of Completed Well

Depth to first water 24 (Feet below surface)

Depth to Static _____

Water Level 16 (Feet) Date Measured 08/21/2009

Estimated Yield * _____ (GPM) Test Type _____

Test Length _____ (Hours) Total Drawdown _____ (Feet)

*May not be representative of a well's long term yield.

Casings						Annular Material					
Depth from Surface Feet to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)	Depth from Surface Feet to Feet	Fill	Description	
1	12	2	Blank	PVC Sch. 40	0.237	4.5		1	9	Cement	Portland
12	22	2	Screen	PVC Sch. 40	0.237	4.5	Milled Slots	9	11	Benlonite	3/8 Chips
								11	22	Filter Pack	#2/12 Monterey

Attachments

Geologic Log
 Well Construction Diagram
 Geophysical Log(s)
 Soil/Water Chemical Analyses
 Other _____

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name Don Williams
Person, Firm or Company

720 N. East St.
Address

Signed Don Williams City Woodland CA 95776
C-57 Licensed Water Well Contractor

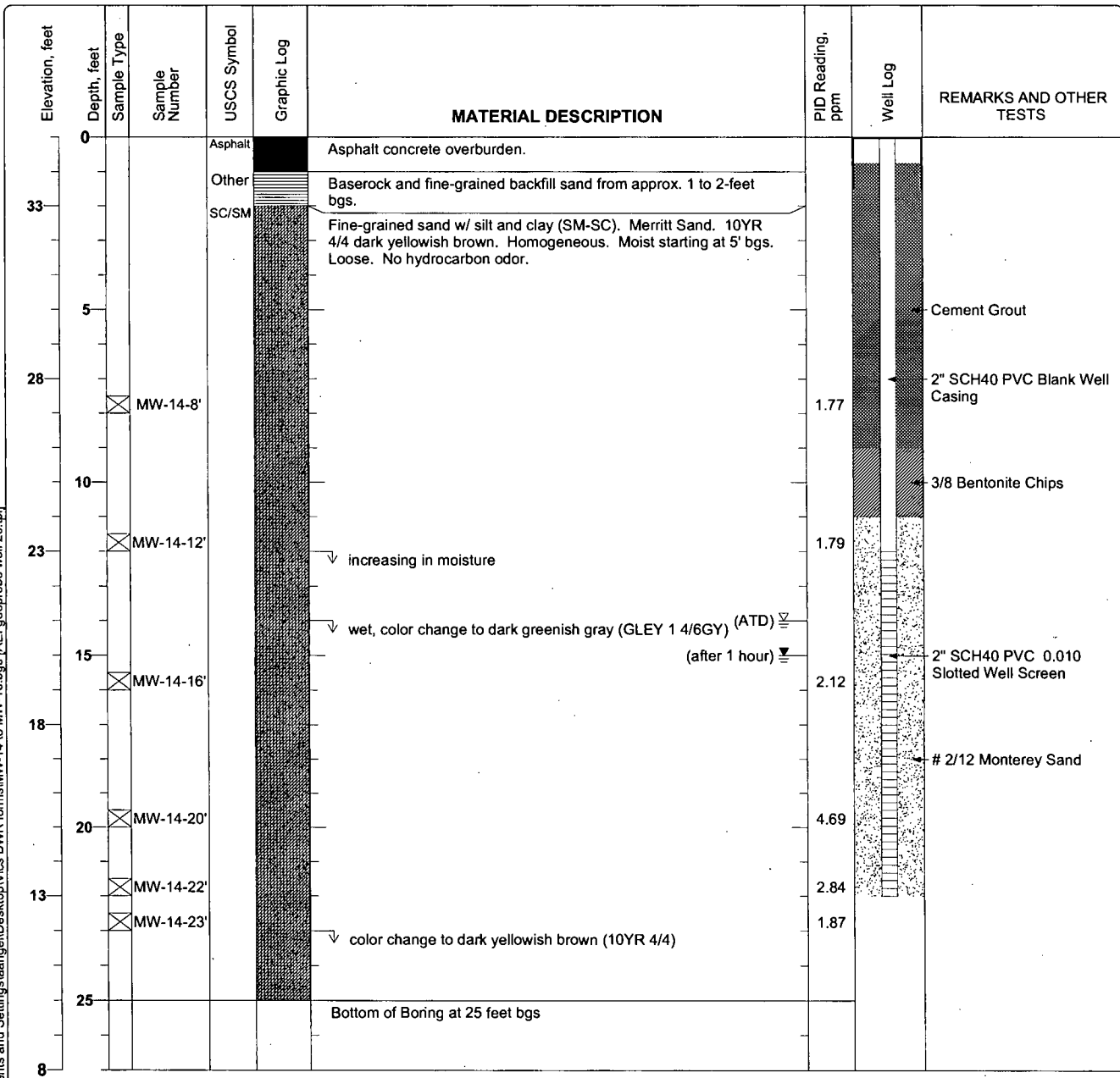
Date Signed 9/18/09 State 807334 Zip 95776
C-57 License Number

20098293

Project: [REDACTED]
Project Location: 245 8th Street, Oakland, California
Project Number: 116907

Log of Boring MW-14
 Sheet 1 of 1

Date(s) Drilled July 28, 2009	Logged By Ricky Bradford	Checked By Peter McIntyre
Drilling Method Hollow Stem Auger	Drill Bit Size/Type 8 inch	Total Depth of Borehole 25 feet bgs
Drill Rig Type CME 75	Drilling Contractor RSI	Approximate Surface Elevation 35 feet MSL
Groundwater Level and Date Measured 14 feet ATD, 15 feet after 1 hour	Sampling Method(s) Tube	Hammer Data
Borehole Backfill Well Completion	Location Parking Lane Along 7th Street Southwest of the Subject Property	



Figure

C:\Documents and Settings\laange\l\Desktop\Vics DWG forms\MW-14 to MW-16.bgs [AEI] [geoprobe well 20].tpj

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California
Well Completion Report

Refer to Instruction Pamphlet
No. e0098296

Page 1 of 1

Owner's Well Number MW-15

Date Work Began 07/27/2009

Date Work Ended 7/27/2009

Local Permit Agency Alameda County Public Works Agency

Permit Number W2009-0649

Permit Date 7/16/09

DWR Use Only - Do Not Fill In

01S104W35R1
State Well Number/Site Number

Latitude N Longitude W

APN/TRS/Other

Geologic Log		
Orientation <input checked="" type="radio"/> Vertical <input type="radio"/> Horizontal <input type="radio"/> Angle Specify _____		
Drilling Method <u>Hollow Stem Auger</u> Drilling Fluid _____		
Depth from Surface Feet to Feet	Description Describe material, grain size, color, etc	
0	2	Asphalt concrete overburden and baserock/fill
2	5	Fine-grained sand w/ silt and clay (SM-SC) Merritt Sand
6	10	Fine-grained sand w/ silt and clay (SM-SC) Merritt Sand
10	15	Fine-grained sand w/ silt and clay (SM-SC) Merritt Sand
15	20	Fine-grained sand w/ silt and clay (SM-SC) Merritt Sand
20	25	Fine-grained sand w/ silt and clay (SM-SC) Merritt Sand
Total Depth of Boring <u>25</u> Feet		
Total Depth of Completed Well <u>22</u> Feet		

Well Owner

Name

Well Location

Address 245 8th Street

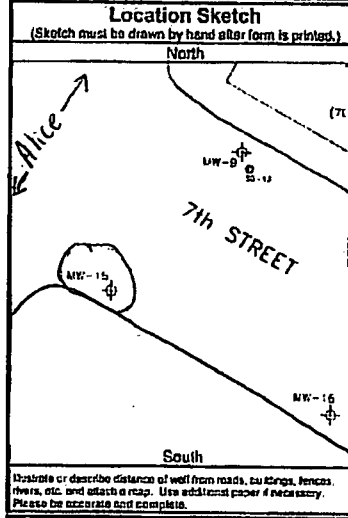
City Oakland County Alameda

Latitude _____ N Longitude _____ W

Datum NAD83 Decimal Lat. 37.798 Decimal Long. -122.269

APN Book 7 Page 3 Parcel 01017901300

Township 1S Range 4W Section 35R



Activity

New Well
 Modification/Repair
 Deepen
 Other
 Destroy
Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

Water Supply
 Domestic Public
 Irrigation Industrial
 Cathodic Protection
 Dewatering
 Heat Exchange
 Injection
 Monitoring
 Remediation
 Sparging
 Test Well
 Vapor Extraction
 Other

Water Level and Yield of Completed Well

Depth to first water 24 (Feet below surface)

Depth to Static _____

Water Level 16 (Feet) Date Measured 08/21/2009

Estimated Yield _____ (GPM) Test Type _____

Test Length _____ (Hours) Total Drawdown _____ (Feet)

*May not be representative of a well's long term yield.

Casings									
Depth from Surface Feet to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size If Any (Inches)		
1	12	2	Blank	PVC Sch. 40	0.237	4.5			
12	22	2	Screen	PVC Sch. 40	0.237	4.5	Milled Slots	0.010	

Annular Material			
Depth from Surface Feet to Feet	Fill	Description	
1	9	Cement	Portland
9	11	Bentonite	3/8 Chips
11	22	Filter Pack	#2/12 Monterey

Attachments

Geologic Log
 Well Construction Diagram
 Geophysical Log(s)
 Soil/Water Chemical Analyses
 Other _____

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

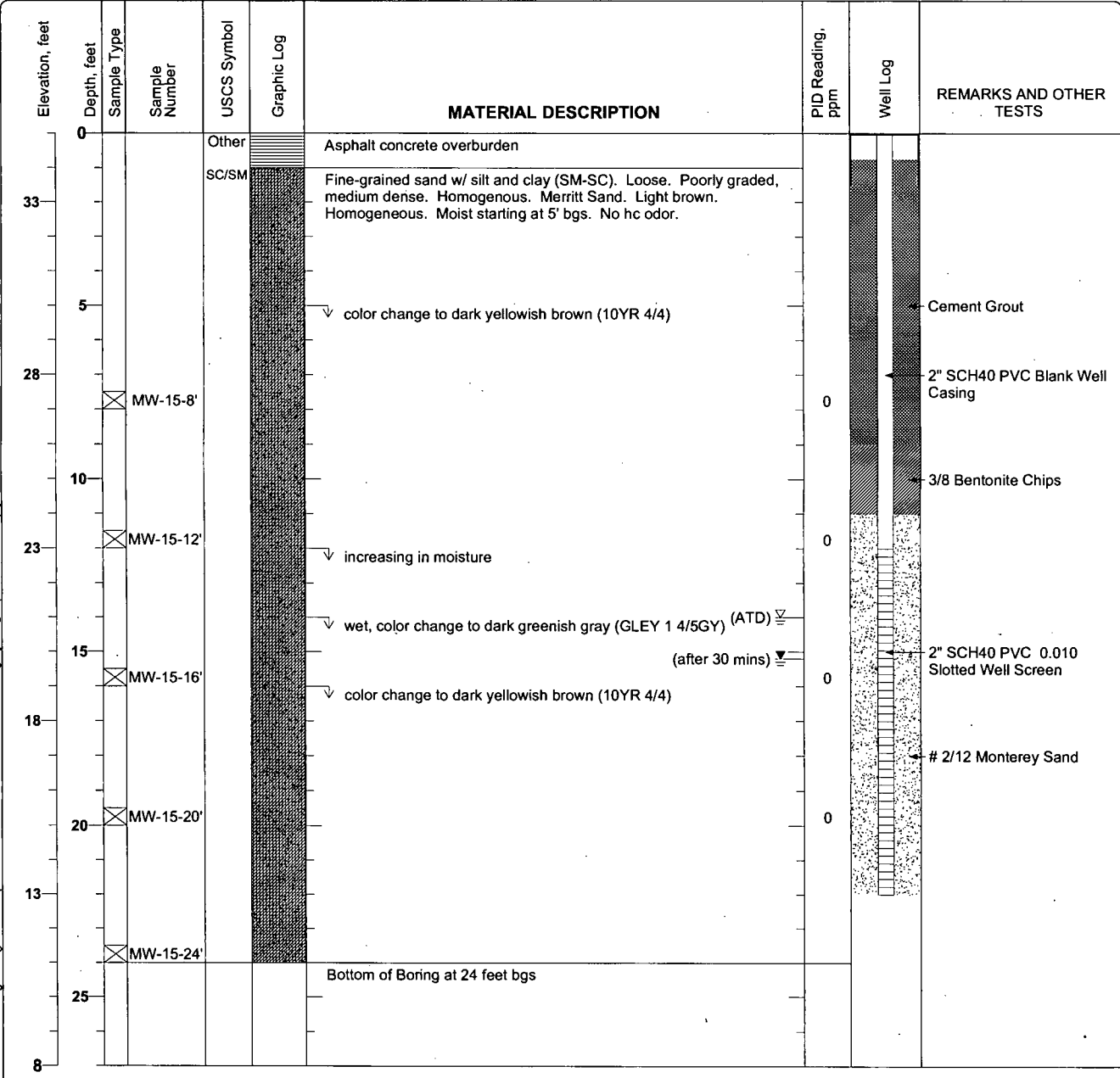
Name R.S. DRILLING, INC.
 Person, Firm or Corporation
720 N. East St Woodland CA 95770
 Address City State Zip
 Signed [Signature] 9/18/09 802334
 C-57 Licensed Water Well Contractor Date Signed C-57 License Number

20098296

Project: [REDACTED]
Project Location: 245 8th Street, Oakland, California
Project Number: 116907

Log of Boring MW-15
 Sheet 1 of 1

Date(s) Drilled March 17, 2008	Logged By Ricky Bradford	Checked By Peter McIntyre
Drilling Method Hollow Stem Auger	Drill Bit Size/Type 8 inch	Total Depth of Borehole 24 feet bgs
Drill Rig Type CME 75	Drilling Contractor RSI	Approximate Surface Elevation 35 feet MSL
Groundwater Level and Date Measured 14 feet ATD, 15.2 feet after 30 mins	Sampling Method(s) Tube	Hammer Data
Borehole Backfill Well Completion	Location Parking Lane Along 7th Street Southwest of the Subject Property	



Figure

C:\Documents and Settings\laengel\Desktop\Wics DWR forms\MW-14 to MW-16.bgs [AEI]geoprobe well 20.tbl

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File Original with DWR

State of California
Well Completion Report

Refer to Instruction Pamphlet
No. e0098298

Page 1 of 1

Owner's Well Number MW-16

Date Work Began 07/27/2009

Date Work Ended 7/27/2009

Local Permit Agency Alameda County Public Works Agency

Permit Number W2009-0650

Permit Date 7/16/09

DWR Use Only - Do Not Fill In

01S104W35K

State Well Number/State Number

Latitude N Longitude W

APN/TRS/Other

Geologic Log		
Orientation <input checked="" type="radio"/> Vertical <input type="radio"/> Horizontal <input type="radio"/> Angle Specify _____		
Drilling Method <u>Hollow Stem Auger</u> Drilling Fluid _____		
Depth from Surface	Feet to	Description
Feet	Feet	Describe material, grain size, color, etc
0	2	Asphalt concrete overburden and baserock/tilt
2	5	Fine-grained sand w/ silt and clay (SM-SC) Merritt Sand
5	10	Fine-grained sand w/ silt and clay (SM-SC) Merritt Sand
10	15	Fine-grained sand w/ silt and clay (SM-SC) Merritt Sand
15	20	Fine-grained sand w/ silt and clay (SM-SC) Merritt Sand
20	25	Fine-grained sand w/ silt and clay (SM-SC) Merritt Sand
Total Depth of Boring <u>26</u>		Feet
Total Depth of Completed Well <u>22</u>		Feet

Well Owner

Well Location

Address 245 8th Street

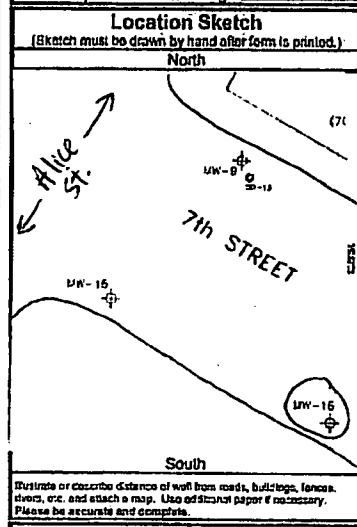
City Oakland County Alameda

Latitude 37 58 11 N Longitude 122 26 9 W

Datum NAD83 Decimal Lat. 37.98 Decimal Long. -122.269

APN Book 7 Page 3 Parcel 01017901300

Township 1S Range 4W Section 35K



Activity

New Well

Modification/Repair

Deepen

Other

Destroy

Describe procedure and materials under "GEOLOGIC LOG"

Planned Uses

Water Supply

Domestic Public

Irrigation Industrial

Cathodic Protection

Dewatering

Heat Exchange

Injection

Monitoring

Remediation

Sparging

Test Well

Vapor Extraction

Other

Water Level and Yield of Completed Well

Depth to first water 24 (Feet below surface)

Depth to Static _____

Water Level 16 (Feet) Date Measured 08/21/2009

Estimated Yield * _____ (GPM) Test Type _____

Test Length _____ (Hours) Total Drawdown _____ (Feet)

*May not be representative of a well's long term yield.

Casings							
Depth from Surface	Borehole Diameter	Type	Material	Wall Thickness	Outside Diameter	Screen Type	
Feet to Feet	(Inches)			(Inches)	(Inches)	Slot Size if Any (Inches)	
1	12	2	Blank	PVC Sch. 40	0.237	4.5	
12	22	2	Screen	PVC Sch. 40	0.237	4.5	Milled Slots 0.010

Annular Material			
Depth from Surface	Feet to Feet	FRI	Description
1	9	Cement	Portland
9	11	Bentonite	3/8 Chips
11	22	Filter Pack	#2/12 Monterey

Attachments

Geologic Log

Well Construction Diagram

Geophysical Log(s)

Soil/Water Chemical Analyses

Other _____

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name RSI Drilling, Inc.

Person, Firm or Corporation 210 N. East St

Address Woodland CA 95776

City Woodland State CA Zip 95776

Signed [Signature] Date Signed 9/16/09 C-57 License Number 807334

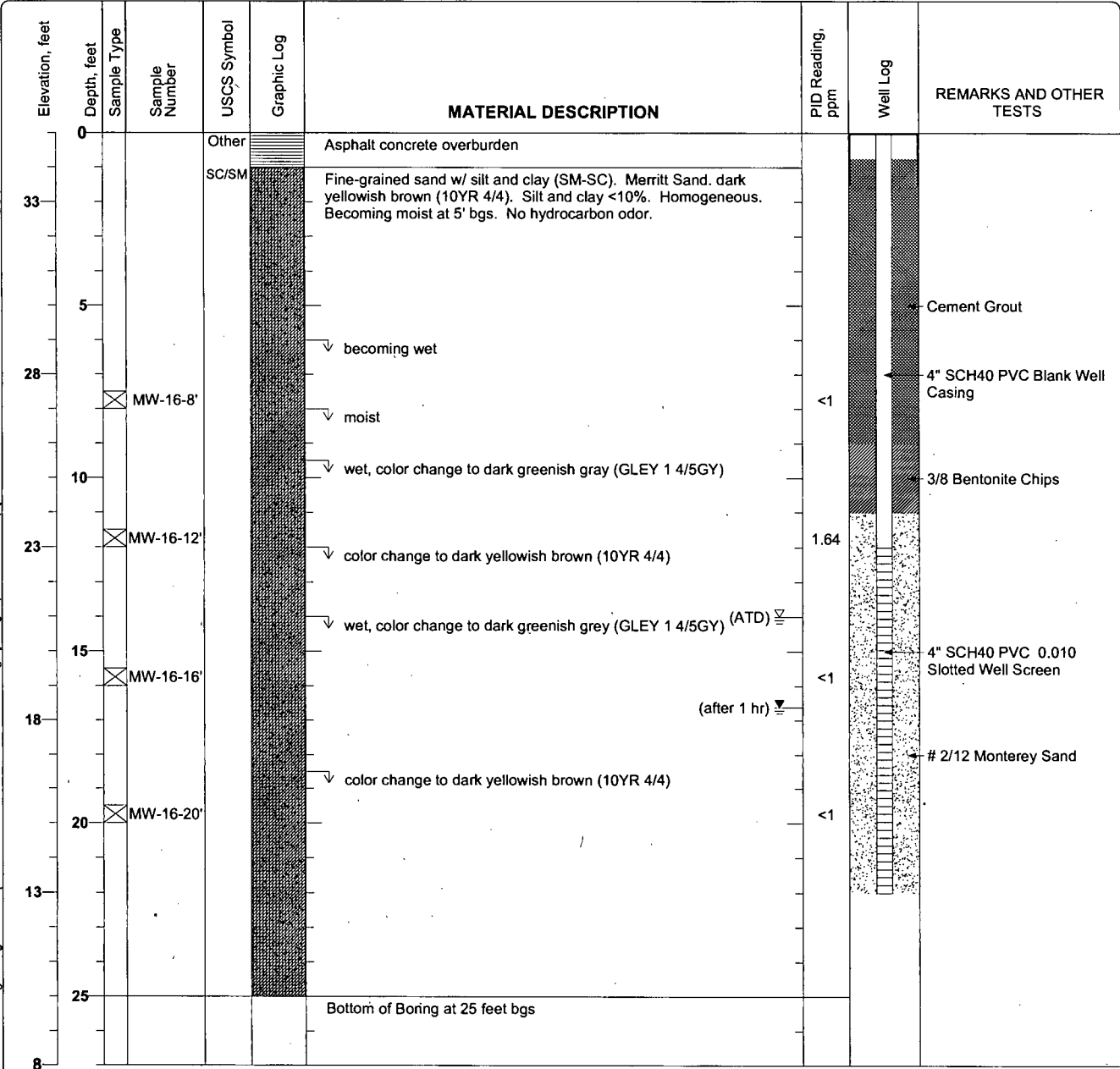
C-57 Licensed Water Well Contractor

20098298

Project: [REDACTED]
Project Location: 245 8th Street, Oakland, California
Project Number: 116907

Log of Boring MW-16
 Sheet 1 of 1

Date(s) Drilled: July 28, 2009	Logged By: Ricky Bradford	Checked By: Peter McIntyre
Drilling Method: Hollow Stem Auger	Drill Bit Size/Type: 10 inch	Total Depth of Borehole: 25 feet bgs
Drill Rig Type: CME 75	Drilling Contractor: RSI	Approximate Surface Elevation: 35 feet MSL
Groundwater Level and Date Measured: 14 feet ATD, 16.62 feet after 1 hr	Sampling Method(s): Tube	Hammer Data
Borehole Backfill: Well Completion	Location: Parking Lane Along Alice Street Southwest of the Subject Property	



Figure

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File Original with DWR

State of California

Well Completion Report

Refer to Instruction Pamphlet

No. e0101486

Page 1 of 1

Owner's Well Number VP-7

Date Work Began 10/14/2009

Date Work Ended 10/14/2009

Local Permit Agency ALAMEDA COUNTY PUBLIC WORKS AGENCY

Number W2009-0955

Permit Date 10/7/09

DWR Use Only - Do Not Fill In

0 1 5 0 4 W 3 5 A

State Well Number/Site Number

N W

Latitude Longitude

APN/TRS/Other

Geologic Log

Orientation Vertical Horizontal Angle Specify _____
 Drilling Method HAND AUGER Drilling Fluid _____

Depth from Surface		Description
Feet	to Feet	
0	2	Sand/Cement slurry (backfill material)
2	3	Clayey SILT: brown, moist, moderate plasticity
3	7	Sandy SILT: brown, moist, low plasticity
7	8	Clayey SILT: brown, moist, moderate plasticity
8	11	Silty SAND: brown, moist, non-plastic

Groundwater not encountered

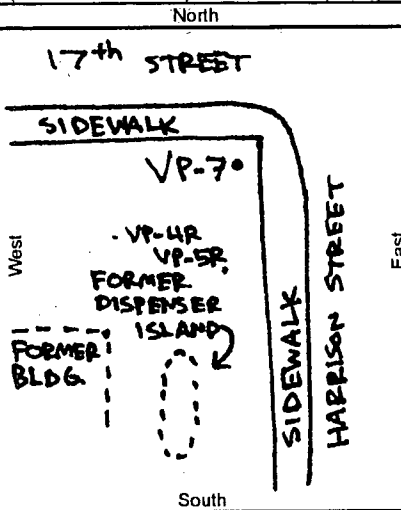
Well Owner

Well Location

Address 1633 HARRISON STREET
 City OAKLAND County Alameda
 Latitude _____ N Longitude _____ W
 Dec. Min. Sec. Dec. Min. Sec.
 Datum _____ Decimal Lat. _____ Decimal Long. _____
 APN Book _____ Page _____ Parcel _____
 Township 15 Range 4W Section 35A

Location Sketch

(Sketch must be drawn by hand after form is printed.)



Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.

Activity

- New Well
 - Modification/Repair
 - Deepen
 - Other
 - Destroy
- Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

- Water Supply
 - Domestic Public
 - Irrigation Industrial
- Cathodic Protection
- Dewatering
- Heat Exchange
- Injection
- Monitoring
- Remediation
- Sparging
- Test Well
- Vapor Extraction
- Other VAPOR PROBE

Total Depth of Boring 11 Feet

Total Depth of Completed Well 10.5 Feet

Water Level and Yield of Completed Well

Depth to first water _____ (Feet below surface)
 Depth to Static _____
 Water Level _____ (Feet) Date Measured _____
 Estimated Yield * _____ (GPM) Test Type _____
 Test Length _____ (Hours) Total Drawdown _____ (Feet)
 *May not be representative of a well's long term yield.

Casings

Depth from Surface	Borehole Diameter	Type	Material	Wall Thickness	Outside Diameter	Screen Type	Slot Size if Any
Feet to Feet	(Inches)			(Inches)	(Inches)		(Inches)
0	10	2	Blank	Teflon Tubing		0.25	Vapor Tip

Annular Material

Depth from Surface	Fill	Description
Feet to Feet		
0	2	Cement Bentonite/Portland
2	4	Bentonite Powder
4	5	Filter Pack Monterey #2/12
5	7	Cement Bentonite/Portland
7	9	Bentonite Powder
9	10	Filter Pack Monterey #2/12

Attachments

- Geologic Log
- Well Construction Diagram
- Geophysical Log(s)
- Soil/Water Chemical Analyses
- Other _____

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name VAPOR TECH SERVICES

Person, Firm or Corporation

1348 66th Street

Berkeley

City

CA 94702

State

Zip

Signed Steffen Orkin

11/20/09

Date Signed

916085

C-57 License Number

C-57 Licensed Water Well Contractor

File Original with DWR

State of California Well Completion Report

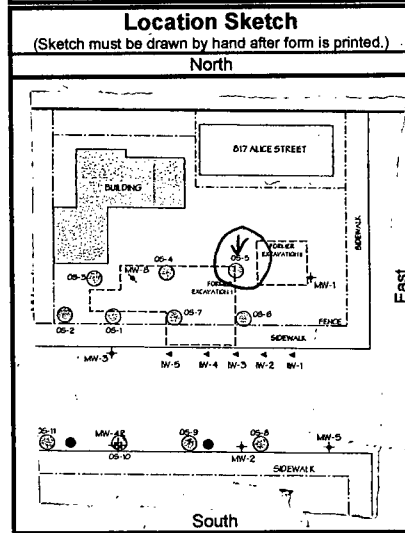
Refer to Instruction Pamphlet
No. **e0111674**

DWR Use Only - Do Not Fill In	
01504N35K	
State Well Number/Site Number	
N	W
Latitude	Longitude
APN/TRS/Other	

Page 1 of 1
 Owner's Well Number 05-5
 Date Work Began 10-28-10 Date Work Ended 10-28-10
 Local Permit Agency ACPLWA
 Permit Number W2010-0743 Permit Date 10-13-10

Geologic Log		
Orientation <input type="radio"/> Vertical <input type="radio"/> Horizontal <input type="radio"/> Angle Specify _____		
Drilling Method _____ Drilling Fluid _____		
Depth from Surface	Feet to Feet	Description
0	0.5	Asphalt
0.5	16	No Sampling
16	18	Pea Gravel
18	20	SAND
20	22	Silty SAND
22	30	SAND
Total Depth of Boring _____ Feet		
Total Depth of Completed Well _____ Feet		

Well Owner	
Well Location	
Address <u>250 8th Street</u>	
City <u>Oakland</u>	County <u>Alameda</u>
Latitude _____ Deg. Min. Sec.	Longitude _____ Deg. Min. Sec.
Datum _____	Decimal Lat. _____ Decimal Long. _____
APN Book _____	Page _____ Parcel _____
Township <u>15</u>	Range <u>4W</u> Section <u>35K</u>



- | Activity |
|---|
| <input checked="" type="radio"/> New Well |
| <input type="radio"/> Modification/Repair |
| <input type="radio"/> Deepen |
| <input type="radio"/> Other _____ |
| <input type="radio"/> Destroy |
| Describe procedures and materials under "GEOLOGIC LOG" |
| Planned Uses |
| <input type="radio"/> Water Supply |
| <input type="checkbox"/> Domestic <input type="checkbox"/> Public |
| <input type="checkbox"/> Irrigation <input type="checkbox"/> Industrial |
| <input type="radio"/> Cathodic Protection |
| <input type="radio"/> Dewatering |
| <input type="radio"/> Heat Exchange |
| <input type="radio"/> Injection |
| <input type="radio"/> Monitoring |
| <input type="radio"/> Remediation |
| <input checked="" type="radio"/> Sparging |
| <input type="radio"/> Test Well |
| <input type="radio"/> Vapor Extraction |
| <input type="radio"/> Other _____ |

Water Level and Yield of Completed Well	
Depth to first water _____	(Feet below surface)
Depth to Static _____	
Water Level _____	(Feet) Date Measured _____
Estimated Yield * _____	(GPM) Test Type _____
Test Length _____	(Hours) Total Drawdown _____ (Feet)
*May not be representative of a well's long term yield.	

Casings							
Depth from Surface	Borehole Diameter	Type	Material	Wall Thickness	Outside Diameter	Screen Type	Slot Size
Feet to Feet	(Inches)			(Inches)	(Inches)		(Inches)
2-5	27.5	8	SCH 80	PVC	0.179	1-32	
27.5	29	8	SCH 80	PVC	0.179	1-32	factory 25 micro

Annular Material			
Depth from Surface	Feet to Feet	Fill	Description
2-5	24	cement	Neat
24	26	Bentonite	
26	30	sand	#2/12

Attachments
<input type="checkbox"/> Geologic Log <input type="checkbox"/> Well Construction Diagram <input type="checkbox"/> Geophysical Log(s) <u>11/15/10</u> <input type="checkbox"/> Soil/Water Chemical Analyses <input type="checkbox"/> Other _____
Attach additional information, if it exists.

Certification Statement	
I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief	
Name _____	Person, Firm or Corporation
Signed <u>[Signature]</u>	City <u>12/01/2010</u> State <u>CA</u>
C-57 Licensed Water Well Contractor	Date Signed <u>802334</u> C-57 License Number

File Original with DWR

Page 1 of 1
Owner's Well Number 05-4
Date Work Began 10-28-10 Date Work Ended 10-28-10
Permit Agency ACPWA
Permit Number W 2010-0743 Permit Date 10-13-10

State of California
Well Completion Report

Refer to Instruction Pamphlet No. e0111675

DWR Use Only - Do Not Fill In

01504W35K
State Well Number/Site Number
Latitude N Longitude W
APN/TRS/Other

Geologic Log

Orientation O Vertical O Horizontal O Angle Specify
Drilling Method Drilling Fluid

Table with columns: Depth from Surface (Feet to Feet), Description. Rows: 0 to 0.5 Asphalt, 0.5 to 6 Peb Gravel, 6 to 29 SAND

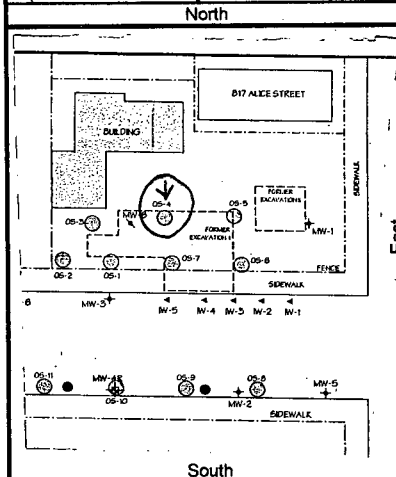
Well Owner

Well Location

Address 250 8th Street
City Oakland County Alameda
Latitude Longitude
Datum Decimal Lat. Decimal Long.
APN Book Page Parcel
Township 15 Range 4W Section 35K

Location Sketch

(Sketch must be drawn by hand after form is printed.)



Activity

- New Well
Modification/Repair
Deepen
Other
Destroy
Describe procedures and materials under 'GEOLOGIC LOG'

Planned Uses

- Water Supply
Domestic
Public
Irrigation
Industrial
Cathodic Protection
Dewatering
Heat Exchange
Injection
Monitoring
Remediation
Sparging
Test Well
Vapor Extraction
Other

Water Level and Yield of Completed Well

Depth to first water (Feet below surface)
Depth to Static
Water Level (Feet) Date Measured
Estimated Yield* (GPM) Test Type
Test Length (Hours) Total Drawdown (Feet)
*May not be representative of a well's long term yield.

Casings

Table with columns: Depth from Surface, Borehole Diameter, Type, Material, Wall Thickness, Outside Diameter, Screen Type, Slot Size. Rows: 0.5 to 27.5 PVC sch 80, 27.5 to 29 PVC sch 80 factory 25 mil.

Annular Material

Table with columns: Depth from Surface, Fill, Description. Rows: 2.5 to 24 cement neat, 24 to 26 Bentonite, 26 to 29 sand #2/12

Attachments

- Geologic Log
Well Construction Diagram
Geophysical Log(s)
Soil/Water Chemical Analyses
Other

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief
Name
Person, Firm or Corporation
Address
City Date Signed CA State C-57 License Number

File Original with DWR

State of California Well Completion Report

Refer to Instruction Pamphlet
No. e0111676

DWR Use Only - Do Not Fill In			
0150	4W	35K	
State Well Number/Site Number			
N	W		
Latitude		Longitude	
APN/TRS/Other			

Page 1 of 1
 Owner's Well Number 05-7
 Date Work Began 10-28-10 Date Work Ended 10-28-10
 Local Permit Agency ACPLWA
 Permit Number W2010-0743 Permit Date 10-13-10

Geologic Log		
Orientation <input type="radio"/> Vertical <input type="radio"/> Horizontal <input type="radio"/> Angle Specify _____		
Drilling Method _____		Drilling Fluid _____
Depth from Surface	Description	
Feet to Feet	Describe material, grain size, color, etc	
0 to 0.5	Asphalt	
0.5 to 24	Pak Gravel	
24 to 30	SAND	
Total Depth of Boring <u>30</u> Feet		
Total Depth of Completed Well <u>30</u> Feet		

Well Owner	
Well Location	
Address <u>250 8th Street</u>	
City <u>Oakland</u>	County <u>Alameda</u>
Latitude _____ Deg. Min. Sec.	N Longitude _____ Deg. Min. Sec. W
Datum _____	Decimal Lat. _____ Decimal Long. _____
APN Book _____ Page _____	Parcel _____
Township <u>15</u> Range <u>4W</u> Section <u>35K</u>	

Location Sketch	Activity	
(Sketch must be drawn by hand after form is printed.)		
North	<input checked="" type="radio"/> New Well <input type="radio"/> Modification/Repair <input type="radio"/> Deepen <input type="radio"/> Other _____ <input type="radio"/> Destroy <small>Describe procedures and materials under "GEOLOGIC LOG"</small>	
	<th style="text-align: center;">Planned Uses</th>	Planned Uses
South	<input type="radio"/> Water Supply <input type="checkbox"/> Domestic <input type="checkbox"/> Public <input type="checkbox"/> Irrigation <input type="checkbox"/> Industrial <input type="radio"/> Cathodic Protection <input type="radio"/> Dewatering <input type="radio"/> Heat Exchange <input type="radio"/> Injection <input type="radio"/> Monitoring <input type="radio"/> Remediation <input checked="" type="radio"/> Sparging <input type="radio"/> Test Well <input type="radio"/> Vapor Extraction <input type="radio"/> Other _____	
<small>Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.</small>		

Water Level and Yield of Completed Well	
Depth to first water _____	(Feet below surface)
Depth to Static _____	(Feet) Date Measured _____
Water Level _____	(Feet) Test Type _____
Estimated Yield * _____	(GPM) Test Type _____
Test Length _____	(Hours) Total Drawdown _____ (Feet)
*May not be representative of a well's long term yield.	

Casings							
Depth from Surface	Borehole Diameter	Type	Material	Wall Thickness	Outside Diameter	Screen Type	Slot Size
Feet to Feet	(Inches)			(Inches)	(Inches)		(Inches)
0.5 to 28.5	8	Sch 80	PVC	0.179	1.32		
28.5 to 30	8	Sch 80	PVC	0.179	1.32	factory	25 mesh

Annular Material		
Depth from Surface	Fill	Description
Feet to Feet		
2.5 to 25	cement	Neat
25 to 27	Bentonite	
27 to 30	sand	#2/12

Attachments
<input type="checkbox"/> Geologic Log <input type="checkbox"/> Well Construction Diagram <input type="checkbox"/> Geophysical Log(s) <u>3115 700 10</u> <input type="checkbox"/> Soil/Water Chemical Analyses <input type="checkbox"/> Other _____
<small>Attach additional information, if it exists.</small>

Certification Statement	
I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief	
Name _____	Person, Firm or Corporation _____
Address _____	City _____ State <u>CA</u> Zip _____
Signed <u>[Signature]</u>	Date Signed <u>12/01/10</u> C-57 License Number <u>802334</u>
<small>C-57 Licensed Water Well Contractor</small>	

APPENDIX C
BROING LOGS

PROJECT: 1110 JACKSON STREET
Oakland, California

Log of Boring EB-1

PAGE 1 OF 1

Boring location: See Figure 2

Logged by: J.S.
Drilled By: Regg Drilling Co.

Date started: 8/11/16

Date finished: 8/11/16

Drilling method: Direct Push

Hammer weight/drop: NA

Hammer type: NA

Sampler: Continuous

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Water Level	Recovery (inches)			
1						SM	3 inches Concrete
2							SILTY SAND (SM) dark brown, moist, loose, 85% sand, 15% fines
3							CLAYEY SILTY SAND (SC-SM) red-brown, moist, loose
4							
5							
6				36/ 36"			CLAYEY SILTY SAND (SC-SM) yellow-brown, moist, brown mottling, medium-grained
7					1.2	SC-SM	
8				48/ 48"			
9							
10							
11					0.9		CLAYEY SILTY SAND (SC-SM) yellow-brown, moist, mottling, dense, 85% sand, 15% fines
12				48/ 48"			
13							
14						SM	SILTY SAND (SM) yellow-brown, moist, medium dense, 85% sand, 15% fines
15					1.1		dense, mottled, 90% sand, 10% fines
16							
17					1.2	SP	SAND (SP) olive-gray, moist, loose, fine to medium-grained, 95% sand, 5% fines
18				24/ 24"			
19							
20			▽	24/ 24"		SM	SILTY SAND (SM) yellow-brown, moist, dense, mottled
21				24/ 24"			SILTY SAND (SM) gray-brown, moist, medium-grained
22				24/ 24"		SC	CLAYEY SAND (SC) yellow-brown, moist, low plasticity, very stiff
23							
24				24/ 24"			
25					1.2	SM	SILTY SAND (SM) gray-brown, moist, dense, 85% sand, 15% fines
26						SP	SAND (SP) gray, moist, dense, 95% sand, 5% fines
27				24/ 24"			
28							wet
29							
30							

TEST ENVIRONMENTAL INCHES 750622602 1110 JACKSON-ENVR.GPJ T&R.GDT 8/16/16

Boring terminated at a depth of 27 feet below ground surface.
Boring backfilled with cement grout.
Groundwater encountered at 20 feet below ground surface during drilling.



Project No.: 750622605

Figure: C-1

PROJECT: 1110 JACKSON STREET
Oakland, California

Log of Boring EB-2

PAGE 1 OF 1

Boring location: See Figure 2

Logged by: T. Houghton
Drilled By: Gregg Drilling Co.

Date started: 8/11/16

Date finished: 8/11/16

Drilling method: Direct Push

Hammer weight/drop: NA

Hammer type: NA

Sampler: Continuous

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Water Level	Recovery (inches)			
1						GP	4 inches asphalt SANDY GRAVEL (GP) dark brown, moist, loose
2							
3						GM	GRAVELY SAND (GW) dark brown, moist, loose, 80% sand, 15% gravel, 5% fines
4							
5							
6				36/ 36"	16.3	SM	SILTY SAND with GRAVEL (SM) dark brown, moist, loose, medium-grained
7							
8							
9				48/ 48"			
10							
11						SC	CLAYEY SAND (SC) yellow-brown to dark brown, moist, medium- to fine-grained
12							
13	EB-2-13	•				SM	SILTY SAND with GRAVEL (SM) dark brown, moist, loose, gravel <.5 inches, medium- to fine-grained
14							
15							
16	EB-2-15.5	•					
17				4/ 48"		SM	unable to remove the 16 to 20 feet sample from tube switching to 2 feet runs
18							
19							
20							
21							
22							
23	EB-2-22.5	•		24/ 24"		SM	SILTY SAND (SM) gray-brown, moist, mottled, medium-grained, petroleum odor
24				24/ 24"	1300	SM	SILTY SAND (SM) gray, wet, dense, fine-grained, petroleum odor
25				24/ 24"	1040	SP	SAND (SP) gray, wet, fine-grained
26							gravel layer at 24.5 feet, bottom 3 inches color brown
27				24/ 24"	1905	SP	SAND (SP) brown, wet, fine-grained, strong petroleum odor, bottom 5 inches brown
28							
29							
30							

TEST ENVIRONMENTAL INCHES 750622602 1110 JACKSON-ENVR.GPJ T&R.GDT 8/16/16

Boring terminated at a depth of 28 feet below ground surface.
Boring backfilled with cement grout.
Groundwater encountered at 19.95 feet below ground surface during drilling.



Project No.: 750622605

Figure: C-2

PROJECT: 1110 JACKSON STREET
Oakland, California

Log of Boring EB-3

PAGE 1 OF 1

Boring location: See Figure 2

Logged by: T. Houghton
Drilled By: Gregg Drilling Co.

Date started: 8/11/16

Date finished: 8/11/16

Drilling method: Direct Push

Hammer weight/drop: NA

Hammer type: NA

Sampler: Continuous

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Water Level	Recovery (inches)			
1							1.5 inches concrete
2						SM	SILTY SAND (SM) yellow-brown, moist, loose, 90% sand, 10% fines
3							
4						SC	CLAYEY SAND (SC) yellow-brown, moist, brown mottling, medium plasticity
5				36/ 36"			CLAYEY SILTY SAND (SC-SM) yellow-brown, moist, brown mottling, low plasticity
6					1.7		
7							
8				48/ 48"			
9						SC-SM	moist, brown mottling, medium dense, 90% sand, 10% fines
10							
11							
12				48/ 48"			
13					1.2		moist, mottling, medium dense, 90% sand, 10% fines
14							
15					3.1		
16				24/ 24"			
17						SP	SAND (SP) red-brown, moist, loose, 95% sand, 5% fines
18					1.5		
19				24/ 24"		SM	SILTY SAND (SM) brown, moist, dense, 85% sand, 15% fines
20						SC	CLAYEY SAND (SC) brown, moist, low plasticity
21					1.5		
22				24/ 24"		SM	SILTY SAND (SM) yellow-brown, moist, mottling, dense, , 90% sand, 10% fines
23					1.8	SC-SM	CLAYEY SILTY SAND (SM) yellow-brown, moist, dense, 95% sand, 5% fines
24							
25				24/ 24"	2.1		SAND (SP) brown, wet, dense, no odor, 95% sand, 5% fines
26						SP	SAND (SP) brown, wet, dense, 95% sand, 5% fines
27					2.1		lamination at 26.5 feet
28							
29							
30							

Boring terminated at a depth of 28 feet below ground surface.
Boring backfilled with cement grout.
Groundwater encountered at 20.35 feet below ground surface during drilling.



Project No.: 750622605

Figure:

C-3

TEST ENVIRONMENTAL INCHES 750622602 1110 JACKSON-ENVR.GPJ T&R.GDT 8/16/16

PROJECT: 1110 JACKSON STREET
Oakland, California

Log of Boring EB-4

PAGE 1 OF 1

Boring location: See Figure 2

Logged by: T. Houghton
Drilled By: Gregg Drilling Co.

Date started: 8/11/16

Date finished: 8/11/16

Drilling method: Direct Push

Hammer weight/drop: NA

Hammer type: NA

Sampler: Continuous

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Water Level	Recovery (inches)			
1						SM	SILTY SAND (SM) brown, moist, loose, medium-grained, gravel less than 1-inch, gravel subrounded to subangular, 80% sand, 10% gravel, 10% fines
2						SM	
3						SM	
4						SM	
5				36/36"		SP-SC	SAND with CLAY (SP-SC) yellow-brown, moist, brown mottling, medium plasticity, 85% sand, 15% fines
6					3	SP-SC	
7						SC	CLAYEY SAND (SC) yellow-brown, moist, soft, low plasticity
8						SC	
9						SC	
10				48/48"		SC	
11					6.1	SM	SILTY SAND (SM) yellow-brown, moist, mottled, medium dense, 85% sand, 15% silt
12				24/24"		SM	
13					9.0	SC-SM	CLAYEY SILTY SAND (SC-SM) yellow-brown, moist, dense, fine-grained
14						SC-SM	
15				24/24"	24.3	SM	SILTY SAND (SM) gray-brown, moist, medium dense, fine-grained
16						SM	
17				24/24"	253	SM	SAND (SP) gray-brown, moist, medium dense, fine-grained, 95% sand, 5% fines
18						SM	
19				24/24"		SM	moist, dense, medium-grained, petroleum odor, 95% sand, 5% fine
20			▽			SM	
21				24/24"	84	SM	moist, dense, fine- to medium-grained, mild petroleum odor, 95% sand, 5% fines
22						SM	
23				24/24"	106	SP	moist, dense, brown mottling, fine- to medium-grained, petroleum odor,
24						SP	
25				24/24"	961	SP	wet, loose, medium-grained, 95% sand, 5% fines
26						SP	
27				24/24"		SP	
28					1482	SP	SAND (SP) gray, wet, dense, medium-grained, 95% sand, 5% fines
29					1274	SP	
30						SP	

Boring terminated at a depth of 28 feet below ground surface.
Boring backfilled with cement grout.
Groundwater encountered at 20.1 feet below ground surface during drilling.



Project No.: 750622605

Figure: C-4

TEST ENVIRONMENTAL INCHES 750622602 1110 JACKSON-ENVR.GPJ T&R.GDT 8/16/16

PROJECT: 1110 JACKSON STREET
Oakland, California

Log of Boring EB-5

PAGE 1 OF 1

Boring location: See Site Plan, Figure 2

Logged by: K. Staehlin

Date started: 11/16/16

Date finished: 11/16/16

Drilling method: Direct Push

Hammer weight/drop: NA

Hammer type: NA

Sampler: Continuous

DEPTH (feet)	SAMPLES				PID (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (inches)			
1							6-inch thick concrete slab
2					0.3	SP	GRAVELLY SAND (SP) brown, loose to medium dense, moist, subangular gravel less than 0.75-inches in diameter, trace brick and concrete debris, no odor
3			36/48		0.2		
4	EB-5-4.5	•			0	SP	SAND (SP) dark brown, medium dense, moist, no odor
5							brown
6			36/48				
7					0.1		CLAYEY SAND (SC) orange-brown with gray mottling, medium dense to dense, moist, no odor
8	EB-5-8.5	•			0	SC	
9							
10			42/48		0		
11							
12					0		SAND (SP) orangish-brown, medium dense, moist, no odor
13							
14			42/48		0		
15							brown, dense
16					0.1		
17							
18			24/24		0.1		reddish-brown to orangish-brown
19							
20			24/24		0.2	SP	grayish-brown to brown
21					0.3		
22			24/24		0.1		▽ (11/16/16)
23							
24			24/24		0		saturated
25							
26			24/24				
27					0		
28							
29							
30							

TEST ENVIRONMENTAL INCHES 750622605.GPJ T&R.GDT 12/2/16

Boring terminated at a depth of 26.5 feet below ground surface.
Boring backfilled with cement grout.
Groundwater encountered at 21.5 feet below ground surface during drilling.



Project No.: 750622605

Figure:

C-5

PROJECT: 1110 JACKSON STREET
Oakland, California

Log of Boring EB-6

PAGE 1 OF 1

Boring location: See Site Plan, Figure 2

Logged by: K. Staehlin

Date started: 11/16/16

Date finished: 11/16/16

Drilling method: Direct Push

Hammer weight/drop: NA

Hammer type: NA

Sampler: Continuous

DEPTH (feet)	SAMPLES				PID (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (inches)			
1					0.1		6-inch thick concrete slab
2						SM	SILTY SAND with GRAVEL (SM) brown, loose to medium dense, dry, no odor moist
3				48/48			
4	EB-6-4.5	•			0.6		increasing sand
5							
6					0.2	CL	SANDY CLAY (CL) orangish-brown with gray mottling, medium stiff, slightly-plastic, moist, no odor
7				48/48			
8	EB-6-8.5	•			0		SAND with CLAY (SP) orangish-brown, medium dense, moist, no odor
9							
10					0	SP	
11				48/48			
12					0		dense
13							gray-brown
14					0		
15				48/48			SAND (SP) brown, dense, moist, no odor increasing moisture
16					0		
17							
18				24/24	0		
19							
20				24/24	0		
21					0	SP	∇ (11/16/16)
22							
23				36/48			
24					0		
25					0		
26				16/24	0		
27					0		Hydropunch at 28.5 feet bgs.
28							
29							
30							

TEST ENVIRONMENTAL INCHES 750622605.GPJ T&R.GDT 12/2/16

Boring terminated at a depth of 28.5 feet below ground surface.
Boring backfilled with cement grout.
Groundwater encountered at 21.5 feet below ground surface during drilling.



Project No.: 750622605

Figure: C-6

PROJECT: 1110 JACKSON STREET
Oakland, California

Log of Boring EB-7

PAGE 1 OF 1

Boring location: See Site Plan, Figure 2

Logged by: K. Staehlin

Date started: 11/16/16

Date finished: 11/16/16

Drilling method: Direct Push

Hammer weight/drop: NA

Hammer type: NA

Sampler: Continuous

DEPTH (feet)	SAMPLES				PID (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (inches)			
1					0		6-inch thick concrete slab
2							SAND with GRAVEL (SP) brown, loose to medium dense, moist, trace brick debris, no odor
3				36/48	0.3	SP	
4	EB-7-4.5	●			0.1		
5							orange-brown
6				46/48	0		
7							CLAYEY SAND (SC) orangish-brown with gray mottling, medium dense, moist, trace brick debris, no odor
8	EB-7-8.5	●			0	SC	
9							increasing fines
10				48/48	0	SP	
11							SAND with trace CLAY (SP) orangish-brown with gray mottling, medium dense to dense, moist, no odor
12							
13				24/24	0		SAND (SP) orangish-brown to brown, dense, moist, no odor
14							
15				24/24	0		
16							
17				24/24	0		grayish-brown, varying amounts clay
18							
19				24/24	0	SP	
20							
21				24/24	0		▽ (11/16/16)
22							
23				24/24	0		
24							
25				24/24	0		
26							
27							
28							
29							
30							

TEST ENVIRONMENTAL INCHES 750622605.GPJ T&R.GDT 12/2/16

Boring terminated at a depth of 26.5 feet below ground surface.
Boring backfilled with cement grout.
Groundwater encountered at 21.5 feet below ground surface during drilling.



Project No.: 750622605

Figure:

C-7

PROJECT: **1110 JACKSON STREET**
Oakland, California

Log of Boring EB-8

PAGE 1 OF 1

Boring location: See Site Plan, Figure 2

Logged by: K. Staehlin

Date started: 11/16/16

Date finished: 11/16/16

Drilling method: Direct Push

Hammer weight/drop: NA

Hammer type: NA

Sampler: Continuous

DEPTH (feet)	SAMPLES				PID (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (inches)			
1					0.3	GP	6-inch thick concrete slab
2							
3				36/48	0.2		
4	EB-8-4.5	•			0.1		SAND (SP) dark brown, medium dense, moist, no odor
5							
6				36/48	0	SP	orangish-brown varying levels of clay, dense
7							
8	EB-8-8.5	•			0		
9							
10				48/48	0	SC	CLAYEY SAND (SC) orangish-brown, medium dense, moist, no odor
11							
12					0		dark brown to brown
13							
14				40/48			
15					0		SAND (SP) orangish-brown, dense, moist, no odor
16							
17				24/24	0		
18							
19				24/24	0		brown, occasional seams of clay
20							
21				24/24	0	SP	∇ (11/16/16)
22							
23				24/24	0		saturated
24							
25				24/24	0		
26							
27					0		
28							
29							
30							

TEST ENVIRONMENTAL INCHES 750622605.GPJ T&R.GDT 12/2/16

Boring terminated at a depth of 26.5 feet below ground surface.
Boring backfilled with cement grout.
Groundwater encountered at 21.5 feet below ground surface during drilling.



Project No.: 750622605

Figure:

C-8

PROJECT: 1110 JACKSON STREET
Oakland, California

Log of Boring EB-9

PAGE 1 OF 2

Boring location: See Site Plan

Logged by: J. Osborne
Drilled By: Gregg Drilling

Date started: 1/16/18

Date finished: 1/16/18

Drilling method: Direct Push

Hammer weight/drop: N/A

Hammer type: N/A

Sampler: Macro Core

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (feet)			
1							Concrete 6 inches
2	EB-9-2.5	•			0.0	SM	6 inches concrete SILTY SAND with GRAVEL (SM) dark brown some red, loose, dry, fine sand, 60% sand, 20% fines, 20% gravel
3							
4						SM	SILTY SAND (SM) dark brown, loose, dry, fine sand, 80% sand, 20% fines color change to yellow-brown
5	EB-9-5	•			0.0		
5	EB-9-5.5	•		5/5	0.0		
6							
7						SC	CLAYEY SAND (SC) yellow-brown, dense, moist, fine sand, no odor, trace staining at 5.5 feet, 60% sand, 40% fines
8					0.1		
9							
10	EB-9-10	•		4.2/5	0.0	SM	SILTY SAND (SM) yellow-brown, dense, moist, fine sand, 80% sand, 20% fines
11					0.0	SC	CLAYEY SAND (SC) yellow-brown, medium dense, moist, fine sand, 70% sand, 30% fines
12					0.0		
13						SM	SILTY SAND (SM) yellow-brown, medium dense, moist, fine sand, 80% sand, 20% fines
14					0.0		
15	EB-9-15	•		3/2	0.0	SC	CLAYEY SAND (SC) yellow-brown, dense, moist, fine sand, 60% sand, 40% fines
16					2/3		
17						SP	SAND (SP) yellow-brown, dense, moist, fine- to medium-grained sand color change to gray-brown at 17.5 feet
18	EB-9-18.5	•		3/3	0.0		
19					0.0		
20	EB-9-20	•			0.0	SM	SILTY SAND (SM) gray-brown, loose, moist, fine to medium sand, 50% sand, 20% fines
21	EB-9-21	•		5/5	0.0		
22							
23						SP	SAND trace SILT (SP) gray-brown, wet, loose, no odor, no stain, 95% sand, 5% fines, no staining observed
24							
25							SAND (SP) gray, loose, wet, fine sand, no odor, no stain
26							Not logged due to risk of soil getting stuck in barrel
27							
28	EB-9-GW-28	•					
29							
30							
31							
32							

TEST ENVIRONMENTAL FEET 750622605-ENV 1110 JACKSONST.GPJ T&R.GDT 2/28/18

LANGAN

Project No.: 750622605


Figure: C-9a

PROJECT:

1110 JACKSON STREET
Oakland, California

Log of Boring EB-9

PAGE 2 OF 2

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (Feet)			
33							Not logged due to risk of soil getting stuck in barrel
34							
35							
36							
37							
38	EB-9- GW-38						
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							
51							
52							
53							
54							
55							
56							
57							
58							
59							
60							
61							
62							
63							
64							

TEST ENVIRONMENTAL FEET 750622605- ENV 1110 JACKSONST.GPJ T&R.GDT 2/28/18

Boring terminated at a depth of 38 feet below ground surface (bgs).
Groundwater encountered at 20.3 feet at time of drilling.



Project No.:
750622605

Figure:
C-9b

PROJECT: 1110 JACKSON STREET
Oakland, California

Log of Boring EB-10

PAGE 1 OF 2

Boring location: See Site Plan

Logged by: J. Osborne
Drilled By: Gregg Drilling

Date started: 1/15/18

Date finished: 1/15/18

Drilling method: Direct Push

Hammer weight/drop: N/A

Hammer type: N/A

Sampler: Macro Core

TEST ENVIRONMENTAL FEET 750622605- ENV 1110 JACKSONST.GPJ T&R.GDT 2/28/18

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (feet)			
1							6 inches concrete
2	EB-10-2.5	•			0.0	SM	SILTY SAND (SM) dark brown, loose, dry, fine sand, 80% sand, 15% fines, 5% gravel
3							
4							
5	EB-10-5	•		4/4	0.0	SP-SM	SILTY SAND (SP-SM) yellow-brown, very soft, dry to slightly moist, fine sand, 90% sand, 10% fines
6							
7					0.0		
8							
9							CLAYEY SILT (ML) yellow-brown, stiff, moist
10	EB-10-10	•		4/4	0.0	ML	
11							becomes very moist
12							
13				4/4	0.0	SC	CLAYEY SAND (SC) yellow-brown with orange mottling, loose, very moist, no odor or staining, 50% fines, 50% sand
14							
15	EB-10-15	•			0.0	SC	CLAYEY SAND (SC) yellow-brown, loose, moist, 20% fines, 80% medium coarse sand
16							
17				4/4	0.0	SM	CLAYEY SAND with SILT (SM) brown to yellow-brown, loose, moist, 50% fines, 50% sand
18	EB-10-18.5	•			0.0	SM	SILTY SAND (SM) brown, dense, moist, 30% fines, 70% sand
19							slightly gray staining at 18.5 feet
20	EB-10-20	•			0.0	SP	SAND (SP) gray-brown, loose, moist, fine sand
21				5/5	0.0		
22					0.0	SM	SILTY SAND (SM) gray-brown, very dense, moist, 70% sand, 30% fines, medium sand
23	EB-10-23.5	•					
24							SAND (SP) gray-brown, medium dense, wet, fine, orange mottling
25	EB-10-GW-25	⊗					
26				5/5		SP	
27							
28							
29							
30							CLAY (CL) gray-brown, moist, very stiff, 100% fines, moderate plasticity
31				5/5		CL	
32							

LANGAN

Project No.: 750622605

Figure: C-10a

PROJECT:

1110 JACKSON STREET
Oakland, California

Log of Boring EB-10

PAGE 2 OF 2

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (Feet)			
33							CLAY (CL) (continued)
34	EB-10- GW-35						
35						SP	SAND trace GRAVEL (SP) light brown, medium dense, wet, 95% sand, 5% gravel
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							
51							
52							
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55							
56							
57							
58							
59							
60							
61							
62							
63							
64							

TEST ENVIRONMENTAL FEET 750622605- ENV 1110 JACKSONST.GPJ T&R.GDT 2/28/18

Boring terminated at a depth of 35 feet below ground surface (bgs).
Groundwater encountered at 20.58 feet at time of drilling.



Project No.:
750622605

Figure:
C-10b

PROJECT: 1110 JACKSON STREET
Oakland, California

Log of Boring EB-11

Boring location: See Site Plan

Logged by: J. Osborne
Drilled By: Gregg Drilling

Date started: 1/15/18

Date finished: 1/15/18

Drilling method: Direct Push

Hammer weight/drop: N/A

Hammer type: N/A

Sampler: Macro Core

TEST ENVIRONMENTAL FEET 750622605- ENV 1110 JACKSONST.GPJ T&R.GDT 2/28/18

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (feet)			
1							6 inches concrete
2	EB-11-2.5	•			0.0	SM	SILTY SAND with GRAVEL (SM) dark brown, loose, dry, 70% sand, 25% fines, 5% gravel
3							
4							
5	EB-11-5	•		3.9/5	0.0	SM	SILTY SAND (SM) yellow-brown, loose, dry, 85% sand, 15% fines, fine sand
6					0.0		
7							
8							
9							
10	EB-11-10	•		5/5	0.0	SC	CLAYEY SAND (SC) yellow-brown, dense, dry, fine sand, 70% sand, 30% fines
11							becomes moist
12					0.0		
13							
14							
15	EB-11-15	•		5/5	0.0	SM	SILTY SAND (SM) yellow-brown, moderately dense, moist, fine sand, 80% sand, 20% fines
16							
17					0.0	SP	SAND (SP) yellow-brown, loose, slightly moist, fine sand
18							
19							
20	EB-11-20	•		5/5	0.0		
21	EB-11-21	•			0.0		∇ sand, yellow-brown, loose, wet, moderate
22					0.0		
23							
24						SM	
25	EB-11-GW-25	•		5/5			
26							
27							
28							color change to dark gray-brown
29							
30				4.2/5			
31						SC	SANDY CLAY (SC) yellow-brown, stiff, moist
32							

LANGAN

Project No.: 750622605

Figure: C-11a

PROJECT:

1110 JACKSON STREET
Oakland, California

Log of Boring EB-11

PAGE 2 OF 2

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (Feet)			
33	EB-11-GW-35					SC	SANDY CLAY (SC) (continued)
34						SP	GRAVELY SAND (SP) brown, trace amounts of red gravel, dense, moist, medium sand to fine gravel
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
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62							
63							
64							

TEST ENVIRONMENTAL FEET 750622605- ENV 1110 JACKSONST.GPJ T&R.GDT 2/28/18

Boring terminated at a depth of 35 feet below ground surface (bgs).
Groundwater encountered at 20.64 feet at time of drilling.



Project No.:	Figure:
750622605	C-11b

PROJECT: **1110 JACKSON STREET**
Oakland, California

Log of Boring EB-12

PAGE 1 OF 2

Boring location: See Site Plan

Logged by: J. Osborne
Drilled By: Gregg Drilling

Date started: 1/16/18

Date finished: 1/17/18

Drilling method: Direct Push

Hammer weight/drop: N/A

Hammer type: N/A

Sampler: Macro Core

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (feet)			
1							6 inches concrete
2	EB-12-2.5	•			0.0	SM	SILTY SAND (SM) dark brown, some red gravel, loose, dry, fine sand
3							
4				4/4			
5	EB-12-5	•			0.0		
6					0.0		color change to yellow-brown
7					0.0	SM	SILTY SAND (SM) yellow-brown, loose, moist, fine sand, 70% sand, 30% fines
8				4/4		SC	CLAYEY SAND (SC) yellow-brown, dense, moist, fine sand, 70% sand, 30% fines
9						SM	SILTY SAND trace GRAVEL (SM) gray-brown, dense, dry, 60% sand, 39% fines, <1% gravel
10	EB-12-10	•			0.0		CLAYEY SAND (SC) yellow-brown, dense, moist, 70% sand, 30% fines
11						SC	
12				4/3			
13	EB-12-13	•			0.0		
14					0.0	SM	SILTY SAND (SM) dark brown, dense, moist to dry, 60% sand, 40% fines, possible staining, no odor
15	EB-12-15	•			0.0		
16				3.2/3			
17					0.0	SP	GRAVELY SAND (SP) yellow-brown, loose, moist, 70% sand, 30% gravel
18				4/3			
19							CLAYEY SAND (SC) yellow-brown, dense, moist, 70% fines, 30% sand
20	EB-12-20	•			0.0	SC	becomes gray-brown
21					0.0		
22				4/4			
23	EB-12-23	•			0.0		
24					0.0		
25						SP	SAND (SP) gray-brown, loose, wet, fine sand
26				3/2			
27	EB-12-GW-27	•			0.0		CLAYEY SAND (SC) gray-brown, loose, wet, fine sand, 85% sand, 15% fines
28							
29						SC	
30							
31							
32							

TEST ENVIRONMENTAL FEET 750622605-ENV 1110 JACKSONST.GPJ T&R.GDT 2/28/18

LANGAN

Project No.: 750622605

Figure: C-12a

PROJECT:

1110 JACKSON STREET
Oakland, California

Log of Boring EB-12

PAGE 2 OF 2

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (Feet)			
33						SC	CLAYEY SAND (SC) (continued)
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							
51							
52							
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55							
56							
57							
58							
59							
60							
61							
62							
63							
64							

TEST ENVIRONMENTAL FEET 750622605- ENV 1110 JACKSONST.GPJ T&R.GDT 2/28/18

Boring terminated at a depth of 35 feet below ground surface (bgs).
Groundwater encountered at 21.01 feet at time of drilling.



Project No.:
750622605

Figure:
C-12b

PROJECT: **1110 JACKSON STREET**
Oakland, California

Log of Boring EB-13

PAGE 1 OF 2

Boring location: See Site Plan

Logged by: J. Osborne
Drilled By: Gregg Drilling

Date started: 1/17/18

Date finished: 1/17/18

Drilling method: Direct Push

Hammer weight/drop: N/A

Hammer type: N/A

Sampler: Macro Core

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (feet)			
1							6 inches concrete
2	EB-13-2.5	•			0.0	SM-SP	SILTY SAND with GRAVEL (SM-SP) light brown, loose, dry, fine sand, 60% sand, 20% fines, 20% gravel
3							
4						SM	SILTY SAND (SM) dark brown, dry, loose, fine sand,
5	EB-13-5	•		5/5	0.0		brick (red)
6					0.0		SILTY SAND (SM) yellow-brown, loose, moist, fine sand, 70% sand, 30% fines
7							
8					0.0	SM	
9							
10	EB-13-10	•		5/5	0.0		
11						SC	CLAYEY SAND (SC) yellow-brown
12					0.0		
13							SILTY SAND trace CLAY (SM) yellow-brown, moderately dense, slightly moist, fine sand, 70% sand, 30% fines
14							
15	EB-13-15	•			0.0		color change to gray-brown
16					3.2/ 2.5	SM	
17					3.3/ 2.5		
18					0.0		
19							
20	EB-13-20	•		5/5	0.0	SC	CLAYEY SAND (SC) gray-brown, loose, moist, fine sand, 70% sand, 30% fines
21	EB-13-21	•			0.0		
22							SAND some SILT (SP) gray-brown, loose, wet, fine sand, 90% sand, 10% fines
23							
24						SP	
25	EB-13-GW-25	•		2/2			
26							
27							Hit refusal at 27 feet using dual tube core barrel. Switching to hydropunch Interval from 27 to 35 feet not logged
28							
29							
30							
31							
32							

TEST ENVIRONMENTAL FEET 750622605-ENV 1110 JACKSONST.GPJ T&R.GDT 2/28/18

LANGAN

Project No.: 750622605


Figure: C-13a

PROJECT:

1110 JACKSON STREET
Oakland, California

Log of Boring EB-13

PAGE 2 OF 2

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (Feet)			
33							interval not logged
34							
35	EB-13-GW-35						
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
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51							
52							
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57							
58							
59							
60							
61							
62							
63							
64							

TEST ENVIRONMENTAL FEET 750622605- ENV 1110 JACKSONST.GPJ T&R.GDT 2/28/18

Boring terminated at a depth of 35 feet below ground surface (bgs).
Groundwater encountered at 19.39 feet at time of drilling.

LANGAN

Project No.:
750622605

Figure:
C-13b

UNIFIED SOIL CLASSIFICATION SYSTEM

Major Divisions	Symbols	Typical Names
Coarse-Grained Soils <small>(more than half of soil > no. 200 sieve size)</small>	Gravels <small>(More than half of coarse fraction > no. 4 sieve size)</small>	GW Well-graded gravels or gravel-sand mixtures, little or no fines
		GP Poorly-graded gravels or gravel-sand mixtures, little or no fines
		GM Silty gravels, gravel-sand-silt mixtures
		GC Clayey gravels, gravel-sand-clay mixtures
	Sands <small>(More than half of coarse fraction < no. 4 sieve size)</small>	SW Well-graded sands or gravelly sands, little or no fines
		SP Poorly-graded sands or gravelly sands, little or no fines
		SM Silty sands, sand-silt mixtures
		SC Clayey sands, sand-clay mixtures
Fine -Grained Soils <small>(more than half of soil < no. 200 sieve size)</small>	Silts and Clays <small>LL = < 50</small>	ML Inorganic silts and clayey silts of low plasticity, sandy silts, gravelly silts
		CL Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, lean clays
		OL Organic silts and organic silt-clays of low plasticity
	Silts and Clays <small>LL = > 50</small>	MH Inorganic silts of high plasticity
		CH Inorganic clays of high plasticity, fat clays
		OH Organic silts and clays of high plasticity
Highly Organic Soils	PT	Peat and other highly organic soils

SAMPLE DESIGNATIONS/SYMBOLS

GRAIN SIZE CHART		
Classification	Range of Grain Sizes	
	U.S. Standard Sieve Size	Grain Size in Millimeters
Boulders	Above 12"	Above 305
Cobbles	12" to 3"	305 to 76.2
Gravel coarse fine	3" to No. 4 3" to 3/4" 3/4" to No. 4	76.2 to 4.76 76.2 to 19.1 19.1 to 4.76
Sand coarse medium fine	No. 4 to No. 200 No. 4 to No. 10 No. 10 to No. 40 No. 40 to No. 200	4.76 to 0.075 4.76 to 2.00 2.00 to 0.420 0.420 to 0.075
Silt and Clay	Below No. 200	Below 0.075

- Sample taken with Sprague & Henwood split-barrel sampler with a 3.0-inch outside diameter and a 2.43-inch inside diameter. Darkened area indicates soil recovered
- Classification sample taken with Standard Penetration Test sampler
- Undisturbed sample taken with thin-walled tube
- Disturbed sample
- Sampling attempted with no recovery
- Core sample
- Analytical laboratory sample
- Sample taken with Direct Push or Drive sampler

- Unstabilized groundwater level
- Stabilized groundwater level

SAMPLER TYPE

- | | |
|---|--|
| <ul style="list-style-type: none"> C Core barrel CA California split-barrel sampler with 2.5-inch outside diameter and a 1.93-inch inside diameter D&M Dames & Moore piston sampler using 2.5-inch outside diameter, thin-walled tube O Osterberg piston sampler using 3.0-inch outside diameter, thin-walled Shelby tube | <ul style="list-style-type: none"> PT Pitcher tube sampler using 3.0-inch outside diameter, thin-walled Shelby tube S&H Sprague & Henwood split-barrel sampler with a 3.0-inch outside diameter and a 2.43-inch inside diameter SPT Standard Penetration Test (SPT) split-barrel sampler with a 2.0-inch outside diameter and a 1.5-inch inside diameter ST Shelby Tube (3.0-inch outside diameter, thin-walled tube) advanced with hydraulic pressure |
|---|--|

1110 JACKSON STREET
Oakland, California

LANGAN

CLASSIFICATION CHART

Date 01/19/18	Project No. 750622604	Figure A-14
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Tetra Tech EM Inc.

10670 White Rock Road, Suite 100
Rancho Cordova, California 95670
(916) 852-8300

BORING LOG

BORING NO.:

SB-1

PROJECT NAME: Jackson Towers

PROJECT NUMBER: P2261061BAD0.0030.2C

SOIL BORING MONITORING WELL

SHEET 1 OF 1

PROJECT LOCATION

1110 Jackson Street
Oakland, Alameda County, CA

START DATE

12-27-05

COMPLETION DATE

12-27-05

COMPLETED DEPTH (FEET)

25'

GROUNDWATER DEPTH (FEET)

19' @ 1105

DRILLING CONTRACTOR

PSI

DRILLER

Roberto Estrada

WELL CONSTRUCTION

DRILLING EQUIPMENT

Geoprobe XD-1
Dual well

BORING DIAMETER

outer = 2 1/2"
Inner = 1 3/4"

TYPE AND DIAMETER OF WELL CASING

Temporary 1" Sched 40 PVC

SAMPLING METHOD

California Modified Hand Auger DP

SLOT SIZE

0.010

FILTER MATERIAL

None

LOGGED BY

Bob Azam

BACKFILL MATERIAL

Grouted to surface
by tremie

WELL DEPTH

25'

PERFORATED INTERVAL

20-25'

TIME	DESCRIPTION	DEPTH (FEET)	SAMPLE	UCSC SOIL TYPE	LITHOLOGY	WELL	PID/FID OVA READINGS (ppm)	REMARKS
0830	Asphalt surface							
	Sand with trace silt, dark brown, very moist, loose, no odor. Very fine sand 3' = color changes to light brown. Wet at 3'	100%		SM			∅	∅ Perched water 3.5'-4'
0850	Clay with 5-10% very fine sand, light brown, very moist, stiff, high plasticity, no odor 7'-10': same as above, increasing moisture. Trace orange mottles	100		CL			∅	No odor No free water
0905	10-13': Decrease in moisture to moist/very moist; hard; increase in sand 15-20% Increasing sand 13-14.5': to 30% low plasticity from 13'	100					∅	No odor Hard drilling 13'-16'
	SAND with CLAY, brown, very moist to wet (not saturated), moderately dense, no odor. 30-40% clay, some plasticity. Increasing moisture at 15'	150		SC			∅	Very moist to wet from 13' Increasing moisture Fine-med, subangular to subrounded sand
0940	16'-19': decreasing clay to 25%, some silt Clay with sand, brown to orange-brown, wet, high plasticity, soft, no odor	200		CL			∅	Hard drilling from 19' Increasing moisture
1010	10-15% very fine sand Sand with silt, brown to light brown, wet (saturated), moderately dense, no odor. Dense at 24'; trace clay	80		SM			0.2 0.7	19-22' = slough No free water. Hard drilling Fine, subrounded sand
1055		25						SB-1-GWI @ 110 DTW @ 1210 = 18.2'



Tetra Tech EM Inc.

10670 White Rock Road, Suite 100
Rancho Cordova, California 95670
(916) 852-8300

BORING LOG

BORING NO.:

PROJECT NAME: Jack Son Towers

SB-2

PROJECT NUMBER: P2261.06.1.BADP.0034.AC

SOIL BORING MONITORING WELL

SHEET 1 OF 1

PROJECT LOCATION

1110 Jackson Street
Oakland, Alameda County, CA

START DATE

12-27-05

COMPLETION DATE

12-27-05

COMPLETED DEPTH (FEET)

25'

GROUNDWATER DEPTH (FEET)

25' 2' @ 1245

DRILLING CONTRACTOR

PSI

DRILLER

Roberto Estrada

WELL CONSTRUCTION

DRILLING EQUIPMENT

Geoprobe X D-1
Dual Wall

BORING DIAMETER

Outer = 2 1/2"
Inner = 1 3/4"

TYPE AND DIAMETER OF WELL CASING

Temporary 1" sched 40 PVC

SAMPLING METHOD

California Modified Hand Auger DP

SLOT SIZE

0.010"

FILTER MATERIAL

None

LOGGED BY

Roby Azam

BACKFILL MATERIAL

Grouted to surface
by tremie

WELL DEPTH

25'

PERFORATED INTERVAL

20-25'

TIME	DESCRIPTION	SLUG COUNTS	DEPTH (FEET)	SAMPLE	UCSC SOIL TYPE	LITHOLOGY	WELL	PIDIFID READINGS OVA (ppm)	REMARKS
1125	Asphalt surface (N4")								
	2" layer of concrete								
	Silty Sand, brown, loose, moist, no odor Changes color to light brown to brown at 3'	5%			SM				0-4': material @ float of sleeve, sand catcher did not catch material wet 3-4': perched water
	Clay with sand, light brown to brown, moist to very moist, stiff, med plasticity, no odor trace silt	100%	5		CL				very fine sand to 30%
	changes color to orange brown at 8', increase in moisture to very moist	100%							
	increasing sand and moisture		10						
			11						
1150	Silty sand with clay, light brown to orange brown, very moist, loose to slightly dense, no odor	100	12	X	SM/SC				11.5-12.5': very moist to wet SB-2-12' @ 1155
	12.5': clay with silt and sand, light brown to orange brown, very moist, slightly stiff, low to medium plasticity	100	13						
			15						increasing moisture
	SAND with clay, orange-brown, very moist, slightly loose, no odor, 35-40% clay, some plasticity, change color to brown - light brown at 17' Trace silt; 15-20% clay from 17'	100	17						fine grained sand slightly moist 16-17.5' (Decrease in moisture 16-17.5')
1215	very moist to wet from 19'; No odor		19						not enough moisture to produce wider
	Orange brown at 21', decreasing clay to 10%	100	20						No odor
	Sand with silt, trace clay, light grayish brown, wet (saturated), loose, no odor	100							very fine to fine sand
1235			25						
									SB-2-GW @ 1250 DTW @ 1310 = 19.07



Tetra Tech EM Inc.

10670 White Rock Road, Suite 100
Rancho Cordova, California 95670
(916) 852-8300

BORING LOG

BORING NO.:

PROJECT NAME: Jackson Towers

PROJECT NUMBER: P2261-06-1, BADD, 0030-2C

SB-3

SOIL BORING MONITORING WELL

SHEET 1 OF 1

PROJECT LOCATION

170 11th Street
Oakland, Alameda County, CA

START DATE

12-27-05

COMPLETION DATE

12-27-05

COMPLETED DEPTH (FEET)

22

GROUNDWATER DEPTH (FEET)

18' @ 1600, 19.17 @ 1615

DRILLING CONTRACTOR

PSI

DRILLER

Roberto Estrada

WELL CONSTRUCTION

DRILLING EQUIPMENT

Geoprobe XD-1
Dual wall

BORING DIAMETER

Outer = 2 1/2"
Inner = 1 3/4"

TYPE AND DIAMETER OF WELL CASING

Temporary Sched 40 PVC, 1"

SAMPLING METHOD

California Modified Hand Auger DP

SLOT SIZE

0.010

FILTER MATERIAL

None

LOGGED BY

Bob Azam

BACKFILL MATERIAL

Grouted to surface
by tremie

WELL DEPTH

22 25

PERFORATED INTERVAL

20-25
17-22

TIME	DESCRIPTION	RECOVERY PERCENTAGE	DEPTH (FEET)	SAMPLE	UCSC SOIL TYPE	LITHOLOGY	WELL	PID/FID READINGS OVA (ppm)	REMARKS
1400	Asphalt surface = 4" thick								
	Silty sand, trace clay, dark brown, wet, loose, no odor. Trace silt	20%			SM				very fine to fine sand. Low recovery. 0.5' PID reading from top of hole
	4.5': Clay with sand, light brown, very moist to wet, stiff, med plasticity, no odor. trace silt	75%	5		CL				Fine sand 20-25%
	7-10': same as above with decreasing sand to 15%; orange-brown at 8.5'. Very stiff to hard 7-10'	100%							Trace silt
1435	SAND with clay, orange-brown, very moist to slightly wet, slightly dense, some plasticity, 20-25% clay decrease in clay with depth; trace silt wet from 14' - not enough to produce water	75%	10		SC				Fine-medium subrounded/subangular sand SB-3-12' @ 1435 brown to orange-brown 14-16'
	17-19': 10-15% clay								
	18': change color to light grayish-brown	80%							No odor
	19': increasing clay content and moisture								
	CLAY with sand, grayish-brown, very moist to wet, hard, medium plasticity, no odor	100%	20		SC				No odor
1515	Sand with clay, grayish to orange brown, very moist to wet, slightly dense, no odor								No odor. Not producing water Very hard drilling from 22' Driller suggests flowing sands
	20-22' silty sand with silty, trace clay, light brown to light grayish-brown, wet, loose no odor. Sample is wet not saturated but top of the 20-22' section not free water								NOTE: well pushed down to 25' fine sand. 1555 set test well SB-5-GW 3 @ 1605

Slough 19-22' but is fine silt

APPENDIX D
LABORATORY ANALYTICAL REPORTS



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1801A01

Report Created for: Langan

501 14th Street, 3rd Floor
Oakland, CA 94612

Project Contact: Noel Liner

Project P.O.:

Project: 750622405; 1110 Jackson

Project Received: 01/18/2018

Analytical Report reviewed & approved for release on 01/25/2018 by:

Yen Cao

Project Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: Langan
Project: 750622405; 1110 Jackson
WorkOrder: 1801A01

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



Glossary of Terms & Qualifier Definitions

Client: Langan
Project: 750622405; 1110 Jackson
WorkOrder: 1801A01

Analytical Qualifiers

H Samples were analyzed out of holding time.
S Surrogate spike recovery outside accepted recovery limits.
c2 Surrogate recovery outside of the control limits due to matrix interference.
e2 Diesel range compounds are significant; no recognizable pattern.
e4 Gasoline range compounds are significant.
e7 Oil range compounds are significant.

Quality Control Qualifiers

F1 MS/MSD recovery and/or RPD is out of acceptance criteria; LCS validates the prep batch.



Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/18/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-5	1801A01-001A	Soil	01/17/2018 15:43	GC16 01221814.D	151889

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/22/2018 17:05
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/22/2018 17:05
Benzene	ND	0.0050	1	01/22/2018 17:05
Bromobenzene	ND	0.0050	1	01/22/2018 17:05
Bromochloromethane	ND	0.0050	1	01/22/2018 17:05
Bromodichloromethane	ND	0.0050	1	01/22/2018 17:05
Bromoform	ND	0.0050	1	01/22/2018 17:05
Bromomethane	ND	0.0050	1	01/22/2018 17:05
2-Butanone (MEK)	ND	0.020	1	01/22/2018 17:05
t-Butyl alcohol (TBA)	ND	0.050	1	01/22/2018 17:05
n-Butyl benzene	ND	0.0050	1	01/22/2018 17:05
sec-Butyl benzene	ND	0.0050	1	01/22/2018 17:05
tert-Butyl benzene	ND	0.0050	1	01/22/2018 17:05
Carbon Disulfide	ND	0.0050	1	01/22/2018 17:05
Carbon Tetrachloride	ND	0.0050	1	01/22/2018 17:05
Chlorobenzene	ND	0.0050	1	01/22/2018 17:05
Chloroethane	ND	0.0050	1	01/22/2018 17:05
Chloroform	ND	0.0050	1	01/22/2018 17:05
Chloromethane	ND	0.0050	1	01/22/2018 17:05
2-Chlorotoluene	ND	0.0050	1	01/22/2018 17:05
4-Chlorotoluene	ND	0.0050	1	01/22/2018 17:05
Dibromochloromethane	ND	0.0050	1	01/22/2018 17:05
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/22/2018 17:05
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/22/2018 17:05
Dibromomethane	ND	0.0050	1	01/22/2018 17:05
1,2-Dichlorobenzene	ND	0.0050	1	01/22/2018 17:05
1,3-Dichlorobenzene	ND	0.0050	1	01/22/2018 17:05
1,4-Dichlorobenzene	ND	0.0050	1	01/22/2018 17:05
Dichlorodifluoromethane	ND	0.0050	1	01/22/2018 17:05
1,1-Dichloroethane	ND	0.0050	1	01/22/2018 17:05
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/22/2018 17:05
1,1-Dichloroethene	ND	0.0050	1	01/22/2018 17:05
cis-1,2-Dichloroethene	ND	0.0050	1	01/22/2018 17:05
trans-1,2-Dichloroethene	ND	0.0050	1	01/22/2018 17:05
1,2-Dichloropropane	ND	0.0050	1	01/22/2018 17:05
1,3-Dichloropropane	ND	0.0050	1	01/22/2018 17:05
2,2-Dichloropropane	ND	0.0050	1	01/22/2018 17:05

(Cont.)



Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/18/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-5	1801A01-001A	Soil	01/17/2018 15:43	GC16 01221814.D	151889

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/22/2018 17:05
cis-1,3-Dichloropropene	ND	0.0050	1	01/22/2018 17:05
trans-1,3-Dichloropropene	ND	0.0050	1	01/22/2018 17:05
Diisopropyl ether (DIPE)	ND	0.0050	1	01/22/2018 17:05
Ethylbenzene	ND	0.0050	1	01/22/2018 17:05
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/22/2018 17:05
Freon 113	ND	0.0050	1	01/22/2018 17:05
Hexachlorobutadiene	ND	0.0050	1	01/22/2018 17:05
Hexachloroethane	ND	0.0050	1	01/22/2018 17:05
2-Hexanone	ND	0.0050	1	01/22/2018 17:05
Isopropylbenzene	ND	0.0050	1	01/22/2018 17:05
4-Isopropyl toluene	ND	0.0050	1	01/22/2018 17:05
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/22/2018 17:05
Methylene chloride	ND	0.0050	1	01/22/2018 17:05
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/22/2018 17:05
Naphthalene	ND	0.0050	1	01/22/2018 17:05
n-Propyl benzene	ND	0.0050	1	01/22/2018 17:05
Styrene	ND	0.0050	1	01/22/2018 17:05
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/22/2018 17:05
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/22/2018 17:05
Tetrachloroethene	ND	0.0050	1	01/22/2018 17:05
Toluene	ND	0.0050	1	01/22/2018 17:05
1,2,3-Trichlorobenzene	ND	0.0050	1	01/22/2018 17:05
1,2,4-Trichlorobenzene	ND	0.0050	1	01/22/2018 17:05
1,1,1-Trichloroethane	ND	0.0050	1	01/22/2018 17:05
1,1,2-Trichloroethane	ND	0.0050	1	01/22/2018 17:05
Trichloroethene	ND	0.0050	1	01/22/2018 17:05
Trichlorofluoromethane	ND	0.0050	1	01/22/2018 17:05
1,2,3-Trichloropropane	ND	0.0050	1	01/22/2018 17:05
1,2,4-Trimethylbenzene	ND	0.0050	1	01/22/2018 17:05
1,3,5-Trimethylbenzene	ND	0.0050	1	01/22/2018 17:05
Vinyl Chloride	ND	0.0050	1	01/22/2018 17:05
Xylenes, Total	ND	0.0050	1	01/22/2018 17:05

(Cont.)



Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/18/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-5	1801A01-001A	Soil	01/17/2018 15:43	GC16 01221814.D	151889

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	96	82-136		01/22/2018 17:05
Toluene-d8	98	92-139		01/22/2018 17:05
4-BFB	89	82-135		01/22/2018 17:05
Benzene-d6	78	55-122		01/22/2018 17:05
Ethylbenzene-d10	100	58-141		01/22/2018 17:05
1,2-DCB-d4	67	51-107		01/22/2018 17:05

Analyst(s): KF



Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/18/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-10	1801A01-002A	Soil	01/17/2018 15:55	GC38 01231809.D	151889

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/23/2018 12:46
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/23/2018 12:46
Benzene	ND	0.0050	1	01/23/2018 12:46
Bromobenzene	ND	0.0050	1	01/23/2018 12:46
Bromochloromethane	ND	0.0050	1	01/23/2018 12:46
Bromodichloromethane	ND	0.0050	1	01/23/2018 12:46
Bromoform	ND	0.0050	1	01/23/2018 12:46
Bromomethane	ND	0.0050	1	01/23/2018 12:46
2-Butanone (MEK)	ND	0.020	1	01/23/2018 12:46
t-Butyl alcohol (TBA)	ND	0.050	1	01/23/2018 12:46
n-Butyl benzene	ND	0.0050	1	01/23/2018 12:46
sec-Butyl benzene	ND	0.0050	1	01/23/2018 12:46
tert-Butyl benzene	ND	0.0050	1	01/23/2018 12:46
Carbon Disulfide	ND	0.0050	1	01/23/2018 12:46
Carbon Tetrachloride	ND	0.0050	1	01/23/2018 12:46
Chlorobenzene	ND	0.0050	1	01/23/2018 12:46
Chloroethane	ND	0.0050	1	01/23/2018 12:46
Chloroform	ND	0.0050	1	01/23/2018 12:46
Chloromethane	ND	0.0050	1	01/23/2018 12:46
2-Chlorotoluene	ND	0.0050	1	01/23/2018 12:46
4-Chlorotoluene	ND	0.0050	1	01/23/2018 12:46
Dibromochloromethane	ND	0.0050	1	01/23/2018 12:46
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/23/2018 12:46
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/23/2018 12:46
Dibromomethane	ND	0.0050	1	01/23/2018 12:46
1,2-Dichlorobenzene	ND	0.0050	1	01/23/2018 12:46
1,3-Dichlorobenzene	ND	0.0050	1	01/23/2018 12:46
1,4-Dichlorobenzene	ND	0.0050	1	01/23/2018 12:46
Dichlorodifluoromethane	ND	0.0050	1	01/23/2018 12:46
1,1-Dichloroethane	ND	0.0050	1	01/23/2018 12:46
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/23/2018 12:46
1,1-Dichloroethene	ND	0.0050	1	01/23/2018 12:46
cis-1,2-Dichloroethene	ND	0.0050	1	01/23/2018 12:46
trans-1,2-Dichloroethene	ND	0.0050	1	01/23/2018 12:46
1,2-Dichloropropane	ND	0.0050	1	01/23/2018 12:46
1,3-Dichloropropane	ND	0.0050	1	01/23/2018 12:46
2,2-Dichloropropane	ND	0.0050	1	01/23/2018 12:46

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Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/18/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-10	1801A01-002A	Soil	01/17/2018 15:55	GC38 01231809.D	151889

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/23/2018 12:46
cis-1,3-Dichloropropene	ND	0.0050	1	01/23/2018 12:46
trans-1,3-Dichloropropene	ND	0.0050	1	01/23/2018 12:46
Diisopropyl ether (DIPE)	ND	0.0050	1	01/23/2018 12:46
Ethylbenzene	ND	0.0050	1	01/23/2018 12:46
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/23/2018 12:46
Freon 113	ND	0.0050	1	01/23/2018 12:46
Hexachlorobutadiene	ND	0.0050	1	01/23/2018 12:46
Hexachloroethane	ND	0.0050	1	01/23/2018 12:46
2-Hexanone	ND	0.0050	1	01/23/2018 12:46
Isopropylbenzene	ND	0.0050	1	01/23/2018 12:46
4-Isopropyl toluene	ND	0.0050	1	01/23/2018 12:46
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/23/2018 12:46
Methylene chloride	ND	0.0050	1	01/23/2018 12:46
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/23/2018 12:46
Naphthalene	ND	0.0050	1	01/23/2018 12:46
n-Propyl benzene	ND	0.0050	1	01/23/2018 12:46
Styrene	ND	0.0050	1	01/23/2018 12:46
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/23/2018 12:46
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/23/2018 12:46
Tetrachloroethene	ND	0.0050	1	01/23/2018 12:46
Toluene	ND	0.0050	1	01/23/2018 12:46
1,2,3-Trichlorobenzene	ND	0.0050	1	01/23/2018 12:46
1,2,4-Trichlorobenzene	ND	0.0050	1	01/23/2018 12:46
1,1,1-Trichloroethane	ND	0.0050	1	01/23/2018 12:46
1,1,2-Trichloroethane	ND	0.0050	1	01/23/2018 12:46
Trichloroethene	ND	0.0050	1	01/23/2018 12:46
Trichlorofluoromethane	ND	0.0050	1	01/23/2018 12:46
1,2,3-Trichloropropane	ND	0.0050	1	01/23/2018 12:46
1,2,4-Trimethylbenzene	ND	0.0050	1	01/23/2018 12:46
1,3,5-Trimethylbenzene	ND	0.0050	1	01/23/2018 12:46
Vinyl Chloride	ND	0.0050	1	01/23/2018 12:46
Xylenes, Total	ND	0.0050	1	01/23/2018 12:46

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Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/18/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-10	1801A01-002A	Soil	01/17/2018 15:55	GC38 01231809.D	151889

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	105	82-136		01/23/2018 12:46
Toluene-d8	115	92-139		01/23/2018 12:46
4-BFB	104	82-135		01/23/2018 12:46
Benzene-d6	88	55-122		01/23/2018 12:46
Ethylbenzene-d10	103	58-141		01/23/2018 12:46
1,2-DCB-d4	72	51-107		01/23/2018 12:46

Analyst(s): HK



Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/18/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-13	1801A01-003A	Soil	01/17/2018 16:12	GC10 01221812.D	151889

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/22/2018 17:02
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/22/2018 17:02
Benzene	ND	0.0050	1	01/22/2018 17:02
Bromobenzene	ND	0.0050	1	01/22/2018 17:02
Bromochloromethane	ND	0.0050	1	01/22/2018 17:02
Bromodichloromethane	ND	0.0050	1	01/22/2018 17:02
Bromoform	ND	0.0050	1	01/22/2018 17:02
Bromomethane	ND	0.0050	1	01/22/2018 17:02
2-Butanone (MEK)	ND	0.020	1	01/22/2018 17:02
t-Butyl alcohol (TBA)	ND	0.050	1	01/22/2018 17:02
n-Butyl benzene	ND	0.0050	1	01/22/2018 17:02
sec-Butyl benzene	ND	0.0050	1	01/22/2018 17:02
tert-Butyl benzene	ND	0.0050	1	01/22/2018 17:02
Carbon Disulfide	ND	0.0050	1	01/22/2018 17:02
Carbon Tetrachloride	ND	0.0050	1	01/22/2018 17:02
Chlorobenzene	ND	0.0050	1	01/22/2018 17:02
Chloroethane	ND	0.0050	1	01/22/2018 17:02
Chloroform	ND	0.0050	1	01/22/2018 17:02
Chloromethane	ND	0.0050	1	01/22/2018 17:02
2-Chlorotoluene	ND	0.0050	1	01/22/2018 17:02
4-Chlorotoluene	ND	0.0050	1	01/22/2018 17:02
Dibromochloromethane	ND	0.0050	1	01/22/2018 17:02
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/22/2018 17:02
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/22/2018 17:02
Dibromomethane	ND	0.0050	1	01/22/2018 17:02
1,2-Dichlorobenzene	ND	0.0050	1	01/22/2018 17:02
1,3-Dichlorobenzene	ND	0.0050	1	01/22/2018 17:02
1,4-Dichlorobenzene	ND	0.0050	1	01/22/2018 17:02
Dichlorodifluoromethane	ND	0.0050	1	01/22/2018 17:02
1,1-Dichloroethane	ND	0.0050	1	01/22/2018 17:02
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/22/2018 17:02
1,1-Dichloroethene	ND	0.0050	1	01/22/2018 17:02
cis-1,2-Dichloroethene	ND	0.0050	1	01/22/2018 17:02
trans-1,2-Dichloroethene	ND	0.0050	1	01/22/2018 17:02
1,2-Dichloropropane	ND	0.0050	1	01/22/2018 17:02
1,3-Dichloropropane	ND	0.0050	1	01/22/2018 17:02
2,2-Dichloropropane	ND	0.0050	1	01/22/2018 17:02

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Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/18/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-13	1801A01-003A	Soil	01/17/2018 16:12	GC10 01221812.D	151889

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/22/2018 17:02
cis-1,3-Dichloropropene	ND	0.0050	1	01/22/2018 17:02
trans-1,3-Dichloropropene	ND	0.0050	1	01/22/2018 17:02
Diisopropyl ether (DIPE)	ND	0.0050	1	01/22/2018 17:02
Ethylbenzene	ND	0.0050	1	01/22/2018 17:02
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/22/2018 17:02
Freon 113	ND	0.0050	1	01/22/2018 17:02
Hexachlorobutadiene	ND	0.0050	1	01/22/2018 17:02
Hexachloroethane	ND	0.0050	1	01/22/2018 17:02
2-Hexanone	ND	0.0050	1	01/22/2018 17:02
Isopropylbenzene	ND	0.0050	1	01/22/2018 17:02
4-Isopropyl toluene	ND	0.0050	1	01/22/2018 17:02
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/22/2018 17:02
Methylene chloride	ND	0.0050	1	01/22/2018 17:02
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/22/2018 17:02
Naphthalene	ND	0.0050	1	01/22/2018 17:02
n-Propyl benzene	ND	0.0050	1	01/22/2018 17:02
Styrene	ND	0.0050	1	01/22/2018 17:02
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/22/2018 17:02
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/22/2018 17:02
Tetrachloroethene	ND	0.0050	1	01/22/2018 17:02
Toluene	ND	0.0050	1	01/22/2018 17:02
1,2,3-Trichlorobenzene	ND	0.0050	1	01/22/2018 17:02
1,2,4-Trichlorobenzene	ND	0.0050	1	01/22/2018 17:02
1,1,1-Trichloroethane	ND	0.0050	1	01/22/2018 17:02
1,1,2-Trichloroethane	ND	0.0050	1	01/22/2018 17:02
Trichloroethene	ND	0.0050	1	01/22/2018 17:02
Trichlorofluoromethane	ND	0.0050	1	01/22/2018 17:02
1,2,3-Trichloropropane	ND	0.0050	1	01/22/2018 17:02
1,2,4-Trimethylbenzene	ND	0.0050	1	01/22/2018 17:02
1,3,5-Trimethylbenzene	ND	0.0050	1	01/22/2018 17:02
Vinyl Chloride	ND	0.0050	1	01/22/2018 17:02
Xylenes, Total	ND	0.0050	1	01/22/2018 17:02

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Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/18/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-13	1801A01-003A	Soil	01/17/2018 16:12	GC10 01221812.D	151889

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	101	82-136		01/22/2018 17:02
Toluene-d8	124	92-139		01/22/2018 17:02
4-BFB	96	82-135		01/22/2018 17:02
Benzene-d6	68	55-122		01/22/2018 17:02
Ethylbenzene-d10	95	58-141		01/22/2018 17:02
1,2-DCB-d4	76	51-107		01/22/2018 17:02

Analyst(s): KF



Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/18/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-15	1801A01-004A	Soil	01/17/2018 16:00	GC10 01221813.D	151889

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/22/2018 17:41
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/22/2018 17:41
Benzene	ND	0.0050	1	01/22/2018 17:41
Bromobenzene	ND	0.0050	1	01/22/2018 17:41
Bromochloromethane	ND	0.0050	1	01/22/2018 17:41
Bromodichloromethane	ND	0.0050	1	01/22/2018 17:41
Bromoform	ND	0.0050	1	01/22/2018 17:41
Bromomethane	ND	0.0050	1	01/22/2018 17:41
2-Butanone (MEK)	ND	0.020	1	01/22/2018 17:41
t-Butyl alcohol (TBA)	ND	0.050	1	01/22/2018 17:41
n-Butyl benzene	ND	0.0050	1	01/22/2018 17:41
sec-Butyl benzene	ND	0.0050	1	01/22/2018 17:41
tert-Butyl benzene	ND	0.0050	1	01/22/2018 17:41
Carbon Disulfide	ND	0.0050	1	01/22/2018 17:41
Carbon Tetrachloride	ND	0.0050	1	01/22/2018 17:41
Chlorobenzene	ND	0.0050	1	01/22/2018 17:41
Chloroethane	ND	0.0050	1	01/22/2018 17:41
Chloroform	ND	0.0050	1	01/22/2018 17:41
Chloromethane	ND	0.0050	1	01/22/2018 17:41
2-Chlorotoluene	ND	0.0050	1	01/22/2018 17:41
4-Chlorotoluene	ND	0.0050	1	01/22/2018 17:41
Dibromochloromethane	ND	0.0050	1	01/22/2018 17:41
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/22/2018 17:41
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/22/2018 17:41
Dibromomethane	ND	0.0050	1	01/22/2018 17:41
1,2-Dichlorobenzene	ND	0.0050	1	01/22/2018 17:41
1,3-Dichlorobenzene	ND	0.0050	1	01/22/2018 17:41
1,4-Dichlorobenzene	ND	0.0050	1	01/22/2018 17:41
Dichlorodifluoromethane	ND	0.0050	1	01/22/2018 17:41
1,1-Dichloroethane	ND	0.0050	1	01/22/2018 17:41
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/22/2018 17:41
1,1-Dichloroethene	ND	0.0050	1	01/22/2018 17:41
cis-1,2-Dichloroethene	ND	0.0050	1	01/22/2018 17:41
trans-1,2-Dichloroethene	ND	0.0050	1	01/22/2018 17:41
1,2-Dichloropropane	ND	0.0050	1	01/22/2018 17:41
1,3-Dichloropropane	ND	0.0050	1	01/22/2018 17:41
2,2-Dichloropropane	ND	0.0050	1	01/22/2018 17:41

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Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/18/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-15	1801A01-004A	Soil	01/17/2018 16:00	GC10 01221813.D	151889

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/22/2018 17:41
cis-1,3-Dichloropropene	ND	0.0050	1	01/22/2018 17:41
trans-1,3-Dichloropropene	ND	0.0050	1	01/22/2018 17:41
Diisopropyl ether (DIPE)	ND	0.0050	1	01/22/2018 17:41
Ethylbenzene	ND	0.0050	1	01/22/2018 17:41
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/22/2018 17:41
Freon 113	ND	0.0050	1	01/22/2018 17:41
Hexachlorobutadiene	ND	0.0050	1	01/22/2018 17:41
Hexachloroethane	ND	0.0050	1	01/22/2018 17:41
2-Hexanone	ND	0.0050	1	01/22/2018 17:41
Isopropylbenzene	ND	0.0050	1	01/22/2018 17:41
4-Isopropyl toluene	ND	0.0050	1	01/22/2018 17:41
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/22/2018 17:41
Methylene chloride	ND	0.0050	1	01/22/2018 17:41
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/22/2018 17:41
Naphthalene	ND	0.0050	1	01/22/2018 17:41
n-Propyl benzene	ND	0.0050	1	01/22/2018 17:41
Styrene	ND	0.0050	1	01/22/2018 17:41
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/22/2018 17:41
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/22/2018 17:41
Tetrachloroethene	ND	0.0050	1	01/22/2018 17:41
Toluene	ND	0.0050	1	01/22/2018 17:41
1,2,3-Trichlorobenzene	ND	0.0050	1	01/22/2018 17:41
1,2,4-Trichlorobenzene	ND	0.0050	1	01/22/2018 17:41
1,1,1-Trichloroethane	ND	0.0050	1	01/22/2018 17:41
1,1,2-Trichloroethane	ND	0.0050	1	01/22/2018 17:41
Trichloroethene	ND	0.0050	1	01/22/2018 17:41
Trichlorofluoromethane	ND	0.0050	1	01/22/2018 17:41
1,2,3-Trichloropropane	ND	0.0050	1	01/22/2018 17:41
1,2,4-Trimethylbenzene	ND	0.0050	1	01/22/2018 17:41
1,3,5-Trimethylbenzene	ND	0.0050	1	01/22/2018 17:41
Vinyl Chloride	ND	0.0050	1	01/22/2018 17:41
Xylenes, Total	ND	0.0050	1	01/22/2018 17:41

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Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/18/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-15	1801A01-004A	Soil	01/17/2018 16:00	GC10 01221813.D	151889

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	101	82-136		01/22/2018 17:41
Toluene-d8	122	92-139		01/22/2018 17:41
4-BFB	93	82-135		01/22/2018 17:41
Benzene-d6	74	55-122		01/22/2018 17:41
Ethylbenzene-d10	93	58-141		01/22/2018 17:41
1,2-DCB-d4	70	51-107		01/22/2018 17:41

Analyst(s): KF



Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/18/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-20	1801A01-005A	Soil	01/17/2018 16:10	GC16 01221815.D	151889

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/22/2018 17:56
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/22/2018 17:56
Benzene	ND	0.0050	1	01/22/2018 17:56
Bromobenzene	ND	0.0050	1	01/22/2018 17:56
Bromochloromethane	ND	0.0050	1	01/22/2018 17:56
Bromodichloromethane	ND	0.0050	1	01/22/2018 17:56
Bromoform	ND	0.0050	1	01/22/2018 17:56
Bromomethane	ND	0.0050	1	01/22/2018 17:56
2-Butanone (MEK)	ND	0.020	1	01/22/2018 17:56
t-Butyl alcohol (TBA)	ND	0.050	1	01/22/2018 17:56
n-Butyl benzene	ND	0.0050	1	01/22/2018 17:56
sec-Butyl benzene	ND	0.0050	1	01/22/2018 17:56
tert-Butyl benzene	ND	0.0050	1	01/22/2018 17:56
Carbon Disulfide	ND	0.0050	1	01/22/2018 17:56
Carbon Tetrachloride	ND	0.0050	1	01/22/2018 17:56
Chlorobenzene	ND	0.0050	1	01/22/2018 17:56
Chloroethane	ND	0.0050	1	01/22/2018 17:56
Chloroform	ND	0.0050	1	01/22/2018 17:56
Chloromethane	ND	0.0050	1	01/22/2018 17:56
2-Chlorotoluene	ND	0.0050	1	01/22/2018 17:56
4-Chlorotoluene	ND	0.0050	1	01/22/2018 17:56
Dibromochloromethane	ND	0.0050	1	01/22/2018 17:56
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/22/2018 17:56
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/22/2018 17:56
Dibromomethane	ND	0.0050	1	01/22/2018 17:56
1,2-Dichlorobenzene	ND	0.0050	1	01/22/2018 17:56
1,3-Dichlorobenzene	ND	0.0050	1	01/22/2018 17:56
1,4-Dichlorobenzene	ND	0.0050	1	01/22/2018 17:56
Dichlorodifluoromethane	ND	0.0050	1	01/22/2018 17:56
1,1-Dichloroethane	ND	0.0050	1	01/22/2018 17:56
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/22/2018 17:56
1,1-Dichloroethene	ND	0.0050	1	01/22/2018 17:56
cis-1,2-Dichloroethene	ND	0.0050	1	01/22/2018 17:56
trans-1,2-Dichloroethene	ND	0.0050	1	01/22/2018 17:56
1,2-Dichloropropane	ND	0.0050	1	01/22/2018 17:56
1,3-Dichloropropane	ND	0.0050	1	01/22/2018 17:56
2,2-Dichloropropane	ND	0.0050	1	01/22/2018 17:56

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Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/18/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-20	1801A01-005A	Soil	01/17/2018 16:10	GC16 01221815.D	151889

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/22/2018 17:56
cis-1,3-Dichloropropene	ND	0.0050	1	01/22/2018 17:56
trans-1,3-Dichloropropene	ND	0.0050	1	01/22/2018 17:56
Diisopropyl ether (DIPE)	ND	0.0050	1	01/22/2018 17:56
Ethylbenzene	ND	0.0050	1	01/22/2018 17:56
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/22/2018 17:56
Freon 113	ND	0.0050	1	01/22/2018 17:56
Hexachlorobutadiene	ND	0.0050	1	01/22/2018 17:56
Hexachloroethane	ND	0.0050	1	01/22/2018 17:56
2-Hexanone	ND	0.0050	1	01/22/2018 17:56
Isopropylbenzene	ND	0.0050	1	01/22/2018 17:56
4-Isopropyl toluene	ND	0.0050	1	01/22/2018 17:56
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/22/2018 17:56
Methylene chloride	ND	0.0050	1	01/22/2018 17:56
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/22/2018 17:56
Naphthalene	ND	0.0050	1	01/22/2018 17:56
n-Propyl benzene	ND	0.0050	1	01/22/2018 17:56
Styrene	ND	0.0050	1	01/22/2018 17:56
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/22/2018 17:56
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/22/2018 17:56
Tetrachloroethene	ND	0.0050	1	01/22/2018 17:56
Toluene	ND	0.0050	1	01/22/2018 17:56
1,2,3-Trichlorobenzene	ND	0.0050	1	01/22/2018 17:56
1,2,4-Trichlorobenzene	ND	0.0050	1	01/22/2018 17:56
1,1,1-Trichloroethane	ND	0.0050	1	01/22/2018 17:56
1,1,2-Trichloroethane	ND	0.0050	1	01/22/2018 17:56
Trichloroethene	ND	0.0050	1	01/22/2018 17:56
Trichlorofluoromethane	ND	0.0050	1	01/22/2018 17:56
1,2,3-Trichloropropane	ND	0.0050	1	01/22/2018 17:56
1,2,4-Trimethylbenzene	ND	0.0050	1	01/22/2018 17:56
1,3,5-Trimethylbenzene	ND	0.0050	1	01/22/2018 17:56
Vinyl Chloride	ND	0.0050	1	01/22/2018 17:56
Xylenes, Total	ND	0.0050	1	01/22/2018 17:56

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Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/18/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-20	1801A01-005A	Soil	01/17/2018 16:10	GC16 01221815.D	151889

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	97	82-136		01/22/2018 17:56
Toluene-d8	97	92-139		01/22/2018 17:56
4-BFB	90	82-135		01/22/2018 17:56
Benzene-d6	67	55-122		01/22/2018 17:56
Ethylbenzene-d10	84	58-141		01/22/2018 17:56
1,2-DCB-d4	60	51-107		01/22/2018 17:56

Analyst(s): KF



Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/18/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-23	1801A01-006A	Soil	01/17/2018 16:25	GC16 01221816.D	151889

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/22/2018 18:34
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/22/2018 18:34
Benzene	ND	0.0050	1	01/22/2018 18:34
Bromobenzene	ND	0.0050	1	01/22/2018 18:34
Bromochloromethane	ND	0.0050	1	01/22/2018 18:34
Bromodichloromethane	ND	0.0050	1	01/22/2018 18:34
Bromoform	ND	0.0050	1	01/22/2018 18:34
Bromomethane	ND	0.0050	1	01/22/2018 18:34
2-Butanone (MEK)	ND	0.020	1	01/22/2018 18:34
t-Butyl alcohol (TBA)	ND	0.050	1	01/22/2018 18:34
n-Butyl benzene	ND	0.0050	1	01/22/2018 18:34
sec-Butyl benzene	ND	0.0050	1	01/22/2018 18:34
tert-Butyl benzene	ND	0.0050	1	01/22/2018 18:34
Carbon Disulfide	ND	0.0050	1	01/22/2018 18:34
Carbon Tetrachloride	ND	0.0050	1	01/22/2018 18:34
Chlorobenzene	ND	0.0050	1	01/22/2018 18:34
Chloroethane	ND	0.0050	1	01/22/2018 18:34
Chloroform	ND	0.0050	1	01/22/2018 18:34
Chloromethane	ND	0.0050	1	01/22/2018 18:34
2-Chlorotoluene	ND	0.0050	1	01/22/2018 18:34
4-Chlorotoluene	ND	0.0050	1	01/22/2018 18:34
Dibromochloromethane	ND	0.0050	1	01/22/2018 18:34
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/22/2018 18:34
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/22/2018 18:34
Dibromomethane	ND	0.0050	1	01/22/2018 18:34
1,2-Dichlorobenzene	ND	0.0050	1	01/22/2018 18:34
1,3-Dichlorobenzene	ND	0.0050	1	01/22/2018 18:34
1,4-Dichlorobenzene	ND	0.0050	1	01/22/2018 18:34
Dichlorodifluoromethane	ND	0.0050	1	01/22/2018 18:34
1,1-Dichloroethane	ND	0.0050	1	01/22/2018 18:34
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/22/2018 18:34
1,1-Dichloroethene	ND	0.0050	1	01/22/2018 18:34
cis-1,2-Dichloroethene	ND	0.0050	1	01/22/2018 18:34
trans-1,2-Dichloroethene	ND	0.0050	1	01/22/2018 18:34
1,2-Dichloropropane	ND	0.0050	1	01/22/2018 18:34
1,3-Dichloropropane	ND	0.0050	1	01/22/2018 18:34
2,2-Dichloropropane	ND	0.0050	1	01/22/2018 18:34

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Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/18/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-23	1801A01-006A	Soil	01/17/2018 16:25	GC16 01221816.D	151889

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/22/2018 18:34
cis-1,3-Dichloropropene	ND	0.0050	1	01/22/2018 18:34
trans-1,3-Dichloropropene	ND	0.0050	1	01/22/2018 18:34
Diisopropyl ether (DIPE)	ND	0.0050	1	01/22/2018 18:34
Ethylbenzene	ND	0.0050	1	01/22/2018 18:34
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/22/2018 18:34
Freon 113	ND	0.0050	1	01/22/2018 18:34
Hexachlorobutadiene	ND	0.0050	1	01/22/2018 18:34
Hexachloroethane	ND	0.0050	1	01/22/2018 18:34
2-Hexanone	ND	0.0050	1	01/22/2018 18:34
Isopropylbenzene	ND	0.0050	1	01/22/2018 18:34
4-Isopropyl toluene	ND	0.0050	1	01/22/2018 18:34
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/22/2018 18:34
Methylene chloride	ND	0.0050	1	01/22/2018 18:34
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/22/2018 18:34
Naphthalene	ND	0.0050	1	01/22/2018 18:34
n-Propyl benzene	ND	0.0050	1	01/22/2018 18:34
Styrene	ND	0.0050	1	01/22/2018 18:34
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/22/2018 18:34
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/22/2018 18:34
Tetrachloroethene	ND	0.0050	1	01/22/2018 18:34
Toluene	ND	0.0050	1	01/22/2018 18:34
1,2,3-Trichlorobenzene	ND	0.0050	1	01/22/2018 18:34
1,2,4-Trichlorobenzene	ND	0.0050	1	01/22/2018 18:34
1,1,1-Trichloroethane	ND	0.0050	1	01/22/2018 18:34
1,1,2-Trichloroethane	ND	0.0050	1	01/22/2018 18:34
Trichloroethene	ND	0.0050	1	01/22/2018 18:34
Trichlorofluoromethane	ND	0.0050	1	01/22/2018 18:34
1,2,3-Trichloropropane	ND	0.0050	1	01/22/2018 18:34
1,2,4-Trimethylbenzene	ND	0.0050	1	01/22/2018 18:34
1,3,5-Trimethylbenzene	ND	0.0050	1	01/22/2018 18:34
Vinyl Chloride	ND	0.0050	1	01/22/2018 18:34
Xylenes, Total	ND	0.0050	1	01/22/2018 18:34

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Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/18/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-23	1801A01-006A	Soil	01/17/2018 16:25	GC16 01221816.D	151889

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	97	82-136		01/22/2018 18:34
Toluene-d8	97	92-139		01/22/2018 18:34
4-BFB	88	82-135		01/22/2018 18:34
Benzene-d6	68	55-122		01/22/2018 18:34
Ethylbenzene-d10	85	58-141		01/22/2018 18:34
1,2-DCB-d4	59	51-107		01/22/2018 18:34

Analyst(s): KF



Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/23/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-GW-27	1801A01-007B	Water	01/17/2018 16:31	GC18 01221833.D	152009

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	01/23/2018 04:57
tert-Amyl methyl ether (TAME)	ND	0.50	1	01/23/2018 04:57
Benzene	ND	0.50	1	01/23/2018 04:57
Bromobenzene	ND	0.50	1	01/23/2018 04:57
Bromochloromethane	ND	0.50	1	01/23/2018 04:57
Bromodichloromethane	ND	0.50	1	01/23/2018 04:57
Bromoform	ND	0.50	1	01/23/2018 04:57
Bromomethane	ND	0.50	1	01/23/2018 04:57
2-Butanone (MEK)	ND	2.0	1	01/23/2018 04:57
t-Butyl alcohol (TBA)	ND	2.0	1	01/23/2018 04:57
n-Butyl benzene	ND	0.50	1	01/23/2018 04:57
sec-Butyl benzene	ND	0.50	1	01/23/2018 04:57
tert-Butyl benzene	ND	0.50	1	01/23/2018 04:57
Carbon Disulfide	ND	0.50	1	01/23/2018 04:57
Carbon Tetrachloride	ND	0.50	1	01/23/2018 04:57
Chlorobenzene	ND	0.50	1	01/23/2018 04:57
Chloroethane	ND	0.50	1	01/23/2018 04:57
Chloroform	ND	0.50	1	01/23/2018 04:57
Chloromethane	ND	0.50	1	01/23/2018 04:57
2-Chlorotoluene	ND	0.50	1	01/23/2018 04:57
4-Chlorotoluene	ND	0.50	1	01/23/2018 04:57
Dibromochloromethane	ND	0.50	1	01/23/2018 04:57
1,2-Dibromo-3-chloropropane	ND	0.20	1	01/23/2018 04:57
1,2-Dibromoethane (EDB)	ND	0.50	1	01/23/2018 04:57
Dibromomethane	ND	0.50	1	01/23/2018 04:57
1,2-Dichlorobenzene	ND	0.50	1	01/23/2018 04:57
1,3-Dichlorobenzene	ND	0.50	1	01/23/2018 04:57
1,4-Dichlorobenzene	ND	0.50	1	01/23/2018 04:57
Dichlorodifluoromethane	ND	0.50	1	01/23/2018 04:57
1,1-Dichloroethane	ND	0.50	1	01/23/2018 04:57
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	01/23/2018 04:57
1,1-Dichloroethene	ND	0.50	1	01/23/2018 04:57
cis-1,2-Dichloroethene	1.8	0.50	1	01/23/2018 04:57
trans-1,2-Dichloroethene	ND	0.50	1	01/23/2018 04:57
1,2-Dichloropropane	ND	0.50	1	01/23/2018 04:57
1,3-Dichloropropane	ND	0.50	1	01/23/2018 04:57
2,2-Dichloropropane	ND	0.50	1	01/23/2018 04:57

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Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/23/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-GW-27	1801A01-007B	Water	01/17/2018 16:31	GC18 01221833.D	152009

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	01/23/2018 04:57
cis-1,3-Dichloropropene	ND	0.50	1	01/23/2018 04:57
trans-1,3-Dichloropropene	ND	0.50	1	01/23/2018 04:57
Diisopropyl ether (DIPE)	ND	0.50	1	01/23/2018 04:57
Ethylbenzene	ND	0.50	1	01/23/2018 04:57
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	01/23/2018 04:57
Freon 113	ND	0.50	1	01/23/2018 04:57
Hexachlorobutadiene	ND	0.50	1	01/23/2018 04:57
Hexachloroethane	ND	0.50	1	01/23/2018 04:57
2-Hexanone	ND	0.50	1	01/23/2018 04:57
Isopropylbenzene	ND	0.50	1	01/23/2018 04:57
4-Isopropyl toluene	ND	0.50	1	01/23/2018 04:57
Methyl-t-butyl ether (MTBE)	ND	0.50	1	01/23/2018 04:57
Methylene chloride	ND	0.50	1	01/23/2018 04:57
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	01/23/2018 04:57
Naphthalene	ND	0.50	1	01/23/2018 04:57
n-Propyl benzene	ND	0.50	1	01/23/2018 04:57
Styrene	ND	0.50	1	01/23/2018 04:57
1,1,1,2-Tetrachloroethane	ND	0.50	1	01/23/2018 04:57
1,1,2,2-Tetrachloroethane	ND	0.50	1	01/23/2018 04:57
Tetrachloroethene	1.4	0.50	1	01/23/2018 04:57
Toluene	ND	0.50	1	01/23/2018 04:57
1,2,3-Trichlorobenzene	ND	0.50	1	01/23/2018 04:57
1,2,4-Trichlorobenzene	ND	0.50	1	01/23/2018 04:57
1,1,1-Trichloroethane	ND	0.50	1	01/23/2018 04:57
1,1,2-Trichloroethane	ND	0.50	1	01/23/2018 04:57
Trichloroethene	3.7	0.50	1	01/23/2018 04:57
Trichlorofluoromethane	ND	0.50	1	01/23/2018 04:57
1,2,3-Trichloropropane	ND	0.50	1	01/23/2018 04:57
1,2,4-Trimethylbenzene	ND	0.50	1	01/23/2018 04:57
1,3,5-Trimethylbenzene	ND	0.50	1	01/23/2018 04:57
Vinyl Chloride	ND	0.50	1	01/23/2018 04:57
Xylenes, Total	ND	0.50	1	01/23/2018 04:57

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Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/23/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-GW-27	1801A01-007B	Water	01/17/2018 16:31	GC18 01221833.D	152009

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	118	78-134		01/23/2018 04:57
Toluene-d8	108	82-120		01/23/2018 04:57
4-BFB	105	69-131		01/23/2018 04:57

Analyst(s): KF



Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/23/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DUP1-2018-01-17	1801A01-008B	Water	01/17/2018 16:37	GC28 01231810.D	152112

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	01/23/2018 13:09
tert-Amyl methyl ether (TAME)	ND	0.50	1	01/23/2018 13:09
Benzene	ND	0.50	1	01/23/2018 13:09
Bromobenzene	ND	0.50	1	01/23/2018 13:09
Bromochloromethane	ND	0.50	1	01/23/2018 13:09
Bromodichloromethane	ND	0.50	1	01/23/2018 13:09
Bromoform	ND	0.50	1	01/23/2018 13:09
Bromomethane	ND	0.50	1	01/23/2018 13:09
2-Butanone (MEK)	ND	2.0	1	01/23/2018 13:09
t-Butyl alcohol (TBA)	ND	2.0	1	01/23/2018 13:09
n-Butyl benzene	ND	0.50	1	01/23/2018 13:09
sec-Butyl benzene	ND	0.50	1	01/23/2018 13:09
tert-Butyl benzene	ND	0.50	1	01/23/2018 13:09
Carbon Disulfide	ND	0.50	1	01/23/2018 13:09
Carbon Tetrachloride	ND	0.50	1	01/23/2018 13:09
Chlorobenzene	ND	0.50	1	01/23/2018 13:09
Chloroethane	ND	0.50	1	01/23/2018 13:09
Chloroform	ND	0.50	1	01/23/2018 13:09
Chloromethane	ND	0.50	1	01/23/2018 13:09
2-Chlorotoluene	ND	0.50	1	01/23/2018 13:09
4-Chlorotoluene	ND	0.50	1	01/23/2018 13:09
Dibromochloromethane	ND	0.50	1	01/23/2018 13:09
1,2-Dibromo-3-chloropropane	ND	0.20	1	01/23/2018 13:09
1,2-Dibromoethane (EDB)	ND	0.50	1	01/23/2018 13:09
Dibromomethane	ND	0.50	1	01/23/2018 13:09
1,2-Dichlorobenzene	ND	0.50	1	01/23/2018 13:09
1,3-Dichlorobenzene	ND	0.50	1	01/23/2018 13:09
1,4-Dichlorobenzene	ND	0.50	1	01/23/2018 13:09
Dichlorodifluoromethane	ND	0.50	1	01/23/2018 13:09
1,1-Dichloroethane	ND	0.50	1	01/23/2018 13:09
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	01/23/2018 13:09
1,1-Dichloroethene	ND	0.50	1	01/23/2018 13:09
cis-1,2-Dichloroethene	2.0	0.50	1	01/23/2018 13:09
trans-1,2-Dichloroethene	ND	0.50	1	01/23/2018 13:09
1,2-Dichloropropane	ND	0.50	1	01/23/2018 13:09
1,3-Dichloropropane	ND	0.50	1	01/23/2018 13:09
2,2-Dichloropropane	ND	0.50	1	01/23/2018 13:09

(Cont.)



Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/23/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DUP1-2018-01-17	1801A01-008B	Water	01/17/2018 16:37	GC28 01231810.D	152112

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	01/23/2018 13:09
cis-1,3-Dichloropropene	ND	0.50	1	01/23/2018 13:09
trans-1,3-Dichloropropene	ND	0.50	1	01/23/2018 13:09
Diisopropyl ether (DIPE)	ND	0.50	1	01/23/2018 13:09
Ethylbenzene	ND	0.50	1	01/23/2018 13:09
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	01/23/2018 13:09
Freon 113	ND	0.50	1	01/23/2018 13:09
Hexachlorobutadiene	ND	0.50	1	01/23/2018 13:09
Hexachloroethane	ND	0.50	1	01/23/2018 13:09
2-Hexanone	ND	0.50	1	01/23/2018 13:09
Isopropylbenzene	ND	0.50	1	01/23/2018 13:09
4-Isopropyl toluene	ND	0.50	1	01/23/2018 13:09
Methyl-t-butyl ether (MTBE)	ND	0.50	1	01/23/2018 13:09
Methylene chloride	ND	0.50	1	01/23/2018 13:09
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	01/23/2018 13:09
Naphthalene	ND	0.50	1	01/23/2018 13:09
n-Propyl benzene	ND	0.50	1	01/23/2018 13:09
Styrene	ND	0.50	1	01/23/2018 13:09
1,1,1,2-Tetrachloroethane	ND	0.50	1	01/23/2018 13:09
1,1,2,2-Tetrachloroethane	ND	0.50	1	01/23/2018 13:09
Tetrachloroethene	1.5	0.50	1	01/23/2018 13:09
Toluene	ND	0.50	1	01/23/2018 13:09
1,2,3-Trichlorobenzene	ND	0.50	1	01/23/2018 13:09
1,2,4-Trichlorobenzene	ND	0.50	1	01/23/2018 13:09
1,1,1-Trichloroethane	ND	0.50	1	01/23/2018 13:09
1,1,2-Trichloroethane	ND	0.50	1	01/23/2018 13:09
Trichloroethene	4.4	0.50	1	01/23/2018 13:09
Trichlorofluoromethane	ND	0.50	1	01/23/2018 13:09
1,2,3-Trichloropropane	ND	0.50	1	01/23/2018 13:09
1,2,4-Trimethylbenzene	ND	0.50	1	01/23/2018 13:09
1,3,5-Trimethylbenzene	ND	0.50	1	01/23/2018 13:09
Vinyl Chloride	ND	0.50	1	01/23/2018 13:09
Xylenes, Total	ND	0.50	1	01/23/2018 13:09

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Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/23/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DUP1-2018-01-17	1801A01-008B	Water	01/17/2018 16:37	GC28 01231810.D	152112

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	129	78-134		01/23/2018 13:09
Toluene-d8	120	82-120		01/23/2018 13:09
4-BFB	92	69-131		01/23/2018 13:09

Analyst(s): HK



Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/18/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-5	1801A01-001A	Soil	01/17/2018 15:43	GC19 01191836.D	151888

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/20/2018 06:26
MTBE	---	0.050	1	01/20/2018 06:26
Benzene	---	0.0050	1	01/20/2018 06:26
Toluene	---	0.0050	1	01/20/2018 06:26
Ethylbenzene	---	0.0050	1	01/20/2018 06:26
Xylenes	---	0.0050	1	01/20/2018 06:26

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	93	62-126	01/20/2018 06:26

Analyst(s): TD

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-10	1801A01-002A	Soil	01/17/2018 15:55	GC19 01191837.D	151888

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/20/2018 06:56
MTBE	---	0.050	1	01/20/2018 06:56
Benzene	---	0.0050	1	01/20/2018 06:56
Toluene	---	0.0050	1	01/20/2018 06:56
Ethylbenzene	---	0.0050	1	01/20/2018 06:56
Xylenes	---	0.0050	1	01/20/2018 06:56

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	92	62-126	01/20/2018 06:56

Analyst(s): TD

(Cont.)



Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/18/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-13	1801A01-003A	Soil	01/17/2018 16:12	GC19 01191840.D	151888

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/20/2018 08:26
MTBE	---	0.050	1	01/20/2018 08:26
Benzene	---	0.0050	1	01/20/2018 08:26
Toluene	---	0.0050	1	01/20/2018 08:26
Ethylbenzene	---	0.0050	1	01/20/2018 08:26
Xylenes	---	0.0050	1	01/20/2018 08:26

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	87	62-126	01/20/2018 08:26

Analyst(s): TD

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-15	1801A01-004A	Soil	01/17/2018 16:00	GC19 01191844.D	151888

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/20/2018 10:26
MTBE	---	0.050	1	01/20/2018 10:26
Benzene	---	0.0050	1	01/20/2018 10:26
Toluene	---	0.0050	1	01/20/2018 10:26
Ethylbenzene	---	0.0050	1	01/20/2018 10:26
Xylenes	---	0.0050	1	01/20/2018 10:26

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	88	62-126	01/20/2018 10:26

Analyst(s): TD



Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/18/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-20	1801A01-005A	Soil	01/17/2018 16:10	GC19 01191847.D	151888

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/20/2018 11:58
MTBE	---	0.050	1	01/20/2018 11:58
Benzene	---	0.0050	1	01/20/2018 11:58
Toluene	---	0.0050	1	01/20/2018 11:58
Ethylbenzene	---	0.0050	1	01/20/2018 11:58
Xylenes	---	0.0050	1	01/20/2018 11:58
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	88	62-126		01/20/2018 11:58

Analyst(s): TD

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-23	1801A01-006A	Soil	01/17/2018 16:25	GC19 01201811.D	151888

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/20/2018 18:31
MTBE	---	0.050	1	01/20/2018 18:31
Benzene	---	0.0050	1	01/20/2018 18:31
Toluene	---	0.0050	1	01/20/2018 18:31
Ethylbenzene	---	0.0050	1	01/20/2018 18:31
Xylenes	---	0.0050	1	01/20/2018 18:31
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	80	62-126		01/20/2018 18:31

Analyst(s): TD



Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/19/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-GW-27	1801A01-007A	Water	01/17/2018 16:31	GC7 01191817.D	151998

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	01/19/2018 19:29
MTBE	---	5.0	1	01/19/2018 19:29
Benzene	---	0.50	1	01/19/2018 19:29
Toluene	---	0.50	1	01/19/2018 19:29
Ethylbenzene	---	0.50	1	01/19/2018 19:29
Xylenes	---	0.50	1	01/19/2018 19:29

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
aaa-TFT	131	S	90-117	01/19/2018 19:29

Analyst(s): TD

Analytical Comments: c2

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DUP1-2018-01-17	1801A01-008A	Water	01/17/2018 16:37	GC7 01191818.D	151998

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	01/19/2018 19:58
MTBE	---	5.0	1	01/19/2018 19:58
Benzene	---	0.50	1	01/19/2018 19:58
Toluene	---	0.50	1	01/19/2018 19:58
Ethylbenzene	---	0.50	1	01/19/2018 19:58
Xylenes	---	0.50	1	01/19/2018 19:58

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
aaa-TFT	132	S	90-117	01/19/2018 19:58

Analyst(s): TD

Analytical Comments: c2



Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/18/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-5	1801A01-001A	Soil	01/17/2018 15:43	GC6B 01191857.D	151814

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	01/20/2018 22:07
TPH-Motor Oil (C18-C36)	ND	5.0	1	01/20/2018 22:07

Surrogates	REC (%)	Limits	Date Analyzed
C9	105	74-123	01/20/2018 22:07

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-10	1801A01-002A	Soil	01/17/2018 15:55	GC6B 01191837.D	151814

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	01/20/2018 15:39
TPH-Motor Oil (C18-C36)	ND	5.0	1	01/20/2018 15:39

Surrogates	REC (%)	Limits	Date Analyzed
C9	105	74-123	01/20/2018 15:39

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-13	1801A01-003A	Soil	01/17/2018 16:12	GC6B 01191845.D	151814

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	01/20/2018 18:14
TPH-Motor Oil (C18-C36)	ND	5.0	1	01/20/2018 18:14

Surrogates	REC (%)	Limits	Date Analyzed
C9	105	74-123	01/20/2018 18:14

Analyst(s): TK

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Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/18/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-15	1801A01-004A	Soil	01/17/2018 16:00	GC6B 01191861.D	151814

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	01/20/2018 23:24
TPH-Motor Oil (C18-C36)	ND	5.0	1	01/20/2018 23:24

Surrogates	REC (%)	Limits	Date Analyzed
C9	106	74-123	01/20/2018 23:24

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-20	1801A01-005A	Soil	01/17/2018 16:10	GC6B 01191849.D	151814

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	01/20/2018 19:32
TPH-Motor Oil (C18-C36)	ND	5.0	1	01/20/2018 19:32

Surrogates	REC (%)	Limits	Date Analyzed
C9	106	74-123	01/20/2018 19:32

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-23	1801A01-006A	Soil	01/17/2018 16:25	GC6B 01191853.D	151814

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	01/20/2018 20:49
TPH-Motor Oil (C18-C36)	6.8	5.0	1	01/20/2018 20:49

Surrogates	REC (%)	Limits	Date Analyzed
C9	105	74-123	01/20/2018 20:49

Analyst(s): TK

Analytical Comments: e7



Analytical Report

Client: Langan
Date Received: 1/18/18 15:00
Date Prepared: 1/18/18-1/25/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
Extraction Method: SW3510C
Analytical Method: SW8015B
Unit: µg/L

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-GW-27	1801A01-007A	Water	01/17/2018 16:31	GC6B 01241871.D	152178

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	110	H	50	1	01/25/2018 12:02
TPH-Motor Oil (C18-C36)	ND	H	250	1	01/25/2018 12:02

Surrogates	REC (%)	Qualifiers	Limits	
C9	107	H	61-139	01/25/2018 12:02

Analyst(s): JIS **Analytical Comments:** e2

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DUP1-2018-01-17	1801A01-008A	Water	01/17/2018 16:37	GC11A 01221866.D	151880

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	180		50	1	01/23/2018 06:38
TPH-Motor Oil (C18-C36)	ND		250	1	01/23/2018 06:38

Surrogates	REC (%)	Qualifiers	Limits	
C9	117		61-139	01/23/2018 06:38

Analyst(s): TK **Analytical Comments:** e2,e4



Quality Control Report

Client: Langan
Date Prepared: 1/18/18
Date Analyzed: 1/22/18 - 1/23/18
Instrument: GC28, GC38
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
BatchID: 151889
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151889
 1801A01-002AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	1.20	0.10	1	-	120	48-156
tert-Amyl methyl ether (TAME)	ND	0.0392	0.0050	0.050	-	78	56-115
Benzene	ND	0.0489	0.0050	0.050	-	98	63-131
Bromobenzene	ND	0.0482	0.0050	0.050	-	96	66-127
Bromochloromethane	ND	0.0459	0.0050	0.050	-	92	64-124
Bromodichloromethane	ND	0.0484	0.0050	0.050	-	97	64-120
Bromoform	ND	0.0394	0.0050	0.050	-	79	48-92
Bromomethane	ND	0.0501	0.0050	0.050	-	100	25-163
2-Butanone (MEK)	ND	0.183	0.020	0.20	-	91	51-133
t-Butyl alcohol (TBA)	ND	0.205	0.050	0.20	-	102	52-129
n-Butyl benzene	ND	0.0745	0.0050	0.050	-	149	83-200
sec-Butyl benzene	ND	0.0713	0.0050	0.050	-	143	81-199
tert-Butyl benzene	ND	0.0645	0.0050	0.050	-	129	79-178
Carbon Disulfide	ND	0.0495	0.0050	0.050	-	99	64-136
Carbon Tetrachloride	ND	0.0545	0.0050	0.050	-	109	66-140
Chlorobenzene	ND	0.0477	0.0050	0.050	-	95	73-116
Chloroethane	ND	0.0485	0.0050	0.050	-	97	35-147
Chloroform	ND	0.0491	0.0050	0.050	-	98	65-130
Chloromethane	ND	0.0405	0.0050	0.050	-	81	30-137
2-Chlorotoluene	ND	0.0597	0.0050	0.050	-	119	75-152
4-Chlorotoluene	ND	0.0553	0.0050	0.050	-	111	71-148
Dibromochloromethane	ND	0.0424	0.0050	0.050	-	85	61-106
1,2-Dibromo-3-chloropropane	ND	0.0156	0.0040	0.020	-	78	36-120
1,2-Dibromoethane (EDB)	ND	0.0410	0.0040	0.050	-	82	67-118
Dibromomethane	ND	0.0474	0.0050	0.050	-	95	61-116
1,2-Dichlorobenzene	ND	0.0464	0.0050	0.050	-	93	59-106
1,3-Dichlorobenzene	ND	0.0557	0.0050	0.050	-	111	75-129
1,4-Dichlorobenzene	ND	0.0476	0.0050	0.050	-	95	66-127
Dichlorodifluoromethane	ND	0.0192	0.0050	0.050	-	38	13-74
1,1-Dichloroethane	ND	0.0518	0.0050	0.050	-	103	65-134
1,2-Dichloroethane (1,2-DCA)	ND	0.0458	0.0040	0.050	-	92	57-131
1,1-Dichloroethene	ND	0.0531	0.0050	0.050	-	106	62-127
cis-1,2-Dichloroethene	ND	0.0489	0.0050	0.050	-	98	66-130
trans-1,2-Dichloroethene	ND	0.0531	0.0050	0.050	-	106	60-131
1,2-Dichloropropane	ND	0.0477	0.0050	0.050	-	95	63-127
1,3-Dichloropropane	ND	0.0445	0.0050	0.050	-	89	68-124
2,2-Dichloropropane	ND	0.0586	0.0050	0.050	-	117	63-150

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Quality Control Report

Client: Langan
Date Prepared: 1/18/18
Date Analyzed: 1/22/18 - 1/23/18
Instrument: GC28, GC38
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
BatchID: 151889
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151889
 1801A01-002AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,1-Dichloropropene	ND	0.0538	0.0050	0.050	-	108	67-134
cis-1,3-Dichloropropene	ND	0.0474	0.0050	0.050	-	95	65-138
trans-1,3-Dichloropropene	ND	0.0498	0.0050	0.050	-	100	66-124
Diisopropyl ether (DIPE)	ND	0.0441	0.0050	0.050	-	88	58-129
Ethylbenzene	ND	0.0555	0.0050	0.050	-	111	73-145
Ethyl tert-butyl ether (ETBE)	ND	0.0462	0.0050	0.050	-	92	62-125
Freon 113	ND	0.0477	0.0050	0.050	-	95	55-116
Hexachlorobutadiene	ND	0.0636	0.0050	0.050	-	127	75-178
Hexachloroethane	ND	0.0649	0.0050	0.050	-	130	75-152
2-Hexanone	ND	0.0341	0.0050	0.050	-	68	41-113
Isopropylbenzene	ND	0.0658	0.0050	0.050	-	132	67-172
4-Isopropyl toluene	ND	0.0709	0.0050	0.050	-	142	88-171
Methyl-t-butyl ether (MTBE)	ND	0.0492	0.0050	0.050	-	98	58-122
Methylene chloride	ND	0.0529	0.0050	0.050	-	106	57-140
4-Methyl-2-pentanone (MIBK)	ND	0.0354	0.0050	0.050	-	71	42-117
Naphthalene	ND	0.0203	0.0050	0.050	-	41	29-65
n-Propyl benzene	ND	0.0710	0.0050	0.050	-	142	85-174
Styrene	ND	0.0451	0.0050	0.050	-	90	63-126
1,1,1,2-Tetrachloroethane	ND	0.0480	0.0050	0.050	-	96	68-131
1,1,2,2-Tetrachloroethane	ND	0.0323	0.0050	0.050	-	65	45-121
Tetrachloroethene	ND	0.0546	0.0050	0.050	-	109	65-150
Toluene	ND	0.0538	0.0050	0.050	-	107	72-135
1,2,3-Trichlorobenzene	ND	0.0290	0.0050	0.050	-	58	35-80
1,2,4-Trichlorobenzene	ND	0.0401	0.0050	0.050	-	80	45-103
1,1,1-Trichloroethane	ND	0.0513	0.0050	0.050	-	103	67-137
1,1,2-Trichloroethane	ND	0.0422	0.0050	0.050	-	84	67-117
Trichloroethene	ND	0.0555	0.0050	0.050	-	111	62-135
Trichlorofluoromethane	ND	0.0504	0.0050	0.050	-	101	56-124
1,2,3-Trichloropropane	ND	0.0468	0.0050	0.050	-	94	58-133
1,2,4-Trimethylbenzene	ND	0.0642	0.0050	0.050	-	128	78-161
1,3,5-Trimethylbenzene	ND	0.0634	0.0050	0.050	-	127	85-170
Vinyl Chloride	ND	0.0520	0.0050	0.050	-	104	32-142
Xylenes, Total	ND	0.155	0.0050	0.15	-	103	70-137

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 1/18/18
Date Analyzed: 1/22/18 - 1/23/18
Instrument: GC28, GC38
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
BatchID: 151889
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151889
 1801A01-002AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
Dibromofluoromethane	0.134	0.151		0.12	107	121	87-127
Toluene-d8	0.170	0.172		0.12	136	138	93-141
4-BFB	0.0138	0.0145		0.012	110	116	84-137
Benzene-d6	0.0931	0.101		0.10	93	101	67-131
Ethylbenzene-d10	0.114	0.114		0.10	114	114	78-153
1,2-DCB-d4	0.0981	0.0989		0.10	98	99	63-109



Quality Control Report

Client: Langan
Date Prepared: 1/18/18
Date Analyzed: 1/22/18 - 1/23/18
Instrument: GC28, GC38
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
BatchID: 151889
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151889
 1801A01-002AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Acetone	0.704	0.811	1	ND	70	81	36-141	14.2	20
tert-Amyl methyl ether (TAME)	0.0344	0.0390	0.050	ND	69	78	46-105	12.6	20
Benzene	0.0398	0.0460	0.050	ND	80	92	46-124	14.5	20
Bromobenzene	0.0451	0.0480	0.050	ND	90	96	50-119	6.29	20
Bromochloromethane	0.0408	0.0464	0.050	ND	81	93	42-122	13.0	20
Bromodichloromethane	0.0382	0.0435	0.050	ND	76	87	48-112	13.0	20
Bromoform	0.0310	0.0311	0.050	ND	62	62	36-90	0	20
Bromomethane	0.0424	0.0485	0.050	ND	85	97	10-149	13.5	20
2-Butanone (MEK)	0.139	0.147	0.20	ND	60	64	43-114	5.88	20
t-Butyl alcohol (TBA)	0.127	0.148	0.20	ND	63	74	33-123	15.6	20
n-Butyl benzene	0.0589	0.0645	0.050	ND	118	129	40-185	9.06	20
sec-Butyl benzene	0.0647	0.0720	0.050	ND	129	144	40-183	10.6	20
tert-Butyl benzene	0.0579	0.0648	0.050	ND	116	130	44-168	11.3	20
Carbon Disulfide	0.0383	0.0448	0.050	ND	77	90	23-139	15.7	20
Carbon Tetrachloride	0.0415	0.0484	0.050	ND	83	97	43-133	15.4	20
Chlorobenzene	0.0438	0.0460	0.050	ND	88	92	51-115	4.93	20
Chloroethane	0.0389	0.0438	0.050	ND	78	88	16-138	12.0	20
Chloroform	0.0439	0.0506	0.050	ND	88	101	54-117	14.3	20
Chloromethane	0.0322	0.0382	0.050	ND	64	77	14-128	17.3	20
2-Chlorotoluene	0.0537	0.0581	0.050	ND	107	116	54-141	7.80	20
4-Chlorotoluene	0.0519	0.0550	0.050	ND	104	110	52-134	5.79	20
Dibromochloromethane	0.0363	0.0374	0.050	ND	73	75	46-102	2.98	20
1,2-Dibromo-3-chloropropane	0.0126	0.0134	0.020	ND	63	67	16-120	6.29	20
1,2-Dibromoethane (EDB)	0.0422	0.0437	0.050	ND	84	87	48-113	3.40	20
Dibromomethane	0.0374	0.0428	0.050	ND	75	86	44-110	13.4	20
1,2-Dichlorobenzene	0.0382	0.0406	0.050	ND	76	81	43-106	6.18	20
1,3-Dichlorobenzene	0.0485	0.0521	0.050	ND	97	104	49-128	7.16	20
1,4-Dichlorobenzene	0.0452	0.0475	0.050	ND	90	95	48-120	5.04	20
Dichlorodifluoromethane	0.0149	0.0176	0.050	ND	30	35	8-63	16.9	20
1,1-Dichloroethane	0.0426	0.0494	0.050	ND	85	99	50-122	15.0	20
1,2-Dichloroethane (1,2-DCA)	0.0372	0.0426	0.050	ND	75	85	46-116	13.4	20
1,1-Dichloroethene	0.0443	0.0516	0.050	ND	89	103	37-124	15.1	20
cis-1,2-Dichloroethene	0.0421	0.0485	0.050	ND	84	97	47-123	14.0	20
trans-1,2-Dichloroethene	0.0409	0.0476	0.050	ND	82	95	31-131	15.1	20
1,2-Dichloropropane	0.0416	0.0479	0.050	ND	83	96	50-116	13.9	20
1,3-Dichloropropane	0.0399	0.0414	0.050	ND	80	83	52-115	3.74	20
2,2-Dichloropropane	0.0450	0.0528	0.050	ND	90	106	43-137	15.9	20

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Quality Control Report

Client: Langan
Date Prepared: 1/18/18
Date Analyzed: 1/22/18 - 1/23/18
Instrument: GC28, GC38
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
BatchID: 151889
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151889
 1801A01-002AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
1,1-Dichloropropene	0.0442	0.0514	0.050	ND	88	103	43-126	15.0	20
cis-1,3-Dichloropropene	0.0426	0.0443	0.050	ND	85	89	35-134	3.98	20
trans-1,3-Dichloropropene	0.0408	0.0423	0.050	ND	82	85	35-124	3.53	20
Diisopropyl ether (DIPE)	0.0391	0.0447	0.050	ND	78	89	49-116	13.5	20
Ethylbenzene	0.0478	0.0510	0.050	ND	96	102	49-137	6.44	20
Ethyl tert-butyl ether (ETBE)	0.0375	0.0427	0.050	ND	75	85	50-113	13.0	20
Freon 113	0.0361	0.0419	0.050	ND	72	84	28-114	14.8	20
Hexachlorobutadiene	0.0598	0.0661	0.050	ND	120	132	22-180	9.97	20
Hexachloroethane	0.0562	0.0624	0.050	ND	113	125	28-158	10.3	20
2-Hexanone	0.0300	0.0312	0.050	ND	60	62	31-102	3.88	20
Isopropylbenzene	0.0574	0.0638	0.050	ND	115	128	50-153	10.5	20
4-Isopropyl toluene	0.0607	0.0662	0.050	ND	121	132	41-171	8.74	20
Methyl-t-butyl ether (MTBE)	0.0362	0.0413	0.050	ND	72	83	48-110	13.3	20
Methylene chloride	0.0395	0.0464	0.050	ND	79	93	42-127	16.1	20
4-Methyl-2-pentanone (MIBK)	0.0339	0.0351	0.050	ND	68	70	24-114	3.58	20
Naphthalene	0.0193	0.0197	0.050	ND	39	39	19-69	0	20
n-Propyl benzene	0.0606	0.0683	0.050	ND	121	137	46-168	12.0	20
Styrene	0.0370	0.0389	0.050	ND	74	78	42-122	4.93	20
1,1,1,2-Tetrachloroethane	0.0457	0.0481	0.050	ND	91	96	52-121	5.13	20
1,1,2,2-Tetrachloroethane	0.0392	0.0413	0.050	ND	78	83	27-116	5.04	20
Tetrachloroethene	0.0494	0.0526	0.050	ND	99	105	37-149	6.29	20
Toluene	0.0441	0.0466	0.050	ND	88	93	52-124	5.56	20
1,2,3-Trichlorobenzene	0.0288	0.0291	0.050	ND	58	58	20-86	0	20
1,2,4-Trichlorobenzene	0.0364	0.0379	0.050	ND	73	76	24-107	4.01	20
1,1,1-Trichloroethane	0.0437	0.0514	0.050	ND	87	103	48-128	16.2	20
1,1,2-Trichloroethane	0.0396	0.0406	0.050	ND	79	81	51-110	2.43	20
Trichloroethene	0.0444	0.0518	0.050	ND	89	104	42-128	15.2	20
Trichlorofluoromethane	0.0344	0.0422	0.050	ND	69	84	31-121	20.2,F1	20
1,2,3-Trichloropropane	0.0413	0.0438	0.050	ND	83	88	50-115	5.99	20
1,2,4-Trimethylbenzene	0.0574	0.0624	0.050	ND	115	125	48-151	8.20	20
1,3,5-Trimethylbenzene	0.0576	0.0634	0.050	ND	115	127	51-159	9.45	20
Vinyl Chloride	0.0429	0.0500	0.050	ND	86	100	11-136	15.5	20
Xylenes, Total	0.137	0.153	0.15	ND	91	102	38-141	11.3	20

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Quality Control Report

Client: Langan
Date Prepared: 1/18/18
Date Analyzed: 1/22/18 - 1/23/18
Instrument: GC28, GC38
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
BatchID: 151889
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151889
 1801A01-002AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Surrogate Recovery									
Dibromofluoromethane	0.125	0.136	0.12		100	109	82-136	8.54	20
Toluene-d8	0.142	0.141	0.12		114	113	92-139	0.865	20
4-BFB	0.0134	0.0136	0.012		108	109	82-135	0.968	20
Benzene-d6	0.0792	0.0926	0.10		79	93	55-122	15.6	20
Ethylbenzene-d10	0.103	0.112	0.10		103	111	58-141	8.29	20
1,2-DCB-d4	0.0728	0.0791	0.10		73	79	51-107	8.20	20



Quality Control Report

Client: Langan
Date Prepared: 1/22/18
Date Analyzed: 1/22/18
Instrument: GC18
Matrix: Water
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
BatchID: 152009
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS/LCSD-152009

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Acetone	ND	10	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.50	-	-	-
Benzene	ND	0.50	-	-	-
Bromobenzene	ND	0.50	-	-	-
Bromochloromethane	ND	0.50	-	-	-
Bromodichloromethane	ND	0.50	-	-	-
Bromoform	ND	0.50	-	-	-
Bromomethane	ND	0.50	-	-	-
2-Butanone (MEK)	ND	2.0	-	-	-
t-Butyl alcohol (TBA)	ND	2.0	-	-	-
n-Butyl benzene	ND	0.50	-	-	-
sec-Butyl benzene	ND	0.50	-	-	-
tert-Butyl benzene	ND	0.50	-	-	-
Carbon Disulfide	ND	0.50	-	-	-
Carbon Tetrachloride	ND	0.50	-	-	-
Chlorobenzene	ND	0.50	-	-	-
Chloroethane	ND	0.50	-	-	-
Chloroform	ND	0.50	-	-	-
Chloromethane	ND	0.50	-	-	-
2-Chlorotoluene	ND	0.50	-	-	-
4-Chlorotoluene	ND	0.50	-	-	-
Dibromochloromethane	ND	0.50	-	-	-
1,2-Dibromo-3-chloropropane	ND	0.20	-	-	-
1,2-Dibromoethane (EDB)	ND	0.50	-	-	-
Dibromomethane	ND	0.50	-	-	-
1,2-Dichlorobenzene	ND	0.50	-	-	-
1,3-Dichlorobenzene	ND	0.50	-	-	-
1,4-Dichlorobenzene	ND	0.50	-	-	-
Dichlorodifluoromethane	ND	0.50	-	-	-
1,1-Dichloroethane	ND	0.50	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.50	-	-	-
1,1-Dichloroethene	ND	0.50	-	-	-
cis-1,2-Dichloroethene	ND	0.50	-	-	-
trans-1,2-Dichloroethene	ND	0.50	-	-	-
1,2-Dichloropropane	ND	0.50	-	-	-
1,3-Dichloropropane	ND	0.50	-	-	-
2,2-Dichloropropane	ND	0.50	-	-	-
1,1-Dichloropropene	ND	0.50	-	-	-
cis-1,3-Dichloropropene	ND	0.50	-	-	-

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 1/22/18
Date Analyzed: 1/22/18
Instrument: GC18
Matrix: Water
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
BatchID: 152009
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS/LCSD-152009

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
trans-1,3-Dichloropropene	ND	0.50	-	-	-
Diisopropyl ether (DIPE)	ND	0.50	-	-	-
Ethylbenzene	ND	0.50	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.50	-	-	-
Freon 113	ND	0.50	-	-	-
Hexachlorobutadiene	ND	0.50	-	-	-
Hexachloroethane	ND	0.50	-	-	-
2-Hexanone	ND	0.50	-	-	-
Isopropylbenzene	ND	0.50	-	-	-
4-Isopropyl toluene	ND	0.50	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.50	-	-	-
Methylene chloride	ND	0.50	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	0.50	-	-	-
Naphthalene	ND	0.50	-	-	-
n-Propyl benzene	ND	0.50	-	-	-
Styrene	ND	0.50	-	-	-
1,1,1,2-Tetrachloroethane	ND	0.50	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.50	-	-	-
Tetrachloroethene	ND	0.50	-	-	-
Toluene	ND	0.50	-	-	-
1,2,3-Trichlorobenzene	ND	0.50	-	-	-
1,2,4-Trichlorobenzene	ND	0.50	-	-	-
1,1,1-Trichloroethane	ND	0.50	-	-	-
1,1,2-Trichloroethane	ND	0.50	-	-	-
Trichloroethene	ND	0.50	-	-	-
Trichlorofluoromethane	ND	0.50	-	-	-
1,2,3-Trichloropropane	ND	0.50	-	-	-
1,2,4-Trimethylbenzene	ND	0.50	-	-	-
1,3,5-Trimethylbenzene	ND	0.50	-	-	-
Vinyl Chloride	ND	0.50	-	-	-
Xylenes, Total	ND	0.50	-	-	-

Surrogate Recovery

Dibromofluoromethane	28.6		25	114	91-133
Toluene-d8	28.3		25	113	87-127
4-BFB	2.98		2.5	119	66-140

(Cont.)

CA ELAP 1644 • NELAP 4033ORELAP



Quality Control Report

Client: Langan
Date Prepared: 1/22/18
Date Analyzed: 1/22/18
Instrument: GC18
Matrix: Water
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
BatchID: 152009
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS/LCSD-152009

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acetone	132	123	200	66	62	47-122	6.39	20
tert-Amyl methyl ether (TAME)	9.96	9.27	10	100	93	62-121	7.24	20
Benzene	9.75	9.13	10	98	91	74-121	6.62	20
Bromobenzene	10.8	9.95	10	108	99	63-127	8.19	20
Bromochloromethane	9.07	8.50	10	91	85	70-126	6.57	20
Bromodichloromethane	10.9	10.1	10	109	101	66-127	7.21	20
Bromoform	10.7	9.85	10	107	98	60-119	8.13	20
Bromomethane	10.5	10.4	10	105	104	32-155	0.433	20
2-Butanone (MEK)	26.7	24.5	40	67	61	51-117	8.80	20
t-Butyl alcohol (TBA)	30.3	28.7	40	76	72	41-122	5.34	20
n-Butyl benzene	11.6	11.0	10	116	110	73-137	6.00	20
sec-Butyl benzene	11.0	10.2	10	110	102	71-137	8.00	20
tert-Butyl benzene	10.5	9.65	10	105	96	61-136	8.54	20
Carbon Disulfide	10.2	9.53	10	102	95	61-139	6.99	20
Carbon Tetrachloride	11.9	11.1	10	119	111	69-137	7.03	20
Chlorobenzene	10.5	9.88	10	105	99	71-122	6.37	20
Chloroethane	9.60	9.36	10	96	94	54-132	2.52	20
Chloroform	10.8	10.2	10	109	102	73-122	6.52	20
Chloromethane	7.20	6.94	10	72	69	48-136	3.66	20
2-Chlorotoluene	10.5	9.66	10	105	97	65-134	8.67	20
4-Chlorotoluene	10.6	9.68	10	106	97	65-130	9.47	20
Dibromochloromethane	10.5	9.75	10	105	97	65-121	7.59	20
1,2-Dibromo-3-chloropropane	3.84	3.50	4	96	87	41-132	9.29	20
1,2-Dibromoethane (EDB)	10.2	9.47	10	102	95	67-125	7.85	20
Dibromomethane	9.88	9.19	10	99	92	68-121	7.28	20
1,2-Dichlorobenzene	10.2	9.63	10	102	96	69-128	6.03	20
1,3-Dichlorobenzene	10.0	9.50	10	100	95	71-131	5.32	20
1,4-Dichlorobenzene	10.3	9.62	10	103	96	70-128	6.86	20
Dichlorodifluoromethane	8.75	8.31	10	88	83	21-158	5.18	20
1,1-Dichloroethane	9.24	8.60	10	92	86	73-123	7.12	20
1,2-Dichloroethane (1,2-DCA)	10.4	9.68	10	103	97	61-127	6.63	20
1,1-Dichloroethene	10.5	9.73	10	105	97	68-130	7.83	20
cis-1,2-Dichloroethene	9.76	9.21	10	98	92	72-123	5.78	20
trans-1,2-Dichloroethene	10.0	9.36	10	100	94	64-138	6.73	20
1,2-Dichloropropane	8.36	7.77	10	84	78	71-121	7.32	20
1,3-Dichloropropane	9.90	9.12	10	99	91	69-120	8.19	20
2,2-Dichloropropane	11.3	10.4	10	113	104	64-142	7.68	20
1,1-Dichloropropene	10.3	9.63	10	103	96	70-130	6.92	20
cis-1,3-Dichloropropene	10.3	9.60	10	103	96	58-136	6.86	20

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 1/22/18
Date Analyzed: 1/22/18
Instrument: GC18
Matrix: Water
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
BatchID: 152009
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS/LCSD-152009

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
trans-1,3-Dichloropropene	10.6	9.83	10	106	98	66-119	7.33	20
Diisopropyl ether (DIPE)	7.15	6.69	10	72	67	66-123	6.70	20
Ethylbenzene	11.0	10.4	10	111	104	71-125	6.39	20
Ethyl tert-butyl ether (ETBE)	8.66	8.11	10	87	81	67-122	6.52	20
Freon 113	11.6	10.8	10	116	108	68-132	7.06	20
Hexachlorobutadiene	11.4	11.0	10	114	110	56-155	4.16	20
Hexachloroethane	11.3	10.4	10	113	104	61-129	8.37	20
2-Hexanone	7.18	6.42	10	72	64	51-115	11.2	20
Isopropylbenzene	11.8	10.9	10	118	109	66-134	8.16	20
4-Isopropyl toluene	11.0	10.2	10	110	102	70-136	7.43	20
Methyl-t-butyl ether (MTBE)	10.1	9.49	10	101	95	64-118	6.66	20
Methylene chloride	8.20	7.58	10	82	76	62-121	7.79	20
4-Methyl-2-pentanone (MIBK)	6.67	6.02	10	67	60	51-115	10.2	20
Naphthalene	9.73	9.31	10	97	93	55-137	4.40	20
n-Propyl benzene	10.7	9.93	10	107	99	63-140	7.78	20
Styrene	9.95	9.25	10	99	92	62-133	7.28	20
1,1,1,2-Tetrachloroethane	10.4	9.74	10	104	97	69-128	6.32	20
1,1,2,2-Tetrachloroethane	10.8	9.76	10	108	98	60-118	10.6	20
Tetrachloroethene	9.69	8.97	10	97	90	63-136	7.75	20
Toluene	10.0	9.31	10	100	93	67-124	7.44	20
1,2,3-Trichlorobenzene	9.91	9.46	10	99	95	57-145	4.65	20
1,2,4-Trichlorobenzene	10.0	9.56	10	100	96	60-144	4.78	20
1,1,1-Trichloroethane	11.9	11.0	10	119	110	70-133	7.35	20
1,1,2-Trichloroethane	9.93	9.14	10	99	91	65-125	8.30	20
Trichloroethene	9.18	8.56	10	92	86	67-133	7.05	20
Trichlorofluoromethane	13.8	13.0	10	138	129	59-145	6.44	20
1,2,3-Trichloropropane	11.1	9.97	10	111	100	65-115	10.5	20
1,2,4-Trimethylbenzene	11.3	10.6	10	113	106	67-136	6.74	20
1,3,5-Trimethylbenzene	11.4	10.7	10	114	107	68-135	6.02	20
Vinyl Chloride	9.12	8.84	10	91	88	53-146	3.10	20
Xylenes, Total	33.5	31.1	30	112	104	68-128	7.62	20
Surrogate Recovery								
Dibromofluoromethane	28.8	28.8	25	115	115	91-133	0	20
Toluene-d8	28.5	28.5	25	114	114	87-127	0	20
4-BFB	3.14	3.10	2.5	126	124	66-140	1.24	20

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 1/23/18
Date Analyzed: 1/23/18
Instrument: GC28
Matrix: Water
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
BatchID: 152112
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-152112
 1801A01-008BMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Acetone	ND	10	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.50	-	-	-
Benzene	ND	0.50	-	-	-
Bromobenzene	ND	0.50	-	-	-
Bromochloromethane	ND	0.50	-	-	-
Bromodichloromethane	ND	0.50	-	-	-
Bromoform	ND	0.50	-	-	-
Bromomethane	ND	0.50	-	-	-
2-Butanone (MEK)	ND	2.0	-	-	-
t-Butyl alcohol (TBA)	ND	2.0	-	-	-
n-Butyl benzene	ND	0.50	-	-	-
sec-Butyl benzene	ND	0.50	-	-	-
tert-Butyl benzene	ND	0.50	-	-	-
Carbon Disulfide	ND	0.50	-	-	-
Carbon Tetrachloride	ND	0.50	-	-	-
Chlorobenzene	ND	0.50	-	-	-
Chloroethane	ND	0.50	-	-	-
Chloroform	ND	0.50	-	-	-
Chloromethane	ND	0.50	-	-	-
2-Chlorotoluene	ND	0.50	-	-	-
4-Chlorotoluene	ND	0.50	-	-	-
Dibromochloromethane	ND	0.50	-	-	-
1,2-Dibromo-3-chloropropane	ND	0.20	-	-	-
1,2-Dibromoethane (EDB)	ND	0.50	-	-	-
Dibromomethane	ND	0.50	-	-	-
1,2-Dichlorobenzene	ND	0.50	-	-	-
1,3-Dichlorobenzene	ND	0.50	-	-	-
1,4-Dichlorobenzene	ND	0.50	-	-	-
Dichlorodifluoromethane	ND	0.50	-	-	-
1,1-Dichloroethane	ND	0.50	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.50	-	-	-
1,1-Dichloroethene	ND	0.50	-	-	-
cis-1,2-Dichloroethene	ND	0.50	-	-	-
trans-1,2-Dichloroethene	ND	0.50	-	-	-
1,2-Dichloropropane	ND	0.50	-	-	-
1,3-Dichloropropane	ND	0.50	-	-	-
2,2-Dichloropropane	ND	0.50	-	-	-
1,1-Dichloropropene	ND	0.50	-	-	-
cis-1,3-Dichloropropene	ND	0.50	-	-	-

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 1/23/18
Date Analyzed: 1/23/18
Instrument: GC28
Matrix: Water
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
BatchID: 152112
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-152112
 1801A01-008BMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
trans-1,3-Dichloropropene	ND	0.50	-	-	-
Diisopropyl ether (DIPE)	ND	0.50	-	-	-
Ethylbenzene	ND	0.50	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.50	-	-	-
Freon 113	ND	0.50	-	-	-
Hexachlorobutadiene	ND	0.50	-	-	-
Hexachloroethane	ND	0.50	-	-	-
2-Hexanone	ND	0.50	-	-	-
Isopropylbenzene	ND	0.50	-	-	-
4-Isopropyl toluene	ND	0.50	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.50	-	-	-
Methylene chloride	ND	0.50	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	0.50	-	-	-
Naphthalene	ND	0.50	-	-	-
n-Propyl benzene	ND	0.50	-	-	-
Styrene	ND	0.50	-	-	-
1,1,1,2-Tetrachloroethane	ND	0.50	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.50	-	-	-
Tetrachloroethene	ND	0.50	-	-	-
Toluene	ND	0.50	-	-	-
1,2,3-Trichlorobenzene	ND	0.50	-	-	-
1,2,4-Trichlorobenzene	ND	0.50	-	-	-
1,1,1-Trichloroethane	ND	0.50	-	-	-
1,1,2-Trichloroethane	ND	0.50	-	-	-
Trichloroethene	ND	0.50	-	-	-
Trichlorofluoromethane	ND	0.50	-	-	-
1,2,3-Trichloropropane	ND	0.50	-	-	-
1,2,4-Trimethylbenzene	ND	0.50	-	-	-
1,3,5-Trimethylbenzene	ND	0.50	-	-	-
Vinyl Chloride	ND	0.50	-	-	-
Xylenes, Total	ND	0.50	-	-	-

Surrogate Recovery

Dibromofluoromethane	29.1		25	116	91-133
Toluene-d8	31.5		25	126	87-127
4-BFB	1.84		2.5	74	66-140

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 1/23/18
Date Analyzed: 1/23/18
Instrument: GC28
Matrix: Water
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
BatchID: 152112
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-152112
 1801A01-008BMS/MSD

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acetone	165	-	200	82	-	47-122	-	-
tert-Amyl methyl ether (TAME)	9.12	-	10	91	-	62-121	-	-
Benzene	9.52	-	10	95	-	74-121	-	-
Bromobenzene	9.61	-	10	96	-	63-127	-	-
Bromochloromethane	9.74	-	10	97	-	70-126	-	-
Bromodichloromethane	10.6	-	10	105	-	66-127	-	-
Bromoform	10.3	-	10	103	-	60-119	-	-
Bromomethane	8.74	-	10	87	-	32-155	-	-
2-Butanone (MEK)	30.9	-	40	77	-	51-117	-	-
t-Butyl alcohol (TBA)	34.0	-	40	85	-	41-122	-	-
n-Butyl benzene	11.0	-	10	110	-	73-137	-	-
sec-Butyl benzene	10.3	-	10	103	-	71-137	-	-
tert-Butyl benzene	10.2	-	10	101	-	61-136	-	-
Carbon Disulfide	8.54	-	10	85	-	61-139	-	-
Carbon Tetrachloride	11.0	-	10	110	-	69-137	-	-
Chlorobenzene	9.84	-	10	98	-	71-122	-	-
Chloroethane	8.08	-	10	81	-	54-132	-	-
Chloroform	10.2	-	10	102	-	73-122	-	-
Chloromethane	7.52	-	10	75	-	48-136	-	-
2-Chlorotoluene	10.2	-	10	102	-	65-134	-	-
4-Chlorotoluene	9.81	-	10	98	-	65-130	-	-
Dibromochloromethane	10.0	-	10	100	-	65-121	-	-
1,2-Dibromo-3-chloropropane	3.71	-	4	93	-	41-132	-	-
1,2-Dibromoethane (EDB)	9.01	-	10	90	-	67-125	-	-
Dibromomethane	10.2	-	10	102	-	68-121	-	-
1,2-Dichlorobenzene	10.2	-	10	102	-	69-128	-	-
1,3-Dichlorobenzene	10.7	-	10	107	-	71-131	-	-
1,4-Dichlorobenzene	9.73	-	10	97	-	70-128	-	-
Dichlorodifluoromethane	5.32	-	10	53	-	21-158	-	-
1,1-Dichloroethane	8.74	-	10	87	-	73-123	-	-
1,2-Dichloroethane (1,2-DCA)	9.76	-	10	98	-	61-127	-	-
1,1-Dichloroethene	9.00	-	10	90	-	68-130	-	-
cis-1,2-Dichloroethene	10.1	-	10	101	-	72-123	-	-
trans-1,2-Dichloroethene	9.04	-	10	90	-	64-138	-	-
1,2-Dichloropropane	9.78	-	10	98	-	71-121	-	-
1,3-Dichloropropane	9.23	-	10	92	-	69-120	-	-
2,2-Dichloropropane	12.2	-	10	121	-	64-142	-	-
1,1-Dichloropropene	10.7	-	10	107	-	70-130	-	-
cis-1,3-Dichloropropene	9.87	-	10	99	-	58-136	-	-

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 1/23/18
Date Analyzed: 1/23/18
Instrument: GC28
Matrix: Water
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
BatchID: 152112
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-152112
 1801A01-008BMS/MSD

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
trans-1,3-Dichloropropene	10.5	-	10	105	-	66-119	-	-
Diisopropyl ether (DIPE)	10.6	-	10	105	-	66-123	-	-
Ethylbenzene	10.0	-	10	101	-	71-125	-	-
Ethyl tert-butyl ether (ETBE)	10.0	-	10	101	-	67-122	-	-
Freon 113	8.58	-	10	86	-	68-132	-	-
Hexachlorobutadiene	10.7	-	10	107	-	56-155	-	-
Hexachloroethane	10.7	-	10	107	-	61-129	-	-
2-Hexanone	8.48	-	10	85	-	51-115	-	-
Isopropylbenzene	10.0	-	10	100	-	66-134	-	-
4-Isopropyl toluene	11.2	-	10	112	-	70-136	-	-
Methyl-t-butyl ether (MTBE)	8.72	-	10	87	-	64-118	-	-
Methylene chloride	8.52	-	10	85	-	62-121	-	-
4-Methyl-2-pentanone (MIBK)	8.78	-	10	88	-	51-115	-	-
Naphthalene	8.39	-	10	84	-	55-137	-	-
n-Propyl benzene	10.9	-	10	109	-	63-140	-	-
Styrene	9.41	-	10	94	-	62-133	-	-
1,1,1,2-Tetrachloroethane	9.90	-	10	99	-	69-128	-	-
1,1,2,2-Tetrachloroethane	8.56	-	10	86	-	60-118	-	-
Tetrachloroethene	10.2	-	10	102	-	63-136	-	-
Toluene	10.1	-	10	101	-	67-124	-	-
1,2,3-Trichlorobenzene	10.7	-	10	107	-	57-145	-	-
1,2,4-Trichlorobenzene	11.5	-	10	115	-	60-144	-	-
1,1,1-Trichloroethane	10.7	-	10	107	-	70-133	-	-
1,1,2-Trichloroethane	9.10	-	10	91	-	65-125	-	-
Trichloroethene	10.2	-	10	102	-	67-133	-	-
Trichlorofluoromethane	8.73	-	10	87	-	59-145	-	-
1,2,3-Trichloropropane	9.14	-	10	91	-	65-115	-	-
1,2,4-Trimethylbenzene	10.8	-	10	108	-	67-136	-	-
1,3,5-Trimethylbenzene	10.4	-	10	104	-	68-135	-	-
Vinyl Chloride	9.23	-	10	92	-	53-146	-	-
Xylenes, Total	30.0	-	30	100	-	68-128	-	-
Surrogate Recovery								
Dibromofluoromethane	31.1	-	25	125	-	91-133	-	-
Toluene-d8	31.7	-	25	127	-	87-127	-	-
4-BFB	2.82	-	2.5	113	-	66-140	-	-

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 1/23/18
Date Analyzed: 1/23/18
Instrument: GC28
Matrix: Water
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
BatchID: 152112
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-152112
 1801A01-008BMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Acetone	211	257	200	ND	104	127	56-141	19.5	20
tert-Amyl methyl ether (TAME)	9.06	10.3	10	ND	91	103	78-120	12.8	20
Benzene	10.2	10.7	10	ND	102	107	81-118	4.54	20
Bromobenzene	8.64	9.20	10	ND	86	92	71-119	6.19	20
Bromochloromethane	9.79	10.9	10	ND	98	109	80-124	10.7	20
Bromodichloromethane	10.8	11.6	10	ND	108	116	78-124	7.39	20
Bromoform	9.29	10.5	10	ND	93	105	65-127	12.4	20
Bromomethane	10.6	11.2	10	ND	106	112	22-175	5.11	20
2-Butanone (MEK)	37.4	44.2	40	ND	93	110	50-152	16.7	20
t-Butyl alcohol (TBA)	39.5	49.7	40	ND	99	124	49-141	22.8,F1	20
n-Butyl benzene	11.5	11.4	10	ND	115	114	77-127	0.162	20
sec-Butyl benzene	10.2	10.3	10	ND	101	102	74-123	1.06	20
tert-Butyl benzene	9.31	9.47	10	ND	93	95	68-122	1.67	20
Carbon Disulfide	10.3	10.5	10	ND	101	103	74-123	2.47	20
Carbon Tetrachloride	10.6	11.1	10	ND	105	109	78-124	4.34	20
Chlorobenzene	9.18	9.62	10	ND	92	96	79-116	4.63	20
Chloroethane	10.1	10.6	10	ND	101	106	56-134	4.41	20
Chloroform	10.6	11.2	10	ND	106	112	82-119	5.54	20
Chloromethane	9.27	9.64	10	ND	93	96	39-147	3.98	20
2-Chlorotoluene	9.84	9.88	10	ND	98	99	69-124	0.398	20
4-Chlorotoluene	9.24	9.45	10	ND	92	94	71-121	2.18	20
Dibromochloromethane	8.76	9.74	10	ND	88	97	76-119	10.6	20
1,2-Dibromo-3-chloropropane	3.46	4.04	4	ND	86	101	48-138	15.6	20
1,2-Dibromoethane (EDB)	8.01	8.99	10	ND	80,F1	90	81-122	11.5	20
Dibromomethane	10.4	11.5	10	ND	104	115	83-121	10.4	20
1,2-Dichlorobenzene	10.1	10.4	10	ND	101	104	77-122	3.04	20
1,3-Dichlorobenzene	10.5	10.6	10	ND	105	106	76-125	1.47	20
1,4-Dichlorobenzene	9.22	9.54	10	ND	92	95	78-120	3.39	20
Dichlorodifluoromethane	6.30	6.58	10	ND	63	66	38-135	4.44	20
1,1-Dichloroethane	10.7	11.0	10	ND	107	110	80-120	3.12	20
1,2-Dichloroethane (1,2-DCA)	9.87	10.8	10	ND	99	108	78-122	8.89	20
1,1-Dichloroethene	10.8	11.2	10	ND	108	112	77-120	2.92	20
cis-1,2-Dichloroethene	12.7	13.2	10	1.963	107	112	79-123	4.25	20
trans-1,2-Dichloroethene	11.0	11.3	10	ND	109	112	77-125	2.75	20
1,2-Dichloropropane	10.3	10.9	10	ND	103	109	80-121	5.86	20
1,3-Dichloropropane	8.52	9.46	10	ND	85	95	80-120	10.5	20
2,2-Dichloropropane	12.2	12.6	10	ND	122	125	70-132	2.86	20
1,1-Dichloropropene	10.8	11.3	10	ND	108	113	78-122	4.64	20
cis-1,3-Dichloropropene	8.78	9.48	10	ND	88	95	73-121	7.62	20

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 1/23/18
Date Analyzed: 1/23/18
Instrument: GC28
Matrix: Water
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
BatchID: 152112
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-152112
 1801A01-008BMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
trans-1,3-Dichloropropene	9.59	10.4	10	ND	91	100	77-116	8.59	20
Diisopropyl ether (DIPE)	11.3	9.98	10	ND	113	100	77-125	12.1	20
Ethylbenzene	9.69	10.1	10	ND	97	101	77-119	4.49	20
Ethyl tert-butyl ether (ETBE)	10.3	11.6	10	ND	103	117	81-122	12.5	20
Freon 113	10.6	10.7	10	ND	106	107	77-120	0.994	20
Hexachlorobutadiene	9.83	10.0	10	ND	96	98	57-141	2.20	20
Hexachloroethane	9.91	10.3	10	ND	94	98	26-168	3.90	20
2-Hexanone	7.39	9.05	10	ND	74	90	58-135	20.1,F1	20
Isopropylbenzene	9.29	9.44	10	ND	93	94	74-120	1.60	20
4-Isopropyl toluene	10.9	10.9	10	ND	109	109	75-124	0	20
Methyl-t-butyl ether (MTBE)	10.5	12.0	10	ND	105	119	74-128	12.5	20
Methylene chloride	10.7	11.2	10	ND	106	112	55-130	5.25	20
4-Methyl-2-pentanone (MIBK)	7.46	9.01	10	ND	75	90	59-131	18.7	20
Naphthalene	8.00	9.12	10	ND	78	89	65-136	13.1	20
n-Propyl benzene	10.3	10.4	10	ND	103	104	67-128	0.836	20
Styrene	8.91	9.48	10	ND	89	95	64-133	6.22	20
1,1,1,2-Tetrachloroethane	9.04	9.63	10	ND	90	96	78-122	6.37	20
1,1,2,2-Tetrachloroethane	8.18	8.97	10	ND	82	90	72-123	9.21	20
Tetrachloroethene	10.8	11.1	10	1.487	93	96	72-123	2.80	20
Toluene	9.45	9.92	10	ND	93	98	74-117	4.91	20
1,2,3-Trichlorobenzene	10.2	11.2	10	ND	102	112	61-141	9.07	20
1,2,4-Trichlorobenzene	11.4	12.0	10	ND	114	120	69-136	5.15	20
1,1,1-Trichloroethane	10.3	10.8	10	ND	103	108	78-122	5.35	20
1,1,2-Trichloroethane	8.18	9.09	10	ND	82	91	79-120	10.5	20
Trichloroethene	14.7	15.2	10	4.372	103	108	76-122	3.21	20
Trichlorofluoromethane	11.0	11.3	10	ND	110	113	72-125	2.65	20
1,2,3-Trichloropropane	8.37	9.32	10	ND	84	93	72-123	10.7	20
1,2,4-Trimethylbenzene	10.5	10.7	10	ND	105	107	74-123	1.61	20
1,3,5-Trimethylbenzene	9.92	10.2	10	ND	99	101	73-123	2.29	20
Vinyl Chloride	11.5	11.9	10	ND	115	119	57-134	3.05	20
Xylenes, Total	28.6	30.3	30	ND	95	101	76-119	5.91	20
Surrogate Recovery									
Dibromofluoromethane	32.2	32.4	25		129	130	78-134	0.924	20
Toluene-d8	29.8	29.6	25		119	119	82-120	0	20
4-BFB	2.58	2.35	2.5		103	94	69-131	9.23	20



Quality Control Report

Client: Langan
Date Prepared: 1/18/18
Date Analyzed: 1/19/18 - 1/20/18
Instrument: GC19
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
BatchID: 151888
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg
Sample ID: MB/LCS-151888
 1801A01-001AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH(g) (C6-C12)	ND	1.0	-	-	-
MTBE	ND	0.050	-	-	-
Benzene	ND	0.0050	-	-	-
Toluene	ND	0.0050	-	-	-
Ethylbenzene	ND	0.0050	-	-	-
Xylenes	ND	0.0050	-	-	-

Surrogate Recovery

2-Fluorotoluene	0.0970		0.10	97	75-134
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Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH(btex)	0.542	-	0.60	90	-	82-118	-	-
MTBE	0.0920	-	0.10	92	-	61-119	-	-
Benzene	0.110	-	0.10	110	-	77-128	-	-
Toluene	0.115	-	0.10	115	-	74-132	-	-
Ethylbenzene	0.113	-	0.10	113	-	84-127	-	-
Xylenes	0.338	-	0.30	113	-	86-129	-	-

Surrogate Recovery

2-Fluorotoluene	0.0937	-	0.10	94	-	75-134	-	-
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.509	0.538	0.60	ND	85	90	58-129	5.60	20
MTBE	0.0881	0.0899	0.10	ND	88	90	47-118	2.03	20
Benzene	0.109	0.110	0.10	ND	109	110	55-129	0.676	20
Toluene	0.112	0.115	0.10	ND	112	115	56-130	2.48	20
Ethylbenzene	0.110	0.113	0.10	ND	109	113	63-129	2.96	20
Xylenes	0.323	0.330	0.30	ND	108	110	64-131	2.13	20

Surrogate Recovery

2-Fluorotoluene	0.0902	0.0920	0.10		90	92	62-126	2.00	20
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Quality Control Report

Client: Langan
Date Prepared: 1/19/18 - 1/20/18
Date Analyzed: 1/19/18 - 1/20/18
Instrument: GC7
Matrix: Water
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
BatchID: 151998
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L
Sample ID: MB/LCS-151998
 1801982-001AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH(g) (C6-C12)	ND	50	-	-	-
MTBE	ND	5.0	-	-	-
Benzene	ND	0.50	-	-	-
Toluene	ND	0.50	-	-	-
Ethylbenzene	ND	0.50	-	-	-
Xylenes	ND	0.50	-	-	-

Surrogate Recovery

aaa-TFT	9.19		10	92	89-116
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Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH(btex)	56.6	-	60	94	-	78-116	-	-
MTBE	9.79	-	10	98	-	72-122	-	-
Benzene	10.2	-	10	102	-	81-123	-	-
Toluene	11.5	-	10	115	-	83-129	-	-
Ethylbenzene	10.6	-	10	106	-	88-126	-	-
Xylenes	31.8	-	30	106	-	87-131	-	-

Surrogate Recovery

aaa-TFT	10.2	-	10	102	-	89-116	-	-
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	61.0	63.6	60	ND	102	106	63-133	4.23	20
MTBE	10.2	10.2	10	ND	102	102	69-122	0	20
Benzene	11.2	11.2	10	ND	110	111	84-125	0.523	20
Toluene	12.0	12.0	10	ND	120	120	87-131	0	20
Ethylbenzene	11.4	11.6	10	ND	114	116	92-126	1.67	20
Xylenes	33.4	33.6	30	ND	111	112	88-132	0.717	20

Surrogate Recovery

aaa-TFT	10.7	10.6	10		107	106	90-117	1.01	20
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Quality Control Report

Client: Langan
Date Prepared: 1/17/18
Date Analyzed: 1/18/18
Instrument: GC39B
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801A01
BatchID: 151814
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg
Sample ID: MB/LCS-151814
 1801940-001AMS/MSD

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	43.2	1.0	40	-	108	75-128
TPH-Motor Oil (C18-C36)	ND	-	5.0	-	-	-	-
Surrogate Recovery							
C9	22.6	22.9		25	91	91	72-122

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	41.9	42.5	40	ND	105	106	71-134	1.35	30
Surrogate Recovery									
C9	22.7	22.9	25		91	91	78-126	0	30



Quality Control Report

Client: Langan	WorkOrder: 1801A01
Date Prepared: 1/18/18	BatchID: 151880
Date Analyzed: 1/19/18	Extraction Method: SW3510C
Instrument: GC39A	Analytical Method: SW8015B
Matrix: Water	Unit: µg/L
Project: 750622405; 1110 Jackson	Sample ID: MB/LCS/LCSD-151880

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH-Diesel (C10-C23)	ND	50	-	-	-
TPH-Motor Oil (C18-C36)	ND	250	-	-	-
Surrogate Recovery					
C9	544		625	87	68-127

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	968	963	1000	97	96	86-142	0.537	30
Surrogate Recovery								
C9	551	556	625	88	89	68-127	0.889	30



Quality Control Report

Client: Langan	WorkOrder: 1801A01
Date Prepared: 1/24/18	BatchID: 152178
Date Analyzed: 1/25/18	Extraction Method: SW3510C
Instrument: GC9a	Analytical Method: SW8015B
Matrix: Water	Unit: µg/L
Project: 750622405; 1110 Jackson	Sample ID: MB/LCS/LCSD-152178

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH-Diesel (C10-C23)	ND	50	-	-	-
TPH-Motor Oil (C18-C36)	ND	250	-	-	-
Surrogate Recovery					
C9	606		625	97	68-127

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	1060	1140	1000	106	114	86-142	7.84	30
Surrogate Recovery								
C9	531	594	625	85	95	68-127	11.2	30

1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262



WaterTrax WriteOn EDF

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1801A01

ClientCode: TWRK

Excel EQuIS Email HardCopy ThirdParty J-flag
 Detection Summary Dry-Weight

Report to:
Noel Liner
Langan
501 14th Street, 3rd Floor
Oakland, CA 94612
(415) 955-9040 FAX: (415) 955-9041

Email: nliner@langan.com
cc/3rd Party:
PO:
Project: 750622405; 1110 Jackson

Bill to:
Accounts Payable
Langan
555 Montgomery St., Suite 1300
San Francisco, CA 94111
Langan_InvoiceCapture@concur.solutio

Requested TAT: 5 days;

Date Received: 01/18/2018
Date Logged: 01/18/2018

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1801A01-001	EB-12-5	Soil	1/17/2018 15:43	<input type="checkbox"/>	A		A		A							
1801A01-002	EB-12-10	Soil	1/17/2018 15:55	<input type="checkbox"/>	A		A		A							
1801A01-003	EB-12-13	Soil	1/17/2018 16:12	<input type="checkbox"/>	A		A		A							
1801A01-004	EB-12-15	Soil	1/17/2018 16:00	<input type="checkbox"/>	A		A		A							
1801A01-005	EB-12-20	Soil	1/17/2018 16:10	<input type="checkbox"/>	A		A		A							
1801A01-006	EB-12-23	Soil	1/17/2018 16:25	<input type="checkbox"/>	A		A		A							
1801A01-007	EB-12-GW-27	Water	1/17/2018 16:31	<input type="checkbox"/>		B		A		A						
1801A01-008	DUP1-2018-01-17	Water	1/17/2018 16:37	<input type="checkbox"/>		B		A		A						

Test Legend:

1	8260B_S	2	8260B_W	3	G-MBTEX_S	4	G-MBTEX_W
5	TPH(DMO)_S	6	TPH(DMO)_W	7		8	
9		10		11		12	

Prepared by: Agustina Venegas

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A contain testgroup Multi Range_S.; The following SampIDs: 007A, 008A contain testgroup Multi Range_W.

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: LANGAN
Client Contact: Noel Liner
Contact's Email: nliner@langan.com

Project: 750622405; 1110 Jackson

Work Order: 1801A01
QC Level: LEVEL 2
Date Logged: 1/18/2018

Comments:

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1801A01-001A	EB-12-5	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/17/2018 15:43	5 days		<input type="checkbox"/>	
1801A01-002A	EB-12-10	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/17/2018 15:55	5 days		<input type="checkbox"/>	
1801A01-003A	EB-12-13	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/17/2018 16:12	5 days		<input type="checkbox"/>	
1801A01-004A	EB-12-15	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/17/2018 16:00	5 days		<input type="checkbox"/>	
1801A01-005A	EB-12-20	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/17/2018 16:10	5 days		<input type="checkbox"/>	
1801A01-006A	EB-12-23	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/17/2018 16:25	5 days		<input type="checkbox"/>	
1801A01-007A	EB-12-GW-27	Water	Multi-Range TPH(g,d,mo) by EPA 8015Bm	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	1/17/2018 16:31	5 days	Present	<input type="checkbox"/>	
1801A01-007B	EB-12-GW-27	Water	SW8260B (VOCs)	2	VOA w/ HCL	<input type="checkbox"/>	1/17/2018 16:31	5 days	Present	<input type="checkbox"/>	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.



WORK ORDER SUMMARY

Client Name: LANGAN
Client Contact: Noel Liner
Contact's Email: nliner@langan.com

Project: 750622405; 1110 Jackson

Work Order: 1801A01
QC Level: LEVEL 2
Date Logged: 1/18/2018

Comments:

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1801A01-008A	DUP1-2018-01-17	Water	Multi-Range TPH(g,d,mo) by EPA 8015Bm	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	1/17/2018 16:37	5 days	Present	<input type="checkbox"/>	
1801A01-008B	DUP1-2018-01-17	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	1/17/2018 16:37	5 days	Present	<input type="checkbox"/>	
1801A01-009A	MAI TRIP BLANK 1/18/18	Water		2	VOA w/ HCl	<input type="checkbox"/>	1/18/2018		None	<input checked="" type="checkbox"/>	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).
- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

1801A01

10461

LANGAN

CHAIN OF CUSTODY RECORD

- 555 Montgomery Street, Suite 1300, San Francisco, CA 94111
- 501 14th Street, Third Floor, Oakland CA 94612
- 3320 Data Drive, Suite 350, Rancho Cordova, CA 95670-7982
- 4030 Moorpark Ave. Suite 210, San Jose, CA 95117-1849

Site Name: 1110 Jackson
 Job Number: 750622405
 Project Manager/Contact: Noel Limer \nlimer@langan.com
 Samplers: Josh Osborne
 Recorder (Signature Required): [Signature]

Analysis Requested

Turnaround Time
Standard

Field Sample Identification No.	Date	Time	Lab Sample No.	Matrix & Preservative										Silica gel clean-up	Hold	Remarks		
				Soil	Water	Air	Other	HCL	H ₂ SO ₄	HNO ₃	Ice	No. Containers						
EB-12-5	1/17/18	1543		X								X		X				
EB-12-10		1555		X								X		X				
EB-12-13		1612		X								X		X				
EB-12-15		1600		X								X		X				
EB-12-20		1610		X								X		X				
EB-12-23		1625		X								X		X				
+ EB-12-6W-27		1631			X			X				X		X				
+ DUP1-2018-01-17		1637			X			X				X		X				

Relinquished by: (Signature) <u>[Signature]</u>	Date: <u>1/18/18</u>	Time: <u>1100</u>	Received by: (Signature) <u>UAP</u>	Date: <u>1/18/18</u>	Time: <u>1100</u>
Relinquished by: (Signature) <u>UAP</u>	Date: <u>1/18/18</u>	Time: <u>1500</u>	Received by: (Signature) <u>[Signature]</u>	Date: <u>1/18</u>	Time: <u>1500</u>
Relinquished by: (Signature)	Date:	Time:	Received by Lab: (Signature) <u>[Signature]</u>	Date:	Time:

Sent to Laboratory (Name): McCampbell Analytical

Laboratory Comments/Notes:

Method of Shipment: Lab courier Fed Ex Airborne UPS
 Hand Carried Private Courier (Co. Name)

S. Sweet



Sample Receipt Checklist

Client Name: **Langan**
 Project: **750622405; 1110 Jackson**

Date and Time Received: **1/18/2018 15:00**
 Date Logged: **1/18/2018**
 Received by: **Agustina Venegas**
 Logged by: **Agustina Venegas**

WorkOrder No: **1801A01** Matrix: Soil/Water
 Carrier: Lorenzo Perez (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sampler's name noted on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
COC agrees with Quote?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Sample/Temp Blank temperature	Temp: 5.5°C		NA <input type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE)

UCMR Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

 Comments:



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1801844

Report Created for: Langan

501 14th Street, 3rd Floor
Oakland, CA 94612

Project Contact: Noel Liner

Project P.O.:

Project: 750622405; 1110 Jackson

Project Received: 01/16/2018

Analytical Report reviewed & approved for release on 01/25/2018 by:

Jennifer Lagerbom
Project Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: Langan
Project: 750622405; 1110 Jackson
WorkOrder: 1801844

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



Glossary of Terms & Qualifier Definitions

Client: Langan
Project: 750622405; 1110 Jackson
WorkOrder: 1801844

Analytical Qualifiers

e2 Diesel range compounds are significant; no recognizable pattern
e7 Oil range compounds are significant

Quality Control Qualifiers

F1 MS/MSD recovery and/or RPD is out of acceptance criteria; LCS validates the prep batch.
F3 The surrogate standard recovery and/or RPD is outside of acceptance limits.



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-2.5	1801844-001A	Soil	01/15/2018 09:04	GC28 01191841.D	151652

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/20/2018 16:35
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/20/2018 16:35
Benzene	ND	0.0050	1	01/20/2018 16:35
Bromobenzene	ND	0.0050	1	01/20/2018 16:35
Bromochloromethane	ND	0.0050	1	01/20/2018 16:35
Bromodichloromethane	ND	0.0050	1	01/20/2018 16:35
Bromoform	ND	0.0050	1	01/20/2018 16:35
Bromomethane	ND	0.0050	1	01/20/2018 16:35
2-Butanone (MEK)	ND	0.020	1	01/20/2018 16:35
t-Butyl alcohol (TBA)	ND	0.050	1	01/20/2018 16:35
n-Butyl benzene	ND	0.0050	1	01/20/2018 16:35
sec-Butyl benzene	ND	0.0050	1	01/20/2018 16:35
tert-Butyl benzene	ND	0.0050	1	01/20/2018 16:35
Carbon Disulfide	ND	0.0050	1	01/20/2018 16:35
Carbon Tetrachloride	ND	0.0050	1	01/20/2018 16:35
Chlorobenzene	ND	0.0050	1	01/20/2018 16:35
Chloroethane	ND	0.0050	1	01/20/2018 16:35
Chloroform	ND	0.0050	1	01/20/2018 16:35
Chloromethane	ND	0.0050	1	01/20/2018 16:35
2-Chlorotoluene	ND	0.0050	1	01/20/2018 16:35
4-Chlorotoluene	ND	0.0050	1	01/20/2018 16:35
Dibromochloromethane	ND	0.0050	1	01/20/2018 16:35
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/20/2018 16:35
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/20/2018 16:35
Dibromomethane	ND	0.0050	1	01/20/2018 16:35
1,2-Dichlorobenzene	ND	0.0050	1	01/20/2018 16:35
1,3-Dichlorobenzene	ND	0.0050	1	01/20/2018 16:35
1,4-Dichlorobenzene	ND	0.0050	1	01/20/2018 16:35
Dichlorodifluoromethane	ND	0.0050	1	01/20/2018 16:35
1,1-Dichloroethane	ND	0.0050	1	01/20/2018 16:35
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/20/2018 16:35
1,1-Dichloroethene	ND	0.0050	1	01/20/2018 16:35
cis-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 16:35
trans-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 16:35
1,2-Dichloropropane	ND	0.0050	1	01/20/2018 16:35
1,3-Dichloropropane	ND	0.0050	1	01/20/2018 16:35
2,2-Dichloropropane	ND	0.0050	1	01/20/2018 16:35

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-2.5	1801844-001A	Soil	01/15/2018 09:04	GC28 01191841.D	151652

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/20/2018 16:35
cis-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 16:35
trans-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 16:35
Diisopropyl ether (DIPE)	ND	0.0050	1	01/20/2018 16:35
Ethylbenzene	ND	0.0050	1	01/20/2018 16:35
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/20/2018 16:35
Freon 113	ND	0.0050	1	01/20/2018 16:35
Hexachlorobutadiene	ND	0.0050	1	01/20/2018 16:35
Hexachloroethane	ND	0.0050	1	01/20/2018 16:35
2-Hexanone	ND	0.0050	1	01/20/2018 16:35
Isopropylbenzene	ND	0.0050	1	01/20/2018 16:35
4-Isopropyl toluene	ND	0.0050	1	01/20/2018 16:35
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/20/2018 16:35
Methylene chloride	ND	0.0050	1	01/20/2018 16:35
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/20/2018 16:35
Naphthalene	ND	0.0050	1	01/20/2018 16:35
n-Propyl benzene	ND	0.0050	1	01/20/2018 16:35
Styrene	ND	0.0050	1	01/20/2018 16:35
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 16:35
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 16:35
Tetrachloroethene	ND	0.0050	1	01/20/2018 16:35
Toluene	ND	0.0050	1	01/20/2018 16:35
1,2,3-Trichlorobenzene	ND	0.0050	1	01/20/2018 16:35
1,2,4-Trichlorobenzene	ND	0.0050	1	01/20/2018 16:35
1,1,1-Trichloroethane	ND	0.0050	1	01/20/2018 16:35
1,1,2-Trichloroethane	ND	0.0050	1	01/20/2018 16:35
Trichloroethene	ND	0.0050	1	01/20/2018 16:35
Trichlorofluoromethane	ND	0.0050	1	01/20/2018 16:35
1,2,3-Trichloropropane	ND	0.0050	1	01/20/2018 16:35
1,2,4-Trimethylbenzene	ND	0.0050	1	01/20/2018 16:35
1,3,5-Trimethylbenzene	ND	0.0050	1	01/20/2018 16:35
Vinyl Chloride	ND	0.0050	1	01/20/2018 16:35
Xylenes, Total	ND	0.0050	1	01/20/2018 16:35

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-2.5	1801844-001A	Soil	01/15/2018 09:04	GC28 01191841.D	151652

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	119	82-136		01/20/2018 16:35
Toluene-d8	135	92-139		01/20/2018 16:35
4-BFB	107	82-135		01/20/2018 16:35
Benzene-d6	88	55-122		01/20/2018 16:35
Ethylbenzene-d10	100	58-141		01/20/2018 16:35
1,2-DCB-d4	93	51-107		01/20/2018 16:35

Analyst(s): HK



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-5	1801844-002A	Soil	01/15/2018 09:08	GC28 01191842.D	151652

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/20/2018 17:13
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/20/2018 17:13
Benzene	ND	0.0050	1	01/20/2018 17:13
Bromobenzene	ND	0.0050	1	01/20/2018 17:13
Bromochloromethane	ND	0.0050	1	01/20/2018 17:13
Bromodichloromethane	ND	0.0050	1	01/20/2018 17:13
Bromoform	ND	0.0050	1	01/20/2018 17:13
Bromomethane	ND	0.0050	1	01/20/2018 17:13
2-Butanone (MEK)	ND	0.020	1	01/20/2018 17:13
t-Butyl alcohol (TBA)	ND	0.050	1	01/20/2018 17:13
n-Butyl benzene	ND	0.0050	1	01/20/2018 17:13
sec-Butyl benzene	ND	0.0050	1	01/20/2018 17:13
tert-Butyl benzene	ND	0.0050	1	01/20/2018 17:13
Carbon Disulfide	ND	0.0050	1	01/20/2018 17:13
Carbon Tetrachloride	ND	0.0050	1	01/20/2018 17:13
Chlorobenzene	ND	0.0050	1	01/20/2018 17:13
Chloroethane	ND	0.0050	1	01/20/2018 17:13
Chloroform	ND	0.0050	1	01/20/2018 17:13
Chloromethane	ND	0.0050	1	01/20/2018 17:13
2-Chlorotoluene	ND	0.0050	1	01/20/2018 17:13
4-Chlorotoluene	ND	0.0050	1	01/20/2018 17:13
Dibromochloromethane	ND	0.0050	1	01/20/2018 17:13
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/20/2018 17:13
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/20/2018 17:13
Dibromomethane	ND	0.0050	1	01/20/2018 17:13
1,2-Dichlorobenzene	ND	0.0050	1	01/20/2018 17:13
1,3-Dichlorobenzene	ND	0.0050	1	01/20/2018 17:13
1,4-Dichlorobenzene	ND	0.0050	1	01/20/2018 17:13
Dichlorodifluoromethane	ND	0.0050	1	01/20/2018 17:13
1,1-Dichloroethane	ND	0.0050	1	01/20/2018 17:13
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/20/2018 17:13
1,1-Dichloroethene	ND	0.0050	1	01/20/2018 17:13
cis-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 17:13
trans-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 17:13
1,2-Dichloropropane	ND	0.0050	1	01/20/2018 17:13
1,3-Dichloropropane	ND	0.0050	1	01/20/2018 17:13
2,2-Dichloropropane	ND	0.0050	1	01/20/2018 17:13

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-5	1801844-002A	Soil	01/15/2018 09:08	GC28 01191842.D	151652

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/20/2018 17:13
cis-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 17:13
trans-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 17:13
Diisopropyl ether (DIPE)	ND	0.0050	1	01/20/2018 17:13
Ethylbenzene	ND	0.0050	1	01/20/2018 17:13
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/20/2018 17:13
Freon 113	ND	0.0050	1	01/20/2018 17:13
Hexachlorobutadiene	ND	0.0050	1	01/20/2018 17:13
Hexachloroethane	ND	0.0050	1	01/20/2018 17:13
2-Hexanone	ND	0.0050	1	01/20/2018 17:13
Isopropylbenzene	ND	0.0050	1	01/20/2018 17:13
4-Isopropyl toluene	ND	0.0050	1	01/20/2018 17:13
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/20/2018 17:13
Methylene chloride	ND	0.0050	1	01/20/2018 17:13
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/20/2018 17:13
Naphthalene	ND	0.0050	1	01/20/2018 17:13
n-Propyl benzene	ND	0.0050	1	01/20/2018 17:13
Styrene	ND	0.0050	1	01/20/2018 17:13
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 17:13
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 17:13
Tetrachloroethene	ND	0.0050	1	01/20/2018 17:13
Toluene	ND	0.0050	1	01/20/2018 17:13
1,2,3-Trichlorobenzene	ND	0.0050	1	01/20/2018 17:13
1,2,4-Trichlorobenzene	ND	0.0050	1	01/20/2018 17:13
1,1,1-Trichloroethane	ND	0.0050	1	01/20/2018 17:13
1,1,2-Trichloroethane	ND	0.0050	1	01/20/2018 17:13
Trichloroethene	ND	0.0050	1	01/20/2018 17:13
Trichlorofluoromethane	ND	0.0050	1	01/20/2018 17:13
1,2,3-Trichloropropane	ND	0.0050	1	01/20/2018 17:13
1,2,4-Trimethylbenzene	ND	0.0050	1	01/20/2018 17:13
1,3,5-Trimethylbenzene	ND	0.0050	1	01/20/2018 17:13
Vinyl Chloride	ND	0.0050	1	01/20/2018 17:13
Xylenes, Total	ND	0.0050	1	01/20/2018 17:13

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-5	1801844-002A	Soil	01/15/2018 09:08	GC28 01191842.D	151652

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	118	82-136		01/20/2018 17:13
Toluene-d8	134	92-139		01/20/2018 17:13
4-BFB	106	82-135		01/20/2018 17:13
Benzene-d6	88	55-122		01/20/2018 17:13
Ethylbenzene-d10	100	58-141		01/20/2018 17:13
1,2-DCB-d4	95	51-107		01/20/2018 17:13

Analyst(s): HK



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-10	1801844-003A	Soil	01/15/2018 09:08	GC28 01191843.D	151652

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/20/2018 17:51
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/20/2018 17:51
Benzene	ND	0.0050	1	01/20/2018 17:51
Bromobenzene	ND	0.0050	1	01/20/2018 17:51
Bromochloromethane	ND	0.0050	1	01/20/2018 17:51
Bromodichloromethane	ND	0.0050	1	01/20/2018 17:51
Bromoform	ND	0.0050	1	01/20/2018 17:51
Bromomethane	ND	0.0050	1	01/20/2018 17:51
2-Butanone (MEK)	ND	0.020	1	01/20/2018 17:51
t-Butyl alcohol (TBA)	ND	0.050	1	01/20/2018 17:51
n-Butyl benzene	ND	0.0050	1	01/20/2018 17:51
sec-Butyl benzene	ND	0.0050	1	01/20/2018 17:51
tert-Butyl benzene	ND	0.0050	1	01/20/2018 17:51
Carbon Disulfide	ND	0.0050	1	01/20/2018 17:51
Carbon Tetrachloride	ND	0.0050	1	01/20/2018 17:51
Chlorobenzene	ND	0.0050	1	01/20/2018 17:51
Chloroethane	ND	0.0050	1	01/20/2018 17:51
Chloroform	ND	0.0050	1	01/20/2018 17:51
Chloromethane	ND	0.0050	1	01/20/2018 17:51
2-Chlorotoluene	ND	0.0050	1	01/20/2018 17:51
4-Chlorotoluene	ND	0.0050	1	01/20/2018 17:51
Dibromochloromethane	ND	0.0050	1	01/20/2018 17:51
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/20/2018 17:51
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/20/2018 17:51
Dibromomethane	ND	0.0050	1	01/20/2018 17:51
1,2-Dichlorobenzene	ND	0.0050	1	01/20/2018 17:51
1,3-Dichlorobenzene	ND	0.0050	1	01/20/2018 17:51
1,4-Dichlorobenzene	ND	0.0050	1	01/20/2018 17:51
Dichlorodifluoromethane	ND	0.0050	1	01/20/2018 17:51
1,1-Dichloroethane	ND	0.0050	1	01/20/2018 17:51
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/20/2018 17:51
1,1-Dichloroethene	ND	0.0050	1	01/20/2018 17:51
cis-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 17:51
trans-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 17:51
1,2-Dichloropropane	ND	0.0050	1	01/20/2018 17:51
1,3-Dichloropropane	ND	0.0050	1	01/20/2018 17:51
2,2-Dichloropropane	ND	0.0050	1	01/20/2018 17:51

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-10	1801844-003A	Soil	01/15/2018 09:08	GC28 01191843.D	151652

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/20/2018 17:51
cis-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 17:51
trans-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 17:51
Diisopropyl ether (DIPE)	ND	0.0050	1	01/20/2018 17:51
Ethylbenzene	ND	0.0050	1	01/20/2018 17:51
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/20/2018 17:51
Freon 113	ND	0.0050	1	01/20/2018 17:51
Hexachlorobutadiene	ND	0.0050	1	01/20/2018 17:51
Hexachloroethane	ND	0.0050	1	01/20/2018 17:51
2-Hexanone	ND	0.0050	1	01/20/2018 17:51
Isopropylbenzene	ND	0.0050	1	01/20/2018 17:51
4-Isopropyl toluene	ND	0.0050	1	01/20/2018 17:51
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/20/2018 17:51
Methylene chloride	ND	0.0050	1	01/20/2018 17:51
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/20/2018 17:51
Naphthalene	ND	0.0050	1	01/20/2018 17:51
n-Propyl benzene	ND	0.0050	1	01/20/2018 17:51
Styrene	ND	0.0050	1	01/20/2018 17:51
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 17:51
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 17:51
Tetrachloroethene	ND	0.0050	1	01/20/2018 17:51
Toluene	ND	0.0050	1	01/20/2018 17:51
1,2,3-Trichlorobenzene	ND	0.0050	1	01/20/2018 17:51
1,2,4-Trichlorobenzene	ND	0.0050	1	01/20/2018 17:51
1,1,1-Trichloroethane	ND	0.0050	1	01/20/2018 17:51
1,1,2-Trichloroethane	ND	0.0050	1	01/20/2018 17:51
Trichloroethene	ND	0.0050	1	01/20/2018 17:51
Trichlorofluoromethane	ND	0.0050	1	01/20/2018 17:51
1,2,3-Trichloropropane	ND	0.0050	1	01/20/2018 17:51
1,2,4-Trimethylbenzene	ND	0.0050	1	01/20/2018 17:51
1,3,5-Trimethylbenzene	ND	0.0050	1	01/20/2018 17:51
Vinyl Chloride	ND	0.0050	1	01/20/2018 17:51
Xylenes, Total	ND	0.0050	1	01/20/2018 17:51

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-10	1801844-003A	Soil	01/15/2018 09:08	GC28 01191843.D	151652

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	119	82-136		01/20/2018 17:51
Toluene-d8	134	92-139		01/20/2018 17:51
4-BFB	101	82-135		01/20/2018 17:51
Benzene-d6	89	55-122		01/20/2018 17:51
Ethylbenzene-d10	100	58-141		01/20/2018 17:51
1,2-DCB-d4	95	51-107		01/20/2018 17:51

Analyst(s): HK



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-15	1801844-004A	Soil	01/15/2018 09:28	GC28 01191844.D	151652

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/20/2018 18:30
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/20/2018 18:30
Benzene	ND	0.0050	1	01/20/2018 18:30
Bromobenzene	ND	0.0050	1	01/20/2018 18:30
Bromochloromethane	ND	0.0050	1	01/20/2018 18:30
Bromodichloromethane	ND	0.0050	1	01/20/2018 18:30
Bromoform	ND	0.0050	1	01/20/2018 18:30
Bromomethane	ND	0.0050	1	01/20/2018 18:30
2-Butanone (MEK)	ND	0.020	1	01/20/2018 18:30
t-Butyl alcohol (TBA)	ND	0.050	1	01/20/2018 18:30
n-Butyl benzene	ND	0.0050	1	01/20/2018 18:30
sec-Butyl benzene	ND	0.0050	1	01/20/2018 18:30
tert-Butyl benzene	ND	0.0050	1	01/20/2018 18:30
Carbon Disulfide	ND	0.0050	1	01/20/2018 18:30
Carbon Tetrachloride	ND	0.0050	1	01/20/2018 18:30
Chlorobenzene	ND	0.0050	1	01/20/2018 18:30
Chloroethane	ND	0.0050	1	01/20/2018 18:30
Chloroform	ND	0.0050	1	01/20/2018 18:30
Chloromethane	ND	0.0050	1	01/20/2018 18:30
2-Chlorotoluene	ND	0.0050	1	01/20/2018 18:30
4-Chlorotoluene	ND	0.0050	1	01/20/2018 18:30
Dibromochloromethane	ND	0.0050	1	01/20/2018 18:30
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/20/2018 18:30
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/20/2018 18:30
Dibromomethane	ND	0.0050	1	01/20/2018 18:30
1,2-Dichlorobenzene	ND	0.0050	1	01/20/2018 18:30
1,3-Dichlorobenzene	ND	0.0050	1	01/20/2018 18:30
1,4-Dichlorobenzene	ND	0.0050	1	01/20/2018 18:30
Dichlorodifluoromethane	ND	0.0050	1	01/20/2018 18:30
1,1-Dichloroethane	ND	0.0050	1	01/20/2018 18:30
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/20/2018 18:30
1,1-Dichloroethene	ND	0.0050	1	01/20/2018 18:30
cis-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 18:30
trans-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 18:30
1,2-Dichloropropane	ND	0.0050	1	01/20/2018 18:30
1,3-Dichloropropane	ND	0.0050	1	01/20/2018 18:30
2,2-Dichloropropane	ND	0.0050	1	01/20/2018 18:30

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-15	1801844-004A	Soil	01/15/2018 09:28	GC28 01191844.D	151652

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/20/2018 18:30
cis-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 18:30
trans-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 18:30
Diisopropyl ether (DIPE)	ND	0.0050	1	01/20/2018 18:30
Ethylbenzene	ND	0.0050	1	01/20/2018 18:30
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/20/2018 18:30
Freon 113	ND	0.0050	1	01/20/2018 18:30
Hexachlorobutadiene	ND	0.0050	1	01/20/2018 18:30
Hexachloroethane	ND	0.0050	1	01/20/2018 18:30
2-Hexanone	ND	0.0050	1	01/20/2018 18:30
Isopropylbenzene	ND	0.0050	1	01/20/2018 18:30
4-Isopropyl toluene	ND	0.0050	1	01/20/2018 18:30
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/20/2018 18:30
Methylene chloride	ND	0.0050	1	01/20/2018 18:30
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/20/2018 18:30
Naphthalene	ND	0.0050	1	01/20/2018 18:30
n-Propyl benzene	ND	0.0050	1	01/20/2018 18:30
Styrene	ND	0.0050	1	01/20/2018 18:30
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 18:30
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 18:30
Tetrachloroethene	ND	0.0050	1	01/20/2018 18:30
Toluene	ND	0.0050	1	01/20/2018 18:30
1,2,3-Trichlorobenzene	ND	0.0050	1	01/20/2018 18:30
1,2,4-Trichlorobenzene	ND	0.0050	1	01/20/2018 18:30
1,1,1-Trichloroethane	ND	0.0050	1	01/20/2018 18:30
1,1,2-Trichloroethane	ND	0.0050	1	01/20/2018 18:30
Trichloroethene	ND	0.0050	1	01/20/2018 18:30
Trichlorofluoromethane	ND	0.0050	1	01/20/2018 18:30
1,2,3-Trichloropropane	ND	0.0050	1	01/20/2018 18:30
1,2,4-Trimethylbenzene	ND	0.0050	1	01/20/2018 18:30
1,3,5-Trimethylbenzene	ND	0.0050	1	01/20/2018 18:30
Vinyl Chloride	ND	0.0050	1	01/20/2018 18:30
Xylenes, Total	ND	0.0050	1	01/20/2018 18:30

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-15	1801844-004A	Soil	01/15/2018 09:28	GC28 01191844.D	151652

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	118	82-136		01/20/2018 18:30
Toluene-d8	134	92-139		01/20/2018 18:30
4-BFB	101	82-135		01/20/2018 18:30
Benzene-d6	91	55-122		01/20/2018 18:30
Ethylbenzene-d10	102	58-141		01/20/2018 18:30
1,2-DCB-d4	99	51-107		01/20/2018 18:30

Analyst(s): HK



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-10	1801844-012A	Soil	01/15/2018 15:02	GC28 01191845.D	151652

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/20/2018 19:08
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/20/2018 19:08
Benzene	ND	0.0050	1	01/20/2018 19:08
Bromobenzene	ND	0.0050	1	01/20/2018 19:08
Bromochloromethane	ND	0.0050	1	01/20/2018 19:08
Bromodichloromethane	ND	0.0050	1	01/20/2018 19:08
Bromoform	ND	0.0050	1	01/20/2018 19:08
Bromomethane	ND	0.0050	1	01/20/2018 19:08
2-Butanone (MEK)	ND	0.020	1	01/20/2018 19:08
t-Butyl alcohol (TBA)	ND	0.050	1	01/20/2018 19:08
n-Butyl benzene	ND	0.0050	1	01/20/2018 19:08
sec-Butyl benzene	ND	0.0050	1	01/20/2018 19:08
tert-Butyl benzene	ND	0.0050	1	01/20/2018 19:08
Carbon Disulfide	ND	0.0050	1	01/20/2018 19:08
Carbon Tetrachloride	ND	0.0050	1	01/20/2018 19:08
Chlorobenzene	ND	0.0050	1	01/20/2018 19:08
Chloroethane	ND	0.0050	1	01/20/2018 19:08
Chloroform	ND	0.0050	1	01/20/2018 19:08
Chloromethane	ND	0.0050	1	01/20/2018 19:08
2-Chlorotoluene	ND	0.0050	1	01/20/2018 19:08
4-Chlorotoluene	ND	0.0050	1	01/20/2018 19:08
Dibromochloromethane	ND	0.0050	1	01/20/2018 19:08
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/20/2018 19:08
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/20/2018 19:08
Dibromomethane	ND	0.0050	1	01/20/2018 19:08
1,2-Dichlorobenzene	ND	0.0050	1	01/20/2018 19:08
1,3-Dichlorobenzene	ND	0.0050	1	01/20/2018 19:08
1,4-Dichlorobenzene	ND	0.0050	1	01/20/2018 19:08
Dichlorodifluoromethane	ND	0.0050	1	01/20/2018 19:08
1,1-Dichloroethane	ND	0.0050	1	01/20/2018 19:08
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/20/2018 19:08
1,1-Dichloroethene	ND	0.0050	1	01/20/2018 19:08
cis-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 19:08
trans-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 19:08
1,2-Dichloropropane	ND	0.0050	1	01/20/2018 19:08
1,3-Dichloropropane	ND	0.0050	1	01/20/2018 19:08
2,2-Dichloropropane	ND	0.0050	1	01/20/2018 19:08

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-10	1801844-012A	Soil	01/15/2018 15:02	GC28 01191845.D	151652

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/20/2018 19:08
cis-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 19:08
trans-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 19:08
Diisopropyl ether (DIPE)	ND	0.0050	1	01/20/2018 19:08
Ethylbenzene	ND	0.0050	1	01/20/2018 19:08
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/20/2018 19:08
Freon 113	ND	0.0050	1	01/20/2018 19:08
Hexachlorobutadiene	ND	0.0050	1	01/20/2018 19:08
Hexachloroethane	ND	0.0050	1	01/20/2018 19:08
2-Hexanone	ND	0.0050	1	01/20/2018 19:08
Isopropylbenzene	ND	0.0050	1	01/20/2018 19:08
4-Isopropyl toluene	ND	0.0050	1	01/20/2018 19:08
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/20/2018 19:08
Methylene chloride	ND	0.0050	1	01/20/2018 19:08
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/20/2018 19:08
Naphthalene	ND	0.0050	1	01/20/2018 19:08
n-Propyl benzene	ND	0.0050	1	01/20/2018 19:08
Styrene	ND	0.0050	1	01/20/2018 19:08
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 19:08
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 19:08
Tetrachloroethene	ND	0.0050	1	01/20/2018 19:08
Toluene	ND	0.0050	1	01/20/2018 19:08
1,2,3-Trichlorobenzene	ND	0.0050	1	01/20/2018 19:08
1,2,4-Trichlorobenzene	ND	0.0050	1	01/20/2018 19:08
1,1,1-Trichloroethane	ND	0.0050	1	01/20/2018 19:08
1,1,2-Trichloroethane	ND	0.0050	1	01/20/2018 19:08
Trichloroethene	ND	0.0050	1	01/20/2018 19:08
Trichlorofluoromethane	ND	0.0050	1	01/20/2018 19:08
1,2,3-Trichloropropane	ND	0.0050	1	01/20/2018 19:08
1,2,4-Trimethylbenzene	ND	0.0050	1	01/20/2018 19:08
1,3,5-Trimethylbenzene	ND	0.0050	1	01/20/2018 19:08
Vinyl Chloride	ND	0.0050	1	01/20/2018 19:08
Xylenes, Total	ND	0.0050	1	01/20/2018 19:08

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-10	1801844-012A	Soil	01/15/2018 15:02	GC28 01191845.D	151652

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	119	82-136		01/20/2018 19:08
Toluene-d8	135	92-139		01/20/2018 19:08
4-BFB	107	82-135		01/20/2018 19:08
Benzene-d6	93	55-122		01/20/2018 19:08
Ethylbenzene-d10	106	58-141		01/20/2018 19:08
1,2-DCB-d4	98	51-107		01/20/2018 19:08

Analyst(s): HK



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-15	1801844-013A	Soil	01/15/2018 15:11	GC28 01191846.D	151652

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/20/2018 19:46
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/20/2018 19:46
Benzene	ND	0.0050	1	01/20/2018 19:46
Bromobenzene	ND	0.0050	1	01/20/2018 19:46
Bromochloromethane	ND	0.0050	1	01/20/2018 19:46
Bromodichloromethane	ND	0.0050	1	01/20/2018 19:46
Bromoform	ND	0.0050	1	01/20/2018 19:46
Bromomethane	ND	0.0050	1	01/20/2018 19:46
2-Butanone (MEK)	ND	0.020	1	01/20/2018 19:46
t-Butyl alcohol (TBA)	ND	0.050	1	01/20/2018 19:46
n-Butyl benzene	ND	0.0050	1	01/20/2018 19:46
sec-Butyl benzene	ND	0.0050	1	01/20/2018 19:46
tert-Butyl benzene	ND	0.0050	1	01/20/2018 19:46
Carbon Disulfide	ND	0.0050	1	01/20/2018 19:46
Carbon Tetrachloride	ND	0.0050	1	01/20/2018 19:46
Chlorobenzene	ND	0.0050	1	01/20/2018 19:46
Chloroethane	ND	0.0050	1	01/20/2018 19:46
Chloroform	ND	0.0050	1	01/20/2018 19:46
Chloromethane	ND	0.0050	1	01/20/2018 19:46
2-Chlorotoluene	ND	0.0050	1	01/20/2018 19:46
4-Chlorotoluene	ND	0.0050	1	01/20/2018 19:46
Dibromochloromethane	ND	0.0050	1	01/20/2018 19:46
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/20/2018 19:46
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/20/2018 19:46
Dibromomethane	ND	0.0050	1	01/20/2018 19:46
1,2-Dichlorobenzene	ND	0.0050	1	01/20/2018 19:46
1,3-Dichlorobenzene	ND	0.0050	1	01/20/2018 19:46
1,4-Dichlorobenzene	ND	0.0050	1	01/20/2018 19:46
Dichlorodifluoromethane	ND	0.0050	1	01/20/2018 19:46
1,1-Dichloroethane	ND	0.0050	1	01/20/2018 19:46
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/20/2018 19:46
1,1-Dichloroethene	ND	0.0050	1	01/20/2018 19:46
cis-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 19:46
trans-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 19:46
1,2-Dichloropropane	ND	0.0050	1	01/20/2018 19:46
1,3-Dichloropropane	ND	0.0050	1	01/20/2018 19:46
2,2-Dichloropropane	ND	0.0050	1	01/20/2018 19:46

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-15	1801844-013A	Soil	01/15/2018 15:11	GC28 01191846.D	151652

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/20/2018 19:46
cis-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 19:46
trans-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 19:46
Diisopropyl ether (DIPE)	ND	0.0050	1	01/20/2018 19:46
Ethylbenzene	ND	0.0050	1	01/20/2018 19:46
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/20/2018 19:46
Freon 113	ND	0.0050	1	01/20/2018 19:46
Hexachlorobutadiene	ND	0.0050	1	01/20/2018 19:46
Hexachloroethane	ND	0.0050	1	01/20/2018 19:46
2-Hexanone	ND	0.0050	1	01/20/2018 19:46
Isopropylbenzene	ND	0.0050	1	01/20/2018 19:46
4-Isopropyl toluene	ND	0.0050	1	01/20/2018 19:46
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/20/2018 19:46
Methylene chloride	ND	0.0050	1	01/20/2018 19:46
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/20/2018 19:46
Naphthalene	ND	0.0050	1	01/20/2018 19:46
n-Propyl benzene	ND	0.0050	1	01/20/2018 19:46
Styrene	ND	0.0050	1	01/20/2018 19:46
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 19:46
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 19:46
Tetrachloroethene	ND	0.0050	1	01/20/2018 19:46
Toluene	ND	0.0050	1	01/20/2018 19:46
1,2,3-Trichlorobenzene	ND	0.0050	1	01/20/2018 19:46
1,2,4-Trichlorobenzene	ND	0.0050	1	01/20/2018 19:46
1,1,1-Trichloroethane	ND	0.0050	1	01/20/2018 19:46
1,1,2-Trichloroethane	ND	0.0050	1	01/20/2018 19:46
Trichloroethene	ND	0.0050	1	01/20/2018 19:46
Trichlorofluoromethane	ND	0.0050	1	01/20/2018 19:46
1,2,3-Trichloropropane	ND	0.0050	1	01/20/2018 19:46
1,2,4-Trimethylbenzene	ND	0.0050	1	01/20/2018 19:46
1,3,5-Trimethylbenzene	ND	0.0050	1	01/20/2018 19:46
Vinyl Chloride	ND	0.0050	1	01/20/2018 19:46
Xylenes, Total	ND	0.0050	1	01/20/2018 19:46

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-15	1801844-013A	Soil	01/15/2018 15:11	GC28 01191846.D	151652

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	117	82-136		01/20/2018 19:46
Toluene-d8	134	92-139		01/20/2018 19:46
4-BFB	108	82-135		01/20/2018 19:46
Benzene-d6	89	55-122		01/20/2018 19:46
Ethylbenzene-d10	101	58-141		01/20/2018 19:46
1,2-DCB-d4	97	51-107		01/20/2018 19:46

Analyst(s): HK



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-20	1801844-014A	Soil	01/15/2018 15:16	GC28 01191847.D	151652

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/20/2018 20:24
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/20/2018 20:24
Benzene	ND	0.0050	1	01/20/2018 20:24
Bromobenzene	ND	0.0050	1	01/20/2018 20:24
Bromochloromethane	ND	0.0050	1	01/20/2018 20:24
Bromodichloromethane	ND	0.0050	1	01/20/2018 20:24
Bromoform	ND	0.0050	1	01/20/2018 20:24
Bromomethane	ND	0.0050	1	01/20/2018 20:24
2-Butanone (MEK)	ND	0.020	1	01/20/2018 20:24
t-Butyl alcohol (TBA)	ND	0.050	1	01/20/2018 20:24
n-Butyl benzene	ND	0.0050	1	01/20/2018 20:24
sec-Butyl benzene	ND	0.0050	1	01/20/2018 20:24
tert-Butyl benzene	ND	0.0050	1	01/20/2018 20:24
Carbon Disulfide	ND	0.0050	1	01/20/2018 20:24
Carbon Tetrachloride	ND	0.0050	1	01/20/2018 20:24
Chlorobenzene	ND	0.0050	1	01/20/2018 20:24
Chloroethane	ND	0.0050	1	01/20/2018 20:24
Chloroform	ND	0.0050	1	01/20/2018 20:24
Chloromethane	ND	0.0050	1	01/20/2018 20:24
2-Chlorotoluene	ND	0.0050	1	01/20/2018 20:24
4-Chlorotoluene	ND	0.0050	1	01/20/2018 20:24
Dibromochloromethane	ND	0.0050	1	01/20/2018 20:24
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/20/2018 20:24
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/20/2018 20:24
Dibromomethane	ND	0.0050	1	01/20/2018 20:24
1,2-Dichlorobenzene	ND	0.0050	1	01/20/2018 20:24
1,3-Dichlorobenzene	ND	0.0050	1	01/20/2018 20:24
1,4-Dichlorobenzene	ND	0.0050	1	01/20/2018 20:24
Dichlorodifluoromethane	ND	0.0050	1	01/20/2018 20:24
1,1-Dichloroethane	ND	0.0050	1	01/20/2018 20:24
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/20/2018 20:24
1,1-Dichloroethene	ND	0.0050	1	01/20/2018 20:24
cis-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 20:24
trans-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 20:24
1,2-Dichloropropane	ND	0.0050	1	01/20/2018 20:24
1,3-Dichloropropane	ND	0.0050	1	01/20/2018 20:24
2,2-Dichloropropane	ND	0.0050	1	01/20/2018 20:24

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-20	1801844-014A	Soil	01/15/2018 15:16	GC28 01191847.D	151652

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/20/2018 20:24
cis-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 20:24
trans-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 20:24
Diisopropyl ether (DIPE)	ND	0.0050	1	01/20/2018 20:24
Ethylbenzene	ND	0.0050	1	01/20/2018 20:24
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/20/2018 20:24
Freon 113	ND	0.0050	1	01/20/2018 20:24
Hexachlorobutadiene	ND	0.0050	1	01/20/2018 20:24
Hexachloroethane	ND	0.0050	1	01/20/2018 20:24
2-Hexanone	ND	0.0050	1	01/20/2018 20:24
Isopropylbenzene	ND	0.0050	1	01/20/2018 20:24
4-Isopropyl toluene	ND	0.0050	1	01/20/2018 20:24
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/20/2018 20:24
Methylene chloride	ND	0.0050	1	01/20/2018 20:24
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/20/2018 20:24
Naphthalene	ND	0.0050	1	01/20/2018 20:24
n-Propyl benzene	ND	0.0050	1	01/20/2018 20:24
Styrene	ND	0.0050	1	01/20/2018 20:24
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 20:24
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 20:24
Tetrachloroethene	ND	0.0050	1	01/20/2018 20:24
Toluene	ND	0.0050	1	01/20/2018 20:24
1,2,3-Trichlorobenzene	ND	0.0050	1	01/20/2018 20:24
1,2,4-Trichlorobenzene	ND	0.0050	1	01/20/2018 20:24
1,1,1-Trichloroethane	ND	0.0050	1	01/20/2018 20:24
1,1,2-Trichloroethane	ND	0.0050	1	01/20/2018 20:24
Trichloroethene	ND	0.0050	1	01/20/2018 20:24
Trichlorofluoromethane	ND	0.0050	1	01/20/2018 20:24
1,2,3-Trichloropropane	ND	0.0050	1	01/20/2018 20:24
1,2,4-Trimethylbenzene	ND	0.0050	1	01/20/2018 20:24
1,3,5-Trimethylbenzene	ND	0.0050	1	01/20/2018 20:24
Vinyl Chloride	ND	0.0050	1	01/20/2018 20:24
Xylenes, Total	ND	0.0050	1	01/20/2018 20:24

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-20	1801844-014A	Soil	01/15/2018 15:16	GC28 01191847.D	151652

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	118	82-136		01/20/2018 20:24
Toluene-d8	134	92-139		01/20/2018 20:24
4-BFB	103	82-135		01/20/2018 20:24
Benzene-d6	86	55-122		01/20/2018 20:24
Ethylbenzene-d10	99	58-141		01/20/2018 20:24
1,2-DCB-d4	95	51-107		01/20/2018 20:24

Analyst(s): HK



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-21.5	1801844-015A	Soil	01/15/2018 15:25	GC28 01191848.D	151652

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/20/2018 21:01
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/20/2018 21:01
Benzene	ND	0.0050	1	01/20/2018 21:01
Bromobenzene	ND	0.0050	1	01/20/2018 21:01
Bromochloromethane	ND	0.0050	1	01/20/2018 21:01
Bromodichloromethane	ND	0.0050	1	01/20/2018 21:01
Bromoform	ND	0.0050	1	01/20/2018 21:01
Bromomethane	ND	0.0050	1	01/20/2018 21:01
2-Butanone (MEK)	ND	0.020	1	01/20/2018 21:01
t-Butyl alcohol (TBA)	ND	0.050	1	01/20/2018 21:01
n-Butyl benzene	ND	0.0050	1	01/20/2018 21:01
sec-Butyl benzene	ND	0.0050	1	01/20/2018 21:01
tert-Butyl benzene	ND	0.0050	1	01/20/2018 21:01
Carbon Disulfide	ND	0.0050	1	01/20/2018 21:01
Carbon Tetrachloride	ND	0.0050	1	01/20/2018 21:01
Chlorobenzene	ND	0.0050	1	01/20/2018 21:01
Chloroethane	ND	0.0050	1	01/20/2018 21:01
Chloroform	ND	0.0050	1	01/20/2018 21:01
Chloromethane	ND	0.0050	1	01/20/2018 21:01
2-Chlorotoluene	ND	0.0050	1	01/20/2018 21:01
4-Chlorotoluene	ND	0.0050	1	01/20/2018 21:01
Dibromochloromethane	ND	0.0050	1	01/20/2018 21:01
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/20/2018 21:01
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/20/2018 21:01
Dibromomethane	ND	0.0050	1	01/20/2018 21:01
1,2-Dichlorobenzene	ND	0.0050	1	01/20/2018 21:01
1,3-Dichlorobenzene	ND	0.0050	1	01/20/2018 21:01
1,4-Dichlorobenzene	ND	0.0050	1	01/20/2018 21:01
Dichlorodifluoromethane	ND	0.0050	1	01/20/2018 21:01
1,1-Dichloroethane	ND	0.0050	1	01/20/2018 21:01
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/20/2018 21:01
1,1-Dichloroethene	ND	0.0050	1	01/20/2018 21:01
cis-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 21:01
trans-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 21:01
1,2-Dichloropropane	ND	0.0050	1	01/20/2018 21:01
1,3-Dichloropropane	ND	0.0050	1	01/20/2018 21:01
2,2-Dichloropropane	ND	0.0050	1	01/20/2018 21:01

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-21.5	1801844-015A	Soil	01/15/2018 15:25	GC28 01191848.D	151652

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/20/2018 21:01
cis-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 21:01
trans-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 21:01
Diisopropyl ether (DIPE)	ND	0.0050	1	01/20/2018 21:01
Ethylbenzene	ND	0.0050	1	01/20/2018 21:01
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/20/2018 21:01
Freon 113	ND	0.0050	1	01/20/2018 21:01
Hexachlorobutadiene	ND	0.0050	1	01/20/2018 21:01
Hexachloroethane	ND	0.0050	1	01/20/2018 21:01
2-Hexanone	ND	0.0050	1	01/20/2018 21:01
Isopropylbenzene	ND	0.0050	1	01/20/2018 21:01
4-Isopropyl toluene	ND	0.0050	1	01/20/2018 21:01
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/20/2018 21:01
Methylene chloride	ND	0.0050	1	01/20/2018 21:01
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/20/2018 21:01
Naphthalene	ND	0.0050	1	01/20/2018 21:01
n-Propyl benzene	ND	0.0050	1	01/20/2018 21:01
Styrene	ND	0.0050	1	01/20/2018 21:01
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 21:01
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 21:01
Tetrachloroethene	ND	0.0050	1	01/20/2018 21:01
Toluene	ND	0.0050	1	01/20/2018 21:01
1,2,3-Trichlorobenzene	ND	0.0050	1	01/20/2018 21:01
1,2,4-Trichlorobenzene	ND	0.0050	1	01/20/2018 21:01
1,1,1-Trichloroethane	ND	0.0050	1	01/20/2018 21:01
1,1,2-Trichloroethane	ND	0.0050	1	01/20/2018 21:01
Trichloroethene	ND	0.0050	1	01/20/2018 21:01
Trichlorofluoromethane	ND	0.0050	1	01/20/2018 21:01
1,2,3-Trichloropropane	ND	0.0050	1	01/20/2018 21:01
1,2,4-Trimethylbenzene	ND	0.0050	1	01/20/2018 21:01
1,3,5-Trimethylbenzene	ND	0.0050	1	01/20/2018 21:01
Vinyl Chloride	ND	0.0050	1	01/20/2018 21:01
Xylenes, Total	ND	0.0050	1	01/20/2018 21:01

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-21.5	1801844-015A	Soil	01/15/2018 15:25	GC28 01191848.D	151652

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	110	82-136		01/20/2018 21:01
Toluene-d8	132	92-139		01/20/2018 21:01
4-BFB	104	82-135		01/20/2018 21:01
Benzene-d6	75	55-122		01/20/2018 21:01
Ethylbenzene-d10	91	58-141		01/20/2018 21:01
1,2-DCB-d4	92	51-107		01/20/2018 21:01

Analyst(s): HK



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-2.5	1801844-018A	Soil	01/16/2018 08:49	GC28 01191849.D	151652

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/20/2018 21:39
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/20/2018 21:39
Benzene	ND	0.0050	1	01/20/2018 21:39
Bromobenzene	ND	0.0050	1	01/20/2018 21:39
Bromochloromethane	ND	0.0050	1	01/20/2018 21:39
Bromodichloromethane	ND	0.0050	1	01/20/2018 21:39
Bromoform	ND	0.0050	1	01/20/2018 21:39
Bromomethane	ND	0.0050	1	01/20/2018 21:39
2-Butanone (MEK)	ND	0.020	1	01/20/2018 21:39
t-Butyl alcohol (TBA)	ND	0.050	1	01/20/2018 21:39
n-Butyl benzene	ND	0.0050	1	01/20/2018 21:39
sec-Butyl benzene	ND	0.0050	1	01/20/2018 21:39
tert-Butyl benzene	ND	0.0050	1	01/20/2018 21:39
Carbon Disulfide	ND	0.0050	1	01/20/2018 21:39
Carbon Tetrachloride	ND	0.0050	1	01/20/2018 21:39
Chlorobenzene	ND	0.0050	1	01/20/2018 21:39
Chloroethane	ND	0.0050	1	01/20/2018 21:39
Chloroform	ND	0.0050	1	01/20/2018 21:39
Chloromethane	ND	0.0050	1	01/20/2018 21:39
2-Chlorotoluene	ND	0.0050	1	01/20/2018 21:39
4-Chlorotoluene	ND	0.0050	1	01/20/2018 21:39
Dibromochloromethane	ND	0.0050	1	01/20/2018 21:39
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/20/2018 21:39
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/20/2018 21:39
Dibromomethane	ND	0.0050	1	01/20/2018 21:39
1,2-Dichlorobenzene	ND	0.0050	1	01/20/2018 21:39
1,3-Dichlorobenzene	ND	0.0050	1	01/20/2018 21:39
1,4-Dichlorobenzene	ND	0.0050	1	01/20/2018 21:39
Dichlorodifluoromethane	ND	0.0050	1	01/20/2018 21:39
1,1-Dichloroethane	ND	0.0050	1	01/20/2018 21:39
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/20/2018 21:39
1,1-Dichloroethene	ND	0.0050	1	01/20/2018 21:39
cis-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 21:39
trans-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 21:39
1,2-Dichloropropane	ND	0.0050	1	01/20/2018 21:39
1,3-Dichloropropane	ND	0.0050	1	01/20/2018 21:39
2,2-Dichloropropane	ND	0.0050	1	01/20/2018 21:39

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-2.5	1801844-018A	Soil	01/16/2018 08:49	GC28 01191849.D	151652

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/20/2018 21:39
cis-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 21:39
trans-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 21:39
Diisopropyl ether (DIPE)	ND	0.0050	1	01/20/2018 21:39
Ethylbenzene	ND	0.0050	1	01/20/2018 21:39
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/20/2018 21:39
Freon 113	ND	0.0050	1	01/20/2018 21:39
Hexachlorobutadiene	ND	0.0050	1	01/20/2018 21:39
Hexachloroethane	ND	0.0050	1	01/20/2018 21:39
2-Hexanone	ND	0.0050	1	01/20/2018 21:39
Isopropylbenzene	ND	0.0050	1	01/20/2018 21:39
4-Isopropyl toluene	ND	0.0050	1	01/20/2018 21:39
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/20/2018 21:39
Methylene chloride	ND	0.0050	1	01/20/2018 21:39
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/20/2018 21:39
Naphthalene	ND	0.0050	1	01/20/2018 21:39
n-Propyl benzene	ND	0.0050	1	01/20/2018 21:39
Styrene	ND	0.0050	1	01/20/2018 21:39
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 21:39
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 21:39
Tetrachloroethene	ND	0.0050	1	01/20/2018 21:39
Toluene	ND	0.0050	1	01/20/2018 21:39
1,2,3-Trichlorobenzene	ND	0.0050	1	01/20/2018 21:39
1,2,4-Trichlorobenzene	ND	0.0050	1	01/20/2018 21:39
1,1,1-Trichloroethane	ND	0.0050	1	01/20/2018 21:39
1,1,2-Trichloroethane	ND	0.0050	1	01/20/2018 21:39
Trichloroethene	ND	0.0050	1	01/20/2018 21:39
Trichlorofluoromethane	ND	0.0050	1	01/20/2018 21:39
1,2,3-Trichloropropane	ND	0.0050	1	01/20/2018 21:39
1,2,4-Trimethylbenzene	ND	0.0050	1	01/20/2018 21:39
1,3,5-Trimethylbenzene	ND	0.0050	1	01/20/2018 21:39
Vinyl Chloride	ND	0.0050	1	01/20/2018 21:39
Xylenes, Total	ND	0.0050	1	01/20/2018 21:39

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-2.5	1801844-018A	Soil	01/16/2018 08:49	GC28 01191849.D	151652

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	118	82-136		01/20/2018 21:39
Toluene-d8	135	92-139		01/20/2018 21:39
4-BFB	102	82-135		01/20/2018 21:39
Benzene-d6	91	55-122		01/20/2018 21:39
Ethylbenzene-d10	103	58-141		01/20/2018 21:39
1,2-DCB-d4	96	51-107		01/20/2018 21:39

Analyst(s): HK



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-2.5	1801844-019A	Soil	01/16/2018 12:07	GC38 01181848.D	151652

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/20/2018 18:35
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/20/2018 18:35
Benzene	ND	0.0050	1	01/20/2018 18:35
Bromobenzene	ND	0.0050	1	01/20/2018 18:35
Bromochloromethane	ND	0.0050	1	01/20/2018 18:35
Bromodichloromethane	ND	0.0050	1	01/20/2018 18:35
Bromoform	ND	0.0050	1	01/20/2018 18:35
Bromomethane	ND	0.0050	1	01/20/2018 18:35
2-Butanone (MEK)	ND	0.020	1	01/20/2018 18:35
t-Butyl alcohol (TBA)	ND	0.050	1	01/20/2018 18:35
n-Butyl benzene	ND	0.0050	1	01/20/2018 18:35
sec-Butyl benzene	ND	0.0050	1	01/20/2018 18:35
tert-Butyl benzene	ND	0.0050	1	01/20/2018 18:35
Carbon Disulfide	ND	0.0050	1	01/20/2018 18:35
Carbon Tetrachloride	ND	0.0050	1	01/20/2018 18:35
Chlorobenzene	ND	0.0050	1	01/20/2018 18:35
Chloroethane	ND	0.0050	1	01/20/2018 18:35
Chloroform	ND	0.0050	1	01/20/2018 18:35
Chloromethane	ND	0.0050	1	01/20/2018 18:35
2-Chlorotoluene	ND	0.0050	1	01/20/2018 18:35
4-Chlorotoluene	ND	0.0050	1	01/20/2018 18:35
Dibromochloromethane	ND	0.0050	1	01/20/2018 18:35
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/20/2018 18:35
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/20/2018 18:35
Dibromomethane	ND	0.0050	1	01/20/2018 18:35
1,2-Dichlorobenzene	ND	0.0050	1	01/20/2018 18:35
1,3-Dichlorobenzene	ND	0.0050	1	01/20/2018 18:35
1,4-Dichlorobenzene	ND	0.0050	1	01/20/2018 18:35
Dichlorodifluoromethane	ND	0.0050	1	01/20/2018 18:35
1,1-Dichloroethane	ND	0.0050	1	01/20/2018 18:35
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/20/2018 18:35
1,1-Dichloroethene	ND	0.0050	1	01/20/2018 18:35
cis-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 18:35
trans-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 18:35
1,2-Dichloropropane	ND	0.0050	1	01/20/2018 18:35
1,3-Dichloropropane	ND	0.0050	1	01/20/2018 18:35
2,2-Dichloropropane	ND	0.0050	1	01/20/2018 18:35

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-2.5	1801844-019A	Soil	01/16/2018 12:07	GC38 01181848.D	151652

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/20/2018 18:35
cis-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 18:35
trans-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 18:35
Diisopropyl ether (DIPE)	ND	0.0050	1	01/20/2018 18:35
Ethylbenzene	ND	0.0050	1	01/20/2018 18:35
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/20/2018 18:35
Freon 113	ND	0.0050	1	01/20/2018 18:35
Hexachlorobutadiene	ND	0.0050	1	01/20/2018 18:35
Hexachloroethane	ND	0.0050	1	01/20/2018 18:35
2-Hexanone	ND	0.0050	1	01/20/2018 18:35
Isopropylbenzene	ND	0.0050	1	01/20/2018 18:35
4-Isopropyl toluene	ND	0.0050	1	01/20/2018 18:35
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/20/2018 18:35
Methylene chloride	ND	0.0050	1	01/20/2018 18:35
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/20/2018 18:35
Naphthalene	ND	0.0050	1	01/20/2018 18:35
n-Propyl benzene	ND	0.0050	1	01/20/2018 18:35
Styrene	ND	0.0050	1	01/20/2018 18:35
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 18:35
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 18:35
Tetrachloroethene	ND	0.0050	1	01/20/2018 18:35
Toluene	ND	0.0050	1	01/20/2018 18:35
1,2,3-Trichlorobenzene	ND	0.0050	1	01/20/2018 18:35
1,2,4-Trichlorobenzene	ND	0.0050	1	01/20/2018 18:35
1,1,1-Trichloroethane	ND	0.0050	1	01/20/2018 18:35
1,1,2-Trichloroethane	ND	0.0050	1	01/20/2018 18:35
Trichloroethene	ND	0.0050	1	01/20/2018 18:35
Trichlorofluoromethane	ND	0.0050	1	01/20/2018 18:35
1,2,3-Trichloropropane	ND	0.0050	1	01/20/2018 18:35
1,2,4-Trimethylbenzene	ND	0.0050	1	01/20/2018 18:35
1,3,5-Trimethylbenzene	ND	0.0050	1	01/20/2018 18:35
Vinyl Chloride	ND	0.0050	1	01/20/2018 18:35
Xylenes, Total	ND	0.0050	1	01/20/2018 18:35

(Cont.)



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-2.5	1801844-019A	Soil	01/16/2018 12:07	GC38 01181848.D	151652

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	104	82-136		01/20/2018 18:35
Toluene-d8	117	92-139		01/20/2018 18:35
4-BFB	109	82-135		01/20/2018 18:35
Benzene-d6	77	55-122		01/20/2018 18:35
Ethylbenzene-d10	91	58-141		01/20/2018 18:35
1,2-DCB-d4	69	51-107		01/20/2018 18:35

Analyst(s): HK



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-5	1801844-020A	Soil	01/16/2018 12:11	GC38 01181849.D	151652

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/20/2018 19:12
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/20/2018 19:12
Benzene	ND	0.0050	1	01/20/2018 19:12
Bromobenzene	ND	0.0050	1	01/20/2018 19:12
Bromochloromethane	ND	0.0050	1	01/20/2018 19:12
Bromodichloromethane	ND	0.0050	1	01/20/2018 19:12
Bromoform	ND	0.0050	1	01/20/2018 19:12
Bromomethane	ND	0.0050	1	01/20/2018 19:12
2-Butanone (MEK)	ND	0.020	1	01/20/2018 19:12
t-Butyl alcohol (TBA)	ND	0.050	1	01/20/2018 19:12
n-Butyl benzene	ND	0.0050	1	01/20/2018 19:12
sec-Butyl benzene	ND	0.0050	1	01/20/2018 19:12
tert-Butyl benzene	ND	0.0050	1	01/20/2018 19:12
Carbon Disulfide	ND	0.0050	1	01/20/2018 19:12
Carbon Tetrachloride	ND	0.0050	1	01/20/2018 19:12
Chlorobenzene	ND	0.0050	1	01/20/2018 19:12
Chloroethane	ND	0.0050	1	01/20/2018 19:12
Chloroform	ND	0.0050	1	01/20/2018 19:12
Chloromethane	ND	0.0050	1	01/20/2018 19:12
2-Chlorotoluene	ND	0.0050	1	01/20/2018 19:12
4-Chlorotoluene	ND	0.0050	1	01/20/2018 19:12
Dibromochloromethane	ND	0.0050	1	01/20/2018 19:12
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/20/2018 19:12
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/20/2018 19:12
Dibromomethane	ND	0.0050	1	01/20/2018 19:12
1,2-Dichlorobenzene	ND	0.0050	1	01/20/2018 19:12
1,3-Dichlorobenzene	ND	0.0050	1	01/20/2018 19:12
1,4-Dichlorobenzene	ND	0.0050	1	01/20/2018 19:12
Dichlorodifluoromethane	ND	0.0050	1	01/20/2018 19:12
1,1-Dichloroethane	ND	0.0050	1	01/20/2018 19:12
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/20/2018 19:12
1,1-Dichloroethene	ND	0.0050	1	01/20/2018 19:12
cis-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 19:12
trans-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 19:12
1,2-Dichloropropane	ND	0.0050	1	01/20/2018 19:12
1,3-Dichloropropane	ND	0.0050	1	01/20/2018 19:12
2,2-Dichloropropane	ND	0.0050	1	01/20/2018 19:12

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-5	1801844-020A	Soil	01/16/2018 12:11	GC38 01181849.D	151652

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/20/2018 19:12
cis-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 19:12
trans-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 19:12
Diisopropyl ether (DIPE)	ND	0.0050	1	01/20/2018 19:12
Ethylbenzene	ND	0.0050	1	01/20/2018 19:12
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/20/2018 19:12
Freon 113	ND	0.0050	1	01/20/2018 19:12
Hexachlorobutadiene	ND	0.0050	1	01/20/2018 19:12
Hexachloroethane	ND	0.0050	1	01/20/2018 19:12
2-Hexanone	ND	0.0050	1	01/20/2018 19:12
Isopropylbenzene	ND	0.0050	1	01/20/2018 19:12
4-Isopropyl toluene	ND	0.0050	1	01/20/2018 19:12
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/20/2018 19:12
Methylene chloride	ND	0.0050	1	01/20/2018 19:12
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/20/2018 19:12
Naphthalene	ND	0.0050	1	01/20/2018 19:12
n-Propyl benzene	ND	0.0050	1	01/20/2018 19:12
Styrene	ND	0.0050	1	01/20/2018 19:12
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 19:12
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 19:12
Tetrachloroethene	ND	0.0050	1	01/20/2018 19:12
Toluene	ND	0.0050	1	01/20/2018 19:12
1,2,3-Trichlorobenzene	ND	0.0050	1	01/20/2018 19:12
1,2,4-Trichlorobenzene	ND	0.0050	1	01/20/2018 19:12
1,1,1-Trichloroethane	ND	0.0050	1	01/20/2018 19:12
1,1,2-Trichloroethane	ND	0.0050	1	01/20/2018 19:12
Trichloroethene	ND	0.0050	1	01/20/2018 19:12
Trichlorofluoromethane	ND	0.0050	1	01/20/2018 19:12
1,2,3-Trichloropropane	ND	0.0050	1	01/20/2018 19:12
1,2,4-Trimethylbenzene	ND	0.0050	1	01/20/2018 19:12
1,3,5-Trimethylbenzene	ND	0.0050	1	01/20/2018 19:12
Vinyl Chloride	ND	0.0050	1	01/20/2018 19:12
Xylenes, Total	ND	0.0050	1	01/20/2018 19:12

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-5	1801844-020A	Soil	01/16/2018 12:11	GC38 01181849.D	151652

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	111	82-136		01/20/2018 19:12
Toluene-d8	115	92-139		01/20/2018 19:12
4-BFB	106	82-135		01/20/2018 19:12
Benzene-d6	71	55-122		01/20/2018 19:12
Ethylbenzene-d10	83	58-141		01/20/2018 19:12
1,2-DCB-d4	65	51-107		01/20/2018 19:12

Analyst(s): HK



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-10	1801844-021A	Soil	01/16/2018 12:20	GC38 01181850.D	151652

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/20/2018 19:49
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/20/2018 19:49
Benzene	ND	0.0050	1	01/20/2018 19:49
Bromobenzene	ND	0.0050	1	01/20/2018 19:49
Bromochloromethane	ND	0.0050	1	01/20/2018 19:49
Bromodichloromethane	ND	0.0050	1	01/20/2018 19:49
Bromoform	ND	0.0050	1	01/20/2018 19:49
Bromomethane	ND	0.0050	1	01/20/2018 19:49
2-Butanone (MEK)	ND	0.020	1	01/20/2018 19:49
t-Butyl alcohol (TBA)	ND	0.050	1	01/20/2018 19:49
n-Butyl benzene	ND	0.0050	1	01/20/2018 19:49
sec-Butyl benzene	ND	0.0050	1	01/20/2018 19:49
tert-Butyl benzene	ND	0.0050	1	01/20/2018 19:49
Carbon Disulfide	ND	0.0050	1	01/20/2018 19:49
Carbon Tetrachloride	ND	0.0050	1	01/20/2018 19:49
Chlorobenzene	ND	0.0050	1	01/20/2018 19:49
Chloroethane	ND	0.0050	1	01/20/2018 19:49
Chloroform	ND	0.0050	1	01/20/2018 19:49
Chloromethane	ND	0.0050	1	01/20/2018 19:49
2-Chlorotoluene	ND	0.0050	1	01/20/2018 19:49
4-Chlorotoluene	ND	0.0050	1	01/20/2018 19:49
Dibromochloromethane	ND	0.0050	1	01/20/2018 19:49
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/20/2018 19:49
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/20/2018 19:49
Dibromomethane	ND	0.0050	1	01/20/2018 19:49
1,2-Dichlorobenzene	ND	0.0050	1	01/20/2018 19:49
1,3-Dichlorobenzene	ND	0.0050	1	01/20/2018 19:49
1,4-Dichlorobenzene	ND	0.0050	1	01/20/2018 19:49
Dichlorodifluoromethane	ND	0.0050	1	01/20/2018 19:49
1,1-Dichloroethane	ND	0.0050	1	01/20/2018 19:49
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/20/2018 19:49
1,1-Dichloroethene	ND	0.0050	1	01/20/2018 19:49
cis-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 19:49
trans-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 19:49
1,2-Dichloropropane	ND	0.0050	1	01/20/2018 19:49
1,3-Dichloropropane	ND	0.0050	1	01/20/2018 19:49
2,2-Dichloropropane	ND	0.0050	1	01/20/2018 19:49

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-10	1801844-021A	Soil	01/16/2018 12:20	GC38 01181850.D	151652

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/20/2018 19:49
cis-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 19:49
trans-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 19:49
Diisopropyl ether (DIPE)	ND	0.0050	1	01/20/2018 19:49
Ethylbenzene	ND	0.0050	1	01/20/2018 19:49
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/20/2018 19:49
Freon 113	ND	0.0050	1	01/20/2018 19:49
Hexachlorobutadiene	ND	0.0050	1	01/20/2018 19:49
Hexachloroethane	ND	0.0050	1	01/20/2018 19:49
2-Hexanone	ND	0.0050	1	01/20/2018 19:49
Isopropylbenzene	ND	0.0050	1	01/20/2018 19:49
4-Isopropyl toluene	ND	0.0050	1	01/20/2018 19:49
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/20/2018 19:49
Methylene chloride	ND	0.0050	1	01/20/2018 19:49
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/20/2018 19:49
Naphthalene	ND	0.0050	1	01/20/2018 19:49
n-Propyl benzene	ND	0.0050	1	01/20/2018 19:49
Styrene	ND	0.0050	1	01/20/2018 19:49
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 19:49
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 19:49
Tetrachloroethene	ND	0.0050	1	01/20/2018 19:49
Toluene	ND	0.0050	1	01/20/2018 19:49
1,2,3-Trichlorobenzene	ND	0.0050	1	01/20/2018 19:49
1,2,4-Trichlorobenzene	ND	0.0050	1	01/20/2018 19:49
1,1,1-Trichloroethane	ND	0.0050	1	01/20/2018 19:49
1,1,2-Trichloroethane	ND	0.0050	1	01/20/2018 19:49
Trichloroethene	ND	0.0050	1	01/20/2018 19:49
Trichlorofluoromethane	ND	0.0050	1	01/20/2018 19:49
1,2,3-Trichloropropane	ND	0.0050	1	01/20/2018 19:49
1,2,4-Trimethylbenzene	ND	0.0050	1	01/20/2018 19:49
1,3,5-Trimethylbenzene	ND	0.0050	1	01/20/2018 19:49
Vinyl Chloride	ND	0.0050	1	01/20/2018 19:49
Xylenes, Total	ND	0.0050	1	01/20/2018 19:49

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-10	1801844-021A	Soil	01/16/2018 12:20	GC38 01181850.D	151652

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	107	82-136		01/20/2018 19:49
Toluene-d8	113	92-139		01/20/2018 19:49
4-BFB	107	82-135		01/20/2018 19:49
Benzene-d6	90	55-122		01/20/2018 19:49
Ethylbenzene-d10	107	58-141		01/20/2018 19:49
1,2-DCB-d4	83	51-107		01/20/2018 19:49

Analyst(s): HK



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-5.5	1801844-022A	Soil	01/16/2018 12:30	GC38 01181851.D	151652

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/20/2018 20:27
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/20/2018 20:27
Benzene	ND	0.0050	1	01/20/2018 20:27
Bromobenzene	ND	0.0050	1	01/20/2018 20:27
Bromochloromethane	ND	0.0050	1	01/20/2018 20:27
Bromodichloromethane	ND	0.0050	1	01/20/2018 20:27
Bromoform	ND	0.0050	1	01/20/2018 20:27
Bromomethane	ND	0.0050	1	01/20/2018 20:27
2-Butanone (MEK)	ND	0.020	1	01/20/2018 20:27
t-Butyl alcohol (TBA)	ND	0.050	1	01/20/2018 20:27
n-Butyl benzene	ND	0.0050	1	01/20/2018 20:27
sec-Butyl benzene	ND	0.0050	1	01/20/2018 20:27
tert-Butyl benzene	ND	0.0050	1	01/20/2018 20:27
Carbon Disulfide	ND	0.0050	1	01/20/2018 20:27
Carbon Tetrachloride	ND	0.0050	1	01/20/2018 20:27
Chlorobenzene	ND	0.0050	1	01/20/2018 20:27
Chloroethane	ND	0.0050	1	01/20/2018 20:27
Chloroform	ND	0.0050	1	01/20/2018 20:27
Chloromethane	ND	0.0050	1	01/20/2018 20:27
2-Chlorotoluene	ND	0.0050	1	01/20/2018 20:27
4-Chlorotoluene	ND	0.0050	1	01/20/2018 20:27
Dibromochloromethane	ND	0.0050	1	01/20/2018 20:27
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/20/2018 20:27
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/20/2018 20:27
Dibromomethane	ND	0.0050	1	01/20/2018 20:27
1,2-Dichlorobenzene	ND	0.0050	1	01/20/2018 20:27
1,3-Dichlorobenzene	ND	0.0050	1	01/20/2018 20:27
1,4-Dichlorobenzene	ND	0.0050	1	01/20/2018 20:27
Dichlorodifluoromethane	ND	0.0050	1	01/20/2018 20:27
1,1-Dichloroethane	ND	0.0050	1	01/20/2018 20:27
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/20/2018 20:27
1,1-Dichloroethene	ND	0.0050	1	01/20/2018 20:27
cis-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 20:27
trans-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 20:27
1,2-Dichloropropane	ND	0.0050	1	01/20/2018 20:27
1,3-Dichloropropane	ND	0.0050	1	01/20/2018 20:27
2,2-Dichloropropane	ND	0.0050	1	01/20/2018 20:27

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-5.5	1801844-022A	Soil	01/16/2018 12:30	GC38 01181851.D	151652

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/20/2018 20:27
cis-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 20:27
trans-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 20:27
Diisopropyl ether (DIPE)	ND	0.0050	1	01/20/2018 20:27
Ethylbenzene	ND	0.0050	1	01/20/2018 20:27
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/20/2018 20:27
Freon 113	ND	0.0050	1	01/20/2018 20:27
Hexachlorobutadiene	ND	0.0050	1	01/20/2018 20:27
Hexachloroethane	ND	0.0050	1	01/20/2018 20:27
2-Hexanone	ND	0.0050	1	01/20/2018 20:27
Isopropylbenzene	ND	0.0050	1	01/20/2018 20:27
4-Isopropyl toluene	ND	0.0050	1	01/20/2018 20:27
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/20/2018 20:27
Methylene chloride	ND	0.0050	1	01/20/2018 20:27
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/20/2018 20:27
Naphthalene	ND	0.0050	1	01/20/2018 20:27
n-Propyl benzene	ND	0.0050	1	01/20/2018 20:27
Styrene	ND	0.0050	1	01/20/2018 20:27
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 20:27
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 20:27
Tetrachloroethene	ND	0.0050	1	01/20/2018 20:27
Toluene	ND	0.0050	1	01/20/2018 20:27
1,2,3-Trichlorobenzene	ND	0.0050	1	01/20/2018 20:27
1,2,4-Trichlorobenzene	ND	0.0050	1	01/20/2018 20:27
1,1,1-Trichloroethane	ND	0.0050	1	01/20/2018 20:27
1,1,2-Trichloroethane	ND	0.0050	1	01/20/2018 20:27
Trichloroethene	ND	0.0050	1	01/20/2018 20:27
Trichlorofluoromethane	ND	0.0050	1	01/20/2018 20:27
1,2,3-Trichloropropane	ND	0.0050	1	01/20/2018 20:27
1,2,4-Trimethylbenzene	ND	0.0050	1	01/20/2018 20:27
1,3,5-Trimethylbenzene	ND	0.0050	1	01/20/2018 20:27
Vinyl Chloride	ND	0.0050	1	01/20/2018 20:27
Xylenes, Total	ND	0.0050	1	01/20/2018 20:27

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-5.5	1801844-022A	Soil	01/16/2018 12:30	GC38 01181851.D	151652

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	104	82-136		01/20/2018 20:27
Toluene-d8	117	92-139		01/20/2018 20:27
4-BFB	108	82-135		01/20/2018 20:27
Benzene-d6	81	55-122		01/20/2018 20:27
Ethylbenzene-d10	97	58-141		01/20/2018 20:27
1,2-DCB-d4	73	51-107		01/20/2018 20:27

Analyst(s): HK



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-15	1801844-023A	Soil	01/16/2018 12:37	GC16 01191815.D	151727

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/19/2018 16:01
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/19/2018 16:01
Benzene	ND	0.0050	1	01/19/2018 16:01
Bromobenzene	ND	0.0050	1	01/19/2018 16:01
Bromochloromethane	ND	0.0050	1	01/19/2018 16:01
Bromodichloromethane	ND	0.0050	1	01/19/2018 16:01
Bromoform	ND	0.0050	1	01/19/2018 16:01
Bromomethane	ND	0.0050	1	01/19/2018 16:01
2-Butanone (MEK)	ND	0.020	1	01/19/2018 16:01
t-Butyl alcohol (TBA)	ND	0.050	1	01/19/2018 16:01
n-Butyl benzene	ND	0.0050	1	01/19/2018 16:01
sec-Butyl benzene	ND	0.0050	1	01/19/2018 16:01
tert-Butyl benzene	ND	0.0050	1	01/19/2018 16:01
Carbon Disulfide	ND	0.0050	1	01/19/2018 16:01
Carbon Tetrachloride	ND	0.0050	1	01/19/2018 16:01
Chlorobenzene	ND	0.0050	1	01/19/2018 16:01
Chloroethane	ND	0.0050	1	01/19/2018 16:01
Chloroform	ND	0.0050	1	01/19/2018 16:01
Chloromethane	ND	0.0050	1	01/19/2018 16:01
2-Chlorotoluene	ND	0.0050	1	01/19/2018 16:01
4-Chlorotoluene	ND	0.0050	1	01/19/2018 16:01
Dibromochloromethane	ND	0.0050	1	01/19/2018 16:01
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/19/2018 16:01
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/19/2018 16:01
Dibromomethane	ND	0.0050	1	01/19/2018 16:01
1,2-Dichlorobenzene	ND	0.0050	1	01/19/2018 16:01
1,3-Dichlorobenzene	ND	0.0050	1	01/19/2018 16:01
1,4-Dichlorobenzene	ND	0.0050	1	01/19/2018 16:01
Dichlorodifluoromethane	ND	0.0050	1	01/19/2018 16:01
1,1-Dichloroethane	ND	0.0050	1	01/19/2018 16:01
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/19/2018 16:01
1,1-Dichloroethene	ND	0.0050	1	01/19/2018 16:01
cis-1,2-Dichloroethene	ND	0.0050	1	01/19/2018 16:01
trans-1,2-Dichloroethene	ND	0.0050	1	01/19/2018 16:01
1,2-Dichloropropane	ND	0.0050	1	01/19/2018 16:01
1,3-Dichloropropane	ND	0.0050	1	01/19/2018 16:01
2,2-Dichloropropane	ND	0.0050	1	01/19/2018 16:01

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-15	1801844-023A	Soil	01/16/2018 12:37	GC16 01191815.D	151727

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/19/2018 16:01
cis-1,3-Dichloropropene	ND	0.0050	1	01/19/2018 16:01
trans-1,3-Dichloropropene	ND	0.0050	1	01/19/2018 16:01
Diisopropyl ether (DIPE)	ND	0.0050	1	01/19/2018 16:01
Ethylbenzene	ND	0.0050	1	01/19/2018 16:01
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/19/2018 16:01
Freon 113	ND	0.0050	1	01/19/2018 16:01
Hexachlorobutadiene	ND	0.0050	1	01/19/2018 16:01
Hexachloroethane	ND	0.0050	1	01/19/2018 16:01
2-Hexanone	ND	0.0050	1	01/19/2018 16:01
Isopropylbenzene	ND	0.0050	1	01/19/2018 16:01
4-Isopropyl toluene	ND	0.0050	1	01/19/2018 16:01
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/19/2018 16:01
Methylene chloride	ND	0.0050	1	01/19/2018 16:01
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/19/2018 16:01
Naphthalene	ND	0.0050	1	01/19/2018 16:01
n-Propyl benzene	ND	0.0050	1	01/19/2018 16:01
Styrene	ND	0.0050	1	01/19/2018 16:01
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/19/2018 16:01
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/19/2018 16:01
Tetrachloroethene	ND	0.0050	1	01/19/2018 16:01
Toluene	ND	0.0050	1	01/19/2018 16:01
1,2,3-Trichlorobenzene	ND	0.0050	1	01/19/2018 16:01
1,2,4-Trichlorobenzene	ND	0.0050	1	01/19/2018 16:01
1,1,1-Trichloroethane	ND	0.0050	1	01/19/2018 16:01
1,1,2-Trichloroethane	ND	0.0050	1	01/19/2018 16:01
Trichloroethene	ND	0.0050	1	01/19/2018 16:01
Trichlorofluoromethane	ND	0.0050	1	01/19/2018 16:01
1,2,3-Trichloropropane	ND	0.0050	1	01/19/2018 16:01
1,2,4-Trimethylbenzene	ND	0.0050	1	01/19/2018 16:01
1,3,5-Trimethylbenzene	ND	0.0050	1	01/19/2018 16:01
Vinyl Chloride	ND	0.0050	1	01/19/2018 16:01
Xylenes, Total	ND	0.0050	1	01/19/2018 16:01

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-15	1801844-023A	Soil	01/16/2018 12:37	GC16 01191815.D	151727

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	99	82-136		01/19/2018 16:01
Toluene-d8	95	92-139		01/19/2018 16:01
4-BFB	91	82-135		01/19/2018 16:01
Benzene-d6	64	55-122		01/19/2018 16:01
Ethylbenzene-d10	78	58-141		01/19/2018 16:01
1,2-DCB-d4	57	51-107		01/19/2018 16:01

Analyst(s): AK



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-18.5	1801844-024A	Soil	01/16/2018 12:56	GC38 01181852.D	151727

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/20/2018 21:04
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/20/2018 21:04
Benzene	ND	0.0050	1	01/20/2018 21:04
Bromobenzene	ND	0.0050	1	01/20/2018 21:04
Bromochloromethane	ND	0.0050	1	01/20/2018 21:04
Bromodichloromethane	ND	0.0050	1	01/20/2018 21:04
Bromoform	ND	0.0050	1	01/20/2018 21:04
Bromomethane	ND	0.0050	1	01/20/2018 21:04
2-Butanone (MEK)	ND	0.020	1	01/20/2018 21:04
t-Butyl alcohol (TBA)	ND	0.050	1	01/20/2018 21:04
n-Butyl benzene	ND	0.0050	1	01/20/2018 21:04
sec-Butyl benzene	ND	0.0050	1	01/20/2018 21:04
tert-Butyl benzene	ND	0.0050	1	01/20/2018 21:04
Carbon Disulfide	ND	0.0050	1	01/20/2018 21:04
Carbon Tetrachloride	ND	0.0050	1	01/20/2018 21:04
Chlorobenzene	ND	0.0050	1	01/20/2018 21:04
Chloroethane	ND	0.0050	1	01/20/2018 21:04
Chloroform	ND	0.0050	1	01/20/2018 21:04
Chloromethane	ND	0.0050	1	01/20/2018 21:04
2-Chlorotoluene	ND	0.0050	1	01/20/2018 21:04
4-Chlorotoluene	ND	0.0050	1	01/20/2018 21:04
Dibromochloromethane	ND	0.0050	1	01/20/2018 21:04
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/20/2018 21:04
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/20/2018 21:04
Dibromomethane	ND	0.0050	1	01/20/2018 21:04
1,2-Dichlorobenzene	ND	0.0050	1	01/20/2018 21:04
1,3-Dichlorobenzene	ND	0.0050	1	01/20/2018 21:04
1,4-Dichlorobenzene	ND	0.0050	1	01/20/2018 21:04
Dichlorodifluoromethane	ND	0.0050	1	01/20/2018 21:04
1,1-Dichloroethane	ND	0.0050	1	01/20/2018 21:04
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/20/2018 21:04
1,1-Dichloroethene	ND	0.0050	1	01/20/2018 21:04
cis-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 21:04
trans-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 21:04
1,2-Dichloropropane	ND	0.0050	1	01/20/2018 21:04
1,3-Dichloropropane	ND	0.0050	1	01/20/2018 21:04
2,2-Dichloropropane	ND	0.0050	1	01/20/2018 21:04

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-18.5	1801844-024A	Soil	01/16/2018 12:56	GC38 01181852.D	151727

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/20/2018 21:04
cis-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 21:04
trans-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 21:04
Diisopropyl ether (DIPE)	ND	0.0050	1	01/20/2018 21:04
Ethylbenzene	ND	0.0050	1	01/20/2018 21:04
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/20/2018 21:04
Freon 113	ND	0.0050	1	01/20/2018 21:04
Hexachlorobutadiene	ND	0.0050	1	01/20/2018 21:04
Hexachloroethane	ND	0.0050	1	01/20/2018 21:04
2-Hexanone	ND	0.0050	1	01/20/2018 21:04
Isopropylbenzene	ND	0.0050	1	01/20/2018 21:04
4-Isopropyl toluene	ND	0.0050	1	01/20/2018 21:04
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/20/2018 21:04
Methylene chloride	ND	0.0050	1	01/20/2018 21:04
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/20/2018 21:04
Naphthalene	ND	0.0050	1	01/20/2018 21:04
n-Propyl benzene	ND	0.0050	1	01/20/2018 21:04
Styrene	ND	0.0050	1	01/20/2018 21:04
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 21:04
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 21:04
Tetrachloroethene	ND	0.0050	1	01/20/2018 21:04
Toluene	ND	0.0050	1	01/20/2018 21:04
1,2,3-Trichlorobenzene	ND	0.0050	1	01/20/2018 21:04
1,2,4-Trichlorobenzene	ND	0.0050	1	01/20/2018 21:04
1,1,1-Trichloroethane	ND	0.0050	1	01/20/2018 21:04
1,1,2-Trichloroethane	ND	0.0050	1	01/20/2018 21:04
Trichloroethene	ND	0.0050	1	01/20/2018 21:04
Trichlorofluoromethane	ND	0.0050	1	01/20/2018 21:04
1,2,3-Trichloropropane	ND	0.0050	1	01/20/2018 21:04
1,2,4-Trimethylbenzene	ND	0.0050	1	01/20/2018 21:04
1,3,5-Trimethylbenzene	ND	0.0050	1	01/20/2018 21:04
Vinyl Chloride	ND	0.0050	1	01/20/2018 21:04
Xylenes, Total	ND	0.0050	1	01/20/2018 21:04

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-18.5	1801844-024A	Soil	01/16/2018 12:56	GC38 01181852.D	151727

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	105	82-136		01/20/2018 21:04
Toluene-d8	114	92-139		01/20/2018 21:04
4-BFB	107	82-135		01/20/2018 21:04
Benzene-d6	67	55-122		01/20/2018 21:04
Ethylbenzene-d10	76	58-141		01/20/2018 21:04
1,2-DCB-d4	63	51-107		01/20/2018 21:04

Analyst(s): HK



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-20	1801844-025A	Soil	01/16/2018 13:00	GC38 01181853.D	151727

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/20/2018 21:41
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/20/2018 21:41
Benzene	ND	0.0050	1	01/20/2018 21:41
Bromobenzene	ND	0.0050	1	01/20/2018 21:41
Bromochloromethane	ND	0.0050	1	01/20/2018 21:41
Bromodichloromethane	ND	0.0050	1	01/20/2018 21:41
Bromoform	ND	0.0050	1	01/20/2018 21:41
Bromomethane	ND	0.0050	1	01/20/2018 21:41
2-Butanone (MEK)	ND	0.020	1	01/20/2018 21:41
t-Butyl alcohol (TBA)	ND	0.050	1	01/20/2018 21:41
n-Butyl benzene	ND	0.0050	1	01/20/2018 21:41
sec-Butyl benzene	ND	0.0050	1	01/20/2018 21:41
tert-Butyl benzene	ND	0.0050	1	01/20/2018 21:41
Carbon Disulfide	ND	0.0050	1	01/20/2018 21:41
Carbon Tetrachloride	ND	0.0050	1	01/20/2018 21:41
Chlorobenzene	ND	0.0050	1	01/20/2018 21:41
Chloroethane	ND	0.0050	1	01/20/2018 21:41
Chloroform	ND	0.0050	1	01/20/2018 21:41
Chloromethane	ND	0.0050	1	01/20/2018 21:41
2-Chlorotoluene	ND	0.0050	1	01/20/2018 21:41
4-Chlorotoluene	ND	0.0050	1	01/20/2018 21:41
Dibromochloromethane	ND	0.0050	1	01/20/2018 21:41
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/20/2018 21:41
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/20/2018 21:41
Dibromomethane	ND	0.0050	1	01/20/2018 21:41
1,2-Dichlorobenzene	ND	0.0050	1	01/20/2018 21:41
1,3-Dichlorobenzene	ND	0.0050	1	01/20/2018 21:41
1,4-Dichlorobenzene	ND	0.0050	1	01/20/2018 21:41
Dichlorodifluoromethane	ND	0.0050	1	01/20/2018 21:41
1,1-Dichloroethane	ND	0.0050	1	01/20/2018 21:41
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/20/2018 21:41
1,1-Dichloroethene	ND	0.0050	1	01/20/2018 21:41
cis-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 21:41
trans-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 21:41
1,2-Dichloropropane	ND	0.0050	1	01/20/2018 21:41
1,3-Dichloropropane	ND	0.0050	1	01/20/2018 21:41
2,2-Dichloropropane	ND	0.0050	1	01/20/2018 21:41

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-20	1801844-025A	Soil	01/16/2018 13:00	GC38 01181853.D	151727

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/20/2018 21:41
cis-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 21:41
trans-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 21:41
Diisopropyl ether (DIPE)	ND	0.0050	1	01/20/2018 21:41
Ethylbenzene	ND	0.0050	1	01/20/2018 21:41
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/20/2018 21:41
Freon 113	ND	0.0050	1	01/20/2018 21:41
Hexachlorobutadiene	ND	0.0050	1	01/20/2018 21:41
Hexachloroethane	ND	0.0050	1	01/20/2018 21:41
2-Hexanone	ND	0.0050	1	01/20/2018 21:41
Isopropylbenzene	ND	0.0050	1	01/20/2018 21:41
4-Isopropyl toluene	ND	0.0050	1	01/20/2018 21:41
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/20/2018 21:41
Methylene chloride	ND	0.0050	1	01/20/2018 21:41
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/20/2018 21:41
Naphthalene	ND	0.0050	1	01/20/2018 21:41
n-Propyl benzene	ND	0.0050	1	01/20/2018 21:41
Styrene	ND	0.0050	1	01/20/2018 21:41
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 21:41
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 21:41
Tetrachloroethene	ND	0.0050	1	01/20/2018 21:41
Toluene	ND	0.0050	1	01/20/2018 21:41
1,2,3-Trichlorobenzene	ND	0.0050	1	01/20/2018 21:41
1,2,4-Trichlorobenzene	ND	0.0050	1	01/20/2018 21:41
1,1,1-Trichloroethane	ND	0.0050	1	01/20/2018 21:41
1,1,2-Trichloroethane	ND	0.0050	1	01/20/2018 21:41
Trichloroethene	ND	0.0050	1	01/20/2018 21:41
Trichlorofluoromethane	ND	0.0050	1	01/20/2018 21:41
1,2,3-Trichloropropane	ND	0.0050	1	01/20/2018 21:41
1,2,4-Trimethylbenzene	ND	0.0050	1	01/20/2018 21:41
1,3,5-Trimethylbenzene	ND	0.0050	1	01/20/2018 21:41
Vinyl Chloride	ND	0.0050	1	01/20/2018 21:41
Xylenes, Total	ND	0.0050	1	01/20/2018 21:41

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-20	1801844-025A	Soil	01/16/2018 13:00	GC38 01181853.D	151727

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	103	82-136		01/20/2018 21:41
Toluene-d8	117	92-139		01/20/2018 21:41
4-BFB	108	82-135		01/20/2018 21:41
Benzene-d6	76	55-122		01/20/2018 21:41
Ethylbenzene-d10	90	58-141		01/20/2018 21:41
1,2-DCB-d4	72	51-107		01/20/2018 21:41

Analyst(s): HK



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-21	1801844-026A	Soil	01/16/2018 13:11	GC38 01181854.D	151727

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/20/2018 22:19
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/20/2018 22:19
Benzene	ND	0.0050	1	01/20/2018 22:19
Bromobenzene	ND	0.0050	1	01/20/2018 22:19
Bromochloromethane	ND	0.0050	1	01/20/2018 22:19
Bromodichloromethane	ND	0.0050	1	01/20/2018 22:19
Bromoform	ND	0.0050	1	01/20/2018 22:19
Bromomethane	ND	0.0050	1	01/20/2018 22:19
2-Butanone (MEK)	ND	0.020	1	01/20/2018 22:19
t-Butyl alcohol (TBA)	ND	0.050	1	01/20/2018 22:19
n-Butyl benzene	ND	0.0050	1	01/20/2018 22:19
sec-Butyl benzene	ND	0.0050	1	01/20/2018 22:19
tert-Butyl benzene	ND	0.0050	1	01/20/2018 22:19
Carbon Disulfide	ND	0.0050	1	01/20/2018 22:19
Carbon Tetrachloride	ND	0.0050	1	01/20/2018 22:19
Chlorobenzene	ND	0.0050	1	01/20/2018 22:19
Chloroethane	ND	0.0050	1	01/20/2018 22:19
Chloroform	ND	0.0050	1	01/20/2018 22:19
Chloromethane	ND	0.0050	1	01/20/2018 22:19
2-Chlorotoluene	ND	0.0050	1	01/20/2018 22:19
4-Chlorotoluene	ND	0.0050	1	01/20/2018 22:19
Dibromochloromethane	ND	0.0050	1	01/20/2018 22:19
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/20/2018 22:19
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/20/2018 22:19
Dibromomethane	ND	0.0050	1	01/20/2018 22:19
1,2-Dichlorobenzene	ND	0.0050	1	01/20/2018 22:19
1,3-Dichlorobenzene	ND	0.0050	1	01/20/2018 22:19
1,4-Dichlorobenzene	ND	0.0050	1	01/20/2018 22:19
Dichlorodifluoromethane	ND	0.0050	1	01/20/2018 22:19
1,1-Dichloroethane	ND	0.0050	1	01/20/2018 22:19
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/20/2018 22:19
1,1-Dichloroethene	ND	0.0050	1	01/20/2018 22:19
cis-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 22:19
trans-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 22:19
1,2-Dichloropropane	ND	0.0050	1	01/20/2018 22:19
1,3-Dichloropropane	ND	0.0050	1	01/20/2018 22:19
2,2-Dichloropropane	ND	0.0050	1	01/20/2018 22:19

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-21	1801844-026A	Soil	01/16/2018 13:11	GC38 01181854.D	151727

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/20/2018 22:19
cis-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 22:19
trans-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 22:19
Diisopropyl ether (DIPE)	ND	0.0050	1	01/20/2018 22:19
Ethylbenzene	ND	0.0050	1	01/20/2018 22:19
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/20/2018 22:19
Freon 113	ND	0.0050	1	01/20/2018 22:19
Hexachlorobutadiene	ND	0.0050	1	01/20/2018 22:19
Hexachloroethane	ND	0.0050	1	01/20/2018 22:19
2-Hexanone	ND	0.0050	1	01/20/2018 22:19
Isopropylbenzene	ND	0.0050	1	01/20/2018 22:19
4-Isopropyl toluene	ND	0.0050	1	01/20/2018 22:19
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/20/2018 22:19
Methylene chloride	ND	0.0050	1	01/20/2018 22:19
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/20/2018 22:19
Naphthalene	ND	0.0050	1	01/20/2018 22:19
n-Propyl benzene	ND	0.0050	1	01/20/2018 22:19
Styrene	ND	0.0050	1	01/20/2018 22:19
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 22:19
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 22:19
Tetrachloroethene	ND	0.0050	1	01/20/2018 22:19
Toluene	ND	0.0050	1	01/20/2018 22:19
1,2,3-Trichlorobenzene	ND	0.0050	1	01/20/2018 22:19
1,2,4-Trichlorobenzene	ND	0.0050	1	01/20/2018 22:19
1,1,1-Trichloroethane	ND	0.0050	1	01/20/2018 22:19
1,1,2-Trichloroethane	ND	0.0050	1	01/20/2018 22:19
Trichloroethene	ND	0.0050	1	01/20/2018 22:19
Trichlorofluoromethane	ND	0.0050	1	01/20/2018 22:19
1,2,3-Trichloropropane	ND	0.0050	1	01/20/2018 22:19
1,2,4-Trimethylbenzene	ND	0.0050	1	01/20/2018 22:19
1,3,5-Trimethylbenzene	ND	0.0050	1	01/20/2018 22:19
Vinyl Chloride	ND	0.0050	1	01/20/2018 22:19
Xylenes, Total	ND	0.0050	1	01/20/2018 22:19

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-21	1801844-026A	Soil	01/16/2018 13:11	GC38 01181854.D	151727

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	105	82-136		01/20/2018 22:19
Toluene-d8	115	92-139		01/20/2018 22:19
4-BFB	103	82-135		01/20/2018 22:19
Benzene-d6	68	55-122		01/20/2018 22:19
Ethylbenzene-d10	78	58-141		01/20/2018 22:19
1,2-DCB-d4	63	51-107		01/20/2018 22:19

Analyst(s): HK



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/20/18-1/21/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-GW-25	1801844-008B	Water	01/15/2018 11:08	GC16 01191852.D	151981
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	10	1	01/20/2018 21:26	
tert-Amyl methyl ether (TAME)	ND	0.50	1	01/20/2018 21:26	
Benzene	ND	0.50	1	01/20/2018 21:26	
Bromobenzene	ND	0.50	1	01/20/2018 21:26	
Bromochloromethane	ND	0.50	1	01/20/2018 21:26	
Bromodichloromethane	ND	0.50	1	01/20/2018 21:26	
Bromoform	ND	0.50	1	01/20/2018 21:26	
Bromomethane	ND	0.50	1	01/20/2018 21:26	
2-Butanone (MEK)	ND	2.0	1	01/20/2018 21:26	
t-Butyl alcohol (TBA)	ND	2.0	1	01/20/2018 21:26	
n-Butyl benzene	ND	0.50	1	01/20/2018 21:26	
sec-Butyl benzene	ND	0.50	1	01/20/2018 21:26	
tert-Butyl benzene	ND	0.50	1	01/20/2018 21:26	
Carbon Disulfide	ND	0.50	1	01/20/2018 21:26	
Carbon Tetrachloride	ND	0.50	1	01/20/2018 21:26	
Chlorobenzene	ND	0.50	1	01/20/2018 21:26	
Chloroethane	ND	0.50	1	01/20/2018 21:26	
Chloroform	4.5	0.50	1	01/20/2018 21:26	
Chloromethane	ND	0.50	1	01/20/2018 21:26	
2-Chlorotoluene	ND	0.50	1	01/20/2018 21:26	
4-Chlorotoluene	ND	0.50	1	01/20/2018 21:26	
Dibromochloromethane	ND	0.50	1	01/20/2018 21:26	
1,2-Dibromo-3-chloropropane	ND	0.20	1	01/20/2018 21:26	
1,2-Dibromoethane (EDB)	ND	0.50	1	01/20/2018 21:26	
Dibromomethane	ND	0.50	1	01/20/2018 21:26	
1,2-Dichlorobenzene	ND	0.50	1	01/20/2018 21:26	
1,3-Dichlorobenzene	ND	0.50	1	01/20/2018 21:26	
1,4-Dichlorobenzene	ND	0.50	1	01/20/2018 21:26	
Dichlorodifluoromethane	ND	0.50	1	01/20/2018 21:26	
1,1-Dichloroethane	ND	0.50	1	01/20/2018 21:26	
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	01/20/2018 21:26	
1,1-Dichloroethene	ND	0.50	1	01/20/2018 21:26	
cis-1,2-Dichloroethene	ND	0.50	1	01/20/2018 21:26	
trans-1,2-Dichloroethene	ND	0.50	1	01/20/2018 21:26	
1,2-Dichloropropane	ND	0.50	1	01/20/2018 21:26	
1,3-Dichloropropane	ND	0.50	1	01/20/2018 21:26	
2,2-Dichloropropane	ND	0.50	1	01/20/2018 21:26	

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/20/18-1/21/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-GW-25	1801844-008B	Water	01/15/2018 11:08	GC16 01191852.D	151981

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	01/20/2018 21:26
cis-1,3-Dichloropropene	ND	0.50	1	01/20/2018 21:26
trans-1,3-Dichloropropene	ND	0.50	1	01/20/2018 21:26
Diisopropyl ether (DIPE)	ND	0.50	1	01/20/2018 21:26
Ethylbenzene	ND	0.50	1	01/20/2018 21:26
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	01/20/2018 21:26
Freon 113	ND	0.50	1	01/20/2018 21:26
Hexachlorobutadiene	ND	0.50	1	01/20/2018 21:26
Hexachloroethane	ND	0.50	1	01/20/2018 21:26
2-Hexanone	ND	0.50	1	01/20/2018 21:26
Isopropylbenzene	ND	0.50	1	01/20/2018 21:26
4-Isopropyl toluene	ND	0.50	1	01/20/2018 21:26
Methyl-t-butyl ether (MTBE)	ND	0.50	1	01/20/2018 21:26
Methylene chloride	ND	0.50	1	01/20/2018 21:26
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	01/20/2018 21:26
Naphthalene	ND	0.50	1	01/20/2018 21:26
n-Propyl benzene	ND	0.50	1	01/20/2018 21:26
Styrene	ND	0.50	1	01/20/2018 21:26
1,1,1,2-Tetrachloroethane	ND	0.50	1	01/20/2018 21:26
1,1,2,2-Tetrachloroethane	ND	0.50	1	01/20/2018 21:26
Tetrachloroethene	ND	0.50	1	01/20/2018 21:26
Toluene	ND	0.50	1	01/20/2018 21:26
1,2,3-Trichlorobenzene	ND	0.50	1	01/20/2018 21:26
1,2,4-Trichlorobenzene	ND	0.50	1	01/20/2018 21:26
1,1,1-Trichloroethane	ND	0.50	1	01/20/2018 21:26
1,1,2-Trichloroethane	ND	0.50	1	01/20/2018 21:26
Trichloroethene	ND	0.50	1	01/20/2018 21:26
Trichlorofluoromethane	ND	0.50	1	01/20/2018 21:26
1,2,3-Trichloropropane	ND	0.50	1	01/20/2018 21:26
1,2,4-Trimethylbenzene	ND	0.50	1	01/20/2018 21:26
1,3,5-Trimethylbenzene	ND	0.50	1	01/20/2018 21:26
Vinyl Chloride	ND	0.50	1	01/20/2018 21:26
Xylenes, Total	ND	0.50	1	01/20/2018 21:26

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/20/18-1/21/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-GW-25	1801844-008B	Water	01/15/2018 11:08	GC16 01191852.D	151981

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	101	78-134		01/20/2018 21:26
Toluene-d8	87	82-120		01/20/2018 21:26
4-BFB	79	69-131		01/20/2018 21:26

Analyst(s): KF



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/20/18-1/21/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-GW-35	1801844-009B	Water	01/15/2018 12:10	GC16 01191853.D	151981

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	01/20/2018 22:05
tert-Amyl methyl ether (TAME)	ND	0.50	1	01/20/2018 22:05
Benzene	ND	0.50	1	01/20/2018 22:05
Bromobenzene	ND	0.50	1	01/20/2018 22:05
Bromochloromethane	ND	0.50	1	01/20/2018 22:05
Bromodichloromethane	ND	0.50	1	01/20/2018 22:05
Bromoform	ND	0.50	1	01/20/2018 22:05
Bromomethane	ND	0.50	1	01/20/2018 22:05
2-Butanone (MEK)	ND	2.0	1	01/20/2018 22:05
t-Butyl alcohol (TBA)	ND	2.0	1	01/20/2018 22:05
n-Butyl benzene	ND	0.50	1	01/20/2018 22:05
sec-Butyl benzene	ND	0.50	1	01/20/2018 22:05
tert-Butyl benzene	ND	0.50	1	01/20/2018 22:05
Carbon Disulfide	ND	0.50	1	01/20/2018 22:05
Carbon Tetrachloride	ND	0.50	1	01/20/2018 22:05
Chlorobenzene	ND	0.50	1	01/20/2018 22:05
Chloroethane	ND	0.50	1	01/20/2018 22:05
Chloroform	ND	0.50	1	01/20/2018 22:05
Chloromethane	ND	0.50	1	01/20/2018 22:05
2-Chlorotoluene	ND	0.50	1	01/20/2018 22:05
4-Chlorotoluene	ND	0.50	1	01/20/2018 22:05
Dibromochloromethane	ND	0.50	1	01/20/2018 22:05
1,2-Dibromo-3-chloropropane	ND	0.20	1	01/20/2018 22:05
1,2-Dibromoethane (EDB)	ND	0.50	1	01/20/2018 22:05
Dibromomethane	ND	0.50	1	01/20/2018 22:05
1,2-Dichlorobenzene	ND	0.50	1	01/20/2018 22:05
1,3-Dichlorobenzene	ND	0.50	1	01/20/2018 22:05
1,4-Dichlorobenzene	ND	0.50	1	01/20/2018 22:05
Dichlorodifluoromethane	ND	0.50	1	01/20/2018 22:05
1,1-Dichloroethane	ND	0.50	1	01/20/2018 22:05
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	01/20/2018 22:05
1,1-Dichloroethene	ND	0.50	1	01/20/2018 22:05
cis-1,2-Dichloroethene	ND	0.50	1	01/20/2018 22:05
trans-1,2-Dichloroethene	ND	0.50	1	01/20/2018 22:05
1,2-Dichloropropane	ND	0.50	1	01/20/2018 22:05
1,3-Dichloropropane	ND	0.50	1	01/20/2018 22:05
2,2-Dichloropropane	ND	0.50	1	01/20/2018 22:05

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/20/18-1/21/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-GW-35	1801844-009B	Water	01/15/2018 12:10	GC16 01191853.D	151981

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	01/20/2018 22:05
cis-1,3-Dichloropropene	ND	0.50	1	01/20/2018 22:05
trans-1,3-Dichloropropene	ND	0.50	1	01/20/2018 22:05
Diisopropyl ether (DIPE)	ND	0.50	1	01/20/2018 22:05
Ethylbenzene	ND	0.50	1	01/20/2018 22:05
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	01/20/2018 22:05
Freon 113	ND	0.50	1	01/20/2018 22:05
Hexachlorobutadiene	ND	0.50	1	01/20/2018 22:05
Hexachloroethane	ND	0.50	1	01/20/2018 22:05
2-Hexanone	ND	0.50	1	01/20/2018 22:05
Isopropylbenzene	ND	0.50	1	01/20/2018 22:05
4-Isopropyl toluene	ND	0.50	1	01/20/2018 22:05
Methyl-t-butyl ether (MTBE)	ND	0.50	1	01/20/2018 22:05
Methylene chloride	ND	0.50	1	01/20/2018 22:05
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	01/20/2018 22:05
Naphthalene	ND	0.50	1	01/20/2018 22:05
n-Propyl benzene	ND	0.50	1	01/20/2018 22:05
Styrene	ND	0.50	1	01/20/2018 22:05
1,1,1,2-Tetrachloroethane	ND	0.50	1	01/20/2018 22:05
1,1,2,2-Tetrachloroethane	ND	0.50	1	01/20/2018 22:05
Tetrachloroethene	ND	0.50	1	01/20/2018 22:05
Toluene	ND	0.50	1	01/20/2018 22:05
1,2,3-Trichlorobenzene	ND	0.50	1	01/20/2018 22:05
1,2,4-Trichlorobenzene	ND	0.50	1	01/20/2018 22:05
1,1,1-Trichloroethane	ND	0.50	1	01/20/2018 22:05
1,1,2-Trichloroethane	ND	0.50	1	01/20/2018 22:05
Trichloroethene	ND	0.50	1	01/20/2018 22:05
Trichlorofluoromethane	ND	0.50	1	01/20/2018 22:05
1,2,3-Trichloropropane	ND	0.50	1	01/20/2018 22:05
1,2,4-Trimethylbenzene	ND	0.50	1	01/20/2018 22:05
1,3,5-Trimethylbenzene	ND	0.50	1	01/20/2018 22:05
Vinyl Chloride	ND	0.50	1	01/20/2018 22:05
Xylenes, Total	ND	0.50	1	01/20/2018 22:05

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/20/18-1/21/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-GW-35	1801844-009B	Water	01/15/2018 12:10	GC16 01191853.D	151981

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	100		78-134	01/20/2018 22:05
Toluene-d8	91		82-120	01/20/2018 22:05
4-BFB	76		69-131	01/20/2018 22:05

Analyst(s): KF



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/20/18-1/21/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-GW-25	1801844-016B	Water	01/15/2018 15:40	GC16 01191854.D	151981

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	01/20/2018 22:44
tert-Amyl methyl ether (TAME)	ND	0.50	1	01/20/2018 22:44
Benzene	ND	0.50	1	01/20/2018 22:44
Bromobenzene	ND	0.50	1	01/20/2018 22:44
Bromochloromethane	ND	0.50	1	01/20/2018 22:44
Bromodichloromethane	ND	0.50	1	01/20/2018 22:44
Bromoform	ND	0.50	1	01/20/2018 22:44
Bromomethane	ND	0.50	1	01/20/2018 22:44
2-Butanone (MEK)	ND	2.0	1	01/20/2018 22:44
t-Butyl alcohol (TBA)	ND	2.0	1	01/20/2018 22:44
n-Butyl benzene	ND	0.50	1	01/20/2018 22:44
sec-Butyl benzene	ND	0.50	1	01/20/2018 22:44
tert-Butyl benzene	ND	0.50	1	01/20/2018 22:44
Carbon Disulfide	ND	0.50	1	01/20/2018 22:44
Carbon Tetrachloride	ND	0.50	1	01/20/2018 22:44
Chlorobenzene	ND	0.50	1	01/20/2018 22:44
Chloroethane	ND	0.50	1	01/20/2018 22:44
Chloroform	ND	0.50	1	01/20/2018 22:44
Chloromethane	ND	0.50	1	01/20/2018 22:44
2-Chlorotoluene	ND	0.50	1	01/20/2018 22:44
4-Chlorotoluene	ND	0.50	1	01/20/2018 22:44
Dibromochloromethane	ND	0.50	1	01/20/2018 22:44
1,2-Dibromo-3-chloropropane	ND	0.20	1	01/20/2018 22:44
1,2-Dibromoethane (EDB)	ND	0.50	1	01/20/2018 22:44
Dibromomethane	ND	0.50	1	01/20/2018 22:44
1,2-Dichlorobenzene	ND	0.50	1	01/20/2018 22:44
1,3-Dichlorobenzene	ND	0.50	1	01/20/2018 22:44
1,4-Dichlorobenzene	ND	0.50	1	01/20/2018 22:44
Dichlorodifluoromethane	ND	0.50	1	01/20/2018 22:44
1,1-Dichloroethane	ND	0.50	1	01/20/2018 22:44
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	01/20/2018 22:44
1,1-Dichloroethene	ND	0.50	1	01/20/2018 22:44
cis-1,2-Dichloroethene	ND	0.50	1	01/20/2018 22:44
trans-1,2-Dichloroethene	ND	0.50	1	01/20/2018 22:44
1,2-Dichloropropane	ND	0.50	1	01/20/2018 22:44
1,3-Dichloropropane	ND	0.50	1	01/20/2018 22:44
2,2-Dichloropropane	ND	0.50	1	01/20/2018 22:44

(Cont.)



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/20/18-1/21/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-GW-25	1801844-016B	Water	01/15/2018 15:40	GC16 01191854.D	151981

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	01/20/2018 22:44
cis-1,3-Dichloropropene	ND	0.50	1	01/20/2018 22:44
trans-1,3-Dichloropropene	ND	0.50	1	01/20/2018 22:44
Diisopropyl ether (DIPE)	ND	0.50	1	01/20/2018 22:44
Ethylbenzene	ND	0.50	1	01/20/2018 22:44
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	01/20/2018 22:44
Freon 113	ND	0.50	1	01/20/2018 22:44
Hexachlorobutadiene	ND	0.50	1	01/20/2018 22:44
Hexachloroethane	ND	0.50	1	01/20/2018 22:44
2-Hexanone	ND	0.50	1	01/20/2018 22:44
Isopropylbenzene	ND	0.50	1	01/20/2018 22:44
4-Isopropyl toluene	ND	0.50	1	01/20/2018 22:44
Methyl-t-butyl ether (MTBE)	ND	0.50	1	01/20/2018 22:44
Methylene chloride	ND	0.50	1	01/20/2018 22:44
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	01/20/2018 22:44
Naphthalene	ND	0.50	1	01/20/2018 22:44
n-Propyl benzene	ND	0.50	1	01/20/2018 22:44
Styrene	ND	0.50	1	01/20/2018 22:44
1,1,1,2-Tetrachloroethane	ND	0.50	1	01/20/2018 22:44
1,1,2,2-Tetrachloroethane	ND	0.50	1	01/20/2018 22:44
Tetrachloroethene	ND	0.50	1	01/20/2018 22:44
Toluene	ND	0.50	1	01/20/2018 22:44
1,2,3-Trichlorobenzene	ND	0.50	1	01/20/2018 22:44
1,2,4-Trichlorobenzene	ND	0.50	1	01/20/2018 22:44
1,1,1-Trichloroethane	ND	0.50	1	01/20/2018 22:44
1,1,2-Trichloroethane	ND	0.50	1	01/20/2018 22:44
Trichloroethene	0.67	0.50	1	01/20/2018 22:44
Trichlorofluoromethane	ND	0.50	1	01/20/2018 22:44
1,2,3-Trichloropropane	ND	0.50	1	01/20/2018 22:44
1,2,4-Trimethylbenzene	ND	0.50	1	01/20/2018 22:44
1,3,5-Trimethylbenzene	ND	0.50	1	01/20/2018 22:44
Vinyl Chloride	ND	0.50	1	01/20/2018 22:44
Xylenes, Total	ND	0.50	1	01/20/2018 22:44

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/20/18-1/21/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-GW-25	1801844-016B	Water	01/15/2018 15:40	GC16 01191854.D	151981

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	100	78-134		01/20/2018 22:44
Toluene-d8	90	82-120		01/20/2018 22:44
4-BFB	77	69-131		01/20/2018 22:44

Analyst(s): KF



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/20/18-1/21/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-GW-35	1801844-017B	Water	01/15/2018 16:30	GC16 01191855.D	151981

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	01/20/2018 23:24
tert-Amyl methyl ether (TAME)	ND	0.50	1	01/20/2018 23:24
Benzene	ND	0.50	1	01/20/2018 23:24
Bromobenzene	ND	0.50	1	01/20/2018 23:24
Bromochloromethane	ND	0.50	1	01/20/2018 23:24
Bromodichloromethane	ND	0.50	1	01/20/2018 23:24
Bromoform	ND	0.50	1	01/20/2018 23:24
Bromomethane	ND	0.50	1	01/20/2018 23:24
2-Butanone (MEK)	ND	2.0	1	01/20/2018 23:24
t-Butyl alcohol (TBA)	ND	2.0	1	01/20/2018 23:24
n-Butyl benzene	ND	0.50	1	01/20/2018 23:24
sec-Butyl benzene	ND	0.50	1	01/20/2018 23:24
tert-Butyl benzene	ND	0.50	1	01/20/2018 23:24
Carbon Disulfide	ND	0.50	1	01/20/2018 23:24
Carbon Tetrachloride	ND	0.50	1	01/20/2018 23:24
Chlorobenzene	ND	0.50	1	01/20/2018 23:24
Chloroethane	ND	0.50	1	01/20/2018 23:24
Chloroform	ND	0.50	1	01/20/2018 23:24
Chloromethane	ND	0.50	1	01/20/2018 23:24
2-Chlorotoluene	ND	0.50	1	01/20/2018 23:24
4-Chlorotoluene	ND	0.50	1	01/20/2018 23:24
Dibromochloromethane	ND	0.50	1	01/20/2018 23:24
1,2-Dibromo-3-chloropropane	ND	0.20	1	01/20/2018 23:24
1,2-Dibromoethane (EDB)	ND	0.50	1	01/20/2018 23:24
Dibromomethane	ND	0.50	1	01/20/2018 23:24
1,2-Dichlorobenzene	ND	0.50	1	01/20/2018 23:24
1,3-Dichlorobenzene	ND	0.50	1	01/20/2018 23:24
1,4-Dichlorobenzene	ND	0.50	1	01/20/2018 23:24
Dichlorodifluoromethane	ND	0.50	1	01/20/2018 23:24
1,1-Dichloroethane	ND	0.50	1	01/20/2018 23:24
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	01/20/2018 23:24
1,1-Dichloroethene	ND	0.50	1	01/20/2018 23:24
cis-1,2-Dichloroethene	ND	0.50	1	01/20/2018 23:24
trans-1,2-Dichloroethene	ND	0.50	1	01/20/2018 23:24
1,2-Dichloropropane	ND	0.50	1	01/20/2018 23:24
1,3-Dichloropropane	ND	0.50	1	01/20/2018 23:24
2,2-Dichloropropane	ND	0.50	1	01/20/2018 23:24

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/20/18-1/21/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-GW-35	1801844-017B	Water	01/15/2018 16:30	GC16 01191855.D	151981

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	01/20/2018 23:24
cis-1,3-Dichloropropene	ND	0.50	1	01/20/2018 23:24
trans-1,3-Dichloropropene	ND	0.50	1	01/20/2018 23:24
Diisopropyl ether (DIPE)	ND	0.50	1	01/20/2018 23:24
Ethylbenzene	ND	0.50	1	01/20/2018 23:24
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	01/20/2018 23:24
Freon 113	ND	0.50	1	01/20/2018 23:24
Hexachlorobutadiene	ND	0.50	1	01/20/2018 23:24
Hexachloroethane	ND	0.50	1	01/20/2018 23:24
2-Hexanone	ND	0.50	1	01/20/2018 23:24
Isopropylbenzene	ND	0.50	1	01/20/2018 23:24
4-Isopropyl toluene	ND	0.50	1	01/20/2018 23:24
Methyl-t-butyl ether (MTBE)	ND	0.50	1	01/20/2018 23:24
Methylene chloride	ND	0.50	1	01/20/2018 23:24
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	01/20/2018 23:24
Naphthalene	ND	0.50	1	01/20/2018 23:24
n-Propyl benzene	ND	0.50	1	01/20/2018 23:24
Styrene	ND	0.50	1	01/20/2018 23:24
1,1,1,2-Tetrachloroethane	ND	0.50	1	01/20/2018 23:24
1,1,2,2-Tetrachloroethane	ND	0.50	1	01/20/2018 23:24
Tetrachloroethene	ND	0.50	1	01/20/2018 23:24
Toluene	ND	0.50	1	01/20/2018 23:24
1,2,3-Trichlorobenzene	ND	0.50	1	01/20/2018 23:24
1,2,4-Trichlorobenzene	ND	0.50	1	01/20/2018 23:24
1,1,1-Trichloroethane	ND	0.50	1	01/20/2018 23:24
1,1,2-Trichloroethane	ND	0.50	1	01/20/2018 23:24
Trichloroethene	ND	0.50	1	01/20/2018 23:24
Trichlorofluoromethane	ND	0.50	1	01/20/2018 23:24
1,2,3-Trichloropropane	ND	0.50	1	01/20/2018 23:24
1,2,4-Trimethylbenzene	ND	0.50	1	01/20/2018 23:24
1,3,5-Trimethylbenzene	ND	0.50	1	01/20/2018 23:24
Vinyl Chloride	ND	0.50	1	01/20/2018 23:24
Xylenes, Total	ND	0.50	1	01/20/2018 23:24

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/20/18-1/21/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-GW-35	1801844-017B	Water	01/15/2018 16:30	GC16 01191855.D	151981

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	100	78-134		01/20/2018 23:24
Toluene-d8	86	82-120		01/20/2018 23:24
4-BFB	81	69-131		01/20/2018 23:24

Analyst(s): KF



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/20/18-1/21/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-GW-28	1801844-027B	Water	01/16/2018 14:00	GC16 01191856.D	151981

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	01/21/2018 00:03
tert-Amyl methyl ether (TAME)	ND	0.50	1	01/21/2018 00:03
Benzene	ND	0.50	1	01/21/2018 00:03
Bromobenzene	ND	0.50	1	01/21/2018 00:03
Bromochloromethane	ND	0.50	1	01/21/2018 00:03
Bromodichloromethane	ND	0.50	1	01/21/2018 00:03
Bromoform	ND	0.50	1	01/21/2018 00:03
Bromomethane	ND	0.50	1	01/21/2018 00:03
2-Butanone (MEK)	ND	2.0	1	01/21/2018 00:03
t-Butyl alcohol (TBA)	3.8	2.0	1	01/21/2018 00:03
n-Butyl benzene	ND	0.50	1	01/21/2018 00:03
sec-Butyl benzene	ND	0.50	1	01/21/2018 00:03
tert-Butyl benzene	ND	0.50	1	01/21/2018 00:03
Carbon Disulfide	ND	0.50	1	01/21/2018 00:03
Carbon Tetrachloride	ND	0.50	1	01/21/2018 00:03
Chlorobenzene	ND	0.50	1	01/21/2018 00:03
Chloroethane	ND	0.50	1	01/21/2018 00:03
Chloroform	ND	0.50	1	01/21/2018 00:03
Chloromethane	ND	0.50	1	01/21/2018 00:03
2-Chlorotoluene	ND	0.50	1	01/21/2018 00:03
4-Chlorotoluene	ND	0.50	1	01/21/2018 00:03
Dibromochloromethane	ND	0.50	1	01/21/2018 00:03
1,2-Dibromo-3-chloropropane	ND	0.20	1	01/21/2018 00:03
1,2-Dibromoethane (EDB)	ND	0.50	1	01/21/2018 00:03
Dibromomethane	ND	0.50	1	01/21/2018 00:03
1,2-Dichlorobenzene	ND	0.50	1	01/21/2018 00:03
1,3-Dichlorobenzene	ND	0.50	1	01/21/2018 00:03
1,4-Dichlorobenzene	ND	0.50	1	01/21/2018 00:03
Dichlorodifluoromethane	ND	0.50	1	01/21/2018 00:03
1,1-Dichloroethane	ND	0.50	1	01/21/2018 00:03
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	01/21/2018 00:03
1,1-Dichloroethene	ND	0.50	1	01/21/2018 00:03
cis-1,2-Dichloroethene	ND	0.50	1	01/21/2018 00:03
trans-1,2-Dichloroethene	ND	0.50	1	01/21/2018 00:03
1,2-Dichloropropane	ND	0.50	1	01/21/2018 00:03
1,3-Dichloropropane	ND	0.50	1	01/21/2018 00:03
2,2-Dichloropropane	ND	0.50	1	01/21/2018 00:03

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/20/18-1/21/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-GW-28	1801844-027B	Water	01/16/2018 14:00	GC16 01191856.D	151981

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	01/21/2018 00:03
cis-1,3-Dichloropropene	ND	0.50	1	01/21/2018 00:03
trans-1,3-Dichloropropene	ND	0.50	1	01/21/2018 00:03
Diisopropyl ether (DIPE)	ND	0.50	1	01/21/2018 00:03
Ethylbenzene	ND	0.50	1	01/21/2018 00:03
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	01/21/2018 00:03
Freon 113	ND	0.50	1	01/21/2018 00:03
Hexachlorobutadiene	ND	0.50	1	01/21/2018 00:03
Hexachloroethane	ND	0.50	1	01/21/2018 00:03
2-Hexanone	ND	0.50	1	01/21/2018 00:03
Isopropylbenzene	ND	0.50	1	01/21/2018 00:03
4-Isopropyl toluene	ND	0.50	1	01/21/2018 00:03
Methyl-t-butyl ether (MTBE)	ND	0.50	1	01/21/2018 00:03
Methylene chloride	ND	0.50	1	01/21/2018 00:03
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	01/21/2018 00:03
Naphthalene	ND	0.50	1	01/21/2018 00:03
n-Propyl benzene	ND	0.50	1	01/21/2018 00:03
Styrene	ND	0.50	1	01/21/2018 00:03
1,1,1,2-Tetrachloroethane	ND	0.50	1	01/21/2018 00:03
1,1,2,2-Tetrachloroethane	ND	0.50	1	01/21/2018 00:03
Tetrachloroethene	ND	0.50	1	01/21/2018 00:03
Toluene	ND	0.50	1	01/21/2018 00:03
1,2,3-Trichlorobenzene	ND	0.50	1	01/21/2018 00:03
1,2,4-Trichlorobenzene	ND	0.50	1	01/21/2018 00:03
1,1,1-Trichloroethane	ND	0.50	1	01/21/2018 00:03
1,1,2-Trichloroethane	ND	0.50	1	01/21/2018 00:03
Trichloroethene	ND	0.50	1	01/21/2018 00:03
Trichlorofluoromethane	ND	0.50	1	01/21/2018 00:03
1,2,3-Trichloropropane	ND	0.50	1	01/21/2018 00:03
1,2,4-Trimethylbenzene	ND	0.50	1	01/21/2018 00:03
1,3,5-Trimethylbenzene	ND	0.50	1	01/21/2018 00:03
Vinyl Chloride	ND	0.50	1	01/21/2018 00:03
Xylenes, Total	ND	0.50	1	01/21/2018 00:03

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/20/18-1/21/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-GW-28	1801844-027B	Water	01/16/2018 14:00	GC16 01191856.D	151981

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	100		78-134	01/21/2018 00:03
Toluene-d8	89		82-120	01/21/2018 00:03
4-BFB	80		69-131	01/21/2018 00:03

Analyst(s): KF



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/20/18-1/21/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-GW-38	1801844-028B	Water	01/16/2018 15:00	GC16 01191857.D	151981

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	01/21/2018 00:42
tert-Amyl methyl ether (TAME)	ND	0.50	1	01/21/2018 00:42
Benzene	ND	0.50	1	01/21/2018 00:42
Bromobenzene	ND	0.50	1	01/21/2018 00:42
Bromochloromethane	ND	0.50	1	01/21/2018 00:42
Bromodichloromethane	ND	0.50	1	01/21/2018 00:42
Bromoform	ND	0.50	1	01/21/2018 00:42
Bromomethane	ND	0.50	1	01/21/2018 00:42
2-Butanone (MEK)	ND	2.0	1	01/21/2018 00:42
t-Butyl alcohol (TBA)	ND	2.0	1	01/21/2018 00:42
n-Butyl benzene	ND	0.50	1	01/21/2018 00:42
sec-Butyl benzene	ND	0.50	1	01/21/2018 00:42
tert-Butyl benzene	ND	0.50	1	01/21/2018 00:42
Carbon Disulfide	ND	0.50	1	01/21/2018 00:42
Carbon Tetrachloride	ND	0.50	1	01/21/2018 00:42
Chlorobenzene	ND	0.50	1	01/21/2018 00:42
Chloroethane	ND	0.50	1	01/21/2018 00:42
Chloroform	ND	0.50	1	01/21/2018 00:42
Chloromethane	ND	0.50	1	01/21/2018 00:42
2-Chlorotoluene	ND	0.50	1	01/21/2018 00:42
4-Chlorotoluene	ND	0.50	1	01/21/2018 00:42
Dibromochloromethane	ND	0.50	1	01/21/2018 00:42
1,2-Dibromo-3-chloropropane	ND	0.20	1	01/21/2018 00:42
1,2-Dibromoethane (EDB)	ND	0.50	1	01/21/2018 00:42
Dibromomethane	ND	0.50	1	01/21/2018 00:42
1,2-Dichlorobenzene	ND	0.50	1	01/21/2018 00:42
1,3-Dichlorobenzene	ND	0.50	1	01/21/2018 00:42
1,4-Dichlorobenzene	ND	0.50	1	01/21/2018 00:42
Dichlorodifluoromethane	ND	0.50	1	01/21/2018 00:42
1,1-Dichloroethane	ND	0.50	1	01/21/2018 00:42
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	01/21/2018 00:42
1,1-Dichloroethene	ND	0.50	1	01/21/2018 00:42
cis-1,2-Dichloroethene	ND	0.50	1	01/21/2018 00:42
trans-1,2-Dichloroethene	ND	0.50	1	01/21/2018 00:42
1,2-Dichloropropane	ND	0.50	1	01/21/2018 00:42
1,3-Dichloropropane	ND	0.50	1	01/21/2018 00:42
2,2-Dichloropropane	ND	0.50	1	01/21/2018 00:42

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/20/18-1/21/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-GW-38	1801844-028B	Water	01/16/2018 15:00	GC16 01191857.D	151981

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	01/21/2018 00:42
cis-1,3-Dichloropropene	ND	0.50	1	01/21/2018 00:42
trans-1,3-Dichloropropene	ND	0.50	1	01/21/2018 00:42
Diisopropyl ether (DIPE)	ND	0.50	1	01/21/2018 00:42
Ethylbenzene	ND	0.50	1	01/21/2018 00:42
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	01/21/2018 00:42
Freon 113	ND	0.50	1	01/21/2018 00:42
Hexachlorobutadiene	ND	0.50	1	01/21/2018 00:42
Hexachloroethane	ND	0.50	1	01/21/2018 00:42
2-Hexanone	ND	0.50	1	01/21/2018 00:42
Isopropylbenzene	ND	0.50	1	01/21/2018 00:42
4-Isopropyl toluene	ND	0.50	1	01/21/2018 00:42
Methyl-t-butyl ether (MTBE)	ND	0.50	1	01/21/2018 00:42
Methylene chloride	ND	0.50	1	01/21/2018 00:42
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	01/21/2018 00:42
Naphthalene	ND	0.50	1	01/21/2018 00:42
n-Propyl benzene	ND	0.50	1	01/21/2018 00:42
Styrene	ND	0.50	1	01/21/2018 00:42
1,1,1,2-Tetrachloroethane	ND	0.50	1	01/21/2018 00:42
1,1,2,2-Tetrachloroethane	ND	0.50	1	01/21/2018 00:42
Tetrachloroethene	ND	0.50	1	01/21/2018 00:42
Toluene	ND	0.50	1	01/21/2018 00:42
1,2,3-Trichlorobenzene	ND	0.50	1	01/21/2018 00:42
1,2,4-Trichlorobenzene	ND	0.50	1	01/21/2018 00:42
1,1,1-Trichloroethane	ND	0.50	1	01/21/2018 00:42
1,1,2-Trichloroethane	ND	0.50	1	01/21/2018 00:42
Trichloroethene	ND	0.50	1	01/21/2018 00:42
Trichlorofluoromethane	ND	0.50	1	01/21/2018 00:42
1,2,3-Trichloropropane	ND	0.50	1	01/21/2018 00:42
1,2,4-Trimethylbenzene	ND	0.50	1	01/21/2018 00:42
1,3,5-Trimethylbenzene	ND	0.50	1	01/21/2018 00:42
Vinyl Chloride	ND	0.50	1	01/21/2018 00:42
Xylenes, Total	ND	0.50	1	01/21/2018 00:42

(Cont.)



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/20/18-1/21/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-GW-38	1801844-028B	Water	01/16/2018 15:00	GC16 01191857.D	151981

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	101		78-134	01/21/2018 00:42
Toluene-d8	88		82-120	01/21/2018 00:42
4-BFB	76		69-131	01/21/2018 00:42

Analyst(s): KF



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-2.5	1801844-001A	Soil	01/15/2018 09:04	GC7 01181827.D	151692

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/18/2018 23:21
MTBE	---	0.050	1	01/18/2018 23:21
Benzene	---	0.0050	1	01/18/2018 23:21
Toluene	---	0.0050	1	01/18/2018 23:21
Ethylbenzene	---	0.0050	1	01/18/2018 23:21
Xylenes	---	0.0050	1	01/18/2018 23:21
Surrogates	REC (%)	Limits		
2-Fluorotoluene	83	62-126		01/18/2018 23:21

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-5	1801844-002A	Soil	01/15/2018 09:08	GC7 01181828.D	151692

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/18/2018 23:51
MTBE	---	0.050	1	01/18/2018 23:51
Benzene	---	0.0050	1	01/18/2018 23:51
Toluene	---	0.0050	1	01/18/2018 23:51
Ethylbenzene	---	0.0050	1	01/18/2018 23:51
Xylenes	---	0.0050	1	01/18/2018 23:51
Surrogates	REC (%)	Limits		
2-Fluorotoluene	83	62-126		01/18/2018 23:51

Analyst(s): IA



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-10	1801844-003A	Soil	01/15/2018 09:08	GC19 01181816.D	151692

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/18/2018 21:01
MTBE	---	0.050	1	01/18/2018 21:01
Benzene	---	0.0050	1	01/18/2018 21:01
Toluene	---	0.0050	1	01/18/2018 21:01
Ethylbenzene	---	0.0050	1	01/18/2018 21:01
Xylenes	---	0.0050	1	01/18/2018 21:01
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	85	62-126		01/18/2018 21:01

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-15	1801844-004A	Soil	01/15/2018 09:28	GC7 01181840.D	151692

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/19/2018 05:45
MTBE	---	0.050	1	01/19/2018 05:45
Benzene	---	0.0050	1	01/19/2018 05:45
Toluene	---	0.0050	1	01/19/2018 05:45
Ethylbenzene	---	0.0050	1	01/19/2018 05:45
Xylenes	---	0.0050	1	01/19/2018 05:45
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	79	62-126		01/19/2018 05:45

Analyst(s): IA



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-10	1801844-012A	Soil	01/15/2018 15:02	GC7 01181830.D	151692

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/19/2018 00:50
MTBE	---	0.050	1	01/19/2018 00:50
Benzene	---	0.0050	1	01/19/2018 00:50
Toluene	---	0.0050	1	01/19/2018 00:50
Ethylbenzene	---	0.0050	1	01/19/2018 00:50
Xylenes	---	0.0050	1	01/19/2018 00:50
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	82	62-126		01/19/2018 00:50

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-15	1801844-013A	Soil	01/15/2018 15:11	GC19 01181806.D	151692

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/18/2018 15:55
MTBE	---	0.050	1	01/18/2018 15:55
Benzene	---	0.0050	1	01/18/2018 15:55
Toluene	---	0.0050	1	01/18/2018 15:55
Ethylbenzene	---	0.0050	1	01/18/2018 15:55
Xylenes	---	0.0050	1	01/18/2018 15:55
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	89	62-126		01/18/2018 15:55

Analyst(s): IA



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-20	1801844-014A	Soil	01/15/2018 15:16	GC19 01171844.D	151726

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/18/2018 10:31
MTBE	---	0.050	1	01/18/2018 10:31
Benzene	---	0.0050	1	01/18/2018 10:31
Toluene	---	0.0050	1	01/18/2018 10:31
Ethylbenzene	---	0.0050	1	01/18/2018 10:31
Xylenes	---	0.0050	1	01/18/2018 10:31

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	87	62-126	01/18/2018 10:31

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-21.5	1801844-015A	Soil	01/15/2018 15:25	GC7 01181838.D	151726

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/19/2018 04:46
MTBE	---	0.050	1	01/19/2018 04:46
Benzene	---	0.0050	1	01/19/2018 04:46
Toluene	---	0.0050	1	01/19/2018 04:46
Ethylbenzene	---	0.0050	1	01/19/2018 04:46
Xylenes	---	0.0050	1	01/19/2018 04:46

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	74	62-126	01/19/2018 04:46

Analyst(s): IA



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-2.5	1801844-018A	Soil	01/16/2018 08:49	GC19 01181808.D	151726

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/18/2018 16:57
MTBE	---	0.050	1	01/18/2018 16:57
Benzene	---	0.0050	1	01/18/2018 16:57
Toluene	---	0.0050	1	01/18/2018 16:57
Ethylbenzene	---	0.0050	1	01/18/2018 16:57
Xylenes	---	0.0050	1	01/18/2018 16:57
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	88	62-126		01/18/2018 16:57

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-2.5	1801844-019A	Soil	01/16/2018 12:07	GC7 01181841.D	151726

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/19/2018 06:14
MTBE	---	0.050	1	01/19/2018 06:14
Benzene	---	0.0050	1	01/19/2018 06:14
Toluene	---	0.0050	1	01/19/2018 06:14
Ethylbenzene	---	0.0050	1	01/19/2018 06:14
Xylenes	---	0.0050	1	01/19/2018 06:14
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	85	62-126		01/19/2018 06:14

Analyst(s): IA



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-5	1801844-020A	Soil	01/16/2018 12:11	GC7 01181835.D	151726

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/19/2018 03:17
MTBE	---	0.050	1	01/19/2018 03:17
Benzene	---	0.0050	1	01/19/2018 03:17
Toluene	---	0.0050	1	01/19/2018 03:17
Ethylbenzene	---	0.0050	1	01/19/2018 03:17
Xylenes	---	0.0050	1	01/19/2018 03:17
Surrogates	REC (%)	Limits		
2-Fluorotoluene	76	62-126		01/19/2018 03:17

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-10	1801844-021A	Soil	01/16/2018 12:20	GC7 01181837.D	151726

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/19/2018 04:16
MTBE	---	0.050	1	01/19/2018 04:16
Benzene	---	0.0050	1	01/19/2018 04:16
Toluene	---	0.0050	1	01/19/2018 04:16
Ethylbenzene	---	0.0050	1	01/19/2018 04:16
Xylenes	---	0.0050	1	01/19/2018 04:16
Surrogates	REC (%)	Limits		
2-Fluorotoluene	84	62-126		01/19/2018 04:16

Analyst(s): IA



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-5.5	1801844-022A	Soil	01/16/2018 12:30	GC7 01181842.D	151726

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/19/2018 06:44
MTBE	---	0.050	1	01/19/2018 06:44
Benzene	---	0.0050	1	01/19/2018 06:44
Toluene	---	0.0050	1	01/19/2018 06:44
Ethylbenzene	---	0.0050	1	01/19/2018 06:44
Xylenes	---	0.0050	1	01/19/2018 06:44
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	81	62-126		01/19/2018 06:44

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-15	1801844-023A	Soil	01/16/2018 12:37	GC19 01181826.D	151726

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/19/2018 02:07
MTBE	---	0.050	1	01/19/2018 02:07
Benzene	---	0.0050	1	01/19/2018 02:07
Toluene	---	0.0050	1	01/19/2018 02:07
Ethylbenzene	---	0.0050	1	01/19/2018 02:07
Xylenes	---	0.0050	1	01/19/2018 02:07
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	88	62-126		01/19/2018 02:07

Analyst(s): IA



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-18.5	1801844-024A	Soil	01/16/2018 12:56	GC19 01181809.D	151726

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/18/2018 17:28
MTBE	---	0.050	1	01/18/2018 17:28
Benzene	---	0.0050	1	01/18/2018 17:28
Toluene	---	0.0050	1	01/18/2018 17:28
Ethylbenzene	---	0.0050	1	01/18/2018 17:28
Xylenes	---	0.0050	1	01/18/2018 17:28
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	81	62-126		01/18/2018 17:28

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-20	1801844-025A	Soil	01/16/2018 13:00	GC19 01181810.D	151726

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/18/2018 17:58
MTBE	---	0.050	1	01/18/2018 17:58
Benzene	---	0.0050	1	01/18/2018 17:58
Toluene	---	0.0050	1	01/18/2018 17:58
Ethylbenzene	---	0.0050	1	01/18/2018 17:58
Xylenes	---	0.0050	1	01/18/2018 17:58
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	86	62-126		01/18/2018 17:58

Analyst(s): IA



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-21	1801844-026A	Soil	01/16/2018 13:11	GC19 01181812.D	151726

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/18/2018 18:59
MTBE	---	0.050	1	01/18/2018 18:59
Benzene	---	0.0050	1	01/18/2018 18:59
Toluene	---	0.0050	1	01/18/2018 18:59
Ethylbenzene	---	0.0050	1	01/18/2018 18:59
Xylenes	---	0.0050	1	01/18/2018 18:59

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	82	62-126	01/18/2018 18:59

Analyst(s): IA



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/18/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-GW-25	1801844-008A	Water	01/15/2018 11:08	GC19 01171830.D	151842

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	01/18/2018 03:25
MTBE	---	5.0	1	01/18/2018 03:25
Benzene	---	0.50	1	01/18/2018 03:25
Toluene	---	0.50	1	01/18/2018 03:25
Ethylbenzene	---	0.50	1	01/18/2018 03:25
Xylenes	---	0.50	1	01/18/2018 03:25
Surrogates	REC (%)	Limits		
aaa-TFT	103	90-117		01/18/2018 03:25

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-GW-35	1801844-009A	Water	01/15/2018 12:10	GC19 01171837.D	151842

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	01/18/2018 06:57
MTBE	---	5.0	1	01/18/2018 06:57
Benzene	---	0.50	1	01/18/2018 06:57
Toluene	---	0.50	1	01/18/2018 06:57
Ethylbenzene	---	0.50	1	01/18/2018 06:57
Xylenes	---	0.50	1	01/18/2018 06:57
Surrogates	REC (%)	Limits		
aaa-TFT	105	90-117		01/18/2018 06:57

Analyst(s): IA



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/18/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-GW-25	1801844-016A	Water	01/15/2018 15:40	GC19 01171831.D	151842

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	01/18/2018 03:55
MTBE	---	5.0	1	01/18/2018 03:55
Benzene	---	0.50	1	01/18/2018 03:55
Toluene	---	0.50	1	01/18/2018 03:55
Ethylbenzene	---	0.50	1	01/18/2018 03:55
Xylenes	---	0.50	1	01/18/2018 03:55
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
aaa-TFT	114	90-117		01/18/2018 03:55

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-GW-35	1801844-017A	Water	01/15/2018 16:30	GC19 01171832.D	151842

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	01/18/2018 04:26
MTBE	---	5.0	1	01/18/2018 04:26
Benzene	---	0.50	1	01/18/2018 04:26
Toluene	---	0.50	1	01/18/2018 04:26
Ethylbenzene	---	0.50	1	01/18/2018 04:26
Xylenes	---	0.50	1	01/18/2018 04:26
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
aaa-TFT	107	90-117		01/18/2018 04:26

Analyst(s): IA



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/18/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-GW-28	1801844-027A	Water	01/16/2018 14:00	GC19 01171835.D	151842

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	01/18/2018 05:57
MTBE	---	5.0	1	01/18/2018 05:57
Benzene	---	0.50	1	01/18/2018 05:57
Toluene	---	0.50	1	01/18/2018 05:57
Ethylbenzene	---	0.50	1	01/18/2018 05:57
Xylenes	---	0.50	1	01/18/2018 05:57
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
aaa-TFT	108	90-117		01/18/2018 05:57

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-GW-38	1801844-028A	Water	01/16/2018 15:00	GC19 01171836.D	151842

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	01/18/2018 06:27
MTBE	---	5.0	1	01/18/2018 06:27
Benzene	---	0.50	1	01/18/2018 06:27
Toluene	---	0.50	1	01/18/2018 06:27
Ethylbenzene	---	0.50	1	01/18/2018 06:27
Xylenes	---	0.50	1	01/18/2018 06:27
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
aaa-TFT	107	90-117		01/18/2018 06:27

Analyst(s): IA



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-2.5	1801844-001A	Soil	01/15/2018 09:04	GC11A 01181868.D	151688
<u>Analytes</u>					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	01/19/2018 13:34
TPH-Motor Oil (C18-C36)	ND		5.0	1	01/19/2018 13:34
<u>Surrogates</u>					
	<u>REC (%)</u>		<u>Limits</u>		
C9	109		74-123		01/19/2018 13:34
<u>Analyst(s):</u> TK					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-5	1801844-002A	Soil	01/15/2018 09:08	GC9b 01181861.D	151688
<u>Analytes</u>					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	01/19/2018 11:03
TPH-Motor Oil (C18-C36)	ND		5.0	1	01/19/2018 11:03
<u>Surrogates</u>					
	<u>REC (%)</u>		<u>Limits</u>		
C9	104		74-123		01/19/2018 11:03
<u>Analyst(s):</u> TK					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-10	1801844-003A	Soil	01/15/2018 09:08	GC11A 01181866.D	151688
<u>Analytes</u>					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	01/19/2018 12:55
TPH-Motor Oil (C18-C36)	ND		5.0	1	01/19/2018 12:55
<u>Surrogates</u>					
	<u>REC (%)</u>		<u>Limits</u>		
C9	115		74-123		01/19/2018 12:55
<u>Analyst(s):</u> TK					

(Cont.)



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-15	1801844-004A	Soil	01/15/2018 09:28	GC39B 01181835.D	151688
<u>Analytes</u>					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	01/19/2018 02:50
TPH-Motor Oil (C18-C36)	ND		5.0	1	01/19/2018 02:50
<u>Surrogates</u>					
	<u>REC (%)</u>		<u>Limits</u>		
C9	92		74-123		01/19/2018 02:50
<u>Analyst(s):</u> JIS					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-10	1801844-012A	Soil	01/15/2018 15:02	GC39A 01181836.D	151688
<u>Analytes</u>					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	01/19/2018 02:50
TPH-Motor Oil (C18-C36)	ND		5.0	1	01/19/2018 02:50
<u>Surrogates</u>					
	<u>REC (%)</u>		<u>Limits</u>		
C9	87		74-123		01/19/2018 02:50
<u>Analyst(s):</u> TK					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-15	1801844-013A	Soil	01/15/2018 15:11	GC39B 01181831.D	151688
<u>Analytes</u>					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	01/19/2018 01:32
TPH-Motor Oil (C18-C36)	ND		5.0	1	01/19/2018 01:32
<u>Surrogates</u>					
	<u>REC (%)</u>		<u>Limits</u>		
C9	92		74-123		01/19/2018 01:32
<u>Analyst(s):</u> JIS					

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-20	1801844-014A	Soil	01/15/2018 15:16	GC6A 01181866.D	151688

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	01/19/2018 12:30
TPH-Motor Oil (C18-C36)	ND	5.0	1	01/19/2018 12:30

Surrogates	REC (%)	Limits	Date Analyzed
C9	89	74-123	01/19/2018 12:30

Analyst(s): JIS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-21.5	1801844-015A	Soil	01/15/2018 15:25	GC39A 01171846.D	151725

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	01/18/2018 06:24
TPH-Motor Oil (C18-C36)	ND	5.0	1	01/18/2018 06:24

Surrogates	REC (%)	Limits	Date Analyzed
C9	87	74-123	01/18/2018 06:24

Analyst(s): JIS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-12-2.5	1801844-018A	Soil	01/16/2018 08:49	GC39A 01181846.D	151725

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	1.9	1.0	1	01/19/2018 06:04
TPH-Motor Oil (C18-C36)	20	5.0	1	01/19/2018 06:04

Surrogates	REC (%)	Limits	Date Analyzed
C9	88	74-123	01/19/2018 06:04

Analyst(s): TK

Analytical Comments: e7,e2

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-2.5	1801844-019A	Soil	01/16/2018 12:07	GC9b 01181869.D	151725

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	01/19/2018 14:05
TPH-Motor Oil (C18-C36)	7.3	5.0	1	01/19/2018 14:05

Surrogates	REC (%)	Limits	Date Analyzed
C9	90	74-123	01/19/2018 14:05

Analyst(s): TK **Analytical Comments:** e7

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-5	1801844-020A	Soil	01/16/2018 12:11	GC39A 01181858.D	151725

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	01/19/2018 09:57
TPH-Motor Oil (C18-C36)	ND	5.0	1	01/19/2018 09:57

Surrogates	REC (%)	Limits	Date Analyzed
C9	87	74-123	01/19/2018 09:57

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-10	1801844-021A	Soil	01/16/2018 12:20	GC39B 01181845.D	151725

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	01/19/2018 06:04
TPH-Motor Oil (C18-C36)	ND	5.0	1	01/19/2018 06:04

Surrogates	REC (%)	Limits	Date Analyzed
C9	92	74-123	01/19/2018 06:04

Analyst(s): JIS



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-5.5	1801844-022A	Soil	01/16/2018 12:30	GC39A 01181854.D	151725
<u>Analytes</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)		ND	1.0	1	01/19/2018 08:39
TPH-Motor Oil (C18-C36)		ND	5.0	1	01/19/2018 08:39
<u>Surrogates</u>		<u>REC (%)</u>	<u>Limits</u>		
C9		87	74-123		01/19/2018 08:39
<u>Analyst(s):</u> TK					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-15	1801844-023A	Soil	01/16/2018 12:37	GC9b 01181857.D	151725
<u>Analytes</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)		ND	1.0	1	01/19/2018 09:38
TPH-Motor Oil (C18-C36)		ND	5.0	1	01/19/2018 09:38
<u>Surrogates</u>		<u>REC (%)</u>	<u>Limits</u>		
C9		91	74-123		01/19/2018 09:38
<u>Analyst(s):</u> JIS					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-18.5	1801844-024A	Soil	01/16/2018 12:56	GC39A 01181850.D	151725
<u>Analytes</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)		ND	1.0	1	01/19/2018 07:21
TPH-Motor Oil (C18-C36)		ND	5.0	1	01/19/2018 07:21
<u>Surrogates</u>		<u>REC (%)</u>	<u>Limits</u>		
C9		87	74-123		01/19/2018 07:21
<u>Analyst(s):</u> TK					

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-20	1801844-025A	Soil	01/16/2018 13:00	GC11A 01181858.D	151725

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	01/19/2018 10:13
TPH-Motor Oil (C18-C36)	ND	5.0	1	01/19/2018 10:13

Surrogates	REC (%)	Limits	Date Analyzed
C9	109	74-123	01/19/2018 10:13

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-21	1801844-026A	Soil	01/16/2018 13:11	GC9b 01181853.D	151725

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	01/19/2018 08:20
TPH-Motor Oil (C18-C36)	ND	5.0	1	01/19/2018 08:20

Surrogates	REC (%)	Limits	Date Analyzed
C9	94	74-123	01/19/2018 08:20

Analyst(s): JIS



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW3510C
Analytical Method: SW8015B
Unit: µg/L

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-GW-25	1801844-008A	Water	01/15/2018 11:08	GC9b 01181867.D	151706

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	01/19/2018 13:26
TPH-Motor Oil (C18-C36)	ND	250	1	01/19/2018 13:26

Surrogates	REC (%)	Limits	Date Analyzed
C9	91	61-139	01/19/2018 13:26

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-GW-35	1801844-009A	Water	01/15/2018 12:10	GC39B 01181869.D	151706

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	250	50	1	01/19/2018 13:50
TPH-Motor Oil (C18-C36)	500	250	1	01/19/2018 13:50

Surrogates	REC (%)	Limits	Date Analyzed
C9	96	61-139	01/19/2018 13:50

Analyst(s): JIS

Analytical Comments: e7,e2

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-GW-25	1801844-016A	Water	01/15/2018 15:40	GC39A 01181870.D	151706

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	90	50	1	01/19/2018 13:50
TPH-Motor Oil (C18-C36)	ND	250	1	01/19/2018 13:50

Surrogates	REC (%)	Limits	Date Analyzed
C9	87	61-139	01/19/2018 13:50

Analyst(s): JIS

Analytical Comments: e2

(Cont.)



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/16/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW3510C
Analytical Method: SW8015B
Unit: µg/L

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-GW-35	1801844-017A	Water	01/15/2018 16:30	GC39B 01181867.D	151706

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	01/19/2018 13:11
TPH-Motor Oil (C18-C36)	ND	250	1	01/19/2018 13:11

Surrogates	REC (%)	Limits	Date Analyzed
C9	90	61-139	01/19/2018 13:11

Analyst(s): JIS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-GW-28	1801844-027A	Water	01/16/2018 14:00	GC9b 01181845.D	151706

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	190	50	1	01/19/2018 05:45
TPH-Motor Oil (C18-C36)	330	250	1	01/19/2018 05:45

Surrogates	REC (%)	Limits	Date Analyzed
C9	93	61-139	01/19/2018 05:45

Analyst(s): JIS

Analytical Comments: e7,e2

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-9-GW-38	1801844-028A	Water	01/16/2018 15:00	GC9b 01181849.D	151706

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	160	50	1	01/19/2018 07:03
TPH-Motor Oil (C18-C36)	580	250	1	01/19/2018 07:03

Surrogates	REC (%)	Limits	Date Analyzed
C9	94	61-139	01/19/2018 07:03

Analyst(s): JIS

Analytical Comments: e7,e2



Quality Control Report

Client: Langan
Date Prepared: 1/16/18
Date Analyzed: 1/17/18
Instrument: GC10
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151652
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151652
 1801735-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	1.16	0.10	1	-	117	48-156
tert-Amyl methyl ether (TAME)	ND	0.0409	0.0050	0.050	-	82	56-115
Benzene	ND	0.0497	0.0050	0.050	-	99	63-131
Bromobenzene	ND	0.0471	0.0050	0.050	-	94	66-127
Bromochloromethane	ND	0.0467	0.0050	0.050	-	93	64-124
Bromodichloromethane	ND	0.0426	0.0050	0.050	-	85	64-120
Bromoform	ND	0.0352	0.0050	0.050	-	70	48-92
Bromomethane	ND	0.0514	0.0050	0.050	-	103	25-163
2-Butanone (MEK)	ND	0.190	0.020	0.20	-	95	51-133
t-Butyl alcohol (TBA)	ND	0.182	0.050	0.20	-	91	52-129
n-Butyl benzene	ND	0.0768	0.0050	0.050	-	154	83-200
sec-Butyl benzene	ND	0.0830	0.0050	0.050	-	166	81-199
tert-Butyl benzene	ND	0.0740	0.0050	0.050	-	148	79-178
Carbon Disulfide	ND	0.0473	0.0050	0.050	-	95	64-136
Carbon Tetrachloride	ND	0.0489	0.0050	0.050	-	98	66-140
Chlorobenzene	ND	0.0468	0.0050	0.050	-	94	73-116
Chloroethane	ND	0.0476	0.0050	0.050	-	95	35-147
Chloroform	ND	0.0469	0.0050	0.050	-	94	65-130
Chloromethane	ND	0.0536	0.0050	0.050	-	107	30-137
2-Chlorotoluene	ND	0.0556	0.0050	0.050	-	111	75-152
4-Chlorotoluene	ND	0.0524	0.0050	0.050	-	105	71-148
Dibromochloromethane	ND	0.0406	0.0050	0.050	-	81	61-106
1,2-Dibromo-3-chloropropane	ND	0.0146	0.0040	0.020	-	73	36-120
1,2-Dibromoethane (EDB)	ND	0.0424	0.0040	0.050	-	85	67-118
Dibromomethane	ND	0.0421	0.0050	0.050	-	84	61-116
1,2-Dichlorobenzene	ND	0.0398	0.0050	0.050	-	80	59-106
1,3-Dichlorobenzene	ND	0.0520	0.0050	0.050	-	104	75-129
1,4-Dichlorobenzene	ND	0.0485	0.0050	0.050	-	97	66-127
Dichlorodifluoromethane	ND	0.0313	0.0050	0.050	-	63	13-74
1,1-Dichloroethane	ND	0.0483	0.0050	0.050	-	97	65-134
1,2-Dichloroethane (1,2-DCA)	ND	0.0443	0.0040	0.050	-	89	57-131
1,1-Dichloroethene	ND	0.0475	0.0050	0.050	-	95	62-127
cis-1,2-Dichloroethene	ND	0.0461	0.0050	0.050	-	92	66-130
trans-1,2-Dichloroethene	ND	0.0479	0.0050	0.050	-	96	60-131
1,2-Dichloropropane	ND	0.0462	0.0050	0.050	-	92	63-127
1,3-Dichloropropane	ND	0.0431	0.0050	0.050	-	86	68-124
2,2-Dichloropropane	ND	0.0471	0.0050	0.050	-	94	63-150

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Quality Control Report

Client: Langan
Date Prepared: 1/16/18
Date Analyzed: 1/17/18
Instrument: GC10
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151652
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151652
 1801735-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,1-Dichloropropene	ND	0.0485	0.0050	0.050	-	97	67-134
cis-1,3-Dichloropropene	ND	0.0467	0.0050	0.050	-	93	65-138
trans-1,3-Dichloropropene	ND	0.0471	0.0050	0.050	-	94	66-124
Diisopropyl ether (DIPE)	ND	0.0491	0.0050	0.050	-	98	58-129
Ethylbenzene	ND	0.0562	0.0050	0.050	-	112	73-145
Ethyl tert-butyl ether (ETBE)	ND	0.0455	0.0050	0.050	-	91	62-125
Freon 113	ND	0.0426	0.0050	0.050	-	85	55-116
Hexachlorobutadiene	ND	0.0636	0.0050	0.050	-	127	75-178
Hexachloroethane	ND	0.0595	0.0050	0.050	-	119	75-152
2-Hexanone	ND	0.0387	0.0050	0.050	-	77	41-113
Isopropylbenzene	ND	0.0580	0.0050	0.050	-	116	67-172
4-Isopropyl toluene	ND	0.0713	0.0050	0.050	-	143	88-171
Methyl-t-butyl ether (MTBE)	ND	0.0419	0.0050	0.050	-	84	58-122
Methylene chloride	ND	0.0474	0.0050	0.050	-	95	57-140
4-Methyl-2-pentanone (MIBK)	ND	0.0388	0.0050	0.050	-	78	42-117
Naphthalene	ND	0.0219	0.0050	0.050	-	44	29-65
n-Propyl benzene	ND	0.0646	0.0050	0.050	-	129	85-174
Styrene	ND	0.0437	0.0050	0.050	-	87	63-126
1,1,1,2-Tetrachloroethane	ND	0.0451	0.0050	0.050	-	90	68-131
1,1,2,2-Tetrachloroethane	ND	0.0422	0.0050	0.050	-	84	45-121
Tetrachloroethene	ND	0.0542	0.0050	0.050	-	108	65-150
Toluene	ND	0.0500	0.0050	0.050	-	100	72-135
1,2,3-Trichlorobenzene	ND	0.0264	0.0050	0.050	-	53	35-80
1,2,4-Trichlorobenzene	ND	0.0330	0.0050	0.050	-	66	45-103
1,1,1-Trichloroethane	ND	0.0480	0.0050	0.050	-	96	67-137
1,1,2-Trichloroethane	ND	0.0425	0.0050	0.050	-	85	67-117
Trichloroethene	ND	0.0480	0.0050	0.050	-	96	62-135
Trichlorofluoromethane	ND	0.0456	0.0050	0.050	-	91	56-124
1,2,3-Trichloropropane	ND	0.0466	0.0050	0.050	-	93	58-133
1,2,4-Trimethylbenzene	ND	0.0624	0.0050	0.050	-	125	78-161
1,3,5-Trimethylbenzene	ND	0.0639	0.0050	0.050	-	128	85-170
Vinyl Chloride	ND	0.0479	0.0050	0.050	-	96	32-142
Xylenes, Total	ND	0.152	0.0050	0.15	-	101	70-137

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 1/16/18
Date Analyzed: 1/17/18
Instrument: GC10
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151652
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151652
 1801735-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
Dibromofluoromethane	0.124	0.130		0.12	99	104	87-127
Toluene-d8	0.149	0.159		0.12	119	127	93-141
4-BFB	0.0122	0.0135		0.012	98	108	84-137
Benzene-d6	0.104	0.103		0.10	104	103	67-131
Ethylbenzene-d10	0.124	0.130		0.10	124	130	78-153
1,2-DCB-d4	0.0837	0.0854		0.10	84	85	63-109



Quality Control Report

Client: Langan
Date Prepared: 1/16/18
Date Analyzed: 1/17/18
Instrument: GC10
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151652
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151652
 1801735-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Acetone	NR	NR		ND<400	NR	NR	-	NR	-
tert-Amyl methyl ether (TAME)	NR	NR		ND<20	NR	NR	-	NR	-
Benzene	NR	NR		ND<20	NR	NR	-	NR	-
Bromobenzene	NR	NR		ND<20	NR	NR	-	NR	-
Bromochloromethane	NR	NR		ND<20	NR	NR	-	NR	-
Bromodichloromethane	NR	NR		ND<20	NR	NR	-	NR	-
Bromoform	NR	NR		ND<20	NR	NR	-	NR	-
Bromomethane	NR	NR		ND<20	NR	NR	-	NR	-
2-Butanone (MEK)	NR	NR		ND<80	NR	NR	-	NR	-
t-Butyl alcohol (TBA)	NR	NR		ND<200	NR	NR	-	NR	-
n-Butyl benzene	NR	NR		81	NR	NR	-	NR	-
sec-Butyl benzene	NR	NR		26	NR	NR	-	NR	-
tert-Butyl benzene	NR	NR		ND<20	NR	NR	-	NR	-
Carbon Disulfide	NR	NR		ND<20	NR	NR	-	NR	-
Carbon Tetrachloride	NR	NR		ND<20	NR	NR	-	NR	-
Chlorobenzene	NR	NR		ND<20	NR	NR	-	NR	-
Chloroethane	NR	NR		ND<20	NR	NR	-	NR	-
Chloroform	NR	NR		ND<20	NR	NR	-	NR	-
Chloromethane	NR	NR		ND<20	NR	NR	-	NR	-
2-Chlorotoluene	NR	NR		ND<20	NR	NR	-	NR	-
4-Chlorotoluene	NR	NR		ND<20	NR	NR	-	NR	-
Dibromochloromethane	NR	NR		ND<20	NR	NR	-	NR	-
1,2-Dibromo-3-chloropropane	NR	NR		ND<16	NR	NR	-	NR	-
1,2-Dibromoethane (EDB)	NR	NR		ND<16	NR	NR	-	NR	-
Dibromomethane	NR	NR		ND<20	NR	NR	-	NR	-
1,2-Dichlorobenzene	NR	NR		ND<20	NR	NR	-	NR	-
1,3-Dichlorobenzene	NR	NR		ND<20	NR	NR	-	NR	-
1,4-Dichlorobenzene	NR	NR		ND<20	NR	NR	-	NR	-
Dichlorodifluoromethane	NR	NR		ND<20	NR	NR	-	NR	-
1,1-Dichloroethane	NR	NR		ND<20	NR	NR	-	NR	-
1,2-Dichloroethane (1,2-DCA)	NR	NR		ND<16	NR	NR	-	NR	-
1,1-Dichloroethene	NR	NR		ND<20	NR	NR	-	NR	-
cis-1,2-Dichloroethene	NR	NR		ND<20	NR	NR	-	NR	-
trans-1,2-Dichloroethene	NR	NR		ND<20	NR	NR	-	NR	-
1,2-Dichloropropane	NR	NR		ND<20	NR	NR	-	NR	-
1,3-Dichloropropane	NR	NR		ND<20	NR	NR	-	NR	-
2,2-Dichloropropane	NR	NR		ND<20	NR	NR	-	NR	-

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 1/16/18
Date Analyzed: 1/17/18
Instrument: GC10
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151652
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151652
 1801735-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
1,1-Dichloropropene	NR	NR		ND<20	NR	NR	-	NR	-
cis-1,3-Dichloropropene	NR	NR		ND<20	NR	NR	-	NR	-
trans-1,3-Dichloropropene	NR	NR		ND<20	NR	NR	-	NR	-
Diisopropyl ether (DIPE)	NR	NR		ND<20	NR	NR	-	NR	-
Ethylbenzene	NR	NR		84	NR	NR	-	NR	-
Ethyl tert-butyl ether (ETBE)	NR	NR		ND<20	NR	NR	-	NR	-
Freon 113	NR	NR		ND<20	NR	NR	-	NR	-
Hexachlorobutadiene	NR	NR		ND<20	NR	NR	-	NR	-
Hexachloroethane	NR	NR		ND<20	NR	NR	-	NR	-
2-Hexanone	NR	NR		ND<20	NR	NR	-	NR	-
Isopropylbenzene	NR	NR		21	NR	NR	-	NR	-
4-Isopropyl toluene	NR	NR		30	NR	NR	-	NR	-
Methyl-t-butyl ether (MTBE)	NR	NR		ND<20	NR	NR	-	NR	-
Methylene chloride	NR	NR		ND<20	NR	NR	-	NR	-
4-Methyl-2-pentanone (MIBK)	NR	NR		ND<20	NR	NR	-	NR	-
Naphthalene	NR	NR		190	NR	NR	-	NR	-
n-Propyl benzene	NR	NR		58	NR	NR	-	NR	-
Styrene	NR	NR		ND<20	NR	NR	-	NR	-
1,1,1,2-Tetrachloroethane	NR	NR		ND<20	NR	NR	-	NR	-
1,1,2,2-Tetrachloroethane	NR	NR		ND<20	NR	NR	-	NR	-
Tetrachloroethene	NR	NR		84	NR	NR	-	NR	-
Toluene	NR	NR		69	NR	NR	-	NR	-
1,2,3-Trichlorobenzene	NR	NR		ND<20	NR	NR	-	NR	-
1,2,4-Trichlorobenzene	NR	NR		ND<20	NR	NR	-	NR	-
1,1,1-Trichloroethane	NR	NR		ND<20	NR	NR	-	NR	-
1,1,2-Trichloroethane	NR	NR		ND<20	NR	NR	-	NR	-
Trichloroethene	NR	NR		ND<20	NR	NR	-	NR	-
Trichlorofluoromethane	NR	NR		ND<20	NR	NR	-	NR	-
1,2,3-Trichloropropane	NR	NR		ND<20	NR	NR	-	NR	-
1,2,4-Trimethylbenzene	NR	NR		360	NR	NR	-	NR	-
1,3,5-Trimethylbenzene	NR	NR		86	NR	NR	-	NR	-
Vinyl Chloride	NR	NR		ND<20	NR	NR	-	NR	-
Xylenes, Total	NR	NR		380	NR	NR	-	NR	-

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 1/16/18
Date Analyzed: 1/17/18
Instrument: GC10
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151652
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151652
 1801735-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Surrogate Recovery									
Dibromofluoromethane	NR	NR			NR	NR	-	NR	-
Toluene-d8	NR	NR			NR	NR	-	NR	-
4-BFB	NR	NR			NR	NR	-	NR	-
Benzene-d6	NR	NR			NR	NR	-	NR	-
Ethylbenzene-d10	NR	NR			NR	NR	-	NR	-
1,2-DCB-d4	NR	NR			NR	NR	-	NR	-

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 1/16/18
Date Analyzed: 1/18/18 - 1/19/18
Instrument: GC16
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151727
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151727
 1801844-023AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	1.14	0.10	1	-	114	48-156
tert-Amyl methyl ether (TAME)	ND	0.0428	0.0050	0.050	-	86	56-115
Benzene	ND	0.0450	0.0050	0.050	-	90	63-131
Bromobenzene	ND	0.0475	0.0050	0.050	-	95	66-127
Bromochloromethane	ND	0.0447	0.0050	0.050	-	89	64-124
Bromodichloromethane	ND	0.0419	0.0050	0.050	-	84	64-120
Bromoform	ND	0.0351	0.0050	0.050	-	70	48-92
Bromomethane	ND	0.0535	0.0050	0.050	-	107	25-163
2-Butanone (MEK)	ND	0.190	0.020	0.20	-	95	51-133
t-Butyl alcohol (TBA)	ND	0.190	0.050	0.20	-	95	52-129
n-Butyl benzene	ND	0.0631	0.0050	0.050	-	126	83-200
sec-Butyl benzene	ND	0.0617	0.0050	0.050	-	123	81-199
tert-Butyl benzene	ND	0.0582	0.0050	0.050	-	116	79-178
Carbon Disulfide	ND	0.0446	0.0050	0.050	-	89	64-136
Carbon Tetrachloride	ND	0.0505	0.0050	0.050	-	101	66-140
Chlorobenzene	ND	0.0471	0.0050	0.050	-	94	73-116
Chloroethane	ND	0.0464	0.0050	0.050	-	93	35-147
Chloroform	ND	0.0465	0.0050	0.050	-	93	65-130
Chloromethane	ND	0.0376	0.0050	0.050	-	75	30-137
2-Chlorotoluene	ND	0.0572	0.0050	0.050	-	114	75-152
4-Chlorotoluene	ND	0.0545	0.0050	0.050	-	109	71-148
Dibromochloromethane	ND	0.0428	0.0050	0.050	-	86	61-106
1,2-Dibromo-3-chloropropane	ND	0.0173	0.0040	0.020	-	87	36-120
1,2-Dibromoethane (EDB)	ND	0.0412	0.0040	0.050	-	82	67-118
Dibromomethane	ND	0.0407	0.0050	0.050	-	81	61-116
1,2-Dichlorobenzene	ND	0.0428	0.0050	0.050	-	86	59-106
1,3-Dichlorobenzene	ND	0.0510	0.0050	0.050	-	102	75-129
1,4-Dichlorobenzene	ND	0.0476	0.0050	0.050	-	95	66-127
Dichlorodifluoromethane	ND	0.0244	0.0050	0.050	-	49	13-74
1,1-Dichloroethane	ND	0.0459	0.0050	0.050	-	92	65-134
1,2-Dichloroethane (1,2-DCA)	ND	0.0470	0.0040	0.050	-	94	57-131
1,1-Dichloroethene	ND	0.0443	0.0050	0.050	-	89	62-127
cis-1,2-Dichloroethene	ND	0.0443	0.0050	0.050	-	89	66-130
trans-1,2-Dichloroethene	ND	0.0448	0.0050	0.050	-	89	60-131
1,2-Dichloropropane	ND	0.0428	0.0050	0.050	-	86	63-127
1,3-Dichloropropane	ND	0.0425	0.0050	0.050	-	85	68-124
2,2-Dichloropropane	ND	0.0480	0.0050	0.050	-	96	63-150

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 1/16/18
Date Analyzed: 1/18/18 - 1/19/18
Instrument: GC16
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151727
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151727
 1801844-023AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,1-Dichloropropene	ND	0.0484	0.0050	0.050	-	97	67-134
cis-1,3-Dichloropropene	ND	0.0427	0.0050	0.050	-	85	65-138
trans-1,3-Dichloropropene	ND	0.0450	0.0050	0.050	-	90	66-124
Diisopropyl ether (DIPE)	ND	0.0434	0.0050	0.050	-	87	58-129
Ethylbenzene	ND	0.0489	0.0050	0.050	-	98	73-145
Ethyl tert-butyl ether (ETBE)	ND	0.0446	0.0050	0.050	-	89	62-125
Freon 113	ND	0.0428	0.0050	0.050	-	86	55-116
Hexachlorobutadiene	ND	0.0557	0.0050	0.050	-	111	75-178
Hexachloroethane	ND	0.0609	0.0050	0.050	-	122	75-152
2-Hexanone	ND	0.0336	0.0050	0.050	-	67	41-113
Isopropylbenzene	ND	0.0500	0.0050	0.050	-	100	67-172
4-Isopropyl toluene	ND	0.0609	0.0050	0.050	-	122	88-171
Methyl-t-butyl ether (MTBE)	ND	0.0447	0.0050	0.050	-	89	58-122
Methylene chloride	ND	0.0479	0.0050	0.050	-	96	57-140
4-Methyl-2-pentanone (MIBK)	ND	0.0338	0.0050	0.050	-	68	42-117
Naphthalene	ND	0.0213	0.0050	0.050	-	43	29-65
n-Propyl benzene	ND	0.0629	0.0050	0.050	-	126	85-174
Styrene	ND	0.0424	0.0050	0.050	-	85	63-126
1,1,1,2-Tetrachloroethane	ND	0.0473	0.0050	0.050	-	95	68-131
1,1,2,2-Tetrachloroethane	ND	0.0362	0.0050	0.050	-	72	45-121
Tetrachloroethene	ND	0.0441	0.0050	0.050	-	88	65-150
Toluene	ND	0.0449	0.0050	0.050	-	90	72-135
1,2,3-Trichlorobenzene	ND	0.0275	0.0050	0.050	-	55	35-80
1,2,4-Trichlorobenzene	ND	0.0342	0.0050	0.050	-	68	45-103
1,1,1-Trichloroethane	ND	0.0472	0.0050	0.050	-	94	67-137
1,1,2-Trichloroethane	ND	0.0400	0.0050	0.050	-	80	67-117
Trichloroethene	ND	0.0464	0.0050	0.050	-	93	62-135
Trichlorofluoromethane	ND	0.0474	0.0050	0.050	-	95	56-124
1,2,3-Trichloropropane	ND	0.0457	0.0050	0.050	-	91	58-133
1,2,4-Trimethylbenzene	ND	0.0566	0.0050	0.050	-	113	78-161
1,3,5-Trimethylbenzene	ND	0.0592	0.0050	0.050	-	118	85-170
Vinyl Chloride	ND	0.0396	0.0050	0.050	-	79	32-142
Xylenes, Total	ND	0.146	0.0050	0.15	-	97	70-137

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 1/16/18
Date Analyzed: 1/18/18 - 1/19/18
Instrument: GC16
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151727
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151727
 1801844-023AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
Dibromofluoromethane	0.128	0.126		0.12	102	101	87-127
Toluene-d8	0.113	0.125		0.12	91,F3	100	93-141
4-BFB	0.0112	0.0128		0.012	90	103	84-137
Benzene-d6	0.109	0.0891		0.10	109	89	67-131
Ethylbenzene-d10	0.116	0.117		0.10	115	117	78-153
1,2-DCB-d4	0.0744	0.0879		0.10	74	88	63-109



Quality Control Report

Client: Langan
Date Prepared: 1/16/18
Date Analyzed: 1/18/18 - 1/19/18
Instrument: GC16
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151727
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151727
 1801844-023AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Acetone	0.845	0.895	1	ND	85	89	36-141	5.67	20
tert-Amyl methyl ether (TAME)	0.0314	0.0334	0.050	ND	63	67	46-105	6.51	20
Benzene	0.0319	0.0344	0.050	ND	64	69	46-124	7.43	20
Bromobenzene	0.0303	0.0350	0.050	ND	61	70	50-119	14.4	20
Bromochloromethane	0.0318	0.0340	0.050	ND	64	68	42-122	6.92	20
Bromodichloromethane	0.0302	0.0327	0.050	ND	60	65	48-112	8.01	20
Bromoform	0.0247	0.0274	0.050	ND	49	55	36-90	10.5	20
Bromomethane	0.0445	0.0507	0.050	ND	89	101	10-149	13.0	20
2-Butanone (MEK)	0.134	0.148	0.20	ND	67	74	43-114	9.62	20
t-Butyl alcohol (TBA)	0.128	0.145	0.20	ND	64	72	33-123	11.8	20
n-Butyl benzene	0.0403	0.0456	0.050	ND	81	91	40-185	12.3	20
sec-Butyl benzene	0.0398	0.0456	0.050	ND	80	91	40-183	13.7	20
tert-Butyl benzene	0.0354	0.0409	0.050	ND	71	82	44-168	14.5	20
Carbon Disulfide	0.0314	0.0334	0.050	ND	63	67	23-139	6.14	20
Carbon Tetrachloride	0.0345	0.0371	0.050	ND	69	74	43-133	7.37	20
Chlorobenzene	0.0316	0.0349	0.050	ND	63	70	51-115	9.95	20
Chloroethane	0.0358	0.0384	0.050	ND	72	77	16-138	7.02	20
Chloroform	0.0331	0.0358	0.050	ND	66	72	54-117	7.86	20
Chloromethane	0.0274	0.0328	0.050	ND	55	66	14-128	17.9	20
2-Chlorotoluene	0.0366	0.0423	0.050	ND	73	85	54-141	14.7	20
4-Chlorotoluene	0.0341	0.0385	0.050	ND	68	77	52-134	12.1	20
Dibromochloromethane	0.0285	0.0312	0.050	ND	57	62	46-102	9.15	20
1,2-Dibromo-3-chloropropane	0.0113	0.0120	0.020	ND	57	60	16-120	5.45	20
1,2-Dibromoethane (EDB)	0.0280	0.0295	0.050	ND	56	59	48-113	5.11	20
Dibromomethane	0.0294	0.0320	0.050	ND	59	64	44-110	8.68	20
1,2-Dichlorobenzene	0.0292	0.0323	0.050	ND	58	65	43-106	10.3	20
1,3-Dichlorobenzene	0.0334	0.0382	0.050	ND	67	76	49-128	13.3	20
1,4-Dichlorobenzene	0.0315	0.0355	0.050	ND	63	71	48-120	12.0	20
Dichlorodifluoromethane	0.0148	0.0174	0.050	ND	29	35	8-63	16.3	20
1,1-Dichloroethane	0.0323	0.0346	0.050	ND	65	69	50-122	7.00	20
1,2-Dichloroethane (1,2-DCA)	0.0339	0.0365	0.050	ND	68	73	46-116	7.54	20
1,1-Dichloroethene	0.0305	0.0326	0.050	ND	61	65	37-124	6.89	20
cis-1,2-Dichloroethene	0.0310	0.0335	0.050	ND	62	67	47-123	7.56	20
trans-1,2-Dichloroethene	0.0317	0.0337	0.050	ND	63	67	31-131	6.15	20
1,2-Dichloropropane	0.0305	0.0332	0.050	ND	61	66	50-116	8.44	20
1,3-Dichloropropane	0.0287	0.0303	0.050	ND	57	61	52-115	5.57	20
2,2-Dichloropropane	0.0333	0.0359	0.050	ND	67	72	43-137	7.33	20

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 1/16/18
Date Analyzed: 1/18/18 - 1/19/18
Instrument: GC16
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151727
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151727
 1801844-023AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
1,1-Dichloropropene	0.0317	0.0363	0.050	ND	63	73	43-126	13.5	20
cis-1,3-Dichloropropene	0.0280	0.0292	0.050	ND	56	58	35-134	4.27	20
trans-1,3-Dichloropropene	0.0314	0.0332	0.050	ND	63	66	35-124	5.70	20
Diisopropyl ether (DIPE)	0.0323	0.0344	0.050	ND	65	69	49-116	6.23	20
Ethylbenzene	0.0333	0.0359	0.050	ND	67	72	49-137	7.54	20
Ethyl tert-butyl ether (ETBE)	0.0333	0.0356	0.050	ND	67	71	50-113	6.45	20
Freon 113	0.0290	0.0309	0.050	ND	58	62	28-114	6.55	20
Hexachlorobutadiene	0.0346	0.0404	0.050	ND	69	81	22-180	15.4	20
Hexachloroethane	0.0368	0.0414	0.050	ND	74	83	28-158	11.9	20
2-Hexanone	0.0224	0.0256	0.050	ND	45	51	31-102	13.4	20
Isopropylbenzene	0.0332	0.0375	0.050	ND	66	75	50-153	12.0	20
4-Isopropyl toluene	0.0376	0.0432	0.050	ND	75	86	41-171	13.8	20
Methyl-t-butyl ether (MTBE)	0.0332	0.0349	0.050	ND	66	70	48-110	5.01	20
Methylene chloride	0.0326	0.0355	0.050	ND	65	71	42-127	8.53	20
4-Methyl-2-pentanone (MIBK)	0.0233	0.0247	0.050	ND	47	49	24-114	5.71	20
Naphthalene	0.0176	0.0191	0.050	ND	33	35	19-69	7.69	20
n-Propyl benzene	0.0386	0.0450	0.050	ND	77	90	46-168	15.4	20
Styrene	0.0283	0.0318	0.050	ND	57	64	42-122	11.8	20
1,1,1,2-Tetrachloroethane	0.0316	0.0350	0.050	ND	63	70	52-121	10.1	20
1,1,2,2-Tetrachloroethane	0.0249	0.0278	0.050	ND	50	56	27-116	11.1	20
Tetrachloroethene	0.0288	0.0296	0.050	ND	58	59	37-149	2.89	20
Toluene	0.0307	0.0316	0.050	ND	61	63	52-124	2.71	20
1,2,3-Trichlorobenzene	0.0225	0.0244	0.050	ND	43	47	20-86	8.06	20
1,2,4-Trichlorobenzene	0.0253	0.0279	0.050	ND	51	56	24-107	9.64	20
1,1,1-Trichloroethane	0.0332	0.0352	0.050	ND	66	70	48-128	6.11	20
1,1,2-Trichloroethane	0.0275	0.0295	0.050	ND	55	59	51-110	6.98	20
Trichloroethene	0.0314	0.0334	0.050	ND	63	67	42-128	6.31	20
Trichlorofluoromethane	0.0328	0.0349	0.050	ND	66	70	31-121	6.09	20
1,2,3-Trichloropropane	0.0297	0.0324	0.050	ND	59	65	50-115	8.95	20
1,2,4-Trimethylbenzene	0.0357	0.0402	0.050	ND	71	80	48-151	11.9	20
1,3,5-Trimethylbenzene	0.0371	0.0428	0.050	ND	74	86	51-159	14.3	20
Vinyl Chloride	0.0310	0.0337	0.050	ND	62	67	11-136	8.30	20
Xylenes, Total	0.0978	0.107	0.15	ND	65	72	38-141	9.42	20

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Quality Control Report

Client: Langan
Date Prepared: 1/16/18
Date Analyzed: 1/18/18 - 1/19/18
Instrument: GC16
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151727
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151727
 1801844-023AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Surrogate Recovery									
Dibromofluoromethane	0.123	0.124	0.12		98	99	82-136	0.898	20
Toluene-d8	0.120	0.116	0.12		96	93	92-139	3.62	20
4-BFB	0.0114	0.0117	0.012		91	94	82-135	3.09	20
Benzene-d6	0.0641	0.0689	0.10		64	69	55-122	7.27	20
Ethylbenzene-d10	0.0822	0.0876	0.10		82	88	58-141	6.38	20
1,2-DCB-d4	0.0616	0.0659	0.10		62	66	51-107	6.77	20



Quality Control Report

Client: Langan
Date Prepared: 1/19/18
Date Analyzed: 1/20/18 - 1/23/18
Instrument: GC10, GC28
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151917
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151917
 1801A25-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	1.18	0.10	1	-	118	48-156
tert-Amyl methyl ether (TAME)	ND	0.0376	0.0050	0.050	-	75	56-115
Benzene	ND	0.0463	0.0050	0.050	-	93	63-131
Bromobenzene	ND	0.0443	0.0050	0.050	-	89	66-127
Bromochloromethane	ND	0.0441	0.0050	0.050	-	88	64-124
Bromodichloromethane	ND	0.0451	0.0050	0.050	-	90	64-120
Bromoform	ND	0.0381	0.0050	0.050	-	76	48-92
Bromomethane	ND	0.0490	0.0050	0.050	-	98	25-163
2-Butanone (MEK)	ND	0.180	0.020	0.20	-	90	51-133
t-Butyl alcohol (TBA)	ND	0.206	0.050	0.20	-	103	52-129
n-Butyl benzene	ND	0.0704	0.0050	0.050	-	141	83-200
sec-Butyl benzene	ND	0.0650	0.0050	0.050	-	130	81-199
tert-Butyl benzene	ND	0.0591	0.0050	0.050	-	118	79-178
Carbon Disulfide	ND	0.0473	0.0050	0.050	-	95	64-136
Carbon Tetrachloride	ND	0.0486	0.0050	0.050	-	97	66-140
Chlorobenzene	ND	0.0446	0.0050	0.050	-	89	73-116
Chloroethane	ND	0.0461	0.0050	0.050	-	92	35-147
Chloroform	ND	0.0460	0.0050	0.050	-	92	65-130
Chloromethane	ND	0.0392	0.0050	0.050	-	78	30-137
2-Chlorotoluene	ND	0.0565	0.0050	0.050	-	113	75-152
4-Chlorotoluene	ND	0.0510	0.0050	0.050	-	102	71-148
Dibromochloromethane	ND	0.0399	0.0050	0.050	-	80	61-106
1,2-Dibromo-3-chloropropane	ND	0.0146	0.0040	0.020	-	73	36-120
1,2-Dibromoethane (EDB)	ND	0.0392	0.0040	0.050	-	78	67-118
Dibromomethane	ND	0.0446	0.0050	0.050	-	89	61-116
1,2-Dichlorobenzene	ND	0.0441	0.0050	0.050	-	88	59-106
1,3-Dichlorobenzene	ND	0.0525	0.0050	0.050	-	105	75-129
1,4-Dichlorobenzene	ND	0.0448	0.0050	0.050	-	90	66-127
Dichlorodifluoromethane	ND	0.0176	0.0050	0.050	-	35	13-74
1,1-Dichloroethane	ND	0.0499	0.0050	0.050	-	100	65-134
1,2-Dichloroethane (1,2-DCA)	ND	0.0426	0.0040	0.050	-	85	57-131
1,1-Dichloroethene	ND	0.0498	0.0050	0.050	-	100	62-127
cis-1,2-Dichloroethene	ND	0.0469	0.0050	0.050	-	94	66-130
trans-1,2-Dichloroethene	ND	0.0509	0.0050	0.050	-	102	60-131
1,2-Dichloropropane	ND	0.0453	0.0050	0.050	-	91	63-127
1,3-Dichloropropane	ND	0.0430	0.0050	0.050	-	86	68-124
2,2-Dichloropropane	ND	0.0534	0.0050	0.050	-	107	63-150

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Quality Control Report

Client: Langan
Date Prepared: 1/19/18
Date Analyzed: 1/20/18 - 1/23/18
Instrument: GC10, GC28
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151917
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151917
 1801A25-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,1-Dichloropropene	ND	0.0498	0.0050	0.050	-	100	67-134
cis-1,3-Dichloropropene	ND	0.0457	0.0050	0.050	-	91	65-138
trans-1,3-Dichloropropene	ND	0.0476	0.0050	0.050	-	95	66-124
Diisopropyl ether (DIPE)	ND	0.0404	0.0050	0.050	-	81	58-129
Ethylbenzene	ND	0.0520	0.0050	0.050	-	104	73-145
Ethyl tert-butyl ether (ETBE)	ND	0.0438	0.0050	0.050	-	88	62-125
Freon 113	ND	0.0442	0.0050	0.050	-	88	55-116
Hexachlorobutadiene	ND	0.0583	0.0050	0.050	-	117	75-178
Hexachloroethane	ND	0.0592	0.0050	0.050	-	118	75-152
2-Hexanone	ND	0.0347	0.0050	0.050	-	69	41-113
Isopropylbenzene	ND	0.0601	0.0050	0.050	-	120	67-172
4-Isopropyl toluene	ND	0.0660	0.0050	0.050	-	132	88-171
Methyl-t-butyl ether (MTBE)	ND	0.0480	0.0050	0.050	-	96	58-122
Methylene chloride	ND	0.0514	0.0050	0.050	-	103	57-140
4-Methyl-2-pentanone (MIBK)	ND	0.0340	0.0050	0.050	-	68	42-117
Naphthalene	ND	0.0195	0.0050	0.050	-	39	29-65
n-Propyl benzene	ND	0.0646	0.0050	0.050	-	129	85-174
Styrene	ND	0.0434	0.0050	0.050	-	87	63-126
1,1,1,2-Tetrachloroethane	ND	0.0442	0.0050	0.050	-	88	68-131
1,1,2,2-Tetrachloroethane	ND	0.0358	0.0050	0.050	-	72	45-121
Tetrachloroethene	ND	0.0494	0.0050	0.050	-	99	65-150
Toluene	ND	0.0505	0.0050	0.050	-	101	72-135
1,2,3-Trichlorobenzene	ND	0.0279	0.0050	0.050	-	56	35-80
1,2,4-Trichlorobenzene	ND	0.0386	0.0050	0.050	-	77	45-103
1,1,1-Trichloroethane	ND	0.0463	0.0050	0.050	-	93	67-137
1,1,2-Trichloroethane	ND	0.0408	0.0050	0.050	-	82	67-117
Trichloroethene	ND	0.0480	0.0050	0.050	-	96	62-135
Trichlorofluoromethane	ND	0.0511	0.0050	0.050	-	102	56-124
1,2,3-Trichloropropane	ND	0.0450	0.0050	0.050	-	90	58-133
1,2,4-Trimethylbenzene	ND	0.0604	0.0050	0.050	-	121	78-161
1,3,5-Trimethylbenzene	ND	0.0596	0.0050	0.050	-	119	85-170
Vinyl Chloride	ND	0.0499	0.0050	0.050	-	100	32-142
Xylenes, Total	ND	0.150	0.0050	0.15	-	100	70-137

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Quality Control Report

Client: Langan
Date Prepared: 1/19/18
Date Analyzed: 1/20/18 - 1/23/18
Instrument: GC10, GC28
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151917
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151917
 1801A25-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
Dibromofluoromethane	0.149	0.151		0.12	119	121	87-127
Toluene-d8	0.172	0.170		0.12	138	136	93-141
4-BFB	0.0137	0.0139		0.012	110	111	84-137
Benzene-d6	0.0942	0.0948		0.10	94	95	67-131
Ethylbenzene-d10	0.110	0.107		0.10	110	107	78-153
1,2-DCB-d4	0.0997	0.0928		0.10	100	93	63-109



Quality Control Report

Client: Langan
Date Prepared: 1/19/18
Date Analyzed: 1/20/18 - 1/23/18
Instrument: GC10, GC28
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151917
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151917
 1801A25-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Acetone	0.814	0.773	1	ND	72	68	36-141	5.18	20
tert-Amyl methyl ether (TAME)	0.0356	0.0336	0.050	ND	71	67	46-105	5.90	20
Benzene	0.0416	0.0388	0.050	ND	83	78	46-124	7.00	20
Bromobenzene	0.0405	0.0372	0.050	ND	81	74	50-119	8.58	20
Bromochloromethane	0.0379	0.0363	0.050	ND	76	73	42-122	4.36	20
Bromodichloromethane	0.0304	0.0273	0.050	ND	61	55	48-112	10.4	20
Bromoform	0.0274	0.0251	0.050	ND	55	50	36-90	8.80	20
Bromomethane	0.0140	0.0152	0.050	ND	28	30	10-149	8.69	20
2-Butanone (MEK)	0.136	0.137	0.20	ND	68	68	43-114	0	20
t-Butyl alcohol (TBA)	0.131	0.120	0.20	ND	65	60	33-123	8.70	20
n-Butyl benzene	0.0556	0.0513	0.050	ND	111	103	40-185	8.09	20
sec-Butyl benzene	0.0580	0.0516	0.050	ND	116	103	40-183	11.6	20
tert-Butyl benzene	0.0557	0.0510	0.050	ND	111	102	44-168	8.96	20
Carbon Disulfide	0.0101	0.0128	0.050	ND	20,F1	26	23-139	23.5,F1	20
Carbon Tetrachloride	0.0348	0.0336	0.050	ND	70	67	43-133	3.45	20
Chlorobenzene	0.0395	0.0369	0.050	ND	79	74	51-115	6.67	20
Chloroethane	0.0475	0.0360	0.050	ND	95	72	16-138	27.6,F1	20
Chloroform	0.0410	0.0381	0.050	ND	82	76	54-117	7.25	20
Chloromethane	0.0291	0.0281	0.050	ND	58	56	14-128	3.64	20
2-Chlorotoluene	0.0447	0.0413	0.050	ND	89	83	54-141	7.85	20
4-Chlorotoluene	0.0442	0.0411	0.050	ND	88	82	52-134	7.27	20
Dibromochloromethane	0.0303	0.0276	0.050	ND	61	55	46-102	9.07	20
1,2-Dibromo-3-chloropropane	ND	ND	0.020	ND	0,F1	0,F1	16-120	0	20
1,2-Dibromoethane (EDB)	0.0241	0.0204	0.050	ND	48	41,F1	48-113	16.8	20
Dibromomethane	0.0355	0.0338	0.050	ND	71	68	44-110	5.10	20
1,2-Dichlorobenzene	0.0364	0.0349	0.050	ND	73	70	43-106	4.18	20
1,3-Dichlorobenzene	0.0425	0.0399	0.050	ND	85	80	49-128	6.20	20
1,4-Dichlorobenzene	0.0417	0.0387	0.050	ND	83	77	48-120	7.59	20
Dichlorodifluoromethane	0.0199	0.0178	0.050	ND	40	36	8-63	11.2	20
1,1-Dichloroethane	0.0403	0.0376	0.050	ND	81	75	50-122	6.89	20
1,2-Dichloroethane (1,2-DCA)	0.0354	0.0334	0.050	ND	71	67	46-116	5.95	20
1,1-Dichloroethene	0.0702	0.0645	0.050	ND	140,F1	129,F1	37-124	8.51	20
cis-1,2-Dichloroethene	0.0397	0.0377	0.050	ND	79	75	47-123	5.34	20
trans-1,2-Dichloroethene	0.0404	0.0368	0.050	ND	81	74	31-131	9.29	20
1,2-Dichloropropane	0.0392	0.0367	0.050	ND	78	73	50-116	6.69	20
1,3-Dichloropropane	0.0362	0.0333	0.050	ND	72	67	52-115	8.40	20
2,2-Dichloropropane	0.0396	0.0368	0.050	ND	79	74	43-137	7.34	20

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Quality Control Report

Client: Langan
Date Prepared: 1/19/18
Date Analyzed: 1/20/18 - 1/23/18
Instrument: GC10, GC28
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151917
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151917
 1801A25-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
1,1-Dichloropropene	0.0410	0.0393	0.050	ND	82	79	43-126	4.16	20
cis-1,3-Dichloropropene	0.0196	0.0221	0.050	ND	39	44	35-134	12.1	20
trans-1,3-Dichloropropene	0.0250	0.0255	0.050	ND	50	51	35-124	2.04	20
Diisopropyl ether (DIPE)	0.0389	0.0368	0.050	ND	78	74	49-116	5.35	20
Ethylbenzene	0.0456	0.0421	0.050	ND	91	84	49-137	7.98	20
Ethyl tert-butyl ether (ETBE)	0.0363	0.0345	0.050	ND	73	69	50-113	5.05	20
Freon 113	0.0338	0.0302	0.050	ND	68	60	28-114	11.0	20
Hexachlorobutadiene	0.0513	0.0471	0.050	ND	103	94	22-180	8.39	20
Hexachloroethane	0.0424	0.0415	0.050	ND	85	83	28-158	2.18	20
2-Hexanone	0.0313	0.0290	0.050	ND	63	58	31-102	7.71	20
Isopropylbenzene	0.0467	0.0432	0.050	ND	93	86	50-153	7.91	20
4-Isopropyl toluene	0.0559	0.0518	0.050	0.007530	97	88	41-171	7.65	20
Methyl-t-butyl ether (MTBE)	0.0338	0.0320	0.050	ND	68	64	48-110	5.57	20
Methylene chloride	0.0381	0.0353	0.050	ND	76	71	42-127	7.50	20
4-Methyl-2-pentanone (MIBK)	0.0300	0.0280	0.050	ND	60	56	24-114	6.62	20
Naphthalene	0.0239	0.0226	0.050	ND	47	44	19-69	5.64	20
n-Propyl benzene	0.0498	0.0460	0.050	ND	100	92	46-168	7.85	20
Styrene	0.0375	0.0355	0.050	ND	75	71	42-122	5.68	20
1,1,1,2-Tetrachloroethane	ND	ND	0.050	ND	0,F1	0,F1	52-121	0	20
1,1,2,2-Tetrachloroethane	ND	ND	0.050	ND	0,F1	0,F1	27-116	0	20
Tetrachloroethene	0.0477	0.0425	0.050	ND	95	85	37-149	11.4	20
Toluene	0.0416	0.0386	0.050	ND	83	77	52-124	7.27	20
1,2,3-Trichlorobenzene	0.0270	0.0253	0.050	ND	54	51	20-86	6.67	20
1,2,4-Trichlorobenzene	0.0313	0.0299	0.050	ND	63	60	24-107	4.70	20
1,1,1-Trichloroethane	0.0409	0.0380	0.050	ND	82	76	48-128	7.31	20
1,1,2-Trichloroethane	ND	ND	0.050	ND	0,F1	0,F1	51-110	0	20
Trichloroethene	0.106	0.100	0.050	ND	213,F1	201,F1	42-128	6.01	20
Trichlorofluoromethane	0.0367	0.0334	0.050	ND	73	67	31-121	9.32	20
1,2,3-Trichloropropane	0.0124	0.00844	0.050	ND	25,F1	17,F1	50-115	38,F1	20
1,2,4-Trimethylbenzene	0.0483	0.0450	0.050	ND	97	90	48-151	7.08	20
1,3,5-Trimethylbenzene	0.0496	0.0460	0.050	ND	99	92	51-159	7.44	20
Vinyl Chloride	0.0384	0.0369	0.050	ND	77	74	11-136	4.03	20
Xylenes, Total	0.125	0.116	0.15	ND	84	78	38-141	7.51	20

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Quality Control Report

Client: Langan
Date Prepared: 1/19/18
Date Analyzed: 1/20/18 - 1/23/18
Instrument: GC10, GC28
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151917
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151917
 1801A25-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Surrogate Recovery									
Dibromofluoromethane	0.133	0.132	0.12		106	106	82-136	0	20
Toluene-d8	0.150	0.148	0.12		120	119	92-139	1.34	20
4-BFB	0.0143	0.0138	0.012		115	110	82-135	3.81	20
Benzene-d6	0.0797	0.0752	0.10		80	75	55-122	5.84	20
Ethylbenzene-d10	0.0974	0.0906	0.10		97	91	58-141	7.20	20
1,2-DCB-d4	0.0744	0.0709	0.10		74	71	51-107	4.87	20



Quality Control Report

Client: Langan
Date Prepared: 1/20/18
Date Analyzed: 1/20/18
Instrument: GC16
Matrix: Water
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151981
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS/LCSD-151981

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Acetone	ND	10	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.50	-	-	-
Benzene	ND	0.50	-	-	-
Bromobenzene	ND	0.50	-	-	-
Bromochloromethane	ND	0.50	-	-	-
Bromodichloromethane	ND	0.50	-	-	-
Bromoform	ND	0.50	-	-	-
Bromomethane	ND	0.50	-	-	-
2-Butanone (MEK)	ND	2.0	-	-	-
t-Butyl alcohol (TBA)	ND	2.0	-	-	-
n-Butyl benzene	ND	0.50	-	-	-
sec-Butyl benzene	ND	0.50	-	-	-
tert-Butyl benzene	ND	0.50	-	-	-
Carbon Disulfide	ND	0.50	-	-	-
Carbon Tetrachloride	ND	0.50	-	-	-
Chlorobenzene	ND	0.50	-	-	-
Chloroethane	ND	0.50	-	-	-
Chloroform	ND	0.50	-	-	-
Chloromethane	ND	0.50	-	-	-
2-Chlorotoluene	ND	0.50	-	-	-
4-Chlorotoluene	ND	0.50	-	-	-
Dibromochloromethane	ND	0.50	-	-	-
1,2-Dibromo-3-chloropropane	ND	0.20	-	-	-
1,2-Dibromoethane (EDB)	ND	0.50	-	-	-
Dibromomethane	ND	0.50	-	-	-
1,2-Dichlorobenzene	ND	0.50	-	-	-
1,3-Dichlorobenzene	ND	0.50	-	-	-
1,4-Dichlorobenzene	ND	0.50	-	-	-
Dichlorodifluoromethane	ND	0.50	-	-	-
1,1-Dichloroethane	ND	0.50	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.50	-	-	-
1,1-Dichloroethene	ND	0.50	-	-	-
cis-1,2-Dichloroethene	ND	0.50	-	-	-
trans-1,2-Dichloroethene	ND	0.50	-	-	-
1,2-Dichloropropane	ND	0.50	-	-	-
1,3-Dichloropropane	ND	0.50	-	-	-
2,2-Dichloropropane	ND	0.50	-	-	-
1,1-Dichloropropene	ND	0.50	-	-	-
cis-1,3-Dichloropropene	ND	0.50	-	-	-

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 1/20/18
Date Analyzed: 1/20/18
Instrument: GC16
Matrix: Water
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151981
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS/LCSD-151981

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
trans-1,3-Dichloropropene	ND	0.50	-	-	-
Diisopropyl ether (DIPE)	ND	0.50	-	-	-
Ethylbenzene	ND	0.50	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.50	-	-	-
Freon 113	ND	0.50	-	-	-
Hexachlorobutadiene	ND	0.50	-	-	-
Hexachloroethane	ND	0.50	-	-	-
2-Hexanone	ND	0.50	-	-	-
Isopropylbenzene	ND	0.50	-	-	-
4-Isopropyl toluene	ND	0.50	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.50	-	-	-
Methylene chloride	ND	0.50	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	0.50	-	-	-
Naphthalene	ND	0.50	-	-	-
n-Propyl benzene	ND	0.50	-	-	-
Styrene	ND	0.50	-	-	-
1,1,1,2-Tetrachloroethane	ND	0.50	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.50	-	-	-
Tetrachloroethene	ND	0.50	-	-	-
Toluene	ND	0.50	-	-	-
1,2,3-Trichlorobenzene	ND	0.50	-	-	-
1,2,4-Trichlorobenzene	ND	0.50	-	-	-
1,1,1-Trichloroethane	ND	0.50	-	-	-
1,1,2-Trichloroethane	ND	0.50	-	-	-
Trichloroethene	ND	0.50	-	-	-
Trichlorofluoromethane	ND	0.50	-	-	-
1,2,3-Trichloropropane	ND	0.50	-	-	-
1,2,4-Trimethylbenzene	ND	0.50	-	-	-
1,3,5-Trimethylbenzene	ND	0.50	-	-	-
Vinyl Chloride	ND	0.50	-	-	-
Xylenes, Total	ND	0.50	-	-	-

Surrogate Recovery

Dibromofluoromethane	24.8		25	99	91-133
Toluene-d8	23.4		25	94	87-127
4-BFB	2.063		2.5	83	66-140

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 1/20/18
Date Analyzed: 1/20/18
Instrument: GC16
Matrix: Water
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151981
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS/LCSD-151981

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acetone	211	224	200	106	112	47-122	5.92	20
tert-Amyl methyl ether (TAME)	9.67	10.0	10	97	100	62-121	3.44	20
Benzene	9.25	9.26	10	93	93	74-121	0	20
Bromobenzene	8.75	8.62	10	87	86	63-127	1.53	20
Bromochloromethane	9.67	9.77	10	97	98	70-126	1.00	20
Bromodichloromethane	9.02	9.16	10	90	92	66-127	1.49	20
Bromoform	8.74	8.86	10	87	89	60-119	1.43	20
Bromomethane	14.5	13.6	10	145	136	32-155	6.91	20
2-Butanone (MEK)	38.5	40.5	40	96	101	51-117	5.25	20
t-Butyl alcohol (TBA)	39.8	40.4	40	100	101	41-122	1.37	20
n-Butyl benzene	10.1	10.0	10	101	100	73-137	0.882	20
sec-Butyl benzene	9.82	9.72	10	98	97	71-137	1.05	20
tert-Butyl benzene	9.16	8.94	10	92	89	61-136	2.33	20
Carbon Disulfide	9.19	9.15	10	92	92	61-139	0	20
Carbon Tetrachloride	10.1	10.3	10	101	103	69-137	1.63	20
Chlorobenzene	9.29	9.22	10	93	92	71-122	0.800	20
Chloroethane	9.56	9.52	10	96	95	54-132	0.409	20
Chloroform	9.66	9.74	10	97	97	73-122	0	20
Chloromethane	9.17	9.30	10	92	93	48-136	1.48	20
2-Chlorotoluene	9.65	9.68	10	96	97	65-134	0.295	20
4-Chlorotoluene	9.14	9.04	10	91	90	65-130	1.06	20
Dibromochloromethane	9.24	9.29	10	92	93	65-121	0.550	20
1,2-Dibromo-3-chloropropane	3.33	3.60	4	83	90	41-132	7.84	20
1,2-Dibromoethane (EDB)	8.69	8.83	10	87	88	67-125	1.51	20
Dibromomethane	9.01	9.32	10	90	93	68-121	3.33	20
1,2-Dichlorobenzene	9.36	9.30	10	94	93	69-128	0.648	20
1,3-Dichlorobenzene	9.63	9.48	10	96	95	71-131	1.56	20
1,4-Dichlorobenzene	9.21	9.25	10	92	93	70-128	0.517	20
Dichlorodifluoromethane	8.95	8.56	10	89	86	21-158	4.46	20
1,1-Dichloroethane	9.44	9.45	10	94	94	73-123	0	20
1,2-Dichloroethane (1,2-DCA)	9.84	10.0	10	98	100	61-127	1.84	20
1,1-Dichloroethene	9.16	9.15	10	92	92	68-130	0	20
cis-1,2-Dichloroethene	9.05	9.12	10	90	91	72-123	0.785	20
trans-1,2-Dichloroethene	9.42	9.39	10	94	94	64-138	0	20
1,2-Dichloropropane	8.83	8.88	10	88	89	71-121	0.536	20
1,3-Dichloropropane	8.78	8.86	10	88	89	69-120	0.923	20
2,2-Dichloropropane	9.89	9.77	10	99	98	64-142	1.20	20
1,1-Dichloropropene	9.80	9.21	10	98	92	70-130	6.13	20
cis-1,3-Dichloropropene	8.55	8.52	10	86	85	58-136	0.327	20

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 1/20/18
Date Analyzed: 1/20/18
Instrument: GC16
Matrix: Water
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151981
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS/LCSD-151981

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
trans-1,3-Dichloropropene	9.80	9.86	10	98	99	66-119	0.650	20
Diisopropyl ether (DIPE)	9.63	9.74	10	96	97	66-123	1.11	20
Ethylbenzene	9.30	9.18	10	93	92	71-125	1.30	20
Ethyl tert-butyl ether (ETBE)	10.1	10.4	10	101	103	67-122	2.34	20
Freon 113	9.91	9.85	10	99	99	68-132	0	20
Hexachlorobutadiene	9.21	9.11	10	92	91	56-155	1.15	20
Hexachloroethane	9.63	9.53	10	96	95	61-129	1.06	20
2-Hexanone	8.44	8.73	10	84	87	51-115	3.42	20
Isopropylbenzene	9.29	9.08	10	93	91	66-134	2.23	20
4-Isopropyl toluene	9.41	9.38	10	94	94	70-136	0	20
Methyl-t-butyl ether (MTBE)	9.99	10.3	10	100	103	64-118	3.31	20
Methylene chloride	9.56	9.70	10	96	97	62-121	1.50	20
4-Methyl-2-pentanone (MIBK)	8.19	8.51	10	82	85	51-115	3.78	20
Naphthalene	10.0	10.2	10	100	102	55-137	1.70	20
n-Propyl benzene	9.83	9.82	10	98	98	63-140	0	20
Styrene	8.46	8.44	10	85	84	62-133	0.219	20
1,1,1,2-Tetrachloroethane	9.33	9.36	10	93	94	69-128	0.328	20
1,1,2,2-Tetrachloroethane	7.99	8.29	10	80	83	60-118	3.69	20
Tetrachloroethene	8.17	8.01	10	82	80	63-136	1.99	20
Toluene	8.87	8.66	10	89	87	67-124	2.39	20
1,2,3-Trichlorobenzene	10.8	10.4	10	108	104	57-145	3.91	20
1,2,4-Trichlorobenzene	9.39	9.31	10	94	93	60-144	0.931	20
1,1,1-Trichloroethane	9.58	9.71	10	96	97	70-133	1.35	20
1,1,2-Trichloroethane	8.54	8.66	10	85	87	65-125	1.41	20
Trichloroethene	8.79	8.81	10	88	88	67-133	0	20
Trichlorofluoromethane	10.5	10.6	10	105	106	59-145	1.01	20
1,2,3-Trichloropropane	8.70	9.00	10	87	90	65-115	3.45	20
1,2,4-Trimethylbenzene	9.20	9.14	10	92	91	67-136	0.725	20
1,3,5-Trimethylbenzene	9.32	9.35	10	93	93	68-135	0	20
Vinyl Chloride	9.93	9.81	10	99	98	53-146	1.19	20
Xylenes, Total	27.5	27.0	30	92	90	68-128	1.57	20
Surrogate Recovery								
Dibromofluoromethane	25.0	25.5	25	100	102	91-133	2.02	20
Toluene-d8	23.6	23.3	25	94	93	87-127	1.16	20
4-BFB	2.10	2.11	2.5	84	84	66-140	0	20



Quality Control Report

Client: Langan
Date Prepared: 1/16/18
Date Analyzed: 1/17/18 - 1/19/18
Instrument: GC19
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151692
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg
Sample ID: MB/LCS-151692
 1801774-001AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH(g) (C6-C12)	ND	1.0	-	-	-
MTBE	ND	0.050	-	-	-
Benzene	ND	0.0050	-	-	-
Toluene	ND	0.0050	-	-	-
Ethylbenzene	ND	0.0050	-	-	-
Xylenes	ND	0.0050	-	-	-

Surrogate Recovery

2-Fluorotoluene	0.101		0.10	101	75-134
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Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH(btex)	0.552	-	0.60	92	-	82-118	-	-
MTBE	0.0955	-	0.10	96	-	61-119	-	-
Benzene	0.108	-	0.10	108	-	77-128	-	-
Toluene	0.110	-	0.10	110	-	74-132	-	-
Ethylbenzene	0.107	-	0.10	107	-	84-127	-	-
Xylenes	0.330	-	0.30	110	-	86-129	-	-

Surrogate Recovery

2-Fluorotoluene	0.0995	-	0.10	100	-	75-134	-	-
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.502	0.498	0.60	ND	84	83	58-129	0.820	20
MTBE	0.0879	0.0864	0.10	ND	88	86	47-118	1.72	20
Benzene	0.102	0.101	0.10	ND	102	101	55-129	0.584	20
Toluene	0.108	0.106	0.10	ND	108	106	56-130	1.12	20
Ethylbenzene	0.104	0.104	0.10	ND	104	104	63-129	0	20
Xylenes	0.312	0.311	0.30	ND	104	104	64-131	0	20

Surrogate Recovery

2-Fluorotoluene	0.0884	0.0865	0.10		88	87	62-126	2.12	20
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Quality Control Report

Client: Langan
Date Prepared: 1/16/18
Date Analyzed: 1/18/18
Instrument: GC7
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151726
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg
Sample ID: MB/LCS/LCSD-151726
 1801844-014AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH(g) (C6-C12)	ND	1.0	-	-	-
MTBE	ND	0.050	-	-	-
Benzene	ND	0.0050	-	-	-
Toluene	ND	0.0050	-	-	-
Ethylbenzene	ND	0.0050	-	-	-
Xylenes	ND	0.0050	-	-	-

Surrogate Recovery

2-Fluorotoluene	0.0886		0.10	89	75-134
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Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH(btex)	0.634	0.644	0.60	106	107	82-118	1.51	20
MTBE	0.104	0.0936	0.10	104	94	61-119	10.2	20
Benzene	0.111	0.111	0.10	111	111	77-128	0	20
Toluene	0.105	0.105	0.10	105	105	74-132	0	20
Ethylbenzene	0.109	0.108	0.10	109	108	84-127	0.655	20
Xylenes	0.329	0.323	0.30	110	108	86-129	1.78	20

Surrogate Recovery

2-Fluorotoluene	0.0905	0.0913	0.10	90	91	75-134	0.927	20
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.552	0.567	0.60	ND	92	95	58-129	2.78	20
MTBE	0.0920	0.0871	0.10	ND	92	87	47-118	5.54	20
Benzene	0.0918	0.0921	0.10	ND	92	92	55-129	0	20
Toluene	0.0871	0.0923	0.10	ND	85	91	56-130	5.82	20
Ethylbenzene	0.0926	0.0935	0.10	ND	93	93	63-129	0	20
Xylenes	0.283	0.285	0.30	ND	94	95	64-131	0.655	20

Surrogate Recovery

2-Fluorotoluene	0.0815	0.0786	0.10		81	79	62-126	3.55	20
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Quality Control Report

Client: Langan
Date Prepared: 1/17/18
Date Analyzed: 1/17/18
Instrument: GC19
Matrix: Water
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151842
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L
Sample ID: MB/LCS/LCSD-151842

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH(g) (C6-C12)	ND	50	-	-	-
MTBE	ND	5.0	-	-	-
Benzene	ND	0.50	-	-	-
Toluene	ND	0.50	-	-	-
Ethylbenzene	ND	0.50	-	-	-
Xylenes	ND	0.50	-	-	-
Surrogate Recovery					
aaa-TFT	10.2		10	102	89-116

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH(btex)	48.8	54.7	60	81	91	78-116	11.5	20
MTBE	9.30	8.69	10	93	87	72-122	6.89	20
Benzene	10.4	10.3	10	104	103	81-123	0.922	20
Toluene	10.9	10.7	10	109	107	83-129	1.36	20
Ethylbenzene	11.2	11.0	10	112	110	88-126	1.42	20
Xylenes	34.2	33.7	30	114	112	87-131	1.29	20
Surrogate Recovery								
aaa-TFT	10.8	10.5	10	108	105	89-116	2.75	20



Quality Control Report

Client: Langan
Date Prepared: 1/16/18
Date Analyzed: 1/16/18 - 1/17/18
Instrument: GC9b
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151688
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg
Sample ID: MB/LCS-151688
 1801764-007AMS/MSD

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	42.7	1.0	40	-	107	75-128
TPH-Motor Oil (C18-C36)	ND	-	5.0	-	-	-	-
Surrogate Recovery							
C9	21.7	22.2		25	87	89	72-122

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	42.1	43.6	40	2.618	99	103	71-134	3.50	30
Surrogate Recovery									
C9	22.3	22.5	25		89	90	78-126	0.614	30



Quality Control Report

Client: Langan
Date Prepared: 1/16/18
Date Analyzed: 1/18/18
Instrument: GC39A, GC39B
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151725
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg
Sample ID: MB/LCS-151725
 1801844-015AMS/MSD

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	42.0	1.0	40	-	105	75-128
TPH-Motor Oil (C18-C36)	ND	-	5.0	-	-	-	-
Surrogate Recovery							
C9	22.9	23.0		25	92	92	72-122

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	37.4	37.4	40	ND	91	91	71-134	0	30
Surrogate Recovery									
C9	21.8	21.9	25		87	88	78-126	0.199	30



Quality Control Report

Client: Langan
Date Prepared: 1/16/18
Date Analyzed: 1/17/18
Instrument: GC39A
Matrix: Water
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151706
Extraction Method: SW3510C
Analytical Method: SW8015B
Unit: µg/L
Sample ID: MB/LCS/LCSD-151706

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH-Diesel (C10-C23)	ND	50	-	-	-
TPH-Motor Oil (C18-C36)	ND	250	-	-	-
Surrogate Recovery					
C9	544		625	87	68-127

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	1040	1060	1000	104	106	86-142	1.67	30
Surrogate Recovery								
C9	550	548	625	88	88	68-127	0	30



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

WaterTrax WriteOn EDF

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1801844

ClientCode: TWRK

Excel EQulS Email HardCopy ThirdParty J-flag
 Detection Summary Dry-Weight

Report to:

Noel Liner
Langan
501 14th Street, 3rd Floor
Oakland, CA 94612
(415) 955-9040 FAX: (415) 955-9041

Email: nliner@langan.com
cc/3rd Party:
PO:
Project: 750022905; 1110 Jackson

Bill to:

Accounts Payable
Langan
555 Montgomery St., Suite 1300
San Francisco, CA 94111
Langan_InvoiceCapture@concur.solutio

Requested TAT: 5 days;

Date Received: 01/16/2018
Date Logged: 01/16/2018

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1801844-001	EB-10-2.5	Soil	1/15/2018 09:04	<input type="checkbox"/>	A		A		A							
1801844-002	EB-10-5	Soil	1/15/2018 09:04	<input type="checkbox"/>	A		A		A							
1801844-003	EB-10-10	Soil	1/15/2018 09:08	<input type="checkbox"/>	A		A		A							
1801844-004	EB-10-15	Soil	1/15/2018 09:28	<input type="checkbox"/>	A		A		A							
1801844-005	EB-10-18.5	Soil	1/15/2018 09:38	<input type="checkbox"/>	A		A		A							
1801844-006	EB-10-20	Soil	1/15/2018 09:50	<input type="checkbox"/>	A		A		A							
1801844-007	EB-10-23.5	Soil	1/15/2018 09:57	<input type="checkbox"/>	A		A		A							
1801844-008	EB-10-GW-25	Water	1/15/2018 11:08	<input type="checkbox"/>		B		A		A						
1801844-009	EB-10-GW-35	Water	1/15/2018 12:10	<input type="checkbox"/>		B		A		A						
1801844-010	EB-11-2.5	Soil	1/15/2018 14:47	<input type="checkbox"/>	A		A		A							
1801844-011	EB-11-5	Soil	1/15/2018 14:50	<input type="checkbox"/>	A		A		A							
1801844-012	EB-11-10	Soil	1/15/2018 15:02	<input type="checkbox"/>	A		A		A							
1801844-013	EB-11-15	Soil	1/15/2018 15:11	<input type="checkbox"/>	A		A		A							
1801844-014	EB-11-20	Soil	1/15/2018 15:16	<input type="checkbox"/>	A		A		A							
1801844-015	EB-11-21.5	Soil	1/15/2018 15:25	<input type="checkbox"/>	A		A		A							

Test Legend:

1	8260B_S	2	8260B_W	3	G-MBTEX_S	4	G-MBTEX_W
5	TPH(DMO)_S	6	TPH(DMO)_W	7		8	
9		10		11		12	

Prepared by: Kena Ponce

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 010A, 011A, 012A, 013A, 014A, 015A, 018A, 019A, 020A, 021A, 022A, 023A, 024A, 025A, 026A contain testgroup Multi Range_S.;
 The following SampIDs: 008A, 009A, 016A, 017A, 027A, 028A contain testgroup Multi Range_W.

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.

1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262



WaterTrax WriteOn EDF

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1801844

ClientCode: TWRK

Excel EQulS Email HardCopy ThirdParty J-flag
 Detection Summary Dry-Weight

Report to:
Noel Liner
Langan
501 14th Street, 3rd Floor
Oakland, CA 94612
(415) 955-9040 FAX: (415) 955-9041

Email: nliner@langan.com
cc/3rd Party:
PO:
Project: 750022905; 1110 Jackson

Bill to:
Accounts Payable
Langan
555 Montgomery St., Suite 1300
San Francisco, CA 94111
Langan_InvoiceCapture@concursoft.com

Requested TAT: 5 days;

Date Received: 01/16/2018
Date Logged: 01/16/2018

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1801844-016	EB-11-GW-25	Water	1/15/2018 15:40	<input type="checkbox"/>		B		A		A						
1801844-017	EB-11-GW-35	Water	1/15/2018 16:30	<input type="checkbox"/>		B		A		A						
1801844-018	EB-12-2.5	Soil	1/16/2018 08:49	<input type="checkbox"/>	A		A		A							
1801844-019	EB-9-2.5	Soil	1/16/2018 12:07	<input type="checkbox"/>	A		A		A							
1801844-020	EB-9-5	Soil	1/16/2018 12:11	<input type="checkbox"/>	A		A		A							
1801844-021	EB-9-10	Soil	1/16/2018 12:20	<input type="checkbox"/>	A		A		A							
1801844-022	EB-9-5.5	Soil	1/16/2018 12:30	<input type="checkbox"/>	A		A		A							
1801844-023	EB-9-15	Soil	1/16/2018 12:37	<input type="checkbox"/>	A		A		A							
1801844-024	EB-9-18.5	Soil	1/16/2018 12:56	<input type="checkbox"/>	A		A		A							
1801844-025	EB-9-20	Soil	1/16/2018 13:00	<input type="checkbox"/>	A		A		A							
1801844-026	EB-9-21	Soil	1/16/2018 13:11	<input type="checkbox"/>	A		A		A							
1801844-027	EB-9-GW-28	Water	1/16/2018 14:00	<input type="checkbox"/>		B		A		A						
1801844-028	EB-9-GW-38	Water	1/16/2018 15:00	<input type="checkbox"/>		B		A		A						

Test Legend:

1	8260B_S	2	8260B_W	3	G-MBTEX_S	4	G-MBTEX_W
5	TPH(DMO)_S	6	TPH(DMO)_W	7		8	
9		10		11		12	

Prepared by: Kena Ponce

The following SamplIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 010A, 011A, 012A, 013A, 014A, 015A, 018A, 019A, 020A, 021A, 022A, 023A, 024A, 025A, 026A contain testgroup Multi Range_S.;
 The following SamplIDs: 008A, 009A, 016A, 017A, 027A, 028A contain testgroup Multi Range_W.

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: LANGAN
Client Contact: Noel Liner
Contact's Email: nliner@langan.com

Project: 750022905; 1110 Jackson

Work Order: 1801844
QC Level: LEVEL 2
Date Logged: 1/16/2018

Comments:

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1801844-001A	EB-10-2.5	Soil	Multi-Range TPH(g,d,m) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/15/2018 9:04	5 days		<input type="checkbox"/>	
1801844-002A	EB-10-5	Soil	Multi-Range TPH(g,d,m) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/15/2018 9:04	5 days		<input type="checkbox"/>	
1801844-003A	EB-10-10	Soil	Multi-Range TPH(g,d,m) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/15/2018 9:08	5 days		<input type="checkbox"/>	
1801844-004A	EB-10-15	Soil	Multi-Range TPH(g,d,m) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/15/2018 9:28	5 days		<input type="checkbox"/>	
1801844-005A	EB-10-18.5	Soil	Multi-Range TPH(g,d,m) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/15/2018 9:38	5 days		<input type="checkbox"/>	
1801844-006A	EB-10-20	Soil	Multi-Range TPH(g,d,m) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/15/2018 9:50	5 days		<input type="checkbox"/>	
1801844-007A	EB-10-23.5	Soil	Multi-Range TPH(g,d,m) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/15/2018 9:57	5 days		<input type="checkbox"/>	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

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WORK ORDER SUMMARY

Client Name: LANGAN
Client Contact: Noel Liner
Contact's Email: nliner@langan.com

Project: 750022905; 1110 Jackson

Work Order: 1801844
QC Level: LEVEL 2
Date Logged: 1/16/2018

Comments:

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1801844-008A	EB-10-GW-25	Water	Multi-Range TPH(g,d,mo) by EPA 8015Bm	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	1/15/2018 11:08	5 days	Present	<input type="checkbox"/>	
1801844-008B	EB-10-GW-25	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	1/15/2018 11:08	5 days	Present	<input type="checkbox"/>	
1801844-009A	EB-10-GW-35	Water	Multi-Range TPH(g,d,mo) by EPA 8015Bm	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	1/15/2018 12:10	5 days	Present	<input type="checkbox"/>	
1801844-009B	EB-10-GW-35	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	1/15/2018 12:10	5 days	Present	<input type="checkbox"/>	
1801844-010A	EB-11-2.5	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/15/2018 14:47	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1801844-011A	EB-11-5	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/15/2018 14:50	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1801844-012A	EB-11-10	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/15/2018 15:02	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1801844-013A	EB-11-15	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/15/2018 15:11	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1801844-014A	EB-11-20	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/15/2018 15:16	5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).
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WORK ORDER SUMMARY

Client Name: LANGAN
Client Contact: Noel Liner
Contact's Email: nliner@langan.com

Project: 750022905; 1110 Jackson

Work Order: 1801844
QC Level: LEVEL 2
Date Logged: 1/16/2018

Comments:

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1801844-015A	EB-11-21.5	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/15/2018 15:25	5 days		<input type="checkbox"/>	
1801844-016A	EB-11-GW-25	Water	Multi-Range TPH(g,d,mo) by EPA 8015Bm	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	1/15/2018 15:40	5 days	Present	<input type="checkbox"/>	
1801844-016B	EB-11-GW-25	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	1/15/2018 15:40	5 days	Present	<input type="checkbox"/>	
1801844-017A	EB-11-GW-35	Water	Multi-Range TPH(g,d,mo) by EPA 8015Bm	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	1/15/2018 16:30	5 days	Present	<input type="checkbox"/>	
1801844-017B	EB-11-GW-35	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	1/15/2018 16:30	5 days	Present	<input type="checkbox"/>	
1801844-018A	EB-12-2.5	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/16/2018 8:49	5 days		<input type="checkbox"/>	
1801844-019A	EB-9-2.5	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/16/2018 12:07	5 days		<input type="checkbox"/>	
1801844-020A	EB-9-5	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/16/2018 12:11	5 days		<input type="checkbox"/>	
1801844-021A	EB-9-10	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/16/2018 12:20	5 days		<input type="checkbox"/>	

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WORK ORDER SUMMARY

Client Name: LANGAN
Client Contact: Noel Liner
Contact's Email: nliner@langan.com

Project: 750022905; 1110 Jackson

Work Order: 1801844
QC Level: LEVEL 2
Date Logged: 1/16/2018

Comments:

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1801844-022A	EB-9-5.5	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/16/2018 12:30	5 days		<input type="checkbox"/>	
1801844-023A	EB-9-15	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/16/2018 12:37	5 days		<input type="checkbox"/>	
1801844-024A	EB-9-18.5	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/16/2018 12:56	5 days		<input type="checkbox"/>	
1801844-025A	EB-9-20	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/16/2018 13:00	5 days		<input type="checkbox"/>	
1801844-026A	EB-9-21	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/16/2018 13:11	5 days		<input type="checkbox"/>	
1801844-027A	EB-9-GW-28	Water	Multi-Range TPH(g,d,mo) by EPA 8015Bm	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	1/16/2018 14:00	5 days	Present	<input type="checkbox"/>	
1801844-027B	EB-9-GW-28	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	1/16/2018 14:00	5 days	Present	<input type="checkbox"/>	
1801844-028A	EB-9-GW-38	Water	Multi-Range TPH(g,d,mo) by EPA 8015Bm	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	1/16/2018 15:00	5 days	Present	<input type="checkbox"/>	
1801844-028B	EB-9-GW-38	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	1/16/2018 15:00	5 days	Present	<input type="checkbox"/>	

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LANGAN

CHAIN OF CUSTODY RECORD

555 Montgomery Street, Suite 1300, San Francisco, CA 94111
 501 14th Street, Third Floor, Oakland CA 94612
 3320 Data Drive, Suite 350, Rancho Cordova, CA 95670-7982
 4030 Moorpark Ave. Suite 210, San Jose, CA 95117-1849

1801844

Site Name: 1110 Jackson
 Job Number: 750622405
 Project Manager/Contact: Noel Lines nlines@langan.com
 Samplers: Jos L Osborne
 Recorder (Signature Required): [Signature]

Turnaround Time
Standard

Field Sample Identification No.	Date	Time	Lab Sample No.	Matrix										No. Containers & Preservative		Silica gel clean-up	Hold	Remarks	
				Soil	Water	Air	Other	HCL	H ₂ SO ₄	HNO ₃	Ice								
EB-10-2.5	1/15/18	0904		X															
EB-10-5		0908		X															
EB-10-10		0928		X															
EB-10-15		0938		X															
EB-10-18.5		0950		X															
EB-10-20		0957		X															
EB-10-25.23.5		1011		X															
EB-10-6W-25		1108			X			X											
EB-10-6W-35		1210			X			X											
EB-11-2.5		1447		X															
EB-11-5		1450		X															
EB-11-10		1502		X															
EB-11-15		1511		X															
EB-11-20		1516		X															

Relinquished by: (Signature) <u>[Signature]</u>	Date: <u>1/16/18</u>	Time: <u>1511</u>	Received by: (Signature) <u>[Signature]</u>	Date: <u>1/16/18</u>	Time: <u>1511</u>
Relinquished by: (Signature) <u>[Signature]</u>	Date: <u>1/16/18</u>	Time: <u>1730</u>	Received by: (Signature) <u>[Signature]</u>	Date: <u>1/16/18</u>	Time: <u>1730</u>
Relinquished by: (Signature)	Date:	Time:	Received by Lab: (Signature)	Date:	Time:

Sent to Laboratory (Name): McLambell Analytical
 Laboratory Comments/Notes:

Method of Shipment:
 Lab courier
 Fed Ex
 Airborne
 UPS
 Hand Carried
 Private Courier (Co. Name)

CHAIN OF CUSTODY RECORD

- 555 Montgomery Street, Suite 1300, San Francisco, CA 94111
- 501 14th Street, Third Floor, Oakland CA 94612
- 3320 Data Drive, Suite 350, Rancho Cordova, CA 95670-7982
- 4030 Moorpark Ave. Suite 210, San Jose, CA 95117-1849

Site Name: 1110 Jackson

Job Number: 750622405

Project Manager/Contact: Noel Limer/nlimer@langan.com

Samplers: Joel Osborne

Recorder (Signature Required): [Signature]

Analysis Requested

Turnaround Time
Standard

Field Sample Identification No.	Date	Time	Lab Sample No.	Matrix & Preservative										No. Containers		Silica gel clean-up	Hold	Remarks	
				Soil	Water	Air	Other	HCL	H ₂ SO ₄	HNO ₃	Ice								
E3-9-6W-38	1/16/18	1500		X				X						X	X				

Relinquished by: (Signature) [Signature]	Date: 1/16/18	Time: 1511	Received by: (Signature) [Signature]	Date: 1/16/18	Time: 1511
Relinquished by: (Signature) [Signature]	Date: 1/16/18	Time: 1730	Received by: (Signature) [Signature]	Date: 1/16/18	Time: 1730
Relinquished by: (Signature)	Date:	Time:	Received by Lab: (Signature)	Date:	Time:

Sent to Laboratory (Name): McLambull

Laboratory Comments/Notes:

Method of Shipment: Lab courier Fed Ex Airborne UPS Hand Carried Private Courier (Co. Name)



Sample Receipt Checklist

Client Name: **Langan**
 Project: **750022905; 1110 Jackson**

Date and Time Received: **1/16/2018 17:30**
 Date Logged: **1/16/2018**
 Received by: **Kena Ponce**
 Logged by: **Kena Ponce**

WorkOrder No: **1801844** Matrix: Soil/Water
 Carrier: Lorenzo Perez (MAI Courier)

Chain of Custody (COC) Information

- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Sample IDs noted by Client on COC? Yes No
- Date and Time of collection noted by Client on COC? Yes No
- Sampler's name noted on COC? Yes No
- COC agrees with Quote? Yes No NA

Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes No NA
- Shipping container/cooler in good condition? Yes No
- Samples in proper containers/bottles? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes No NA
- Sample/Temp Blank temperature Temp: 4.8°C NA
- Water - VOA vials have zero headspace / no bubbles? Yes No NA
- Sample labels checked for correct preservation? Yes No
- pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes No NA
- Samples Received on Ice? Yes No

(Ice Type: WET ICE)

UCMR Samples:

- Total Chlorine tested and acceptable upon receipt for EPA 522? Yes No NA
- Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes No NA

 Comments:



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1801844 A

Report Created for: Langan

501 14th Street, 3rd Floor
Oakland, CA 94612

Project Contact: Noel Liner

Project P.O.:

Project: 750622405; 1110 Jackson

Project Received: 01/16/2018

Analytical Report reviewed & approved for release on 01/26/2018 by:

Yen Cao

Project Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: Langan
Project: 750622405; 1110 Jackson
WorkOrder: 1801844 A

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Qualifiers

e7 Oil range compounds are significant.



Glossary of Terms & Qualifier Definitions

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Quality Control Qualifiers

F1 MS/MSD recovery and/or RPD is out of acceptance criteria; LCS validates the prep batch.
F3 The surrogate standard recovery and/or RPD is outside of acceptance limits.



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/19/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-18.5	1801844-005A	Soil	01/15/2018 09:50	GC10 01191854.D	151917

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/20/2018 22:46
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/20/2018 22:46
Benzene	ND	0.0050	1	01/20/2018 22:46
Bromobenzene	ND	0.0050	1	01/20/2018 22:46
Bromochloromethane	ND	0.0050	1	01/20/2018 22:46
Bromodichloromethane	ND	0.0050	1	01/20/2018 22:46
Bromoform	ND	0.0050	1	01/20/2018 22:46
Bromomethane	ND	0.0050	1	01/20/2018 22:46
2-Butanone (MEK)	ND	0.020	1	01/20/2018 22:46
t-Butyl alcohol (TBA)	ND	0.050	1	01/20/2018 22:46
n-Butyl benzene	ND	0.0050	1	01/20/2018 22:46
sec-Butyl benzene	ND	0.0050	1	01/20/2018 22:46
tert-Butyl benzene	ND	0.0050	1	01/20/2018 22:46
Carbon Disulfide	ND	0.0050	1	01/20/2018 22:46
Carbon Tetrachloride	ND	0.0050	1	01/20/2018 22:46
Chlorobenzene	ND	0.0050	1	01/20/2018 22:46
Chloroethane	ND	0.0050	1	01/20/2018 22:46
Chloroform	ND	0.0050	1	01/20/2018 22:46
Chloromethane	ND	0.0050	1	01/20/2018 22:46
2-Chlorotoluene	ND	0.0050	1	01/20/2018 22:46
4-Chlorotoluene	ND	0.0050	1	01/20/2018 22:46
Dibromochloromethane	ND	0.0050	1	01/20/2018 22:46
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/20/2018 22:46
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/20/2018 22:46
Dibromomethane	ND	0.0050	1	01/20/2018 22:46
1,2-Dichlorobenzene	ND	0.0050	1	01/20/2018 22:46
1,3-Dichlorobenzene	ND	0.0050	1	01/20/2018 22:46
1,4-Dichlorobenzene	ND	0.0050	1	01/20/2018 22:46
Dichlorodifluoromethane	ND	0.0050	1	01/20/2018 22:46
1,1-Dichloroethane	ND	0.0050	1	01/20/2018 22:46
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/20/2018 22:46
1,1-Dichloroethene	ND	0.0050	1	01/20/2018 22:46
cis-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 22:46
trans-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 22:46
1,2-Dichloropropane	ND	0.0050	1	01/20/2018 22:46
1,3-Dichloropropane	ND	0.0050	1	01/20/2018 22:46
2,2-Dichloropropane	ND	0.0050	1	01/20/2018 22:46

(Cont.)



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Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-18.5	1801844-005A	Soil	01/15/2018 09:50	GC10 01191854.D	151917

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/20/2018 22:46
cis-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 22:46
trans-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 22:46
Diisopropyl ether (DIPE)	ND	0.0050	1	01/20/2018 22:46
Ethylbenzene	ND	0.0050	1	01/20/2018 22:46
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/20/2018 22:46
Freon 113	ND	0.0050	1	01/20/2018 22:46
Hexachlorobutadiene	ND	0.0050	1	01/20/2018 22:46
Hexachloroethane	ND	0.0050	1	01/20/2018 22:46
2-Hexanone	ND	0.0050	1	01/20/2018 22:46
Isopropylbenzene	ND	0.0050	1	01/20/2018 22:46
4-Isopropyl toluene	ND	0.0050	1	01/20/2018 22:46
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/20/2018 22:46
Methylene chloride	ND	0.0050	1	01/20/2018 22:46
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/20/2018 22:46
Naphthalene	ND	0.0050	1	01/20/2018 22:46
n-Propyl benzene	ND	0.0050	1	01/20/2018 22:46
Styrene	ND	0.0050	1	01/20/2018 22:46
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 22:46
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 22:46
Tetrachloroethene	ND	0.0050	1	01/20/2018 22:46
Toluene	ND	0.0050	1	01/20/2018 22:46
1,2,3-Trichlorobenzene	ND	0.0050	1	01/20/2018 22:46
1,2,4-Trichlorobenzene	ND	0.0050	1	01/20/2018 22:46
1,1,1-Trichloroethane	ND	0.0050	1	01/20/2018 22:46
1,1,2-Trichloroethane	ND	0.0050	1	01/20/2018 22:46
Trichloroethene	ND	0.0050	1	01/20/2018 22:46
Trichlorofluoromethane	ND	0.0050	1	01/20/2018 22:46
1,2,3-Trichloropropane	ND	0.0050	1	01/20/2018 22:46
1,2,4-Trimethylbenzene	ND	0.0050	1	01/20/2018 22:46
1,3,5-Trimethylbenzene	ND	0.0050	1	01/20/2018 22:46
Vinyl Chloride	ND	0.0050	1	01/20/2018 22:46
Xylenes, Total	ND	0.0050	1	01/20/2018 22:46

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Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-18.5	1801844-005A	Soil	01/15/2018 09:50	GC10 01191854.D	151917

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	100	82-136		01/20/2018 22:46
Toluene-d8	123	92-139		01/20/2018 22:46
4-BFB	97	82-135		01/20/2018 22:46
Benzene-d6	78	55-122		01/20/2018 22:46
Ethylbenzene-d10	103	58-141		01/20/2018 22:46
1,2-DCB-d4	75	51-107		01/20/2018 22:46

Analyst(s): AK



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Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-20	1801844-006A	Soil	01/15/2018 09:57	GC10 01191855.D	151917

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/20/2018 23:24
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/20/2018 23:24
Benzene	ND	0.0050	1	01/20/2018 23:24
Bromobenzene	ND	0.0050	1	01/20/2018 23:24
Bromochloromethane	ND	0.0050	1	01/20/2018 23:24
Bromodichloromethane	ND	0.0050	1	01/20/2018 23:24
Bromoform	ND	0.0050	1	01/20/2018 23:24
Bromomethane	ND	0.0050	1	01/20/2018 23:24
2-Butanone (MEK)	ND	0.020	1	01/20/2018 23:24
t-Butyl alcohol (TBA)	ND	0.050	1	01/20/2018 23:24
n-Butyl benzene	ND	0.0050	1	01/20/2018 23:24
sec-Butyl benzene	ND	0.0050	1	01/20/2018 23:24
tert-Butyl benzene	ND	0.0050	1	01/20/2018 23:24
Carbon Disulfide	ND	0.0050	1	01/20/2018 23:24
Carbon Tetrachloride	ND	0.0050	1	01/20/2018 23:24
Chlorobenzene	ND	0.0050	1	01/20/2018 23:24
Chloroethane	ND	0.0050	1	01/20/2018 23:24
Chloroform	ND	0.0050	1	01/20/2018 23:24
Chloromethane	ND	0.0050	1	01/20/2018 23:24
2-Chlorotoluene	ND	0.0050	1	01/20/2018 23:24
4-Chlorotoluene	ND	0.0050	1	01/20/2018 23:24
Dibromochloromethane	ND	0.0050	1	01/20/2018 23:24
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/20/2018 23:24
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/20/2018 23:24
Dibromomethane	ND	0.0050	1	01/20/2018 23:24
1,2-Dichlorobenzene	ND	0.0050	1	01/20/2018 23:24
1,3-Dichlorobenzene	ND	0.0050	1	01/20/2018 23:24
1,4-Dichlorobenzene	ND	0.0050	1	01/20/2018 23:24
Dichlorodifluoromethane	ND	0.0050	1	01/20/2018 23:24
1,1-Dichloroethane	ND	0.0050	1	01/20/2018 23:24
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/20/2018 23:24
1,1-Dichloroethene	ND	0.0050	1	01/20/2018 23:24
cis-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 23:24
trans-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 23:24
1,2-Dichloropropane	ND	0.0050	1	01/20/2018 23:24
1,3-Dichloropropane	ND	0.0050	1	01/20/2018 23:24
2,2-Dichloropropane	ND	0.0050	1	01/20/2018 23:24

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Freon 113	ND	0.0050	1	01/20/2018 23:24
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Hexachloroethane	ND	0.0050	1	01/20/2018 23:24
2-Hexanone	ND	0.0050	1	01/20/2018 23:24
Isopropylbenzene	ND	0.0050	1	01/20/2018 23:24
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4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/20/2018 23:24
Naphthalene	ND	0.0050	1	01/20/2018 23:24
n-Propyl benzene	ND	0.0050	1	01/20/2018 23:24
Styrene	ND	0.0050	1	01/20/2018 23:24
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 23:24
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 23:24
Tetrachloroethene	ND	0.0050	1	01/20/2018 23:24
Toluene	ND	0.0050	1	01/20/2018 23:24
1,2,3-Trichlorobenzene	ND	0.0050	1	01/20/2018 23:24
1,2,4-Trichlorobenzene	ND	0.0050	1	01/20/2018 23:24
1,1,1-Trichloroethane	ND	0.0050	1	01/20/2018 23:24
1,1,2-Trichloroethane	ND	0.0050	1	01/20/2018 23:24
Trichloroethene	ND	0.0050	1	01/20/2018 23:24
Trichlorofluoromethane	ND	0.0050	1	01/20/2018 23:24
1,2,3-Trichloropropane	ND	0.0050	1	01/20/2018 23:24
1,2,4-Trimethylbenzene	ND	0.0050	1	01/20/2018 23:24
1,3,5-Trimethylbenzene	ND	0.0050	1	01/20/2018 23:24
Vinyl Chloride	ND	0.0050	1	01/20/2018 23:24
Xylenes, Total	ND	0.0050	1	01/20/2018 23:24

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Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
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Unit: mg/kg

Volatile Organics

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4-BFB	94	82-135		01/20/2018 23:24
Benzene-d6	76	55-122		01/20/2018 23:24
Ethylbenzene-d10	98	58-141		01/20/2018 23:24
1,2-DCB-d4	72	51-107		01/20/2018 23:24

Analyst(s): AK



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Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-23.5	1801844-007A	Soil	01/15/2018 10:11	GC10 01191856.D	151917

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/21/2018 00:03
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/21/2018 00:03
Benzene	ND	0.0050	1	01/21/2018 00:03
Bromobenzene	ND	0.0050	1	01/21/2018 00:03
Bromochloromethane	ND	0.0050	1	01/21/2018 00:03
Bromodichloromethane	ND	0.0050	1	01/21/2018 00:03
Bromoform	ND	0.0050	1	01/21/2018 00:03
Bromomethane	ND	0.0050	1	01/21/2018 00:03
2-Butanone (MEK)	ND	0.020	1	01/21/2018 00:03
t-Butyl alcohol (TBA)	ND	0.050	1	01/21/2018 00:03
n-Butyl benzene	ND	0.0050	1	01/21/2018 00:03
sec-Butyl benzene	ND	0.0050	1	01/21/2018 00:03
tert-Butyl benzene	ND	0.0050	1	01/21/2018 00:03
Carbon Disulfide	ND	0.0050	1	01/21/2018 00:03
Carbon Tetrachloride	ND	0.0050	1	01/21/2018 00:03
Chlorobenzene	ND	0.0050	1	01/21/2018 00:03
Chloroethane	ND	0.0050	1	01/21/2018 00:03
Chloroform	ND	0.0050	1	01/21/2018 00:03
Chloromethane	ND	0.0050	1	01/21/2018 00:03
2-Chlorotoluene	ND	0.0050	1	01/21/2018 00:03
4-Chlorotoluene	ND	0.0050	1	01/21/2018 00:03
Dibromochloromethane	ND	0.0050	1	01/21/2018 00:03
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/21/2018 00:03
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/21/2018 00:03
Dibromomethane	ND	0.0050	1	01/21/2018 00:03
1,2-Dichlorobenzene	ND	0.0050	1	01/21/2018 00:03
1,3-Dichlorobenzene	ND	0.0050	1	01/21/2018 00:03
1,4-Dichlorobenzene	ND	0.0050	1	01/21/2018 00:03
Dichlorodifluoromethane	ND	0.0050	1	01/21/2018 00:03
1,1-Dichloroethane	ND	0.0050	1	01/21/2018 00:03
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/21/2018 00:03
1,1-Dichloroethene	ND	0.0050	1	01/21/2018 00:03
cis-1,2-Dichloroethene	ND	0.0050	1	01/21/2018 00:03
trans-1,2-Dichloroethene	ND	0.0050	1	01/21/2018 00:03
1,2-Dichloropropane	ND	0.0050	1	01/21/2018 00:03
1,3-Dichloropropane	ND	0.0050	1	01/21/2018 00:03
2,2-Dichloropropane	ND	0.0050	1	01/21/2018 00:03

(Cont.)



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EB-10-23.5	1801844-007A	Soil	01/15/2018 10:11	GC10 01191856.D	151917

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/21/2018 00:03
cis-1,3-Dichloropropene	ND	0.0050	1	01/21/2018 00:03
trans-1,3-Dichloropropene	ND	0.0050	1	01/21/2018 00:03
Diisopropyl ether (DIPE)	ND	0.0050	1	01/21/2018 00:03
Ethylbenzene	ND	0.0050	1	01/21/2018 00:03
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/21/2018 00:03
Freon 113	ND	0.0050	1	01/21/2018 00:03
Hexachlorobutadiene	ND	0.0050	1	01/21/2018 00:03
Hexachloroethane	ND	0.0050	1	01/21/2018 00:03
2-Hexanone	ND	0.0050	1	01/21/2018 00:03
Isopropylbenzene	ND	0.0050	1	01/21/2018 00:03
4-Isopropyl toluene	ND	0.0050	1	01/21/2018 00:03
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/21/2018 00:03
Methylene chloride	ND	0.0050	1	01/21/2018 00:03
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/21/2018 00:03
Naphthalene	ND	0.0050	1	01/21/2018 00:03
n-Propyl benzene	ND	0.0050	1	01/21/2018 00:03
Styrene	ND	0.0050	1	01/21/2018 00:03
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/21/2018 00:03
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/21/2018 00:03
Tetrachloroethene	ND	0.0050	1	01/21/2018 00:03
Toluene	ND	0.0050	1	01/21/2018 00:03
1,2,3-Trichlorobenzene	ND	0.0050	1	01/21/2018 00:03
1,2,4-Trichlorobenzene	ND	0.0050	1	01/21/2018 00:03
1,1,1-Trichloroethane	ND	0.0050	1	01/21/2018 00:03
1,1,2-Trichloroethane	ND	0.0050	1	01/21/2018 00:03
Trichloroethene	ND	0.0050	1	01/21/2018 00:03
Trichlorofluoromethane	ND	0.0050	1	01/21/2018 00:03
1,2,3-Trichloropropane	ND	0.0050	1	01/21/2018 00:03
1,2,4-Trimethylbenzene	ND	0.0050	1	01/21/2018 00:03
1,3,5-Trimethylbenzene	ND	0.0050	1	01/21/2018 00:03
Vinyl Chloride	ND	0.0050	1	01/21/2018 00:03
Xylenes, Total	ND	0.0050	1	01/21/2018 00:03

(Cont.)



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Project: 750622405; 1110 Jackson

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Unit: mg/kg

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EB-10-23.5	1801844-007A	Soil	01/15/2018 10:11	GC10 01191856.D	151917

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	101	82-136		01/21/2018 00:03
Toluene-d8	123	92-139		01/21/2018 00:03
4-BFB	93	82-135		01/21/2018 00:03
Benzene-d6	72	55-122		01/21/2018 00:03
Ethylbenzene-d10	92	58-141		01/21/2018 00:03
1,2-DCB-d4	69	51-107		01/21/2018 00:03

Analyst(s): AK



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/19/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-2.5	1801844-010A	Soil	01/15/2018 14:47	GC10 01191857.D	151917

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/21/2018 00:42
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/21/2018 00:42
Benzene	ND	0.0050	1	01/21/2018 00:42
Bromobenzene	ND	0.0050	1	01/21/2018 00:42
Bromochloromethane	ND	0.0050	1	01/21/2018 00:42
Bromodichloromethane	ND	0.0050	1	01/21/2018 00:42
Bromoform	ND	0.0050	1	01/21/2018 00:42
Bromomethane	ND	0.0050	1	01/21/2018 00:42
2-Butanone (MEK)	ND	0.020	1	01/21/2018 00:42
t-Butyl alcohol (TBA)	ND	0.050	1	01/21/2018 00:42
n-Butyl benzene	ND	0.0050	1	01/21/2018 00:42
sec-Butyl benzene	ND	0.0050	1	01/21/2018 00:42
tert-Butyl benzene	ND	0.0050	1	01/21/2018 00:42
Carbon Disulfide	ND	0.0050	1	01/21/2018 00:42
Carbon Tetrachloride	ND	0.0050	1	01/21/2018 00:42
Chlorobenzene	ND	0.0050	1	01/21/2018 00:42
Chloroethane	ND	0.0050	1	01/21/2018 00:42
Chloroform	ND	0.0050	1	01/21/2018 00:42
Chloromethane	ND	0.0050	1	01/21/2018 00:42
2-Chlorotoluene	ND	0.0050	1	01/21/2018 00:42
4-Chlorotoluene	ND	0.0050	1	01/21/2018 00:42
Dibromochloromethane	ND	0.0050	1	01/21/2018 00:42
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/21/2018 00:42
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/21/2018 00:42
Dibromomethane	ND	0.0050	1	01/21/2018 00:42
1,2-Dichlorobenzene	ND	0.0050	1	01/21/2018 00:42
1,3-Dichlorobenzene	ND	0.0050	1	01/21/2018 00:42
1,4-Dichlorobenzene	ND	0.0050	1	01/21/2018 00:42
Dichlorodifluoromethane	ND	0.0050	1	01/21/2018 00:42
1,1-Dichloroethane	ND	0.0050	1	01/21/2018 00:42
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/21/2018 00:42
1,1-Dichloroethene	ND	0.0050	1	01/21/2018 00:42
cis-1,2-Dichloroethene	ND	0.0050	1	01/21/2018 00:42
trans-1,2-Dichloroethene	ND	0.0050	1	01/21/2018 00:42
1,2-Dichloropropane	ND	0.0050	1	01/21/2018 00:42
1,3-Dichloropropane	ND	0.0050	1	01/21/2018 00:42
2,2-Dichloropropane	ND	0.0050	1	01/21/2018 00:42

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/19/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-2.5	1801844-010A	Soil	01/15/2018 14:47	GC10 01191857.D	151917

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/21/2018 00:42
cis-1,3-Dichloropropene	ND	0.0050	1	01/21/2018 00:42
trans-1,3-Dichloropropene	ND	0.0050	1	01/21/2018 00:42
Diisopropyl ether (DIPE)	ND	0.0050	1	01/21/2018 00:42
Ethylbenzene	ND	0.0050	1	01/21/2018 00:42
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/21/2018 00:42
Freon 113	ND	0.0050	1	01/21/2018 00:42
Hexachlorobutadiene	ND	0.0050	1	01/21/2018 00:42
Hexachloroethane	ND	0.0050	1	01/21/2018 00:42
2-Hexanone	ND	0.0050	1	01/21/2018 00:42
Isopropylbenzene	ND	0.0050	1	01/21/2018 00:42
4-Isopropyl toluene	ND	0.0050	1	01/21/2018 00:42
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/21/2018 00:42
Methylene chloride	ND	0.0050	1	01/21/2018 00:42
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/21/2018 00:42
Naphthalene	ND	0.0050	1	01/21/2018 00:42
n-Propyl benzene	ND	0.0050	1	01/21/2018 00:42
Styrene	ND	0.0050	1	01/21/2018 00:42
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/21/2018 00:42
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/21/2018 00:42
Tetrachloroethene	ND	0.0050	1	01/21/2018 00:42
Toluene	ND	0.0050	1	01/21/2018 00:42
1,2,3-Trichlorobenzene	ND	0.0050	1	01/21/2018 00:42
1,2,4-Trichlorobenzene	ND	0.0050	1	01/21/2018 00:42
1,1,1-Trichloroethane	ND	0.0050	1	01/21/2018 00:42
1,1,2-Trichloroethane	ND	0.0050	1	01/21/2018 00:42
Trichloroethene	ND	0.0050	1	01/21/2018 00:42
Trichlorofluoromethane	ND	0.0050	1	01/21/2018 00:42
1,2,3-Trichloropropane	ND	0.0050	1	01/21/2018 00:42
1,2,4-Trimethylbenzene	ND	0.0050	1	01/21/2018 00:42
1,3,5-Trimethylbenzene	ND	0.0050	1	01/21/2018 00:42
Vinyl Chloride	ND	0.0050	1	01/21/2018 00:42
Xylenes, Total	ND	0.0050	1	01/21/2018 00:42

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/19/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-2.5	1801844-010A	Soil	01/15/2018 14:47	GC10 01191857.D	151917

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	99	82-136		01/21/2018 00:42
Toluene-d8	122	92-139		01/21/2018 00:42
4-BFB	94	82-135		01/21/2018 00:42
Benzene-d6	81	55-122		01/21/2018 00:42
Ethylbenzene-d10	105	58-141		01/21/2018 00:42
1,2-DCB-d4	76	51-107		01/21/2018 00:42

Analyst(s): AK



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/19/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-5	1801844-011A	Soil	01/15/2018 14:50	GC10 01191858.D	151917

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/21/2018 01:22
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/21/2018 01:22
Benzene	ND	0.0050	1	01/21/2018 01:22
Bromobenzene	ND	0.0050	1	01/21/2018 01:22
Bromochloromethane	ND	0.0050	1	01/21/2018 01:22
Bromodichloromethane	ND	0.0050	1	01/21/2018 01:22
Bromoform	ND	0.0050	1	01/21/2018 01:22
Bromomethane	ND	0.0050	1	01/21/2018 01:22
2-Butanone (MEK)	ND	0.020	1	01/21/2018 01:22
t-Butyl alcohol (TBA)	ND	0.050	1	01/21/2018 01:22
n-Butyl benzene	ND	0.0050	1	01/21/2018 01:22
sec-Butyl benzene	ND	0.0050	1	01/21/2018 01:22
tert-Butyl benzene	ND	0.0050	1	01/21/2018 01:22
Carbon Disulfide	ND	0.0050	1	01/21/2018 01:22
Carbon Tetrachloride	ND	0.0050	1	01/21/2018 01:22
Chlorobenzene	ND	0.0050	1	01/21/2018 01:22
Chloroethane	ND	0.0050	1	01/21/2018 01:22
Chloroform	ND	0.0050	1	01/21/2018 01:22
Chloromethane	ND	0.0050	1	01/21/2018 01:22
2-Chlorotoluene	ND	0.0050	1	01/21/2018 01:22
4-Chlorotoluene	ND	0.0050	1	01/21/2018 01:22
Dibromochloromethane	ND	0.0050	1	01/21/2018 01:22
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/21/2018 01:22
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/21/2018 01:22
Dibromomethane	ND	0.0050	1	01/21/2018 01:22
1,2-Dichlorobenzene	ND	0.0050	1	01/21/2018 01:22
1,3-Dichlorobenzene	ND	0.0050	1	01/21/2018 01:22
1,4-Dichlorobenzene	ND	0.0050	1	01/21/2018 01:22
Dichlorodifluoromethane	ND	0.0050	1	01/21/2018 01:22
1,1-Dichloroethane	ND	0.0050	1	01/21/2018 01:22
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/21/2018 01:22
1,1-Dichloroethene	ND	0.0050	1	01/21/2018 01:22
cis-1,2-Dichloroethene	ND	0.0050	1	01/21/2018 01:22
trans-1,2-Dichloroethene	ND	0.0050	1	01/21/2018 01:22
1,2-Dichloropropane	ND	0.0050	1	01/21/2018 01:22
1,3-Dichloropropane	ND	0.0050	1	01/21/2018 01:22
2,2-Dichloropropane	ND	0.0050	1	01/21/2018 01:22

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/19/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-5	1801844-011A	Soil	01/15/2018 14:50	GC10 01191858.D	151917

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/21/2018 01:22
cis-1,3-Dichloropropene	ND	0.0050	1	01/21/2018 01:22
trans-1,3-Dichloropropene	ND	0.0050	1	01/21/2018 01:22
Diisopropyl ether (DIPE)	ND	0.0050	1	01/21/2018 01:22
Ethylbenzene	ND	0.0050	1	01/21/2018 01:22
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/21/2018 01:22
Freon 113	ND	0.0050	1	01/21/2018 01:22
Hexachlorobutadiene	ND	0.0050	1	01/21/2018 01:22
Hexachloroethane	ND	0.0050	1	01/21/2018 01:22
2-Hexanone	ND	0.0050	1	01/21/2018 01:22
Isopropylbenzene	ND	0.0050	1	01/21/2018 01:22
4-Isopropyl toluene	ND	0.0050	1	01/21/2018 01:22
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/21/2018 01:22
Methylene chloride	ND	0.0050	1	01/21/2018 01:22
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/21/2018 01:22
Naphthalene	ND	0.0050	1	01/21/2018 01:22
n-Propyl benzene	ND	0.0050	1	01/21/2018 01:22
Styrene	ND	0.0050	1	01/21/2018 01:22
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/21/2018 01:22
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/21/2018 01:22
Tetrachloroethene	ND	0.0050	1	01/21/2018 01:22
Toluene	ND	0.0050	1	01/21/2018 01:22
1,2,3-Trichlorobenzene	ND	0.0050	1	01/21/2018 01:22
1,2,4-Trichlorobenzene	ND	0.0050	1	01/21/2018 01:22
1,1,1-Trichloroethane	ND	0.0050	1	01/21/2018 01:22
1,1,2-Trichloroethane	ND	0.0050	1	01/21/2018 01:22
Trichloroethene	ND	0.0050	1	01/21/2018 01:22
Trichlorofluoromethane	ND	0.0050	1	01/21/2018 01:22
1,2,3-Trichloropropane	ND	0.0050	1	01/21/2018 01:22
1,2,4-Trimethylbenzene	ND	0.0050	1	01/21/2018 01:22
1,3,5-Trimethylbenzene	ND	0.0050	1	01/21/2018 01:22
Vinyl Chloride	ND	0.0050	1	01/21/2018 01:22
Xylenes, Total	ND	0.0050	1	01/21/2018 01:22

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/19/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-5	1801844-011A	Soil	01/15/2018 14:50	GC10 01191858.D	151917

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	100	82-136		01/21/2018 01:22
Toluene-d8	122	92-139		01/21/2018 01:22
4-BFB	91	82-135		01/21/2018 01:22
Benzene-d6	72	55-122		01/21/2018 01:22
Ethylbenzene-d10	92	58-141		01/21/2018 01:22
1,2-DCB-d4	71	51-107		01/21/2018 01:22

Analyst(s): AK



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/19/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-18.5	1801844-005A	Soil	01/15/2018 09:50	GC19 01201805.D	151920

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/20/2018 15:28
MTBE	---	0.050	1	01/20/2018 15:28
Benzene	---	0.0050	1	01/20/2018 15:28
Toluene	---	0.0050	1	01/20/2018 15:28
Ethylbenzene	---	0.0050	1	01/20/2018 15:28
Xylenes	---	0.0050	1	01/20/2018 15:28

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	89	62-126	01/20/2018 15:28

Analyst(s): TD

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-20	1801844-006A	Soil	01/15/2018 09:57	GC19 01201806.D	151920

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/20/2018 15:59
MTBE	---	0.050	1	01/20/2018 15:59
Benzene	---	0.0050	1	01/20/2018 15:59
Toluene	---	0.0050	1	01/20/2018 15:59
Ethylbenzene	---	0.0050	1	01/20/2018 15:59
Xylenes	---	0.0050	1	01/20/2018 15:59

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	90	62-126	01/20/2018 15:59

Analyst(s): TD



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/19/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-23.5	1801844-007A	Soil	01/15/2018 10:11	GC19 01221805.D	151920

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/22/2018 15:13
MTBE	---	0.050	1	01/22/2018 15:13
Benzene	---	0.0050	1	01/22/2018 15:13
Toluene	---	0.0050	1	01/22/2018 15:13
Ethylbenzene	---	0.0050	1	01/22/2018 15:13
Xylenes	---	0.0050	1	01/22/2018 15:13

Surrogates	REC (%)	Limits
2-Fluorotoluene	71	62-126

Analyst(s): TD

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-2.5	1801844-010A	Soil	01/15/2018 14:47	GC19 01201808.D	151920

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/20/2018 17:00
MTBE	---	0.050	1	01/20/2018 17:00
Benzene	---	0.0050	1	01/20/2018 17:00
Toluene	---	0.0050	1	01/20/2018 17:00
Ethylbenzene	---	0.0050	1	01/20/2018 17:00
Xylenes	---	0.0050	1	01/20/2018 17:00

Surrogates	REC (%)	Limits
2-Fluorotoluene	89	62-126

Analyst(s): TD

(Cont.)



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/19/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-5	1801844-011A	Soil	01/15/2018 14:50	GC19 01201809.D	151920

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/20/2018 17:30
MTBE	---	0.050	1	01/20/2018 17:30
Benzene	---	0.0050	1	01/20/2018 17:30
Toluene	---	0.0050	1	01/20/2018 17:30
Ethylbenzene	---	0.0050	1	01/20/2018 17:30
Xylenes	---	0.0050	1	01/20/2018 17:30

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	84	62-126	01/20/2018 17:30

Analyst(s): TD



Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/19/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-18.5	1801844-005A	Soil	01/15/2018 09:50	GC11A 01221850.D	151925

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	01/23/2018 01:25
TPH-Motor Oil (C18-C36)	ND	5.0	1	01/23/2018 01:25

Surrogates	REC (%)	Limits	Date Analyzed
C9	118	74-123	01/23/2018 01:25

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-20	1801844-006A	Soil	01/15/2018 09:57	GC9a 01191850.D	151925

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	01/20/2018 15:47
TPH-Motor Oil (C18-C36)	ND	5.0	1	01/20/2018 15:47

Surrogates	REC (%)	Limits	Date Analyzed
C9	93	74-123	01/20/2018 15:47

Analyst(s): JIS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-10-23.5	1801844-007A	Soil	01/15/2018 10:11	GC9a 01191858.D	151925

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	01/20/2018 18:22
TPH-Motor Oil (C18-C36)	ND	5.0	1	01/20/2018 18:22

Surrogates	REC (%)	Limits	Date Analyzed
C9	96	74-123	01/20/2018 18:22

Analyst(s): JIS

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Analytical Report

Client: Langan
Date Received: 1/16/18 17:30
Date Prepared: 1/19/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-2.5	1801844-010A	Soil	01/15/2018 14:47	GC9a 01191846.D	151925

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND	1.0	1	01/20/2018 14:29
TPH-Motor Oil (C18-C36)	11	5.0	1	01/20/2018 14:29

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	<u>Date Analyzed</u>
C9	92	74-123	01/20/2018 14:29

Analyst(s): JIS Analytical Comments: e7

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-11-5	1801844-011A	Soil	01/15/2018 14:50	GC9a 01191854.D	151925

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND	1.0	1	01/20/2018 17:04
TPH-Motor Oil (C18-C36)	ND	5.0	1	01/20/2018 17:04

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	<u>Date Analyzed</u>
C9	91	74-123	01/20/2018 17:04

Analyst(s): JIS



Quality Control Report

Client: Langan
Date Prepared: 1/19/18
Date Analyzed: 1/20/18 - 1/23/18
Instrument: GC10, GC28
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151917
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151917
 1801A25-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	1.18	0.10	1	-	118	48-156
tert-Amyl methyl ether (TAME)	ND	0.0376	0.0050	0.050	-	75	56-115
Benzene	ND	0.0463	0.0050	0.050	-	93	63-131
Bromobenzene	ND	0.0443	0.0050	0.050	-	89	66-127
Bromochloromethane	ND	0.0441	0.0050	0.050	-	88	64-124
Bromodichloromethane	ND	0.0451	0.0050	0.050	-	90	64-120
Bromoform	ND	0.0381	0.0050	0.050	-	76	48-92
Bromomethane	ND	0.0490	0.0050	0.050	-	98	25-163
2-Butanone (MEK)	ND	0.180	0.020	0.20	-	90	51-133
t-Butyl alcohol (TBA)	ND	0.206	0.050	0.20	-	103	52-129
n-Butyl benzene	ND	0.0704	0.0050	0.050	-	141	83-200
sec-Butyl benzene	ND	0.0650	0.0050	0.050	-	130	81-199
tert-Butyl benzene	ND	0.0591	0.0050	0.050	-	118	79-178
Carbon Disulfide	ND	0.0473	0.0050	0.050	-	95	64-136
Carbon Tetrachloride	ND	0.0486	0.0050	0.050	-	97	66-140
Chlorobenzene	ND	0.0446	0.0050	0.050	-	89	73-116
Chloroethane	ND	0.0461	0.0050	0.050	-	92	35-147
Chloroform	ND	0.0460	0.0050	0.050	-	92	65-130
Chloromethane	ND	0.0392	0.0050	0.050	-	78	30-137
2-Chlorotoluene	ND	0.0565	0.0050	0.050	-	113	75-152
4-Chlorotoluene	ND	0.0510	0.0050	0.050	-	102	71-148
Dibromochloromethane	ND	0.0399	0.0050	0.050	-	80	61-106
1,2-Dibromo-3-chloropropane	ND	0.0146	0.0040	0.020	-	73	36-120
1,2-Dibromoethane (EDB)	ND	0.0392	0.0040	0.050	-	78	67-118
Dibromomethane	ND	0.0446	0.0050	0.050	-	89	61-116
1,2-Dichlorobenzene	ND	0.0441	0.0050	0.050	-	88	59-106
1,3-Dichlorobenzene	ND	0.0525	0.0050	0.050	-	105	75-129
1,4-Dichlorobenzene	ND	0.0448	0.0050	0.050	-	90	66-127
Dichlorodifluoromethane	ND	0.0176	0.0050	0.050	-	35	13-74
1,1-Dichloroethane	ND	0.0499	0.0050	0.050	-	100	65-134
1,2-Dichloroethane (1,2-DCA)	ND	0.0426	0.0040	0.050	-	85	57-131
1,1-Dichloroethene	ND	0.0498	0.0050	0.050	-	100	62-127
cis-1,2-Dichloroethene	ND	0.0469	0.0050	0.050	-	94	66-130
trans-1,2-Dichloroethene	ND	0.0509	0.0050	0.050	-	102	60-131
1,2-Dichloropropane	ND	0.0453	0.0050	0.050	-	91	63-127
1,3-Dichloropropane	ND	0.0430	0.0050	0.050	-	86	68-124
2,2-Dichloropropane	ND	0.0534	0.0050	0.050	-	107	63-150

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 1/19/18
Date Analyzed: 1/20/18 - 1/23/18
Instrument: GC10, GC28
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151917
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151917
 1801A25-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,1-Dichloropropene	ND	0.0498	0.0050	0.050	-	100	67-134
cis-1,3-Dichloropropene	ND	0.0457	0.0050	0.050	-	91	65-138
trans-1,3-Dichloropropene	ND	0.0476	0.0050	0.050	-	95	66-124
Diisopropyl ether (DIPE)	ND	0.0404	0.0050	0.050	-	81	58-129
Ethylbenzene	ND	0.0520	0.0050	0.050	-	104	73-145
Ethyl tert-butyl ether (ETBE)	ND	0.0438	0.0050	0.050	-	88	62-125
Freon 113	ND	0.0442	0.0050	0.050	-	88	55-116
Hexachlorobutadiene	ND	0.0583	0.0050	0.050	-	117	75-178
Hexachloroethane	ND	0.0592	0.0050	0.050	-	118	75-152
2-Hexanone	ND	0.0347	0.0050	0.050	-	69	41-113
Isopropylbenzene	ND	0.0601	0.0050	0.050	-	120	67-172
4-Isopropyl toluene	ND	0.0660	0.0050	0.050	-	132	88-171
Methyl-t-butyl ether (MTBE)	ND	0.0480	0.0050	0.050	-	96	58-122
Methylene chloride	ND	0.0514	0.0050	0.050	-	103	57-140
4-Methyl-2-pentanone (MIBK)	ND	0.0340	0.0050	0.050	-	68	42-117
Naphthalene	ND	0.0195	0.0050	0.050	-	39	29-65
n-Propyl benzene	ND	0.0646	0.0050	0.050	-	129	85-174
Styrene	ND	0.0434	0.0050	0.050	-	87	63-126
1,1,1,2-Tetrachloroethane	ND	0.0442	0.0050	0.050	-	88	68-131
1,1,2,2-Tetrachloroethane	ND	0.0358	0.0050	0.050	-	72	45-121
Tetrachloroethene	ND	0.0494	0.0050	0.050	-	99	65-150
Toluene	ND	0.0505	0.0050	0.050	-	101	72-135
1,2,3-Trichlorobenzene	ND	0.0279	0.0050	0.050	-	56	35-80
1,2,4-Trichlorobenzene	ND	0.0386	0.0050	0.050	-	77	45-103
1,1,1-Trichloroethane	ND	0.0463	0.0050	0.050	-	93	67-137
1,1,2-Trichloroethane	ND	0.0408	0.0050	0.050	-	82	67-117
Trichloroethene	ND	0.0480	0.0050	0.050	-	96	62-135
Trichlorofluoromethane	ND	0.0511	0.0050	0.050	-	102	56-124
1,2,3-Trichloropropane	ND	0.0450	0.0050	0.050	-	90	58-133
1,2,4-Trimethylbenzene	ND	0.0604	0.0050	0.050	-	121	78-161
1,3,5-Trimethylbenzene	ND	0.0596	0.0050	0.050	-	119	85-170
Vinyl Chloride	ND	0.0499	0.0050	0.050	-	100	32-142
Xylenes, Total	ND	0.150	0.0050	0.15	-	100	70-137

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 1/19/18
Date Analyzed: 1/20/18 - 1/23/18
Instrument: GC10, GC28
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151917
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151917
 1801A25-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
Dibromofluoromethane	0.149	0.151		0.12	119	121	87-127
Toluene-d8	0.172	0.170		0.12	138	136	93-141
4-BFB	0.0137	0.0139		0.012	110	111	84-137
Benzene-d6	0.0942	0.0948		0.10	94	95	67-131
Ethylbenzene-d10	0.110	0.107		0.10	110	107	78-153
1,2-DCB-d4	0.0997	0.0928		0.10	100	93	63-109



Quality Control Report

Client: Langan
Date Prepared: 1/19/18
Date Analyzed: 1/20/18 - 1/23/18
Instrument: GC10, GC28
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151917
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151917
 1801A25-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Acetone	0.814	0.773	1	ND	72	68	36-141	5.18	20
tert-Amyl methyl ether (TAME)	0.0356	0.0336	0.050	ND	71	67	46-105	5.90	20
Benzene	0.0416	0.0388	0.050	ND	83	78	46-124	7.00	20
Bromobenzene	0.0405	0.0372	0.050	ND	81	74	50-119	8.58	20
Bromochloromethane	0.0379	0.0363	0.050	ND	76	73	42-122	4.36	20
Bromodichloromethane	0.0304	0.0273	0.050	ND	61	55	48-112	10.4	20
Bromoform	0.0274	0.0251	0.050	ND	55	50	36-90	8.80	20
Bromomethane	0.0140	0.0152	0.050	ND	28	30	10-149	8.69	20
2-Butanone (MEK)	0.136	0.137	0.20	ND	68	68	43-114	0	20
t-Butyl alcohol (TBA)	0.131	0.120	0.20	ND	65	60	33-123	8.70	20
n-Butyl benzene	0.0556	0.0513	0.050	ND	111	103	40-185	8.09	20
sec-Butyl benzene	0.0580	0.0516	0.050	ND	116	103	40-183	11.6	20
tert-Butyl benzene	0.0557	0.0510	0.050	ND	111	102	44-168	8.96	20
Carbon Disulfide	0.0101	0.0128	0.050	ND	20,F1	26	23-139	23.5,F1	20
Carbon Tetrachloride	0.0348	0.0336	0.050	ND	70	67	43-133	3.45	20
Chlorobenzene	0.0395	0.0369	0.050	ND	79	74	51-115	6.67	20
Chloroethane	0.0475	0.0360	0.050	ND	95	72	16-138	27.6,F1	20
Chloroform	0.0410	0.0381	0.050	ND	82	76	54-117	7.25	20
Chloromethane	0.0291	0.0281	0.050	ND	58	56	14-128	3.64	20
2-Chlorotoluene	0.0447	0.0413	0.050	ND	89	83	54-141	7.85	20
4-Chlorotoluene	0.0442	0.0411	0.050	ND	88	82	52-134	7.27	20
Dibromochloromethane	0.0303	0.0276	0.050	ND	61	55	46-102	9.07	20
1,2-Dibromo-3-chloropropane	0	0	0.020	ND	0,F1	0,F1	16-120	0	20
1,2-Dibromoethane (EDB)	0.0241	0.0204	0.050	ND	48	41,F1	48-113	16.8	20
Dibromomethane	0.0355	0.0338	0.050	ND	71	68	44-110	5.10	20
1,2-Dichlorobenzene	0.0364	0.0349	0.050	ND	73	70	43-106	4.18	20
1,3-Dichlorobenzene	0.0425	0.0399	0.050	ND	85	80	49-128	6.20	20
1,4-Dichlorobenzene	0.0417	0.0387	0.050	ND	83	77	48-120	7.59	20
Dichlorodifluoromethane	0.0199	0.0178	0.050	ND	40	36	8-63	11.2	20
1,1-Dichloroethane	0.0403	0.0376	0.050	ND	81	75	50-122	6.89	20
1,2-Dichloroethane (1,2-DCA)	0.0354	0.0334	0.050	ND	71	67	46-116	5.95	20
1,1-Dichloroethene	0.0702	0.0645	0.050	ND	140,F1	129,F1	37-124	8.51	20
cis-1,2-Dichloroethene	0.0397	0.0377	0.050	ND	79	75	47-123	5.34	20
trans-1,2-Dichloroethene	0.0404	0.0368	0.050	ND	81	74	31-131	9.29	20
1,2-Dichloropropane	0.0392	0.0367	0.050	ND	78	73	50-116	6.69	20
1,3-Dichloropropane	0.0362	0.0333	0.050	ND	72	67	52-115	8.40	20
2,2-Dichloropropane	0.0396	0.0368	0.050	ND	79	74	43-137	7.34	20

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Quality Control Report

Client: Langan
Date Prepared: 1/19/18
Date Analyzed: 1/20/18 - 1/23/18
Instrument: GC10, GC28
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151917
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151917
 1801A25-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
1,1-Dichloropropene	0.0410	0.0393	0.050	ND	82	79	43-126	4.16	20
cis-1,3-Dichloropropene	0.0196	0.0221	0.050	ND	39	44	35-134	12.1	20
trans-1,3-Dichloropropene	0.0250	0.0255	0.050	ND	50	51	35-124	2.04	20
Diisopropyl ether (DIPE)	0.0389	0.0368	0.050	ND	78	74	49-116	5.35	20
Ethylbenzene	0.0456	0.0421	0.050	ND	91	84	49-137	7.98	20
Ethyl tert-butyl ether (ETBE)	0.0363	0.0345	0.050	ND	73	69	50-113	5.05	20
Freon 113	0.0338	0.0302	0.050	ND	68	60	28-114	11.0	20
Hexachlorobutadiene	0.0513	0.0471	0.050	ND	103	94	22-180	8.39	20
Hexachloroethane	0.0424	0.0415	0.050	ND	85	83	28-158	2.18	20
2-Hexanone	0.0313	0.0290	0.050	ND	63	58	31-102	7.71	20
Isopropylbenzene	0.0467	0.0432	0.050	ND	93	86	50-153	7.91	20
4-Isopropyl toluene	0.0559	0.0518	0.050	0.007530	97	88	41-171	7.65	20
Methyl-t-butyl ether (MTBE)	0.0338	0.0320	0.050	ND	68	64	48-110	5.57	20
Methylene chloride	0.0381	0.0353	0.050	ND	76	71	42-127	7.50	20
4-Methyl-2-pentanone (MIBK)	0.0300	0.0280	0.050	ND	60	56	24-114	6.62	20
Naphthalene	0.0239	0.0226	0.050	ND	47	44	19-69	5.64	20
n-Propyl benzene	0.0498	0.0460	0.050	ND	100	92	46-168	7.85	20
Styrene	0.0375	0.0355	0.050	ND	75	71	42-122	5.68	20
1,1,1,2-Tetrachloroethane	0	0	0.050	ND	0,F1	0,F1	52-121	0	20
1,1,2,2-Tetrachloroethane	0	0	0.050	ND	0,F1	0,F1	27-116	0	20
Tetrachloroethene	0.0477	0.0425	0.050	ND	95	85	37-149	11.4	20
Toluene	0.0416	0.0386	0.050	ND	83	77	52-124	7.27	20
1,2,3-Trichlorobenzene	0.0270	0.0253	0.050	ND	54	51	20-86	6.67	20
1,2,4-Trichlorobenzene	0.0313	0.0299	0.050	ND	63	60	24-107	4.70	20
1,1,1-Trichloroethane	0.0409	0.0380	0.050	ND	82	76	48-128	7.31	20
1,1,2-Trichloroethane	0	0	0.050	ND	0,F1	0,F1	51-110	0	20
Trichloroethene	0.106	0.100	0.050	ND	213,F1	201,F1	42-128	6.01	20
Trichlorofluoromethane	0.0367	0.0334	0.050	ND	73	67	31-121	9.32	20
1,2,3-Trichloropropane	0.0124	0.00844	0.050	ND	25,F1	17,F1	50-115	38,F1	20
1,2,4-Trimethylbenzene	0.0483	0.0450	0.050	ND	97	90	48-151	7.08	20
1,3,5-Trimethylbenzene	0.0496	0.0460	0.050	ND	99	92	51-159	7.44	20
Vinyl Chloride	0.0384	0.0369	0.050	ND	77	74	11-136	4.03	20
Xylenes, Total	0.125	0.116	0.15	ND	84	78	38-141	7.51	20

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Quality Control Report

Client: Langan
Date Prepared: 1/19/18
Date Analyzed: 1/20/18 - 1/23/18
Instrument: GC10, GC28
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151917
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151917
 1801A25-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Surrogate Recovery									
Dibromofluoromethane	0.133	0.132	0.12		106	106	82-136	0	20
Toluene-d8	0.150	0.148	0.12		120	119	92-139	1.34	20
4-BFB	0.0143	0.0138	0.012		115	110	82-135	3.81	20
Benzene-d6	0.0797	0.0752	0.10		80	75	55-122	5.84	20
Ethylbenzene-d10	0.0974	0.0906	0.10		97	91	58-141	7.20	20
1,2-DCB-d4	0.0744	0.0709	0.10		74	71	51-107	4.87	20



Quality Control Report

Client: Langan
Date Prepared: 1/19/18
Date Analyzed: 1/19/18 - 1/23/18
Instrument: GC19
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151920
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg
Sample ID: MB/LCS-151920
 1801A27-001AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH(g) (C6-C12)	ND	1.0	-	-	-
MTBE	ND	0.050	-	-	-
Benzene	ND	0.0050	-	-	-
Toluene	ND	0.0050	-	-	-
Ethylbenzene	ND	0.0050	-	-	-
Xylenes	ND	0.0050	-	-	-

Surrogate Recovery

2-Fluorotoluene	0.0918		0.10	92	75-134
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Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH(btex)	0.552	-	0.60	92	-	82-118	-	-
MTBE	0.106	-	0.10	106	-	61-119	-	-
Benzene	0.116	-	0.10	116	-	77-128	-	-
Toluene	0.118	-	0.10	118	-	74-132	-	-
Ethylbenzene	0.116	-	0.10	116	-	84-127	-	-
Xylenes	0.341	-	0.30	114	-	86-129	-	-

Surrogate Recovery

2-Fluorotoluene	0.0960	-	0.10	96	-	75-134	-	-
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.802	0.785	0.60	0.5557	41,F1	38,F1	58-129	2.20	20
MTBE	0.0500	0.0462	0.10	ND	50	46,F1	47-118	7.80	20
Benzene	0.523	0.517	0.10	0.4127	110	105	55-129	1.03	20
Toluene	0.100	0.0963	0.10	0.03904	61	57	56-130	3.95	20
Ethylbenzene	0.0852	0.0820	0.10	0.02720	58,F1	55,F1	63-129	3.77	20
Xylenes	0.207	0.200	0.30	0.03231	58,F1	56,F1	64-131	3.27	20

Surrogate Recovery

2-Fluorotoluene	0.0515	0.0489	0.10		52,F3	49,F3	62-126	5.19	20
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Quality Control Report

Client: Langan
Date Prepared: 1/19/18
Date Analyzed: 1/19/18
Instrument: GC9a
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801844
BatchID: 151925
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg
Sample ID: MB/LCS-151925
 1801871-016EMS/MSD

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	40.6	1.0	40	-	101	75-128
TPH-Motor Oil (C18-C36)	ND	-	5.0	-	-	-	-
Surrogate Recovery							
C9	24.0	23.5		25	96	94	72-122

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	NR	NR		54	NR	NR	-	NR	-
Surrogate Recovery									
C9	NR	NR			NR	NR	-	NR	-



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

WaterTrax WriteOn EDF

CHAIN-OF-CUSTODY RECORD

WorkOrder: **1801844 A** ClientCode: **TWRK**

Excel Fax Email HardCopy ThirdParty J-flag
 Detection Summary Dry-Weight

Report to:

Noel Liner
Langan
501 14th Street, 3rd Floor
Oakland, CA 94612
(415) 955-9040 FAX: (415) 955-9041

Email: nliner@langan.com
cc/3rd Party:
PO:
Project: 750022905; 1110 Jackson

Bill to:

Accounts Payable
Langan
555 Montgomery St., Suite 1300
San Francisco, CA 94111
Langan_InvoiceCapture@concursoft.com

Requested TAT: 5 days;

Date Received: 01/16/2018
Date Logged: 01/16/2018
Date Add-On: 01/19/2018

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1801844-005	EB-10-18.5	Soil	1/15/2018 09:38	<input type="checkbox"/>	A	A	A										
1801844-006	EB-10-20	Soil	1/15/2018 09:50	<input type="checkbox"/>	A	A	A										
1801844-007	EB-10-23.5	Soil	1/15/2018 09:57	<input type="checkbox"/>	A	A	A										
1801844-010	EB-11-2.5	Soil	1/15/2018 14:47	<input type="checkbox"/>	A	A	A										
1801844-011	EB-11-5	Soil	1/15/2018 14:50	<input type="checkbox"/>	A	A	A										

Test Legend:

1	8260B_S	2	G-MBTX_S	3	TPH(DMO)_S	4	
5		6		7		8	
9		10		11		12	

Prepared by: Kena Ponce
Add-On Prepared By: Kena Ponce

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: LANGAN
Client Contact: Noel Liner
Contact's Email nliner@langan.com

Project: 750022905; 1110 Jackson

Comments:

Work Order: 1801844
QC Level: LEVEL 2
Date Logged: 1/16/2018
Date Add-On: 1/19/2018

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1801844-005A	EB-10-18.5	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	1/15/2018 9:38	5 days		<input type="checkbox"/>	
1801844-006A	EB-10-20	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	1/15/2018 9:50	5 days		<input type="checkbox"/>	
1801844-007A	EB-10-23.5	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	1/15/2018 9:57	5 days		<input type="checkbox"/>	
1801844-010A	EB-11-2.5	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	1/15/2018 14:47	5 days		<input type="checkbox"/>	
1801844-011A	EB-11-5	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	1/15/2018 14:50	5 days		<input type="checkbox"/>	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

LANGAN

CHAIN OF CUSTODY RECORD

- 555 Montgomery Street, Suite 1300, San Francisco, CA 94111
- 501 14th Street, Third Floor, Oakland CA 94612
- 3320 Data Drive, Suite 350, Rancho Cordova, CA 95670-7982
- 4030 Moorpark Ave. Suite 210, San Jose, CA 95117-1849

1801844

Site Name: 1110 Jackson

Job Number: 750622405

Project Manager/Contact: Noel Lines nlines@langan.com

Samplers: Jos L Osborne

Recorder (Signature Required): [Signature]

Turnaround Time
Standard

Analysis Requested

No. Containers & Preservative

Field Sample Identification No.	Date	Time	Lab Sample No.	Matrix				No. Containers & Preservative			Silica gel clean-up	Hold	Remarks	
				Soil	Water	Air	Other	HCL	H ₂ SO ₄	HNO ₃				Ice
EB-10-2.5	1/15/18	0904		X										
EB-10-5		0908		X										
EB-10-10		0928		X										
EB-10-15		0938		X										
EB-10-18.5		0950		X										
EB-10-20		0957		X										
EB-10-25.23.5		1011		X										
EB-10-6W-25		1108			X			X		X				
EB-10-6W-35		1210			X			X		X				
EB-11-2.5		1447		X										
EB-11-5		1450		X										
EB-11-10		1502		X										
EB-11-15		1511		X										
EB-11-20		1516		X										

5015	8760	PH 6.0 MO 1.19/18 JML	8760	PH 6.0 MO 1.19/18 JML	8760	PH 6.0 MO 1.19/18 JML	8760	PH 6.0 MO 1.19/18 JML	8760	PH 6.0 MO 1.19/18 JML	8760	PH 6.0 MO 1.19/18 JML	8760	PH 6.0 MO 1.19/18 JML	8760	PH 6.0 MO 1.19/18 JML	8760	PH 6.0 MO 1.19/18 JML
------	------	-----------------------	------	-----------------------	------	-----------------------	------	-----------------------	------	-----------------------	------	-----------------------	------	-----------------------	------	-----------------------	------	-----------------------

Relinquished by: (Signature) <u>[Signature]</u>	Date: <u>1/16/18</u>	Time: <u>1511</u>	Received by: (Signature) <u>[Signature]</u>	Date: <u>1/16/18</u>	Time: <u>1511</u>
Relinquished by: (Signature) <u>[Signature]</u>	Date: <u>1/16/18</u>	Time: <u>1730</u>	Received by: (Signature) <u>[Signature]</u>	Date: <u>1/16/18</u>	Time: <u>1730</u>
Relinquished by: (Signature)	Date:	Time:	Received by Lab: (Signature)	Date:	Time:

Sent to Laboratory (Name): McLampbell Analytical

Laboratory Comments/Notes:

Method of Shipment: Lab courier Fed Ex Airborne UPS
 Hand Carried Private Courier (Co. Name)

CHAIN OF CUSTODY RECORD

- 555 Montgomery Street, Suite 1300, San Francisco, CA 94111
- 501 14th Street, Third Floor, Oakland CA 94612
- 3320 Data Drive, Suite 350, Rancho Cordova, CA 95670-7982
- 4030 Moorpark Ave. Suite 210, San Jose, CA 95117-1849

Site Name: 1110 Jackson
 Job Number: 750622405
 Project Manager/Contact: Max Limer \nlimer@langan.com
 Samplers: Jose Osborne
 Recorder (Signature Required): [Signature]

Analysis Requested

Turnaround Time
Standard

Field Sample Identification No.	Date	Time	Lab Sample No.	Matrix				No. Containers & Preservative				Analysis Requested		Silica gel clean-up	Hold	Remarks	
				Soil	Water	Air	Other	HCL	H ₂ SO ₄	HNO ₃	Ice						
EB-11-21.5	1/15/18	1525		X													
EB-11-6W-25		1540			X			X		X							
EB-11-6W-35		1630			X			X		X							
EB-12-2.5	1/16/18	0849		X						X							
EB-9-2.5		1207		X						X							
EB-9-5A		1211		X						X							
EB-9-10		1220		X						X							
EB-5-1																	
EB-9-55		1230		X						X							
EB-9-15		1237		X						X							
EB-9-18.5		1256		X						X							
EB-9-20		1300		X						X							
EB-9-21		1311		X						X							
EB-9-6W-28		1400		X				X		X							

Relinquished by: (Signature) <u>[Signature]</u>	Date: <u>1/16/18</u>	Time: <u>1511</u>	Received by: (Signature) <u>[Signature]</u>	Date: <u>1/16/18</u>	Time: <u>1511</u>
Relinquished by: (Signature) <u>[Signature]</u>	Date: <u>1/16/18</u>	Time: <u>1730</u>	Received by: (Signature) <u>[Signature]</u>	Date: <u>1/14/18</u>	Time: <u>1730</u>
Relinquished by: (Signature)	Date:	Time:	Received by Lab: (Signature)	Date:	Time:

Sent to Laboratory (Name): McLambell Analytical
 Laboratory Comments/Notes: _____
 Method of Shipment: Lab courier Fed Ex Airborne UPS
 Hand Carried Private Courier (Co. Name) _____



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1801938

Report Created for: Langan

501 14th Street, 3rd Floor
Oakland, CA 94612

Project Contact: Noel Liner

Project P.O.:

Project: 750622405; 1110 Jackson

Project Received: 01/17/2018

Analytical Report reviewed & approved for release on 01/24/2018 by:

Christine Askari
Project Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: Langan
Project: 750622405; 1110 Jackson
WorkOrder: 1801938

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



Glossary of Terms & Qualifier Definitions

Client: Langan
Project: 750622405; 1110 Jackson
WorkOrder: 1801938

Analytical Qualifiers

b1 Aqueous sample that contains greater than ~1 vol. % sediment
e2 Diesel range compounds are significant; no recognizable pattern
e7 Oil range compounds are significant

Quality Control Qualifiers

F3 The surrogate standard recovery and/or RPD is outside of acceptance limits.



Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/17/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-2.5	1801938-001A	Soil	01/17/2018 07:43	GC10 01191851.D	151727
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	01/20/2018 20:48	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/20/2018 20:48	
Benzene	ND	0.0050	1	01/20/2018 20:48	
Bromobenzene	ND	0.0050	1	01/20/2018 20:48	
Bromochloromethane	ND	0.0050	1	01/20/2018 20:48	
Bromodichloromethane	ND	0.0050	1	01/20/2018 20:48	
Bromoform	ND	0.0050	1	01/20/2018 20:48	
Bromomethane	ND	0.0050	1	01/20/2018 20:48	
2-Butanone (MEK)	ND	0.020	1	01/20/2018 20:48	
t-Butyl alcohol (TBA)	ND	0.050	1	01/20/2018 20:48	
n-Butyl benzene	ND	0.0050	1	01/20/2018 20:48	
sec-Butyl benzene	ND	0.0050	1	01/20/2018 20:48	
tert-Butyl benzene	ND	0.0050	1	01/20/2018 20:48	
Carbon Disulfide	ND	0.0050	1	01/20/2018 20:48	
Carbon Tetrachloride	ND	0.0050	1	01/20/2018 20:48	
Chlorobenzene	ND	0.0050	1	01/20/2018 20:48	
Chloroethane	ND	0.0050	1	01/20/2018 20:48	
Chloroform	ND	0.0050	1	01/20/2018 20:48	
Chloromethane	ND	0.0050	1	01/20/2018 20:48	
2-Chlorotoluene	ND	0.0050	1	01/20/2018 20:48	
4-Chlorotoluene	ND	0.0050	1	01/20/2018 20:48	
Dibromochloromethane	ND	0.0050	1	01/20/2018 20:48	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/20/2018 20:48	
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/20/2018 20:48	
Dibromomethane	ND	0.0050	1	01/20/2018 20:48	
1,2-Dichlorobenzene	ND	0.0050	1	01/20/2018 20:48	
1,3-Dichlorobenzene	ND	0.0050	1	01/20/2018 20:48	
1,4-Dichlorobenzene	ND	0.0050	1	01/20/2018 20:48	
Dichlorodifluoromethane	ND	0.0050	1	01/20/2018 20:48	
1,1-Dichloroethane	ND	0.0050	1	01/20/2018 20:48	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/20/2018 20:48	
1,1-Dichloroethene	ND	0.0050	1	01/20/2018 20:48	
cis-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 20:48	
trans-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 20:48	
1,2-Dichloropropane	ND	0.0050	1	01/20/2018 20:48	
1,3-Dichloropropane	ND	0.0050	1	01/20/2018 20:48	
2,2-Dichloropropane	ND	0.0050	1	01/20/2018 20:48	

(Cont.)



Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/17/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-2.5	1801938-001A	Soil	01/17/2018 07:43	GC10 01191851.D	151727

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/20/2018 20:48
cis-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 20:48
trans-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 20:48
Diisopropyl ether (DIPE)	ND	0.0050	1	01/20/2018 20:48
Ethylbenzene	ND	0.0050	1	01/20/2018 20:48
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/20/2018 20:48
Freon 113	ND	0.0050	1	01/20/2018 20:48
Hexachlorobutadiene	ND	0.0050	1	01/20/2018 20:48
Hexachloroethane	ND	0.0050	1	01/20/2018 20:48
2-Hexanone	ND	0.0050	1	01/20/2018 20:48
Isopropylbenzene	ND	0.0050	1	01/20/2018 20:48
4-Isopropyl toluene	ND	0.0050	1	01/20/2018 20:48
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/20/2018 20:48
Methylene chloride	ND	0.0050	1	01/20/2018 20:48
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/20/2018 20:48
Naphthalene	ND	0.0050	1	01/20/2018 20:48
n-Propyl benzene	ND	0.0050	1	01/20/2018 20:48
Styrene	ND	0.0050	1	01/20/2018 20:48
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 20:48
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 20:48
Tetrachloroethene	ND	0.0050	1	01/20/2018 20:48
Toluene	ND	0.0050	1	01/20/2018 20:48
1,2,3-Trichlorobenzene	ND	0.0050	1	01/20/2018 20:48
1,2,4-Trichlorobenzene	ND	0.0050	1	01/20/2018 20:48
1,1,1-Trichloroethane	ND	0.0050	1	01/20/2018 20:48
1,1,2-Trichloroethane	ND	0.0050	1	01/20/2018 20:48
Trichloroethene	ND	0.0050	1	01/20/2018 20:48
Trichlorofluoromethane	ND	0.0050	1	01/20/2018 20:48
1,2,3-Trichloropropane	ND	0.0050	1	01/20/2018 20:48
1,2,4-Trimethylbenzene	ND	0.0050	1	01/20/2018 20:48
1,3,5-Trimethylbenzene	ND	0.0050	1	01/20/2018 20:48
Vinyl Chloride	ND	0.0050	1	01/20/2018 20:48
Xylenes, Total	ND	0.0050	1	01/20/2018 20:48

(Cont.)



Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/17/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-2.5	1801938-001A	Soil	01/17/2018 07:43	GC10 01191851.D	151727

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	99	82-136		01/20/2018 20:48
Toluene-d8	126	92-139		01/20/2018 20:48
4-BFB	95	82-135		01/20/2018 20:48
Benzene-d6	79	55-122		01/20/2018 20:48
Ethylbenzene-d10	106	58-141		01/20/2018 20:48
1,2-DCB-d4	77	51-107		01/20/2018 20:48

Analyst(s): AK



Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/17/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-5	1801938-002A	Soil	01/17/2018 07:45	GC10 01191852.D	151727

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/20/2018 21:28
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/20/2018 21:28
Benzene	ND	0.0050	1	01/20/2018 21:28
Bromobenzene	ND	0.0050	1	01/20/2018 21:28
Bromochloromethane	ND	0.0050	1	01/20/2018 21:28
Bromodichloromethane	ND	0.0050	1	01/20/2018 21:28
Bromoform	ND	0.0050	1	01/20/2018 21:28
Bromomethane	ND	0.0050	1	01/20/2018 21:28
2-Butanone (MEK)	ND	0.020	1	01/20/2018 21:28
t-Butyl alcohol (TBA)	ND	0.050	1	01/20/2018 21:28
n-Butyl benzene	ND	0.0050	1	01/20/2018 21:28
sec-Butyl benzene	ND	0.0050	1	01/20/2018 21:28
tert-Butyl benzene	ND	0.0050	1	01/20/2018 21:28
Carbon Disulfide	ND	0.0050	1	01/20/2018 21:28
Carbon Tetrachloride	ND	0.0050	1	01/20/2018 21:28
Chlorobenzene	ND	0.0050	1	01/20/2018 21:28
Chloroethane	ND	0.0050	1	01/20/2018 21:28
Chloroform	ND	0.0050	1	01/20/2018 21:28
Chloromethane	ND	0.0050	1	01/20/2018 21:28
2-Chlorotoluene	ND	0.0050	1	01/20/2018 21:28
4-Chlorotoluene	ND	0.0050	1	01/20/2018 21:28
Dibromochloromethane	ND	0.0050	1	01/20/2018 21:28
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/20/2018 21:28
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/20/2018 21:28
Dibromomethane	ND	0.0050	1	01/20/2018 21:28
1,2-Dichlorobenzene	ND	0.0050	1	01/20/2018 21:28
1,3-Dichlorobenzene	ND	0.0050	1	01/20/2018 21:28
1,4-Dichlorobenzene	ND	0.0050	1	01/20/2018 21:28
Dichlorodifluoromethane	ND	0.0050	1	01/20/2018 21:28
1,1-Dichloroethane	ND	0.0050	1	01/20/2018 21:28
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/20/2018 21:28
1,1-Dichloroethene	ND	0.0050	1	01/20/2018 21:28
cis-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 21:28
trans-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 21:28
1,2-Dichloropropane	ND	0.0050	1	01/20/2018 21:28
1,3-Dichloropropane	ND	0.0050	1	01/20/2018 21:28
2,2-Dichloropropane	ND	0.0050	1	01/20/2018 21:28

(Cont.)



Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/17/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-5	1801938-002A	Soil	01/17/2018 07:45	GC10 01191852.D	151727

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/20/2018 21:28
cis-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 21:28
trans-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 21:28
Diisopropyl ether (DIPE)	ND	0.0050	1	01/20/2018 21:28
Ethylbenzene	ND	0.0050	1	01/20/2018 21:28
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/20/2018 21:28
Freon 113	ND	0.0050	1	01/20/2018 21:28
Hexachlorobutadiene	ND	0.0050	1	01/20/2018 21:28
Hexachloroethane	ND	0.0050	1	01/20/2018 21:28
2-Hexanone	ND	0.0050	1	01/20/2018 21:28
Isopropylbenzene	ND	0.0050	1	01/20/2018 21:28
4-Isopropyl toluene	ND	0.0050	1	01/20/2018 21:28
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/20/2018 21:28
Methylene chloride	ND	0.0050	1	01/20/2018 21:28
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/20/2018 21:28
Naphthalene	ND	0.0050	1	01/20/2018 21:28
n-Propyl benzene	ND	0.0050	1	01/20/2018 21:28
Styrene	ND	0.0050	1	01/20/2018 21:28
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 21:28
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 21:28
Tetrachloroethene	ND	0.0050	1	01/20/2018 21:28
Toluene	ND	0.0050	1	01/20/2018 21:28
1,2,3-Trichlorobenzene	ND	0.0050	1	01/20/2018 21:28
1,2,4-Trichlorobenzene	ND	0.0050	1	01/20/2018 21:28
1,1,1-Trichloroethane	ND	0.0050	1	01/20/2018 21:28
1,1,2-Trichloroethane	ND	0.0050	1	01/20/2018 21:28
Trichloroethene	ND	0.0050	1	01/20/2018 21:28
Trichlorofluoromethane	ND	0.0050	1	01/20/2018 21:28
1,2,3-Trichloropropane	ND	0.0050	1	01/20/2018 21:28
1,2,4-Trimethylbenzene	ND	0.0050	1	01/20/2018 21:28
1,3,5-Trimethylbenzene	ND	0.0050	1	01/20/2018 21:28
Vinyl Chloride	ND	0.0050	1	01/20/2018 21:28
Xylenes, Total	ND	0.0050	1	01/20/2018 21:28

(Cont.)



Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/17/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-5	1801938-002A	Soil	01/17/2018 07:45	GC10 01191852.D	151727

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	100	82-136		01/20/2018 21:28
Toluene-d8	124	92-139		01/20/2018 21:28
4-BFB	95	82-135		01/20/2018 21:28
Benzene-d6	79	55-122		01/20/2018 21:28
Ethylbenzene-d10	106	58-141		01/20/2018 21:28
1,2-DCB-d4	78	51-107		01/20/2018 21:28

Analyst(s): AK



Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/17/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-10	1801938-003A	Soil	01/17/2018 07:52	GC38 01181844.D	151727

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/20/2018 16:05
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/20/2018 16:05
Benzene	ND	0.0050	1	01/20/2018 16:05
Bromobenzene	ND	0.0050	1	01/20/2018 16:05
Bromochloromethane	ND	0.0050	1	01/20/2018 16:05
Bromodichloromethane	ND	0.0050	1	01/20/2018 16:05
Bromoform	ND	0.0050	1	01/20/2018 16:05
Bromomethane	ND	0.0050	1	01/20/2018 16:05
2-Butanone (MEK)	ND	0.020	1	01/20/2018 16:05
t-Butyl alcohol (TBA)	ND	0.050	1	01/20/2018 16:05
n-Butyl benzene	ND	0.0050	1	01/20/2018 16:05
sec-Butyl benzene	ND	0.0050	1	01/20/2018 16:05
tert-Butyl benzene	ND	0.0050	1	01/20/2018 16:05
Carbon Disulfide	ND	0.0050	1	01/20/2018 16:05
Carbon Tetrachloride	ND	0.0050	1	01/20/2018 16:05
Chlorobenzene	ND	0.0050	1	01/20/2018 16:05
Chloroethane	ND	0.0050	1	01/20/2018 16:05
Chloroform	ND	0.0050	1	01/20/2018 16:05
Chloromethane	ND	0.0050	1	01/20/2018 16:05
2-Chlorotoluene	ND	0.0050	1	01/20/2018 16:05
4-Chlorotoluene	ND	0.0050	1	01/20/2018 16:05
Dibromochloromethane	ND	0.0050	1	01/20/2018 16:05
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/20/2018 16:05
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/20/2018 16:05
Dibromomethane	ND	0.0050	1	01/20/2018 16:05
1,2-Dichlorobenzene	ND	0.0050	1	01/20/2018 16:05
1,3-Dichlorobenzene	ND	0.0050	1	01/20/2018 16:05
1,4-Dichlorobenzene	ND	0.0050	1	01/20/2018 16:05
Dichlorodifluoromethane	ND	0.0050	1	01/20/2018 16:05
1,1-Dichloroethane	ND	0.0050	1	01/20/2018 16:05
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/20/2018 16:05
1,1-Dichloroethene	ND	0.0050	1	01/20/2018 16:05
cis-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 16:05
trans-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 16:05
1,2-Dichloropropane	ND	0.0050	1	01/20/2018 16:05
1,3-Dichloropropane	ND	0.0050	1	01/20/2018 16:05
2,2-Dichloropropane	ND	0.0050	1	01/20/2018 16:05

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Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/17/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-10	1801938-003A	Soil	01/17/2018 07:52	GC38 01181844.D	151727

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/20/2018 16:05
cis-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 16:05
trans-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 16:05
Diisopropyl ether (DIPE)	ND	0.0050	1	01/20/2018 16:05
Ethylbenzene	ND	0.0050	1	01/20/2018 16:05
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/20/2018 16:05
Freon 113	ND	0.0050	1	01/20/2018 16:05
Hexachlorobutadiene	ND	0.0050	1	01/20/2018 16:05
Hexachloroethane	ND	0.0050	1	01/20/2018 16:05
2-Hexanone	ND	0.0050	1	01/20/2018 16:05
Isopropylbenzene	ND	0.0050	1	01/20/2018 16:05
4-Isopropyl toluene	ND	0.0050	1	01/20/2018 16:05
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/20/2018 16:05
Methylene chloride	ND	0.0050	1	01/20/2018 16:05
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/20/2018 16:05
Naphthalene	ND	0.0050	1	01/20/2018 16:05
n-Propyl benzene	ND	0.0050	1	01/20/2018 16:05
Styrene	ND	0.0050	1	01/20/2018 16:05
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 16:05
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 16:05
Tetrachloroethene	ND	0.0050	1	01/20/2018 16:05
Toluene	ND	0.0050	1	01/20/2018 16:05
1,2,3-Trichlorobenzene	ND	0.0050	1	01/20/2018 16:05
1,2,4-Trichlorobenzene	ND	0.0050	1	01/20/2018 16:05
1,1,1-Trichloroethane	ND	0.0050	1	01/20/2018 16:05
1,1,2-Trichloroethane	ND	0.0050	1	01/20/2018 16:05
Trichloroethene	ND	0.0050	1	01/20/2018 16:05
Trichlorofluoromethane	ND	0.0050	1	01/20/2018 16:05
1,2,3-Trichloropropane	ND	0.0050	1	01/20/2018 16:05
1,2,4-Trimethylbenzene	ND	0.0050	1	01/20/2018 16:05
1,3,5-Trimethylbenzene	ND	0.0050	1	01/20/2018 16:05
Vinyl Chloride	ND	0.0050	1	01/20/2018 16:05
Xylenes, Total	ND	0.0050	1	01/20/2018 16:05

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Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/17/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-10	1801938-003A	Soil	01/17/2018 07:52	GC38 01181844.D	151727

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	98	82-136		01/20/2018 16:05
Toluene-d8	116	92-139		01/20/2018 16:05
4-BFB	107	82-135		01/20/2018 16:05
Benzene-d6	74	55-122		01/20/2018 16:05
Ethylbenzene-d10	95	58-141		01/20/2018 16:05
1,2-DCB-d4	72	51-107		01/20/2018 16:05

Analyst(s): HK



Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/17/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-15	1801938-004A	Soil	01/17/2018 08:01	GC38 01181845.D	151727

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/20/2018 16:43
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/20/2018 16:43
Benzene	ND	0.0050	1	01/20/2018 16:43
Bromobenzene	ND	0.0050	1	01/20/2018 16:43
Bromochloromethane	ND	0.0050	1	01/20/2018 16:43
Bromodichloromethane	ND	0.0050	1	01/20/2018 16:43
Bromoform	ND	0.0050	1	01/20/2018 16:43
Bromomethane	ND	0.0050	1	01/20/2018 16:43
2-Butanone (MEK)	ND	0.020	1	01/20/2018 16:43
t-Butyl alcohol (TBA)	ND	0.050	1	01/20/2018 16:43
n-Butyl benzene	ND	0.0050	1	01/20/2018 16:43
sec-Butyl benzene	ND	0.0050	1	01/20/2018 16:43
tert-Butyl benzene	ND	0.0050	1	01/20/2018 16:43
Carbon Disulfide	ND	0.0050	1	01/20/2018 16:43
Carbon Tetrachloride	ND	0.0050	1	01/20/2018 16:43
Chlorobenzene	ND	0.0050	1	01/20/2018 16:43
Chloroethane	ND	0.0050	1	01/20/2018 16:43
Chloroform	ND	0.0050	1	01/20/2018 16:43
Chloromethane	ND	0.0050	1	01/20/2018 16:43
2-Chlorotoluene	ND	0.0050	1	01/20/2018 16:43
4-Chlorotoluene	ND	0.0050	1	01/20/2018 16:43
Dibromochloromethane	ND	0.0050	1	01/20/2018 16:43
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/20/2018 16:43
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/20/2018 16:43
Dibromomethane	ND	0.0050	1	01/20/2018 16:43
1,2-Dichlorobenzene	ND	0.0050	1	01/20/2018 16:43
1,3-Dichlorobenzene	ND	0.0050	1	01/20/2018 16:43
1,4-Dichlorobenzene	ND	0.0050	1	01/20/2018 16:43
Dichlorodifluoromethane	ND	0.0050	1	01/20/2018 16:43
1,1-Dichloroethane	ND	0.0050	1	01/20/2018 16:43
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/20/2018 16:43
1,1-Dichloroethene	ND	0.0050	1	01/20/2018 16:43
cis-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 16:43
trans-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 16:43
1,2-Dichloropropane	ND	0.0050	1	01/20/2018 16:43
1,3-Dichloropropane	ND	0.0050	1	01/20/2018 16:43
2,2-Dichloropropane	ND	0.0050	1	01/20/2018 16:43

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Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/17/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-15	1801938-004A	Soil	01/17/2018 08:01	GC38 01181845.D	151727

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/20/2018 16:43
cis-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 16:43
trans-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 16:43
Diisopropyl ether (DIPE)	ND	0.0050	1	01/20/2018 16:43
Ethylbenzene	ND	0.0050	1	01/20/2018 16:43
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/20/2018 16:43
Freon 113	ND	0.0050	1	01/20/2018 16:43
Hexachlorobutadiene	ND	0.0050	1	01/20/2018 16:43
Hexachloroethane	ND	0.0050	1	01/20/2018 16:43
2-Hexanone	ND	0.0050	1	01/20/2018 16:43
Isopropylbenzene	ND	0.0050	1	01/20/2018 16:43
4-Isopropyl toluene	ND	0.0050	1	01/20/2018 16:43
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/20/2018 16:43
Methylene chloride	ND	0.0050	1	01/20/2018 16:43
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/20/2018 16:43
Naphthalene	ND	0.0050	1	01/20/2018 16:43
n-Propyl benzene	ND	0.0050	1	01/20/2018 16:43
Styrene	ND	0.0050	1	01/20/2018 16:43
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 16:43
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 16:43
Tetrachloroethene	ND	0.0050	1	01/20/2018 16:43
Toluene	ND	0.0050	1	01/20/2018 16:43
1,2,3-Trichlorobenzene	ND	0.0050	1	01/20/2018 16:43
1,2,4-Trichlorobenzene	ND	0.0050	1	01/20/2018 16:43
1,1,1-Trichloroethane	ND	0.0050	1	01/20/2018 16:43
1,1,2-Trichloroethane	ND	0.0050	1	01/20/2018 16:43
Trichloroethene	ND	0.0050	1	01/20/2018 16:43
Trichlorofluoromethane	ND	0.0050	1	01/20/2018 16:43
1,2,3-Trichloropropane	ND	0.0050	1	01/20/2018 16:43
1,2,4-Trimethylbenzene	ND	0.0050	1	01/20/2018 16:43
1,3,5-Trimethylbenzene	ND	0.0050	1	01/20/2018 16:43
Vinyl Chloride	ND	0.0050	1	01/20/2018 16:43
Xylenes, Total	ND	0.0050	1	01/20/2018 16:43

(Cont.)



Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/17/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-15	1801938-004A	Soil	01/17/2018 08:01	GC38 01181845.D	151727

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	102	82-136		01/20/2018 16:43
Toluene-d8	117	92-139		01/20/2018 16:43
4-BFB	104	82-135		01/20/2018 16:43
Benzene-d6	77	55-122		01/20/2018 16:43
Ethylbenzene-d10	93	58-141		01/20/2018 16:43
1,2-DCB-d4	71	51-107		01/20/2018 16:43

Analyst(s): HK



Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/17/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-20	1801938-005A	Soil	01/17/2018 08:12	GC38 01181846.D	151727
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	0.10	1	01/20/2018 17:20	
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/20/2018 17:20	
Benzene	ND	0.0050	1	01/20/2018 17:20	
Bromobenzene	ND	0.0050	1	01/20/2018 17:20	
Bromochloromethane	ND	0.0050	1	01/20/2018 17:20	
Bromodichloromethane	ND	0.0050	1	01/20/2018 17:20	
Bromoform	ND	0.0050	1	01/20/2018 17:20	
Bromomethane	ND	0.0050	1	01/20/2018 17:20	
2-Butanone (MEK)	ND	0.020	1	01/20/2018 17:20	
t-Butyl alcohol (TBA)	ND	0.050	1	01/20/2018 17:20	
n-Butyl benzene	ND	0.0050	1	01/20/2018 17:20	
sec-Butyl benzene	ND	0.0050	1	01/20/2018 17:20	
tert-Butyl benzene	ND	0.0050	1	01/20/2018 17:20	
Carbon Disulfide	ND	0.0050	1	01/20/2018 17:20	
Carbon Tetrachloride	ND	0.0050	1	01/20/2018 17:20	
Chlorobenzene	ND	0.0050	1	01/20/2018 17:20	
Chloroethane	ND	0.0050	1	01/20/2018 17:20	
Chloroform	ND	0.0050	1	01/20/2018 17:20	
Chloromethane	ND	0.0050	1	01/20/2018 17:20	
2-Chlorotoluene	ND	0.0050	1	01/20/2018 17:20	
4-Chlorotoluene	ND	0.0050	1	01/20/2018 17:20	
Dibromochloromethane	ND	0.0050	1	01/20/2018 17:20	
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/20/2018 17:20	
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/20/2018 17:20	
Dibromomethane	ND	0.0050	1	01/20/2018 17:20	
1,2-Dichlorobenzene	ND	0.0050	1	01/20/2018 17:20	
1,3-Dichlorobenzene	ND	0.0050	1	01/20/2018 17:20	
1,4-Dichlorobenzene	ND	0.0050	1	01/20/2018 17:20	
Dichlorodifluoromethane	ND	0.0050	1	01/20/2018 17:20	
1,1-Dichloroethane	ND	0.0050	1	01/20/2018 17:20	
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/20/2018 17:20	
1,1-Dichloroethene	ND	0.0050	1	01/20/2018 17:20	
cis-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 17:20	
trans-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 17:20	
1,2-Dichloropropane	ND	0.0050	1	01/20/2018 17:20	
1,3-Dichloropropane	ND	0.0050	1	01/20/2018 17:20	
2,2-Dichloropropane	ND	0.0050	1	01/20/2018 17:20	

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Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/17/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-20	1801938-005A	Soil	01/17/2018 08:12	GC38 01181846.D	151727

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/20/2018 17:20
cis-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 17:20
trans-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 17:20
Diisopropyl ether (DIPE)	ND	0.0050	1	01/20/2018 17:20
Ethylbenzene	ND	0.0050	1	01/20/2018 17:20
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/20/2018 17:20
Freon 113	ND	0.0050	1	01/20/2018 17:20
Hexachlorobutadiene	ND	0.0050	1	01/20/2018 17:20
Hexachloroethane	ND	0.0050	1	01/20/2018 17:20
2-Hexanone	ND	0.0050	1	01/20/2018 17:20
Isopropylbenzene	ND	0.0050	1	01/20/2018 17:20
4-Isopropyl toluene	ND	0.0050	1	01/20/2018 17:20
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/20/2018 17:20
Methylene chloride	ND	0.0050	1	01/20/2018 17:20
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/20/2018 17:20
Naphthalene	ND	0.0050	1	01/20/2018 17:20
n-Propyl benzene	ND	0.0050	1	01/20/2018 17:20
Styrene	ND	0.0050	1	01/20/2018 17:20
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 17:20
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 17:20
Tetrachloroethene	ND	0.0050	1	01/20/2018 17:20
Toluene	ND	0.0050	1	01/20/2018 17:20
1,2,3-Trichlorobenzene	ND	0.0050	1	01/20/2018 17:20
1,2,4-Trichlorobenzene	ND	0.0050	1	01/20/2018 17:20
1,1,1-Trichloroethane	ND	0.0050	1	01/20/2018 17:20
1,1,2-Trichloroethane	ND	0.0050	1	01/20/2018 17:20
Trichloroethene	ND	0.0050	1	01/20/2018 17:20
Trichlorofluoromethane	ND	0.0050	1	01/20/2018 17:20
1,2,3-Trichloropropane	ND	0.0050	1	01/20/2018 17:20
1,2,4-Trimethylbenzene	ND	0.0050	1	01/20/2018 17:20
1,3,5-Trimethylbenzene	ND	0.0050	1	01/20/2018 17:20
Vinyl Chloride	ND	0.0050	1	01/20/2018 17:20
Xylenes, Total	ND	0.0050	1	01/20/2018 17:20

(Cont.)



Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/17/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-20	1801938-005A	Soil	01/17/2018 08:12	GC38 01181846.D	151727

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	103	82-136		01/20/2018 17:20
Toluene-d8	116	92-139		01/20/2018 17:20
4-BFB	104	82-135		01/20/2018 17:20
Benzene-d6	71	55-122		01/20/2018 17:20
Ethylbenzene-d10	85	58-141		01/20/2018 17:20
1,2-DCB-d4	66	51-107		01/20/2018 17:20

Analyst(s): HK



Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/17/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-21	1801938-006A	Soil	01/17/2018 08:45	GC38 01181843.D	151813

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/20/2018 15:28
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/20/2018 15:28
Benzene	ND	0.0050	1	01/20/2018 15:28
Bromobenzene	ND	0.0050	1	01/20/2018 15:28
Bromochloromethane	ND	0.0050	1	01/20/2018 15:28
Bromodichloromethane	ND	0.0050	1	01/20/2018 15:28
Bromoform	ND	0.0050	1	01/20/2018 15:28
Bromomethane	ND	0.0050	1	01/20/2018 15:28
2-Butanone (MEK)	ND	0.020	1	01/20/2018 15:28
t-Butyl alcohol (TBA)	ND	0.050	1	01/20/2018 15:28
n-Butyl benzene	ND	0.0050	1	01/20/2018 15:28
sec-Butyl benzene	ND	0.0050	1	01/20/2018 15:28
tert-Butyl benzene	ND	0.0050	1	01/20/2018 15:28
Carbon Disulfide	ND	0.0050	1	01/20/2018 15:28
Carbon Tetrachloride	ND	0.0050	1	01/20/2018 15:28
Chlorobenzene	ND	0.0050	1	01/20/2018 15:28
Chloroethane	ND	0.0050	1	01/20/2018 15:28
Chloroform	ND	0.0050	1	01/20/2018 15:28
Chloromethane	ND	0.0050	1	01/20/2018 15:28
2-Chlorotoluene	ND	0.0050	1	01/20/2018 15:28
4-Chlorotoluene	ND	0.0050	1	01/20/2018 15:28
Dibromochloromethane	ND	0.0050	1	01/20/2018 15:28
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/20/2018 15:28
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/20/2018 15:28
Dibromomethane	ND	0.0050	1	01/20/2018 15:28
1,2-Dichlorobenzene	ND	0.0050	1	01/20/2018 15:28
1,3-Dichlorobenzene	ND	0.0050	1	01/20/2018 15:28
1,4-Dichlorobenzene	ND	0.0050	1	01/20/2018 15:28
Dichlorodifluoromethane	ND	0.0050	1	01/20/2018 15:28
1,1-Dichloroethane	ND	0.0050	1	01/20/2018 15:28
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/20/2018 15:28
1,1-Dichloroethene	ND	0.0050	1	01/20/2018 15:28
cis-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 15:28
trans-1,2-Dichloroethene	ND	0.0050	1	01/20/2018 15:28
1,2-Dichloropropane	ND	0.0050	1	01/20/2018 15:28
1,3-Dichloropropane	ND	0.0050	1	01/20/2018 15:28
2,2-Dichloropropane	ND	0.0050	1	01/20/2018 15:28

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Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/17/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-21	1801938-006A	Soil	01/17/2018 08:45	GC38 01181843.D	151813

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/20/2018 15:28
cis-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 15:28
trans-1,3-Dichloropropene	ND	0.0050	1	01/20/2018 15:28
Diisopropyl ether (DIPE)	ND	0.0050	1	01/20/2018 15:28
Ethylbenzene	ND	0.0050	1	01/20/2018 15:28
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/20/2018 15:28
Freon 113	ND	0.0050	1	01/20/2018 15:28
Hexachlorobutadiene	ND	0.0050	1	01/20/2018 15:28
Hexachloroethane	ND	0.0050	1	01/20/2018 15:28
2-Hexanone	ND	0.0050	1	01/20/2018 15:28
Isopropylbenzene	ND	0.0050	1	01/20/2018 15:28
4-Isopropyl toluene	ND	0.0050	1	01/20/2018 15:28
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/20/2018 15:28
Methylene chloride	ND	0.0050	1	01/20/2018 15:28
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/20/2018 15:28
Naphthalene	ND	0.0050	1	01/20/2018 15:28
n-Propyl benzene	ND	0.0050	1	01/20/2018 15:28
Styrene	ND	0.0050	1	01/20/2018 15:28
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 15:28
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/20/2018 15:28
Tetrachloroethene	ND	0.0050	1	01/20/2018 15:28
Toluene	ND	0.0050	1	01/20/2018 15:28
1,2,3-Trichlorobenzene	ND	0.0050	1	01/20/2018 15:28
1,2,4-Trichlorobenzene	ND	0.0050	1	01/20/2018 15:28
1,1,1-Trichloroethane	ND	0.0050	1	01/20/2018 15:28
1,1,2-Trichloroethane	ND	0.0050	1	01/20/2018 15:28
Trichloroethene	ND	0.0050	1	01/20/2018 15:28
Trichlorofluoromethane	ND	0.0050	1	01/20/2018 15:28
1,2,3-Trichloropropane	ND	0.0050	1	01/20/2018 15:28
1,2,4-Trimethylbenzene	ND	0.0050	1	01/20/2018 15:28
1,3,5-Trimethylbenzene	ND	0.0050	1	01/20/2018 15:28
Vinyl Chloride	ND	0.0050	1	01/20/2018 15:28
Xylenes, Total	ND	0.0050	1	01/20/2018 15:28

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Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/17/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-21	1801938-006A	Soil	01/17/2018 08:45	GC38 01181843.D	151813

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	98	82-136		01/20/2018 15:28
Toluene-d8	115	92-139		01/20/2018 15:28
4-BFB	107	82-135		01/20/2018 15:28
Benzene-d6	68	55-122		01/20/2018 15:28
Ethylbenzene-d10	84	58-141		01/20/2018 15:28
1,2-DCB-d4	65	51-107		01/20/2018 15:28

Analyst(s): HK



Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/23/18-1/24/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-GW-25	1801938-007B	Water	01/17/2018 09:03	GC18 01221831.D	152009

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	01/23/2018 03:38
tert-Amyl methyl ether (TAME)	ND	0.50	1	01/23/2018 03:38
Benzene	ND	0.50	1	01/23/2018 03:38
Bromobenzene	ND	0.50	1	01/23/2018 03:38
Bromochloromethane	ND	0.50	1	01/23/2018 03:38
Bromodichloromethane	ND	0.50	1	01/23/2018 03:38
Bromoform	ND	0.50	1	01/23/2018 03:38
Bromomethane	ND	0.50	1	01/23/2018 03:38
2-Butanone (MEK)	ND	2.0	1	01/23/2018 03:38
t-Butyl alcohol (TBA)	ND	2.0	1	01/23/2018 03:38
n-Butyl benzene	ND	0.50	1	01/23/2018 03:38
sec-Butyl benzene	ND	0.50	1	01/23/2018 03:38
tert-Butyl benzene	ND	0.50	1	01/23/2018 03:38
Carbon Disulfide	ND	0.50	1	01/23/2018 03:38
Carbon Tetrachloride	ND	0.50	1	01/23/2018 03:38
Chlorobenzene	ND	0.50	1	01/23/2018 03:38
Chloroethane	ND	0.50	1	01/23/2018 03:38
Chloroform	ND	0.50	1	01/23/2018 03:38
Chloromethane	ND	0.50	1	01/23/2018 03:38
2-Chlorotoluene	ND	0.50	1	01/23/2018 03:38
4-Chlorotoluene	ND	0.50	1	01/23/2018 03:38
Dibromochloromethane	ND	0.50	1	01/23/2018 03:38
1,2-Dibromo-3-chloropropane	ND	0.20	1	01/23/2018 03:38
1,2-Dibromoethane (EDB)	ND	0.50	1	01/23/2018 03:38
Dibromomethane	ND	0.50	1	01/23/2018 03:38
1,2-Dichlorobenzene	ND	0.50	1	01/23/2018 03:38
1,3-Dichlorobenzene	ND	0.50	1	01/23/2018 03:38
1,4-Dichlorobenzene	ND	0.50	1	01/23/2018 03:38
Dichlorodifluoromethane	ND	0.50	1	01/23/2018 03:38
1,1-Dichloroethane	ND	0.50	1	01/23/2018 03:38
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	01/23/2018 03:38
1,1-Dichloroethene	ND	0.50	1	01/23/2018 03:38
cis-1,2-Dichloroethene	ND	0.50	1	01/23/2018 03:38
trans-1,2-Dichloroethene	ND	0.50	1	01/23/2018 03:38
1,2-Dichloropropane	ND	0.50	1	01/23/2018 03:38
1,3-Dichloropropane	ND	0.50	1	01/23/2018 03:38
2,2-Dichloropropane	ND	0.50	1	01/23/2018 03:38

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Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/23/18-1/24/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-GW-25	1801938-007B	Water	01/17/2018 09:03	GC18 01221831.D	152009

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	01/23/2018 03:38
cis-1,3-Dichloropropene	ND	0.50	1	01/23/2018 03:38
trans-1,3-Dichloropropene	ND	0.50	1	01/23/2018 03:38
Diisopropyl ether (DIPE)	ND	0.50	1	01/23/2018 03:38
Ethylbenzene	ND	0.50	1	01/23/2018 03:38
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	01/23/2018 03:38
Freon 113	ND	0.50	1	01/23/2018 03:38
Hexachlorobutadiene	ND	0.50	1	01/23/2018 03:38
Hexachloroethane	ND	0.50	1	01/23/2018 03:38
2-Hexanone	ND	0.50	1	01/23/2018 03:38
Isopropylbenzene	ND	0.50	1	01/23/2018 03:38
4-Isopropyl toluene	ND	0.50	1	01/23/2018 03:38
Methyl-t-butyl ether (MTBE)	ND	0.50	1	01/23/2018 03:38
Methylene chloride	ND	0.50	1	01/23/2018 03:38
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	01/23/2018 03:38
Naphthalene	ND	0.50	1	01/23/2018 03:38
n-Propyl benzene	ND	0.50	1	01/23/2018 03:38
Styrene	ND	0.50	1	01/23/2018 03:38
1,1,1,2-Tetrachloroethane	ND	0.50	1	01/23/2018 03:38
1,1,2,2-Tetrachloroethane	ND	0.50	1	01/23/2018 03:38
Tetrachloroethene	ND	0.50	1	01/23/2018 03:38
Toluene	ND	0.50	1	01/23/2018 03:38
1,2,3-Trichlorobenzene	ND	0.50	1	01/23/2018 03:38
1,2,4-Trichlorobenzene	ND	0.50	1	01/23/2018 03:38
1,1,1-Trichloroethane	ND	0.50	1	01/23/2018 03:38
1,1,2-Trichloroethane	ND	0.50	1	01/23/2018 03:38
Trichloroethene	ND	0.50	1	01/23/2018 03:38
Trichlorofluoromethane	ND	0.50	1	01/23/2018 03:38
1,2,3-Trichloropropane	ND	0.50	1	01/23/2018 03:38
1,2,4-Trimethylbenzene	ND	0.50	1	01/23/2018 03:38
1,3,5-Trimethylbenzene	ND	0.50	1	01/23/2018 03:38
Vinyl Chloride	ND	0.50	1	01/23/2018 03:38
Xylenes, Total	ND	0.50	1	01/23/2018 03:38

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Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/23/18-1/24/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-GW-25	1801938-007B	Water	01/17/2018 09:03	GC18 01221831.D	152009

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	117	78-134		01/23/2018 03:38
Toluene-d8	108	82-120		01/23/2018 03:38
4-BFB	104	69-131		01/23/2018 03:38
Analyst(s): KF	Analytical Comments: b1			



Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/23/18-1/24/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-GW-35	1801938-008B	Water	01/17/2018 10:05	GC18 01231811.D	152009

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	01/23/2018 15:22
tert-Amyl methyl ether (TAME)	ND	0.50	1	01/23/2018 15:22
Benzene	ND	0.50	1	01/23/2018 15:22
Bromobenzene	ND	0.50	1	01/23/2018 15:22
Bromochloromethane	ND	0.50	1	01/23/2018 15:22
Bromodichloromethane	ND	0.50	1	01/23/2018 15:22
Bromoform	ND	0.50	1	01/23/2018 15:22
Bromomethane	ND	0.50	1	01/23/2018 15:22
2-Butanone (MEK)	ND	2.0	1	01/23/2018 15:22
t-Butyl alcohol (TBA)	ND	2.0	1	01/23/2018 15:22
n-Butyl benzene	ND	0.50	1	01/23/2018 15:22
sec-Butyl benzene	ND	0.50	1	01/23/2018 15:22
tert-Butyl benzene	ND	0.50	1	01/23/2018 15:22
Carbon Disulfide	ND	0.50	1	01/23/2018 15:22
Carbon Tetrachloride	ND	0.50	1	01/23/2018 15:22
Chlorobenzene	ND	0.50	1	01/23/2018 15:22
Chloroethane	ND	0.50	1	01/23/2018 15:22
Chloroform	ND	0.50	1	01/23/2018 15:22
Chloromethane	ND	0.50	1	01/23/2018 15:22
2-Chlorotoluene	ND	0.50	1	01/23/2018 15:22
4-Chlorotoluene	ND	0.50	1	01/23/2018 15:22
Dibromochloromethane	ND	0.50	1	01/23/2018 15:22
1,2-Dibromo-3-chloropropane	ND	0.20	1	01/23/2018 15:22
1,2-Dibromoethane (EDB)	ND	0.50	1	01/23/2018 15:22
Dibromomethane	ND	0.50	1	01/23/2018 15:22
1,2-Dichlorobenzene	ND	0.50	1	01/23/2018 15:22
1,3-Dichlorobenzene	ND	0.50	1	01/23/2018 15:22
1,4-Dichlorobenzene	ND	0.50	1	01/23/2018 15:22
Dichlorodifluoromethane	ND	0.50	1	01/23/2018 15:22
1,1-Dichloroethane	ND	0.50	1	01/23/2018 15:22
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	01/23/2018 15:22
1,1-Dichloroethene	ND	0.50	1	01/23/2018 15:22
cis-1,2-Dichloroethene	ND	0.50	1	01/23/2018 15:22
trans-1,2-Dichloroethene	ND	0.50	1	01/23/2018 15:22
1,2-Dichloropropane	ND	0.50	1	01/23/2018 15:22
1,3-Dichloropropane	ND	0.50	1	01/23/2018 15:22
2,2-Dichloropropane	ND	0.50	1	01/23/2018 15:22

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Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/23/18-1/24/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-GW-35	1801938-008B	Water	01/17/2018 10:05	GC18 01231811.D	152009

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	01/23/2018 15:22
cis-1,3-Dichloropropene	ND	0.50	1	01/23/2018 15:22
trans-1,3-Dichloropropene	ND	0.50	1	01/23/2018 15:22
Diisopropyl ether (DIPE)	ND	0.50	1	01/23/2018 15:22
Ethylbenzene	ND	0.50	1	01/23/2018 15:22
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	01/23/2018 15:22
Freon 113	ND	0.50	1	01/23/2018 15:22
Hexachlorobutadiene	ND	0.50	1	01/23/2018 15:22
Hexachloroethane	ND	0.50	1	01/23/2018 15:22
2-Hexanone	ND	0.50	1	01/23/2018 15:22
Isopropylbenzene	ND	0.50	1	01/23/2018 15:22
4-Isopropyl toluene	ND	0.50	1	01/23/2018 15:22
Methyl-t-butyl ether (MTBE)	ND	0.50	1	01/23/2018 15:22
Methylene chloride	ND	0.50	1	01/23/2018 15:22
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	01/23/2018 15:22
Naphthalene	ND	0.50	1	01/23/2018 15:22
n-Propyl benzene	ND	0.50	1	01/23/2018 15:22
Styrene	ND	0.50	1	01/23/2018 15:22
1,1,1,2-Tetrachloroethane	ND	0.50	1	01/23/2018 15:22
1,1,2,2-Tetrachloroethane	ND	0.50	1	01/23/2018 15:22
Tetrachloroethene	ND	0.50	1	01/23/2018 15:22
Toluene	ND	0.50	1	01/23/2018 15:22
1,2,3-Trichlorobenzene	ND	0.50	1	01/23/2018 15:22
1,2,4-Trichlorobenzene	ND	0.50	1	01/23/2018 15:22
1,1,1-Trichloroethane	ND	0.50	1	01/23/2018 15:22
1,1,2-Trichloroethane	ND	0.50	1	01/23/2018 15:22
Trichloroethene	ND	0.50	1	01/23/2018 15:22
Trichlorofluoromethane	ND	0.50	1	01/23/2018 15:22
1,2,3-Trichloropropane	ND	0.50	1	01/23/2018 15:22
1,2,4-Trimethylbenzene	ND	0.50	1	01/23/2018 15:22
1,3,5-Trimethylbenzene	ND	0.50	1	01/23/2018 15:22
Vinyl Chloride	ND	0.50	1	01/23/2018 15:22
Xylenes, Total	ND	0.50	1	01/23/2018 15:22

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Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/23/18-1/24/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-GW-35	1801938-008B	Water	01/17/2018 10:05	GC18 01231811.D	152009

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	118	78-134		01/23/2018 15:22
Toluene-d8	110	82-120		01/23/2018 15:22
4-BFB	112	69-131		01/23/2018 15:22
<u>Analyst(s):</u> KF	<u>Analytical Comments:</u> b1			



Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/23/18-1/24/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Trip Blanks	1801938-009A	Water	01/17/2018	GC16 01231829.D	152009

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	01/24/2018 02:26
tert-Amyl methyl ether (TAME)	ND	0.50	1	01/24/2018 02:26
Benzene	ND	0.50	1	01/24/2018 02:26
Bromobenzene	ND	0.50	1	01/24/2018 02:26
Bromochloromethane	ND	0.50	1	01/24/2018 02:26
Bromodichloromethane	ND	0.50	1	01/24/2018 02:26
Bromoform	ND	0.50	1	01/24/2018 02:26
Bromomethane	ND	0.50	1	01/24/2018 02:26
2-Butanone (MEK)	ND	2.0	1	01/24/2018 02:26
t-Butyl alcohol (TBA)	ND	2.0	1	01/24/2018 02:26
n-Butyl benzene	ND	0.50	1	01/24/2018 02:26
sec-Butyl benzene	ND	0.50	1	01/24/2018 02:26
tert-Butyl benzene	ND	0.50	1	01/24/2018 02:26
Carbon Disulfide	ND	0.50	1	01/24/2018 02:26
Carbon Tetrachloride	ND	0.50	1	01/24/2018 02:26
Chlorobenzene	ND	0.50	1	01/24/2018 02:26
Chloroethane	ND	0.50	1	01/24/2018 02:26
Chloroform	ND	0.50	1	01/24/2018 02:26
Chloromethane	ND	0.50	1	01/24/2018 02:26
2-Chlorotoluene	ND	0.50	1	01/24/2018 02:26
4-Chlorotoluene	ND	0.50	1	01/24/2018 02:26
Dibromochloromethane	ND	0.50	1	01/24/2018 02:26
1,2-Dibromo-3-chloropropane	ND	0.20	1	01/24/2018 02:26
1,2-Dibromoethane (EDB)	ND	0.50	1	01/24/2018 02:26
Dibromomethane	ND	0.50	1	01/24/2018 02:26
1,2-Dichlorobenzene	ND	0.50	1	01/24/2018 02:26
1,3-Dichlorobenzene	ND	0.50	1	01/24/2018 02:26
1,4-Dichlorobenzene	ND	0.50	1	01/24/2018 02:26
Dichlorodifluoromethane	ND	0.50	1	01/24/2018 02:26
1,1-Dichloroethane	ND	0.50	1	01/24/2018 02:26
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	01/24/2018 02:26
1,1-Dichloroethene	ND	0.50	1	01/24/2018 02:26
cis-1,2-Dichloroethene	ND	0.50	1	01/24/2018 02:26
trans-1,2-Dichloroethene	ND	0.50	1	01/24/2018 02:26
1,2-Dichloropropane	ND	0.50	1	01/24/2018 02:26
1,3-Dichloropropane	ND	0.50	1	01/24/2018 02:26
2,2-Dichloropropane	ND	0.50	1	01/24/2018 02:26

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Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/23/18-1/24/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Trip Blanks	1801938-009A	Water	01/17/2018	GC16 01231829.D	152009

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	01/24/2018 02:26
cis-1,3-Dichloropropene	ND	0.50	1	01/24/2018 02:26
trans-1,3-Dichloropropene	ND	0.50	1	01/24/2018 02:26
Diisopropyl ether (DIPE)	ND	0.50	1	01/24/2018 02:26
Ethylbenzene	ND	0.50	1	01/24/2018 02:26
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	01/24/2018 02:26
Freon 113	ND	0.50	1	01/24/2018 02:26
Hexachlorobutadiene	ND	0.50	1	01/24/2018 02:26
Hexachloroethane	ND	0.50	1	01/24/2018 02:26
2-Hexanone	ND	0.50	1	01/24/2018 02:26
Isopropylbenzene	ND	0.50	1	01/24/2018 02:26
4-Isopropyl toluene	ND	0.50	1	01/24/2018 02:26
Methyl-t-butyl ether (MTBE)	ND	0.50	1	01/24/2018 02:26
Methylene chloride	ND	0.50	1	01/24/2018 02:26
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	01/24/2018 02:26
Naphthalene	ND	0.50	1	01/24/2018 02:26
n-Propyl benzene	ND	0.50	1	01/24/2018 02:26
Styrene	ND	0.50	1	01/24/2018 02:26
1,1,1,2-Tetrachloroethane	ND	0.50	1	01/24/2018 02:26
1,1,2,2-Tetrachloroethane	ND	0.50	1	01/24/2018 02:26
Tetrachloroethene	ND	0.50	1	01/24/2018 02:26
Toluene	ND	0.50	1	01/24/2018 02:26
1,2,3-Trichlorobenzene	ND	0.50	1	01/24/2018 02:26
1,2,4-Trichlorobenzene	ND	0.50	1	01/24/2018 02:26
1,1,1-Trichloroethane	ND	0.50	1	01/24/2018 02:26
1,1,2-Trichloroethane	ND	0.50	1	01/24/2018 02:26
Trichloroethene	ND	0.50	1	01/24/2018 02:26
Trichlorofluoromethane	ND	0.50	1	01/24/2018 02:26
1,2,3-Trichloropropane	ND	0.50	1	01/24/2018 02:26
1,2,4-Trimethylbenzene	ND	0.50	1	01/24/2018 02:26
1,3,5-Trimethylbenzene	ND	0.50	1	01/24/2018 02:26
Vinyl Chloride	ND	0.50	1	01/24/2018 02:26
Xylenes, Total	ND	0.50	1	01/24/2018 02:26

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Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/23/18-1/24/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Trip Blanks	1801938-009A	Water	01/17/2018	GC16 01231829.D	152009

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	98	78-134		01/24/2018 02:26
Toluene-d8	90	82-120		01/24/2018 02:26
4-BFB	75	69-131		01/24/2018 02:26

Analyst(s): KF



Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/17/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-2.5	1801938-001A	Soil	01/17/2018 07:43	GC19 01181838.D	151809

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/19/2018 08:12
MTBE	---	0.050	1	01/19/2018 08:12
Benzene	---	0.0050	1	01/19/2018 08:12
Toluene	---	0.0050	1	01/19/2018 08:12
Ethylbenzene	---	0.0050	1	01/19/2018 08:12
Xylenes	---	0.0050	1	01/19/2018 08:12
Surrogates	REC (%)	Limits		
2-Fluorotoluene	96	62-126		01/19/2018 08:12

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-5	1801938-002A	Soil	01/17/2018 07:45	GC19 01181840.D	151809

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/19/2018 09:13
MTBE	---	0.050	1	01/19/2018 09:13
Benzene	---	0.0050	1	01/19/2018 09:13
Toluene	---	0.0050	1	01/19/2018 09:13
Ethylbenzene	---	0.0050	1	01/19/2018 09:13
Xylenes	---	0.0050	1	01/19/2018 09:13
Surrogates	REC (%)	Limits		
2-Fluorotoluene	88	62-126		01/19/2018 09:13

Analyst(s): IA



Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/17/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-10	1801938-003A	Soil	01/17/2018 07:52	GC19 01181841.D	151809

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/19/2018 09:43
MTBE	---	0.050	1	01/19/2018 09:43
Benzene	---	0.0050	1	01/19/2018 09:43
Toluene	---	0.0050	1	01/19/2018 09:43
Ethylbenzene	---	0.0050	1	01/19/2018 09:43
Xylenes	---	0.0050	1	01/19/2018 09:43
Surrogates	REC (%)	Limits		
2-Fluorotoluene	89	62-126		01/19/2018 09:43

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-15	1801938-004A	Soil	01/17/2018 08:01	GC19 01181842.D	151809

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/19/2018 10:14
MTBE	---	0.050	1	01/19/2018 10:14
Benzene	---	0.0050	1	01/19/2018 10:14
Toluene	---	0.0050	1	01/19/2018 10:14
Ethylbenzene	---	0.0050	1	01/19/2018 10:14
Xylenes	---	0.0050	1	01/19/2018 10:14
Surrogates	REC (%)	Limits		
2-Fluorotoluene	91	62-126		01/19/2018 10:14

Analyst(s): IA



Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/17/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-20	1801938-005A	Soil	01/17/2018 08:12	GC19 01181844.D	151809

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/19/2018 11:15
MTBE	---	0.050	1	01/19/2018 11:15
Benzene	---	0.0050	1	01/19/2018 11:15
Toluene	---	0.0050	1	01/19/2018 11:15
Ethylbenzene	---	0.0050	1	01/19/2018 11:15
Xylenes	---	0.0050	1	01/19/2018 11:15
Surrogates	REC (%)	Limits		
2-Fluorotoluene	87	62-126		01/19/2018 11:15

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-21	1801938-006A	Soil	01/17/2018 08:45	GC19 01191843.D	151809

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	01/20/2018 09:56
MTBE	---	0.050	1	01/20/2018 09:56
Benzene	---	0.0050	1	01/20/2018 09:56
Toluene	---	0.0050	1	01/20/2018 09:56
Ethylbenzene	---	0.0050	1	01/20/2018 09:56
Xylenes	---	0.0050	1	01/20/2018 09:56
Surrogates	REC (%)	Limits		
2-Fluorotoluene	84	62-126		01/20/2018 09:56

Analyst(s): TD



Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/20/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-GW-25	1801938-007A	Water	01/17/2018 09:03	GC7 01201819.D	152005

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	01/20/2018 19:58
MTBE	---	5.0	1	01/20/2018 19:58
Benzene	---	0.50	1	01/20/2018 19:58
Toluene	---	0.50	1	01/20/2018 19:58
Ethylbenzene	---	0.50	1	01/20/2018 19:58
Xylenes	---	0.50	1	01/20/2018 19:58

Surrogates	REC (%)	Limits	Date Analyzed
aaa-TFT	97	90-117	01/20/2018 19:58

Analyst(s): TD Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-GW-35	1801938-008A	Water	01/17/2018 10:05	GC7 01201820.D	152005

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	01/20/2018 20:27
MTBE	---	5.0	1	01/20/2018 20:27
Benzene	---	0.50	1	01/20/2018 20:27
Toluene	---	0.50	1	01/20/2018 20:27
Ethylbenzene	---	0.50	1	01/20/2018 20:27
Xylenes	---	0.50	1	01/20/2018 20:27

Surrogates	REC (%)	Limits	Date Analyzed
aaa-TFT	96	90-117	01/20/2018 20:27

Analyst(s): TD Analytical Comments: b1



Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/17/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-2.5	1801938-001A	Soil	01/17/2018 07:43	GC39B 01181849.D	151762
<u>Analytes</u>					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	1.6		1.0	1	01/19/2018 07:21
TPH-Motor Oil (C18-C36)	23		5.0	1	01/19/2018 07:21
<u>Surrogates</u>					
	<u>REC (%)</u>		<u>Limits</u>		
C9	92		74-123		01/19/2018 07:21
<u>Analyst(s):</u> JIS			<u>Analytical Comments:</u> e7,e2		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-5	1801938-002A	Soil	01/17/2018 07:45	GC9a 01181852.D	151762
<u>Analytes</u>					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	01/19/2018 07:41
TPH-Motor Oil (C18-C36)	ND		5.0	1	01/19/2018 07:41
<u>Surrogates</u>					
	<u>REC (%)</u>		<u>Limits</u>		
C9	91		74-123		01/19/2018 07:41
<u>Analyst(s):</u> JIS					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-10	1801938-003A	Soil	01/17/2018 07:52	GC9a 01181836.D	151762
<u>Analytes</u>					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	01/19/2018 02:31
TPH-Motor Oil (C18-C36)	ND		5.0	1	01/19/2018 02:31
<u>Surrogates</u>					
	<u>REC (%)</u>		<u>Limits</u>		
C9	90		74-123		01/19/2018 02:31
<u>Analyst(s):</u> JIS					

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Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/17/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-15	1801938-004A	Soil	01/17/2018 08:01	GC9a 01181848.D	151762
<u>Analytes</u>					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	01/19/2018 06:24
TPH-Motor Oil (C18-C36)	ND		5.0	1	01/19/2018 06:24
<u>Surrogates</u>					
	<u>REC (%)</u>		<u>Limits</u>		
C9	89		74-123		01/19/2018 06:24
<u>Analyst(s):</u> JIS					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-20	1801938-005A	Soil	01/17/2018 08:12	GC9a 01181844.D	151762
<u>Analytes</u>					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	01/19/2018 05:06
TPH-Motor Oil (C18-C36)	ND		5.0	1	01/19/2018 05:06
<u>Surrogates</u>					
	<u>REC (%)</u>		<u>Limits</u>		
C9	90		74-123		01/19/2018 05:06
<u>Analyst(s):</u> JIS					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-21	1801938-006A	Soil	01/17/2018 08:45	GC11B 01181845.D	151762
<u>Analytes</u>					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	01/19/2018 06:19
TPH-Motor Oil (C18-C36)	ND		5.0	1	01/19/2018 06:19
<u>Surrogates</u>					
	<u>REC (%)</u>		<u>Limits</u>		
C9	93		74-123		01/19/2018 06:19
<u>Analyst(s):</u> TK					



Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/17/18-1/20/18
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
Extraction Method: SW3510C
Analytical Method: SW8015B
Unit: µg/L

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-GW-25	1801938-007A	Water	01/17/2018 09:03	GC11A 01171872.D	151792

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	140	50	1	01/18/2018 15:08
TPH-Motor Oil (C18-C36)	420	250	1	01/18/2018 15:08

Surrogates	REC (%)	Limits	Date Analyzed
C9	109	61-139	01/18/2018 15:08

Analyst(s): JIS **Analytical Comments:** e7,e2,b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-13-GW-35	1801938-008A	Water	01/17/2018 10:05	GC6B 01221831.D	151966

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	67	50	1	01/22/2018 22:43
TPH-Motor Oil (C18-C36)	340	250	1	01/22/2018 22:43

Surrogates	REC (%)	Limits	Date Analyzed
C9	110	61-139	01/22/2018 22:43

Analyst(s): JIS **Analytical Comments:** e7,e2,b1



Quality Control Report

Client: Langan
Date Prepared: 1/16/18
Date Analyzed: 1/18/18 - 1/19/18
Instrument: GC16
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
BatchID: 151727
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151727
 1801844-023AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	1.14	0.10	1	-	114	48-156
tert-Amyl methyl ether (TAME)	ND	0.0428	0.0050	0.050	-	86	56-115
Benzene	ND	0.0450	0.0050	0.050	-	90	63-131
Bromobenzene	ND	0.0475	0.0050	0.050	-	95	66-127
Bromochloromethane	ND	0.0447	0.0050	0.050	-	89	64-124
Bromodichloromethane	ND	0.0419	0.0050	0.050	-	84	64-120
Bromoform	ND	0.0351	0.0050	0.050	-	70	48-92
Bromomethane	ND	0.0535	0.0050	0.050	-	107	25-163
2-Butanone (MEK)	ND	0.190	0.020	0.20	-	95	51-133
t-Butyl alcohol (TBA)	ND	0.190	0.050	0.20	-	95	52-129
n-Butyl benzene	ND	0.0631	0.0050	0.050	-	126	83-200
sec-Butyl benzene	ND	0.0617	0.0050	0.050	-	123	81-199
tert-Butyl benzene	ND	0.0582	0.0050	0.050	-	116	79-178
Carbon Disulfide	ND	0.0446	0.0050	0.050	-	89	64-136
Carbon Tetrachloride	ND	0.0505	0.0050	0.050	-	101	66-140
Chlorobenzene	ND	0.0471	0.0050	0.050	-	94	73-116
Chloroethane	ND	0.0464	0.0050	0.050	-	93	35-147
Chloroform	ND	0.0465	0.0050	0.050	-	93	65-130
Chloromethane	ND	0.0376	0.0050	0.050	-	75	30-137
2-Chlorotoluene	ND	0.0572	0.0050	0.050	-	114	75-152
4-Chlorotoluene	ND	0.0545	0.0050	0.050	-	109	71-148
Dibromochloromethane	ND	0.0428	0.0050	0.050	-	86	61-106
1,2-Dibromo-3-chloropropane	ND	0.0173	0.0040	0.020	-	87	36-120
1,2-Dibromoethane (EDB)	ND	0.0412	0.0040	0.050	-	82	67-118
Dibromomethane	ND	0.0407	0.0050	0.050	-	81	61-116
1,2-Dichlorobenzene	ND	0.0428	0.0050	0.050	-	86	59-106
1,3-Dichlorobenzene	ND	0.0510	0.0050	0.050	-	102	75-129
1,4-Dichlorobenzene	ND	0.0476	0.0050	0.050	-	95	66-127
Dichlorodifluoromethane	ND	0.0244	0.0050	0.050	-	49	13-74
1,1-Dichloroethane	ND	0.0459	0.0050	0.050	-	92	65-134
1,2-Dichloroethane (1,2-DCA)	ND	0.0470	0.0040	0.050	-	94	57-131
1,1-Dichloroethene	ND	0.0443	0.0050	0.050	-	89	62-127
cis-1,2-Dichloroethene	ND	0.0443	0.0050	0.050	-	89	66-130
trans-1,2-Dichloroethene	ND	0.0448	0.0050	0.050	-	89	60-131
1,2-Dichloropropane	ND	0.0428	0.0050	0.050	-	86	63-127
1,3-Dichloropropane	ND	0.0425	0.0050	0.050	-	85	68-124
2,2-Dichloropropane	ND	0.0480	0.0050	0.050	-	96	63-150

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Quality Control Report

Client: Langan
Date Prepared: 1/16/18
Date Analyzed: 1/18/18 - 1/19/18
Instrument: GC16
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
BatchID: 151727
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151727
 1801844-023AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,1-Dichloropropene	ND	0.0484	0.0050	0.050	-	97	67-134
cis-1,3-Dichloropropene	ND	0.0427	0.0050	0.050	-	85	65-138
trans-1,3-Dichloropropene	ND	0.0450	0.0050	0.050	-	90	66-124
Diisopropyl ether (DIPE)	ND	0.0434	0.0050	0.050	-	87	58-129
Ethylbenzene	ND	0.0489	0.0050	0.050	-	98	73-145
Ethyl tert-butyl ether (ETBE)	ND	0.0446	0.0050	0.050	-	89	62-125
Freon 113	ND	0.0428	0.0050	0.050	-	86	55-116
Hexachlorobutadiene	ND	0.0557	0.0050	0.050	-	111	75-178
Hexachloroethane	ND	0.0609	0.0050	0.050	-	122	75-152
2-Hexanone	ND	0.0336	0.0050	0.050	-	67	41-113
Isopropylbenzene	ND	0.0500	0.0050	0.050	-	100	67-172
4-Isopropyl toluene	ND	0.0609	0.0050	0.050	-	122	88-171
Methyl-t-butyl ether (MTBE)	ND	0.0447	0.0050	0.050	-	89	58-122
Methylene chloride	ND	0.0479	0.0050	0.050	-	96	57-140
4-Methyl-2-pentanone (MIBK)	ND	0.0338	0.0050	0.050	-	68	42-117
Naphthalene	ND	0.0213	0.0050	0.050	-	43	29-65
n-Propyl benzene	ND	0.0629	0.0050	0.050	-	126	85-174
Styrene	ND	0.0424	0.0050	0.050	-	85	63-126
1,1,1,2-Tetrachloroethane	ND	0.0473	0.0050	0.050	-	95	68-131
1,1,2,2-Tetrachloroethane	ND	0.0362	0.0050	0.050	-	72	45-121
Tetrachloroethene	ND	0.0441	0.0050	0.050	-	88	65-150
Toluene	ND	0.0449	0.0050	0.050	-	90	72-135
1,2,3-Trichlorobenzene	ND	0.0275	0.0050	0.050	-	55	35-80
1,2,4-Trichlorobenzene	ND	0.0342	0.0050	0.050	-	68	45-103
1,1,1-Trichloroethane	ND	0.0472	0.0050	0.050	-	94	67-137
1,1,2-Trichloroethane	ND	0.0400	0.0050	0.050	-	80	67-117
Trichloroethene	ND	0.0464	0.0050	0.050	-	93	62-135
Trichlorofluoromethane	ND	0.0474	0.0050	0.050	-	95	56-124
1,2,3-Trichloropropane	ND	0.0457	0.0050	0.050	-	91	58-133
1,2,4-Trimethylbenzene	ND	0.0566	0.0050	0.050	-	113	78-161
1,3,5-Trimethylbenzene	ND	0.0592	0.0050	0.050	-	118	85-170
Vinyl Chloride	ND	0.0396	0.0050	0.050	-	79	32-142
Xylenes, Total	ND	0.146	0.0050	0.15	-	97	70-137

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 1/16/18
Date Analyzed: 1/18/18 - 1/19/18
Instrument: GC16
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
BatchID: 151727
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151727
 1801844-023AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
Dibromofluoromethane	0.128	0.126		0.12	102	101	87-127
Toluene-d8	0.113	0.125		0.12	91,F3	100	93-141
4-BFB	0.0112	0.0128		0.012	90	103	84-137
Benzene-d6	0.109	0.0891		0.10	109	89	67-131
Ethylbenzene-d10	0.116	0.117		0.10	115	117	78-153
1,2-DCB-d4	0.0744	0.0879		0.10	74	88	63-109



Quality Control Report

Client: Langan
Date Prepared: 1/16/18
Date Analyzed: 1/18/18 - 1/19/18
Instrument: GC16
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
BatchID: 151727
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151727
 1801844-023AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Acetone	0.845	0.895	1	ND	85	89	36-141	5.67	20
tert-Amyl methyl ether (TAME)	0.0314	0.0334	0.050	ND	63	67	46-105	6.51	20
Benzene	0.0319	0.0344	0.050	ND	64	69	46-124	7.43	20
Bromobenzene	0.0303	0.0350	0.050	ND	61	70	50-119	14.4	20
Bromochloromethane	0.0318	0.0340	0.050	ND	64	68	42-122	6.92	20
Bromodichloromethane	0.0302	0.0327	0.050	ND	60	65	48-112	8.01	20
Bromoform	0.0247	0.0274	0.050	ND	49	55	36-90	10.5	20
Bromomethane	0.0445	0.0507	0.050	ND	89	101	10-149	13.0	20
2-Butanone (MEK)	0.134	0.148	0.20	ND	67	74	43-114	9.62	20
t-Butyl alcohol (TBA)	0.128	0.145	0.20	ND	64	72	33-123	11.8	20
n-Butyl benzene	0.0403	0.0456	0.050	ND	81	91	40-185	12.3	20
sec-Butyl benzene	0.0398	0.0456	0.050	ND	80	91	40-183	13.7	20
tert-Butyl benzene	0.0354	0.0409	0.050	ND	71	82	44-168	14.5	20
Carbon Disulfide	0.0314	0.0334	0.050	ND	63	67	23-139	6.14	20
Carbon Tetrachloride	0.0345	0.0371	0.050	ND	69	74	43-133	7.37	20
Chlorobenzene	0.0316	0.0349	0.050	ND	63	70	51-115	9.95	20
Chloroethane	0.0358	0.0384	0.050	ND	72	77	16-138	7.02	20
Chloroform	0.0331	0.0358	0.050	ND	66	72	54-117	7.86	20
Chloromethane	0.0274	0.0328	0.050	ND	55	66	14-128	17.9	20
2-Chlorotoluene	0.0366	0.0423	0.050	ND	73	85	54-141	14.7	20
4-Chlorotoluene	0.0341	0.0385	0.050	ND	68	77	52-134	12.1	20
Dibromochloromethane	0.0285	0.0312	0.050	ND	57	62	46-102	9.15	20
1,2-Dibromo-3-chloropropane	0.0113	0.0120	0.020	ND	57	60	16-120	5.45	20
1,2-Dibromoethane (EDB)	0.0280	0.0295	0.050	ND	56	59	48-113	5.11	20
Dibromomethane	0.0294	0.0320	0.050	ND	59	64	44-110	8.68	20
1,2-Dichlorobenzene	0.0292	0.0323	0.050	ND	58	65	43-106	10.3	20
1,3-Dichlorobenzene	0.0334	0.0382	0.050	ND	67	76	49-128	13.3	20
1,4-Dichlorobenzene	0.0315	0.0355	0.050	ND	63	71	48-120	12.0	20
Dichlorodifluoromethane	0.0148	0.0174	0.050	ND	29	35	8-63	16.3	20
1,1-Dichloroethane	0.0323	0.0346	0.050	ND	65	69	50-122	7.00	20
1,2-Dichloroethane (1,2-DCA)	0.0339	0.0365	0.050	ND	68	73	46-116	7.54	20
1,1-Dichloroethene	0.0305	0.0326	0.050	ND	61	65	37-124	6.89	20
cis-1,2-Dichloroethene	0.0310	0.0335	0.050	ND	62	67	47-123	7.56	20
trans-1,2-Dichloroethene	0.0317	0.0337	0.050	ND	63	67	31-131	6.15	20
1,2-Dichloropropane	0.0305	0.0332	0.050	ND	61	66	50-116	8.44	20
1,3-Dichloropropane	0.0287	0.0303	0.050	ND	57	61	52-115	5.57	20
2,2-Dichloropropane	0.0333	0.0359	0.050	ND	67	72	43-137	7.33	20

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Quality Control Report

Client: Langan
Date Prepared: 1/16/18
Date Analyzed: 1/18/18 - 1/19/18
Instrument: GC16
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
BatchID: 151727
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151727
 1801844-023AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
1,1-Dichloropropene	0.0317	0.0363	0.050	ND	63	73	43-126	13.5	20
cis-1,3-Dichloropropene	0.0280	0.0292	0.050	ND	56	58	35-134	4.27	20
trans-1,3-Dichloropropene	0.0314	0.0332	0.050	ND	63	66	35-124	5.70	20
Diisopropyl ether (DIPE)	0.0323	0.0344	0.050	ND	65	69	49-116	6.23	20
Ethylbenzene	0.0333	0.0359	0.050	ND	67	72	49-137	7.54	20
Ethyl tert-butyl ether (ETBE)	0.0333	0.0356	0.050	ND	67	71	50-113	6.45	20
Freon 113	0.0290	0.0309	0.050	ND	58	62	28-114	6.55	20
Hexachlorobutadiene	0.0346	0.0404	0.050	ND	69	81	22-180	15.4	20
Hexachloroethane	0.0368	0.0414	0.050	ND	74	83	28-158	11.9	20
2-Hexanone	0.0224	0.0256	0.050	ND	45	51	31-102	13.4	20
Isopropylbenzene	0.0332	0.0375	0.050	ND	66	75	50-153	12.0	20
4-Isopropyl toluene	0.0376	0.0432	0.050	ND	75	86	41-171	13.8	20
Methyl-t-butyl ether (MTBE)	0.0332	0.0349	0.050	ND	66	70	48-110	5.01	20
Methylene chloride	0.0326	0.0355	0.050	ND	65	71	42-127	8.53	20
4-Methyl-2-pentanone (MIBK)	0.0233	0.0247	0.050	ND	47	49	24-114	5.71	20
Naphthalene	0.0176	0.0191	0.050	ND	33	35	19-69	7.69	20
n-Propyl benzene	0.0386	0.0450	0.050	ND	77	90	46-168	15.4	20
Styrene	0.0283	0.0318	0.050	ND	57	64	42-122	11.8	20
1,1,1,2-Tetrachloroethane	0.0316	0.0350	0.050	ND	63	70	52-121	10.1	20
1,1,2,2-Tetrachloroethane	0.0249	0.0278	0.050	ND	50	56	27-116	11.1	20
Tetrachloroethene	0.0288	0.0296	0.050	ND	58	59	37-149	2.89	20
Toluene	0.0307	0.0316	0.050	ND	61	63	52-124	2.71	20
1,2,3-Trichlorobenzene	0.0225	0.0244	0.050	ND	43	47	20-86	8.06	20
1,2,4-Trichlorobenzene	0.0253	0.0279	0.050	ND	51	56	24-107	9.64	20
1,1,1-Trichloroethane	0.0332	0.0352	0.050	ND	66	70	48-128	6.11	20
1,1,2-Trichloroethane	0.0275	0.0295	0.050	ND	55	59	51-110	6.98	20
Trichloroethene	0.0314	0.0334	0.050	ND	63	67	42-128	6.31	20
Trichlorofluoromethane	0.0328	0.0349	0.050	ND	66	70	31-121	6.09	20
1,2,3-Trichloropropane	0.0297	0.0324	0.050	ND	59	65	50-115	8.95	20
1,2,4-Trimethylbenzene	0.0357	0.0402	0.050	ND	71	80	48-151	11.9	20
1,3,5-Trimethylbenzene	0.0371	0.0428	0.050	ND	74	86	51-159	14.3	20
Vinyl Chloride	0.0310	0.0337	0.050	ND	62	67	11-136	8.30	20
Xylenes, Total	0.0978	0.107	0.15	ND	65	72	38-141	9.42	20

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Quality Control Report

Client: Langan
Date Prepared: 1/16/18
Date Analyzed: 1/18/18 - 1/19/18
Instrument: GC16
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
BatchID: 151727
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151727
 1801844-023AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Surrogate Recovery									
Dibromofluoromethane	0.123	0.124	0.12		98	99	82-136	0.898	20
Toluene-d8	0.120	0.116	0.12		96	93	92-139	3.62	20
4-BFB	0.0114	0.0117	0.012		91	94	82-135	3.09	20
Benzene-d6	0.0641	0.0689	0.10		64	69	55-122	7.27	20
Ethylbenzene-d10	0.0822	0.0876	0.10		82	88	58-141	6.38	20
1,2-DCB-d4	0.0616	0.0659	0.10		62	66	51-107	6.77	20



Quality Control Report

Client: Langan
Date Prepared: 1/17/18
Date Analyzed: 1/20/18 - 1/22/18
Instrument: GC28, GC38
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
BatchID: 151813
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151813
 1801938-006AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	1.32	0.10	1	-	132	48-156
tert-Amyl methyl ether (TAME)	ND	0.0420	0.0050	0.050	-	84	56-115
Benzene	ND	0.0510	0.0050	0.050	-	102	63-131
Bromobenzene	ND	0.0531	0.0050	0.050	-	106	66-127
Bromochloromethane	ND	0.0477	0.0050	0.050	-	95	64-124
Bromodichloromethane	ND	0.0508	0.0050	0.050	-	102	64-120
Bromoform	ND	0.0422	0.0050	0.050	-	84	48-92
Bromomethane	ND	0.0506	0.0050	0.050	-	101	25-163
2-Butanone (MEK)	ND	0.196	0.020	0.20	-	98	51-133
t-Butyl alcohol (TBA)	ND	0.228	0.050	0.20	-	114	52-129
n-Butyl benzene	ND	0.0834	0.0050	0.050	-	167	83-200
sec-Butyl benzene	ND	0.0806	0.0050	0.050	-	161	81-199
tert-Butyl benzene	ND	0.0728	0.0050	0.050	-	146	79-178
Carbon Disulfide	ND	0.0493	0.0050	0.050	-	99	64-136
Carbon Tetrachloride	ND	0.0545	0.0050	0.050	-	109	66-140
Chlorobenzene	ND	0.0510	0.0050	0.050	-	102	73-116
Chloroethane	ND	0.0491	0.0050	0.050	-	98	35-147
Chloroform	ND	0.0510	0.0050	0.050	-	102	65-130
Chloromethane	ND	0.0404	0.0050	0.050	-	81	30-137
2-Chlorotoluene	ND	0.0664	0.0050	0.050	-	133	75-152
4-Chlorotoluene	ND	0.0621	0.0050	0.050	-	124	71-148
Dibromochloromethane	ND	0.0454	0.0050	0.050	-	91	61-106
1,2-Dibromo-3-chloropropane	ND	0.0169	0.0040	0.020	-	84	36-120
1,2-Dibromoethane (EDB)	ND	0.0444	0.0040	0.050	-	89	67-118
Dibromomethane	ND	0.0486	0.0050	0.050	-	97	61-116
1,2-Dichlorobenzene	ND	0.0496	0.0050	0.050	-	99	59-106
1,3-Dichlorobenzene	ND	0.0614	0.0050	0.050	-	123	75-129
1,4-Dichlorobenzene	ND	0.0519	0.0050	0.050	-	104	66-127
Dichlorodifluoromethane	ND	0.0192	0.0050	0.050	-	38	13-74
1,1-Dichloroethane	ND	0.0526	0.0050	0.050	-	105	65-134
1,2-Dichloroethane (1,2-DCA)	ND	0.0477	0.0040	0.050	-	95	57-131
1,1-Dichloroethene	ND	0.0528	0.0050	0.050	-	106	62-127
cis-1,2-Dichloroethene	ND	0.0512	0.0050	0.050	-	102	66-130
trans-1,2-Dichloroethene	ND	0.0534	0.0050	0.050	-	107	60-131
1,2-Dichloropropane	ND	0.0498	0.0050	0.050	-	100	63-127
1,3-Dichloropropane	ND	0.0490	0.0050	0.050	-	98	68-124
2,2-Dichloropropane	ND	0.0601	0.0050	0.050	-	120	63-150

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 1/17/18
Date Analyzed: 1/20/18 - 1/22/18
Instrument: GC28, GC38
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
BatchID: 151813
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151813
 1801938-006AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,1-Dichloropropene	ND	0.0544	0.0050	0.050	-	109	67-134
cis-1,3-Dichloropropene	ND	0.0501	0.0050	0.050	-	100	65-138
trans-1,3-Dichloropropene	ND	0.0536	0.0050	0.050	-	107	66-124
Diisopropyl ether (DIPE)	ND	0.0574	0.0050	0.050	-	115	58-129
Ethylbenzene	ND	0.0596	0.0050	0.050	-	119	73-145
Ethyl tert-butyl ether (ETBE)	ND	0.0487	0.0050	0.050	-	97	62-125
Freon 113	ND	0.0463	0.0050	0.050	-	93	55-116
Hexachlorobutadiene	ND	0.0727	0.0050	0.050	-	145	75-178
Hexachloroethane	ND	0.0724	0.0050	0.050	-	145	75-152
2-Hexanone	ND	0.0374	0.0050	0.050	-	75	41-113
Isopropylbenzene	ND	0.0718	0.0050	0.050	-	144	67-172
4-Isopropyl toluene	ND	0.0790	0.0050	0.050	-	158	88-171
Methyl-t-butyl ether (MTBE)	ND	0.0514	0.0050	0.050	-	103	58-122
Methylene chloride	ND	0.0551	0.0050	0.050	-	110	57-140
4-Methyl-2-pentanone (MIBK)	ND	0.0373	0.0050	0.050	-	75	42-117
Naphthalene	ND	0.0207	0.0050	0.050	-	41	29-65
n-Propyl benzene	ND	0.0789	0.0050	0.050	-	158	85-174
Styrene	ND	0.0494	0.0050	0.050	-	99	63-126
1,1,1,2-Tetrachloroethane	ND	0.0506	0.0050	0.050	-	101	68-131
1,1,2,2-Tetrachloroethane	ND	0.0348	0.0050	0.050	-	70	45-121
Tetrachloroethene	ND	0.0574	0.0050	0.050	-	115	65-150
Toluene	ND	0.0575	0.0050	0.050	-	115	72-135
1,2,3-Trichlorobenzene	ND	0.0290	0.0050	0.050	-	58	35-80
1,2,4-Trichlorobenzene	ND	0.0418	0.0050	0.050	-	84	45-103
1,1,1-Trichloroethane	ND	0.0520	0.0050	0.050	-	104	67-137
1,1,2-Trichloroethane	ND	0.0458	0.0050	0.050	-	92	67-117
Trichloroethene	ND	0.0576	0.0050	0.050	-	115	62-135
Trichlorofluoromethane	ND	0.0496	0.0050	0.050	-	99	56-124
1,2,3-Trichloropropane	ND	0.0524	0.0050	0.050	-	105	58-133
1,2,4-Trimethylbenzene	ND	0.0716	0.0050	0.050	-	143	78-161
1,3,5-Trimethylbenzene	ND	0.0713	0.0050	0.050	-	143	85-170
Vinyl Chloride	ND	0.0508	0.0050	0.050	-	102	32-142
Xylenes, Total	ND	0.169	0.0050	0.15	-	113	70-137

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Quality Control Report

Client: Langan
Date Prepared: 1/17/18
Date Analyzed: 1/20/18 - 1/22/18
Instrument: GC28, GC38
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
BatchID: 151813
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151813
 1801938-006AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
Dibromofluoromethane	0.147	0.149		0.12	118	119	87-127
Toluene-d8	0.173	0.173		0.12	138	138	93-141
4-BFB	0.0136	0.0149		0.012	109	119	84-137
Benzene-d6	0.0939	0.108		0.10	94	108	67-131
Ethylbenzene-d10	0.107	0.121		0.10	107	121	78-153
1,2-DCB-d4	0.0933	0.104		0.10	93	104	63-109

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Quality Control Report

Client: Langan
Date Prepared: 1/17/18
Date Analyzed: 1/20/18 - 1/22/18
Instrument: GC28, GC38
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
BatchID: 151813
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151813
 1801938-006AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Acetone	0.651	0.632	1	ND	65	63	36-141	2.88	20
tert-Amyl methyl ether (TAME)	0.0289	0.0291	0.050	ND	58	58	46-105	0	20
Benzene	0.0351	0.0344	0.050	ND	70	69	46-124	2.05	20
Bromobenzene	0.0389	0.0376	0.050	ND	78	75	50-119	3.55	20
Bromochloromethane	0.0351	0.0345	0.050	ND	70	69	42-122	1.56	20
Bromodichloromethane	0.0324	0.0321	0.050	ND	65	64	48-112	1.00	20
Bromoform	0.0263	0.0256	0.050	ND	53	51	36-90	2.79	20
Bromomethane	0.0452	0.0433	0.050	ND	90	87	10-149	4.24	20
2-Butanone (MEK)	0.128	0.116	0.20	ND	59	53	43-114	9.86	20
t-Butyl alcohol (TBA)	0.105	0.102	0.20	ND	53	51	33-123	3.57	20
n-Butyl benzene	0.0487	0.0486	0.050	ND	97	97	40-185	0	20
sec-Butyl benzene	0.0542	0.0530	0.050	ND	108	106	40-183	2.20	20
tert-Butyl benzene	0.0483	0.0470	0.050	ND	97	94	44-168	2.73	20
Carbon Disulfide	0.0344	0.0336	0.050	ND	69	67	23-139	2.14	20
Carbon Tetrachloride	0.0334	0.0330	0.050	ND	67	66	43-133	1.37	20
Chlorobenzene	0.0368	0.0364	0.050	ND	74	73	51-115	1.01	20
Chloroethane	0.0412	0.0388	0.050	ND	82	78	16-138	6.02	20
Chloroform	0.0368	0.0366	0.050	ND	74	73	54-117	0.750	20
Chloromethane	0.0315	0.0315	0.050	ND	63	63	14-128	0	20
2-Chlorotoluene	0.0456	0.0443	0.050	ND	91	89	54-141	2.68	20
4-Chlorotoluene	0.0431	0.0421	0.050	ND	86	84	52-134	2.42	20
Dibromochloromethane	0.0302	0.0295	0.050	ND	60	59	46-102	2.11	20
1,2-Dibromo-3-chloropropane	0.0111	0.0109	0.020	ND	56	54	16-120	2.07	20
1,2-Dibromoethane (EDB)	0.0351	0.0346	0.050	ND	70	69	48-113	1.21	20
Dibromomethane	0.0328	0.0326	0.050	ND	66	65	44-110	0.741	20
1,2-Dichlorobenzene	0.0337	0.0334	0.050	ND	67	67	43-106	0	20
1,3-Dichlorobenzene	0.0417	0.0404	0.050	ND	83	81	49-128	3.19	20
1,4-Dichlorobenzene	0.0384	0.0374	0.050	ND	77	75	48-120	2.81	20
Dichlorodifluoromethane	0.0144	0.0139	0.050	ND	29	28	8-63	3.48	20
1,1-Dichloroethane	0.0363	0.0359	0.050	ND	73	72	50-122	1.21	20
1,2-Dichloroethane (1,2-DCA)	0.0309	0.0306	0.050	ND	62	61	46-116	0.858	20
1,1-Dichloroethene	0.0374	0.0368	0.050	ND	75	74	37-124	1.51	20
cis-1,2-Dichloroethene	0.0366	0.0358	0.050	ND	73	72	47-123	2.26	20
trans-1,2-Dichloroethene	0.0361	0.0353	0.050	ND	72	71	31-131	2.14	20
1,2-Dichloropropane	0.0366	0.0360	0.050	ND	73	72	50-116	1.61	20
1,3-Dichloropropane	0.0337	0.0330	0.050	ND	67	66	52-115	1.95	20
2,2-Dichloropropane	0.0361	0.0359	0.050	ND	72	72	43-137	0	20

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Quality Control Report

Client: Langan
Date Prepared: 1/17/18
Date Analyzed: 1/20/18 - 1/22/18
Instrument: GC28, GC38
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
BatchID: 151813
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151813
 1801938-006AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
1,1-Dichloropropene	0.0374	0.0368	0.050	ND	75	74	43-126	1.60	20
cis-1,3-Dichloropropene	0.0352	0.0342	0.050	ND	70	68	35-134	2.85	20
trans-1,3-Dichloropropene	0.0338	0.0331	0.050	ND	68	66	35-124	1.96	20
Diisopropyl ether (DIPE)	0.0338	0.0335	0.050	ND	68	67	49-116	0.662	20
Ethylbenzene	0.0393	0.0389	0.050	ND	79	78	49-137	1.12	20
Ethyl tert-butyl ether (ETBE)	0.0313	0.0311	0.050	ND	63	62	50-113	0.581	20
Freon 113	0.0301	0.0294	0.050	ND	60	59	28-114	2.27	20
Hexachlorobutadiene	0.0443	0.0454	0.050	ND	89	91	22-180	2.44	20
Hexachloroethane	0.0453	0.0449	0.050	ND	91	90	28-158	0.944	20
2-Hexanone	0.0258	0.0258	0.050	ND	52	52	31-102	0	20
Isopropylbenzene	0.0479	0.0469	0.050	ND	96	94	50-153	2.19	20
4-Isopropyl toluene	0.0501	0.0497	0.050	ND	100	99	41-171	0.952	20
Methyl-t-butyl ether (MTBE)	0.0305	0.0304	0.050	ND	61	61	48-110	0	20
Methylene chloride	0.0345	0.0339	0.050	ND	69	68	42-127	1.78	20
4-Methyl-2-pentanone (MIBK)	0.0275	0.0273	0.050	ND	55	55	24-114	0	20
Naphthalene	0.0179	0.0175	0.050	ND	36	35	19-69	2.28	20
n-Propyl benzene	0.0511	0.0500	0.050	ND	102	100	46-168	2.05	20
Styrene	0.0315	0.0306	0.050	ND	63	61	42-122	2.93	20
1,1,1,2-Tetrachloroethane	0.0371	0.0364	0.050	ND	74	73	52-121	1.78	20
1,1,2,2-Tetrachloroethane	0.0362	0.0348	0.050	ND	72	70	27-116	3.72	20
Tetrachloroethene	0.0389	0.0381	0.050	ND	78	76	37-149	2.06	20
Toluene	0.0365	0.0358	0.050	ND	73	72	52-124	1.99	20
1,2,3-Trichlorobenzene	0.0253	0.0247	0.050	ND	51	49	20-86	2.37	20
1,2,4-Trichlorobenzene	0.0308	0.0306	0.050	ND	62	61	24-107	0.657	20
1,1,1-Trichloroethane	0.0358	0.0356	0.050	ND	72	71	48-128	0.643	20
1,1,2-Trichloroethane	0.0334	0.0325	0.050	ND	67	65	51-110	2.78	20
Trichloroethene	0.0380	0.0373	0.050	ND	76	75	42-128	1.75	20
Trichlorofluoromethane	0.0277	0.0270	0.050	ND	55	54	31-121	2.64	20
1,2,3-Trichloropropane	0.0361	0.0350	0.050	ND	72	70	50-115	3.10	20
1,2,4-Trimethylbenzene	0.0483	0.0473	0.050	ND	97	95	48-151	2.00	20
1,3,5-Trimethylbenzene	0.0477	0.0466	0.050	ND	95	93	51-159	2.44	20
Vinyl Chloride	0.0436	0.0420	0.050	ND	87	84	11-136	3.59	20
Xylenes, Total	0.113	0.110	0.15	ND	75	74	38-141	2.27	20

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Quality Control Report

Client: Langan
Date Prepared: 1/17/18
Date Analyzed: 1/20/18 - 1/22/18
Instrument: GC28, GC38
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
BatchID: 151813
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-151813
 1801938-006AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Surrogate Recovery									
Dibromofluoromethane	0.132	0.132	0.12		105	106	82-136	0.631	20
Toluene-d8	0.143	0.142	0.12		115	114	92-139	0.664	20
4-BFB	0.0132	0.0130	0.012		105	104	82-135	1.06	20
Benzene-d6	0.0716	0.0712	0.10		72	71	55-122	0.669	20
Ethylbenzene-d10	0.0858	0.0852	0.10		86	85	58-141	0.788	20
1,2-DCB-d4	0.0666	0.0675	0.10		67	68	51-107	1.37	20



Quality Control Report

Client: Langan
Date Prepared: 1/22/18
Date Analyzed: 1/22/18
Instrument: GC18
Matrix: Water
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
BatchID: 152009
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS/LCSD-152009

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Acetone	ND	10	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.50	-	-	-
Benzene	ND	0.50	-	-	-
Bromobenzene	ND	0.50	-	-	-
Bromochloromethane	ND	0.50	-	-	-
Bromodichloromethane	ND	0.50	-	-	-
Bromoform	ND	0.50	-	-	-
Bromomethane	ND	0.50	-	-	-
2-Butanone (MEK)	ND	2.0	-	-	-
t-Butyl alcohol (TBA)	ND	2.0	-	-	-
n-Butyl benzene	ND	0.50	-	-	-
sec-Butyl benzene	ND	0.50	-	-	-
tert-Butyl benzene	ND	0.50	-	-	-
Carbon Disulfide	ND	0.50	-	-	-
Carbon Tetrachloride	ND	0.50	-	-	-
Chlorobenzene	ND	0.50	-	-	-
Chloroethane	ND	0.50	-	-	-
Chloroform	ND	0.50	-	-	-
Chloromethane	ND	0.50	-	-	-
2-Chlorotoluene	ND	0.50	-	-	-
4-Chlorotoluene	ND	0.50	-	-	-
Dibromochloromethane	ND	0.50	-	-	-
1,2-Dibromo-3-chloropropane	ND	0.20	-	-	-
1,2-Dibromoethane (EDB)	ND	0.50	-	-	-
Dibromomethane	ND	0.50	-	-	-
1,2-Dichlorobenzene	ND	0.50	-	-	-
1,3-Dichlorobenzene	ND	0.50	-	-	-
1,4-Dichlorobenzene	ND	0.50	-	-	-
Dichlorodifluoromethane	ND	0.50	-	-	-
1,1-Dichloroethane	ND	0.50	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.50	-	-	-
1,1-Dichloroethene	ND	0.50	-	-	-
cis-1,2-Dichloroethene	ND	0.50	-	-	-
trans-1,2-Dichloroethene	ND	0.50	-	-	-
1,2-Dichloropropane	ND	0.50	-	-	-
1,3-Dichloropropane	ND	0.50	-	-	-
2,2-Dichloropropane	ND	0.50	-	-	-
1,1-Dichloropropene	ND	0.50	-	-	-
cis-1,3-Dichloropropene	ND	0.50	-	-	-

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Quality Control Report

Client: Langan
Date Prepared: 1/22/18
Date Analyzed: 1/22/18
Instrument: GC18
Matrix: Water
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
BatchID: 152009
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS/LCSD-152009

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
trans-1,3-Dichloropropene	ND	0.50	-	-	-
Diisopropyl ether (DIPE)	ND	0.50	-	-	-
Ethylbenzene	ND	0.50	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.50	-	-	-
Freon 113	ND	0.50	-	-	-
Hexachlorobutadiene	ND	0.50	-	-	-
Hexachloroethane	ND	0.50	-	-	-
2-Hexanone	ND	0.50	-	-	-
Isopropylbenzene	ND	0.50	-	-	-
4-Isopropyl toluene	ND	0.50	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.50	-	-	-
Methylene chloride	ND	0.50	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	0.50	-	-	-
Naphthalene	ND	0.50	-	-	-
n-Propyl benzene	ND	0.50	-	-	-
Styrene	ND	0.50	-	-	-
1,1,1,2-Tetrachloroethane	ND	0.50	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.50	-	-	-
Tetrachloroethene	ND	0.50	-	-	-
Toluene	ND	0.50	-	-	-
1,2,3-Trichlorobenzene	ND	0.50	-	-	-
1,2,4-Trichlorobenzene	ND	0.50	-	-	-
1,1,1-Trichloroethane	ND	0.50	-	-	-
1,1,2-Trichloroethane	ND	0.50	-	-	-
Trichloroethene	ND	0.50	-	-	-
Trichlorofluoromethane	ND	0.50	-	-	-
1,2,3-Trichloropropane	ND	0.50	-	-	-
1,2,4-Trimethylbenzene	ND	0.50	-	-	-
1,3,5-Trimethylbenzene	ND	0.50	-	-	-
Vinyl Chloride	ND	0.50	-	-	-
Xylenes, Total	ND	0.50	-	-	-

Surrogate Recovery

Dibromofluoromethane	28.6		25	114	91-133
Toluene-d8	28.3		25	113	87-127
4-BFB	2.98		2.5	119	66-140

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Quality Control Report

Client: Langan
Date Prepared: 1/22/18
Date Analyzed: 1/22/18
Instrument: GC18
Matrix: Water
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
BatchID: 152009
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS/LCSD-152009

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acetone	132	123	200	66	62	47-122	6.39	20
tert-Amyl methyl ether (TAME)	9.96	9.27	10	100	93	62-121	7.24	20
Benzene	9.75	9.13	10	98	91	74-121	6.62	20
Bromobenzene	10.8	9.95	10	108	99	63-127	8.19	20
Bromochloromethane	9.07	8.50	10	91	85	70-126	6.57	20
Bromodichloromethane	10.9	10.1	10	109	101	66-127	7.21	20
Bromoform	10.7	9.85	10	107	98	60-119	8.13	20
Bromomethane	10.5	10.4	10	105	104	32-155	0.433	20
2-Butanone (MEK)	26.7	24.5	40	67	61	51-117	8.80	20
t-Butyl alcohol (TBA)	30.3	28.7	40	76	72	41-122	5.34	20
n-Butyl benzene	11.6	11.0	10	116	110	73-137	6.00	20
sec-Butyl benzene	11.0	10.2	10	110	102	71-137	8.00	20
tert-Butyl benzene	10.5	9.65	10	105	96	61-136	8.54	20
Carbon Disulfide	10.2	9.53	10	102	95	61-139	6.99	20
Carbon Tetrachloride	11.9	11.1	10	119	111	69-137	7.03	20
Chlorobenzene	10.5	9.88	10	105	99	71-122	6.37	20
Chloroethane	9.60	9.36	10	96	94	54-132	2.52	20
Chloroform	10.8	10.2	10	109	102	73-122	6.52	20
Chloromethane	7.20	6.94	10	72	69	48-136	3.66	20
2-Chlorotoluene	10.5	9.66	10	105	97	65-134	8.67	20
4-Chlorotoluene	10.6	9.68	10	106	97	65-130	9.47	20
Dibromochloromethane	10.5	9.75	10	105	97	65-121	7.59	20
1,2-Dibromo-3-chloropropane	3.84	3.50	4	96	87	41-132	9.29	20
1,2-Dibromoethane (EDB)	10.2	9.47	10	102	95	67-125	7.85	20
Dibromomethane	9.88	9.19	10	99	92	68-121	7.28	20
1,2-Dichlorobenzene	10.2	9.63	10	102	96	69-128	6.03	20
1,3-Dichlorobenzene	10.0	9.50	10	100	95	71-131	5.32	20
1,4-Dichlorobenzene	10.3	9.62	10	103	96	70-128	6.86	20
Dichlorodifluoromethane	8.75	8.31	10	88	83	21-158	5.18	20
1,1-Dichloroethane	9.24	8.60	10	92	86	73-123	7.12	20
1,2-Dichloroethane (1,2-DCA)	10.4	9.68	10	103	97	61-127	6.63	20
1,1-Dichloroethene	10.5	9.73	10	105	97	68-130	7.83	20
cis-1,2-Dichloroethene	9.76	9.21	10	98	92	72-123	5.78	20
trans-1,2-Dichloroethene	10.0	9.36	10	100	94	64-138	6.73	20
1,2-Dichloropropane	8.36	7.77	10	84	78	71-121	7.32	20
1,3-Dichloropropane	9.90	9.12	10	99	91	69-120	8.19	20
2,2-Dichloropropane	11.3	10.4	10	113	104	64-142	7.68	20
1,1-Dichloropropene	10.3	9.63	10	103	96	70-130	6.92	20
cis-1,3-Dichloropropene	10.3	9.60	10	103	96	58-136	6.86	20

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Quality Control Report

Client: Langan
Date Prepared: 1/22/18
Date Analyzed: 1/22/18
Instrument: GC18
Matrix: Water
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
BatchID: 152009
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS/LCSD-152009

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
trans-1,3-Dichloropropene	10.6	9.83	10	106	98	66-119	7.33	20
Diisopropyl ether (DIPE)	7.15	6.69	10	72	67	66-123	6.70	20
Ethylbenzene	11.0	10.4	10	111	104	71-125	6.39	20
Ethyl tert-butyl ether (ETBE)	8.66	8.11	10	87	81	67-122	6.52	20
Freon 113	11.6	10.8	10	116	108	68-132	7.06	20
Hexachlorobutadiene	11.4	11.0	10	114	110	56-155	4.16	20
Hexachloroethane	11.3	10.4	10	113	104	61-129	8.37	20
2-Hexanone	7.18	6.42	10	72	64	51-115	11.2	20
Isopropylbenzene	11.8	10.9	10	118	109	66-134	8.16	20
4-Isopropyl toluene	11.0	10.2	10	110	102	70-136	7.43	20
Methyl-t-butyl ether (MTBE)	10.1	9.49	10	101	95	64-118	6.66	20
Methylene chloride	8.20	7.58	10	82	76	62-121	7.79	20
4-Methyl-2-pentanone (MIBK)	6.67	6.02	10	67	60	51-115	10.2	20
Naphthalene	9.73	9.31	10	97	93	55-137	4.40	20
n-Propyl benzene	10.7	9.93	10	107	99	63-140	7.78	20
Styrene	9.95	9.25	10	99	92	62-133	7.28	20
1,1,1,2-Tetrachloroethane	10.4	9.74	10	104	97	69-128	6.32	20
1,1,2,2-Tetrachloroethane	10.8	9.76	10	108	98	60-118	10.6	20
Tetrachloroethene	9.69	8.97	10	97	90	63-136	7.75	20
Toluene	10.0	9.31	10	100	93	67-124	7.44	20
1,2,3-Trichlorobenzene	9.91	9.46	10	99	95	57-145	4.65	20
1,2,4-Trichlorobenzene	10.0	9.56	10	100	96	60-144	4.78	20
1,1,1-Trichloroethane	11.9	11.0	10	119	110	70-133	7.35	20
1,1,2-Trichloroethane	9.93	9.14	10	99	91	65-125	8.30	20
Trichloroethene	9.18	8.56	10	92	86	67-133	7.05	20
Trichlorofluoromethane	13.8	13.0	10	138	129	59-145	6.44	20
1,2,3-Trichloropropane	11.1	9.97	10	111	100	65-115	10.5	20
1,2,4-Trimethylbenzene	11.3	10.6	10	113	106	67-136	6.74	20
1,3,5-Trimethylbenzene	11.4	10.7	10	114	107	68-135	6.02	20
Vinyl Chloride	9.12	8.84	10	91	88	53-146	3.10	20
Xylenes, Total	33.5	31.1	30	112	104	68-128	7.62	20
Surrogate Recovery								
Dibromofluoromethane	28.8	28.8	25	115	115	91-133	0	20
Toluene-d8	28.5	28.5	25	114	114	87-127	0	20
4-BFB	3.14	3.10	2.5	126	124	66-140	1.24	20



Quality Control Report

Client: Langan
Date Prepared: 1/17/18
Date Analyzed: 1/18/18 - 1/19/18
Instrument: GC19, GC7
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
BatchID: 151809
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg
Sample ID: MB/LCS-151809
 1801932-001AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH(g) (C6-C12)	ND	1.0	-	-	-
MTBE	ND	0.050	-	-	-
Benzene	ND	0.0050	-	-	-
Toluene	ND	0.0050	-	-	-
Ethylbenzene	ND	0.0050	-	-	-
Xylenes	ND	0.0050	-	-	-

Surrogate Recovery

2-Fluorotoluene	0.0892		0.10	89	75-134
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Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH(btex)	0.640	-	0.60	107	-	82-118	-	-
MTBE	0.0878	-	0.10	88	-	61-119	-	-
Benzene	0.110	-	0.10	110	-	77-128	-	-
Toluene	0.102	-	0.10	102	-	74-132	-	-
Ethylbenzene	0.107	-	0.10	107	-	84-127	-	-
Xylenes	0.323	-	0.30	108	-	86-129	-	-

Surrogate Recovery

2-Fluorotoluene	0.0889	-	0.10	89	-	75-134	-	-
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.538	0.551	0.60	ND	90	92	58-129	2.53	20
MTBE	0.0884	0.0866	0.10	ND	88	87	47-118	2.04	20
Benzene	0.113	0.110	0.10	ND	113	110	55-129	2.24	20
Toluene	0.134	0.132	0.10	0.03730	97	95	56-130	1.40	20
Ethylbenzene	0.113	0.112	0.10	ND	113	112	63-129	1.07	20
Xylenes	0.339	0.335	0.30	ND	112	111	64-131	1.31	20

Surrogate Recovery

2-Fluorotoluene	0.0961	0.0926	0.10		96	93	62-126	3.78	20
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Quality Control Report

Client: Langan
Date Prepared: 1/20/18 - 1/23/18
Date Analyzed: 1/20/18 - 1/23/18
Instrument: GC7
Matrix: Water
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
BatchID: 152005
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L
Sample ID: MB/LCS-152005
 1801925-001AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH(g) (C6-C12)	ND	50	-	-	-
MTBE	ND	5.0	-	-	-
Benzene	ND	0.50	-	-	-
Toluene	ND	0.50	-	-	-
Ethylbenzene	ND	0.50	-	-	-
Xylenes	ND	0.50	-	-	-

Surrogate Recovery

aaa-TFT	9.09		10	91	89-116
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Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH(btex)	55.9	-	60	93	-	78-116	-	-
MTBE	8.58	-	10	86	-	72-122	-	-
Benzene	9.51	-	10	95	-	81-123	-	-
Toluene	11.1	-	10	111	-	83-129	-	-
Ethylbenzene	10.6	-	10	106	-	88-126	-	-
Xylenes	32.1	-	30	107	-	87-131	-	-

Surrogate Recovery

aaa-TFT	9.67	-	10	97	-	89-116	-	-
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	61.4	58.1	60	ND	102	97	63-133	5.59	20
MTBE	9.54	11.1	10	ND	95	111	69-122	15.5	20
Benzene	9.43	9.27	10	ND	94	93	84-125	1.67	20
Toluene	10.7	10.5	10	ND	107	105	87-131	2.29	20
Ethylbenzene	10.4	10.1	10	ND	104	101	92-126	3.73	20
Xylenes	31.6	29.9	30	ND	105	100	88-132	5.62	20

Surrogate Recovery

aaa-TFT	9.66	9.66	10		97	97	90-117	0	20
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Quality Control Report

Client: Langan
Date Prepared: 1/17/18 - 1/18/18
Date Analyzed: 1/17/18 - 1/18/18
Instrument: GC9a
Matrix: Soil
Project: 750622405; 1110 Jackson

WorkOrder: 1801938
BatchID: 151762
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg
Sample ID: MB/LCS-151762
 1801871-014AMS/MSD

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	39.2	1.0	40	-	98	75-128
TPH-Motor Oil (C18-C36)	ND	-	5.0	-	-	-	-
Surrogate Recovery							
C9	21.7	21.9		25	87	87	72-122

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	NR	NR		180	NR	NR	-	NR	-
Surrogate Recovery									
C9	NR	NR			NR	NR	-	NR	-



Quality Control Report

Client: Langan	WorkOrder: 1801938
Date Prepared: 1/17/18	BatchID: 151792
Date Analyzed: 1/18/18	Extraction Method: SW3510C
Instrument: GC6B	Analytical Method: SW8015B
Matrix: Water	Unit: µg/L
Project: 750622405; 1110 Jackson	Sample ID: MB/LCS/LCSD-151792

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH-Diesel (C10-C23)	ND	50	-	-	-
TPH-Motor Oil (C18-C36)	ND	250	-	-	-
Surrogate Recovery					
C9	596		625	95	68-127

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	1110	1140	1000	111	113	86-142	2.11	30
Surrogate Recovery								
C9	622	605	625	99	97	68-127	2.73	30



Quality Control Report

Client: Langan	WorkOrder: 1801938
Date Prepared: 1/19/18	BatchID: 151966
Date Analyzed: 1/21/18	Extraction Method: SW3510C
Instrument: GC6B	Analytical Method: SW8015B
Matrix: Water	Unit: µg/L
Project: 750622405; 1110 Jackson	Sample ID: MB/LCS/LCSD-151966

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH-Diesel (C10-C23)	ND	50	-	-	-
TPH-Motor Oil (C18-C36)	ND	250	-	-	-
Surrogate Recovery					
C9	669		625	107	68-127

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	1120	1090	1000	112	109	86-142	2.24	30
Surrogate Recovery								
C9	667	656	625	107	105	68-127	1.59	30

1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262



WaterTrax WriteOn EDF

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1801938

ClientCode: TWRK

Excel EQuIS Email HardCopy ThirdParty J-flag
 Detection Summary Dry-Weight

Report to:
Noel Liner
Langan
501 14th Street, 3rd Floor
Oakland, CA 94612
(415) 955-9040 FAX: (415) 955-9041

Email: nliner@langan.com
cc/3rd Party:
PO:
Project: 750622405; 1110 Jackson

Bill to:
Accounts Payable
Langan
555 Montgomery St., Suite 1300
San Francisco, CA 94111
Langan_InvoiceCapture@concur.solutio

Requested TAT: 5 days;

Date Received: 01/17/2018
Date Logged: 01/17/2018

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1801938-001	EB-13-2.5	Soil	1/17/2018 07:43	<input type="checkbox"/>	A		A		A								
1801938-002	EB-13-5	Soil	1/17/2018 07:45	<input type="checkbox"/>	A		A		A								
1801938-003	EB-13-10	Soil	1/17/2018 07:52	<input type="checkbox"/>	A		A		A								
1801938-004	EB-13-15	Soil	1/17/2018 08:01	<input type="checkbox"/>	A		A		A								
1801938-005	EB-13-20	Soil	1/17/2018 08:12	<input type="checkbox"/>	A		A		A								
1801938-006	EB-13-21	Soil	1/17/2018 08:45	<input type="checkbox"/>	A		A		A								
1801938-007	EB-13-GW-25	Water	1/17/2018 09:03	<input type="checkbox"/>		B		A		A							
1801938-008	EB-13-GW-35	Water	1/17/2018 10:05	<input type="checkbox"/>		B		A		A							
1801938-009	Trip Blanks	Water	1/17/2018 00:00	<input type="checkbox"/>		A											

Test Legend:

1	8260B_S	2	8260B_W	3	G-MBTEX_S	4	G-MBTEX_W
5	TPH(DMO)_S	6	TPH(DMO)_W	7		8	
9		10		11		12	

Prepared by: Kena Ponce

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A contain testgroup Multi Range_S.; The following SampIDs: 007A, 008A contain testgroup Multi Range_W.

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: LANGAN
Client Contact: Noel Liner
Contact's Email: nliner@langan.com

Project: 750622405; 1110 Jackson

Work Order: 1801938
QC Level: LEVEL 2
Date Logged: 1/17/2018

Comments:

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1801938-001A	EB-13-2.5	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/17/2018 7:43	5 days		<input type="checkbox"/>	
1801938-002A	EB-13-5	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/17/2018 7:45	5 days		<input type="checkbox"/>	
1801938-003A	EB-13-10	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/17/2018 7:52	5 days		<input type="checkbox"/>	
1801938-004A	EB-13-15	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/17/2018 8:01	5 days		<input type="checkbox"/>	
1801938-005A	EB-13-20	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/17/2018 8:12	5 days		<input type="checkbox"/>	
1801938-006A	EB-13-21	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm SW8260B (VOCs)	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/17/2018 8:45	5 days		<input type="checkbox"/>	
1801938-007A	EB-13-GW-25	Water	Multi-Range TPH(g,d,mo) by EPA 8015Bm	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	1/17/2018 9:03	5 days	5%+	<input type="checkbox"/>	
1801938-007B	EB-13-GW-25	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	1/17/2018 9:03	5 days	5%+	<input type="checkbox"/>	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.



WORK ORDER SUMMARY

Client Name: LANGAN
Client Contact: Noel Liner
Contact's Email: nliner@langan.com

Project: 750622405; 1110 Jackson

Work Order: 1801938
QC Level: LEVEL 2
Date Logged: 1/17/2018

Comments:

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1801938-008A	EB-13-GW-35	Water	Multi-Range TPH(g,d,mo) by EPA 8015Bm	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	1/17/2018 10:05	5 days	5%+	<input type="checkbox"/>	
1801938-008B	EB-13-GW-35	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	1/17/2018 10:05	5 days	5%+	<input type="checkbox"/>	
1801938-009A	Trip Blanks	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	1/17/2018	5 days	None	<input type="checkbox"/>	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).
- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

LANGAN

CHAIN OF CUSTODY RECORD

- 555 Montgomery Street, Suite 1300, San Francisco, CA 94111
- 501 14th Street, Third Floor, Oakland CA 94612
- 3320 Data Drive, Suite 350, Rancho Cordova, CA 95670-7982
- 4030 Moorpark Ave. Suite 210, San Jose, CA 95117-1849

180/938

Site Name: 1110 Jackson

Job Number: 750622405

Project Manager/Contact: Noel Limer / nlimer@langan.com

Samplers: Josh Osborne

Recorder (Signature Required): [Signature]

Turnaround Time <u>Standard</u>

Field Sample Identification No.	Date	Time	Lab Sample No.	Matrix & Preservative										Analysis Requested		Remarks		
				Soil	Water	Air	Other	HCL	H ₂ SO ₄	HNO ₃	Ice	No. Containers	Silica gel clean-up	Hold				
EB-13-2.5	1/17/18	0743		X														
EB-13-5		0745		X														
EB-13-10		0752		X														
EB-13-15		0801		X														
EB-13-20		0812		X														
EB-13-21		0845		X														
EB-13-6W-25		0903			X			X										
EB-13-6W-35		1005			X			X										
Trip Blank	1/17/18			X														

Relinquished by: (Signature) <u>[Signature]</u>	Date: <u>1/17/18</u>	Time: <u>1452</u>	Received by: (Signature) <u>[Signature]</u>	Date: <u>1/17/18</u>	Time: <u>1452</u>
Relinquished by: (Signature) <u>[Signature]</u>	Date: <u>1/17/18</u>	Time: <u>5:15</u>	Received by: (Signature) <u>[Signature]</u>	Date: <u>1/17/18</u>	Time: <u>1715</u>
Relinquished by: (Signature)	Date:	Time:	Received by Lab: (Signature)	Date:	Time:

Sent to Laboratory (Name): McLampert

Laboratory Comments/Notes:

Method of Shipment: Lab courier Fed Ex Airborne UPS
 Hand Carried Private Courier (Co. Name)

White Copy - Original

Yellow Copy - Laboratory

Pink Copy - Field

COC Number:



Sample Receipt Checklist

Client Name: **Langan**
 Project: **750622405; 1110 Jackson**

Date and Time Received: **1/17/2018 17:15**
 Date Logged: **1/17/2018**
 Received by: **Kena Ponce**
 Logged by: **Kena Ponce**

WorkOrder No: **1801938** Matrix: Soil/Water
 Carrier: Lorenzo Perez (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sampler's name noted on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
COC agrees with Quote?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Sample/Temp Blank temperature	Temp: 7.3°C		NA <input type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE)

UCMR Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

Comments: Method SW8260B (VOCs) was received with temperature condition not met.

APPENDIX E
WASTE DISPOSAL DOCUMENTATION

Manifest

SOIL SAFE OF CA - TPST Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment: / /	Responsible for Payment:	Transport Truck #:	Facility #: A07	Approval Number:	Load #
--------------------------	--------------------------	--------------------	--------------------	------------------	--------

Generator's Name and Billing Address: EAST BAY ASIAN LOCAL DEVELOPMENT CORPORATION 1825 SAN PABLO AVENUE, SUITE 200 OAKLAND, CA 94612	Generator's Phone #: 510-287-5353	
	Person to Contact:	
	FAX#:	Customer Account Number

Consultant's Name and Billing Address:	Consultant's Phone #:	
	Person to Contact:	
	FAX#:	Customer Account Number

Generation Site (Transport from): (name & address) EBALDC DEVELOPMENT 1110 JACKSON STREET OAKLAND, CA 94607	Site Phone #:	
	Person to Contact:	
	FAX#:	

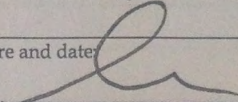
Designated Facility (Transport to): (name & address) SOIL SAFE 12328 HIBISCUS AVENUE ADELANTO, CA 92301	Facility Phone #: (800) 862-8001	
	Person to Contact: JOE PROVANSAL	
	FAX#: (760) 248-8004	

Transporter Name and Mailing Address: BELSHIRE 25971 TOWNE CENTRE DRIVE FOOTHILL RANCH, CA 92610 BESI: 291325	Transporter's Phone #: 949-480-5200	CAR000183913
	Person to Contact: LARRY MOOTHART	450647
	FAX#: 949-480-5210	Customer Account Number

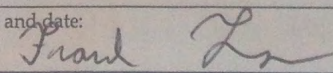
Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand <input type="checkbox"/> Organic <input type="checkbox"/> Clay <input type="checkbox"/> Other <input type="checkbox"/>	0 - 10% <input type="checkbox"/> 10 - 20% <input type="checkbox"/> 20% - over <input type="checkbox"/>	Gas <input type="checkbox"/> Diesel <input type="checkbox"/> Other <input type="checkbox"/>	001DM	Soil			
Sand <input type="checkbox"/> Organic <input type="checkbox"/> Clay <input type="checkbox"/> Other <input type="checkbox"/>	0 - 10% <input type="checkbox"/> 10 - 20% <input type="checkbox"/> 20% - over <input type="checkbox"/>	Gas <input type="checkbox"/> Diesel <input type="checkbox"/> Other <input type="checkbox"/>					

List any exception to items listed above: _____ Scale Ticket # _____

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: Generator <input type="checkbox"/> Consultant <input type="checkbox"/> Larry Moothart of BESI on behalf of generator	Signature and date: 	Month | Day | Year 2 | 22 | 18
---	--	-----------------------------------

Transporter's certification: I/We acknowledge receipt of the soil referenced above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that the soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name: Frank Torres	Signature and date: 	Month | Day | Year 2 | 22 | 18
----------------------------------	--	-----------------------------------

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name: J. PROVANSAL	Signature and date:
----------------------------------	---------------------

Generator and/or Consultant

Transporter

Recycling Facility



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1801F31

Report Created for: Langan

501 14th Street, 3rd Floor
Oakland, CA 94612

Project Contact: Noel Liner

Project P.O.:

Project: 750022405; 1110 Jackson

Project Received: 01/17/2018

Analytical Report reviewed & approved for release on 02/02/2018 by:

Christine Askari
Project Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: Langan
Project: 750022405; 1110 Jackson
WorkOrder: 1801F31

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



Glossary of Terms & Qualifier Definitions

Client: Langan
Project: 750022405; 1110 Jackson
WorkOrder: 1801F31

Analytical Qualifiers

S Surrogate spike recovery outside accepted recovery limits
c2 Surrogate recovery outside of the control limits due to matrix interference.

Quality Control Qualifiers

F1 MS/MSD recovery and/or RPD is out of acceptance criteria; LCS validates the prep batch.
F2 LCS/LCSD recovery and/or RPD is out of acceptance criteria.
F3 The surrogate standard recovery and/or RPD is outside of acceptance limits.
F10 MS/MSD outside control limits. Physical or chemical interferences exist due to sample matrix.



Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/29/18
Project: 750022405; 1110 Jackson

WorkOrder: 1801F31
Extraction Method: SW3550B
Analytical Method: SW8081A/8082
Unit: mg/kg

Organochlorine Pesticides + PCBs

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Drum-1	1801F31-001A	Soil	01/17/2018 10:52	GC41 01301826.d	152372

Analytes	Result	RL	DF	Date Analyzed
Aldrin	ND	0.0010	1	01/30/2018 23:56
a-BHC	ND	0.0010	1	01/30/2018 23:56
b-BHC	ND	0.0010	1	01/30/2018 23:56
d-BHC	ND	0.0010	1	01/30/2018 23:56
g-BHC	ND	0.0010	1	01/30/2018 23:56
Chlordane (Technical)	ND	0.025	1	01/30/2018 23:56
a-Chlordane	ND	0.0010	1	01/30/2018 23:56
g-Chlordane	ND	0.0010	1	01/30/2018 23:56
p,p-DDD	ND	0.0010	1	01/30/2018 23:56
p,p-DDE	ND	0.0010	1	01/30/2018 23:56
p,p-DDT	ND	0.0010	1	01/30/2018 23:56
Dieldrin	ND	0.0010	1	01/30/2018 23:56
Endosulfan I	ND	0.0010	1	01/30/2018 23:56
Endosulfan II	ND	0.0010	1	01/30/2018 23:56
Endosulfan sulfate	ND	0.0010	1	01/30/2018 23:56
Endrin	ND	0.0010	1	01/30/2018 23:56
Endrin aldehyde	ND	0.0010	1	01/30/2018 23:56
Endrin ketone	ND	0.0010	1	01/30/2018 23:56
Heptachlor	ND	0.0010	1	01/30/2018 23:56
Heptachlor epoxide	ND	0.0010	1	01/30/2018 23:56
Hexachlorobenzene	ND	0.010	1	01/30/2018 23:56
Hexachlorocyclopentadiene	ND	0.020	1	01/30/2018 23:56
Methoxychlor	ND	0.0010	1	01/30/2018 23:56
Toxaphene	ND	0.050	1	01/30/2018 23:56
Aroclor1016	ND	0.050	1	01/30/2018 23:56
Aroclor1221	ND	0.050	1	01/30/2018 23:56
Aroclor1232	ND	0.050	1	01/30/2018 23:56
Aroclor1242	ND	0.050	1	01/30/2018 23:56
Aroclor1248	ND	0.050	1	01/30/2018 23:56
Aroclor1254	ND	0.050	1	01/30/2018 23:56
Aroclor1260	ND	0.050	1	01/30/2018 23:56
PCBs, total	ND	0.050	1	01/30/2018 23:56

Surrogates	REC (%)	Limits	Date Analyzed
Decachlorobiphenyl	95	70-130	01/30/2018 23:56

Analyst(s): KX



Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/29/18
Project: 750022405; 1110 Jackson

WorkOrder: 1801F31
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Drum-1	1801F31-001A	Soil	01/17/2018 10:52	GC16 01311815.D	152369

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	01/31/2018 17:20
tert-Amyl methyl ether (TAME)	ND	0.0050	1	01/31/2018 17:20
Benzene	ND	0.0050	1	01/31/2018 17:20
Bromobenzene	ND	0.0050	1	01/31/2018 17:20
Bromochloromethane	ND	0.0050	1	01/31/2018 17:20
Bromodichloromethane	ND	0.0050	1	01/31/2018 17:20
Bromoform	ND	0.0050	1	01/31/2018 17:20
Bromomethane	ND	0.0050	1	01/31/2018 17:20
2-Butanone (MEK)	ND	0.020	1	01/31/2018 17:20
t-Butyl alcohol (TBA)	ND	0.050	1	01/31/2018 17:20
n-Butyl benzene	ND	0.0050	1	01/31/2018 17:20
sec-Butyl benzene	ND	0.0050	1	01/31/2018 17:20
tert-Butyl benzene	ND	0.0050	1	01/31/2018 17:20
Carbon Disulfide	ND	0.0050	1	01/31/2018 17:20
Carbon Tetrachloride	ND	0.0050	1	01/31/2018 17:20
Chlorobenzene	ND	0.0050	1	01/31/2018 17:20
Chloroethane	ND	0.0050	1	01/31/2018 17:20
Chloroform	ND	0.0050	1	01/31/2018 17:20
Chloromethane	ND	0.0050	1	01/31/2018 17:20
2-Chlorotoluene	ND	0.0050	1	01/31/2018 17:20
4-Chlorotoluene	ND	0.0050	1	01/31/2018 17:20
Dibromochloromethane	ND	0.0050	1	01/31/2018 17:20
1,2-Dibromo-3-chloropropane	ND	0.0040	1	01/31/2018 17:20
1,2-Dibromoethane (EDB)	ND	0.0040	1	01/31/2018 17:20
Dibromomethane	ND	0.0050	1	01/31/2018 17:20
1,2-Dichlorobenzene	ND	0.0050	1	01/31/2018 17:20
1,3-Dichlorobenzene	ND	0.0050	1	01/31/2018 17:20
1,4-Dichlorobenzene	ND	0.0050	1	01/31/2018 17:20
Dichlorodifluoromethane	ND	0.0050	1	01/31/2018 17:20
1,1-Dichloroethane	ND	0.0050	1	01/31/2018 17:20
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	01/31/2018 17:20
1,1-Dichloroethene	ND	0.0050	1	01/31/2018 17:20
cis-1,2-Dichloroethene	ND	0.0050	1	01/31/2018 17:20
trans-1,2-Dichloroethene	ND	0.0050	1	01/31/2018 17:20
1,2-Dichloropropane	ND	0.0050	1	01/31/2018 17:20
1,3-Dichloropropane	ND	0.0050	1	01/31/2018 17:20
2,2-Dichloropropane	ND	0.0050	1	01/31/2018 17:20

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Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/29/18
Project: 750022405; 1110 Jackson

WorkOrder: 1801F31
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Drum-1	1801F31-001A	Soil	01/17/2018 10:52	GC16 01311815.D	152369

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	01/31/2018 17:20
cis-1,3-Dichloropropene	ND	0.0050	1	01/31/2018 17:20
trans-1,3-Dichloropropene	ND	0.0050	1	01/31/2018 17:20
Diisopropyl ether (DIPE)	ND	0.0050	1	01/31/2018 17:20
Ethylbenzene	ND	0.0050	1	01/31/2018 17:20
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	01/31/2018 17:20
Freon 113	ND	0.0050	1	01/31/2018 17:20
Hexachlorobutadiene	ND	0.0050	1	01/31/2018 17:20
Hexachloroethane	ND	0.0050	1	01/31/2018 17:20
2-Hexanone	ND	0.0050	1	01/31/2018 17:20
Isopropylbenzene	ND	0.0050	1	01/31/2018 17:20
4-Isopropyl toluene	ND	0.0050	1	01/31/2018 17:20
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	01/31/2018 17:20
Methylene chloride	ND	0.0050	1	01/31/2018 17:20
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	01/31/2018 17:20
Naphthalene	ND	0.0050	1	01/31/2018 17:20
n-Propyl benzene	ND	0.0050	1	01/31/2018 17:20
Styrene	ND	0.0050	1	01/31/2018 17:20
1,1,1,2-Tetrachloroethane	ND	0.0050	1	01/31/2018 17:20
1,1,2,2-Tetrachloroethane	ND	0.0050	1	01/31/2018 17:20
Tetrachloroethene	ND	0.0050	1	01/31/2018 17:20
Toluene	ND	0.0050	1	01/31/2018 17:20
1,2,3-Trichlorobenzene	ND	0.0050	1	01/31/2018 17:20
1,2,4-Trichlorobenzene	ND	0.0050	1	01/31/2018 17:20
1,1,1-Trichloroethane	ND	0.0050	1	01/31/2018 17:20
1,1,2-Trichloroethane	ND	0.0050	1	01/31/2018 17:20
Trichloroethene	ND	0.0050	1	01/31/2018 17:20
Trichlorofluoromethane	ND	0.0050	1	01/31/2018 17:20
1,2,3-Trichloropropane	ND	0.0050	1	01/31/2018 17:20
1,2,4-Trimethylbenzene	ND	0.0050	1	01/31/2018 17:20
1,3,5-Trimethylbenzene	ND	0.0050	1	01/31/2018 17:20
Vinyl Chloride	ND	0.0050	1	01/31/2018 17:20
Xylenes, Total	ND	0.0050	1	01/31/2018 17:20

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Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/29/18
Project: 750022405; 1110 Jackson

WorkOrder: 1801F31
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Drum-1	1801F31-001A	Soil	01/17/2018 10:52	GC16 01311815.D	152369

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	
Dibromofluoromethane	101		82-136	01/31/2018 17:20
Toluene-d8	111		92-139	01/31/2018 17:20
4-BFB	138	S	82-135	01/31/2018 17:20
Benzene-d6	71		55-122	01/31/2018 17:20
Ethylbenzene-d10	84		58-141	01/31/2018 17:20
1,2-DCB-d4	68		51-107	01/31/2018 17:20

Analyst(s): KF

Analytical Comments: c2



Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/29/18
Project: 750022405; 1110 Jackson

WorkOrder: 1801F31
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Drum-1	1801F31-001A	Soil	01/17/2018 10:52	ICP-MS2 173SMPL.D	152381

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	01/31/2018 04:16
Arsenic	2.4	0.50	1	01/31/2018 04:16
Barium	59	5.0	1	01/31/2018 04:16
Beryllium	ND	0.50	1	01/31/2018 04:16
Cadmium	ND	0.25	1	01/31/2018 04:16
Chromium	43	0.50	1	01/31/2018 04:16
Cobalt	5.8	0.50	1	01/31/2018 04:16
Copper	9.4	0.50	1	01/31/2018 04:16
Lead	13	0.50	1	01/31/2018 04:16
Mercury	ND	0.050	1	01/31/2018 04:16
Molybdenum	ND	0.50	1	01/31/2018 04:16
Nickel	29	0.50	1	01/31/2018 04:16
Selenium	ND	0.50	1	01/31/2018 04:16
Silver	ND	0.50	1	01/31/2018 04:16
Thallium	ND	0.50	1	01/31/2018 04:16
Vanadium	28	0.50	1	01/31/2018 04:16
Zinc	30	5.0	1	01/31/2018 04:16

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	100	70-130	01/31/2018 04:16

Analyst(s): DB



Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/29/18
Project: 750022405; 1110 Jackson

WorkOrder: 1801F31
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Drum-1	1801F31-001A	Soil	01/17/2018 10:52	GC19 01301814.D	152360
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g) (C6-C12)	ND		1.0	1	01/30/2018 16:32
MTBE	---		0.050	1	01/30/2018 16:32
Benzene	---		0.0050	1	01/30/2018 16:32
Toluene	---		0.0050	1	01/30/2018 16:32
Ethylbenzene	---		0.0050	1	01/30/2018 16:32
Xylenes	---		0.0050	1	01/30/2018 16:32
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
2-Fluorotoluene	88		62-126		01/30/2018 16:32
<u>Analyst(s):</u> IA					



Analytical Report

Client: Langan
Date Received: 1/17/18 17:15
Date Prepared: 1/29/18
Project: 750022405; 1110 Jackson

WorkOrder: 1801F31
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Drum-1	1801F31-001A	Soil	01/17/2018 10:52	GC9a 01301810.D	152361
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	01/30/2018 13:31
TPH-Motor Oil (C18-C36)	ND		5.0	1	01/30/2018 13:31
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	111		74-123		01/30/2018 13:31
<u>Analyst(s):</u>	TK				



Quality Control Report

Client: Langan
Date Prepared: 1/29/18
Date Analyzed: 1/30/18
Instrument: GC41
Matrix: Soil
Project: 750022405; 1110 Jackson

WorkOrder: 1801F31
BatchID: 152372
Extraction Method: SW3550B
Analytical Method: SW8081A/8082
Unit: mg/kg
Sample ID: MB/LCS/LCSD-152372
 1801E90-002AMS/MSD

QC Summary Report for SW8081A/8082

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Aldrin	ND	0.0010	-	-	-
a-BHC	ND	0.0010	-	-	-
b-BHC	ND	0.0010	-	-	-
d-BHC	ND	0.0010	-	-	-
g-BHC	ND	0.0010	-	-	-
Chlordane (Technical)	ND	0.025	-	-	-
a-Chlordane	ND	0.0010	-	-	-
g-Chlordane	ND	0.0010	-	-	-
p,p-DDD	ND	0.0010	-	-	-
p,p-DDE	ND	0.0010	-	-	-
p,p-DDT	ND	0.0010	-	-	-
Dieldrin	ND	0.0010	-	-	-
Endosulfan I	ND	0.0010	-	-	-
Endosulfan II	ND	0.0010	-	-	-
Endosulfan sulfate	ND	0.0010	-	-	-
Endrin	ND	0.0010	-	-	-
Endrin aldehyde	ND	0.0010	-	-	-
Endrin ketone	ND	0.0010	-	-	-
Heptachlor	ND	0.0010	-	-	-
Heptachlor epoxide	ND	0.0010	-	-	-
Hexachlorobenzene	ND	0.010	-	-	-
Hexachlorocyclopentadiene	ND	0.020	-	-	-
Methoxychlor	ND	0.0010	-	-	-
Toxaphene	ND	0.050	-	-	-
Aroclor1016	ND	0.050	-	-	-
Aroclor1221	ND	0.050	-	-	-
Aroclor1232	ND	0.050	-	-	-
Aroclor1242	ND	0.050	-	-	-
Aroclor1248	ND	0.050	-	-	-
Aroclor1254	ND	0.050	-	-	-
Aroclor1260	ND	0.050	-	-	-
PCBs, total	ND	0.050	-	-	-
Surrogate Recovery					
Decachlorobiphenyl	0.0527		0.050	105	70-130

(Cont.)

NELAP 4033ORELAP



Quality Control Report

Client: Langan
Date Prepared: 1/29/18
Date Analyzed: 1/30/18
Instrument: GC41
Matrix: Soil
Project: 750022405; 1110 Jackson

WorkOrder: 1801F31
BatchID: 152372
Extraction Method: SW3550B
Analytical Method: SW8081A/8082
Unit: mg/kg
Sample ID: MB/LCS/LCSD-152372
 1801E90-002AMS/MSD

QC Summary Report for SW8081A/8082

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Aldrin	0.0472	-	0.050	94	-	70-130	-	-
a-BHC	0.0479	-	0.050	96	-	70-130	-	-
b-BHC	0.0535	-	0.050	107	-	70-130	-	-
d-BHC	0.0501	-	0.050	100	-	70-130	-	-
g-BHC	0.0506	-	0.050	101	-	70-130	-	-
a-Chlordane	0.0420	-	0.050	84	-	70-130	-	-
g-Chlordane	0.0464	-	0.050	93	-	70-130	-	-
p,p-DDD	0.0434	-	0.050	87	-	70-130	-	-
p,p-DDE	0.0466	-	0.050	93	-	70-130	-	-
p,p-DDT	0.0570	-	0.050	114	-	70-130	-	-
Dieldrin	0.0505	-	0.050	101	-	70-130	-	-
Endosulfan I	0.0457	-	0.050	91	-	70-130	-	-
Endosulfan II	0.0415	-	0.050	83	-	70-130	-	-
Endosulfan sulfate	0.0637	-	0.050	127	-	70-130	-	-
Endrin	0.0594	-	0.050	119	-	70-130	-	-
Endrin aldehyde	0.0156	-	0.050	31, F2	-	70-130	-	-
Endrin ketone	0.0440	-	0.050	88	-	70-130	-	-
Heptachlor	0.0563	-	0.050	113	-	70-130	-	-
Heptachlor epoxide	0.0456	-	0.050	91	-	70-130	-	-
Hexachlorobenzene	0.0440	-	0.050	88	-	50-150	-	-
Hexachlorocyclopentadiene	0.0572	-	0.050	114	-	50-150	-	-
Methoxychlor	0.0508	-	0.050	102	-	70-130	-	-
Aroclor1016	0.149	0.122	0.15	100	81	70-130	200,F2	20
Aroclor1260	0.135	0.126	0.15	90	84	70-130	200,F2	20

Surrogate Recovery

Decachlorobiphenyl	0.0590	-	0.050	118	-	70-130	-	-
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aldrin	0.0484	0.0503	0.050	ND	97	101	70-130	3.86	20
a-BHC	0.0520	0.0544	0.050	ND	104	109	70-130	4.40	20
b-BHC	0.0554	0.0581	0.050	ND	111	116	70-130	4.77	20
d-BHC	0.0514	0.0536	0.050	ND	103	107	70-130	4.22	20
g-BHC	0.0511	0.0533	0.050	ND	102	107	70-130	4.21	20
a-Chlordane	0.0440	0.0460	0.050	ND	88	92	70-130	4.48	20
g-Chlordane	0.0488	0.0511	0.050	ND	98	102	70-130	4.57	20
p,p-DDD	0.0514	0.0543	0.050	ND	103	109	70-130	5.50	20

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NELAP 4033ORELAP



Quality Control Report

Client: Langan
Date Prepared: 1/29/18
Date Analyzed: 1/30/18
Instrument: GC41
Matrix: Soil
Project: 750022405; 1110 Jackson

WorkOrder: 1801F31
BatchID: 152372
Extraction Method: SW3550B
Analytical Method: SW8081A/8082
Unit: mg/kg
Sample ID: MB/LCS/LCSD-152372
 1801E90-002AMS/MSD

QC Summary Report for SW8081A/8082

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
p,p-DDE	0.0483	0.0510	0.050	ND	97	102	70-130	5.33	20
p,p-DDT	0.0595	0.0589	0.050	ND	119	118	70-130	0.982	20
Dieldrin	0.0521	0.0545	0.050	ND	104	109	70-130	4.52	20
Endosulfan I	0.0482	0.0502	0.050	ND	96	100	70-130	4.00	20
Endosulfan II	0.0465	0.0483	0.050	ND	93	97	70-130	3.86	20
Endosulfan sulfate	0.0507	0.0525	0.050	ND	101	105	70-130	3.44	20
Endrin	0.0579	0.0579	0.050	ND	116	116	70-130	0	20
Endrin aldehyde	0.0471	0.0488	0.050	ND	94	98	70-130	3.56	20
Endrin ketone	0.0459	0.0489	0.050	ND	92	98	70-130	6.25	20
Heptachlor	0.0540	0.0536	0.050	ND	108	107	70-130	0.770	20
Heptachlor epoxide	0.0468	0.0486	0.050	ND	94	97	70-130	3.93	20
Hexachlorobenzene	0.0447	0.0464	0.050	ND	89	93	50-150	3.72	20
Hexachlorocyclopentadiene	0.0423	0.0531	0.050	ND	85	106	50-150	22.5,F1	20
Methoxychlor	0.0538	0.0528	0.050	ND	108	106	70-130	1.76	20
Surrogate Recovery									
Decachlorobiphenyl	0.0565	0.0550	0.050		113	110	70-130	2.58	20



Quality Control Report

Client: Langan
Date Prepared: 1/29/18
Date Analyzed: 1/30/18 - 1/31/18
Instrument: GC10, GC16
Matrix: Soil
Project: 750022405; 1110 Jackson

WorkOrder: 1801F31
BatchID: 152369
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-152369
 1801E90-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	0.988	0.10	1	-	99	48-156
tert-Amyl methyl ether (TAME)	ND	0.0366	0.0050	0.050	-	73	56-115
Benzene	ND	0.0452	0.0050	0.050	-	90	63-131
Bromobenzene	ND	0.0449	0.0050	0.050	-	90	66-127
Bromochloromethane	ND	0.0417	0.0050	0.050	-	83	64-124
Bromodichloromethane	ND	0.0382	0.0050	0.050	-	76	64-120
Bromoform	ND	0.0315	0.0050	0.050	-	63	48-92
Bromomethane	ND	0.0570	0.0050	0.050	-	114	25-163
2-Butanone (MEK)	ND	0.169	0.020	0.20	-	84	51-133
t-Butyl alcohol (TBA)	ND	0.148	0.050	0.20	-	74	52-129
n-Butyl benzene	ND	0.0752	0.0050	0.050	-	150	83-200
sec-Butyl benzene	ND	0.0784	0.0050	0.050	-	157	81-199
tert-Butyl benzene	ND	0.0710	0.0050	0.050	-	142	79-178
Carbon Disulfide	ND	0.0421	0.0050	0.050	-	84	64-136
Carbon Tetrachloride	ND	0.0443	0.0050	0.050	-	89	66-140
Chlorobenzene	ND	0.0428	0.0050	0.050	-	86	73-116
Chloroethane	ND	0.0457	0.0050	0.050	-	91	35-147
Chloroform	ND	0.0431	0.0050	0.050	-	86	65-130
Chloromethane	ND	0.0469	0.0050	0.050	-	94	30-137
2-Chlorotoluene	ND	0.0526	0.0050	0.050	-	105	75-152
4-Chlorotoluene	ND	0.0502	0.0050	0.050	-	100	71-148
Dibromochloromethane	ND	0.0359	0.0050	0.050	-	72	61-106
1,2-Dibromo-3-chloropropane	ND	0.0127	0.0040	0.020	-	64	36-120
1,2-Dibromoethane (EDB)	ND	0.0379	0.0040	0.050	-	76	67-118
Dibromomethane	ND	0.0373	0.0050	0.050	-	75	61-116
1,2-Dichlorobenzene	ND	0.0376	0.0050	0.050	-	75	59-106
1,3-Dichlorobenzene	ND	0.0496	0.0050	0.050	-	99	75-129
1,4-Dichlorobenzene	ND	0.0454	0.0050	0.050	-	91	66-127
Dichlorodifluoromethane	ND	0.0238	0.0050	0.050	-	48	13-74
1,1-Dichloroethane	ND	0.0442	0.0050	0.050	-	88	65-134
1,2-Dichloroethane (1,2-DCA)	ND	0.0391	0.0040	0.050	-	78	57-131
1,1-Dichloroethene	ND	0.0422	0.0050	0.050	-	84	62-127
cis-1,2-Dichloroethene	ND	0.0425	0.0050	0.050	-	85	66-130
trans-1,2-Dichloroethene	ND	0.0436	0.0050	0.050	-	87	60-131
1,2-Dichloropropane	ND	0.0419	0.0050	0.050	-	84	63-127
1,3-Dichloropropane	ND	0.0387	0.0050	0.050	-	77	68-124
2,2-Dichloropropane	ND	0.0429	0.0050	0.050	-	86	63-150

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 1/29/18
Date Analyzed: 1/30/18 - 1/31/18
Instrument: GC10, GC16
Matrix: Soil
Project: 750022405; 1110 Jackson

WorkOrder: 1801F31
BatchID: 152369
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-152369
 1801E90-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,1-Dichloropropene	ND	0.0453	0.0050	0.050	-	91	67-134
cis-1,3-Dichloropropene	ND	0.0420	0.0050	0.050	-	84	65-138
trans-1,3-Dichloropropene	ND	0.0423	0.0050	0.050	-	85	66-124
Diisopropyl ether (DIPE)	ND	0.0443	0.0050	0.050	-	89	58-129
Ethylbenzene	ND	0.0518	0.0050	0.050	-	104	73-145
Ethyl tert-butyl ether (ETBE)	ND	0.0408	0.0050	0.050	-	82	62-125
Freon 113	ND	0.0380	0.0050	0.050	-	76	55-116
Hexachlorobutadiene	ND	0.0606	0.0050	0.050	-	121	75-178
Hexachloroethane	ND	0.0578	0.0050	0.050	-	116	75-152
2-Hexanone	ND	0.0344	0.0050	0.050	-	69	41-113
Isopropylbenzene	ND	0.0531	0.0050	0.050	-	106	67-172
4-Isopropyl toluene	ND	0.0700	0.0050	0.050	-	140	88-171
Methyl-t-butyl ether (MTBE)	ND	0.0369	0.0050	0.050	-	74	58-122
Methylene chloride	ND	0.0427	0.0050	0.050	-	85	57-140
4-Methyl-2-pentanone (MIBK)	ND	0.0335	0.0050	0.050	-	67	42-117
Naphthalene	ND	0.0205	0.0050	0.050	-	41	29-65
n-Propyl benzene	ND	0.0617	0.0050	0.050	-	123	85-174
Styrene	ND	0.0396	0.0050	0.050	-	79	63-126
1,1,1,2-Tetrachloroethane	ND	0.0415	0.0050	0.050	-	83	68-131
1,1,2,2-Tetrachloroethane	ND	0.0377	0.0050	0.050	-	75	45-121
Tetrachloroethene	ND	0.0508	0.0050	0.050	-	102	65-150
Toluene	ND	0.0466	0.0050	0.050	-	93	72-135
1,2,3-Trichlorobenzene	ND	0.0245	0.0050	0.050	-	49	35-80
1,2,4-Trichlorobenzene	ND	0.0306	0.0050	0.050	-	61	45-103
1,1,1-Trichloroethane	ND	0.0436	0.0050	0.050	-	87	67-137
1,1,2-Trichloroethane	ND	0.0387	0.0050	0.050	-	77	67-117
Trichloroethene	ND	0.0461	0.0050	0.050	-	92	62-135
Trichlorofluoromethane	ND	0.0396	0.0050	0.050	-	79	56-124
1,2,3-Trichloropropane	ND	0.0442	0.0050	0.050	-	88	58-133
1,2,4-Trimethylbenzene	ND	0.0610	0.0050	0.050	-	122	78-161
1,3,5-Trimethylbenzene	ND	0.0635	0.0050	0.050	-	127	85-170
Vinyl Chloride	ND	0.0446	0.0050	0.050	-	89	32-142
Xylenes, Total	ND	0.137	0.0050	0.15	-	92	70-137

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Quality Control Report

Client: Langan
Date Prepared: 1/29/18
Date Analyzed: 1/30/18 - 1/31/18
Instrument: GC10, GC16
Matrix: Soil
Project: 750022405; 1110 Jackson

WorkOrder: 1801F31
BatchID: 152369
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-152369
 1801E90-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
Dibromofluoromethane	0.118	0.126		0.12	94	101	87-127
Toluene-d8	0.159	0.162		0.12	127	130	93-141
4-BFB	0.0125	0.0132		0.012	100	106	84-137
Benzene-d6	0.0799	0.0857		0.10	80	86	67-131
Ethylbenzene-d10	0.111	0.115		0.10	111	115	78-153
1,2-DCB-d4	0.0793	0.0775		0.10	79	78	63-109



Quality Control Report

Client: Langan
Date Prepared: 1/29/18
Date Analyzed: 1/30/18 - 1/31/18
Instrument: GC10, GC16
Matrix: Soil
Project: 750022405; 1110 Jackson

WorkOrder: 1801F31
BatchID: 152369
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-152369
 1801E90-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Acetone	0.837	0.901	1	ND	84	90	36-141	7.36	20
tert-Amyl methyl ether (TAME)	0.0326	0.0341	0.050	ND	65	68	46-105	4.40	20
Benzene	0.0462	0.0475	0.050	ND	92	95	46-124	2.85	20
Bromobenzene	0.0608	0.0630	0.050	ND	122,F1	126,F1	50-119	3.51	20
Bromochloromethane	0.0363	0.0386	0.050	ND	73	77	42-122	5.98	20
Bromodichloromethane	0.0383	0.0393	0.050	ND	77	79	48-112	2.66	20
Bromoform	0.0359	0.0382	0.050	ND	72	76	36-90	6.14	20
Bromomethane	0.0372	0.0368	0.050	ND	74	74	10-149	0	20
2-Butanone (MEK)	0.137	0.151	0.20	ND	62	69	43-114	9.79	20
t-Butyl alcohol (TBA)	0.163	0.177	0.20	ND	81	88	33-123	8.22	20
n-Butyl benzene	0.0734	0.0736	0.050	ND	147	147	40-185	0	20
sec-Butyl benzene	0.0776	0.0783	0.050	ND	155	157	40-183	0.879	20
tert-Butyl benzene	0.0834	0.0835	0.050	ND	167	167	44-168	0	20
Carbon Disulfide	0.0478	0.0494	0.050	ND	96	99	23-139	3.32	20
Carbon Tetrachloride	0.0465	0.0480	0.050	ND	88	91	43-133	3.24	20
Chlorobenzene	0.0483	0.0495	0.050	ND	97	99	51-115	2.49	20
Chloroethane	0.0393	0.0392	0.050	ND	79	78	16-138	0.412	20
Chloroform	0.0481	0.0499	0.050	ND	96	100	54-117	3.68	20
Chloromethane	0.0391	0.0382	0.050	ND	78	77	14-128	2.22	20
2-Chlorotoluene	0.0604	0.0617	0.050	ND	121	123	54-141	2.20	20
4-Chlorotoluene	0.0656	0.0665	0.050	ND	131	133	52-134	1.26	20
Dibromochloromethane	0.0386	0.0397	0.050	ND	77	79	46-102	2.92	20
1,2-Dibromo-3-chloropropane	0.0164	0.0184	0.020	ND	66	76	16-120	11.3	20
1,2-Dibromoethane (EDB)	0.0380	0.0394	0.050	ND	76	79	48-113	3.69	20
Dibromomethane	0.0398	0.0424	0.050	ND	80	85	44-110	6.23	20
1,2-Dichlorobenzene	0.0431	0.0444	0.050	ND	86	89	43-106	2.96	20
1,3-Dichlorobenzene	0.0456	0.0466	0.050	ND	86	88	49-128	1.99	20
1,4-Dichlorobenzene	0.0495	0.0515	0.050	ND	99	103	48-120	3.87	20
Dichlorodifluoromethane	0.0261	0.0269	0.050	ND	52	54	8-63	2.98	20
1,1-Dichloroethane	0.0481	0.0496	0.050	ND	96	99	50-122	3.11	20
1,2-Dichloroethane (1,2-DCA)	0.0384	0.0401	0.050	ND	77	80	46-116	4.26	20
1,1-Dichloroethene	0.0452	0.0464	0.050	ND	90	93	37-124	2.65	20
cis-1,2-Dichloroethene	0.0468	0.0483	0.050	ND	94	97	47-123	3.06	20
trans-1,2-Dichloroethene	0.0417	0.0429	0.050	ND	83	86	31-131	2.93	20
1,2-Dichloropropane	0.0435	0.0449	0.050	ND	87	90	50-116	3.29	20
1,3-Dichloropropane	0.0393	0.0413	0.050	ND	79	83	52-115	4.95	20
2,2-Dichloropropane	0.0541	0.0560	0.050	ND	108	112	43-137	3.53	20

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Quality Control Report

Client: Langan
Date Prepared: 1/29/18
Date Analyzed: 1/30/18 - 1/31/18
Instrument: GC10, GC16
Matrix: Soil
Project: 750022405; 1110 Jackson

WorkOrder: 1801F31
BatchID: 152369
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-152369
 1801E90-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
1,1-Dichloropropene	0.0493	0.0510	0.050	ND	99	102	43-126	3.43	20
cis-1,3-Dichloropropene	0.0423	0.0438	0.050	ND	85	88	35-134	3.52	20
trans-1,3-Dichloropropene	0.0390	0.0402	0.050	ND	71	73	35-124	3.07	20
Diisopropyl ether (DIPE)	0.0434	0.0453	0.050	ND	87	91	49-116	4.25	20
Ethylbenzene	0.0537	0.0554	0.050	ND	107	111	49-137	3.17	20
Ethyl tert-butyl ether (ETBE)	0.0344	0.0362	0.050	ND	69	72	50-113	5.30	20
Freon 113	0.0457	0.0472	0.050	ND	91	94	28-114	3.20	20
Hexachlorobutadiene	0.0647	0.0668	0.050	ND	129	134	22-180	3.24	20
Hexachloroethane	0.0560	0.0566	0.050	ND	112	113	28-158	1.04	20
2-Hexanone	0.0318	0.0342	0.050	ND	57	62	31-102	7.21	20
Isopropylbenzene	0.0622	0.0639	0.050	ND	124	128	50-153	2.80	20
4-Isopropyl toluene	0.0720	0.0727	0.050	ND	144	145	41-171	0.906	20
Methyl-t-butyl ether (MTBE)	0.0414	0.0439	0.050	ND	83	88	48-110	5.86	20
Methylene chloride	0.0376	0.0391	0.050	ND	75	78	42-127	3.88	20
4-Methyl-2-pentanone (MIBK)	0.0326	0.0350	0.050	ND	62	67	24-114	7.10	20
Naphthalene	0.0326	0.0313	0.050	ND	65	63	19-69	4.18	20
n-Propyl benzene	0.0709	0.0730	0.050	ND	142	146	46-168	2.85	20
Styrene	0.0451	0.0463	0.050	ND	87	89	42-122	2.66	20
1,1,1,2-Tetrachloroethane	0.0436	0.0444	0.050	ND	87	89	52-121	1.99	20
1,1,2,2-Tetrachloroethane	0.0444	0.0459	0.050	ND	89	92	27-116	3.44	20
Tetrachloroethene	0.0525	0.0532	0.050	ND	105	107	37-149	1.44	20
Toluene	0.0476	0.0484	0.050	ND	95	97	52-124	1.66	20
1,2,3-Trichlorobenzene	0.0421	0.0426	0.050	ND	84	85	20-86	1.22	20
1,2,4-Trichlorobenzene	0.0445	0.0449	0.050	ND	89	90	24-107	0.943	20
1,1,1-Trichloroethane	0.0459	0.0472	0.050	ND	92	94	48-128	2.87	20
1,1,2-Trichloroethane	0.0445	0.0466	0.050	ND	89	93	51-110	4.68	20
Trichloroethene	0.0484	0.0495	0.050	ND	97	99	42-128	2.39	20
Trichlorofluoromethane	0.0505	0.0524	0.050	ND	101	105	31-121	3.75	20
1,2,3-Trichloropropane	0.0541	0.0555	0.050	ND	108	111	50-115	2.51	20
1,2,4-Trimethylbenzene	0.0681	0.0688	0.050	ND	136	138	48-151	0.977	20
1,3,5-Trimethylbenzene	0.0781	0.0799	0.050	ND	156	160,F1	51-159	2.28	20
Vinyl Chloride	0.0384	0.0377	0.050	ND	77	75	11-136	1.78	20
Xylenes, Total	0.158	0.163	0.15	ND	106	109	38-141	2.75	20

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Quality Control Report

Client: Langan
Date Prepared: 1/29/18
Date Analyzed: 1/30/18 - 1/31/18
Instrument: GC10, GC16
Matrix: Soil
Project: 750022405; 1110 Jackson

WorkOrder: 1801F31
BatchID: 152369
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS-152369
 1801E90-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Surrogate Recovery									
Dibromofluoromethane	0.129	0.131	0.12		103	105	82-136	1.66	20
Toluene-d8	0.144	0.143	0.12		116	114	92-139	0.927	20
4-BFB	0.0185	0.0190	0.012		148,F3	152,F3	82-135	2.61	20
Benzene-d6	0.0832	0.0856	0.10		83	86	55-122	2.90	20
Ethylbenzene-d10	0.103	0.106	0.10		103	106	58-141	2.93	20
1,2-DCB-d4	0.0831	0.0858	0.10		83	86	51-107	3.18	20



Quality Control Report

Client: Langan
Date Prepared: 1/29/18
Date Analyzed: 1/30/18
Instrument: ICP-MS2
Matrix: Soil
Project: 750022405; 1110 Jackson

WorkOrder: 1801F31
BatchID: 152381
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg
Sample ID: MB/LCS-152381
 1801F02-001AMS/MSD
 1801F02-001APDS

QC Summary Report for Metals

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Antimony	ND	51.8	0.50	50	-	104	75-125
Arsenic	ND	50.3	0.50	50	-	101	75-125
Barium	ND	522	5.0	500	-	104	75-125
Beryllium	ND	51.5	0.50	50	-	103	75-125
Cadmium	ND	49.0	0.25	50	-	98	75-125
Chromium	ND	48.1	0.50	50	-	96	75-125
Cobalt	ND	49.6	0.50	50	-	99	75-125
Copper	ND	48.9	0.50	50	-	98	75-125
Lead	ND	50.9	0.50	50	-	102	75-125
Mercury	ND	1.22	0.050	1.25	-	97	75-125
Molybdenum	ND	51.1	0.50	50	-	102	75-125
Nickel	ND	49.3	0.50	50	-	99	75-125
Selenium	ND	49.5	0.50	50	-	99	75-125
Silver	ND	50.0	0.50	50	-	100	75-125
Thallium	ND	47.7	0.50	50	-	95	75-125
Vanadium	ND	48.5	0.50	50	-	97	75-125
Zinc	ND	501	5.0	500	-	100	75-125
Surrogate Recovery							
Terbium	508	521		500	102	104	70-130



Quality Control Report

Client: Langan
Date Prepared: 1/29/18
Date Analyzed: 1/30/18
Instrument: ICP-MS2
Matrix: Soil
Project: 750022405; 1110 Jackson

WorkOrder: 1801F31
BatchID: 152381
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg
Sample ID: MB/LCS-152381
 1801F02-001AMS/MSD
 1801F02-001APDS

QC Summary Report for Metals

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Antimony	52.4	54.2	50	ND	104	108	75-125	3.36	20
Arsenic	52.3	53.8	50	3.101	98	101	75-125	2.79	20
Barium	603	628	500	65.62	107	113	75-125	4.14	20
Beryllium	50.0	50.6	50	ND	100	101	75-125	1.15	20
Cadmium	50.2	51.3	50	ND	100	103	75-125	2.27	20
Chromium	80.1	83.9	50	32.47	95	103	75-125	4.61	20
Cobalt	58.1	60.5	50	10.81	95	99	75-125	4.08	20
Copper	79.8	85.0	50	29.04	102	112	75-125	6.31	20
Lead	56.4	58.7	50	4.000	105	109	75-125	3.96	20
Mercury	1.32	1.34	1.25	0.1316	95	97	75-125	1.65	20
Molybdenum	51.4	53.7	50	ND	102	107	75-125	4.43	20
Nickel	96.5	106	50	43.42	106	126,F10	75-125	9.55	20
Selenium	51.3	50.6	50	ND	102	101	75-125	1.43	20
Silver	52.0	53.5	50	ND	104	107	75-125	2.88	20
Thallium	48.9	50.5	50	ND	98	101	75-125	3.22	20
Vanadium	106	115	50	55.84	100	118	75-125	8.14	20
Zinc	550	574	500	49.91	100	105	75-125	4.40	20

Surrogate Recovery

Terbium	530	548	500		106	110	70-130	3.32	20
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Analyte	PDS Result	SPK Val	SPKRef Val	PDS %REC	PDS Limits
Nickel	92.6	50	43.42	98	75-125

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Antimony	ND<2.5	ND	-	-
Arsenic	2.57	3.101	17.1	-
Barium	65.0	65.62	0.945	-
Beryllium	ND<2.5	ND	-	-
Cadmium	ND<1.2	ND	-	-
Chromium	34.0	32.47	4.71	20
Cobalt	11.7	10.81	8.23	-
Copper	28.7	29.04	1.17	20

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 1/29/18
Date Analyzed: 1/30/18
Instrument: ICP-MS2
Matrix: Soil
Project: 750022405; 1110 Jackson

WorkOrder: 1801F31
BatchID: 152381
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg
Sample ID: MB/LCS-152381
 1801F02-001AMS/MSD
 1801F02-001APDS

QC Summary Report for Metals

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Lead	4.05	4.000	1.25	-
Mercury	0.254	0.1316	93.0	-
Molybdenum	ND<2.5	ND	-	-
Nickel	44.1	43.42	1.57	20
Selenium	ND<2.5	ND	-	-
Silver	ND<2.5	ND	-	-
Thallium	ND<2.5	ND	-	-
Vanadium	58.8	55.84	5.30	20
Zinc	51.8	49.91	3.79	-

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.



Quality Control Report

Client: Langan	WorkOrder: 1801F31
Date Prepared: 1/29/18	BatchID: 152360
Date Analyzed: 1/30/18	Extraction Method: SW5030B
Instrument: GC19	Analytical Method: SW8021B/8015Bm
Matrix: Soil	Unit: mg/Kg
Project: 750022405; 1110 Jackson	Sample ID: MB/LCS-152360 1801E84-002AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
TPH(g) (C6-C12)	ND	1.0	-	-	-
MTBE	ND	0.050	-	-	-
Benzene	ND	0.0050	-	-	-
Toluene	ND	0.0050	-	-	-
Ethylbenzene	ND	0.0050	-	-	-
Xylenes	ND	0.0050	-	-	-

Surrogate Recovery

2-Fluorotoluene	0.0961		0.10	96	75-134
-----------------	--------	--	------	----	--------

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH(btex)	0.552	-	0.60	92	-	82-118	-	-
MTBE	0.0869	-	0.10	87	-	61-119	-	-
Benzene	0.0956	-	0.10	96	-	77-128	-	-
Toluene	0.100	-	0.10	100	-	74-132	-	-
Ethylbenzene	0.0984	-	0.10	98	-	84-127	-	-
Xylenes	0.301	-	0.30	100	-	86-129	-	-

Surrogate Recovery

2-Fluorotoluene	0.0933	-	0.10	93	-	75-134	-	-
-----------------	--------	---	------	----	---	--------	---	---

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	NR	NR		ND<20	NR	NR	-	NR	-
MTBE	NR	NR		ND<2.5	NR	NR	-	NR	-
Benzene	NR	NR		ND<0.25	NR	NR	-	NR	-
Toluene	NR	NR		ND<0.25	NR	NR	-	NR	-
Ethylbenzene	NR	NR		ND<0.25	NR	NR	-	NR	-
Xylenes	NR	NR		ND<0.25	NR	NR	-	NR	-

Surrogate Recovery

2-Fluorotoluene	NR	NR			NR	NR	-	NR	-
-----------------	----	----	--	--	----	----	---	----	---



Quality Control Report

Client: Langan
Date Prepared: 1/29/18
Date Analyzed: 1/29/18
Instrument: GC9b
Matrix: Soil
Project: 750022405; 1110 Jackson

WorkOrder: 1801F31
BatchID: 152361
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg
Sample ID: MB/LCS-152361
 1801E84-002AMS/MSD

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	38.6	1.0	40	-	97	75-128
TPH-Motor Oil (C18-C36)	ND	-	5.0	-	-	-	-
Surrogate Recovery							
C9	23.5	23.7		25	94	95	72-122

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	NR	NR		5500	NR	NR	-	NR	-
Surrogate Recovery									
C9	NR	NR			NR	NR	-	NR	-

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

WaterTrax WriteOn EDF

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1801F31

ClientCode: TWRK

Excel EQuIS Email HardCopy ThirdParty J-flag
 Detection Summary Dry-Weight

Report to:

Noel Liner
Langan
501 14th Street, 3rd Floor
Oakland, CA 94612
(415) 955-9040 FAX: (415) 955-9041

Email: nliner@langan.com
cc/3rd Party: josborne@langan.com;
PO:
Project: 750022405; 1110 Jackson

Bill to:

Accounts Payable
Langan
555 Montgomery St., Suite 1300
San Francisco, CA 94111
Langan_InvoiceCapture@concur.solutio

Requested TAT: 5 days;

Date Received: 01/17/2018

Date Logged: 01/29/2018

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1801F31-001	Drum-1	Soil	1/17/2018 10:52	<input type="checkbox"/>	A	A	A	A	A								

Test Legend:

1	8081PCB_S	2	8260B_S	3	CAM17MS_TTLC_S	4	G-MBTEX_S
5	TPH(DMO)_S	6		7		8	
9		10		11		12	

Prepared by: Agustina Venegas

The following SampID: 001A contains testgroup Multi Range_S.

Comments: Taken off HOLD 1/29/18 per J.O

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: LANGAN
Client Contact: Noel Liner
Contact's Email: nliner@langan.com

Project: 750022405; 1110 Jackson
Comments: Taken off HOLD 1/29/18 per J.O

Work Order: 1801F31
QC Level: LEVEL 2
Date Logged: 1/29/2018

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1801F31-001A	Drum-1	Soil	Multi-Range TPH(g,d,mo) by EPA 8015Bm	1	4OZ GJ, Unpres	<input type="checkbox"/>	1/17/2018 10:52	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8081A/8082 (OC Pesticides+PCBs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).
- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.



Sample Receipt Checklist

Client Name: **Langan**
 Project: **750022405; 1110 Jackson**

Date and Time Received: **1/17/2018 17:15**
 Date Logged: **1/29/2018**
 Received by: **Jena Alfaro**
 Logged by: **Agustina Venegas**

WorkOrder No: **1801F31** Matrix: Soil
 Carrier: Lorenzo Perez (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sampler's name noted on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
COC agrees with Quote?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Sample/Temp Blank temperature	Temp: 7.3°C		NA <input type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE)

UCMR Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

 Comments:

Facility: BART Lake Merritt Substation (LMA) (CERSID: 10343530)

[Home](#) » [Facility Search](#) » [Facility Summary: 10343530](#)

Summary

[Submittals](#)

[Reporting Requirements](#)

[Compliance](#)

[Notifications](#)

[Manage Facility](#)

[Change UPA](#)

[Location Map](#)

Facility Summary for CERS ID: 10343530

Facility Name: BART Lake Merritt Substation (LMA)
Business Name: BART (Oakland, CA)
CUPA: Oakland City Fire Department

Facility Information

BART Lake Merritt Substation (LMA) 800 Madison St Oakland, CA 94607 (510) 464-6000	Remote Facility No Edit Small Quantity Facility No Edit
---	--

Owner Information

S. F. Bay Area Rapid Transit District
 P.O. Box 12688 M/S LKS-18
 Oakland, CA 94604-2688
 (510) 464-7659

Primary Emergency Contact

BART Operations Control Center
 Power Support Controller
 (510) 464-4163
 (510) 465-2260 (24-hour)

Secondary Emergency Contact

BART Operations Control Center
 OCC Manager
 (510) 834-1297 (24-hour)

Environmental Contact

Gary Jensen
 (510) 464-7659
gjensen@bart.gov
 Mailing Address
 P.O. Box 12688 M/S LKS-18
 Oakland, CA 94604-2688 United States

Other Identifiers

Local Facility ID No Local Facility ID in CERS Edit	EPA ID No EPAID in CERS
Facility Regulator Key No Facility Regulator Key in CERS Edit	County Alameda
Local Facility Grouping No Local Facility Grouping Edit	

Submittal and Compliance Data

Last Submittal Date 2/21/2014 4:02 PM	Submitted Element Count 6	Inspections 0	Enforcements 0
---	-------------------------------------	-------------------------	--------------------------

Reporting Status

Facinfo	Inventory	Plans	UST	TP	RMR	Remote	APSA
Submitted 02/21/2014 APPLICABLE	Submitted 02/21/2014 APPLICABLE	Submitted 02/21/2014 APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE

Inventory Summary

Unique Location Summary Count 2	Gas EHS Summary Count 0	Liquid EHS Summary Count 0	Solid EHS Summary Count 0
Gas Material Summary Count 1	Liquid Material Summary Count 1	Solid Material Summary Count 0	
Gas Maximum Daily Summary Value 1,530 cubic feet	Liquid Maximum Daily Summary Value 1,375 gallons	Solid Maximum Daily Summary Value 0 pounds	





Reporting Requirements

Submittal Element	Regulator	Reporting Requirement	Next Due Date
Facility Information	Oakland City Fire Department	Applicable	
Hazardous Materials Inventory	Oakland City Fire Department	Applicable	
Emergency Response and Training Plans	Oakland City Fire Department	Applicable	
Underground Storage Tanks	Oakland City Fire Department	Not Applicable	
Tiered Permitting	Oakland City Fire Department	Not Applicable	
Recyclable Materials Report	Oakland City Fire Department	Not Applicable	
Remote Waste Consolidation Site Annual Notification	Oakland City Fire Department	Not Applicable	
Hazardous Waste Tank Closure Certification	Oakland City Fire Department	Not Applicable	
Aboveground Petroleum Storage Act	Oakland City Fire Department	Not Applicable	

[Version 2.22.0185](#) | [Enhancements](#) | [CERS Central](#)

[Diagnostics](#) | [Conditions of Use](#) | [Privacy Policy](#) | [Contact](#) | [Help](#)

California Environmental Reporting System: Business | © 2014 California Environmental Protection Agency
CERS Technical Support: [Request Technical Assistance](#)

	 CERS Help	 Settings	 Notifications	<input type="text"/>
---	---	--	---	----------------------

Facility: BART Lake Merritt Substation (LMA) (CERSID: 10343530)

[Home](#) » [Facility Search](#) » [Facility Summary: 10343530](#) » [Submittal History](#)

[Summary](#)

[Submittals](#)

[Reporting Requirements](#)

[Compliance](#)

[Notifications](#)

[Manage Facility](#)

[Change UPA](#)

[Location Map](#)

Submittal History for BART Lake Merritt Substation (LMA)

*Note: Submittal data is current as of 12/8/2014 at 1:58 PM.

											Export to Excel
CERSID	Address	Submitted	Facility	Inventory	Plans	UST	TP	RMR	Remote	Tank	APSA
10343530	BART Lake Merritt Substation (LMA) 800 Madison St Oakland, 94607	2/21/2014 4:02PM	Submitted 2/21/2014	Submitted 2/21/2014	Submitted 2/21/2014						
10343530	BART Lake Merritt Substation (LMA) 800 Madison St Oakland, 94607	2/23/2013 4:24PM	Accepted 9/13/2013	Accepted 9/13/2013	Accepted 9/13/2013						

1 - 2 of 2 items

Archived Submittal History for CERSID: 10343530

Submittals shown below were submitted by previous owner/operators of this facility.

CERSID	Address	Submitted	Facility	Inventory	Plans	UST	TP	RMR	Remote	Tank	APSA
											Export to Excel
											No items to display

BUSINESS OWNER/OPERATOR IDENTIFICATION

I. IDENTIFICATION

FACILITY ID#		BEGINNING DATE	100	ENDING DATE	101
BUSINESS NAME (Same as FACILITY NAME or DBA - Doing Business As)			3	BUSINESS PHONE	
BART Lake Merritt Substation (ALM)					
BUSINESS SITE ADDRESS					103
800 Madison Street, sub-concourse level in LMA					
CITY	104	STATE	105	ZIP CODE	
Oakland		CA		94607	
DUN & BRADSTREET			106	SIC CODE (4 digit #)	
				4111	
COUNTY					108
Alameda					
BUSINESS OPERATOR NAME			109	BUSINESS OPERATOR PHONE	
BART Power and Mechanical Maintenance				(510) 464-6615	

2401

II. BUSINESS OWNER

OWNER NAME	111	OWNER PHONE		112	
S. F. Bay Area Rapid Transit District				(510) 464-6000	
OWNER MAILING ADDRESS					
P.O. Box 12688					
CITY	114	STATE	115	ZIP CODE	116
Oakland		CA		94604-2688	

III. ENVIRONMENTAL CONTACT

CONTACT NAME	117	CONTACT PHONE		118	
Janie Layton				(510) 287-4863	
CONTACT MAILING ADDRESS					
1330 Broadway, Suite 1702					
CITY	120	STATE	121	ZIP CODE	122
Oakland		CA		94612	

-PRIMARY-

IV. EMERGENCY CONTACTS

-SECONDARY-

NAME	123	NAME	128
Randy Clark		BART Operations Control Center	
TITLE	124	TITLE	129
Manager, Power and Mechanical Maintenance		OCC Manager	
BUSINESS PHONE	125	BUSINESS PHONE	130
(510) 464-6640			
24-HOUR PHONE	126	24-HOUR PHONE	131
(510) 464-6615		(510) 834-1297	
PAGER #	127	PAGER #	132

ADDITIONAL LOCALLY COLLECTED INFORMATION:

Certification: Based on my inquiry of those individuals responsible for obtaining the information, I certify under penalty of law that I have personally examined and am familiar with the information submitted and believe the information is true, accurate, and complete.

SIGNATURE OF OWNER/OPERATOR OR DESIGNATED REPRESENTATIVE	DATE	134	NAME OF DOCUMENT PREPARER	135
<i>Janie Layton</i>	5/7/02		Gary Jensen	
NAME OF SIGNER (print)	136	TITLE OF SIGNER	137	
Janie L Layton		Manager of Environmental Compliance		

**OAKLAND FIRE DEPARTMENT
Office Of Emergency Services
Hazardous Materials Management Program**

1605 Martin Luther King Jr. Way
Oakland, CA 94612

Office: (510) 238-3938

Fax: (510) 238-7761

HAZARDOUS MATERIALS BUSINESS PLAN

1. Number of individuals handling hazardous materials: 2
2. Hazardous materials/waste storage and handling area in square feet: 100
3. Number of storage tanks on site: Above Ground 0 Under Ground 0
4. Facility Name: BART Lake Merritt Substa.
5. Facility Site Number:
6. Inspector: HEGA 6/4/02

	Gallons (Liquid)	Pounds (solid)	Cubic Feet (gases)	Number of Items
Hazardous Materials	1375		1530	2
Hazardous Waste				
TOTAL	1375		1530	2

FOR OFFICE USE ONLY

No Changes

New Facility

Inventory

Business Closed

Number of Employees

UST/AST

Exempt

Inactive

Address

Billing Adjustment

Other

**OAKLAND FIRE DEPARTMENT
Office Of Emergency Services
Hazardous Materials Management Program**

1605 Martin Luther King Jr. Way
Oakland, CA 94612

Office: (510) 238-3938

Fax: (510) 238-7761

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6. Inspector: HEGA 6/4/02

	Gallons (Liquid)	Pounds (solid)	Cubic Feet (gases)	Number of Items
Hazardous Materials	1375		1530	2
Hazardous Waste				
TOTAL	1375		1530	2

FOR OFFICE USE ONLY

- | | | |
|--|--|---|
| <input type="checkbox"/> No Changes | <input type="checkbox"/> Number of Employees | <input type="checkbox"/> Address |
| <input checked="" type="checkbox"/> New Facility | <input type="checkbox"/> UST/AST | <input type="checkbox"/> Billing Adjustment |
| <input type="checkbox"/> Inventory | <input type="checkbox"/> Exempt | <input type="checkbox"/> Other |
| <input type="checkbox"/> Business Closed | <input type="checkbox"/> Inactive | _____ |
| | | _____ |

**SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT (BART)
HAZARDOUS MATERIALS BUSINESS PLAN**

BART LAKE MERRITT SUBSTATION (ALM)

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BUSINESS OWNER/OPERATOR IDENTIFICATION

Page ___ of ___

I. IDENTIFICATION

FACILITY ID#		BEGINNING DATE	100	ENDING DATE	101
BUSINESS NAME (Same as FACILITY NAME or DBA - Doing Business As)			3	BUSINESS PHONE	
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BUSINESS SITE ADDRESS					
800 Madison Street, sub-concourse level in LMA					
CITY	104	CA	ZIP CODE	105	
Oakland			94607		
DUN & BRADSTREET	106	SIC CODE (4 digit #)		107	
		4111			
COUNTY					
Alameda					
BUSINESS OPERATOR NAME			109	BUSINESS OPERATOR PHONE	
BART Power and Mechanical Maintenance				(510) 464-6615	

II. BUSINESS OWNER

OWNER NAME	111	OWNER PHONE		112
S. F. Bay Area Rapid Transit District		(510) 464-6000		
OWNER MAILING ADDRESS				
P.O. Box 12688				
CITY	114	STATE	115	ZIP CODE
Oakland		CA		94604-2688

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CONTACT MAILING ADDRESS				
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Oakland		CA		94612

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TITLE	124	TITLE	129
Manager, Power and Mechanical Maintenance		OCC Manager	
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(510) 464-6640			
24-HOUR PHONE	126	24-HOUR PHONE	131
(510) 464-6615		(510) 834-1297	
PAGER #	127	PAGER #	132

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<i>Janie Layton</i>	5/7/02		Gary Jensen	
NAME OF SIGNER (print)	136	TITLE OF SIGNER	137	
Janie L Layton		Manager of Environmental Compliance		

UNIFIED PROGRAM CONSOLIDATED FORM

HAZARDOUS MATERIALS

HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

ADD

DELETE

REVISE

200

Page ___ of ___

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA - Doing Business As) 3

BART Lake Merritt Substation (ALM)

CHEMICAL LOCATION 201 CHEMICAL LOCATION CONFIDENTIAL 202

Inside transformers X01.

EPCRA

YES NO

FACILITY ID #		MAP# (optional) 203	GRID# (optional) 204
		X01	

II. CHEMICAL INFORMATION

CHEMICAL NAME 205 TRADE SECRET Yes No 206

If Subject to EPCRA, refer to instructions

COMMON NAME 207 EHS* Yes No 208

Shell Diala Oil AX

CAS# 209 *If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) 211	RADIOACTIVE <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 212	CURIES 213
<input type="checkbox"/> a. PURE <input checked="" type="checkbox"/> b. MIXTURE <input type="checkbox"/> c. WASTE		

PHYSICAL STATE (Check one item only) 214	LARGEST CONTAINER 215
<input type="checkbox"/> a. SOLID <input checked="" type="checkbox"/> b. LIQUID <input type="checkbox"/> c. GAS	1375

FED HAZARD CATEGORIES (Check all that apply) 216

a. FIRE b. REACTIVE c. PRESSURE RELEASE d. ACUTE HEALTH e. CHRONIC HEALTH

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
1375	1375	0	

UNITS* (Check one item only) 221	DAYS ON SITE: 222
<input checked="" type="checkbox"/> a. GALLONS <input type="checkbox"/> b. CUBIC FEET <input type="checkbox"/> c. POUNDS <input type="checkbox"/> d. TONS <small>* If EHS, amount must be in pounds.</small>	365

STORAGE CONTAINER 223

<input type="checkbox"/> a. ABOVE GROUND TANK	<input type="checkbox"/> e. PLASTIC/NONMETALLIC DRUM	<input type="checkbox"/> i. FIBER DRUM	<input type="checkbox"/> m. GLASS BOTTLE	<input type="checkbox"/> q. RAIL CAR
<input type="checkbox"/> b. UNDERGROUND TANK	<input type="checkbox"/> f. CAN	<input type="checkbox"/> j. BAG	<input type="checkbox"/> n. PLASTIC BOTTLE	<input checked="" type="checkbox"/> r. OTHER
<input type="checkbox"/> c. TANK INSIDE BUILDING	<input type="checkbox"/> g. CARBOY	<input type="checkbox"/> k. BOX	<input type="checkbox"/> o. TOTE BIN	
<input type="checkbox"/> d. STEEL DRUM	<input type="checkbox"/> h. SILO	<input type="checkbox"/> l. CYLINDER	<input type="checkbox"/> p. TANK WAGON	

STORAGE PRESSURE a. AMBIENT b. ABOVE AMBIENT c. BELOW AMBIENT 224

STORAGE TEMPERATURE a. AMBIENT b. ABOVE AMBIENT c. BELOW AMBIENT d. CRYOGENIC 225

#	%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
1	100 226	Solvent Refined Hydrotreated Middle Distillate 227	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 228	64742-46-7 229
2	30 230	Severely Hydrotreated Light Naphthenic Distillate 231	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 232	64742-53-6 233
3	0.2 234	Butylated Hydroxy Toluene 235	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 236	128-37-0 237
4	238	239	<input type="checkbox"/> Yes <input type="checkbox"/> No 240	241
5	242	243	<input type="checkbox"/> Yes <input type="checkbox"/> No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION X01 PCB Concentration: 87 ppm. 246

If EPCRA, Please Sign Here

UNIFIED PROGRAM CONSOLIDATED FORM

HAZARDOUS MATERIALS

HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

ADD

DELETE

REVISE

200

Page ___ of ___

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As) 3

BART Lake Merritt Substation (ALM)

CHEMICAL LOCATION 201 CHEMICAL LOCATION CONFIDENTIAL 202

EPCRA
 YES NO

FACILITY ID # 1 MAP# (optional) 203 GRID# (optional) 204

II. CHEMICAL INFORMATION

CHEMICAL NAME 205 TRADE SECRET Yes No 206

Nitrogen

If Subject to EPCRA, refer to instructions

COMMON NAME 207 EHS* Yes No 208

CAS# 209 *If EHS is "Yes", all amounts below must be in lbs.

7727-37-9

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) a. PURE b. MIXTURE c. WASTE 211 RADIOACTIVE Yes No 212 CURIES 213

PHYSICAL STATE (Check one item only) a. SOLID b. LIQUID c. GAS 214 LARGEST CONTAINER 215

FED HAZARD CATEGORIES (Check all that apply) a. FIRE b. REACTIVE c. PRESSURE RELEASE d. ACUTE HEALTH e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217 MAXIMUM DAILY AMOUNT 218 ANNUAL WASTE AMOUNT 219 STATE WASTE CODE 220

1530 1530 0

UNITS* a. GALLONS b. CUBIC FEET c. POUNDS d. TONS 221 DAYS ON SITE: 222

(Check one item only) * If EHS, amount must be in pounds. **365**

STORAGE CONTAINER a. ABOVE GROUND TANK e. PLASTIC/NONMETALLIC DRUM i. FIBER DRUM m. GLASS BOTTLE q. RAIL CAR
 b. UNDERGROUND TANK f. CAN j. BAG n. PLASTIC BOTTLE r. OTHER
 c. TANK INSIDE BUILDING g. CARBOY k. BOX o. TOTE BIN
 d. STEEL DRUM h. SILO l. CYLINDER p. TANK WAGON 223

STORAGE PRESSURE a. AMBIENT b. ABOVE AMBIENT c. BELOW AMBIENT 224

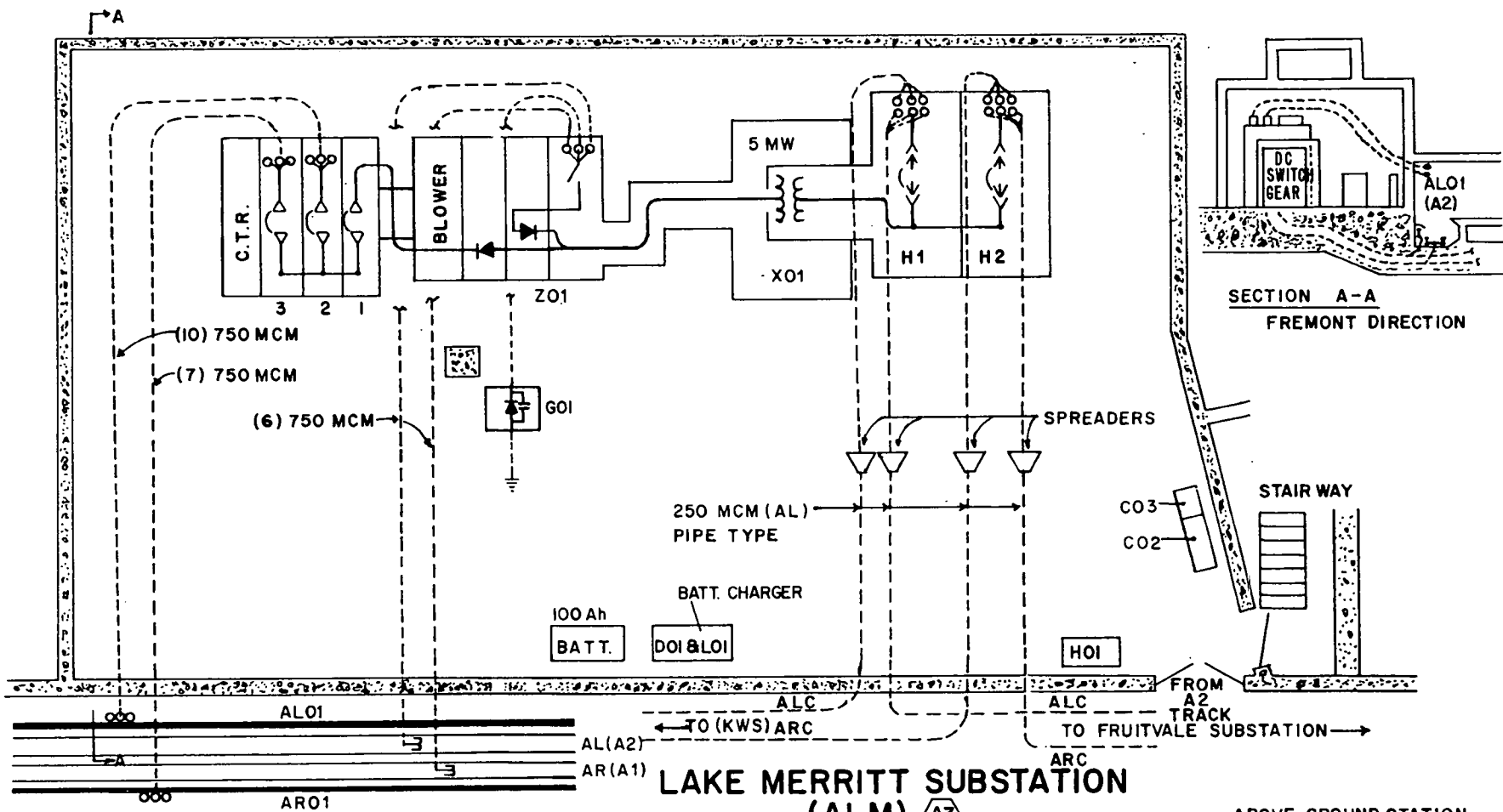
STORAGE TEMPERATURE a. AMBIENT b. ABOVE AMBIENT c. BELOW AMBIENT d. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
1 226	227	<input type="checkbox"/> Yes <input type="checkbox"/> No 228	229
2 230	231	<input type="checkbox"/> Yes <input type="checkbox"/> No 232	233
3 234	235	<input type="checkbox"/> Yes <input type="checkbox"/> No 236	237
4 238	239	<input type="checkbox"/> Yes <input type="checkbox"/> No 240	241
5 242	243	<input type="checkbox"/> Yes <input type="checkbox"/> No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here



DC MAIN - 8000 AMP
 DC FEEDERS - 6000 AMP
 BATTERY CHARGER SIZE - 15 AMP

A 25

REV. 8/7/89

LAKE MERRITT SUBSTATION (ALM) A3

ABOVE GROUND STATION

Spill Prevention and Emergency Response Plan

I. Facility Information

BART Lake Merritt Substation (ALM)
800 Madison Street, sub-concourse level in LMA
Oakland, CA 94607

II. Emergency Contact

BART Power Support Desk	(510) 465-2260
BART Power and Way Dispatch	(510) 464-6615
BART Police	(510) 464-7000
OCC Manager	(510) 834-1297

III. Emergency Notification

Report all emergencies by radio or telephone to the BART Operations Control Center (OCC). The OCC has direct lines to all emergency service providers.

IV. Arrangements

The District has a formalized emergency response agreement with Consolidated Waste Industries. Telephone: (800) 922-9984.

V. Evacuation Information

This facility is not normally occupied. Any personnel working at the site when an evacuation becomes necessary shall spread the evacuation order by shouting and shall travel by the safest route to the gate used to access the substation. This will be the assembly area.

VI. Procedures

1. General

- a. When approaching the substation, observe for abnormal conditions such as fire, spill, etc.
- b. During maintenance, check for the damage to the transformers and leakage.
- c. Inspect the oil retention pond for signs of release (i.e., floating oil or oil sheen).
- d. If there is no sign of oil in the retention pond, note it on the maintenance form and drain any accumulated water from the retention pond. Check to ensure the drainage valve is closed.

2. Hazardous Material Release

- a. Identify the character, source, amount, and extent of any released material.
- b. All released material will drain to the oil retention pond. Inspect retention pond to verify it has sufficient capacity to contain release.
- c. Notify OCC. OCC will implement emergency plans.
- d. OCC and System Safety will notify fire department, OES, and BART's emergency response contractor as appropriate.

- e. Emergency response personnel will remove any spilled material and return the facility to normal operation. Small releases can be cleaned up using absorbent pads or booms. Large releases will be removed using vacuum trucks.

3. Fire

- a. Evacuate personnel from the affected area.
- b. Notify OCC. Implement emergency plan.
- c. Have OCC drop power to the substation.
- d. Assess whether there is a release or threatened release of oil from the transformers. Take steps to prevent fire-fighting operations from washing oil off the property.

4. Earthquake

- a. Inspect transformers for signs of leaks or structural damage.
- b. Inspect oil retention pond for damage.

VII. Equipment

The following equipment shall be carried on each maintenance vehicle / crew.

Nitrile Gloves
First Aid Kit
Fire Extinguisher
Spill Pads and Booms
BART Trunk Radio

VIII. Medical Attention

Notify OCC to request an ambulance.

The nearest medical facility is:

Summit Medical Center
350 Hawthorne Avenue
Oakland, CA 94609
(510) 655-4000

See map on next page.

Start your job search:


Welcome, mdifrancia

[Edit/Create My Locations - Si](#)

Yahoo! Yellow Pages

Starting from: 800 Madison, Oakland, CA 94607-4730

[· Email Directions](#)

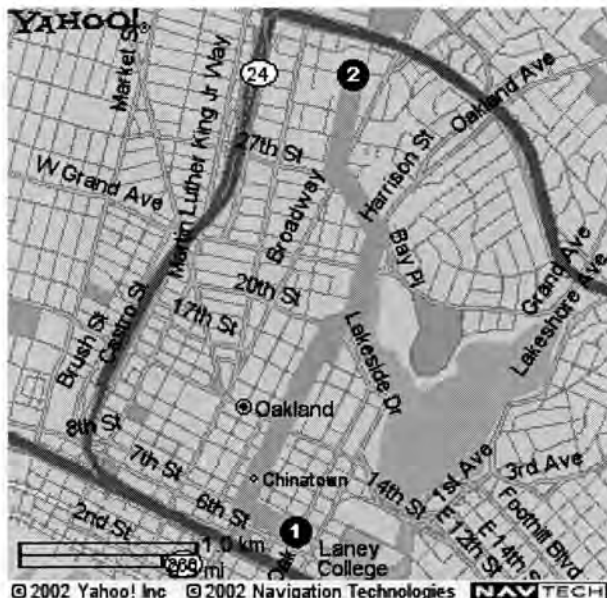
Arriving at:  **Summit Medical Ctr**
350 Hawthorne Ave, Oakland, CA 94609-3108
(510) 655-4000

[· Get Reverse Directions](#)

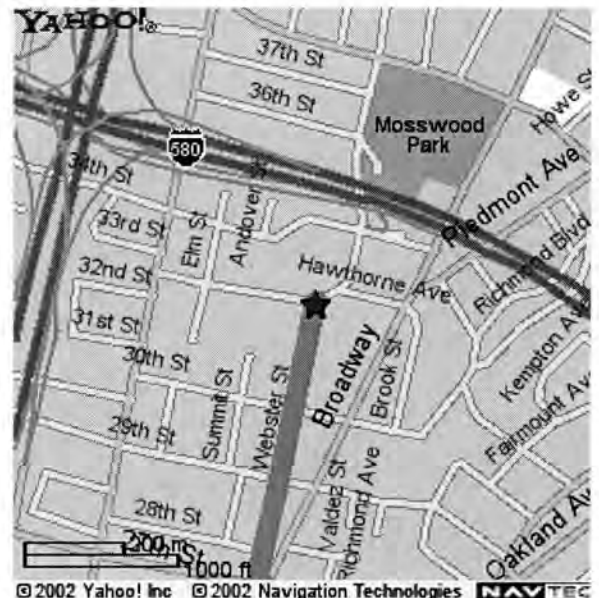
[· Text Only Driving Direc](#)

Distance: 1.9 miles

Approximate Travel Time: 5 mins



Full Route



Destination

Directions

1. Start on **8TH ST** going towards **HARRISON ST**
2. Turn Right on **HARRISON ST**
3. Bear Left on **27TH ST**
4. Turn Right on **WEBSTER ST**
5. Arrive at destination

Miles

- 0.2
- 1.1
- 0.3
- 0.4

When using any driving directions or map, it's a good idea to do a reality check and make sure the road exists, watch out for construction, and follow all traffic safety precautions. This is only to be used as an in planning.

**EMERGENCY RESPONSE / CONTINGENCY PLAN
Attachment 1. SPILL PROCEDURES**

Provide spill procedures for the following situations (as they apply to your facility)

Describe the types of spills that might occur and briefly describe actions to be taken. Also include levels of PPE to be used. Standard procedures are included if there are universally accepted ones. Use terms like: contain, absorb, dike, spill kit, drain, pump, place into container, sweep, shut off, etc. For indicating type of Personal Protection Equipment (PPE), use OSHA designated levels (A, B, C, D). Indicate if there are modifications to standard OSHA protection levels. If power is to be shut off, or some equipment needs to be shut down, please describe procedure, who does it and where shut-off is located.

Emergency	Response Action(s)	Person(s) trained to perform	PPE level
Hazardous Materials Spills at/from <ul style="list-style-type: none"> • Workstation • Containers • Drums • Piping • Tank • Trucking • Rail Transfers • Other: <u>Transformer</u> 	<ol style="list-style-type: none"> 1) Notify BART OCC by radio or telephone (510) 464-6615 2) Clear all personnel from the spill area. (Area is not normally occupied.) 3) Any spill will automatically drain to an oil retention pond and be contained. 4) OCC and System Safety will notify emergency response contractor. 5) E.R. Contractor will remove spilled oil with a vacuum truck or other means as appropriate. 	All All N/A OCC Outside contractor	N/A N/A N/A N/A D
Hazardous Waste Spills/Releases <ul style="list-style-type: none"> • Containers • Drums • Treatment system • Trucking 	Not Applicable.		

ERPlan.Attmnt1 (01/28/00)

**EMERGENCY RESPONSE / CONTINGENCY PLAN
Attachment 1: SPILL PROCEDURES (continued)**

Provide procedures for the following situations (as they apply to your facility)

Emergency	Response Action(s)	Person(s) trained to perform	PPE level
Fire <ul style="list-style-type: none"> • Call 9-1-1 immediately to report any fire • Immediately evacuate all personnel 	<p>(An extinguisher may be used for fires that can be attacked within 2 minutes by trained personnel. Describe the fire protection and alarm systems that are present in your facility. If power is to be shut off or some equipment needs to be shut down please describe procedure, who does it and where shut-off is located.)</p> <p>1) Notify OCC. 2) Power support controller cuts power to substation.</p>	<p>All OCC / PG&E</p>	<p>N/A N/A</p>
Explosion <ul style="list-style-type: none"> • Call 9-1-1 immediately to report any fire • Immediately evacuate all personnel 	<p>(Identify if there are explosion hazards in this space and what if any systems are present to mitigate or detect such hazards. Provide any specific operations that you have.)</p> <p>Not Applicable.</p>		
Earthquake <ul style="list-style-type: none"> • Duck and take cover under a table or doorway • Get outside and away from falling hazards 	<p>(Identify areas requiring immediate attention. If power is to be shut off or some equipment needs to be shut down, please describe procedure, who does it and where shut-off is located.)</p> <p>Inspect oil retention pond for cracks or damage. Inspect transformers for damage/leakage.</p>		
Other			

ERPlan.Attmnt1 (01/28/00)

EMERGENCY RESPONSE / CONTINGENCY PLAN
Attachment 2: EQUIPMENT LISTING

Equipment		Equipment (check if these are provided)	Location	Description, specify type and quantity
Personal Protective Equipment, Safety Equipment, First Aid Equipment		Chemical Protective Boots		
	✓	Chemical Protective Gloves	On trucks	Nitrile
		Safety Glasses/Goggles/Face Shields		
		Chemical Protective Clothing		
		Hard Hats		
		Chemical Monitoring Equipment (describe)		
	✓	First Aid Kits	All vehicles	
		Eye Wash Stations		
		Safety Showers		
		Cartridge Respirators		
		SCBA Units		
	Other (describe)			
Fire Extinguishing Systems	✓	Fire Extinguishers	All vehicles	
		Fire Hose		
		Foam with Nozzles/Hose		
Spill Control Equipment, Decontamination Equipment		Absorbents, Neutralizers		
		Shovels/Brooms/Squeegees		
		Overpack Drum / Spill Drum		
		Absorbent Booms / Pillows / Pads		
		Decontamination Equipment (describe)		
		Gas Cylinder Leak Repair Kits (describe)		
		Other (describe)		
Communications and Alarm Systems		Telephones		
		Intercoms / PA Systems		
	✓	Portable 2 Way Radios	All crews	800 MHz Trunk Radio
		Pull Station Alarms		
		Automatic Alarms		
Check if additional pages are attached				

ERPlan.Attmnt2equip (01/28/00)

BART Emergency Plan
Chapter VIII – Hazardous Materials Spill / Leak

801. Reporting a Hazardous Material Spill / Leak

1. When odors or visible evidence of a gas, gasoline or hazardous materials spill is detected on or near BART facilities, the detecting employee shall immediately report this fact and any other details known to the OCC. These facts shall be updated as changes occur or when new information becomes available.
2. The first employee to arrive at the scene shall attempt to clear all personnel or patrons from the affected area. Without jeopardizing their own safety, they must attempt to prevent all personnel, other than emergency response crews, from entering the area.
3. If the spill involves or contaminates a train, stop the train in a safe manner and location away from the spill area if possible.
4. If the spill occurs at a Shop facility, refer to the Hazardous Material Business Plan for action.
5. Remain in a safe area away from the scene to brief arriving BPD Officers, BART Maintenance and Engineering, BART System Safety, Fire Department, PG&E and other emergency response personnel.
6. Personnel detecting the presence of hazardous materials within the system should also be aware of the potential for intentional placement of these items. This placement may be a means of system disruption or terrorism, which may have the capability of severe consequences to passengers and employees. In the event of unexplained illnesses or odors which could be the result of contaminants within the system, immediate consideration should be given to the possibility of Nuclear/Biological/Chemical (NBC) releases. Any suspicions regarding the development of NBC weapons requires the immediate notification to appropriate emergency response personnel.

802. BART and Local Agencies' Response

1. BART Police Department:
 - a. BPD Officer(s) nearest to the reported incident shall be dispatched upwind of the scene as near as safety permits to: prohibit unauthorized personnel from entering, establish communications with the OCC and assume the duties of IC for mainline incidents.
 - b. For those incident occurring off property which will affect BART employees or operations, a police sergeant or officer in charge shall be sent to the Command Post in the appropriate jurisdiction to report information to the OCC and relay information to the Command Post.
2. BART Supervisory Personnel: Transportation and Power & Way Maintenance Supervisors are dispatched to locations designated by the OCC to assist as necessary.

3. Fire Department: The appropriate fire department shall be notified of any hazardous material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety to the environment if released into the workplace or the environment.
4. PG&E and Other Outside Agencies: The appropriate outside agencies shall be called for assistance at the emergency scene upon report from the IC that the condition cannot be corrected without outside assistance and/or is a threat to life safety.
5. In the event that intentional Nuclear/Biological/Chemical NBC releases are suspected within the system, or in surrounding areas which could impact the system, response should also be guided by the District's Nuclear/Biological/Chemical Incident Response Plan. Whether the source of hazardous materials is an accidental or intentional release, provisions of this Emergency Plan chapter will still be undertaken, with the exception of the operation of ventilation fans. In the event of suspected NBC weapons releases, ventilation fans will be turned off unless specifically requested by the Fire Department IC.

803. Protecting the Emergency Scene

1. Stations and Buildings: Stations and/or other buildings within the area of the emergency scene shall be closed, evacuated and may be guarded to prevent re-entry by unauthorized personnel.
2. Underground Areas: Ventilation fans shall be operated in the exhaust mode unless directed otherwise by the IC. The OCC shall advise personnel at the emergency scene the direction the air is being drawn.
3. Train Restriction: No trains shall be allowed in the area of the emergency scene until the area has been declared safe by the IC.
4. Restriction of Personnel: Only authorized BART personnel and those agencies/personnel called by the OCC to respond to the scene shall be permitted to enter the emergency scene.
5. Third Rail Power: The removal/restoration of third rail power shall be as directed by the IC or as required to move trains away from the emergency scene.

804. Determining and Evaluating the Facts

1. The OCC shall make every effort to determine the following from the person reporting the incident:
 - a. Origin of the reported leakage or spill.
 - b. The area of BART property affected by the incident, i.e.: station(s) or other structures, trackage by milepost location and track designation.
 - c. Natural Gas: The odor strength, i.e., light, moderate or heavy.
 - d. Gasoline: Seepage, flowing, pool or odor.

- e. Suspected Hazardous Spill: The color and quantity of substance, approximate area covered, any physical discomfort experienced, e.g., harsh coughing, difficult breathing or burning sensations, etc.

805. Evacuation of Personnel / Passengers

If evacuation is necessary, the following instructions should be given to evacuees:

1. Where to assemble (an area upwind from the spill).
2. Keep out of smoke, fumes or dust resulting from the incident.
3. Avoid breathing vapors from the spill material.
4. DO NOT smoke, light any matches, eat or drink anything, or apply cosmetics.

806. Restoration of Service

Normal revenue service shall resume when the necessary repairs have been completed and the area is released by the IC.

EMERGENCY PROCEDURE CHECKLIST
TRAIN CONTROLLER

GAS LEAK

1. Advise OCC Manager.
2. Restrict trains from entering the affected area.
3. Broadcast 10-43 to all trains. Inform trains in the affected area of expected delay.
4. Name the Incident.
5. Designate the IC/BART Liaison.
6. Establish truncated service as necessary.
7. Update IC/BART Liaison's ID and Command Post location, as needed.
8. Preserve all documentation/evidence and submit to OCC Manager.

HAZARDOUS MATERIAL INCIDENTS

1. Advise OCC Manager.
2. Restrict trains from the affected area.
3. Announce to trains 10-43 or 10-33 as appropriate.
4. Name the Incident.
5. Designate the IC/BART Liaison.
6. Implement strategies of the OCC Manager.
7. Update IC/BART Liaison's ID and Command Post location, as needed.
8. Preserve all documentation/evidence and submit to OCC Manager.

EMERGENCY PROCEDURE CHECKLIST
POWER/SUPPORT CONTROLLER

GAS LEAKS

1. Advise OCC Manager.
2. Advise Train Controller; restriction of train movement.
3. Advise Power & Way for investigation.
4. Advise Fire Department.
5. Interrogate CSS/UCS to determine information on incident location.
6. Operate ventilation fans in exhaust mode or as directed by IC.
7. Notify PG&E Gas Dispatcher, if required.
8. Obtain verification from the OCC Manager that the area is safe before canceling ventilation.
9. Notify Muni Central, if appropriate.
10. Preserve all documentation/evidence and submit to OCC Manager.

HAZARDOUS MATERIAL INCIDENT

1. Advise Fire Department.
2. Advise Governors' Office of Emergency Services (OES) Warning Center (800-852-7550) if significant spill, release or potential release.
3. If the incident is in Contra Costa County, immediate notification must be given to the Health Services Department at (925) 646-2286 (0800-1700) or (925) 646-1112 (1700-0800) for extreme emergencies.

EMERGENCY PROCEDURE CHECKLIST
OCC MANAGER

GAS LEAK

1. Advise OCC personnel.
2. Verify that the following have taken place:
 - a. Trains restricted from entering the affected area.
 - b. Power & Way notified to investigate.
 - c. Fire Department notified.
 - d. Affected area, Work Orders canceled, personnel on Simple Approval advised.
 - e. Communications established with IC/BART Liaison at the scene.
 - f. Insure location of command post is known and appropriate personnel notified.
 - g. Incident has been named.
 - h. Ventilation established correctly, interrogate CCS.
 - i. MNL implemented.
 - j. Proper Public Address announcements are being made.
3. Resume normal operations after the area is released by the IC.
4. Collect documentation/evidence from OCC personnel.

HAZARDOUS MATERIAL INCIDENT

1. Advise OCC personnel.
2. Verify the following:
 - a. System Safety notified.
 - b. Fire Department notified.
 - c. Governor's Office of Emergency Services (OES) notified, if significant spill, release or potential release.
 - d. Health Services Department notified, if in Contra Costa County.
3. Implement other OCC checklist as required for the impact on train operations.
4. MNL implemented.
5. If train service is impacted, insure proper Public Address announcements are being made.
6. Collect documentation/evidence from OCC personnel.

EMERGENCY PROCEDURES CHECKLIST
COMMUNICATIONS SPECIALIST

HAZARDOUS MATERIALS SPILL/GAS LEAKS

1. Notify Media & Public Affairs personnel, BPD and the Information Center.
2. Advise Station Agents of any change made or required in station/train operations.
3. Make public address announcements to advise passengers of changes in train operating patterns, anticipated delays, alternate modes of transportation and estimated duration of the emergency.
4. As directed by the OCC Manager, coordinate and develop bus bridge(s) in areas where train service has been temporarily discontinued.
5. Make updated PA announcements to station as required and call local radio stations to inform them of the location and cause of the service disruption, bus bridge arrangements, anticipated duration and any changes to normal train operating patterns.

EMERGENCY PROCEDURE CHECKLIST
BART POLICE

HAZARDOUS MATERIAL SPILLS/GAS LEAKS

1. Respond to a position upwind of the scene as near as safety permits to prohibit unauthorized personnel from entering.
2. Establish communications with the OCC and assume the duties of IC for mainline incidents; advise on the exact location, nature and severity of the incident, and of its effect on train operations. For those incidents occurring off-property which will affect BART, respond to the command post in the appropriate jurisdiction to relay information to the OCC.
3. Close, evacuate and, if necessary, guard stations and/or other buildings as warranted.
4. Advise of the need for PG&E, fire department, emergency medical services, and other outside agencies, and of the type of materials needed to contain the emergency, if known.
5. Coordinate all BART emergency response efforts at the scene until the fire department arrives, providing necessary access to, and staffing areas for the incident.
6. Isolate and arrange medical treatment for any contaminated persons.
7. Prevent unauthorized access to the emergency scene.

EMERGENCY PROCEDURE CHECKLIST
POWER & WAY

HAZARDOUS MATERIAL SPILLS/GAS LEAK

1. Advise OCC Manager.
2. Broadcast a 10-33.
3. Get Computer Printout.
4. Determine if gas sniffer required.
5. Dispatch assistance crews.
6. Determine if mechanical/electrical needed at vents/tunnels.

Employee Training Plan Form

1. Scope

This plan is designed to provide hazardous materials and hazardous waste training to employees to satisfy the requirements of the Hazardous Materials Business Plan of California Health and Safety Code Chapter 6.95, and the Hazardous Waste Generator requirements of California Health and Safety Code Chapter 6.5.

Facility Name:	
Address:	
Facility Purpose:	High Voltage Substation
Haz Mats used in building(s) areas:	Shell Diala AX Oil

2. Responsibilities: Responsibility for ensuring the Training Plan is implemented is assigned as follows:

Name/Title	Training Responsibility
Randy Clark, Manager, Power and Mechanical Maintenance	Assure assigned BART personnel are trained IAW HMBP.
Gary Ramirez, EDS, Power and Mechanical Maintenance	Conduct training; maintain HMBP training record.
Gary Jensen, Principal Engineer, Environmental Compliance	Conduct training.

3. Employees/New Employees. Attachment T1 documents each employee's training.

Yes	No	
✓		New employees are provided training during their orientation before job assignment. If no, it is completed within six months.

4. New Assignments or changes in Operations.

Yes	No	
✓		In the event of new assignments or changes in operation for existing employees, training will be provided before the new assignment or change in operation takes place.

5. Refresher Training. Attachment T2 documents refresher training.

Yes	No	
✓		Refresher training will be provided at least annually. It is provided every <u>12</u> months. The method used will be (check all that apply): <input type="checkbox"/> use of outside classes, <input type="checkbox"/> in house classes provided by others, <input type="checkbox"/> safety meetings*, <input checked="" type="checkbox"/> periodic in house classes by in house personnel*. * complete attachment T5, qualification of in-house personnel.

Employee Training Plan Form

6. **Training Topics.** The following table indicates the training topics covered for this facility. Other documentation on these training topics is maintained and available to the inspector during inspections or on request.

Yes	No	NA	General Safety Precautions	Other documents
✓			Material Safety Data Sheets used	
✓			Nature and Hazards of materials present	
			Emergency Response including	
✓			The Emergency Response Plan	
✓			Notification/coordination with local emergency response agencies	
		✓	Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment	
✓			Communication and alarm systems (i.e., telephones, walkie-talkies)	
✓			Response to fires or explosions	
✓			Response to release or threatened release of hazardous materials	
			Hazardous Waste Management	
		✓	On-site management and storage requirements	
		✓	Packaging and labeling	
		✓	Proper use of safety equipment	
		✓	Proper use of hazardous waste management supplies	
		✓	Off-site transportation requirements	
		✓	Interaction with waste haulers and disposal sites	
		✓	Conducting periodic inspections (storage areas, tanks, etc.)	
		✓	Key parameters for automatic waste feed cut-off systems	
		✓	Response to groundwater contamination incidents	
		✓	Shutdown of operations	

7. **Emergency Response Team:**

- yes no This facility has an Emergency Response Team (ERT) Attachment T4 provides a listing of the team members
- yes no The ERT coordinates with the local Fire Department (FD) Name of local FD _____
- yes no The ERT trains/drills with the FD following a _____ schedule. Name of FD contact/phone # _____

8. **Training topics by job title.** Employees are trained based on the hazardous materials/hazardous waste activity level that they are involved in. Attachment T1 details topics in which each employee has been trained, and Attachment T3 provides a summary of each person trained, and their title and areas of training.

9. **Training Documentation:** The person(s) who shall update and keep a copy of the Employee Training Plan and associated records is/are:

Name	Title	Phone Number
Gary Ramirez	EDS	(510) 476-3734

EmpTrain.Form (01/28/00)

Attachment T1 – Employee Training Record - SAMPLE

Employee Name: _____ Start Date: _____ Termination Date: _____

Job Title: _____ Transfer Date: _____

Job Description (including Waste Handling):

Monitor maintenance of high voltage substation by outside contractor. Obtain work orders. Report emergencies or unusual condition, as necessary.

		Contingency Plan						Labeling		Compatibility/Storage						Manifesting		Chemical Hazards							
		Emergency Response Plan	Guidelines for emergency medical care	Notification/coordination with the dept.	Emergency equipment us/maintenance	Spill response actions	Fire/explosion response	Emergency Coordinators	How to fill out labels	Accumulation start date	Labeling of tanks	Hazardous properties	Incompatibles – general/on site	Weekly inspections	Closed containers – rags	90 day storage time	Aisle space regulation	Storage to minimize accidental release	Empty container regulation	When and how to use	Generator/TSDF copies	Record keeping	DOT Shipping names of facility wastestreams	DTSC exception reports	Material Safety Data Sheet use/information	Hazards of materials present
Employers – check the boxes of requisite skill, education or qualification required by this position		✓	✓	✓	✓	✓	✓																	✓	✓
Class Name/Description	Month/Year																								

EmpTrain.T1emptrnrec (01/28/00)

**Attachment T2
Training Class Record – Refresher Training
SAMPLE**

DATE: _____ **TRAINER/INSTRUCTOR:** Gary Jensen

- TRAINING TYPE:**
- PROFESSIONAL CLASS
 - CONSULTANT PROVIDED (in-house)
 - IN-HOUSE TRAINING CLASS *
 - SAFETY or STAFF MEETING *
- * Complete attachment T5 for qualification of trainer

TOPICS COVERED

AREA (haz waste, ER, MSDS, etc.)	DETAILS
Hazard Communication	How to find, read and understand an MSDS.
Shell Diala AX Oil	Familiarization with hazards of transformer oil.
Emergency Response Plan	Familiarization with ER procedures.

ATTENDEES

NAME	TITLE	SIGNATURE

EmpTrain.T2refresh (01/28/00)

**Attachment T4
Hazardous Materials Response Team Members
(NOT APPLICABLE)**

Name	Title	Phone (work/home/cell)	Pager	40hr ERT hazwoper first year completed	Refresher (year)	Describe training levels beyond 40hr HAZWOPER and CERTIFICATES

Definitions of Emergency Response Training Levels

Responsibility	Minimal Initial Training Required	Refresher	# of Hours
AWAR – First Responder Awareness Level ID hazards, contain and clean-up small spills as part of routine work/maintenance; sounds alarm	Hazard Communicaiton Standard General Emergency Response and Evacuation	Yes	N/A
OPER – First Responder Operations Level (contains spills from a safe distance)	8 hours Emergency Response (related to duties)	Yes	4
TECH – Hazardous Materials Technician Level (Responsibility for spill control; clean-up and coordination with off-site responders)	40 hours Emergency Response (related to duties)	Yes	8
SPCLST – Hazardous Materials Specialist Level (Responsibility for spill control, clean-up and coordination with off-site responders)	24 hours Emergency Response (related to duties)	Yes	8

EmpTrain.T4ERTsum (01/28/00)

**Attachment T5
In-House Trainer Qualifications**

List the name(s) and qualifications of each person assigned training responsibilities. Include experience level, number of years, formal training and any other reason used to establish that the person has the knowledge to provide training in a specific area.

Name	Title	Qualifications	Training Responsibilities
Gary Jensen	Principal Engineer	B.S. Chemical Engineering 20 years chemical investigation and remediation experience. 40 hour hazwoper training. U.S. Army Chemical Operations Specialist.	Hazard Communications Material Familiarization Emergency Response Procedures

EmpTrain.T5trnqual (01/28/00)

**OAKLAND FIRE DEPARTMENT/OFFICE OF EMERGENCY SERVICES
HAZARDOUS MATERIALS UNIT**

1605 Martin Luther King Jr. Way, Oakland, CA 94612 • (510) 238-3938

HAZARDOUS MATERIALS INSPECTION REPORT

Site Number	Facility Name	Facility Address	Zip Code
NEW	BART Lake Merritt	800 Madison	07

Inspection Report

PERMISSION TO INSPECT GRANTED

New site - Power + Mech. Maintenance

located under street level

No waste is generated

Storage of new oil + nitrogen gas
in cylinders

HMBP submitted

No viol. obs. @ this time

Facility Contact/Print Name:	Inspected By:	<input type="checkbox"/> Insp. Griffin	238-7759
<i>Janice L Layton</i>	HEGA	<input type="checkbox"/> Insp. Matthews	238-2396
Facility Contact/Signature:		<input type="checkbox"/> Insp. Craford	238-7758
<i>Janice J Layton</i>		<input checked="" type="checkbox"/> Insp. Gomez	238-7253
		Date:	6/4/02

**OAKLAND FIRE SERVICES AGENCY/OFFICE OF EMERGENCY SERVICES
HAZARDOUS MATERIALS UNIT
1605 Martin Luther King Jr. Way, Oakland, CA 94612 • (510) 238-3938**

HAZARDOUS MATERIALS INSPECTION REPORT

BART Lola Merritt

		UNAUTHORIZED OPERATION	V	C	N	OBSERVATIONS
400	Hazardous Materials Release Response Plans and Inventory (HMRRP/Business Plan)					
401	25507	Failure to report a release/threatened release.			X	
402	25504	Emergency Response Plan inadequate		|		
403	25509	Emergency contacts not provided/current		|		
404	25504	Personnel training program is inadequate		|		
405	25504	Hazardous Materials Chemical Inventory is not attached, is not accurate, or is incomplete		|		
406	25509	Site map is not attached or is not sufficient		|		
408	255339(a)	Acutely Hazardous Materials Registration not filed			X	
408		Material Safety Data Sheets are not located where the Business Emergency plan (BEP) indicates they should be		|		
409		The BEP indicates the facility maintains hazardous materials response equipment, and the equipment listed is not in place and in operable condition		|		
410		Hazardous materials are not located in the designated areas as indicated on the site map		|		
411		Containers are not clearly labeled with the chemical name and hazard class		|		
412		Containers are in poor condition or are leaking		|		
413		Secondary containment is inadequate		|		
414		Emergency procedures are not adequately posted		|		
415		Monitoring records are not complete or are not current		|		

V=Violation

C=Compliance

N=Not applicable/addressed/Unknown



BAY AREA RAPID TRANSIT DISTRICT
 800 Madison Street
 P.O. Box 12688
 Oakland, CA 94604-2688
 Telephone (415) 464-6000

RECEIVED
 August 5 1986
 AUG 5 1986

ENVIRONMENTAL HEALTH
 ADMINISTRATION

*1/2
 Feb 16 TAKES*

Mr. Ted M. Gerow
 Alameda County Health Department
 Division of Environmental Health
 470 27th Street Room 324
 Oakland CA 94612

WILFRED T. USSERY
 PRESIDENT

JOHN GLENN
 VICE-PRESIDENT

KEITH BERNARD
 GENERAL MANAGER

Re: Underground Storage Tanks Monitoring Plan.

Dear Mr. Gerow:

DIRECTORS

BARCLAY SIMPSON
 1ST DISTRICT

NELLO BIANCO
 2ND DISTRICT

ARTHUR J. SHARTSIS
 3RD DISTRICT

MARGARET K. PRYOR
 4TH DISTRICT

ROBERT S. ALLEN
 5TH DISTRICT

JOHN GLENN
 6TH DISTRICT

WILFRED T. USSERY
 7TH DISTRICT

EUGENE GARFINKLE
 8TH DISTRICT

JOHN H. KIRKWOOD

We refer to the letter from Aqua Science Engineers Inc. dated July 31, 1986 (Copy attached), which submitted the report describing the measurers this District plans to take to comply with the requirements for monitoring underground storage tanks.

We shall await your approval or comments before proceeding with preparing requests for bids to perform the work required.

Very truly yours

Joseph P. Van Overveen
 Joseph P. Van Overveen P.E.
 Senior Mechanical Engineer.



July 31, 1986

Ted M. Gerow
Alameda County Health
Division of Environmental Health
470 27th Street, Room 324
Oakland, CA. 94612

**RE: UNDERGROUND STORAGE TANK COMPLIANCE MONITORING PLAN FOR THE BAY
AREA RAPID TRANSIT DISTRICT.**

Dear Mr. Gerow

Please find enclosed the compliance plan pertaining to the BART
underground storage tank at the Oakland Shop facility.

Of interest to you will be the section regarding the waste oil and
motor fuel tanks at the Richmond Shop facility. After your review and
concurrence with the plan, Mr. Joe VanOverveen of the District will be
looking forward to your written approval.

Please call if you have any questions or desire more information.

Sincerely,

Terrance E. Carter
Engineering Services

UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK)/CONTAMINATION SITE REPORT

EMERGENCY <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	STATE TANK ID # <u>Stamm C/12/198</u>
--	---	---------------------------------------

REPORT DATE 0 M | 1 M | 0 D | 5 D | 8 Y | 8 Y	LOCAL CASE #	REGIONAL BOARD CASE #	US EPA ID #
--	--------------	-----------------------	-------------

REPORTED BY	NAME OF INDIVIDUAL FILING REPORT Terrance Carter	PHONE (415) 820-9391	SIGNATURE 	
	REPRESENTING <input type="checkbox"/> LOCAL AGENCY <input type="checkbox"/> OTHER <input checked="" type="checkbox"/> OWNER/OPERATOR <input type="checkbox"/> REGIONAL BOARD	COMPANY OR AGENCY NAME AQUA SCIENCE ENGINEERS, INC.		
	ADDRESS 2500 STREET Old Crow Canyon Rd., Suite 121 CITY San Ramon STATE CA ZIP 94583			

RESPONSIBLE PARTY	NAME BART <input type="checkbox"/> UNKNOWN	CONTACT PERSON J.P. Van Overveen	PHONE (415) 464-6813
	ADDRESS 800 STREET Madison CITY Oakland STATE CA ZIP 94607		

SITE LOCATION	FACILITY NAME (IF APPLICABLE) BART	OPERATOR BART	PHONE (415) 464-6813	
	ADDRESS 601 STREET South 8th Street CITY Oakland COUNTY Alameda ZIP 94607			
	CROSS STREET 5 Th Avenue		TYPE OF AREA <input type="checkbox"/> COMMERCIAL <input checked="" type="checkbox"/> INDUSTRIAL <input type="checkbox"/> RESIDENTIAL <input type="checkbox"/> RURAL <input type="checkbox"/> OTHER	

IMPLEMENTING AGENCIES	LOCAL AGENCY Alameda Health	CONTACT PERSON Liz Rose	PHONE (415) 874-7237
	REGIONAL BOARD SFRWQCB	CONTACT PERSON Pete Johnson	PHONE (415) 464-1255
	TSCD TSCD- Sacto		

SUBSTANCES INVOLVED	CAS # (ATTACH EXTRA SHEET IF NEEDED) NAME (1) Gasoline QUANTITY LOST (GALLONS) <input checked="" type="checkbox"/> UNKNOWN
	(2) Diesel QUANTITY LOST (GALLONS) <input checked="" type="checkbox"/> UNKNOWN

DISCOVERY/ABATEMENT	DATE DISCOVERED 0 M | 1 M | 0 D | 5 D | 8 Y | 8 Y	HOW DISCOVERED <input type="checkbox"/> INVENTORY CONTROL <input checked="" type="checkbox"/> SUBSURFACE MONITORING <input type="checkbox"/> ROUTINE MONITORING <input type="checkbox"/> TANK REMOVAL <input type="checkbox"/> NUISANCE CONDITIONS <input type="checkbox"/> OTHER:	
	DATE DISCHARGE BEGAN M | M | D | D | Y | Y <input checked="" type="checkbox"/> UNKNOWN	METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY) <input type="checkbox"/> REMOVE CONTENTS <input checked="" type="checkbox"/> REPLACE TANK <input type="checkbox"/> CLOSE TANK <input type="checkbox"/> REPAIR TANK <input type="checkbox"/> REPAIR PIPING <input type="checkbox"/> CHANGE PROCEDURES <input type="checkbox"/> OTHER	
	HAS DISCHARGE BEEN STOPPED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, DATE M | M | D | D | Y | Y		

SOURCE/CAUSE	SOURCE(S) OF DISCHARGE <input type="checkbox"/> TANK LEAK <input checked="" type="checkbox"/> UNKNOWN <input type="checkbox"/> PIPING LEAK <input type="checkbox"/> OTHER (SPECIFY)	TANKS ONLY/CAPACITY GAL AGE 11 5 YRS. <input type="checkbox"/> UNKNOWN MATERIAL <input checked="" type="checkbox"/> STEEL <input type="checkbox"/> FIBERGLASS <input type="checkbox"/> OTHER	CAUSE(S) <input type="checkbox"/> OVERFILL <input type="checkbox"/> CORROSION <input type="checkbox"/> RUPTURE/FAILURE <input type="checkbox"/> SPILL <input checked="" type="checkbox"/> UNKNOWN <input type="checkbox"/> OTHER
--------------	--	--	---

RESOURCES AFFECTED/AT RISK	RESOURCES AFFECTED AIR (VAPOR) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO SOIL (VADOSE ZONE) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO GROUNDWATER <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO SURFACE WATER OR STORM DRAIN <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO BUILDING OR UTILITY VAULT <input type="checkbox"/> YES <input type="checkbox"/> NO OTHER (SPECIFY)	THREATENED/UNKNOWN THREATENED <input type="checkbox"/> UNKNOWN <input type="checkbox"/> THREATENED <input type="checkbox"/> UNKNOWN <input type="checkbox"/> THREATENED <input type="checkbox"/> UNKNOWN <input type="checkbox"/> THREATENED <input type="checkbox"/> UNKNOWN <input type="checkbox"/> THREATENED <input type="checkbox"/> UNKNOWN <input type="checkbox"/> THREATENED <input type="checkbox"/> UNKNOWN <input type="checkbox"/>	WATER SUPPLIES AFFECTED PUBLIC DRINKING WATER <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO PRIVATE DRINKING WATER <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO INDUSTRIAL <input type="checkbox"/> YES <input type="checkbox"/> NO AGRICULTURAL <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO OTHER (SPECIFY)
	THREATENED UNKNOWN # OF KNOWN WELLS _____		
	GROUNDWATER BASIN NAME San Fran. Bay <input type="checkbox"/> UNKNOWN		

COMMENTS	COMMENTS: TANKS TO BE REPLACED. SITE INVESTIGATION TO FOLLOW. COMPLETE AND ATTACH A CLEANUP TRACKING REPORT IF ANY CLEANUP WORK OR PLANNING HAS STARTED
----------	---

INSTRUCTIONS

GENERAL

In box titled "EMERGENCY", indicate whether emergency response personnel and equipment were involved at any time. If so, a Hazardous Material Incident Report should be filed with the State Office of Emergency Services (OES) at 2800 Meadowview Road, Sacramento, CA 95832. Copies of the OES report form may be obtained at your local underground tank permitting agency. Indicate whether the OES report has been filed as of the date of this report.

In space provided, enter state tank ID number if known. State ID numbers have been assigned to all tanks that are on file with the State Water Resources Control Board. Enter today's date in the box titled "Report Date". Enter local and Regional Water Quality Control Board case numbers if known. Enter the US EPA facility number if applicable.

REPORTED BY

Enter your name, telephone number and address. Indicate which party you represent, and provide company or agency name.

RESPONSIBLE PARTY

Enter the name, telephone number, contact person, and address of the party responsible for the leak, or mark unknown. For tank leaks, the responsible party would normally be the tank owner.

SITE LOCATION

Enter information regarding the tank facility and surrounding area. If a known tank or facility is not involved, enter general location of the contamination site as best possible; i.e., street, city, county, zip, cross street, and type of area.

IMPLEMENTING AGENCIES

Enter names of the local agency, Regional Board and/or Toxic Substances Control Division (TSCD) regional office involved and a contact person and telephone number for each.

SUBSTANCES INVOLVED

Enter the CAS number(s) (if known), name(s), and quantities lost of all hazardous substances involved. Attach an extra sheet if more than two substances are involved. Be as specific as possible.

DISCOVERY/ABATEMENT

Provide information regarding the discovery and abatement of the discharge. More than one box may be checked in the sections titled "How Discovered" and "Method Used To Stop Discharge" if appropriate.

8. SOURCE/CAUSE

Indicate source(s) of discharge. Provide details on tank age, capacity and material if a tank is involved. Check box(es) indicating cause of discharge. More than one box may be checked if appropriate.

9. RESOURCES AFFECTED/AT RISK

In section titled "RESOURCES AFFECTED" indicate whether any of the resources listed have been affected ("YES"), will not be affected ("NO"), or may be affected ("THREATENED") by the release. Check "UNKNOWN" if unsure of the status of a resource. Specify any unlisted resources which are, or may be, involved under "OTHER". The same instructions apply to the section titled "WATER SUPPLIES AFFECTED". Give the number of water wells affected or threatened, if known. Provide the name of the ground-water basin underlying the site, if known, in the space provided.

10. COMMENTS

Use this space to elaborate on any aspects of the incident. Comments on cleanup work or planning or related investigations should be reported on a separate Cleanup Tracking Report.

11. SIGNATURE

Sign the form in the space provided.

DISTRIBUTION

Hand deliver or mail copies of the form as follows:

- | | |
|--|--|
| 1) Original - Local Agency | 3) Regional Water Quality Control Board |
| 2) State Water Resources Control Board
Division of Water Quality
Underground Tank Program
P. O. Box 100
Sacramento, CA 95801 | 4) Toxic Substances Control Division
Underground Tank Program
714/744 P Street
Sacramento, CA 95814 |
| | 5) Owner/responsible party |

X X X

X



November 11, 1986

Ted M. Gerow
Alameda County Health
Division of Environmental Health
470 27th Street, Room 324
Oakland, CA. 94612

*2 of
167 AMICS
file*

RECEIVED

NOV 24 1986

ENVIRONMENTAL HEALTH
ADMINISTRATION

RE: UNDERGROUND STORAGE TANK COMPLIANCE MONITORING PLAN FOR THE BAY
AREA RAPID TRANSIT DISTRICT.

Dear Mr. Gerow

Per submittal of the July 28, 1986 report addressing tank compliance
and cover letter requesting written approval of the recommendations,
Mr. Van Overveen of BART has not yet received your approval.
Therefore, Bart assumes approval and will proceed with the work. The
technical specifications will be sent to you for your review and
comment prior to going out to bid.

Please call if you have any questions.

Sincerely,

Terry
Terrance E. Carter
Engineering Services



BAY AREA RAPID TRANSIT DISTRICT
 800 Madison Street
 P.O. Box 12688
 Oakland, CA 94604-2688
 Telephone (415) 464-6000

JLG
UGT

July 24, 1987

MARGARET K. PRYOR
 PRESIDENT
 BARCLAY SIMPSON
 VICE-PRESIDENT
 KEITH BERNARD
 GENERAL MANAGER

Ted M. Gerow
 County of Alameda Health Dept.
 Division of Environmental Health
 470 - 27th Street, Room. 324
 Oakland, CA 94612

Re: Underground Tank Replacement and Monitoring Systems

DIRECTORS

Dear Mr. Gerow:

BARCLAY SIMPSON
 1ST DISTRICT
 NELLO BIANCO
 2ND DISTRICT
 ARTHUR J. SHARTSIS
 3RD DISTRICT
 MARGARET K. PRYOR
 4TH DISTRICT
 ROBERT S. ALLEN
 5TH DISTRICT
 JOHN GLENN
 6TH DISTRICT
 WILFRED T. USSERY
 7TH DISTRICT
 ARLO HALE SMITH
 8TH DISTRICT
 JOHN H. KIRKWOOD
 9TH DISTRICT

Enclosed is a copy of a preliminary contract book to be published for the installation of monitoring systems and the replacement of waste oil tanks in order to comply with the California Administrative Code, Title 23, Subchapter 16, Underground Storage Tank Regulations.

We are submitting this for your information and comment.

Please advise the writer by August 7, 1987, of any comments you may have.

Very truly yours,

Joseph P. Van Overveen
 Joseph P. Van Overveen
 Senior Mechanical Engineer

cc: A. C. Gieda

RECEIVED
 JUL 24 1987
 E. Imaoka
 R. Pasini

ENVIRONMENTAL HEALTH
 ADMINISTRATION

aqua science
ase engineers inc.

July 31, 1986

1/2 file UG TANKS

Ted M. Gerow
Alameda County Health
Division of Environmental Health
470 27th Street, Room 324
Oakland, CA. 94612

**RE: UNDERGROUND STORAGE TANK COMPLIANCE MONITORING PLAN FOR THE BAY
AREA RAPID TRANSIT DISTRICT.**

Dear Mr. Gerow

Please find enclosed the compliance plan pertaining to the BART
underground storage tank at the Oakland Shop facility.

Of interest to you will be the section regarding the waste oil and
motor fuel tanks at the Richmond Shop facility. After your review and
concurrence with the plan, Mr. Joe VanOverveen of the District will be
looking forward to your written approval.

Please call if you have any questions or desire more information.

Sincerely,

Terrance E. Carter

Terrance E. Carter
Engineering Services

RECEIVED
AUG - 5 1986
ENVIRONMENTAL HEALTH
ADMINISTRATION



July 28, 1986

**REPORT - UNDERGROUND STORAGE TANK COMPLIANCE MONITORING PLAN FOR THE BAY AREA
RAPID TRANSIT DISTRICT. PROFESSIONAL SERVICES AGREEMENT No. 15SA-410**

Prepared For

BART
800 Madison Street
P.O. BOX 12688
OAKLAND, CA. 94604-2688

Submitted
By

Aqua Science Engineers
Post Office Box 535
San Ramon, CA. 94596

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EXECUTIVE SUMMARY

This report provides the compliance monitoring plan for the underground storage tanks owned by the Bay Area Air Quality Control District. The recommendations are:

1. Waste Oil Tanks - (1) remove the metal tanks at the Richmond Shop, the Concord Shop, the Oakland Shop and the single walled fiberglass tank at the Hayward Shop; and (2) replace the tanks with double walled fiberglass tanks and double contained piping and an electronic leak detection device with sensors located between the double walls that will automatically alarm if a leak occurs.

The estimated costs for removal and replacement of the Oakland Shop waste oil tank is \$7500.00 - \$12,500.00. The estimated costs for removal and replacement at the waste oil tanks at the Concord Shop, Richmond Shop and Hayward Shop is \$8,000.00 - \$15,500.00.

2. Motor Fuel Tanks - install an electronic continuous groundwater monitoring and/or vapor monitoring system at the Oakland Shop and the Metro Center drawings is the minimum number of wells that we judge to

The estimated costs for installation of a continuous dedicated monitoring system at the Metro Center is \$3,000.00 - \$6,000.00, and \$8,500.00 - \$11,000.00 for the Oakland Shop site.

3. Oxalic Acid Cleaning Solution Tanks - No action required, at this time. A one percent solution of oxalic acid is used to clean commuter cars at the Concord Shop and Richmond Shop. An evaluation was made to determine if the oxalic acid in its dilute form may be delisted as non-hazardous, thereby rendering the cleaning system underground tanks exempt from monitoring. An assessment was made and the results presented to the Contra Costa County Department of Environmental Health and the California Department of Health Services (DOHS) - Toxics Division. In summary, the results indicate that a solution of 1 percent oxalic acid in water should not be classified as a hazardous material.

BART UNDERGROUND STORAGE COMPLIANCE MONITORING PLAN

I. INTRODUCTION

With the passage of California Administrative Code - Title 23 Subchapter 16, Underground Storage Tank Regulations in January 1985, an owner or operator of an underground tank containing a hazardous substance is required to monitor the tank for leaks. The regulations are intended to protect waters of the State from discharges of hazardous substances from underground storage tanks. The regulations establish construction standards for new underground storage tanks; establish separate monitoring standards for new and existing underground storage tanks; establish standards for release reporting, repair and closure requirements; specify variance request procedures and establish tank use permit application procedures. Prior to receiving a permit to operate an underground storage tank, the tank owner or user must have a monitoring or tank integrity assurance program in place. The deadline for filing an action plan regarding existing tanks is September 1, 1986.

The state of California has listed eight alternatives from which a tank owner can select a testing or monitoring program that best suits his tank operation plan and addresses the potential threat to groundwater at the site. The alternatives incorporate combinations and frequencies of inventory reconciliation, tank pressure testing, and soils or groundwater monitoring. The eight alternatives are listed in Table 1.

Administration of the California Underground Storage Tank program is at the county and city level. The Contra Costa County Health Department administers the underground storage tank program within that county. Administration of underground storage tank program in Oakland is by the Alameda County Health Agency. The City of Hayward administers their own underground storage tank program. While the state guidelines establish the minimum acceptable standards that local agencies can adopt, the local agencies have in some cases exercised their prerogative to require measures above those imposed by the state and also to disallow some of the alternatives listed within the state guidelines.

To comply with the underground storage tank requirements within the Bay Area Rapid Transit District (BART) service area, BART contracted with Aqua Science Engineers (ASE) to: (1) verify the contents of each tank and determine if the contents are considered hazardous substance; (2) determine the necessary action to bring the underground tanks into compliance; and (3) provide specifications and drawings for any further work that may be required for compliance.

II. INVENTORY OF UNDERGROUND STORAGE TANKS AND REGULATORY AGENCY JURISDICTION

BART owns and operates 22 underground storage tanks. The content and location of each tank is shown in Table 2. The Concord and Richmond Shop facilities lie within Contra Costa County and therefore fall under the County Health Department's guidelines. The Metro Center and Oakland Shop facilities are under the guidelines set by the Alameda County

Health Agency - Division of Environmental Health. The Hayward Shop facility is under the guidelines set by the City of Hayward - Fire Prevention Bureau.

The regulatory requirements of each implementing agency vary. For example, the alternative allowing for the installation of vapor monitoring and groundwater monitoring wells as a monitoring alternative is widely accepted by the City of Hayward where groundwater is shallow (< 15 feet). However, this alternative is much less favored in Contra Costa County where groundwater is frequently deep (> 45 feet). Additionally, the formula establishing the number of monitoring wells that must be installed varies among the administrative agencies. The formula used by Contra Costa County is the same as that specified in the State guidelines, whereas the City of Hayward has adopted guidelines set forth by the Alameda County Water District which does not mandate upgradient monitoring wells but has stricter requirements regarding well spacing.

The following underground storage tank regulation compliance program we are presenting to BART addresses the requirements of each implementing agency. The alternatives presented will provide the greatest margin of protection in relation to dollar cost.

The 22 underground tanks may be broken down by contents into the following five categories: motor fuel, waste oil, cleaning solution and rinse water, and waste water within an oil separator. Each category reflects a different concern to the regulatory agency in regard to its potential impact to groundwater should there be a discharge from a leaky tank. For example, the water soluble fractions of motor fuel are benzene, toluene, and xylene. Two of these soluble constituents are considered hazardous substances and represent a potential threat to groundwater and public health if allowed to escape into the soils.

The viscosity and low volatility crank case and gear case oils greatly retards their movement through soils and groundwater. Thus it would seem that waste oil tanks would present a relatively low threat to groundwater resources. However, from a regulatory agency viewpoint, waste oil storage tanks are an equal or greater concern than motor fuel tanks. This is because waste oil tanks become a receptacle for other materials other than waste oil. Experience shows that substances such as anti-freeze and cleaning solvents that are placed in the tanks can be very difficult and costly to recover from groundwater.

While it is our understanding that the waste oil tanks presently in use at the BART facilities other than the Oakland Shop do not contain any material other than lubricating oil and that the Oakland Shop tank is used for service vehicle motor oil only, shop practices can change and from a practical standpoint any solvents, cleaners or other potentially harmful liquid found in the maintenance shop has a reasonable probability of finding its way into the waste oil tank.

BART has 3-300 gallon oil separator tanks; one each at the Concord Shop, the Richmond Shop, and the Oakland Shop. These oil separator tanks are connected in-line to the sanitary sewer line and function as a skimmer, preventing the oil from entering the sanitary sewer.

The Contra Costa Health Department has, in the past, given variance from monitoring these tanks and in recent conversations with Health officials the variance will be upheld.

III. PRESENT TANK USE AND MONITORING OPTIONS

The following section describes underground storage tank location and tank use, discusses available options for monitoring and provides estimated costs and recommendations for compliance.

TANKS CONTAINING OXALIC ACID CLEANING AND RINSE SOLUTION

The Concord Shop and Richmond Shop are the sites where commuter cars are cleaned with a solution stored in underground tanks. A schematic of the cleaning system is shown in Figure 1. The component of concern in the cleaning solution is oxalic acid. The solution is sprayed on the cars to assist in removing foreign particles and as an aid in reversing the oxidative process that leads to rust. The oxalic acid is stored above ground in 55-gallon drums, then poured into two underground tanks, 1-6,000 gallon and 1-2,000 gallon. The oxalic acid is diluted with water to a 1 percent solution then pumped under pressure and used for cleaning.

Although oxalic acid is listed as a hazardous material, an evaluation was made to determine if the oxalic acid in its dilute form may be delisted as non-hazardous, thereby rendering the cleaning system underground tanks exempt from monitoring. An assessment was made and the results presented to the Contra Costa County Department of Environmental Health and the California Department of Health Services (DOHS) - Toxics Division. In summary, the results indicate that a solution of 1 percent oxalic acid in water should not be classified as a hazardous material. The toxicology report describing the toxicity of a 1 percent oxalic acid solution is in Appendix A.

As of this writing, neither Contra Costa County nor the DOHS have provided ASE with a written confirmation that they agree with the assessment. However, in conversations with the agencies, it seems probable that they will consider the solution non-hazardous and the County will exempt the tanks from monitoring. The County is in the process of reviewing the manufacturer's list of materials included in the cleaning solution for substances other than oxalic acid that may be of concern to them. If the County's review is favorable, we fully expect the cleaning tanks to be given an exempt status.

Contra Costa County has indicated that should they approve exemption, it will be conditional upon the assurance that the oxalic acid cleaning product be consistent from one supplier to the next. To insure the consistency of the oxalic acid it may be necessary for BART to provide very close bid specifications to future suppliers. A review of the bid specification will take place once the agency comments are received by ASE and BART.

TANKS CONTAINING WASTE OIL

BART has five waste oil tanks. The location and size of each tank are:

(1) the Oakland Shop, 1- 550 gallon, (2) the Hayward Shop, 1- 1,000 gallon, (3) the Concord Shop, 1- 1,500 gallon, and (4) the Richmond Shop, 2- 1,500 gallon. All of the tanks are single walled carbon steel except for the waste oil tank in Hayward which is a single walled fiberglass tank.

Selecting a monitoring alternative to implement that could be applied to the waste oil tanks currently in place and that provides sufficient protection from risk in the event of a leak is sometimes more difficult than for the other tanks. This is in part due to the restrictive nature of the alternatives and in part due to the product currently being stored in the BART waste oil tanks.

IV. AVAILABLE OPTIONS FOR WASTE OIL TANKS

1. Tank Testing. The eight alternatives listed within the California State Underground Storage Tank Regulations (Table 1.) provide several options for existing tanks. In general, the alternatives consider tank testing, inventory control and groundwater monitoring wells as an effective means of monitoring tank integrity. However, from our own perspective and in conversations with the regulatory agencies about the applicability of these methods to the BART waste oil tanks, it is inadvisable. Tank testing a waste oil tank, or for that matter any tank, requires that the tank be completely full of a liquid. This presents a problem in that regulatory requirements call for the tank test on a monthly basis, or annual tank testing if (1), the tank is to be removed within three years, or (2) line leak detectors are installed, which are difficult to retrofit and may not provide adequate risk protection from leaks.

If an alternative is selected by BART that calls for tank testing, we must advise that it may create more problems than it is worth. As previously stated, before a tank can be tested it is necessary to fill the tank with a liquid for the purposes of the test alone. Once tested and certified that the tank is free from leaks, the make-up liquid becomes a hazardous material requiring that it be disposed of as manifested hazardous waste at a cost of approximately \$0.60 per gallon. The use of tank testing as a monitoring alternative also requires that an inventory of the liquid levels in the tank be kept on a daily basis. The estimated cost for tank testing and inventory reconciliation is: \$4200.00 - \$6000.00 per year per tank.

2. Vapor and groundwater monitoring wells. Waste oil tank monitoring with vapor and groundwater monitoring wells are currently in use in the Bay area as a means of monitoring tanks and detecting if a tank has a leak problem. However, the Contra Costa County Department of Environmental Health has indicated a hesitancy in approving this alternative for the BART waste oil tanks at the Concord Shop and Richmond Shop facilities. The concerns of Contra Costa County Department of Environmental Health is that: (1) groundwater in the area of the Concord Shop is relatively deep (depth to groundwater > 40 feet) and should a leak occur, by the time the waste oil is detected in the groundwater monitoring well, significant contamination could have occurred; (2) the low volatility of crank case and gear case oils raises some question on applicability of using a vadose well and

sampling by vacuum lysimeter as is frequently done with volatile liquids.

It is our understanding that the use of monitoring wells at the BART facilities may present a personnel problem in that the duties would need to be specified in a particular job and if this were not desirable, then an outside entity would be contracted to perform the necessary monitoring. The use of groundwater monitoring wells require that a qualified person be given the responsibility of sampling the well, keeping accurate records, and semi-annually testing the water sample.

The estimated cost for installation of groundwater monitoring well is: \$2,000.00 - \$3,000.00 per well plus personnel costs to monitor the well. We estimate that as many as 10 wells are needed to adequately monitor the five waste oil tanks. Groundwater sample costs are estimated at \$100.00 - \$150.00 per well on a semi-annual basis. Vapor sample costs would run \$200.00 - \$300.00 per vadose well semi-annually

3. Continuous electronic monitoring. The use of electronic monitoring devices that monitor vapor levels in the tank backfill, alerting the facility of a leak, are an acceptable method of monitoring an underground tank in cases where vapors given off by the tank contents will be sufficient to be detected by the monitoring system. They are quite effective for monitoring relatively high vapor products such as motor fuels. However, as with vacuum lysimeter samples of vadose wells, the effectiveness of continuous electronic monitoring is questionable when used to monitor products that give off low levels of vapor such as waste crank case oil and gear lube. The Contra Costa County - Environmental Health Agency and the City of Hayward - Fire Prevention Bureau have expressed a hesitance in approving this method of monitoring waste oil tanks based on their questionable effectiveness in detecting leaks.

The estimated cost of installation of a dedicated electronic monitoring devise is \$3,000.00 - \$6,000.00 per tank.

4. A final concern is that the tank life (20 to 25 years) of the metal tanks may be significantly reduced due to the inductive ground current from the electric cars and tracks. It may simply not be worth the effort to retrofit a tank monitoring system to tanks which may be near the end of their life expectancy.

V. RECOMMENDATION FOR WASTE OIL TANKS

1. The most effective means of providing adequate leak protection is of course to remove the underground tank. However, the waste oil tanks are necessary to the BART operations. Under these circumstances, our recommendation is to (1) remove the metal tanks at the Richmond Shop, the Concord Shop, the Oakland Shop and the single walled fiberglass tank at the Hayward Shop; and (2) replace the tanks with double walled fiberglass tanks and double contained piping and an electronic leak detection devise with sensors located between the double walls that will automatically alarm if a leak occurs.

The estimated costs for removal and replacement of [the Oakland Shop

waste oil tank is \$7,500.00 - \$12,500.00. The estimated costs for removal and replacement at the waste oil tanks at the Concord Shop, Richmond Shop and Hayward Shop is \$8,000.00 - \$15,500.00.

The specification and associated drawings that may be used to seek a bid from a qualified contractor are presented in Appendix B.

VI. TANKS CONTAINING MOTOR FUEL

The Alameda County Health Agency - Division of Environmental Health has been designated as the agency responsible for the implementation of the underground storage tank regulations.

BART has four motor fuel tanks. The location and size of each tank are: (1) the Oakland Shop, 1 6,000 and 1 8,000 gallon gasoline, and 1 6,000 gallon diesel, and (2) the Metro Center, 1 4,000 gallon diesel. The fuel tanks at the Oakland Shop provide fuel to the BART automobiles and trucks. The Metro Center tank is used as an emergency fuel supply source for the Metro Center office complex. The two 6,000 gallon tanks at the Oakland Shop were installed in 1968 while the 8,000 gallon tank was installed in 1978. The 6,000 gallon tanks are approaching the life expectancy of a tank, estimated to be 20 to 25 years. However, this figure may be predicated on the local geological conditions. For example, tanks in dry soil and low acidity have a longer life expectancy than those in damp, acidic soils. The estimated life expectancy of a tank should be considered as a guide and not as an absolute figure. Indeed, many tanks remain in tact, free from leaks long after this period of time; however, the risk for leaks does increase, also. Our first recommendation is based on information that the tanks are in good working order and that the tanks are free of problems.

VII. AVAILABLE OPTIONS FOR MOTOR FUEL TANKS

Several options are available for monitoring motor fuel tanks. The appropriate options will be discussed here with an estimate of the costs for each option.

1. Annual tank testing, inventory reconciliation, and pipeline leak detectors. Motor fuel tanks must be tested on an annual basis, inventory must be reconciled daily, and pipeline leak detectors installed that have a visual or an audible alarm. Tank testing under this option requires that the tanks be full of motor fuel before they can be tested.

The estimated costs for annual tank testing approximate \$500.00 per tank, \$6000.00 - \$9000.00 for pipeline tank detectors plus labor costs for inventory reconciliation.

2. Vapor and groundwater monitoring wells. The number of wells required is based on the tank size and depth to groundwater. In the Oakland Shop and Metro Shop area, groundwater is less than 50 feet and all of the tanks are greater than 1000 gallons, thus, a total of five wells, three at the Oakland Shop and two at the Metro Center, will be required to satisfy agency requirements governing groundwater monitoring. As stated above in regard to waste oil tanks, the choice of this option for motor fuel tanks requires that a qualified person be given the responsibility

of sampling the well, keeping accurate records, and semi-annually testing the water sample.

It is our understanding that the use of monitoring wells at the BART facilities may present a personnel problem in that the duties would need to be specified in a particular job and if this were not desirable, then an outside entity would be contracted to perform the necessary monitoring.

The estimated cost for installation of groundwater monitoring well is: \$2,000.00 - \$3,000.00 per well plus personnel costs to monitor the well. Groundwater sample costs are estimated at \$100.00 - \$150.00 per well on a semi-annual basis.

3. Continuous electronic monitoring. The use of electronic monitoring devices that monitor vapor levels in the tank backfill alerting the facility of a leak, are an acceptable method of monitoring an underground tank in cases where vapors given off by the tank contents will be sufficient to be detected by the monitoring system. They are quite effective for monitoring relatively high vapor products such as motor fuels.

The estimated cost of installation of a dedicated electronic monitoring device for the Metro Center motor fuel tank is \$3,000.00 - \$6,000.00, and \$8,500.00 - \$11,000.00 for the Oakland Center fuel tanks.

VIII. RECOMMENDATIONS FOR MOTOR FUEL TANKS

1. The retrofit monitoring system option most suitable for the BART single wall fuel tanks should incorporate an electronic continuous groundwater monitoring and/or vapor monitoring system. The location of the wells specified in the [Oakland Shop and the Metro Center drawings is the minimum number of wells that we judge to be sufficient and that comply with the State monitoring alternatives. However, there are dedicated systems that allow for more monitoring ports.

The estimated costs for installation of a continuous dedicated monitoring system at the Metro Center is \$3,000.00 - \$6,000.00, and \$8,500.00 - \$11,000.00 for the [Oakland Shop site.

TABLES AND FIGURES

Table 1.

Regulations For Monitoring Existing Underground Tanks

ALTERNATIVE	METHOD	MINIMUM MONITORING FREQUENCY	REFERENCE SECTION	COMMENTS AND CONDITIONS PROHIBITING USE OF ALTERNATIVE*
1	Tank Testing	Monthly	Section 2643	None
2	Vapor or Other Vadose Zone Monitoring Method and Ground Water and Soils	Daily/Continuous Semi-annual One-Time	Section 2646 Section 2647 Section 2645	<p>1. Must be able to do both vadose and ground water monitoring.</p> <p>2. Ground water should normally be less than 100 feet deep to use this alternative.</p> <p>3. Minimum number of ground water monitoring wells:</p> <p>a. Ground water equal to or less than 50 feet deep.</p> <ul style="list-style-type: none"> o Single or multiple tanks (all <1,000 gal. same or closely spaced excavations) - one downgradient well per tank minimum up to three wells. o Single tank (≥1,000 gal) - two wells minimum one of which shall be downgradient. o Two or three tanks (at least one ≥1,000 gal. same or closely spaced excavations) - three wells, minimum at least one of which shall be downgradient. o Four or more tanks (at least one ≥1,000 gal. same or closely spaced excavations) - four wells minimum, at least two of which shall be downgradient and the remainder equally spaced. <p>Pipelines - additional wells, if needed, as determined by the local agency.</p> <p>b. Ground water greater than 50 feet deep.</p> <ul style="list-style-type: none"> o Single tank -one downgradient well. o Multiple tanks or closely spaced tank excavations - three wells uniformly spaced, unless the ground water gradient can be accurately determined, in which case, one downgradient well. o Pipelines - additional wells, if needed, by the local agency.

Table 1 - Continued

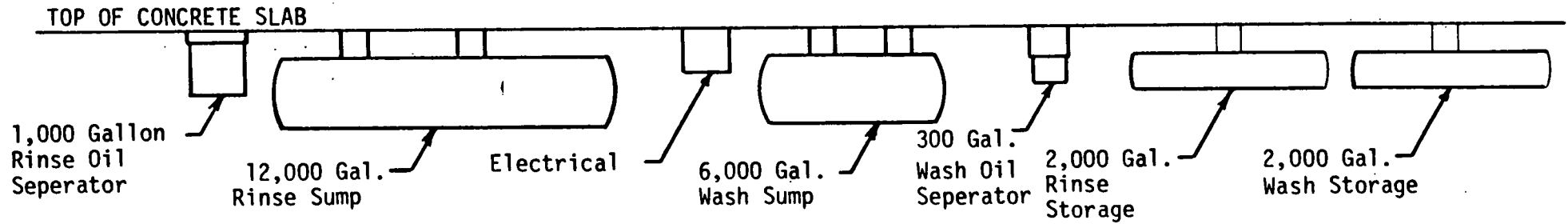
3	Vadose and Soils	Daily/Weekly	Section 2646	This alternative shall not be used when first ground water is less than ⁵⁰ 100 feet deep and:									
	Tank Testing	One-Time	Section 2645	1. First ground water has actual or potential beneficial uses (municipal, domestic, industrial, or agricultural supply); or									
		Annual	Section 2643	2. First ground water is hydraulically connected to ground water which had or potentially has beneficial uses.									
4	Ground Water and Soils	Monthly	Section 2647	1. Use of this alternative shall be limited to the following situations:									
		One-Time	Section 2645	<p>a. Perennial ground water is normally less than 30 feet deep, and</p> <p>b. The ground water being monitored does not have any actual or potential beneficial uses (municipal, domestic, agricultural, or industrial supply), and</p> <p>c. The ground water being monitored is not hydraulically connected to ground water which has any actual or potential beneficial uses (municipal, domestic, agricultural, industrial supply), and</p> <p>d. The monitoring well can be screened in the area 10 feet above the highest perennial ground water level and 20 feet below the lowest ground water level.</p> <p>2. Minimum number of ground water monitoring wells-- See Section 3a. of Alternative No. 2.</p>									
5	Inventory Reconciliation and Tank Testing	Daily	Section 2644	1. Must use approved meters for tank inputs and withdrawals.									
	Tank Testing and Pipeline Leak Detectors	Annual	Section 2643	2. Inventory reconciliation which exceeds an allowable measurement error plus 0.15 percent of throughput at any time during a 30-day period shall require further investigation:									
		Continuous		<table border="1"> <thead> <tr> <th>Tank Size</th> <th>Allowable Measurement Error</th> </tr> </thead> <tbody> <tr> <td>≤4000</td> <td>25 gallons</td> </tr> <tr> <td>4000 to ≤ 8000</td> <td>50 gallons</td> </tr> <tr> <td>8000 to ≤12000</td> <td>75 gallons</td> </tr> <tr> <td>≥12000</td> <td>100 gallons</td> </tr> </tbody> </table> <p>3. Limited to motor vehicle fuels storage tanks.</p>	Tank Size	Allowable Measurement Error	≤4000	25 gallons	4000 to ≤ 8000	50 gallons	8000 to ≤12000	75 gallons	≥12000
Tank Size	Allowable Measurement Error												
≤4000	25 gallons												
4000 to ≤ 8000	50 gallons												
8000 to ≤12000	75 gallons												
≥12000	100 gallons												

Table 1 - Continued

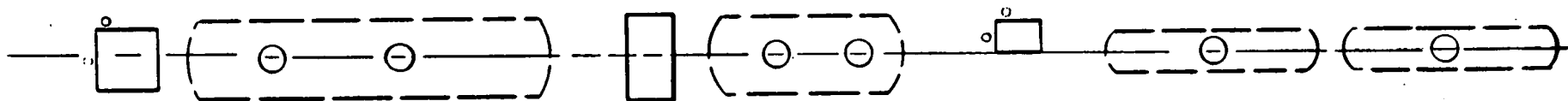
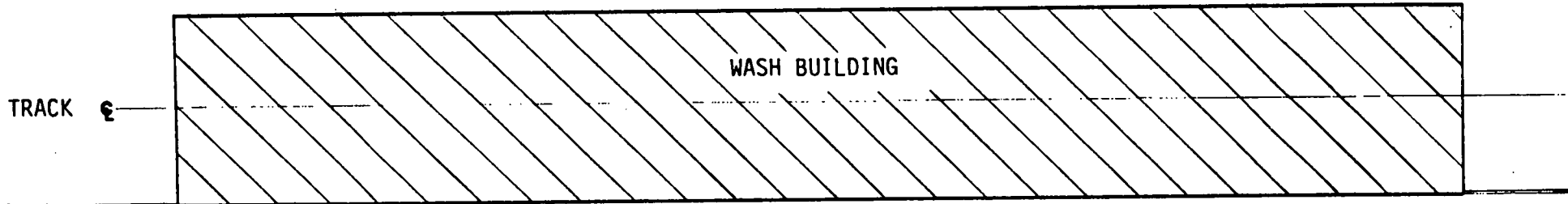
6	Inventory Reconciliation and Tank Testing and Pipeline Leak Detectors and Soils and Vadose Monitoring or Ground Water	Daily	Section 2644	<p>1. Must use approved meters for tank inputs and withdrawals.</p> <p>2. Inventory reconciliation which exceeds any of the following shall require further investigation:</p> <p>a. Daily variation - ≥ 100 gallons</p> <p>b. Weekly variation - ≥ 5 percent of throughput but no greater than 350 gallons</p> <p>c. Monthly variation - ≥ 0.5 percent of throughput no less than 100 gallons</p> <p>3. Minimum number of ground water wells--See Alternative No. 2.</p>	
	Monitoring	Variable	Section 2647		
					4. Limited to motor vehicle fuels storage tanks.
7	Tank Gauging and Tank Testing	Weekly	Section 2644	<p>1. This alternative is limited to use on small tanks that do not have frequent input or withdrawals (e.g., standby generator fuel supply) and where the liquid level in the tank can be measured to the accuracy of + or - 5 gallons. A liquid level difference of 1 percent of the tank volume or 5 gallons, whichever is less shall be cause for further investigation.</p>	
		Annually	Section 2643		
8	Tank Testing and Inventory Reconciliation or Tank Gauging	Annually	Section 2643	<p>1. This is an interim monitoring alternative that can be implemented for up to three years.</p> <p>2. Inventory reconciliation shall utilize approved meters for inputs and withdrawals and shall maintain variations within the limits specified in Alternative No. 6.</p> <p>3. Tank gauging is limited to use on tanks described in Alternative No. 7 and to those tanks that can eliminate inputs and withdrawals three times per week for 12 hours each. A liquid level difference of 1 percent of the tank volume but not greater than 50 gallons shall be cause for further investigation.</p>	
		Daily	Section 2644		
		Daily or Weekly	Section 2644		

TABLE 2
BAY AREA RAPID TRANSIT DISTRICT
UNDERGROUND TANKS

<u>FACILITY</u>	<u>SIZE</u>	<u>CONTENTS</u>
Oakland Shop 601 East 8th Street Oakland, CA.	6,000 Gallon Fiberglass	Regular Gasoline
	6,000 Gallon Steel	Diesel Fuel
	8,000 Gallon Steel	Unleaded Gasoline
	550 Gallon Steel	Waste Oil
Metro Center 101 8th Street Oakland, CA.	4,000 Gallon Fiberglass	Diesel Fuel
Hayward Shop 150 Sandoval Way Hayward, CA.	1,000 Gallon Fiberglass	Waste Oil
Concord Shop 1045 San Miguel Road Concord, CA.	1,500 Gallon Steel	Waste Oil
	6,000 Gallon Fiberglass	Diluted Cleaning Soln.
	2,000 Gallon Fiberglass	Diluted Cleaning Soln.
	12,000 Gallon Fiberglass	Rinse Water
	2,000 Gallon Fiberglass	Rinse Water
	1,000 Gallon Steel	Rinse Water & Oil Separator
	300 Gallon Steel	Cleaning Solution & Oil Separator
Richmond Shop 1281 Visalia Avenue Richmond, CA.	(2) 1,500 Gallon Steel	Waste Oil
	6,000 Gallon Fiberglass	Diluted Cleaning Soln.
	2,000 Gallon Fiberglass	Diluted Cleaning Soln.
	12,000 Gallon Fiberglass	Rinse Water
	2,000 Gallon Fiberglass	Rinse Water
	1,000 Gallon Steel	Rinse Water & Oil Separator
	300 Gallon Steel	Cleaning Solution & Oil Separator



SITE PLAN ELEVATION



SITE PLAN

BAY AREA RAPID TRANSIT DISTRICT ; CONCORD AND RICHMOND WASH RECLAMATION SYSTEMS

SCALE: 3/4" = 10'	APPROVED BY:	DRAWN BY:
DATE: 6/30/86		REVISED:

AQUA SCIENCE ENGINEERS

Figure 1.

DRAWING NUMBER

APPENDIX A.

DETERMINATION OF TOXICITY OF A 1 PERCENT OXALIC ACID SOLUTION

Prepared for AquaScience Engineers
By John Hambrow-Beach, Toxicologist

Underground storage tanks containing hazardous materials must be monitored according to the guidelines set forth by Sher bill. Materials defined as hazardous, and the properties making them hazardous, are listed in the California Administrative Code, Title 22 (Social Security), Division 4 (Environmental Health), Chapter 30 (Minimum Standards for Management of Hazardous and Extremely Hazardous Wastes), Article 9 (Hazardous Wastes and Hazardous Materials), Section 66680 (Lists of Chemical Names and Common Names). Criteria for delisting materials on the basis of toxicity are defined in Article 11 (Criteria for Identification of Hazardous and Extremely Hazardous Waste), Section 66696 (Toxicity Criteria). In this section, a waste is defined as hazardous if it: (1) has an acute oral LD50 of less than 5000 milligrams per kilogram (mg/kg); (2) has an acute dermal LD50 of less than 4300 mg/kg; or (3) has an acute inhalation LD50 of less than 10,000 ppm as a gas or vapor, or has an acute aquatic 96-hour LC50 less than 500 mg/l measured in soft water, using fathead minnows, rainbow trout, or golden shiners, in the standard APHA bioassay procedure. Provisions are made for evaluating the toxicity of mixtures containing toxic materials, with adjustments made for the concentration of the toxicant in the mixture. A material may be delisted if it is not toxic using these criteria.

The material contained in the tanks in question is a 1 percent solution (by weight) of oxalic acid in water. Oxalic acid is listed in Title 22 as a hazardous material, with toxicity being the hazardous property. This evaluation was made to determine if this oxalic acid solution may be delisted as nonhazardous, based on toxicity.

The acute oral LD50 (in the rat) of oxalic acid in aqueous solutions is 475 mg oxalic acid per kg body weight (mg/kg) (1). Using the equation listed in Article 11, Section 66696, for calculating the acute oral or dermal LD50 for a mixture, the toxicity of a 1 percent aqueous solution of oxalic acid is 47,500 mg/kg. This value is greater than the criterion value of 5000 mg/kg, (nontoxic).

The dermal toxicity of oxalic acid solutions is low also, although no experimental data is available. Since oxalic acid is ionic under most conditions, percutaneous absorption would be expected to be very low. Supporting that contention is the fact that workers are routinely exposed to solutions of 10 percent oxalic acid in water, without protection (2). Caution is suggested for prolonged exposures of 5-10 percent solutions, as skin irritation may occur (2). This indicates that toxicity by the dermal route is not significant.

The vapor pressure for oxalic acid is very low, and as with all ionic species, even lower when in dilute aqueous solutions. Airborne oxalic acid is only considered important as a dust or aerosol (2). Again, routine workplace exposure evidence indicates that toxicity by the inhalation route is insignificant.

A computerized literature search showed no data available for the species listed under the aquatic toxicity testing requirements. The only toxicity data found used Artemia salina L. (brine shrimp) larvae, and indicated the LC50 for these marine organisms is greater than 1500 mg/l for oxalic acid (3), and 150,000 mg/l for the 1 percent oxalic acid solution, both over the 500 mg/l criterion specified in Title 22.

These data indicate that a solution of 1 percent oxalic acid in water should not be classified as a hazardous material under the Title 22 guidelines.

Citations:

1. Windholz, M., (editor), The Merck Index, Tenth Edition, The Merck Co., Inc., Rahway, New Jersey, 1983, pp. 991, 992.
2. Parmeggiani, L., (editor), Encyclopaedia of Occupational Health and Safety, Third (Revised) Edition, International Labour Office, Geneva, Switzerland, 1983, pp. 1574, 1575.
3. Harwig, J., and P. M. Scott, Brine Shrimp (Artemia salina L.) Larvae as a Screening System for Fungal Toxins, Applied Microbiology, 21, 6 (1971): 1011-1016.

AQS 8646

Calif. Admin. Code.
Title 22

TITLE 22

ENVIRONMENTAL HEALTH

§ 66680

(p. 1800.55)

(Register 84, No. 2-1-12-85)

- (b) Requests for waiver shall be made in writing and shall include:
- (1) A description of the processing method used.
 - (2) A chemical analysis of the waste before and after treatment.
 - (3) The volume of the waste before and after treatment.
 - (4) The volumes and compositions of any hazardous residues which are removed from the waste or which are generated as result of treatment of the waste.
 - (5) The method to be used for disposal of the treated waste and of any residues.
- (c) The Department may obtain and analyze samples of the waste collected before and after treatment.
- (d) The Department shall continue, grant or deny each request within 30 days.
- (e) The Department may waive the fee for disposal of a waste for a period up to 12 months, provided the treatment and disposal method and the chemical composition of the waste do not change during that period.

Article 9. Hazardous Wastes and Hazardous Materials

66680. Lists of Chemical Names and Common Names.

(a) A waste that meets the definition of hazardous waste presented in Section 25117 of the Health and Safety Code or satisfies any of the criteria of hazardous waste presented in Article 11 of this chapter shall be considered a hazardous waste whether or not the waste is cited in this article. Such a waste shall be handled and disposed of according to the provisions of this chapter.

(b) A waste that meets the definition of extremely hazardous waste presented in Section 25115 of the Health and Safety Code or satisfies any of the criteria of extremely hazardous waste presented in Article 11 of this chapter shall be considered an extremely hazardous waste whether or not the waste is cited in this article. Such a waste shall be handled and disposed of according to the provisions of this chapter.

(c) The potential hazardous property of a material cited in the List of Chemical Names or the List of Common Names is indicated in the list as follows: (T) toxic, (C) corrosive, (F) ignitable and (R) reactive. An asterisk (*) in Section 66680(d) denotes an extremely hazardous waste. All letters in trademark names are capitalized.

(d) List of Chemical Names:

1. Acetaldehyde (T,F)
2. Acetic acid (T,C,F)
3. Acetone, Propanone (F)
4. *Acetone cyanohydrin (T)
5. Acetonitrile (T,F)
6. *2-Acetylaminofluorene, 2-AAF (T)
7. Acetyl benzoyl peroxide (T,F,R)
8. *Acetyl chloride (T,C,R)
9. Acetyl peroxide (T,F,R)
10. Acridine (T)
11. *Acrolein, Aqualin (T,F)

TITLE 22
(Register 84, No. 2-1-12-85)

... facility, the operator shall ... based on the known or ... based on other measurements or

... roads and subsequently dis- ... rted from the disposal fees ... he sewerage agency shall send ... manifests to the Department ... for the wastes so disposed. ... th and Safety Code.

... effective thirtieth day thereafter ... upon filing (Register 83, No. 30). ... 17-18-83 by OAL pursuant to Govern- ... ed effective 7-1-84 (Register 84, ... 84 by OAL pursuant to Govern-

... facility shall pay a fee of one ... 500 tons of hazardous waste ... ies to land in any one month. ... partment for any amount of ... e hazardous waste facility in

10 percent per month if not paid ... ctive upon filing (Register 83, No. 30). ... d 7-18-83 by OAL pursuant to Govern- ... ted effective 7-1-84 (Register 84, ... ed 5-7-84 by OAL pursuant to Govern-

H th and Safety Code. Reference:

... ed effective 7-1-84 (Register 84, ... an ... tted to OAL within 180 days or ... approved for refiling on 5-29-84; filed ... ated effective 7-1-84 (Register 84,

... shall pay the appropriate fee ... ar ent has given the operator a ... va . The fee may be waived if it ... it that the waste has been rendered

12. *Acrylonitrile (T,F)
13. *Adiponitrile (T)
14. *Aldrin; 1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4,5,8-endo-exodimethanonaphthalene (T)
15. *Alkyl aluminum chloride (C,F,R)
16. *Alkyl aluminum compounds (C,F,R)
17. Allyl alcohol, 2-Propen-1-ol (T,F)
18. Allyl bromide, 3-Bromopropene (T,F)
19. Allyl chloride, 3-Chloropropene (T,F)
20. Allyl chlorocarbonate, Allyl chloroformate (T,F)
21. *Allyl trichlorosilane (T,C,F,R)
22. Aluminum (powder) (F)
- 23A. Aluminum chloride (T,C)
- 23B. *Aluminum chloride (anhydrous) (T,C,R)
24. Aluminum fluoride (T,C)
25. Aluminum nitrate (T,F)
26. *Aluminum phosphide, PHOSTOXIN (T,F,R)
27. *4-Aminodiphenyl, 4-ADP (T)
28. *2-Aminopyridine (T)
29. *Ammonium arsenate (T)
30. *Ammonium bifluoride (T,C)
31. Ammonium chromate (T,F)
32. Ammonium dichromate, Ammonium bichromate (T,C,F)
33. Ammonium fluoride (T,C)
34. Ammonium hydroxide (T,C)
35. Ammonium molybdate (T)
36. Ammonium nitrate (F,R)
37. Ammonium perchlorate (F,R)
38. Ammonium permanganate (T,F,R)
39. Ammonium persulfate (F,R)
40. Ammonium picrate (T,R)
41. Ammonium sulfide (T,C,F,R)
42. n-Amyl acetate, 1-Acetoxy-pentane (and isomers) (T,F)
43. n-Amylamine, 1-Aminopentane (and isomers) (T,F)
44. n-Amyl chloride, 1-Chloropentane (and isomers) (T,F)
45. n-Amylene, 1-Pentene (and isomers) (T,F)
46. n-Amyl mercaptan, 1-Pentanethiol (and isomers) (T,F)
47. n-Amyl nitrite, n-Pentyl nitrite (and isomers) (T,F)
48. *Amyl trichlorosilane (and isomers) (T,C,R)
49. Aniline, Aminobenzene (T)
50. Anisoyl chloride (T,C)
51. Anthracene (T)
52. Antimony (T)
53. Antimony compounds (T)
54. *Antimony pentachloride (T,C,R)
55. *Antimony pentafluoride (T,C,R)
56. Antimony pentasulfide (T,F)
57. Antimony potassium tartrate (T)
58. Antimony sulfate, Antimony trisulfate (T,F)

59. Antimony trichloride, Antimony chloride (T,C)
60. Antimony trifluoride, Antimony fluoride (T,C)
61. Antimony trioxide, Antimony oxide (T)
62. Antimony trisulfide, Antimony sulfide (T,F,R)
63. *Arsenic (T)
64. *Arsenic acid and salts (T)
65. *Arsenic compounds (T)
66. *Arsenic pentaselenide (T)
67. *Arsenic pentoxide, Arsenic oxide (T)
68. *Arsenic sulfide, Arsenic disulfide (T)
69. *Arsenic tribromide, Arsenic bromide (T)
70. *Arsenic trichloride, Arsenic chloride (T)
71. *Arsenic triiodide, Arsenic iodide (T)
72. *Arsenic trioxide, Arsenious oxide (T)
73. *Arsenious acid and salts (T)
74. *Arsines (T)
75. Asbestos (including chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite) (T)
76. *AZODRIN, 3-Hydroxy-N-cis-crotonamide (T)
77. Barium (T,F)
78. Barium azide (T,R)
79. Barium bromide (T)
80. Barium carbonate (T)
81. Barium chlorate (T,C,F,R)
82. Barium chloride (T)
83. Barium chromate (T)
84. Barium citrate (T)
85. Barium compounds (soluble) (T)
86. *Barium cyanide (T)
87. Barium fluoride (T)
88. Barium fluosilicate (T)
89. Barium hydroxide (T)
90. Barium iodide (T)
91. Barium manganate (T)
92. Barium nitrate (T,F)
93. Barium oxide, Barium monoxide (T)
94. Barium perchlorate (T,F,R)
95. Barium permanganate (T,F,R)
96. Barium peroxide (T,F,R)
97. Barium phosphate (T)
98. Barium stearate (T)
99. Barium sulfide (T)
100. Barium sulfite (T)
101. Benzene (T,F)
102. *Benzene hexachloride, BHC; 1,2,3,4,5,6-Hexachlorocyclohexane (T)
103. *Benzenephosphorous dichloride (T,R)
104. Benzenesulfonic acid (T)
105. *Benzidine and salts (T)
106. *Benzotrifluoride, Trifluoromethylbenzene (T,F)

107. *Benzoyl chloride (T,C,R)
108. Benzoyl peroxide, Dibenzoyl peroxide (T,F,R)
109. Benzyl bromide, alpha-Bromotoluene (T,C)
110. Benzyl chloride, alpha-Chlorotoluene (T)
111. *Benzyl chlorocarbonate, Benzyl chloroformate (T,C,R)
112. *Beryllium (T,F)
113. *Beryllium chloride (T)
114. *Beryllium compounds (T)
115. *Beryllium copper (T)
116. *Beryllium fluoride (T)
117. *Beryllium hydride (T,C,F,R)
118. *Beryllium hydroxide (T)
119. *Beryllium oxide (T)
120. *BIDRIN, Dicrotophos, 3-(Dimethylamino)-1-methyl-3-oxo-1-propenyl dimethyl phosphate (T)
121. *bis (Chloromethyl) ether, Dichloromethylether, BCME(T)
122. Bismuth (T,F)
123. *bis (Methylmercuric) sulfate, CEREWET, Ceresan liquid (T)
124. Bismuth chromate (T)
125. *BOMYL, Dimethyl 3-hydroxyglutaconate dimethyl phosphate (T)
126. *Boranes (T,F,R)
127. *Bordeaux arsenites (T)
128. *Boron trichloride, Trichloroborane (T,C,R)
129. *Boron trifluoride (T,C,R)
130. Bromic acid (T)
131. *Bromine (T,C,F)
132. *Bromine pentafluoride (T,C,F,R)
133. *Bromine trifluoride (T,C,F,R)
134. *Brucine, Dimethoxystrychnine (T)
135. 1,2,4-Butanetriol trinitrate (R)
136. n-Butyl acetate, 1-Acetoxybutane (and isomers) (T)
137. n-Butyl alcohol, 1-Butanol (and isomers) (T)
138. n-Butyl amine, 1-Aminobutane (and isomers) (T)
139. n-Butyl formate (and isomers) (T)
140. tert-Butyl hydroperoxide (and isomers) (T,F)
141. *n-Butyllithium (and isomers) (T,C,F,R)
142. n-Butyl mercaptan, 1-Butanethiol (and isomers) (T,F)
143. tert-Butyl peroxyacetate, tert-Butyl peracetate (F,R)
144. tert-Butyl peroxybenzoate, tert-Butyl perbenzoate (F,R)
145. tert-Butyl peroxy-pivalate (F,R)
146. *n-Butyltrichlorosilane (C,F,R)
147. para-tert-Butyl toluene (T)
148. n-Butyraldehyde, n-Butanal (and isomers) (T,F)
149. *Cacodylic acid, Dimethylarsinic acid (T)
150. *Cadmium (powder) (T,F)
151. Cadmium chloride (T)
152. *Cadmium compounds (T)
153. *Cadmium cyanide (T)
154. Cadmium fluoride (T)

155. Cadmium nitrate (T,F,R)
156. Cadmium oxide (T)
157. Cadmium phosphate (T)
158. Cadmium sulfate (T)
159. *Calcium (F,R)
160. *Calcium arsenate, PENSAL (T)
161. *Calcium arsenite (T)
162. *Calcium carbide (C,F,R)
163. Calcium chlorate (F,R)
164. Calcium chlorite (F)
165. Calcium fluoride (T)
166. *Calcium hydride (C,F,R)
167. Calcium hydroxide, Hydrated lime (C)
168. *Calcium hypochlorite, Calcium oxychloride (dry) (T,C,F,R)
169. Calcium molybdate (T)
170. Calcium nitrate, Lime nitrate, Nitrocalcite (F,R)
171. Calcium oxide, Lime (C)
172. Calcium permanganate (T,F)
173. Calcium peroxide, Calcium dioxide (C,F)
174. *Calcium phosphide (T,F,R)
175. Calcium resinate (F)
176. Caprylyl peroxide, Octyl peroxide (F)
177. *Carbanolate, BANOL, 2-Chloro-4,5-dimethylphenyl methylcarbamate (T)
178. Carbon disulfide, Carbon bisulfide (T,F)
179. Carbon tetrachloride, Tetrachloromethane (T)
180. *Carbophenothion, FRITHION, S[(4-Chlorophenyl) thio]methyl] O, O-diethyl phosphorodithioate (T)
181. Chloral hydrate, Trichloroacetaldehyde (hydrated) (T)
182. *Chlordan; 1,2,4,5,6,7,8,8-Octachloro-4,7-methano-3a,4,7,7a-tetrahydroindane (T)
183. *Chlorfenvinphos, Compound 4072, 2-Chloro-1-(2,4-dichlorophenyl) vinyl diethyl phosphate (T)
184. *Chlorine (T,C,F,R)
185. *Chlorine dioxide (T,C,F,R)
186. *Chlorine pentafluoride (T,C,F,R)
187. *Chlorine trifluoride (T,C,F,R)
188. *Chloroacetaldehyde (T,C)
189. *alpha-Chloroacetophenone, Phenyl chloromethyl ketone (T)
190. *Chloroacetyl chloride (T,C,R)
191. Chlorobenzene (T,F)
192. para-Chlorobenzoyl peroxide (F,R)
193. *ortho-Chlorobenzylidene malonitrile, OCMB (T)
194. Chloroform, Trichloromethane (T)
195. *Chloropicrin, Chloropicrin, Trichloronitromethane (T)
196. *Chlorosulfonic acid (T,C,F,R)
197. Chloro-ortho-toluidine, 2-Amino-4-chlorotoluene (T)
198. Chromic acid, Chromium trioxide, Chromic anhydride (T,C,F)
199. Chromic chloride, Chromium trichloride (T)

- 200. Chromic fluoride, Chromium trifluoride (T)
- 201. Chromic hydroxide, Chromium hydroxide (T)
- 202. Chromic oxide, Chromium oxide (T)
- 203. Chromic sulfate, Chromium sulfate (T)
- 204. Chromium compounds (T,C,F)
- 205. *Chromyl chloride, Chlorochromic anhydride (T,C,F,R)
- 206. Cobalt (powder) (T,F)
- 207. Cobalt compounds (T)
- 208. Cobaltous bromide, Cobalt bromide (T)
- 209. Cobaltous chloride, Cobalt chloride (T)
- 210. Cobaltous nitrate, Cobalt nitrate (T,F)
- 211. Cobaltous resinate, Cobalt resinate (T,F)
- 212. Cobaltous sulfate, Cobalt sulfate (T)
- 213. Coccus, Fishberry, Picrotoxin (T)
- 215. *Copper acetoarsenite, Paris green (T)
- 216. Copper acetylide (T,R)
- 217. *Copper arsenate, Cupric arsenate (T)
- 218. *Copper arsenite, Cupric arsenite (T)
- 219. Copper chloride, Cupric chloride (T)
- 220. Copper chlorotetrazole (T,R)
- 221. Copper compounds (T)
- 222. *Copper cyanide, Cupric cyanide (T)
- 223. Copper nitrate, Cupric nitrate (T,F,R)
- 224. Copper sulfate, Cupric sulfate, Blue vitriol (T)
- 225. *Coroxon; ortho,ortho-Diethyl-ortho-(3-chloro-4-methylcoumarin-7-yl) phosphate (T)
- 226. *Coumafuryl, FUMARIN, 3-[1-(2-Furanyl)-3-oxobutyl]1-4-hydroxy-2H-1-benzopyran-2-one (T)
- 227. *Coumatetralyl, BAYER 25634, RACUMIN 57, 4-Hydroxy-3-(1,2,3,4-tetrahydro-1-naphthalenyl)-2H-1-benzopyran-2-one (T)
- 228. *Crimidine, CASTRIX, 2-Chloro-4-dimethylamino-6-methylpyrimidine (T)
- 229. *Crotonaldehyde, 2-Butenal (T)
- 230. Cumene, Isopropyl benzene (T,F)
- 231. Cumene hydroperoxide; alpha,alpha-Dimethylbenzyl hydroperoxide (T,F)
- 232. Cupriethylene diamine (T)
- 233. *Cyanide salts (T)
- 234. Cyanoacetic acid, Malonic nitrile (T)
- 235. *Cyanogen (T,F,R)
- 236. Cyanogen bromide, Bromine cyanide (T)
- 237. Cyanuric triazide (T,R)
- 238. Cycloheptane (T,F)
- 239. Cyclohexane (T,F)
- 240. Cyclohexanone peroxide (F)
- 241. *Cyclohexenyltrichlorosilane (T,C,R)
- 242. *Cycloheximide, ACTIDIONE (T)
- 243. *Cyclohexyltrichlorosilane (T,C,R)
- 244. Cyclopentane (T,F)

- 245. Cyclopentanol (F)
- 246. Cyclopentene (T,F)
- 247. DDT; 1,1,1-Trichloro-2,2-bis(chlorophenyl) ethane (T)
- 248. *DDVP, Dichlorvos, VAPONA, Dimethyl dichlorovinyl phosphate (T)
- 249. *Decaborane (T,F,R)
- 250. DECALIN, Decahydronaphthalene (T)
- 251. *Demeton, SYSTOX (T)
- 252. *Demeton-S-methyl sulfone, METAISOSYSTOX-SULFON, S-[2-(ethylsulfonyl) ethyl] O,O-dimethyl phosphorothioate (T)
- 253. Diazodinitrophenol, DDNP, 2-Diazo-4,6-dinitrobenzene-1-oxide (T,R)
- 254. *Diborane, Diboron hexahydride (T,R)
- 255. *1,2-Dibromo-3-chloropropane, DBCP, FUMAZONE, NEMAGON (T)
- 256. n-Dibutyl ether, Butyl ether (and isomers) (T,F)
- 257. Dichlorobenzene (ortho, meta, para) (T)
- 258. *3,3-Dichlorobenzidine and salts, DCB (T)
- 259. 1,2-Dichloroethylene; 1,2-Dichloroethene (T,F)
- 260. Dichloroethyl ether, Dichloroether (T,F)
- 261. Dichloroisocyanuric acid, Dichloro-S-triazine-2,4,6-trione (T,F)
- 262. Dichloromethane, Methylene chloride (T)
- 263. *2,4-Dichlorophenoxyacetic acid; 2,4-D (T)
- 264. 1,2-Dichloropropane, Propylene dichloride (T,F)
- 265. 1,3-Dichloropropylene; 1,3-Dichloropropene (T,F)
- 266. Dicumyl peroxide (F,T)
- 267. *Dieldrin; 1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4-endo, exo-5,8-dimethanonaphthalene (T)
- 268. *Diethylaluminum chloride, Aluminum diethyl monochloride, DEAC (F,R)
- 269. Diethylamine (T,F)
- 270. *Diethyl chlorovinyl phosphate, Compound 1836 (T)
- 271. *Diethyldichlorosilane (T,C,F,R)
- 272. Diethylene glycol dinitrate (T,R)
- 273. Diethylene triamine (T)
- 274. *O,O-Diethyl-S-(isopropylthiomethyl) phosphorodithioate (T)
- 275. *Diethylzinc, Zinc ethyl (C,F,R)
- 276. *Difluorophosphoric acid (T,C,R)
- 277. *Diglycidyl ether, bis(2,3-Epoxypropyl) ether (T)
- 278. Diisopropylbenzene hydroperoxide (T,F)
- 279. Diisopropyl peroxydicarbonate, Isopropyl percarbonate (T,C,F,R)
- 280. *Dimefox, HANANE, PEXTOX 14, Tetramethylphosphorodiamidic fluoride (T)
- 281. Dimethylamine, DMA (T,F)
- 282. *Dimethylaminoazobenzene, Methyl yellow (T)
- 283. *Dimethyldichlorosilane, Dichlorodimethylsilane (T,C,F,R)
- 284. 2,5-Dimethylhexane-2,5-Dihydroperoxide (F)
- 285. *1,1-Dimethylhydrazine, UDMH (T,F)
- 286. *Dimethyl sulfate, Methyl sulfate (T)
- 287. *Dimethyl sulfide, Methyl sulfide (T,F,R)
- 288. 2,4-Dinitroaniline (T)
- 289. *Dinitrobenzene (ortho, meta, para) (T,R)

- 290. Dinitrochlorobenzene, 1-Chloro-2,4-dinitrobenzene (T,R)
- 291. *4,6-Dinitro-ortho-cresol, DNPC, SINOX, EGETOL 30 (T)
- 292. *Dinitrophenol (2,3-,2,4-,2,6-isomers) (T,R)
- 293. 2,4-Dinitrophenylhydrazine (T,F,R)
- 294. Dinitrotoluene (2,4-,3,4-,3,5-isomers) (T,F,R)
- 295. *DINOSEB; 2,4-Dinitro-6-sec-butylphenol (T)
- 296. 1,4-Dioxane; 1,4-Diethylene dioxide (T,F,R)
- 297. *Dioxathion, DELNAV,S,S-1,4-dioxane-2,3-diyl bis(O,O-diethyl phosphorodithioate) (T)
- 298. Dipentaerythritol hexanitrate (R)
- 299. *Diphenyl, Biphenyl, Phenylbenzene (T)
- 300. Diphenylamine, DPA, N-Phenylaniline (T)
- 301. *Diphenylamine chloroarsine, Phenarsazine chloride (T)
- 302. *Diphenyldichlorosilane (T,C,R)
- 303. Dipicrylamine, Hexanitrodiphenyl amine (T,R)
- 304. Dipropyl ether (T,F)
- 305. *Disulfoton, DI-SYSTON;O,O-Diethyl S-[2-(ethylthio) ethyl] phosphorodithioate (T)
- 306. *Dodecyltrichlorosilane (T,C,R)
- 307. *DOWCO-139, ZECTRAN, Mexacarbate, 4-(Dimethylamino)-3,5-dimethylphenyl methylcarbamate (T)
- 309. *DYFONATE, Fonofos, O-Ethyl-S-phenylethyl phosphonodithioate (T)
- 310. *Endosulfan, THIODAN; 6,7,8,9,10,10-Hexachloro-1,5,5a,6,9,9a-hexahydro-6,9-methano-2,4,3-benzo-dioxathiepin-3-oxide (T)
- 311. *Endothal, 7-Oxabicyclo [2.2.1]heptane-2,3-dicarboxylic acid (T)
- 312. *Endothion, EXOTHION, S-[5-Methoxy-4-oxo-4H-pyran-2-yl]-methyl] O,O-dimethyl phosphorothioate (T)
- 313. *Endrin; 1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4,4a,5,6,7,8,8a-octahydro-1,4-endo-endo-5,8-dimethanonaphthalene (T)
- 314. Epichlorohydrin, Chloropropylene oxide (T,F)
- 315. *EPN; O-Ethyl O-para-nitrophenyl phenylphosphonothioate (T)
- 316. *Ethion, NIALATE;O,O,O',O'-Tetraethyl-S,S-methylenediphosphorodithioate (T)
- 317. Ethyl acetate (T,F)
- 318. Ethyl alcohol, Ethanol (T,F)
- 319. Ethylamine, Aminoethane (T,F)
- 320. Ethylbenzene, Phenylethane (T,F)
- 321. Ethyl butyrate, Ethyl butanoate (F)
- 322. Ethyl chloride, Chloroethane (T,F)
- 323. *Ethyl chloroformate, Ethyl chlorocarbonate (T,C,F,R)
- 324. *Ethyldichloroarsine, Dichloroethylarsine (T,R)
- 325. *Ethyldichlorosilane (T,C,F,R)
- 326. *Ethylene cyanohydrin, beta-Hydroxypropionitrile (T,R)
- 327. Ethylene diamine (T)
- 328. Ethylene dibromide; 1,2-Dibromoethane (T)
- 329. Ethylene dichloride; 1,2-Dichloroethane (T,F)
- 330. *Ethyleneimine, Aziridine, EI (T,F,R)
- 331. Ethylene oxide, Epoxyethane (T,F,R)
- 332. Ethyl ether, Diethyl ether (F,R)

- 333. Ethyl formate (T,F)
- 334. *Ethyl mercaptan, Ethanethiol (T,F,R)
- 335. Ethyl nitrate (F,R)
- 336. Ethyl nitrite (F,R)
- 337. *Ethylphenyldichlorosilane (T,C,R)
- 338. Ethyl propionate (F)
- 339. *Ethyltrichlorosilane (T,R)
- 340. *Fensulfothion, BAYER 25141, DASANIT, O,O-Diethyl-O-[4-(methylsulfinyl)phenyl] phosphorothioate (T)
- 341. *Ferric arsenate (T)
- 342. Ferric chloride, Iron (III) chloride (T,C)
- 343. *Ferrous arsenate, Iron arsenate (T)
- 344. *Fluoboric acid, Fluoroboric acid (T,C)
- 345. Fluoride salts (T)
- 346. *Fluorine (T,C,R)
- 347. *Fluoroacetanilide, AFL 1082 (T)
- 348. *Fluoroacetic acid and salts, Compound 1060 (T)
- 349. *Fluorosulfonic acid, Fluosulfonic acid (T,C,R)
- 350. Formaldehyde, Methanal (T,F)
- 351. Formic acid, Methanoic acid (T,C)
- 352. Fulminate of mercury, Mercuric cyanate (T,R)
- 353. *FURADAN, NIA 10,242, Carbofuran; 2,3-Dihydro-2,2-dimethyl-7-benzofuranylmethylcarbamate (T)
- 354. Furan, Furfuran (T,F,R)
- 355. Gasoline (F)
- 356. *GB, O-Isopropyl methyl phosphoryl fluoride (T)
- 357. Glutaraldehyde (T)
- 358. Glycerolmonolactate trinitrate (R)
- 359. Glycol dinitrate, Ethylene glycol dinitrate (R)
- 360. Gold fulminate, Gold cyanate (R)
- 361. Guanidine nitrate (F,R)
- 362. Guanyl nitrosaminoguanylidene hydrazine (R)
- 363. *Guthion; O,O-Dimethyl-S-4-oxo-1,2,3-benzotriazin-3(4H)-ylmethyl phosphorodithioate (T)
- 364. Hafnium (F,T,R)
- 365. *Heptachlor; 1,4,5,6,7,8,8-Heptachloro-3a,4,7,7a-tetrahydro-4,7-methanoindene (T)
- 366. n-Heptane (and isomers) (T,F)
- 367. 1-Heptene (and isomers) (T,F)
- 368. *Hexadecyltrichlorosilane (T,C,R)
- 369. Hexaethyl tetraphosphate, HETP(T)
- 370. Hexafluorophosphoric acid (T,C)
- 371. Hexamethylenediamine; 1,6-Diaminohexane (T)
- 372. n-Hexane (and isomers) (T,F)
- 373. 1-Hexene (and isomers) (T,F)
- 374. n-Hexylamine, 1-Aminohexane (and isomers) (T,F)
- 375. *Hexyltrichlorosilane (T,C,R)
- 376. *Hydrazine, Diamine (T,F)
- 377. Hydrazine azide (T,R)

- 378. Hydrazoic acid, Hydrogen azide (T,R)
- 379. *Hydriodic acid, Hydrogen iodide (T,C,R)
- 380. *Hydrobromic acid, Hydrogen bromide (T,C,R)
- 381. *Hydrochloric acid, Hydrogen chloride, Muriatic Acid (T,C,R)
- 382. *Hydrocyanic acid, Hydrogen cyanide (T,F,R)
- 383. *Hydrofluoric acid, Hydrogen fluoride (T,C,R)
- 384. Hydrofluosilicic acid, Fluosilicic acid (T,C)
- 385. Hydrogen peroxide (T,C,F,R)
- 386. *Hydrogen selenide (T,F)
- 387. *Hydrogen sulfide (T,F)
- 388. *Hypochlorite compounds (T,C,F,R)
- 389. Indium (T)
- 390. Indium compounds (T)
- 391. Iodine monochloride (T,C,R)
- 392. Isooctane; 2,2,4-Trimethylpentane (T,F)
- 393. Isooctene (mixture of isomers) (F)
- 394. Isopentane, 2-Methylbutane (F)
- 395. Isoprene, 2-Methyl-1,3-butadiene (T,F,R)
- 396. Isopropanol, Isopropyl alcohol, 2-Propanol (T,F)
- 397. Isopropyl acetate (T,F)
- 399. Isopropylamine, 2-Aminopropane (T,F)
- 400. Isopropyl chloride, 2-Chloropropane (F)
- 401. Isopropyl ether, Diisopropyl ether (F,R)
- 402. Isopropyl mercaptan, 2-Propanethiol (T,F)
- 404. *meta-Isopropylphenyl-N-methylcarbamate, Ac 5,727 (T)
- 405A. *Kepone; 1,1a,3,3a,4,5,5a,5b,6-Decachlorooctahydro-1,2,4-metheno-2H-cyclobuta (cd) pentalen-2-one, Chlorecone (T)
- 405B. Lauroyl peroxide, Di-n-dodecyl peroxide (T,C,F,R)
- 406. Lead compounds (T)
- 407. Lead acetate (T)
- 408. *Lead arsenate, Lead orthoarsenate (T)
- 409. *Lead arsenite (T)
- 410. Lead azide (T,R)
- 411. Lead carbonate (T)
- 412. Lead chlorite (T,R)
- 413. *Lead cyanide (T)
- 414. Lead 2,4-dinitroresorcinate (T,R)
- 415. Lead mononitroresorcinate (T,R)
- 416. Lead nitrate (T,F)
- 417. Lead oxide (T)
- 418. Lead styphnate, Lead trinitroresorcinate (T,R)
- 419. *Lewisite, beta-Chlorovinyl-dichloroarsine (T)
- 420. *Lithium (C,F,R)
- 421. *Lithium aluminum hydride, LAH (C,F,R)
- 422. *Lithium amide (C,F,R)
- 423. *Lithium ferrosilicon (F,R)
- 424. *Lithium hydride (C,F,R)
- 425. *Lithium hypochlorite (T,C,F,R)
- 426. Lithium peroxide (C,F,R)

- 427. Lithium silicon (F,R)
- 428. *London purple, Mixture of arsenic trioxide, aniline, lime, and ferrous oxide (T)
- 429. *Magnesium (F,R)
- 430. *Magnesium arsenate (T)
- 431. *Magnesium arsenite (T)
- 432. Magnesium chlorate (F,R)
- 433. Magnesium nitrate (F,R)
- 434. Magnesium perchlorate (T,F,R)
- 435. Magnesium peroxide, Magnesium dioxide (F)
- 436. *Maleic anhydride (T)
- 437. Manganese (powder) (F)
- 438. Manganese acetate (T)
- 439. *Manganese arsenate, Manganous arsenate (T)
- 440. Manganese bromide, Manganous bromide (T)
- 441. Manganese chloride, Manganous chloride (T)
- 442. Manganese methylcyclopentadienyl tricarbonyl (T)
- 443. Manganese nitrate, Manganous nitrate (T,F)
- 444. Mannitol hexanitrate, Nitromannite (R)
- 445. *MECARBAM; O,O-Diethyl S-(N-ethoxycarbonyl N-methylcarbamoyl-methyl) phosphorodithioate (T)
- 446. *Medinoterb acetate, 2-tert-Butyl-5-methyl-4,6-dinitrophenyl acetate (T)
- 447. para-Menthane hydroperoxide, Paramenthane hydroperoxide (F)
- 448. Mercuric acetate, Mercury acetate (T)
- 449. Mercuric ammonium chloride, Mercury ammonium chloride (T)
- 450. Mercuric benzoate, Mercury benzoate (T)
- 451. Mercuric bromide, Mercury bromide (T)
- 452. *Mercuric chloride, Mercury chloride (T)
- 453. *Mercuric cyanide, Mercury cyanide (T)
- 454. Mercuric iodide, Mercury iodide (T)
- 455. Mercuric nitrate, Mercury nitrate (T,F)
- 456. Mercuric oleate, Mercury oleate (T)
- 457. Mercuric oxide (red and yellow) (T,F)
- 458. Mercuric oxycyanide (T,R)
- 459. Mercuric-potassium iodide, Mayer's reagent (T)
- 460. Mercuric salicylate, Salicylated mercury (T)
- 461. Mercuric subsulfate, Mercuric dioxysulfate (T)
- 462. Mercuric sulfate, Mercury sulfate (T)
- 463. Mercuric thiocyanide, Mercury thiocyanate (T)
- 464. Mercuriol, Mercury nucleate (T)
- 465. Mercurous bromide (T)
- 466. Mercurous gluconate (T)
- 467. Mercurous iodide (T)
- 468. Mercurous nitrate (T,R)
- 469. Mercurous oxide (T)
- 470. Mercurous sulfate, Mercury bisulfate (T)
- 472. *Mercury (T)
- 473. *Mercury compounds (T)

- 474. Metal carbonyls (T)
- 475. *Metal hydrides (F,R)
- 476. Metal powders (T,F)
- 477A. *Methomyl, LANNATE, S-Methyl-N-((methyl-carbamoyl)oxy)thioacetimidate (T)
- 477B. *Methoxychlor; 1,1,1-Trichloro-2, 2-bis(p-methoxyphenyl)ethane, CHEMFLOM, MARLATE (T)
- 478. *Methoxyethylmercuric chloride, AGALLOL, ARETAN (T)
- 479. Methyl acetate (T,F)
- 480. Methyl acetone (Mixture of acetone, methyl acetate, and methyl alcohol) (T,F)
- 481. Methyl alcohol, Methanol (T,F)
- 482. *Methylaluminum sesquibromide (F,R)
- 483. *Methylaluminum sesquichloride (F,R)
- 484. Methylamine, Aminomethane (T,F)
- 485. N-Methylaniline (T)
- 486. *Methyl bromide, Bromomethane (T)
- 487. 2-Methyl-1-butene (F)
- 488. 3-Methyl-1-butene (F)
- 489. Methyl butyl ether (and isomers) (T,F)
- 490. Methyl butyrate (and isomers) (T,F)
- 491. Methyl chloride, Chloromethane (T,F)
- 492. *Methyl chloroformate, Methyl chlorocarbonate (T,F,R)
- 493. *Methyl chloromethyl ether, CMME (T,F)
- 494. Methylcyclohexane (T,F)
- 495. *Methyldichloroarsine (T)
- 496. *Methyldichlorosilane (T,F,R)
- 497. *4,4-Methylene bis(2-chloroaniline), MOCA (T)
- 498. Methyl ethyl ether (T,F)
- 499. Methyl ethyl ketone, 2-Butanone (T,F)
- 500. Methyl ethyl ketone peroxide (T,F)
- 501. Methyl formate (T,F)
- 502. *Methyl hydrazine, Monomethyl hydrazine, MMH (T,F)
- 503. *Methyl isocyanate (T,F)
- 504. Methyl isopropenyl ketone, 3-Methyl-3-butene-2-one (T,F)
- 505. *Methylmagnesium bromide (C,F,R)
- 506. *Methylmagnesium chloride (C,F,R)
- 507. *Methylmagnesium iodide (C,F,R)
- 508. Methyl mercaptan, Methanethiol (T,F)
- 509. Methyl methacrylate (monomer) (T,F)
- 510. *Methyl parathion; O,O-Dimethyl-O-para-nitrophenylphosphorothioate (T)
- 511. Methyl propionate (F)
- 512. *Methyltrichlorosilane (T,C,F,R)
- 513. Methyl valerate, Methyl pentanoate (and isomers) (F)
- 514. Methyl vinyl ketone, 3-Butene-2-one (T,F)
- 515A. *Mevinphos, PHOSDRIN, 2-Carbomethoxy-1-methylvinyl dimethyl phosphate (T)
- 515B. *Mirex; 1,1a,2,2,3,3a,4,5,5,5a,5b,6-Dodecachlorooctahydro-1, 3, 4-metheno-1H-cyclobuta (cd) pentalene, Dechlorane (T)

- 516. *MOCAP, O-Ethyl-S,S-dipropyl phosphorodithioate (T)
- 517. Molybdenum (powder) (F)
- 518. Molybdenum trioxide, Molybdenum anhydride (T)
- 519. Molybdic acid and salts (T)
- 520. Monochloroacetic acid, Chloroacetic acid, MCA (T,C)
- 521. Monochloroacetone, Chloroacetone, 1-Chloro-2-propanone (T)
- 522. Monofluorophosphoric acid (T,C)
- 523. Naphtha (of petroleum or coal tar origin), Petroleum ether, Petroleum naphtha (T,F)
- 524. Naphthalene (T,S)
- 525. *alpha-Naphthylamine, 1-NA (T)
- 526. *beta-Naphthylamine, 2-NA (T)
- 527. Neohexane; 2,2-Dimethylbutane (T,F)
- 528. Nickel (powder) (T,F)
- 529. Nickel acetate (T)
- 530. Nickel antimonide (T)
- 531. *Nickel arsenate, Nickelous arsenate (T)
- 532. *Nickel carbonyl, Nickel tetracarbonyl (T)
- 533. Nickel chloride, Nickelous chloride (T)
- 534. *Nickel cyanide (T)
- 535. Nickel nitrate, Nickelous nitrate (T,F,R)
- 536. Nickel selenide (T)
- 537. Nickel sulfate (T)
- 538. Nicotine, beta-pyridyl-alpha-N-methyl pyrrolidine (T)
- 539. Nicotine salts (T)
- 540. Nitric acid (T,C,F)
- 541. Nitroaniline, Nitraniline (ortho, meta, para) (T,R)
- 542. *Nitrobenzol, Nitrobenzene (T)
- 543. *4-Nitrobiphenyl, 4-NBP (T)
- 544. Nitro carbo nitrate (F,R)
- 545. Nitrocellulose, Cellulose nitrate, Guncotton, Pyroxylin, Collodion, Pyroxylin (nitrocellulose) in ether and alcohol (F,R)
- 546. Nitrochlorobenzene, Chloronitrobenzene (ortho,meta,para) (T)
- 547. Nitrogen mustard (T,C)
- 548. Nitrogen tetroxide, Nitrogen dioxide (T,F)
- 549. Nitroglycerin, Trinitroglycerin (T,F,R)
- 550. Nitrohydrochloric acid, Aqua regia (T,C,F)
- 551. *Nitrophenol (ortho, meta, para) (T)
- 552. *N-Nitrosodimethylamine, Dimethyl nitrosoamine (T)
- 553. Nitrosoguanidine (R)
- 554. Nitrostarch, Starch nitrate (F,R)
- 555. Nitroxylol, Nitroxylene, Dimethylnitrobenzene (2,4-,3,4-,2,5-isomers) (T)
- 556. 1-Nonene, 1-Nonylene (and isomers) (T,F)
- 557. *Nonyltrichlorosilane (T,R)
- 558. *Octadecyltrichlorosilane (T,R)
- 559. n-Octane (and isomers) (T,F)
- 560. 1-Octene, 1-Caprylene (T,F)

- 561. *Octyltrichlorosilane (T,R)
- 563. *Oleum, Fuming sulfuric acid (T,C,R)
- 565. Osmium compounds (T)
- 566. Oxalic acid (T)
- 567. *Oxygen difluoride (T,C,R)
- 568. *Para-oxon, MINTACOL; O,O-Diethyl-O-para-nitrophenyl phosphate (T)
- 569. *Parathion; O,O-Diethyl-O-para-nitrophenyl phosphorothioate (T)
- 570A. *Pentaborane (T,F,R)
- 570B. Pentachlorophenol, PCP, DOWICIDE 7 (T)
- 571. Pentaerythrite tetranitrate, Pentaerythritol tetranitrate (R)
- 572. n-Pentane (and isomers) (T,F)
- 573. 2-Pentanone, Methyl propyl ketone (and isomers) (T,F)
- 574. Peracetic acid, Peroxyacetic acid (T,C,F,R)
- 575. Perchloric acid (T,C,F,R)
- 576. Perchloroethylene, Tetrachloroethylene (T)
- 577. *Perchloromethyl mercaptan, Trichloromethylsulfenyl chloride (T)
- 578. Perchloryl fluoride (T,C,F)
- 580. Phenol, Carboic acid (T,C)
- 581. *Phenyldichloroarsine (T,I)
- 582. Phenylenediamine, Diaminobenzene (ortho,meta,para) (T)
- 583. Phenylhydrazine hydrochloride (T)
- 584. *Phenylphenol, Orthozenol, DOWICIDE I (T)
- 585. *Phenyltrichlorosilane (T,R)
- 586. *Phorate, THIMET; O,O-Diethyl-S-[(Ethylthio) methyl] phosphorodithioate (T)
- 587. *Phosfolan, CYOLAN, 2-(Diethoxyphosphinylimino)-1,3-dithiolane (T)
- 588. *Phosgene, Carbonyl chloride (T,R)
- 589. *Phosphamidon, DIMECRON, 2-Chloro-2-diethylcarbamoyl-1-methylvinyl dimethyl phosphate (T)
- 590. *Phosphine, Hydrogen phosphide (T,F)
- 591. Phosphoric acid (C)
- 592. Phosphoric anhydride, Phosphorus pentoxide (C,F)
- 593. Phosphorus (amorphous, red) (T,F,R)
- 594. *Phosphorus (white or yellow) (T,F,R)
- 595. *Phosphorus oxybromide, Phosphoryl bromide (T,C,R)
- 596. *Phosphorus oxychloride, Phosphoryl chloride (T,C,R)
- 597. *Phosphorus pentachloride, Phosphoric chloride (T,C,F,R)
- 598. *Phosphorus pentasulfide, Phosphoric sulfide (T,C,F,R)
- 599. *Phosphorus sesquisulfide, Tetraphosphorus trisulfide (T,C,F,R)
- 600. *Phosphorus tribromide (T,C,R)
- 601. *Phosphorus trichloride (T,C,R)
- 602. Picramide, Trinitroaniline (T,R)
- 603. Picric acid, Trinitrophenol (T,R)
- 604. Picryl chloride, 2-Chloro-1,3,5-trinitrobenzene (T,R)
- 605. *Platinum compounds (T)
- 606. *Polychlorinated biphenyls, PCB, Askarel, AROCLOR, CHLOREX-TOL, INERTEEN, PYRANOL (T)

- 607. Polyvinyl nitrate (F,R)
- 608. POTASAN; O,O-Diethyl-O-(4-methylumbelliferone) phosphorothioate (T)
- 609. *Potassium (C,F,R)
- 610. *Potassium arsenate (T)
- 611. *Potassium arsenite (T)
- 612. *Potassium bifluoride, Potassium acid fluoride (T,C)
- 613. Potassium binoxalate, Potassium acid oxalate (T)
- 614. Potassium bromate (T,F)
- 615. *Potassium cyanide (T)
- 616. Potassium dichloroisocyanurate (T,F)
- 617. Potassium dichromate, Potassium bichromate (T,C,F)
- 619. Potassium fluoride (T)
- 620. *Potassium hydride (C,F,R)
- 621. Potassium hydroxide, Caustic potash (T,C)
- 622. Potassium nitrate, Saltpeter (F,R)
- 623. Potassium nitrite (F,R)
- 624. Potassium oxalate (T)
- 625. Potassium perchlorate (T,F,R)
- 626. Potassium permanganate (T,C,F)
- 627. Potassium peroxide (C,F,R)
- 628. Potassium sulfide (T,F)
- 629. *Propargyl bromide, 3-Bromo-1-propyne (T,F)
- 630. *beta-Propiolactone, BPL (T)
- 631. Propionaldehyde, Propanal (T,F)
- 632. Propionic acid, Propanoic acid (T,C,F)
- 633. n-Propyl acetate (T,F)
- 634. n-Propyl alcohol, 1-Propanol (T,F)
- 635. n-Propylamine (and isomers) (T,F)
- 636. *Propyleneimine, 2-Methylaziridine (T,F)
- 637. Propylene oxide (T,F)
- 638. n-Propyl formate (T,F)
- 639. n-Propyl mercaptan, 1-Propanethiol (T,F)
- 640. *n-Propyltrichlorosilane (T,C,F,R)
- 641. *Prothoate, FOSTION, FAC; O,O-Diethyl-S-carboethoxyethyl phosphorodithioate (T)
- 642. Pyridine (T,F)
- 643. *Pyrosulfuryl chloride, Disulfuryl chloride (T,C,R)
- 644. *Quinone; 1,4-Benzoquinone (T)
- 645. Raney nickel (F)
- 646. *Schradan, Octamethyl pyrophosphoramidate, OMPA (T)
- 647A. *Selenium (T)
- 647B. *Selenium compounds (T)
- 648. *Selenium fluoride (T)
- 649. *Selenous acid, Selenious acid and salts (T)
- 650. *Silicon tetrachloride, Silicon chloride (T,C,R)
- 651. *Silver acetylide (T,R)
- 652. Silver azide (T,R)
- 653. Silver compounds (T)

- 744. Trichloroethylene; Trichlorethene (T)
- 745. Trichloroisocyanuric acid (T,I,F)
- 746. *2,4,5-Trichlorophenoxyacetic acid; 2,4,5-T (T)
- 747. *Trichlorosilane, Silicochloroform (T,C,F,R)
- 748. Trimethylamine, TMA (T,F)
- 749. Trinitroanisole; 2,4,6-Trinitrophenyl methyl ether (T,R)
- 750. 1,3,5-Trinitrobenzene, TNB (T,R)
- 751. 2,4,6-Trinitrobenzoic acid (T,R)
- 752. Trinitronaphthalene, Naphtite (T,R)
- 753. 2,4,6-Trinitroresorcinol, Styphnic acid (T,R)
- 754. 2,4,6-Trinitrotoluene, TNT (T,F,R)
- 755. *tris(1-Aziridinyl) phosphine oxide, Triethylenephosphoramidate, TEPA (T)
- 756. Tungstic acid and salts (T)
- 757. Turpentine (T,F)
- 758. Uranyl nitrate, Uranium nitrate (T,F,R)
- 759. Urea nitrate (T,F,R)
- 760. n-Valeraldehyde, n-Pentanal (and isomers) (T,F)
- 761. Vanadic acid salts (T)
- 762. Vanadium oxytrichloride (T,C)
- 763. *Vanadium pentoxide, Vanadic acid anhydride (T)
- 764. Vanadium tetrachloride (T,C)
- 765. Vanadium tetraoxide (T)
- 766. Vanadium trioxide, Vanadium sesquioxide (T)
- 767. Vanadyl sulfate, Vanadium sulfate (T)
- 768. Vinyl acetate (F,T)
- 769. *Vinyl chloride (T,F)
- 770. Vinyl ethyl ether (F)
- 771. Vinylidene chloride, VC (T,F)
- 772. Vinyl isopropyl ether (F)
- 773. *Vinyltrichlorosilane (T,C,F,R)
- 774. VX, O-Ethyl methyl phosphoryl N,N-diisopropyl thiocholine (T)
- 775. *WEPSYN 155, WP 155, Triamiphos, para-(5-Amino-3-phenyl-1H-1,2,4-triazol-1-yl)-N,N,N',N'-tetramethyl phosphonic diamide (T)
- 776. Xylene, Dimethylbenzene (ortho,meta,para) (T,F)
- 777. Zinc (powder) (F)
- 778. Zinc ammonium nitrate (T,F)
- 779. *Zinc arsenate (T)
- 780. *Zinc arsenite (T)
- 781. Zinc chloride (T,C)
- 782. Zinc compounds (T)
- 783. *Zinc cyanide (T)
- 784. Zinc nitrate (T,F,R)
- 785. Zinc permanganate (T,F)
- 786. Zinc peroxide, Zinc dioxide (T,F,R)
- 787. *Zinc phosphide (T,F,R)
- 788. Zinc sulfate (T)
- 789. Zirconium (powder) (F)
- 790. *Zirconium chloride, Zirconium tetrachloride (T,C,R)
- 791. Zirconium picramate (F)

(e) List of Common Names. In this subsection a dagger denotes the common name of a waste which comes under the provisions of this chapter if it contains a hazardous material.

- Acetylene sludge (C)
- Acid and water (C)
- Acid sludge (C)
- AFU Floc (T)
- Alkaline caustic liquids (C)
- Alkaline cleaner (C)
- Alkaline corrosive battery fluid (C)
- Alkaline corrosive liquids (C)
- Asbestos waste (T)
- Ashes (T,C)
- Bag house wastes†
- Battery acid (C)
- Beryllium waste (T)
- Bilge water (T)
- Boiler cleaning waste (T,C)
- Bunker Oil (T,F)
- Catalyst†
- Caustic sludge (C)
- Caustic wastewater (C)
- Chemical cleaners†
- Chemical toilet waste†
- Cleaning solvents (F)
- Corrosion inhibitor (T,C)
- Data processing fluid (F)
- Drilling fluids†
- Drilling mud†
- Dyes†
- Etching acid liquid or solvent (C,F)
- Fly ash (T,C)
- Fuel waste (T,F)
- Insecticides (T)
- Laboratory waste†
- Lime and sulfur sludge (C)
- Lime and water (C)
- Lime sludge (C)
- Lime wastewater (C)
- Liquid cement†
- Liquid cleaning compounds†
- Mine tailings†
- Obsolete explosives (R)
- Oil and water (T)
- Oil Ash (T,C)
- Paint (or varnish) remover or stripper (F)
- Paint thinner (T,F)
- Paint waste (or slops) (T,F)

- 654. Silver nitrate (T)
- 655. Silver styphnate, Silver trinitroresorcinate (T,R)
- 656. Silver tetrazene (T,R)
- 657. *Sodium (C,F,R)
- 658. Sodium aluminate (C)
- 659. *Sodium aluminum hydride (C,F,R)
- 660. *Sodium amide, Sodamide (C,F,R)
- 661. *Sodium arsenate (T)
- 662. *Sodium arsenite (T)
- 663. Sodium azide (T,R)
- 664. *Sodium bifluoride, Sodium acid fluoride (T,C)
- 665. Sodium bromate (T,F)
- 666. *Sodium cacodylate, Sodium dimethylarsenate (T)
- 667. Sodium carbonate peroxide (F)
- 668. Sodium chlorate (T,F)
- 669. Sodium chlorite (T,F)
- 670. Sodium chromate (T,C)
- 671. *Sodium cyanide (T)
- 672. Sodium dichloroisocyanurate (F)
- 673. Sodium dichromate, Sodium bichromate (T,C,F)
- 674. Sodium fluoride (T)
- 675. *Sodium hydride (T,C,F,R)
- 676. Sodium hydrosulfite, Sodium hyposulfite (F)
- 677. Sodium hydroxide, Caustic soda, Lye (T,C)
- 678. *Sodium hypochlorite (T,F,R)
- 679. *Sodium methylate, Sodium methoxide (C,F,R)
- 680. Sodium molybdate (T)
- 681. Sodium nitrate, Soda niter (T,F,R)
- 682. Sodium nitrite (T,F,R)
- 683. Sodium oxide, Sodium monoxide (T,C)
- 684. Sodium perchlorate (T,F,R)
- 685. Sodium permanganate (T,F)
- 686. *Sodium peroxide (T,F,R)
- 687. Sodium picramate (T,F,R)
- 688. *Sodium potassium alloy, NaK,Naack (C,F,R)
- 689. *Sodium selenate (T)
- 690. Sodium sulfide, Sodium hydrosulfide (T,F)
- 691. Sodium thiocyanate, Sodium sulfocyanate (T)
- 692. Stannic chloride, Tin tetrachloride (T,C)
- 693. *Strontium arsenate (T)
- 694. Strontium nitrate (T,F,R)
- 695. Strontium peroxide, Strontium dioxide (F,R)
- 696. *Strychnine and salts (T)
- 697. Styrene, Vinylbenzene (T,F)
- 698. Succinic acid peroxide (T,F)
- 699. Sulfide salts (soluble) (T)
- 700. *Sulfotepp, DITHIONE, BLADAFUM, Tetraethyl dithiopyrophosphate, TEDP (T)
- 701. *Sulfur chloride, Sulfur monochloride (T,C,R)

- 702. *Sulfur mustard (T,C,R)
- 703. *Sulfur pentafluoride (T,C)
- 704. Sulfur trioxide, Sulfuric anhydride (T,C,F)
- 705. Sulfuric acid, Oil of vitriol, Battery acid (T,C)
- 706. Sulfurous acid (T,C)
- 707. *Sulfuryl chloride, Sulfonyl chloride (T,C,R)
- 708. *Sulfuryl fluoride, Sulfonyl fluoride (T,C,R)
- 709. *SUPRACIDE, ULTRACIDE, S-[5-Methoxy-2-oxo-1,3,4-thiadiazol-3(2H)-yl) methyl]-O,O-dimethyl phosphorodithioate (T)
- 710. *SURECIDE, Cyanophenphos, O-para-Cyanophenyl-O-ethyl phenyl phosphonothioate (T)
- 711. *Tellurium hexafluoride (T,C)
- 712. *TELODRIN, Isobenzan; 1,3,4,5,6,7,8,8-Octachloro-1,3,3a,4,7,7a-hexahydro-4,7-methanoisobenzofuran (T)
- 713. *TEMIK, Aldicarb, 2-Methyl-2(methylthio) propionaldehyde-O-(methylcarbamoyl) oxime (T)
- 714. *2,3,7,8-Tetrachlorodibenzo-para-dioxin, TCDD, Dioxin (T)
- 715. sym-Tetrachloroethane (T)
- 717. *Tetraethyl lead, TEL (and other organic lead) (T,F)
- 718. *Tetraethyl pyrophosphate, TEPP (T)
- 719A. Tetrahydrofuran, THF (T,F)
- 719B. Tetrahydrophthalic anhydride, Memtetrahydrophthalic anhydride (T)
- 720. TETRALIN, Tetrahydronaphthalene (T)
- 721. Tetramethyl lead, TML (T,F)
- 722. *Tetramethyl succinonitrile (T)
- 723. *Tetranitromethane (T,F,R)
- 724. *Tetrasul, ANIMERT V-101, S-para-Chlorophenyl-2,4,5-trichlorophenyl sulfide (T)
- 725. Tetrazene, 4-Amidino-1-(nitrosamino-amidino)-1-tetrazene (T,R)
- 726. *Thallium (T)
- 727. *Thallium compounds (T)
- 728. *Thallosulfate, Thallium sulfate, RATOX (T)
- 729. *Thiocarbonylchloride, Thiophosgene (T,C,R)
- 730. *Thionazin, ZINOPHOS; O,O-Tetramethylthiuram monosulfide (T)
- 731. *Thionyl chloride, Sulfur oxychloride (T,C,R)
- 732. *Thiophosphoryl chloride (T,C,R)
- 733. Thorium (powder) (F)
- 734. Tin compounds (organic) (T)
- 735. Titanium (powder) (F)
- 736. Titanium sulfate (T)
- 737. *Titanium tetrachloride, Titanic chloride (T,C,R)
- 738. Toluene, Methylbenzene (T,F)
- 739. *Toluene-2,4-diisocyanate, TDI (T,R)
- 740A. Toluidine, Aminotoluene (ortho,meta,para) (T)
- 740B. *Toxaphene, Polychlorocamphene (T)
- 741. *TRANID, exo-3-Chloro-endo-6-cyano-2-norbornanone-O-(methylcarbamoyl) oxime (T)
- 743. 1,1,2-Trichloroethane (T)

Pickling liquor (C)
Pigments†
Plating waste (T,C)
Printing Ink†
Retrograde explosives (R)
Sludge acid (C)
Soda ash (C)
Solvents (F)
Spent acid (C)
Spent caustic (C)
Spent (or waste) cyanide solutions (T,C)
Spent mixed acid (C)
Spent plating solution (T,C)
Spent sulfuric acid (C)
Stripping solution (T,F)
Sulfonation oil (F)
Tank bottom sediment†
Tank cleaning sludges†
Tanning sludges (T)
Toxic chemical toilet wastes (T)
Unrinsed pesticide containers (T)
Unwanted or waste pesticides—an unusable portion of active ingredient or undiluted formulation (T)
Waste chemicals†
Waste exopides†
Waste (or slop) oil (T)
Weed Killer (T)

NOTE: Authority cited: Sections 208, 25141 and 25150, Health and Safety Code. Reference: Sections 25140 and 25141, Health and Safety Code.

HISTORY:

1. Amendment filed 9-27-84; effective thirtieth day thereafter (Register 84, No. 41).
2. Editorial correction of subsection (d) and NOTE filed 10-5-84; designated effective 10-27-84 (Register 84, No. 41)

Article 10. Extremely Hazardous Wastes and Extremely Hazardous Materials

66685. List of Extremely Hazardous Wastes.

NOTE: Authority cited: Sections 208, 25141 and 25150, Health and Safety Code. Reference: Section 25141, Health and Safety Code.

HISTORY:

1. Repealer of Article 10 (Section 66685) filed 9-27-84; effective thirtieth day thereafter (Register 84, No. 41).

Article 11. Criteria for Identification of Hazardous and Extremely Hazardous Wastes

66693. Applicability of Hazardous Waste Criteria.

Any waste which is hazardous pursuant to any of the criteria set forth in this article is a hazardous waste and shall be managed in accordance with the provisions of this chapter.

NOTE: Authority cited: Sections 208, 25141 and 25150, Health and Safety Code. Reference: Section 25141, Health and Safety Code.

HISTORY:

1. New Article 11 (Sections 66693-66723, not consecutive) filed 9-27-84; effective thirtieth day thereafter (Register 84, No. 41).

66694. Sampling and Sample Management.

Sampling and sample management of the wastes and other materials for analysis and testing pursuant to the criteria of this article shall be in accord with the sampling planning, methodology and equipment, and the sample processing, documentation and custody procedures specified in Section One of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, 2nd edition, U.S. Environmental Protection Agency, 1982.

NOTE: Authority cited: Sections 208, 25141 and 25150, Health and Safety Code. Reference: Section 25141, Health and Safety Code.

HISTORY:

1. Editorial correction filed 10-5-84; designated effective 10-27-84 (Register 84, No. 41).

66696. Toxicity Criteria.

- (a) A waste, or a material, is toxic and hazardous if it:
- (1) Has an acute oral LD₅₀ less than 5,000 milligrams per kilogram; or
 - (2) Has an acute dermal LD₅₀ less than 4,300 milligrams per kilogram; or
 - (3) Has an acute inhalation LC₅₀ less than 10,000 parts per million as a gas or vapor; or
 - (4) Has an acute aquatic 96-hour LC₅₀ less than 500 milligrams per liter when measured in soft water (total hardness 40 to 48 milligrams per liter of calcium carbonate) with fathead minnows (*Pimephales promelas*), rainbow trout (*Salmo gairdneri*) or golden shiners (*Notemigonus crysoleucas*) according to procedures described in Part 800 of "Standard Methods for the Examination of Water and Wastewater (15th Edition)", American Public Health Association, 1981, or by other test methods or test fish approved by the Department, using test samples prepared or meeting the conditions for testing as prescribed in Section 66700(c) and (d), and solubilized, suspended, dispersed or emulsified by the procedures recommended in Part 800 of the cited text or by other methods approved by the Department; or
 - (5) Contains any of the following substances at a single or combined concentration equal to or exceeding 0.001 percent by weight:
 - (A) 2-Acetylaminofluorene (2-AAF)
 - (B) Acrylonitrile
 - (C) 4-Aminodiphenyl
 - (D) Benzidine and its salts
 - (E) bis (Chloromethyl) ether (BCME)
 - (F) Methyl chloromethyl ether
 - (G) 1,2-Dibromo-3-chloropropane (DBCP)
 - (H) 3,3'-Dichlorobenzidine and its salts (DCB)
 - (I) 4-Dimethylaminoazobenzene (DAB)
 - (J) Ethyleneimine (EL)
 - (K) *o*-Naphthylamine (1-NA)

- (M) 4-Nitrobiphenyl (4-NBP)
- (N) N-Nitrosodimethylamine (DMN)
- (O) β-Propiolactone (BPL)
- (P) Vinyl chloride (VCM); or

(6) Has been shown through experience or testing to pose a hazard to human health or environment because of its carcinogenicity, acute toxicity, chronic toxicity, bioaccumulative properties or persistence in the environment; or

(7) Is listed in 40 CFR 261 (codified July 1, 1982) as a hazardous waste which is:

- (A) From a nonspecific source listed in Section 261.31; or
- (B) From a specific source listed in Section 261.32; or
- (C) An acute hazardous commercial chemical product or manufacturing chemical intermediate listed in Section 261.33(e); or
- (D) A toxic commercial chemical product or manufacturing chemical intermediate listed in Section 261.33(f).

(b) A waste containing one or more materials which are toxic according to the criterion of subsection (a) (3) of this section may be classified as nonhazardous pursuant to Section 66305 if the waste is not hazardous by any other criterion of this article and its head space vapor contains no such toxic materials in concentrations exceeding their respective eight-hour inhalation LC_{50} or their LC_{LO} . The head space vapor of a waste shall be prepared, and two milliliters of it shall be sampled using a five milliliter gas-tight syringe, according to method 5020 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, 2nd edition, U.S. Environmental Protection Agency, 1982. The quantity of each material in milligrams, which is toxic according to the criterion of paragraph (a) (3) of this section, in the sampling syringe shall be determined by comparison to liquid standard solutions according to the appropriate gas chromatographic procedures in method 8010, 8015, 8020 or 8030 in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", SW-846, 2nd edition, U.S. Environmental Protection Agency, 1982. The concentration of each material in the head space vapor shall be calculated using the following equation:

$$C_A = \frac{Q_A}{MW} \times 29.8 \text{ ml/mole} \times \frac{1}{2 \times 10^{-6} \text{ M}^3}$$

where C_A (in parts per million) is the concentration of material A in head space vapor, Q_A (in milligrams) is the quantity of material A in sampling syringe and MW (in milligrams per millimole) is the molecular weight of material A. Where an eight-hour LC_{50} is not available, an LC_{50} measured for another time (t) may be converted to an eight-hour value with the following equation:

$$\text{Eight-hour } LC_{50} = (t/8) \times (t\text{-hour } LC_{50}).$$

(c) A waste containing one or more materials which are toxic according to any criterion of paragraph (a) (1) or (a) (2) of this section may be classified as nonhazardous pursuant to Section 66305 if the waste is not hazardous by any other criterion of this article and the calculated oral LD_{50} of the waste mixture is greater than 5,000 milligrams per kilogram and the calculated dermal LD_{50} is greater than 4,300 milligrams per kilogram by the following equation:

$$\text{Calculated oral or dermal } LD_{50} = \frac{100}{\sum_{x=1}^n \frac{\%Ax}{Ax}}$$

where %Ax is the weight percent of each component in the waste mixture and T_{Ax} is the acute oral or dermal LD_{50} or the acute oral LD_{LO} of each component.

NOTE: Authority cited: Sections 208, 25141 and 25150, Health and Safety Code. Reference: Section 25141, Health and Safety Code.

HISTORY:

1. Editorial correction filed 10-5-84; designated effective 10-27-84 (Register 84, No. 41).

66699. Persistent and Bioaccumulative Toxic Substance.

(a) Any waste is a hazardous waste which contains a substance listed in subsections (b) or (c) of this section:

- (1) at a concentration in milligrams per liter as determined pursuant to Section 66700 which exceeds its listed soluble threshold limit concentration, or
- (2) at a concentration in milligrams per kilogram in the waste which exceeds its listed total threshold limit concentration.

(b) List of Inorganic Persistent and Bioaccumulative Toxic Substances and Their Soluble Threshold Limit Concentration (STLC) and Total Threshold Limit Concentration (TTLC) Values.

Substance	STLC mg/l	TTLC Wet-Weight mg/kg
Antimony and/or antimony compounds.....	15	500
Arsenic and/or arsenic compounds	5.0	500
Asbestos	-	1.0 (as percent)
Barium and/or barium compounds (excluding barite)	100	10,000††
Beryllium and/or beryllium compounds.....	0.75	75
Cadmium and/or cadmium compounds	1.0	100
Chromium (VI) compounds	5	500
Chromium and/or chromium (III) compounds	560	2,500
Cobalt and/or cobalt compounds	80	8,000
Copper and/or copper compounds	25	2,500
Fluoride salts	180	18,000
Lead and/or lead compounds	5.0	1,000
Mercury and/or mercury compounds	0.2	20
Molybdenum and/or molybdenum compounds	350	3,500
Nickel and/or nickel compounds	20	2,000
Selenium and/or selenium compounds.....	1.0	100
Silver and/or silver compounds	5	500
Thallium and/or thallium compounds.....	7.0	700
Vanadium and/or vanadium compounds	24	2,400
Zinc and/or zinc compounds.....	250	5,000

* STLC and TTLC values are calculated on the concentrations of the elements, not the compounds.

† In the case of asbestos and elemental metals, applies only if they are in a friable, powdered or finely divided state. Asbestos includes chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite.

†† Excluding barium sulfate.

(c) List of Organic Persistent and Bioaccumulative Toxic Substances and Their Soluble Threshold Limit Concentration (STLC) and Total Threshold Limit Concentration (TTLC) Values.

Substance	STLC	TTLC
	mg/l	Wet Weight mg/kg
Aldrin	0.14	1.4
Chlordan	0.25	2.5
DDT, DDE, DDD	0.1	1.0
2,4-Dichlorophenoxyacetic acid	10	100
Dieldrin	0.8	8.0
Dioxin (2,3,7,8-TCDD)	0.001	0.01
Endrin	0.02	0.2
Heptachlor	0.47	4.7
Keponc	2.1	21
Lead compounds, organic	-	13
Lindane	0.4	4.0
Methoxychlor	10	100
Mirex	2.1	21
Pentachlorophenol	1.7	17
Polychlorinated biphenyls (PCBs)	5.0	50
Toxaphene	0.5	5
Trichloroethylene	204	2,040
2,4,5-Trichlorophenoxypropionic acid	1.0	10

NOTE: Authority cited: Sections 208, 25141 and 25150, Health and Safety Code. Reference: Section 25141, Health and Safety Code.

HISTORY:

1. Editorial correction filed 10-5-84; designated effective 10-27-84 (Register 84, No. 41).

66700. Waste Extraction Test (WET).

(a) The WET described in this section shall be used to determine the amount of extractable substance in a waste or other material as set forth in Section 66699(a).

(b) Except as provided in Section 66700(d), the WET shall be carried out if the total concentration in the waste, or other material, of any substance listed in Section 66699 equals or exceeds the STLC value, but does not exceed the TTLC value, given for that substance. The total concentrations of substances listed in Section 66699 shall be determined by analysis of samples of wastes, or other materials, which have been prepared, or meet the conditions, for analysis as set forth in subsections (c) and (d) of this section. Methods used for analysis for total concentrations of substances listed in Section 66699 shall be those given in the following documents or alternate methods that have been approved by the Department pursuant to Section 66310(e):

(1) For metal elements and their compounds, the waste shall be digested according to the indicated methods described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, 2nd edition, U.S. Environmental Protection Agency, 1982:

(A) All listed metal elements and their compounds, except hexavalent chromium: Method 3050.

(B) Hexavalent chromium: Method 3060.

(2) For the following substances, the indicated methods as described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, 2nd edition, U.S. Environmental Protection Agency, 1982 shall be utilized:

(A) Antimony: Method 7040 or Method 7041.

(B) Arsenic: Method 7060 or Method 7061.

(C) Barium: Method 7080 or Method 7081.

(D) Cadmium: Method 7131.

(E) Total chromium: Method 7190.

(F) Hexavalent chromium: Method 7195, Method 7196 or Method 7197.

(G) Lead: Method 7421.

(H) Mercury: Method 7470 or Method 7471.

(I) Nickel: Method 7520 or Method 7521.

(J) Selenium: Method 7740 or Method 7741.

(K) Silver: Method 7760 or Method 7761.

(L) Trichloroethylene: Method 8010 or Method 8240.

(M) Pentachlorophenol: Method 8040, Method 8250 or Method 8270.

(N) Aldrin, Lindane, Chlordane, DDD, DDE, DDT, Dieldrin, Heptachlor, Toxaphene and PCBs: Method 8080, Method 8250 or Method 8270.

(O) 2,4-Dichlorophenoxyacetic acid and 2,4,5-trichlorophenoxypropionic acid: Method 8150.

(3) For the following substances, the indicated methods as described in "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, U.S. Environmental Protection Agency, 1979 shall be utilized:

(A) Beryllium: Method 210.1 or Method 210.2.

(B) Cobalt: Method 219.1 or Method 219.2.

(C) Copper: Method 220.1 or Method 220.2.

(D) Molybdenum: Method 246.1 or Method 246.2.

(E) Thallium: Method 279.1 or Method 279.2.

(F) Vanadium: Method 286.1 or Method 286.2.

(G) Zinc: Method 289.1 or Method 289.2.

(H) Fluoride: Method 340.1, Method 340.2 or Method 340.3.

(4) For the following substances, the indicated methods as described in "Manual of Analytical Methods for the Analysis of Pesticides in Humans and Environmental Samples", EPA-600/8-80-038, U.S. Environmental Protection Agency, 1980 shall be utilized:

(A) Kepone: Section 5.A, (5), (a).

(B) 2,3,7,8-Tetrachlorodibenzo-p-dioxin: Section 9.C.

(5) For asbestos, the indicated method as described in the Federal Register, Volume 47, Number 103, Appendix A, pages 23376-23389, May 7, 1982 shall be utilized.

(c) Samples shall be prepared for analysis for total and extractable content of substances listed in Section 66699 (b) and (c) as follows:

(1) Type i: If the waste or other material is a millable solid, the sample shall be passed directly, or shall be milled to pass, through a No. 10 (two millimeter) standard sieve before it is analyzed. If the sample contains non-friable solid particles which do not pass directly through a No. 10 sieve and which are extraneous and irrelevant as hazardous constituents to the waste or other material, they shall be removed to the extent feasible by mechanical means and discarded. Solids which remain in the waste or other material after removal of the aforesaid extraneous particles shall be milled to pass through a No. 10 sieve and shall then be combined and mixed well with the solids which passed through the sieve without milling. The reconstituted sample shall then be analyzed as prescribed in this section.

(2) Type ii: If the waste or other material is a filterable mixture of liquid and solids in which the solids constitute five-tenths (0.5) percent by weight or greater of the sample, the liquid and solids shall be separated by filtration through a 0.45 micron membrane filter. The filtrate so obtained is to be designated as Initial Filtrate. Its volume is determined, and it is retained. The separated solids shall be sieved in a No. 10 sieve and any nonfriable extraneous particles of the kinds described in subsection (c) (1) which do not pass through the sieve shall be removed to the extent feasible by mechanical means and discarded. The solids which remain after removal of the extraneous particles shall be milled to pass through a No. 10 sieve and shall be recombined with solids which passed through the sieve without milling. This recombined solid material shall be extracted following the procedure in subsection (f). A ratio of 10 milliliters of extraction solution per gram of solid shall be utilized with appropriate modifications for extraction vessel size. After completion of solids extraction, the filtered extractant is combined with Initial Filtrate mixed thoroughly and analyzed as described in subsection (f) (3).

(3) Type iii: If the waste or other material is a nonfilterable and nonmillable sludge, slurry, or oily, tarry or resinous material, it shall be analyzed as received unless it contains non-friable extraneous and irrelevant solid particles of the kinds described in paragraph (c) (1) of this section. If it contains such solid particles and they are of such size as not to pass through a No. 10 sieve, they shall be removed to the extent feasible by mechanical means and discarded. The remainder of the sample shall be analyzed as prescribed in this section.

(4) If it is necessary to dry a solid sample or the solids fraction of a sample before sieving, milling or removal of extraneous solids, or if a sample is dried prior to analysis, all weight losses due to drying shall be determined, and these losses and the conditions of drying shall be reported.

(d) If the waste or other material is a liquid containing less than five-tenths (0.5) percent by weight of undissolved solids, it shall not be subject to the WET procedure, but shall be analyzed directly for the substances listed in Section 66699. The waste shall be classified as a hazardous waste if the total concentration in the waste of any substances listed in Section 66699 exceeds the TTLC value given for that substance. If, however, the total concentration is less than the TTLC but exceeds the STLC when expressed on a milligrams per liter basis, the waste or other material shall be filtered through a 0.45 micron membrane filter, the solids discarded and the filtrate shall be analyzed directly for the substances listed in Section 66699. The waste shall be classified as a hazardous waste if the concentration in the filtrate of any of the substances listed in Section 66699 exceeds the STLC value given for that substance.

(e) The WET extraction solution shall consist of 0.2 M sodium citrate at pH 5.0 ± 0.1 , which is prepared by titrating an appropriate amount of analytical grade citric acid in deionized water with 4.0 N NaOH, except that the extraction solution for the determination of chromium (VI) shall consist of deionized water.

(f) The extraction procedure shall be as follows:

(1) Fifty grams of sample, or less if it is a type ii sample prepared pursuant to subsection (c) (2), obtained pursuant to subsection (c) or (d) of this section shall be placed in a clean polyethylene or glass container designated the Treatment, capable of physically withstanding the extraction procedure and which was rinsed previously with, in succession, an aqueous 1:1 ratio by volume nitric acid solution and deionized water. If the extract will be analyzed for any of the organic substances listed in Section 66699(c), a glass container shall be used. Furthermore, a container of the same size, shape and material shall be used for an extraction designated as the Blank, which shall be carried through the same procedure as the Treatment, but without addition of the sample.

(2) Five hundred milliliters of extraction solution, or less if the waste sample is a type ii sample prepared pursuant to subsection (c) (2) shall be added to the Treatment and Blank containers, which shall be then fitted with covered air scrubbers extended well into the extraction solutions and flushed vigorously with nitrogen gas for 15 minutes so as to remove and exclude atmospheric oxygen from the extraction medium. If the sample is to be analyzed for any volatile substance, such as trichloroethylene, the sample shall be added after deaeration with nitrogen to avoid volatilization loss. After deaeration the containers shall be quickly sealed with tightly fitting caps and agitated, using a table shaker, an overhead stirrer or a rotary extractor, operated at a speed which shall maintain the sample in a state of vigorously agitated suspension. Required equipment is described in test method 1310 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, 2nd edition, U.S. Environmental Protection Agency, 1982. The temperature during the extraction shall be maintained between 20 and 40 degrees centigrade. After 48 hours of extracting, the contents of the Treatment and Blank containers shall be either filtered directly or centrifuged and then filtered. Filtering shall be through a medium porosity prefilter and then through a 0.45 micron membrane filter, using a clean, thick-walled suction flask. For coarser solids, prefiltration shall not be necessary. Pressure filtration shall be an optional alternative to vacuum filtration. If the extracts are first centrifuged, glass or polyethylene bottles shall be used as prescribed for extraction. For very fine solids, centrifuging at as high as $10,000 \times G$ may be necessary. After centrifugation, the liquids shall be decanted, prefiltered if necessary, and then passed through a 0.45 micron membrane filter. All filters shall be of low and identified extractable heavy metals, fluoride and organic chemicals content.

(3) If the filtered extracts are to be analyzed only for the metal elements listed in Section 66699(b), the filtered extracts from the Treatment and Blank shall be transferred to clean polyethylene bottles and acidified with nitric acid to five percent by volume acid content soon after each extract is filtered. For those wastes or waste materials classified under subsection (c) (2), the Treatment shall be the Initial Filtrate combined with the extract generated by the WET extraction of the initially separated solids. Similarly the Blank in this instance shall be the filtrate generated by the WET Blank accompanying the initially separated solids, to which is subsequently added a volume of deionized

water equivalent to that of the Initial Filtrate. These procedures shall be followed prior to acidification of Treatment and Blank solutions with nitric acid to five percent (by volume) acid content. The bottle shall then be stored at room temperature or frozen. If the extracts are also to be analyzed for the organic substances listed in Section 66699(c), or for the organic substances only, the filtered extracts shall be transferred to clean glass bottles. If the extracts are to be analyzed for fluoride, they shall be transferred to clean polyethylene bottles. These extracts, containing organic substances or fluoride, shall not be acidified, but shall be frozen soon after each extract is obtained and held frozen until the day of analysis, unless the extracts are analyzed within 24 hours.

(g) Sample analysis and data treatment shall be as follows:

(1) Each of the filtered extracts from the Treatment and Blank extractions shall have been acidified to five percent by volume nitric acid, and stored at room temperature or frozen in polyethylene bottles or kept frozen without addition of acid in glass bottles until the day of analysis, as prescribed. Each of the extracts shall be thoroughly mixed just prior to being individually analyzed for the substances listed in Section 66699 in order to determine whether the extractable concentration (EC) in the waste or other material exceeds the STLC for any of the substances listed. The extracts shall be analyzed according to the procedures identified in Sections 66700(b)(2), (b)(3) and (b)(4).

(2) The net EC of a substance in the Treatment sample which is listed in Section 66699 shall be calculated and reported as milligrams per liter of sample (mg/l). This value is derived after subtracting the concentration of the substance in the appropriate Blank extract from that concentration determined in the Treatment extract.

NOTE: Authority cited: Sections 208, 25141 and 25150, Health and Safety Code. Reference: Section 25141, Health and Safety Code.

HISTORY:

1. Editorial correction filed 10-5-84; designated effective 10-27-84 (Register 84, No. 41).

66702. Ignitability Criteria.

(a) A waste, or a material, is ignitable and hazardous if it:

(1) Is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume, and has a flash point less than 60 degrees centigrade (140 degrees Fahrenheit), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in American Society for Testing and Materials (ASTM) Standard D-93-79, or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D-3278-73; or

(2) Is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard; or

(3) Is a flammable compressed gas as defined in 49 CFR 173.300(b) (codified October 1, 1982) and as determined by the test methods described in that regulation; or

(4) Is an oxidizer as defined in 49 CFR 173.151 (codified October 1, 1982).

NOTE: Authority cited: Sections 208, 25141 and 25150, Health and Safety Code. Reference: Section 25141, Health and Safety Code.

66705. Reactivity Criteria.

(a) A waste, or a material, is reactive and hazardous if it:

(1) Is normally unstable and readily undergoes violent change without detonating; or

(2) Reacts violently with water; or

(3) Forms potentially explosive mixtures with water; or

(4) Generates toxic gases, vapors or fumes, when mixed with water, in a quantity sufficient to present a danger to human health or the environment; or

(5) Is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment; or

(6) Is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement; or

(7) Is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure; or

(8) Is a forbidden explosive as defined in 49 CFR 173.51 (codified October 1, 1982), or a Class A explosive as defined in 49 CFR 173.53 (codified October 1, 1982), or a Class B explosive as defined in 49 CFR 173.88 (codified October 1, 1982).

NOTE: Authority cited: Sections 208, 25141 and 25150, Health and Safety Code. Reference: Section 25141, Health and Safety Code.

66708. Corrosivity Criteria.

(a) A waste, or a material, is corrosive and hazardous if it:

(1) Is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, or its mixture with an equivalent weight of water produces a solution having a pH less than or equal to 2 or greater than or equal to 12.5. The pH shall be determined by a pH meter using either test method 9040 specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, U.S. Environmental Protection Agency, 2nd edition, 1982, or as described in "Methods for Chemical Analysis of Water and Wastes", EPA 600/4-79-020, March 1979; or

(2) Is a liquid, or when mixed with an equivalent weight of water produces a liquid, and corrodes steel (SAE 1020) at a rate greater than 6.35 millimeters (0.250 inch) per year at a test temperature of 55 degrees centigrade (130 degrees Fahrenheit) as determined by the test method specified in the National Association of Corrosion Engineers (NACE) Standard TM-01-69 as standardized as test method 1110 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, U.S. Environmental Protection Agency, 2nd edition, 1982.

NOTE: Authority cited: Sections 208, 25141 and 25150, Health and Safety Code. Reference: Section 25141, Health and Safety Code.

HISTORY:

1. Editorial correction filed 10-5-84; designated effective 10-27-84 (Register 84, No. 41).

66717. Applicability of Extremely Hazardous Waste Criteria.

Any waste which is extremely hazardous pursuant to any of the criteria of Sections 66720 or 66723 is an extremely hazardous waste and shall be managed in accordance with the provisions of this chapter.

NOTE: Authority cited: Sections 208, 25141 and 25150, Health and Safety Code. Reference: Section 25141, Health and Safety Code.

66720. Extremely Hazardous Criteria.

(a) A waste, or a material, is extremely hazardous if it:

(1) Has an acute oral LD₅₀ less than or equal to 50 milligrams per kilogram;

- (2) Has an acute dermal LD₅₀ less than or equal to 43 milligrams per kilogram; or
- (3) Has an acute inhalation LC₅₀ less than or equal to 100 parts per million as a gas or vapor; or
- (4) Contains any of the substances listed in Section 66696(a) (5) at a single or combined concentration equal to or exceeding 0.1 percent by weight; or
- (5) Has been shown through experience or testing to pose an extreme hazard to the public health because of its carcinogenicity, high acute or chronic toxicity, bioaccumulative properties, or persistence in the environment; or
- (6) Is water-reactive.

(b) A waste containing one or more materials which are extremely toxic according to any criterion of paragraphs (a) (1) or (a) (2) of this section may be classified by the Department as not extremely hazardous if neither the calculated acute oral toxicity nor the calculated acute dermal toxicity of the waste using the equation in Section 66696(c) is numerically equal to or less than the toxicity limits prescribed in paragraphs (a) (1) or (a) (2) of this section and the waste is not extremely hazardous by any other criterion of this section.

NOTE: Authority cited: Sections 208, 25141 and 25150, Health and Safety Code. Reference: Section 25141, Health and Safety Code.

HISTORY:

- 1. Editorial correction filed 10-5-84; designated effective 10-27-84 (Register 84, No. 41).

66723. Total Threshold Limit Concentration Values of Persistent and Bioaccumulative Toxic Substances in Extremely Hazardous Wastes.

(a) Any waste containing a substance listed in subsection (b) of this section at a concentration equal to or exceeding its listed total threshold limit concentration is an extremely hazardous waste.

(b) List of Persistent and Bioaccumulative Toxic Substances and Their Total Threshold Limit Concentration (TTLC) Values.

<i>Substance</i>	<i>TTLC (Wet-Weight in mg/kg)</i>
Aldrin	140
Arsenic and/or arsenic compounds.....	50,000 (as As)
Beryllium and/or beryllium compounds*	7,500 (as Be)
Cadmium and/or cadmium compounds*	10,000 (as Cd)
Chlordan.....	250
2,4-Dichlorophenoxyacetic acid	10,000
Dieldrin	800
Dioxin (2,3,7,8-TCDD)	1
Endrin.....	20
Heptachlor	470
Kepone	2,100
Lead compounds, organic	1,300 (dry weight basis; as Pb)
Lindane.....	400
Mercury and/or mercury compounds	2,000 (as Hg)
Mirex	2,100
Polychlorinated biphenyls (PCBs)	5,000
Selenium and/or selenium compounds*	10,000 (as Se)
Thallium and/or thallium compounds*	70,000 (as Tl)
Toxaphene	800
2,4,5-Trichlorophenoxypropionic acid.....	1,000

* In the case of elemental metals, applies only if they are in a friable, powdered or finely divided state.

NOTE: Authority cited: Sections 208, 25141 and 25150, Health and Safety Code. Refer.

Article 12. Recyclable Hazardous Wastes

66763. Recyclable Hazardous Waste Disposal Statement

(a) Within 180 days of the disposal of a recyclable hazardous waste of a type listed in Section 66796, the Department may request the generator of such waste to provide the Department with a written statement justifying having not recycled the waste. A person requested to provide such a statement shall comply within 30 days of the Department's written request. If the request is made of an entity specified in Section 66160 other than an individual, the statement shall be issued by the responsible management of that entity.

(b) The Department's request for a statement from the waste generator pursuant to subsection (a) above shall cite a special property or component of the waste and a possible use or method of reclamation on the basis of which the Department considers that the waste might feasibly be recycled.

(c) The statement from the waste generator justifying having not recycled a hazardous waste pursuant to subsection (a) above shall include, but need not be limited to, the following:

(1) The general description, source, chemical composition, physical state, and amount of the waste.

(2) The amount of similar waste discarded or recycled during the 365-day period preceding the disposal in question.

(3) An estimate of the amount of similar waste to be generated by the generator in the 365-day period succeeding the disposal in question.

(4) A summary of efforts made to find a use for the waste such as the following:

(A) Use without processing.

(B) Use after processing to remove or modify undesired impurities.

(C) Use as a source of energy by the generator or by another person.

(5) Technologic, economic or other reason for not recycling the waste, taking into account relevant factors which may include any of the following:

(A) The available amount and the storability of the waste.

(B) Chemical, physical, toxicological or other properties of the waste which might affect its recyclability.

(C) The concentration or recoverability of the chemical component, chemical reactivity, fuel value or other attribute cited by the Department pursuant to subsection (b) above which may determine the feasibility of recycling the waste.

(D) The processing required in recycling the waste and the availability and cost of suitable processing technology and facilities.

(E) The marketability of the waste as such or as its reclaimed components in terms of the distance from the waste source to the point of use or reclamation, the costs of handling and transport, and the current market prices for the individual waste components as pure or technical grade materials.

(d) The statement shall indicate what information contained therein is considered to be a trade secret. The Department shall keep confidential trade secrets contained in any statement submitted to the Department pursuant to this section.

NOTE: Authority cited: Section 25175, Health and Safety Code. Reference: Sections 25175 and 27159.5, Health and Safety Code.

HISTORY:

- 1. New Article 12 (Sections 66763 and 66796) filed 5-16-79; effective thirtieth day thereafter (Register 79, No. 19).
- 2. Amendment filed 1-3-85; effective thirtieth day thereafter (Register 85, No. 2).

§ 66796
(p. 1800.86)

ENVIRONMENTAL HEALTH

TITLE 22
(Register 85, No. 2—1-12-85)

66796. List of Recyclable Hazardous Waste Types.

(a) Wastes of the types cited on the list of Recyclable Hazardous Wastes in subsection (b) are waste types which the Department finds to be both economically and technologically feasible to recycle.

(b) List of Recyclable Hazardous Waste Types (including examples of potential recycling methods or uses);

(1) Commercial chemical products including unused laboratory grade products (return to manufacturer or supplier or turn over to chemical salvager for resale or resource recovery; sell or barter to another consumer).

(2) Solvents, used or contaminated (reclaim, in-plant or through custom solvent reclaimer, by purification processes of rectification, ion exchange, adsorption, or extraction; or if combustible, use in-plant or sell for use as energy resource for heating, cooling, or power generation), including:

(A) Halogenated solvents such as trichloroethane, perchloroethylene, methylene dichloride, chloroform, carbon tetrachloride, Freons. (R)

(B) Oxygenated solvents, such as acetone, methyl ethyl ketone, methanol, ethanol, butanol, ethyl acetate;

(C) Hydrocarbon solvents, such as hexanes, Stoddard, benzene, toluene, xylenes, paint thinner.

(3) Used or unused petroleum products, including motor oils, hydraulic fluids, cutting lubricants, fortified weed oils (turn over to reclaimer of motor oils and other petroleum products for recovery of petroleum components; or use in-plant, or sell for use as energy resource for heating, cooling, or power generation).

(4) Pickling liquor (recover iron salts by concentration, e.g., by solar evaporation of spent liquor).

(5) Unspent acids, such as hydrochloric, hydrofluoric, nitric, phosphoric, sulfuric, in concentrations exceeding 15% (use directly as pickling and etching acids; in neutralization of alkaline process waste streams; or in manufacture of useful salt products, e.g., ammonium salts, calcium fluoride).

(6) Unspent alkalis, including hydroxides and carbonates of sodium, potassium, and calcium, and acetylene sludge (use directly in certain metal finishing operations; in neutralization of pickling acids and acid process waste streams; in precipitation of heavy metals; or in manufacture of useable products, e.g., calcium oxide, sulfate, fluoride, and chloride).

(7) Unrinsed empty containers of iron or steel used for pesticides or other hazardous chemicals:

(A) Pesticide containers (return to the registrant or, if 30- or 55-gallon size, recondition, pursuant to Section 3143 of Title 3, California Administrative Code; or shred or bale, after removal of pesticide residues by solvent or chemical action or burning, for use as steel scrap).

(B) Hazardous chemical containers (other than pesticide containers return to product supplier or, if 30- or 55-gallon size, recondition; or shred or bale, after removal of chemical residues by solvent or chemical action or burning, for use as steel scrap).

NOTE: Authority cited: Section 25175, Health and Safety Code. Reference: Section 25175, Health and Safety Code.

HISTORY:

1. Amendment of subsection (b) (2) (A) filed 1-3-85; effective thirtieth day thereafter (Register 85, No. 2).

TITLE 22
(Register 85, No. 2—1-12-85)

ENVIRON

Article 1.

66835. Requirements for Production of Infectious Waste.

(a) All the requirements of this article shall apply to any production of more than 100 kilograms of infectious waste.

(b) All the requirements of this article shall apply to any production of infectious waste produced per year at a facility which is a primary care or intermediate care facility as defined in Chapter 1, Division 2, Section 20199, or a hospital, acute psychiatric hospital, or intermediate care facility as defined in Chapter 2, Division 2, Section 20200.

(c) The requirements of Section 66835 shall apply to any production of infectious waste.

NOTE: Authority cited: Sections 20199, 20200, 20201, 20202, 20203, 20204, 20205, 20206, 20207, 20208, 20209, 20210, 20211, 20212, 20213, 20214, 20215, 20216, 20217, 20218, 20219, 20220, 20221, 20222, 20223, 20224, 20225, 20226, 20227, 20228, 20229, 20230, 20231, 20232, 20233, 20234, 20235, 20236, 20237, 20238, 20239, 20240, 20241, 20242, 20243, 20244, 20245, 20246, 20247, 20248, 20249, 20250, 20251, 20252, 20253, 20254, 20255, 20256, 20257, 20258, 20259, 20260, 20261, 20262, 20263, 20264, 20265, 20266, 20267, 20268, 20269, 20270, 20271, 20272, 20273, 20274, 20275, 20276, 20277, 20278, 20279, 20280, 20281, 20282, 20283, 20284, 20285, 20286, 20287, 20288, 20289, 20290, 20291, 20292, 20293, 20294, 20295, 20296, 20297, 20298, 20299, 20300.

HISTORY:

1. New Article 13 (Sections 66835, 66836, 66837, 66838, 66839, 66840, 66841, 66842, 66843, 66844, 66845, 66846, 66847, 66848, 66849, 66850, 66851, 66852, 66853, 66854, 66855, 66856, 66857, 66858, 66859, 66860, 66861, 66862, 66863, 66864, 66865, 66866, 66867, 66868, 66869, 66870, 66871, 66872, 66873, 66874, 66875, 66876, 66877, 66878, 66879, 66880, 66881, 66882, 66883, 66884, 66885, 66886, 66887, 66888, 66889, 66890, 66891, 66892, 66893, 66894, 66895, 66896, 66897, 66898, 66899, 66900).

2. Certificate of Compliance transmitted to OAL within 120 days after filing (Register 84, No. 24).

3. New Article 13 (Sections 66835, 66836, 66837, 66838, 66839, 66840, 66841, 66842, 66843, 66844, 66845, 66846, 66847, 66848, 66849, 66850, 66851, 66852, 66853, 66854, 66855, 66856, 66857, 66858, 66859, 66860, 66861, 66862, 66863, 66864, 66865, 66866, 66867, 66868, 66869, 66870, 66871, 66872, 66873, 66874, 66875, 66876, 66877, 66878, 66879, 66880, 66881, 66882, 66883, 66884, 66885, 66886, 66887, 66888, 66889, 66890, 66891, 66892, 66893, 66894, 66895, 66896, 66897, 66898, 66899, 66900).

4. Certificate of Compliance transmitted to OAL within 120 days after filing (Register 84, No. 41).

5. Amendment of subsection (a) (Register 84, No. 41).

66840. Storage and Containment of Infectious Waste.

(a) The provisions of this article shall supersede the provisions of any other article which relate to the storage of hazardous waste.

(b) Containment of infectious waste shall afford protection from animals, insects, and humans.

(c) Infectious waste shall be stored in a place or a food source for animals, insects, and humans.

(d) Unless approved by the Department, infectious waste shall not be stored at a facility for more than four calendar months.

(e) Infectious waste shall be stored at a temperature of 0°C (32°F) or below.

(f) Infectious waste shall be disposed of without specific approval within 90 days at the waste producing facility or without a hazardous waste permit.

(g) Containment of infectious waste shall be achieved by use of enclosures or containers which are so secured as to deny access to the waste.

(h) Prominent warning signs or labels shall be placed on the enclosures or containers. The signs or labels shall be in English, Spanish, and Chinese. The English signs shall be readily legible.

(i) The signs or labels shall include the words "INFECTIOUS WASTE STORAGE" and "DANGER".

(j) The signs or labels shall include the words "PROHIBIDA LA ENTRADA" and "DANGER".

(k) The signs or labels shall include the words "PROHIBIDA LA ENTRADA" and "DANGER".

(l) The signs or labels shall include the words "PROHIBIDA LA ENTRADA" and "DANGER".

(m) The signs or labels shall include the words "PROHIBIDA LA ENTRADA" and "DANGER".

(n) The signs or labels shall include the words "PROHIBIDA LA ENTRADA" and "DANGER".

(o) The signs or labels shall include the words "PROHIBIDA LA ENTRADA" and "DANGER".

(p) The signs or labels shall include the words "PROHIBIDA LA ENTRADA" and "DANGER".

APPENDIX B.

SPECIFICATIONS AND DRAWINGS WASTE OIL TANK REMOVAL AND REPLACEMENT

The Bay Area Rapid Transit District (BART) is seeking bids to remove and replace five (5) waste oil tanks at BART facilities. The waste oil tank location and size is shown in Table 1.

Table 1.
LIST OF WASTE OIL TANKS

<u>FACILITY</u>	<u>SIZE - IN GALLONS</u>
Oakland Shop	550
Richmond Shop	2-1,500
Coccord Shop	1,500
Hayward Shop	1,000

Site drawings of each facility is attached.

The contractor will be required to:

- Break and remove tank cover material.
- Excavate tank fill from around the tank.
- Remove and dispose of the tank.
- Collect and analyze soil and/or water samples employing standard EPA procedures and methods.
- Provide a written report of the findings. This scope of work does not cover contamination if found.
- Remove underground piping from the waste oil tank to the cap at the foundation.
- Replace the tank a U. L. labled double-walled fiberglass tank according to the manufactures specifications.
- Install double-walled secondary piping from the tank to receptacle installed inside the shop area allowing for gravity feed to the tank.
- Tank will be complete with one (1) 4" NPT primary fitting (tank center) (waste drain) covered by 24" diameter by 3 ft. 6" high manway pipe containment collar attached to exterior tank and supplied with lid, gasket and bolts and one (1) 4" NPT fitting (double pipe) and one (1) 2" NPT fitting (liquid/vapor sensor probes) on sidewall; one (1) 4" NPT primary fitting (one end) (extraction

draw-off) and one (1) 4" primary fitting (other end vent). Tank shall have hold down straps and cable guides as specified by manufacturer.

-Install an electronic continuous monitoring device as specified by the tank manufacturer or equal. The monitoring device is subject to approval by BART.

APPENDIX C.

SPECIFICATIONS AND DRAWINGS FOR INSTALLATION OF CONTINUOUS MONITORING SYSTEMS

The Bay Area Rapid Transit District is seeking bids to install two continuous underground storage tank leak monitoring systems. We anticipate that the depth to groundwater will be less than 10 feet. Therefore, vapor and groundwater monitoring may be accomplished within the same wells with a vapor monitoring system.

A vapor monitoring system shall be installed to monitor three (3) motor fuel tanks (2 x 6000 gallon gasoline and 1 x 8000 gallon diesel) at the Oakland Shop facility, and another shall be installed to monitor one (1) diesel tank (1 x 4000 gallon) at the Oakland Metro Center facility.

- The contractor shall install a continuous monitoring device complete with all appurtenances necessary for satisfactory operation.
- The contractor shall furnish a letter from the manufacturer's representative that the systems have been satisfactorily installed and are functioning properly.
- The monitoring device may be a:
 1. Leak Alert by Universal Sensors and Devices.
 2. Leak-X Monitor.
 3. Genelco.
 4. Or equal, approved by BART
- Well installation and soil/water sampling shall meet all guidelines set forth by the California Administrative Code, Title 23, Subchapter 16, Alternative 2; the EPA and the California State Regional Water Quality Control Board.
- The suggested boring locations are shown in the accompanying drawings for the Metro Center and the Oakland Shop. However, the bidder may propose additional monitoring locations according to the manufacturers' specification. The number of probes shall be sufficient to monitor the tank(s) and piping.
- The monitoring systems shall be installed adjacent to the motor fuel tank. The procedure shall be to drill the borings within the tank backfill or within ten feet of the storage tanks. The borings will penetrate the water table and continue downward until; (a) a competent clay layer, constituting an aquaclude, of 5 feet thickness is encountered; or, (b) 20 feet of water bearing material have been penetrated. The borings will then be backfilled with 5 feet of bentonite before monitoring well installation. Well perforations shall be installed from the bottom of the boring to approximately five feet below the ground surface.

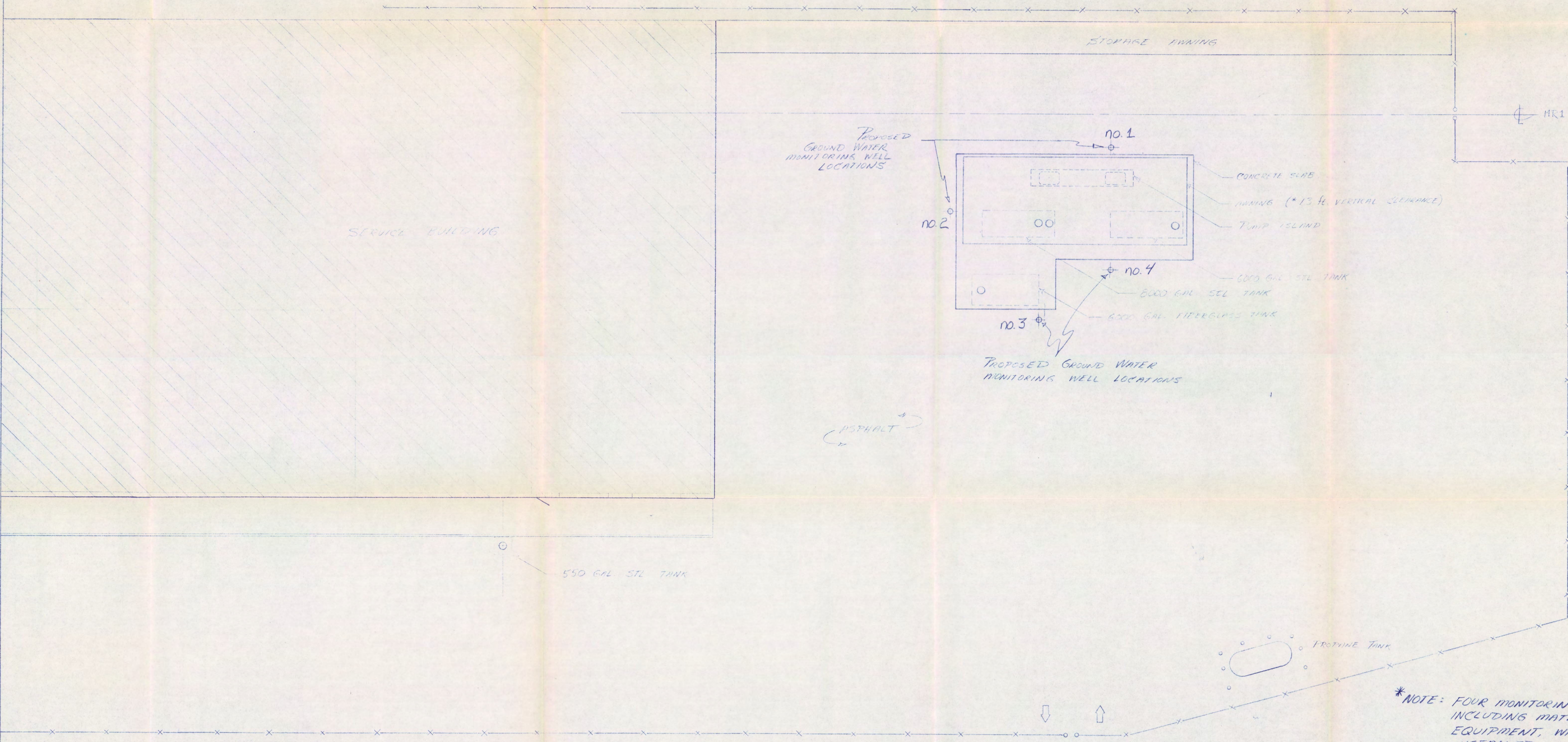
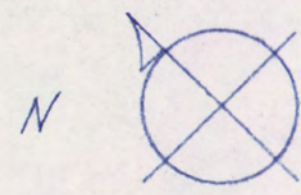
- During boring, soil samples are to be taken at 5 foot intervals downward from the surface to the groundwater surface. Samples are to be taken with a split-spoon sampler lined with clean brass tubes. A center tube is to be taken and immediately capped with aluminum foil and plastic caps, wrapped with tape, labelled, iced down and transported to the laboratory for analysis.

- Groundwater samples shall be taken using a teflon bailer, washed with TSP, rinsed with tap water and then distilled water. A minimum of four well volumes will be removed from the well prior to sampling. The sample vials and bottles will be filled to overflowing in such a manner: (1) that precludes air bubbles passing through the sample during filling, and (2) sealed so that no air is entrapped in the vial. Once filled, samples will be inverted and tapped to test for air bubbles. Samples will be discarded if air bubbles are found. Samples will be placed on ice and delivered to the lab as soon as possible.

- Analysis of the soil and water samples shall be Gas Chromatograph/Flame Ionization Detection (GC/FID) for benzene, toluene, and zylene (gasoline) and for Total Petroleum Hydrocarbons (diesel).

- The system installation shall be managed by a registered engineer or geologist.

- The bidder should include a service contract for the system to cover alarm conditions preventative and routine manitenance, and system integrity.



SERVICE BUILDING

STORAGE TANKING

PROPOSED
GROUND WATER
MONITORING WELL
LOCATIONS

no. 1
no. 2

CONCRETE SLAB
CLEARING (*13 FT VERTICAL CLEARANCE)
PUMP ISLAND

no. 4
no. 3
6000 GAL STEEL TANK
6000 GAL FIBERGLASS TANK
6000 GAL STEEL TANK

PROPOSED GROUND WATER
MONITORING WELL LOCATIONS

ASPHALT

550 GAL STEEL TANK

PROPANE TANK

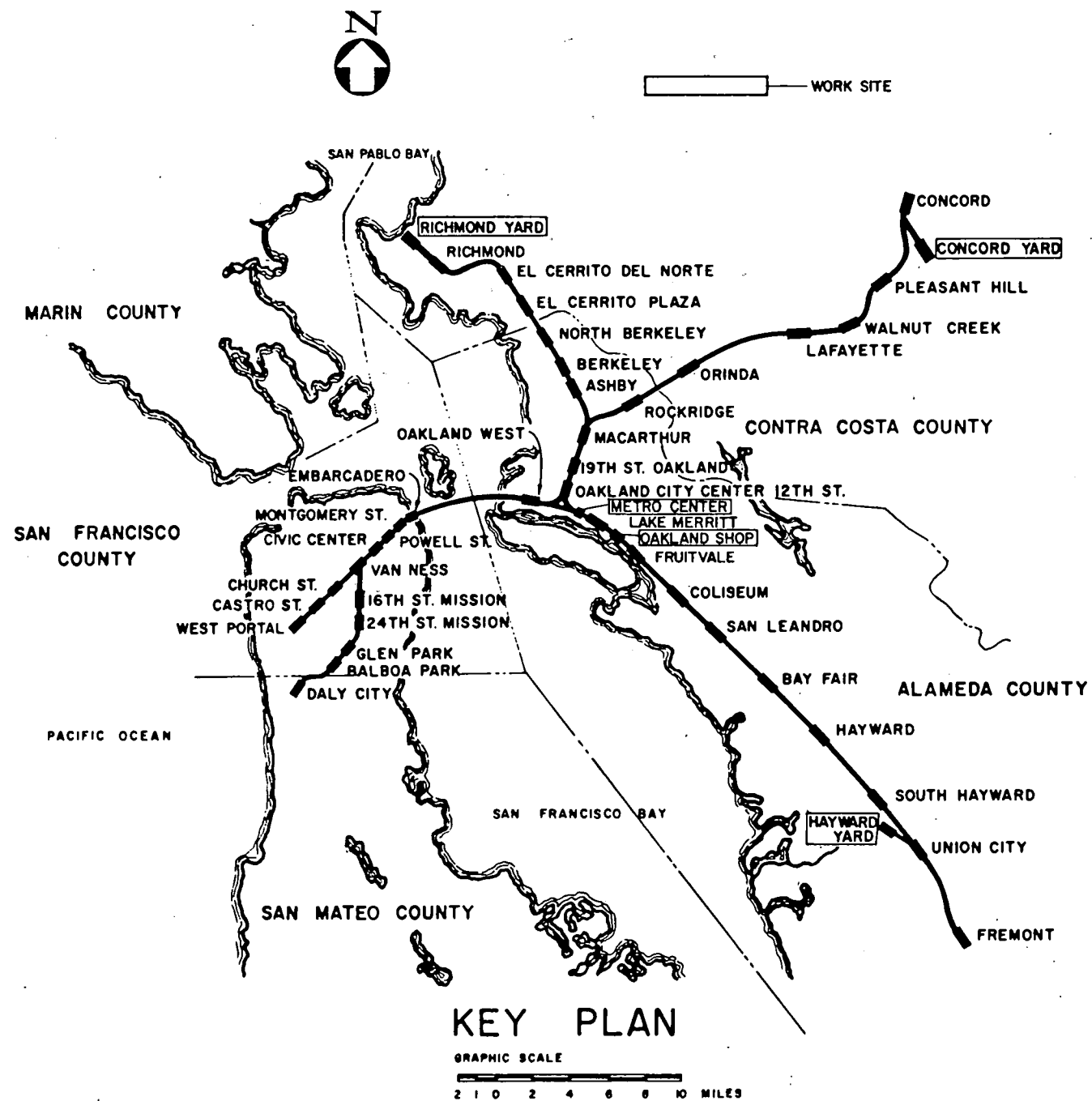
*NOTE: FOUR MONITORING WELLS,
INCLUDING MATERIALS &
EQUIPMENT, WILL BE
INSTALLED.

SITE PLAN

BAY AREA RAPID TRANSIT, OAKLAND SHOP	
SITE PLAN: MOTOR FUEL TANKS	
SCALE: 1" = 10'	DRAWN BY: D.P.
DATE: 6/30/86	REVISED: 7/3/86
AQUA SCIENCE ENGINEERS	
DRAWING # 155A-410 no. 4	

SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT

UNDEGROUND TANK MONITORING CONTRACT 15SA-110



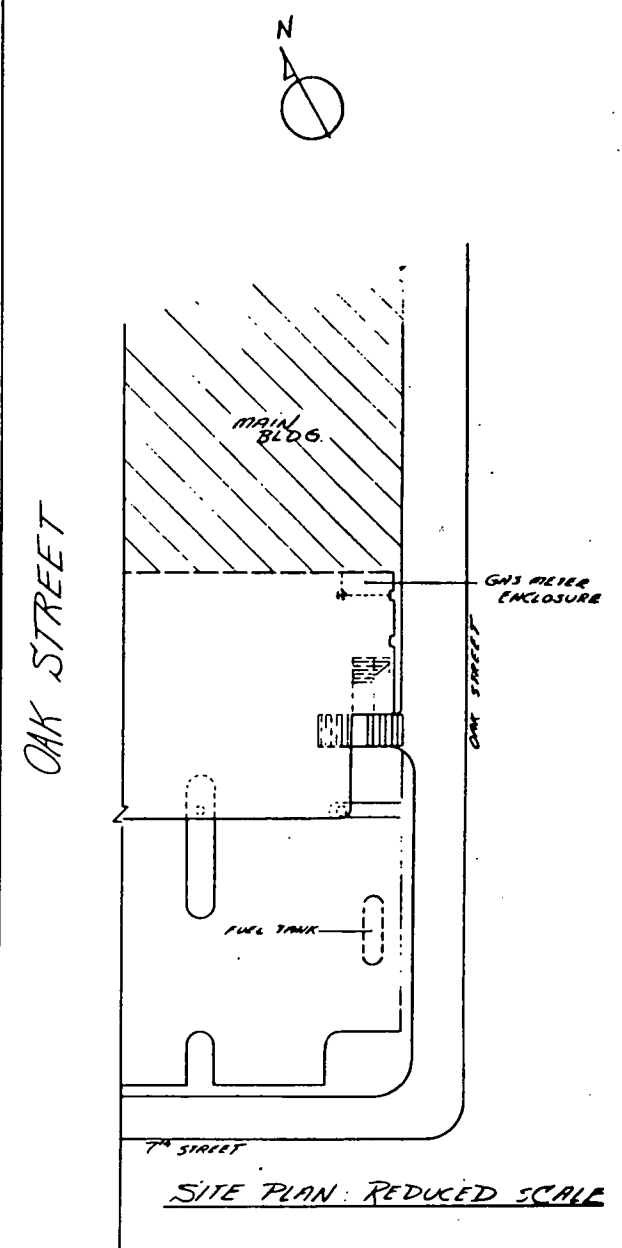
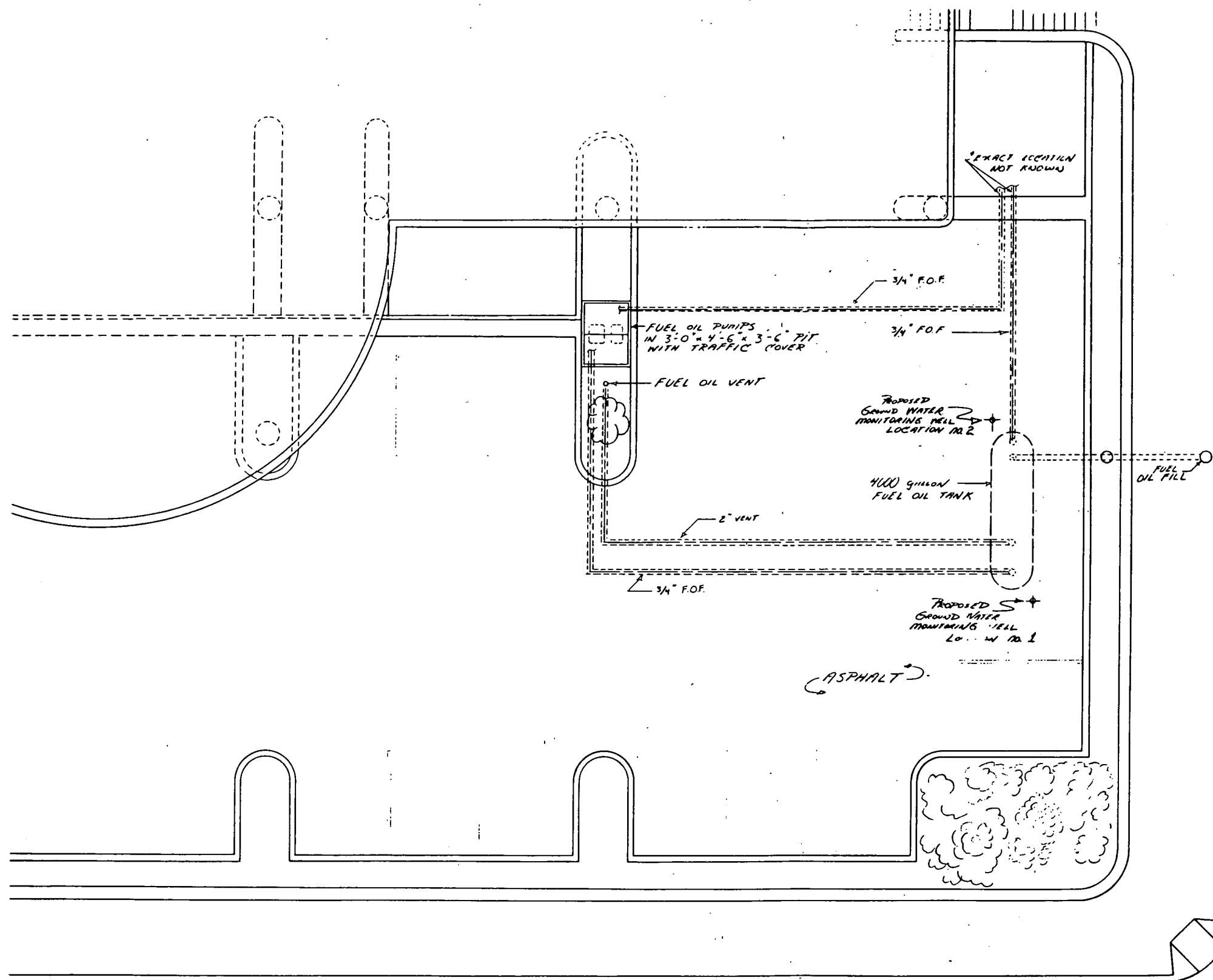
INDEX OF DRAWINGS			
PAGE NO.	SHT. NO.	DWG. NO.	TITLE
1	GPI-0	D-105258	KEY PLAN & INDEX OF DRAWINGS
2	ME1-0	D-104670	METRO CENTER: PARTIAL SITE PLAN-FUEL OIL TANK
3	ME2-0	D-104671	SITE PLAN MOTOR FUEL TANKS-OAKLAND SHOP
4	ME3-0	D-104672	SITE PLAN & WASTE OIL TANK-RICHMOND SHOP
5	ME4-0	D-104673	SITE PLAN & WASTE OIL TANK-HAYWARD SHOP
6	ME5-0	D-104674	SITE PLAN & WASTE OIL TANK-CONCORD SHOP
REFERENCE DRAWINGS			
7	RI-0		CONCORD YARD SERVICE & INSPECTION BLDG.
8	R2-0		SOUTHERN ALAMEDA YARD UTILITIES SYSTEM SITE PLAN MAIN REPAIR SHOP & CAR CLEANERS BLDG.
9	R3-0		SOUTHERN ALAMEDA YARD UTILITIES SYSTEM SITE PLAN WASTE TREATMENT DETAILS
10	R4-0		RICHMOND YARD SERVICE & INSPECTION BLDG. AIR & LUBE SYSTEMS FLOOR PLAN - SOUTH
11	R5-0		RICHMOND YARD SERVICE & INSPECTION BLDG. AIR & LUBE SYSTEMS FLOOR PLAN - NORTH
12	R6-0		RICHMOND YARD SERVICE & INSPECTION BLDG. MECHANICAL SECTIONS II
13	R7-0		CONCORD YARD SERVICE & INSPECTION BLDG. ELECTRICAL - FIRST FLOOR
14	R8-0		CONCORD YARD SERVICE & INSPECTION BLDG. ELECTRICAL - PANEL SCHEDULES
15	R9-0		CONCORD YARD SERVICE & INSPECTION BLDG. ELECTRICAL FEEDER & CONDUIT SCHEDULE
16	RI0-0		CONCORD YARD SERVICE & INSPECTION BLDG. ELECTRICAL - SINGLE LINE DIAGRAM
17	RI1-0		RICHMOND YARD ELECTRICAL FEEDER & CONDUIT SCHEDULE
18	RI2-0		RICHMOND YARD ELECTRICAL PANEL
19	RI3-0		RICHMOND YARD ELECTRICAL PANEL
20	RI4-0		RICHMOND YARD SERVICE & INSPECTION BLDG. ELECTRICAL SECTION - II
21	RI5-0		RICHMOND YARD SERVICE & INSPECTION BLDG. ELECTRICAL SECTION - I
22	RI6-0		RICHMOND YARD SERVICE & INSPECTION BLDG. ELECTRICAL - MISC. SYSTEMS PLAN - NORTH
23	RI7-0		RICHMOND YARD SERVICE & INSPECTION BLDG. ELECTRICAL - MISC. SYSTEMS PLAN - SOUTH
24	RI8-0		RICHMOND YARD SERVICE & INSPECTION BLDG. ELECTRICAL - SINGLE LINE DIAGRAM

CONTRACT
15SA-110
CONTRACT SHEET NO. **GP-1** PG. NO. **1**

REV.	DATE	BY	APP.	DESCRIPTION



DESIGNED:	DATE	TITLE: REPLACEMENT OF UNDERGROUND WASTE-OIL STORAGE TANKS & INSTL. OF MONITORING SYSTEMS KEY PLAN AND INDEX OF DRAWINGS		
DRAWN: <i>Wheeler</i>	1/07	SIZE	REF. No.	DWG. No. 105258
CHECKED: <i>W</i>	6/87	D		REV. 0
IN CHARGE: <i>Wheeler</i>	6/87	SCALE	BART STOCK No.	SHEET OF



*NOTE: TWO MONITORING WELLS, INCLUDING MATERIALS AND EQUIPMENT, SHALL BE INSTALLED.

7th STREET PARTIAL SITE PLAN - OIL STORAGE FACILITY

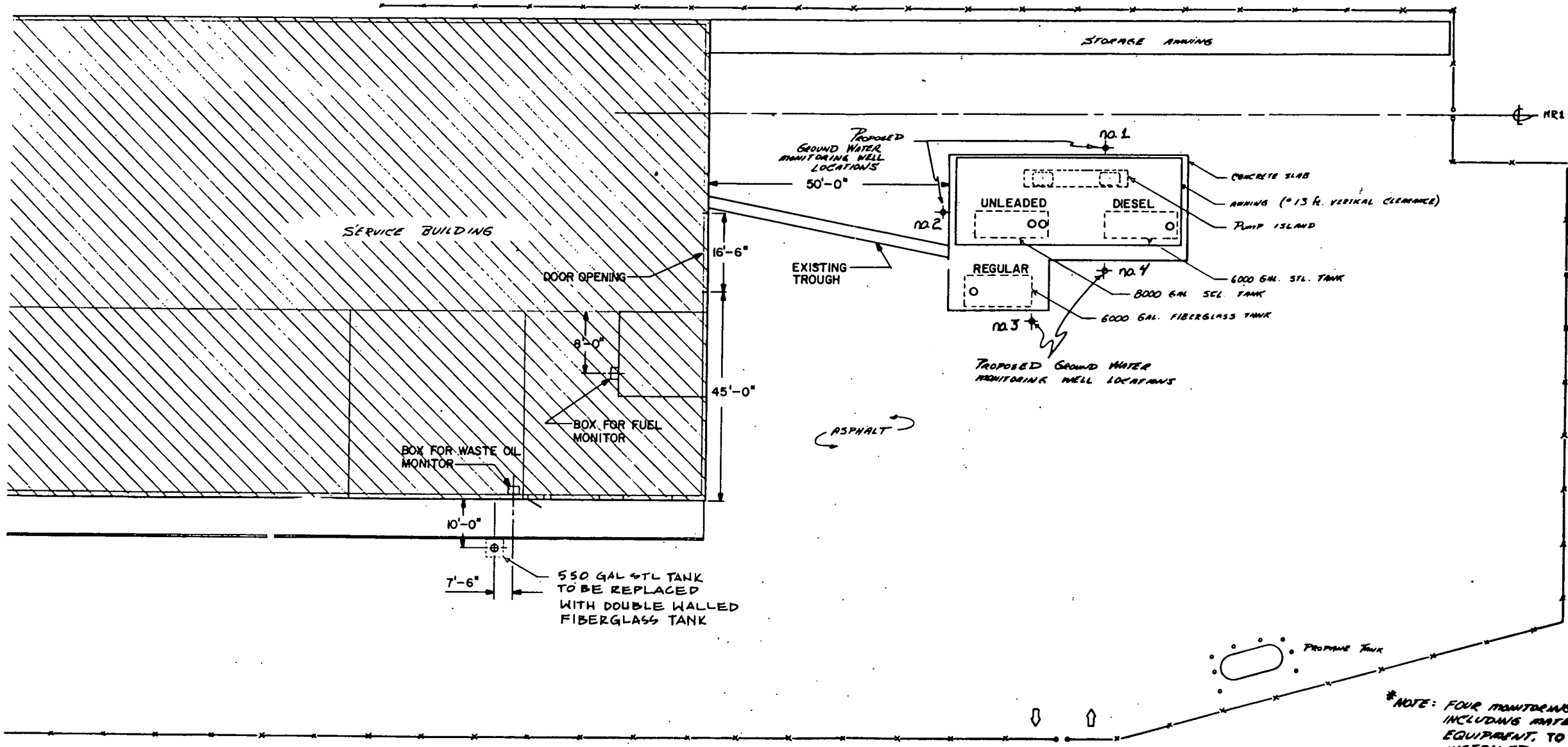
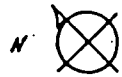
CONTRACT	
15SA-110	
CONTRACT SHEET NO.	PG. NO.
ME1-0	2

REV.	DATE	BY	APP.	DESCRIPTION

REV.	DATE	BY	APP.	DESCRIPTION

	DESIGNED:	DATE	TITLE:	REPLACEMENT OF UNDERGROUND WASTE-OIL STORAGE TANKS & INSTL. OF MONITORING SYSTEMS METRO CENTER: PARTIAL SITE PLAN - FUEL OIL TANK
	DRAWN:	8/86	SIZE	D
	CHECKED:		REF. No.	AQUA SCIENCE ENG. 15SA-410 NO. 5
	APPROVED:	12/86	DWG. No.	104670
			SCALE	NTS
			BART STOCK No.	
			SHEET	OF

ITEM No.	PART NUMBER	QTY.	DESCRIPTION
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*NOTE: FOUR MONITORING WELLS, INCLUDING MATERIALS & EQUIPMENT, TO BE INSTALLED.

SITE PLAN

CONTRACT	15SA-110
CONTRACT SHEET NO.	ME2-0
Pg. NO.	3

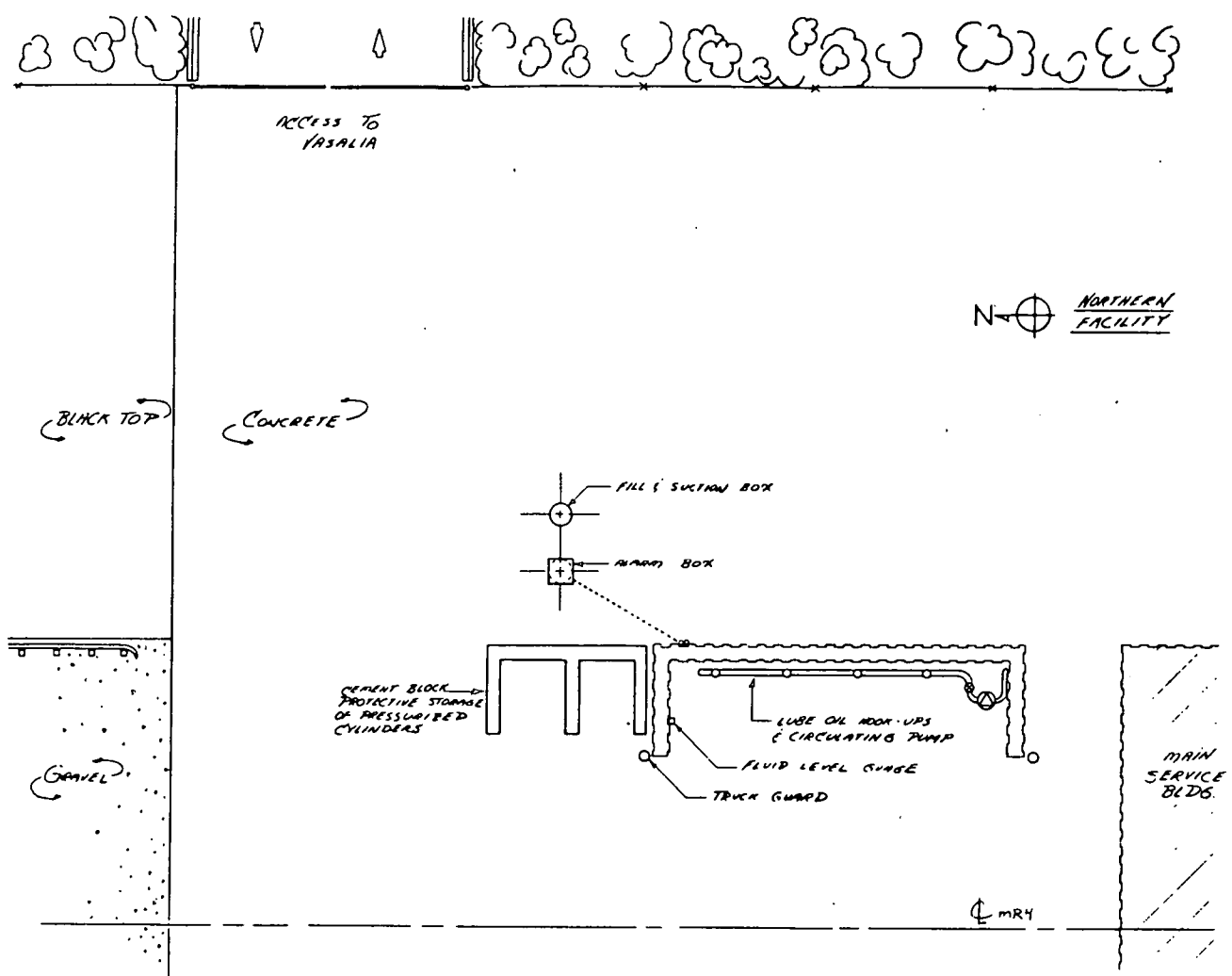
REV.	DATE	BY	APP.	DESCRIPTION
1	12/27/86	TB	[Signature]	REVISED PER BECO EM 160



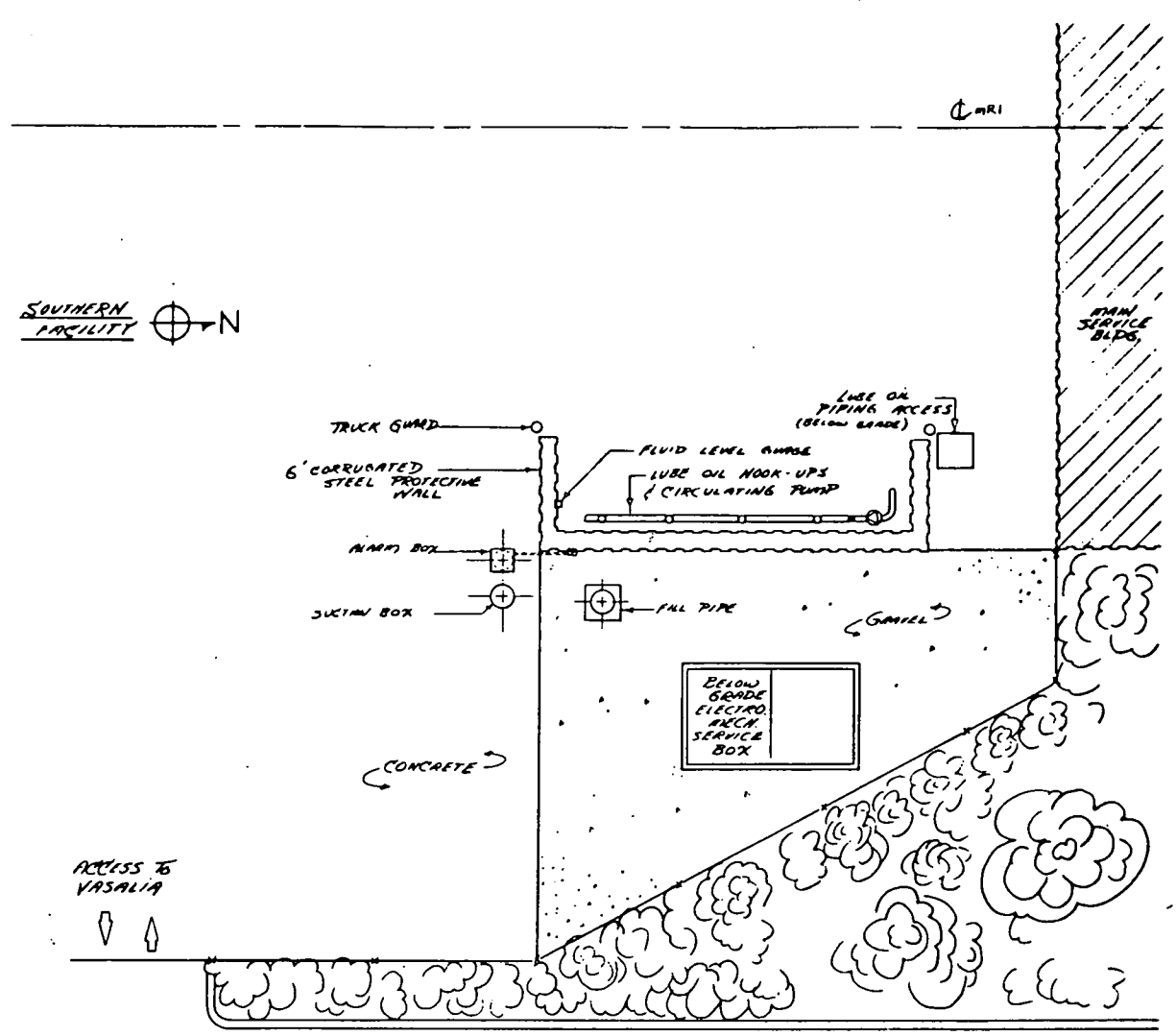
DESIGNED:	DATE	8/86
DRAWN:	DATE	8/86
CHECKED:		
APPROVED:	DATE	12/86

TITLE:	REPLACEMENT OF UNDERGROUND WASTE-OIL STORAGE TANKS & INSTL. OF MONITORING SYSTEMS OAKLAND SHOP: SITE PLAN - MOTOR FUEL TANKS		
SIZE	REF. No. AQUA SCIENCE ENG. 15SA-410 NO. 4	DWG. No.	104671
SCALE	BART STOCK No.	SHEET	OF

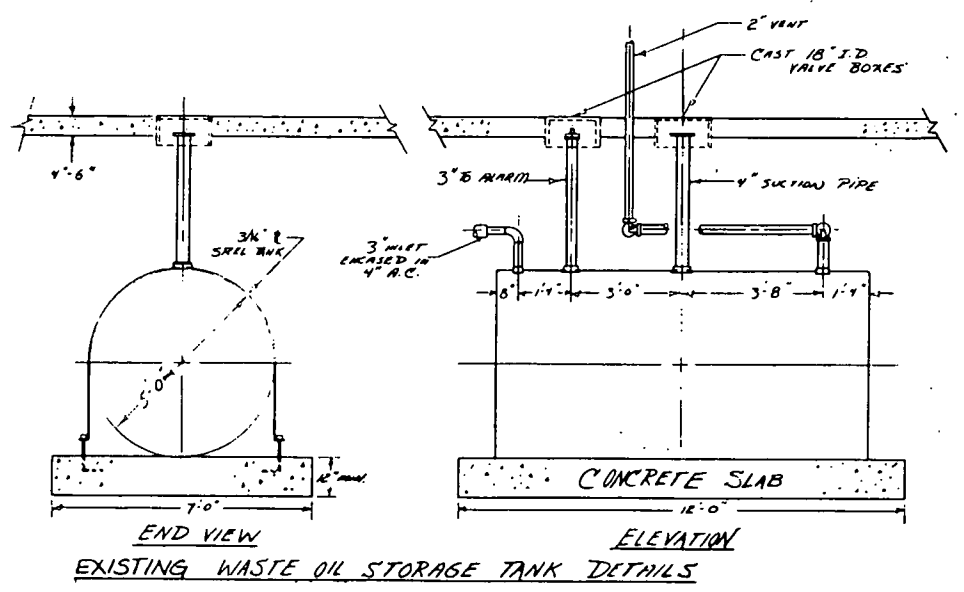
REV.	DATE	BY	APP.	DESCRIPTION
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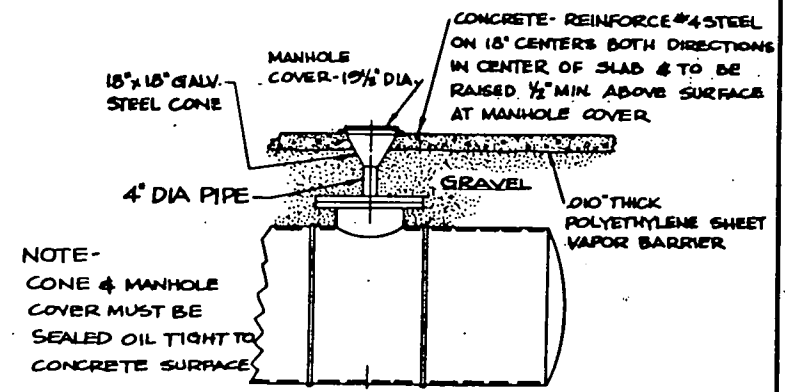
SITE PLAN - NORTHERN WASTE OIL STORAGE FACILITY



SITE PLAN - SOUTHERN WASTE OIL STORAGE FACILITY



EXISTING WASTE OIL STORAGE TANK DETAILS



NEW UNDERGROUND WASTE OIL STORAGE TANK FILL & EVACUATION PIPE

NOTES:

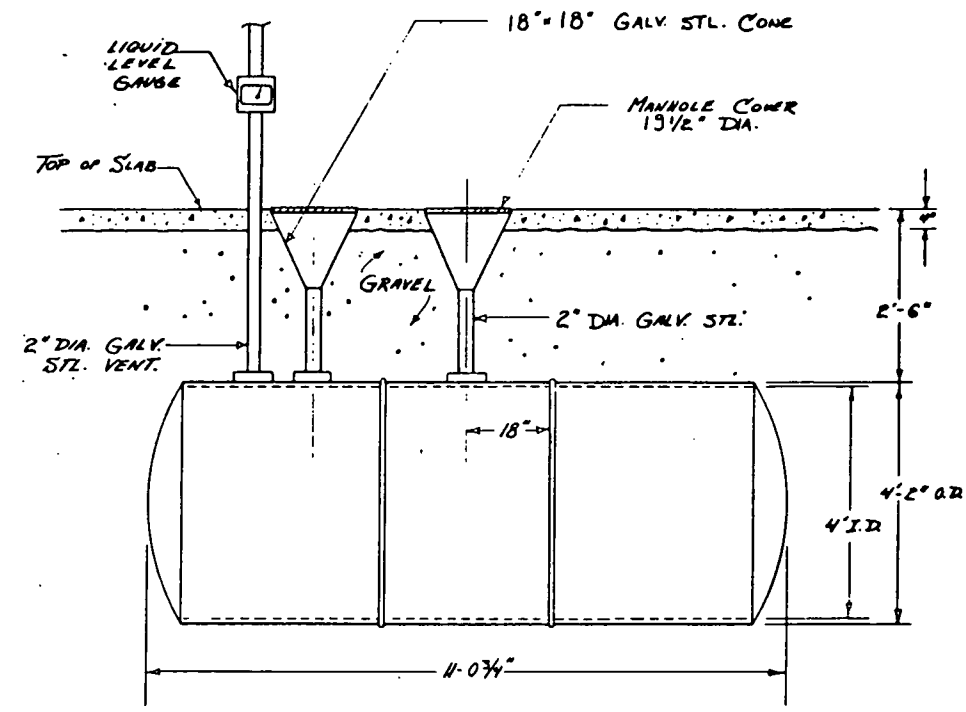
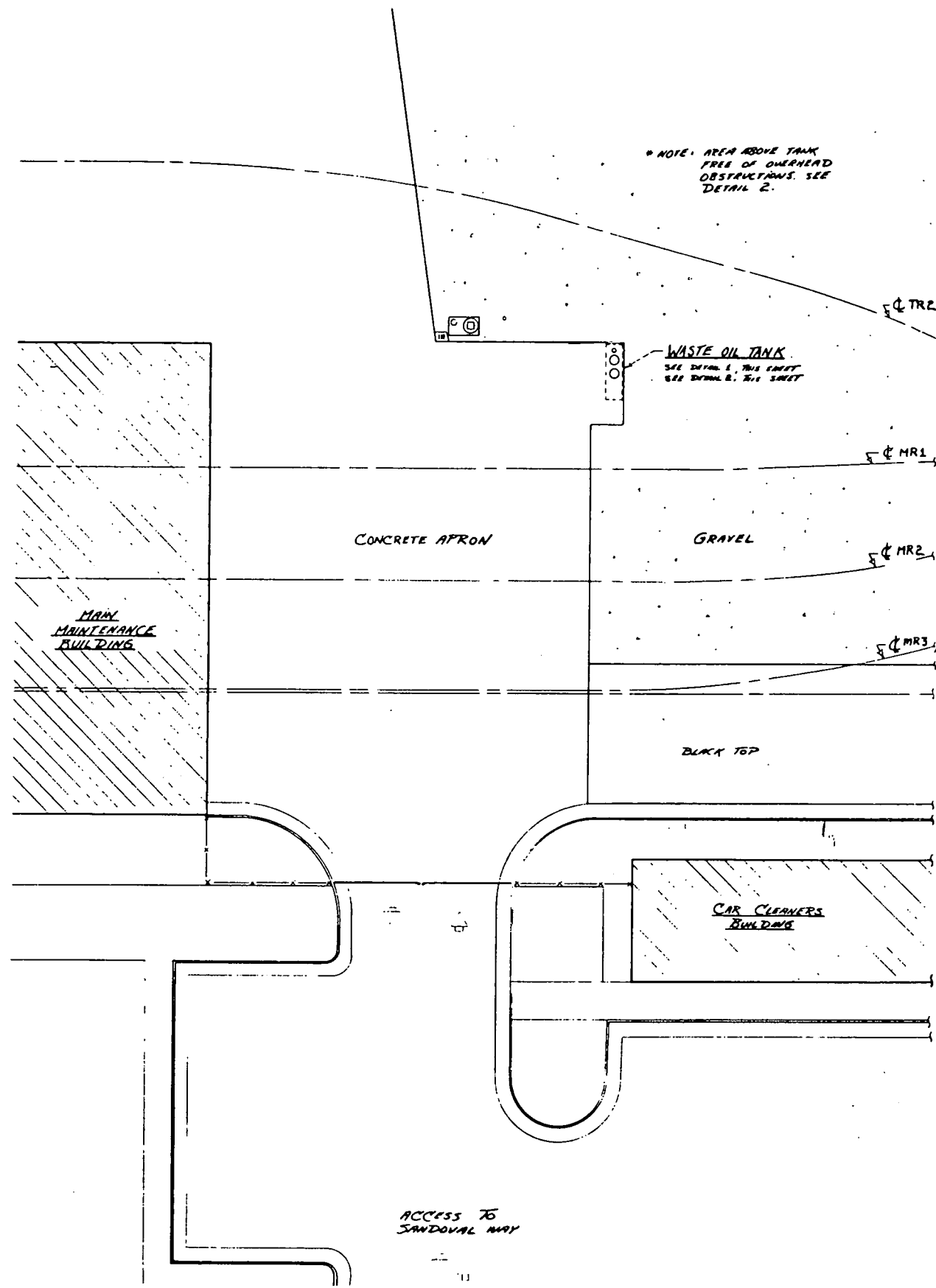
1. NEW TANK SHALL BE DOUBLE WALLED FIBERGLASS.
2. REFER TO DWG. R4-Q PAGE 10, R5-O PAGE 11, R6-O PAGE 12 FOR ORIENTATION AND LOCATION OF WASTE OIL TANKS.
3. USE CONCRETE SAW TO SEPARATE CONCRETE TO BE REMOVED FROM SURROUNDING SLAB.
4. SHORE EXCAVATION ACCORDING TO OSHA STANDARDS, TO PROTECT EXISTING STRUCTURES.

CONTRACT
15SA-110
CONTRACT SHEET NO. PS. NO.
ME3-0 4

REV.		DATE	BY	APP.	DESCRIPTION		REV.		DATE	BY	APP.	DESCRIPTION	

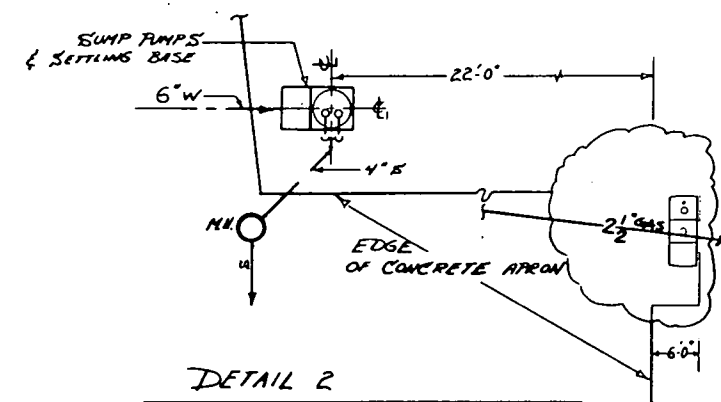


DECIMAL XXX ± XX ± X ± FRACTION ± ANGULAR ±	DESIGNED: <i>[Signature]</i>	DATE 8/06	TITLE: REPLACEMENT OF UNDERGROUND WASTE-OIL STORAGE TANKS & INSTL. OF MONITORING SYSTEMS RICHMOND SHOP. SITE PLAN - WASTE OIL TANK
TOLERANCES UNLESS OTHERWISE SPECIFIED	CHECKED: <i>[Signature]</i>	SCALE NTS	REF. No. AQUA SCIENCE ENG. 15SA-410 NO. 1
APPROVED: <i>[Signature]</i>	DATE 12/06	DWG. No. 104672	REV. 0
BART STOCK No.		SHEET OF	

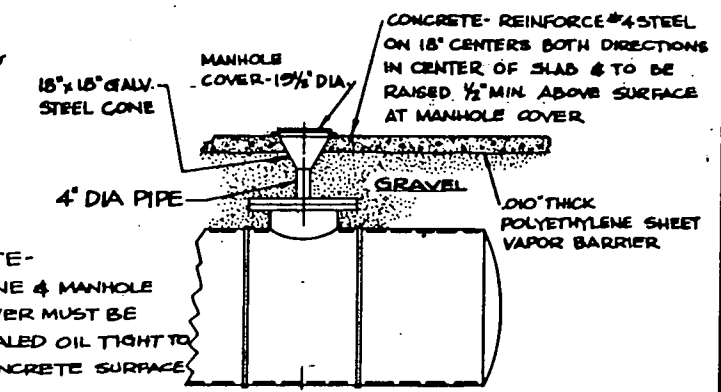


DETAIL 1
EXISTING FIBERGLASS WASTE OIL TANK

NOTE: NEW TANK SHALL BE DOUBLE WALLED FIBERGLASS



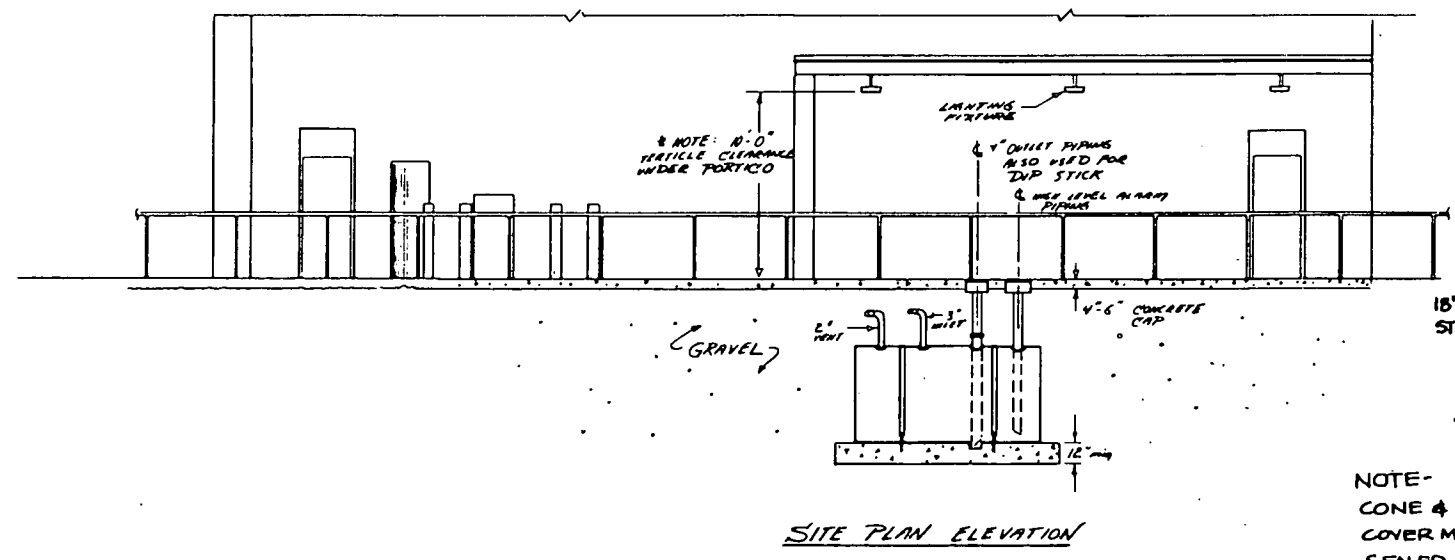
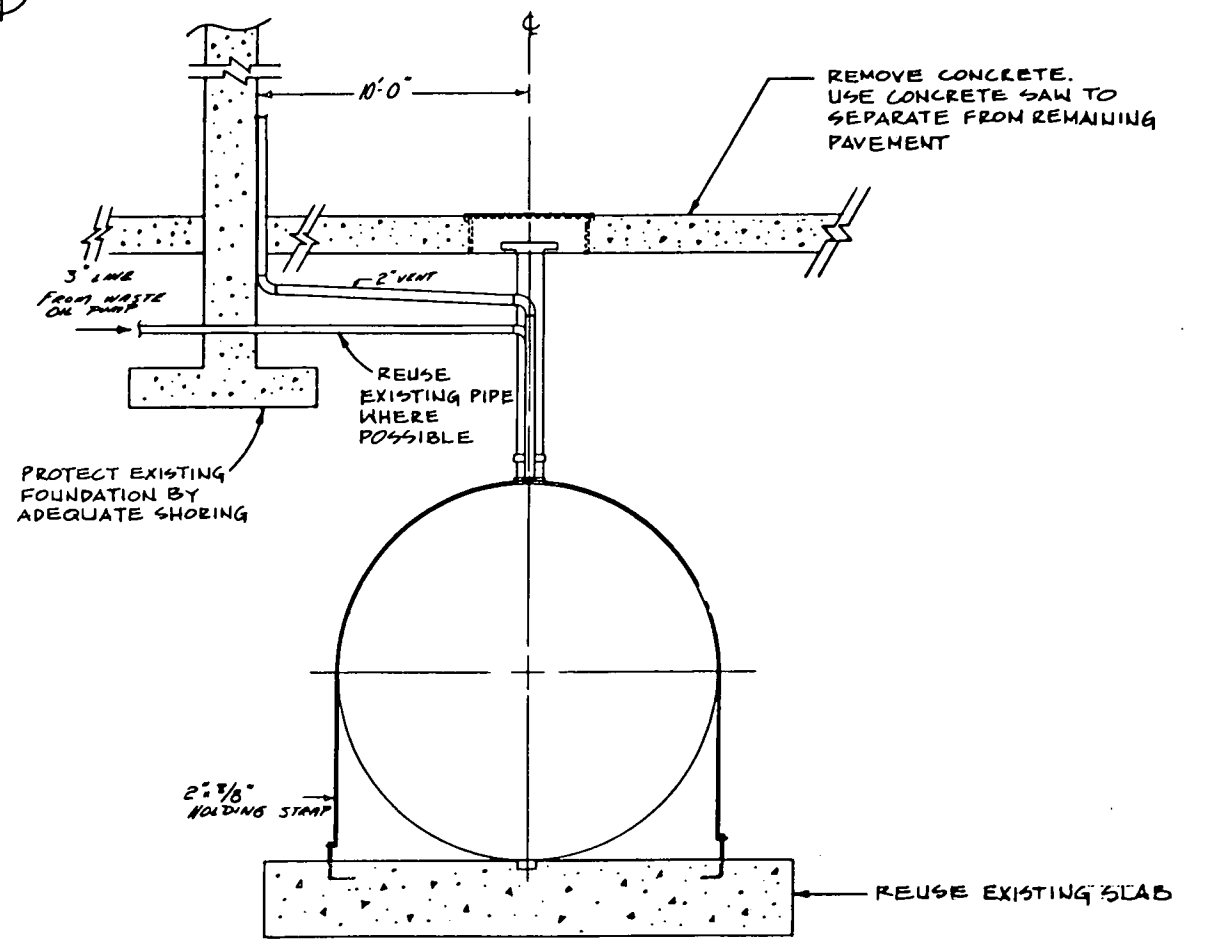
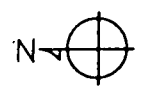
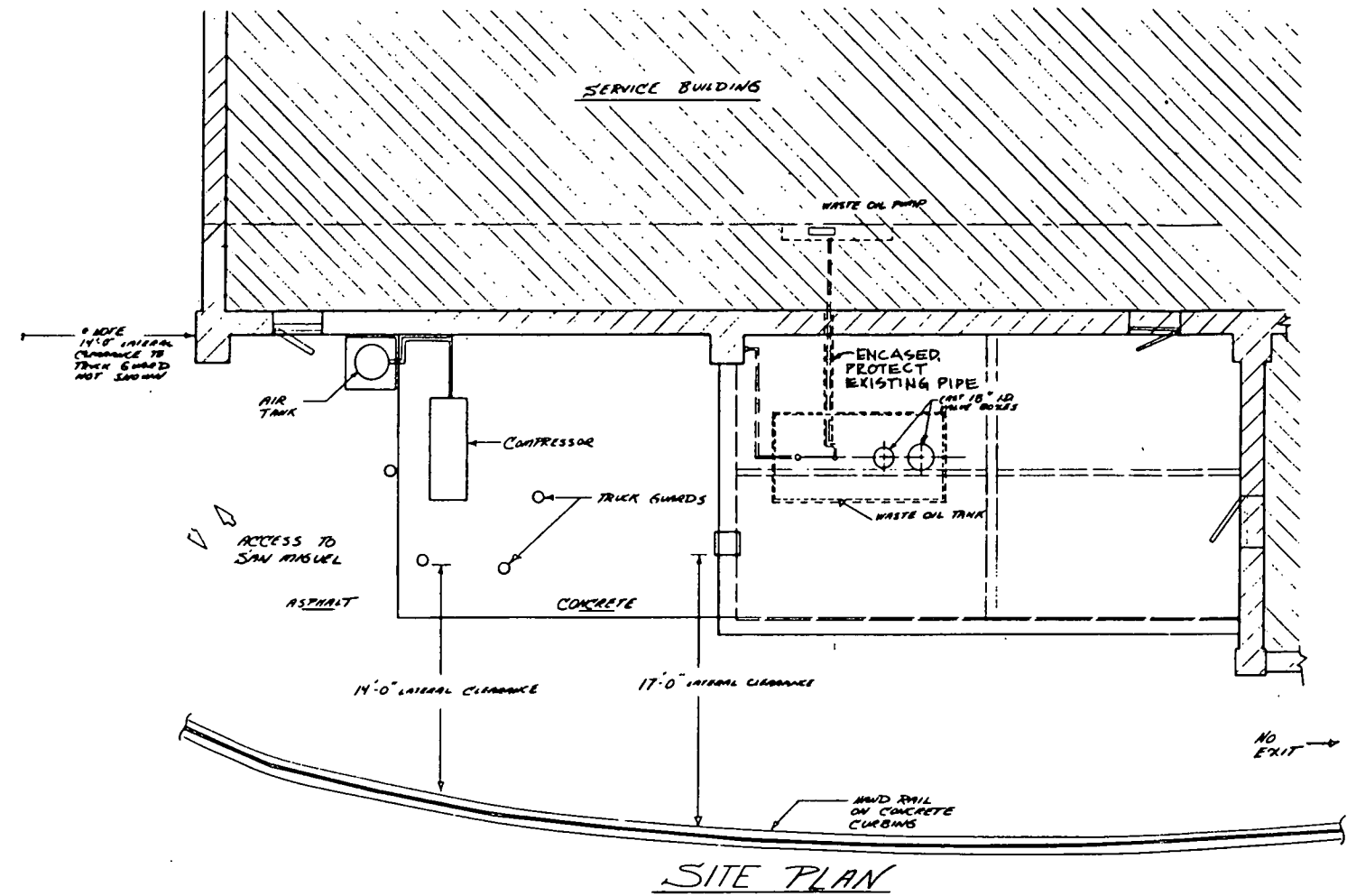
DETAIL 2
SITE PLAN - LOCAL UTILITIES



NEW UNDERGROUND WASTE OIL STORAGE TANK
FILL & EVACUATION PIPE

CONTRACT 15SA-110	
CONTRACT SHEET NO. ME4-0	PG. NO. 5

REV. DATE BY APP DESCRIPTION		REV. DATE BY APP DESCRIPTION		REV. DATE BY APP DESCRIPTION		REV. DATE BY APP DESCRIPTION		REV. DATE BY APP DESCRIPTION		REV. DATE BY APP DESCRIPTION		REV. DATE BY APP DESCRIPTION		REV. DATE BY APP DESCRIPTION																															
<table border="0"> <tr> <td colspan="2" rowspan="2"> </td> <td>DESIGNED:</td> <td>DATE</td> <td>TITLE:</td> <td>REF. No.</td> <td>DWG. No.</td> <td>REV.</td> </tr> <tr> <td>8/86</td> <td>8/86</td> <td>REPLACEMENT OF UNDERGROUND WASTE-OIL STORAGE TANKS & INSTL. OF MONITORING SYSTEMS HAYWARD SHOP: SITE PLAN - WASTE OIL TANK</td> <td>15SA-410 NO. 3</td> <td>104673</td> <td>0</td> </tr> <tr> <td colspan="2">TOLERANCES UNLESS OTHERWISE SPECIFIED</td> <td>APPROVED:</td> <td>SCALE</td> <td>BART STOCK No.</td> <td colspan="2">SHEET</td> <td>OF</td> </tr> <tr> <td colspan="2"></td> <td>12/86</td> <td>NTS</td> <td></td> <td colspan="2"></td> <td></td> </tr> </table>																		DESIGNED:	DATE	TITLE:	REF. No.	DWG. No.	REV.	8/86	8/86	REPLACEMENT OF UNDERGROUND WASTE-OIL STORAGE TANKS & INSTL. OF MONITORING SYSTEMS HAYWARD SHOP: SITE PLAN - WASTE OIL TANK	15SA-410 NO. 3	104673	0	TOLERANCES UNLESS OTHERWISE SPECIFIED		APPROVED:	SCALE	BART STOCK No.	SHEET		OF			12/86	NTS				
		DESIGNED:	DATE	TITLE:	REF. No.	DWG. No.	REV.																																						
		8/86	8/86	REPLACEMENT OF UNDERGROUND WASTE-OIL STORAGE TANKS & INSTL. OF MONITORING SYSTEMS HAYWARD SHOP: SITE PLAN - WASTE OIL TANK	15SA-410 NO. 3	104673	0																																						
TOLERANCES UNLESS OTHERWISE SPECIFIED		APPROVED:	SCALE	BART STOCK No.	SHEET		OF																																						
		12/86	NTS																																										



NOTES:

1. NEW TANK SHALL BE DOUBLE WALLED FIBERGLASS.
2. REFER TO REFERENCE DWG. 'RI-0' PAGE 7 FOR ORIENTATION & LOCATION

CONCRETE REINFORCE #4 STEEL ON 18" CENTERS BOTH DIRECTIONS IN CENTER OF SLAB & TO BE RAISED 1/2" MIN ABOVE SURFACE AT MANHOLE COVER.

MANHOLE COVER - 19 1/2" DIA.

18" x 18" GALV. STEEL CONE

4" DIA PIPE

GRAVEL

10" THICK POLYETHYLENE SHEET VAPOR BARRIER

NOTE - CONE & MANHOLE COVER MUST BE SEALED OIL TIGHT TO CONCRETE SURFACE.

**NEW UNDERGROUND WASTE OIL STORAGE TANK
FILL & EVACUATION PIPE**

CONTRACT		15SA-110
DESIGNER SHEET NO.	DATE	NO. 6
ME5-0		6

REV.	DATE	BY	APP.	DESCRIPTION	REV.	DATE	BY	APP.	DESCRIPTION



DESIGNED: [Signature] DATE: 8/86

DRAWN: [Signature]

CHECKED: [Signature]

APPROVED: [Signature] DATE: 12/86

DECIMAL: XXX ±
FRACTION: XX ±
ANGULAR: X ±

TOLERANCES UNLESS OTHERWISE SPECIFIED

TITLE: REPLACEMENT OF UNDERGROUND WASTE-OIL STORAGE TANKS & INSTL. OF MONITORING SYSTEMS CONCORD SHOP: SITE PLAN - WASTE OIL TANK

SIZE: D REF. No. AQUA SCIENCE ENG. 15SA-410 NO. 2

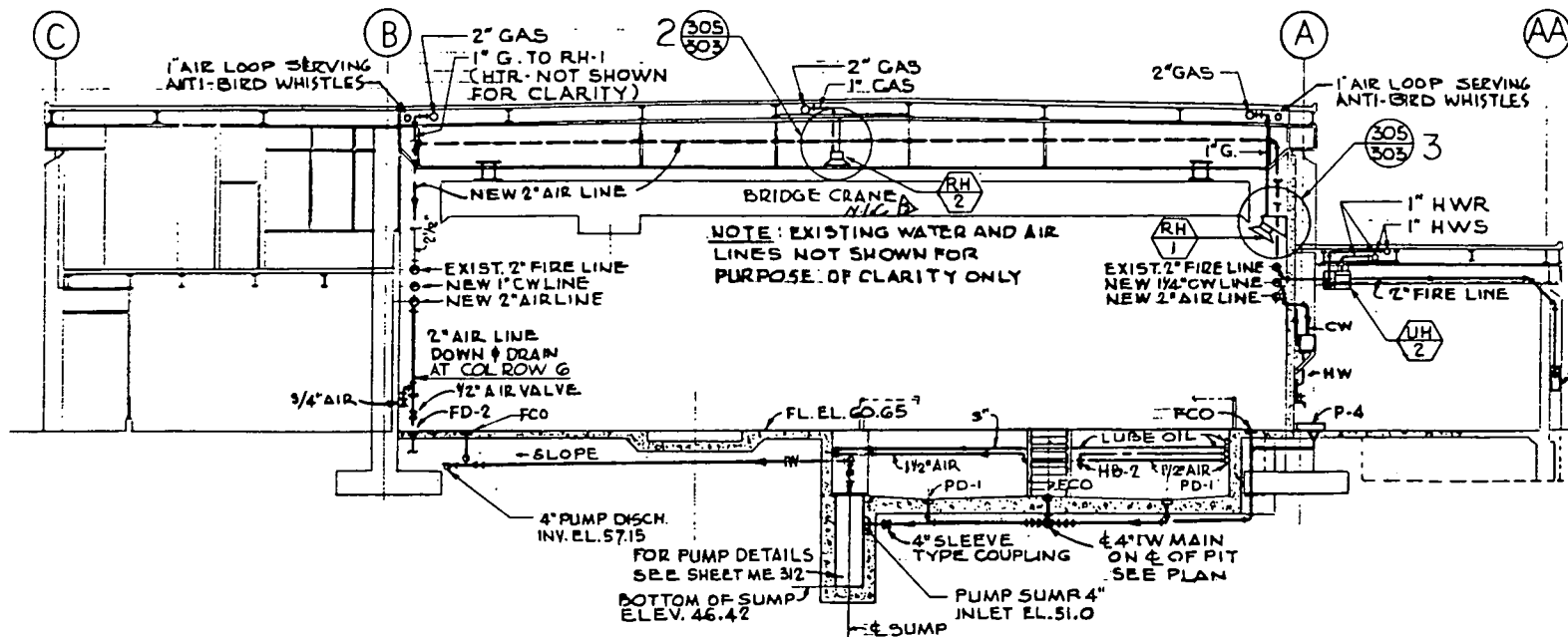
DWG. No. 104674

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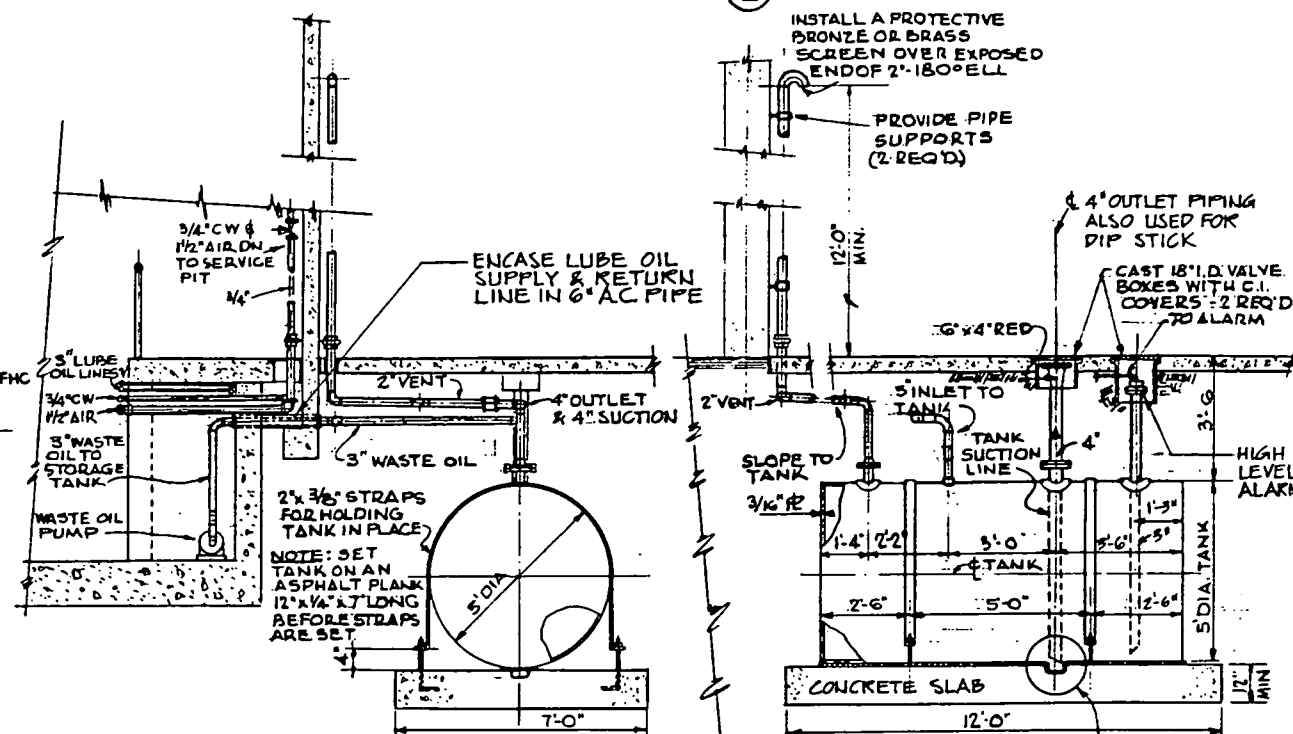
BART STOCK No. [Blank]

SHEET [Blank] OF [Blank]

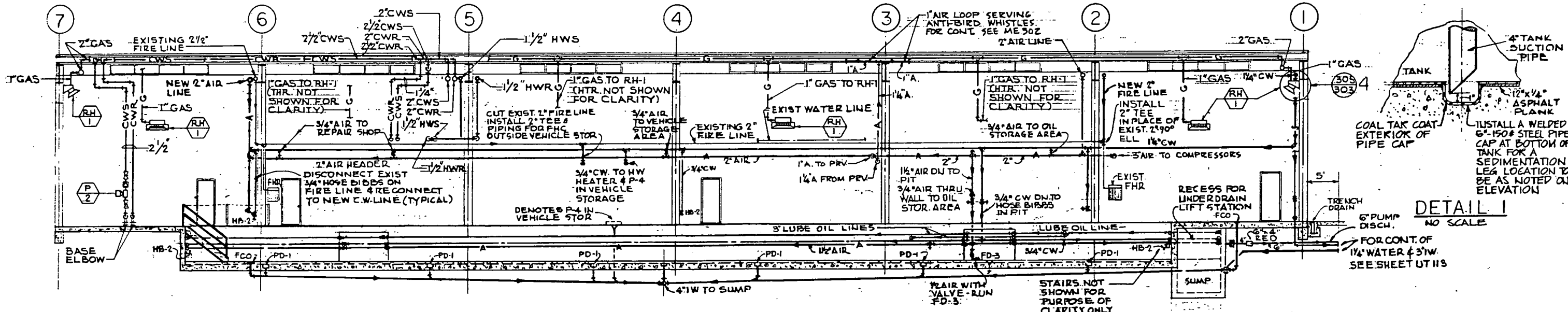
REV. 0



SECTION A (301/305) 306
SCALE 1/8"=1'-0"
SET & HEATERS 12 FT FROM FLOOR



SECTION D (301/305) 306
SCALE 3/8"=1'-0"
WASTE OIL STORAGE TANK DETAILS

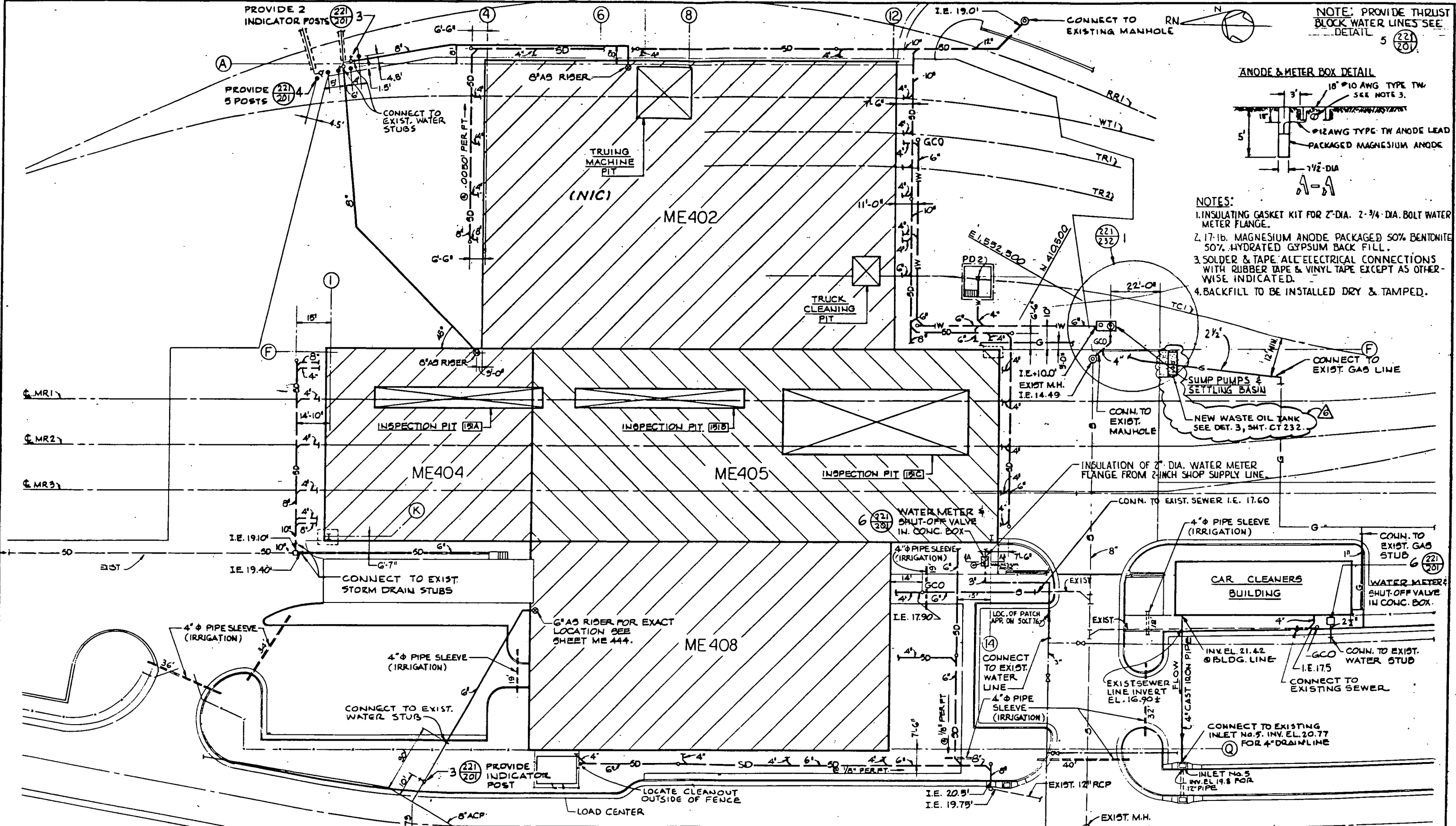


SECTION B (301/305) 306
SCALE 1/8"=1'-0"

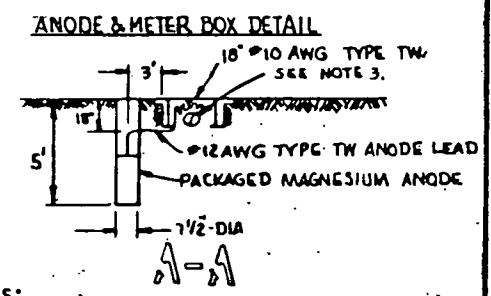
CONTRACT 15SA-110
REFERENCE DRAWING PAGE NO. RI-0 7
AS-BUILT

DESIGNED BY R. DABNEY	DRAWN BY R. DABNEY	CHECKED BY R. CARTER	IN CHARGE R. CARTER	DATE 15 APR 69		SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT KELLER & GANNON CONSULTING ENGINEERS SAN FRANCISCO	PARSONS BRINCKERHOFF-TUDOR-BECHTEL GENERAL ENGINEERING CONSULTANTS	CONCORD YARD SERVICE & INSPECTION BLDG MECHANICAL SECTIONS	SCALE AS NOTED
REV. 1 11/17/71 JH AS-BUILT	REV. 2 30 APR 70 EK RSC REVISED AIR PIPING	REV. 3 23 MAY 69 EK RSC REVISED LUBE AND WASTE OIL SYSTEMS	DESCRIPTION	CONTRACT-PACKAGE 100181-C018					SHEET NO.-REV. ME305-3	PAGE NO. 146

D-303267-A



NOTE: PROVIDE THRUST BLOCK WATER LINE SEE DETAIL 5 (221/201)



- NOTES:
- INSULATING GASKET KIT FOR 2" DIA. 2-3/4" DIA. BOLT WATER METER FLANGE.
 - 17-lb. MAGNESIUM ANODE PACKAGED 50% BENTONITE 50% HYDRATED GYPSUM BACK FILL.
 - SOLDER & TAPE ALL ELECTRICAL CONNECTIONS WITH RUBBER TAPE & VINYL TAPE EXCEPT AS OTHERWISE INDICATED.
 - BACKFILL TO BE INSTALLED DRY & TAMPED.

CONTRACT 15SA-110
REFERENCE DRAWING PAGE NO. R2-0 8

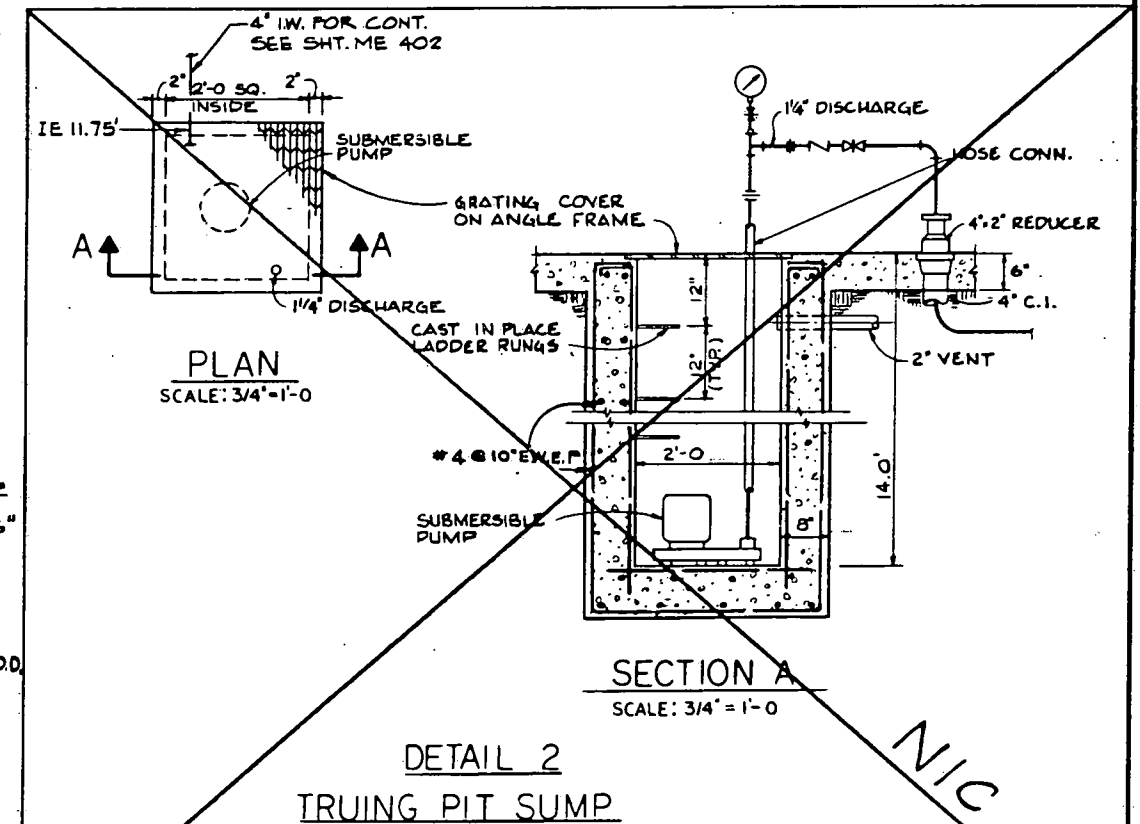
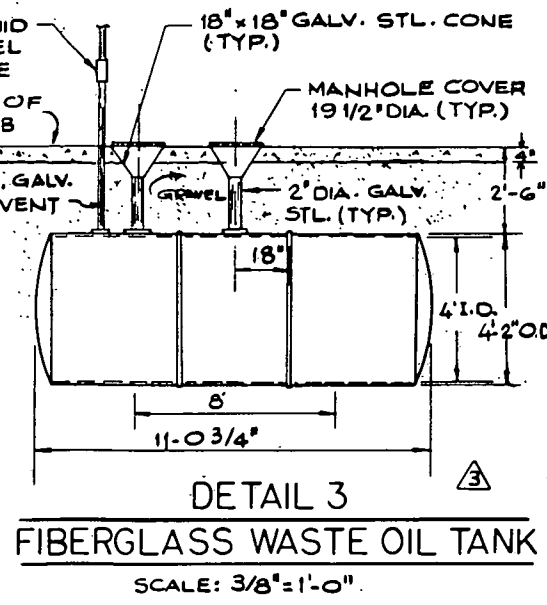
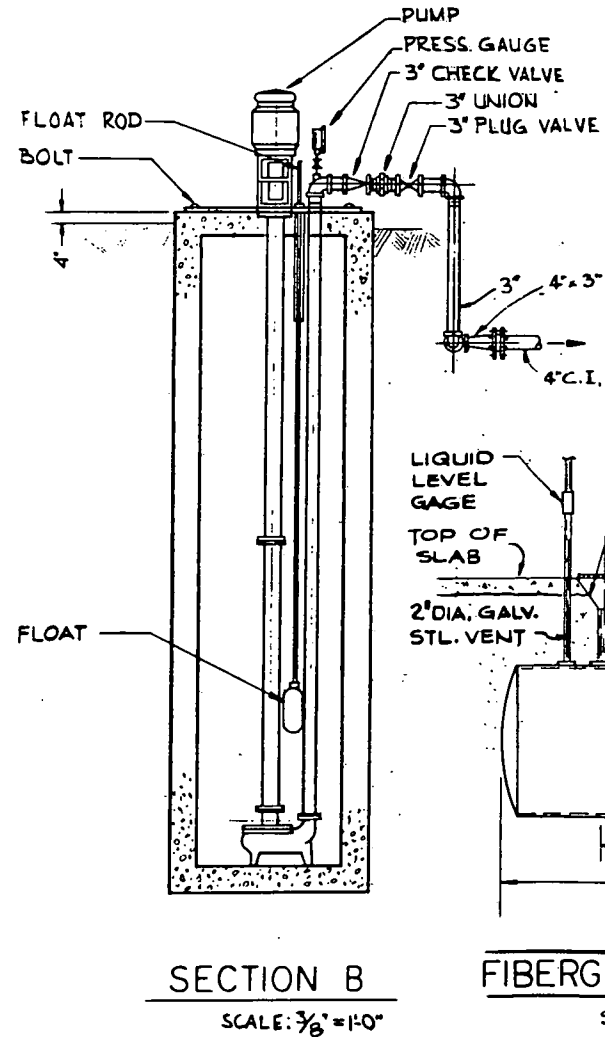
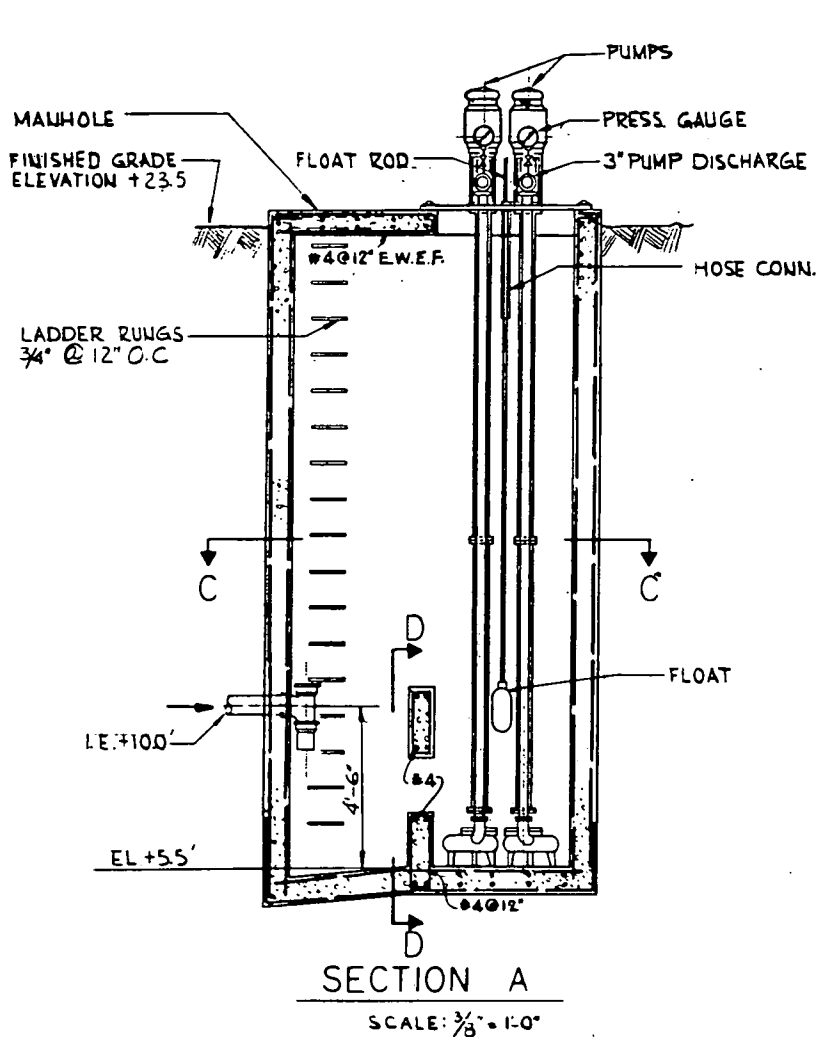
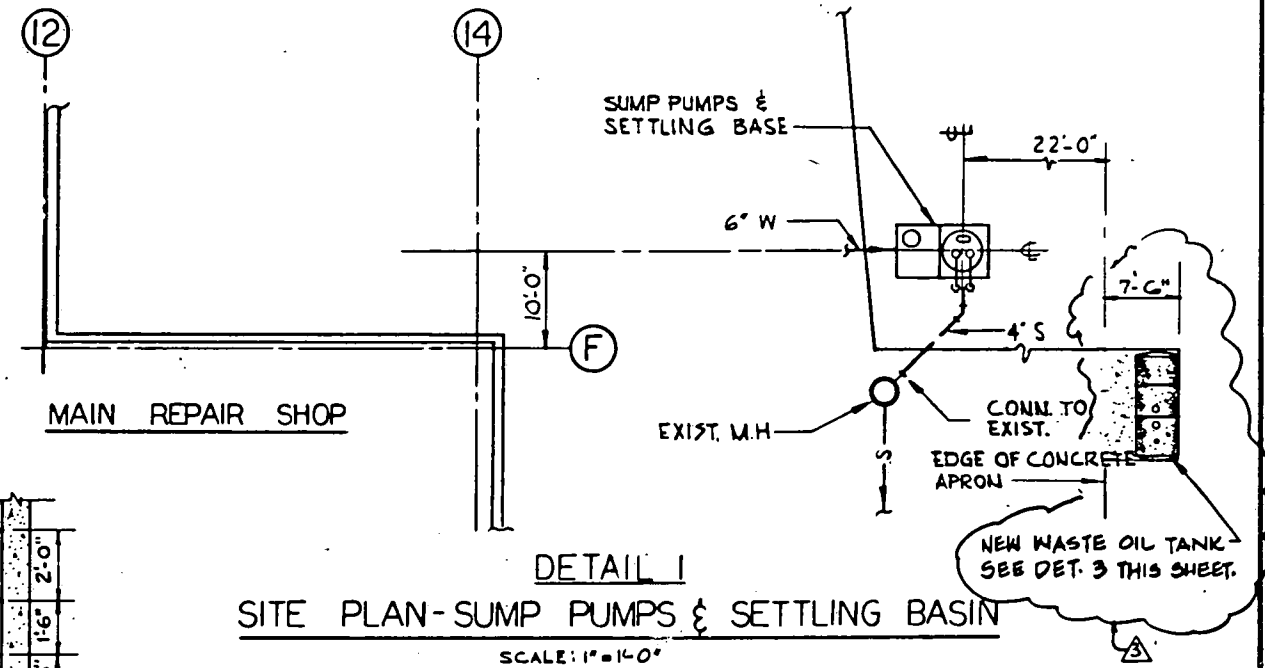
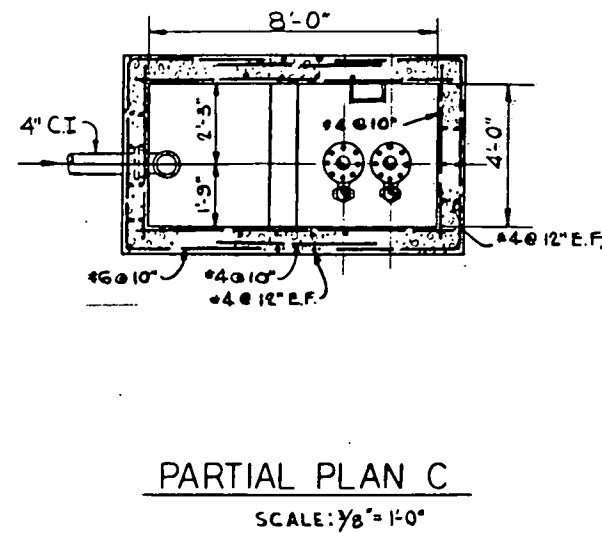
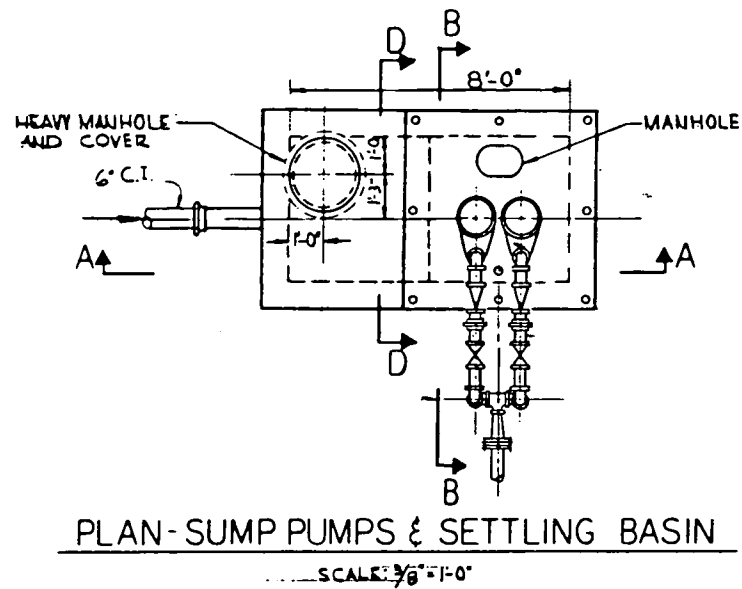
AS BUILT

NO.	DATE	BY	CHK	APP	DESCRIPTION
24	SEP 67	JOU			INSTALL NEW WASTE OIL TANK (W/ DETAIL ADDED WITH NOTES EMO30)
25	NOV 67	RDO	RSC		RELOCATED 8" FIRE PROTECTION RISER AS PER CN D-40
26	DEC 67	JPB	RSC		RELOCATED TRUCK PIT

REGISTERED PROFESSIONAL ENGINEER
No. 1080
STATE OF CALIF. 1967

SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT
KELLER & GANNON
CONSULTING ENGINEERS
SAN FRANCISCO
PARSONS BRINCKERHOFF-TUDOR-BECHTEL
GENERAL ENGINEERING CONSULTANTS

SOUTHERN ALAMEDA YARD UTILITIES SYSTEMS
SITE PLAN
MAIN REPAIR SHOP AND CAR CLEANERS BUILDING
SCALE: 1" = 20'
CONTRACT - PACKAGE IA0072-A007
SHEET NO. - REV. PAGE NO. CT221-G 36
D-300302A



CONTRACT 15SA-110
REFERENCE DRAWING PAGE # R3-0 9

AS BUILT

REV.	DATE	BY	CHK	APP	DESCRIPTION
2	21 SEP 82	JBU			ADDED DET. 3 FOR WASTE OIL TANK INSTALLATION PER BECO EMO33.
1	24 AUG 77	UM	UM		AS BUILT DELETED TRUING PIT SUMP ELEV. CHANGED
1	1 DEC 67	AG	RSC		

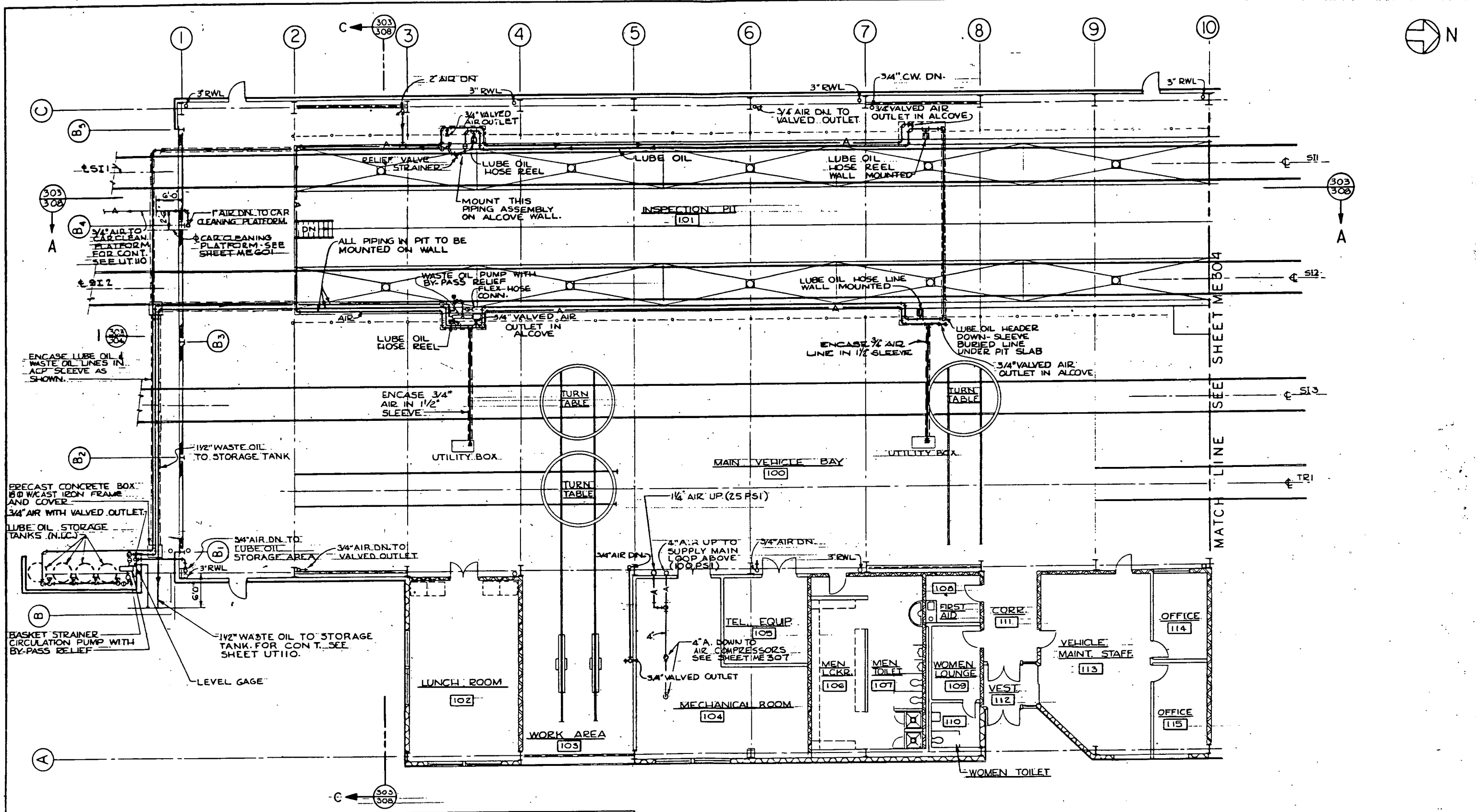
DESIGNED BY A. GUERRERO
DRAWN BY R. LEW
CHECKED BY R. CARTER
IN CHARGE R. CARTER
DATE 31 OCT 67

SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT
KEELER & GANNON CONSULTING ENGINEERS SAN FRANCISCO

PARSONS BRINCKERHOFF-TUDOR-BECHTEL GENERAL ENGINEERING CONSULTANTS

SOUTHERN ALAMEDA YARD UTILITIES SYSTEMS
WASTE TREATMENT DETAILS

SCALE AS NOTED
CONTRACT - PACKAGE IA0072-A007
SHEET NO. - REV. DRAWING NO. CT 232-338



CONTRACT 15SA-10
 REFERENCE DRAWING R4-0 PAGE NO 10

AS BUILT

SCALE 1/8" = 1'-0"
 CONTRACT-PACKAGE
 IRO101-RO10
 SHEET NO.-REV. PAGE NO.
 ME303-2 214

REV.	DATE	BY	SUB	APP.	DESCRIPTION
1-6-72	B.H. ACC				AS BUILT
2-1-72	EK	RSC	LM		REVISED COMPRESSED AIR PIPING

DESIGNED BY R. DABNEY
 DRAWN BY A. ALLINA
 CHECKED BY R. CARTER
 IN CHARGE R. CARTER
 DATE 13 MAY 69

REGISTERED PROFESSIONAL ENGINEER
 GEORGE E. REITER
 No. 1080
 BERKELEY, CALIF.

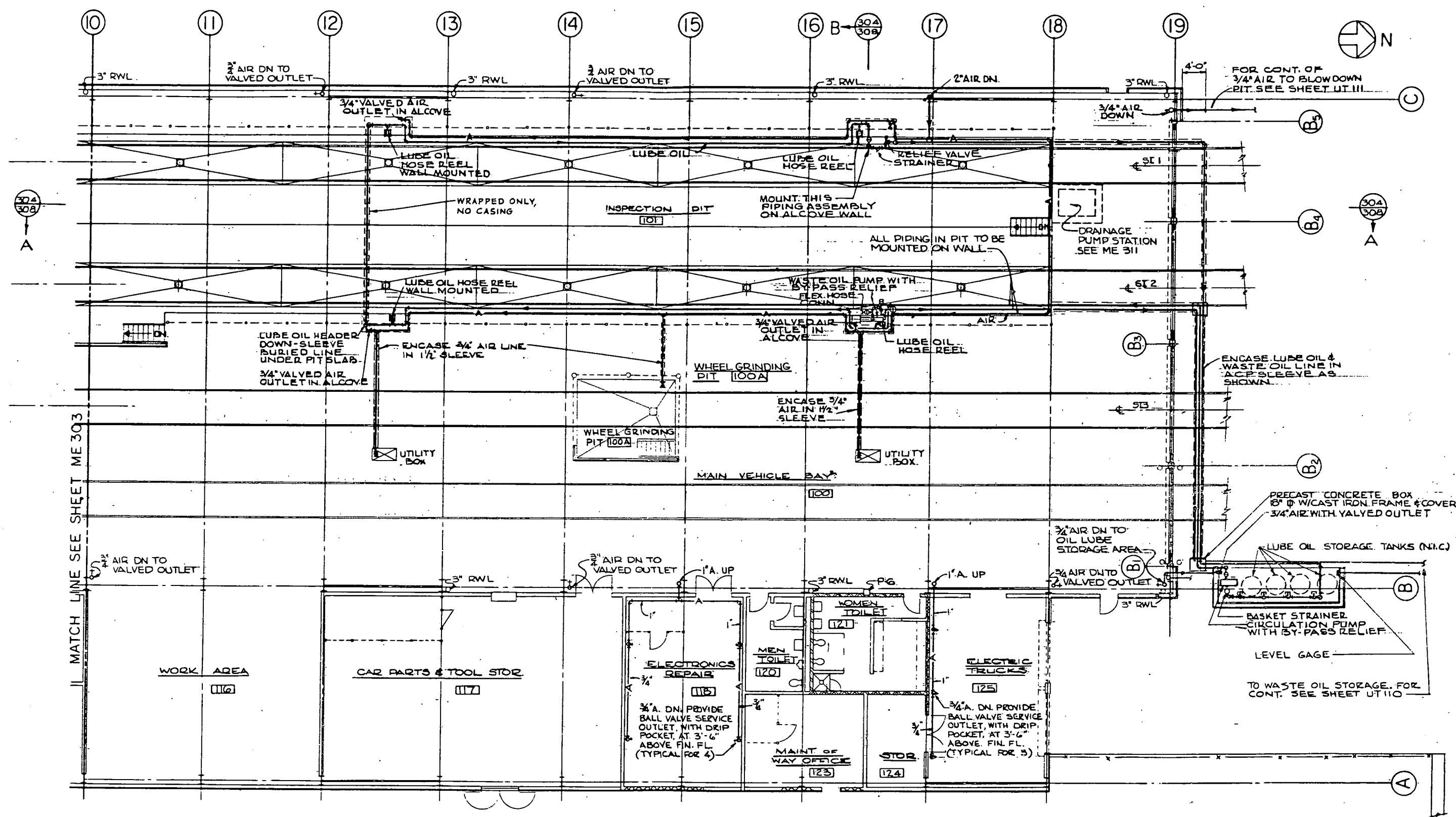
SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT

KELLER & GANNON
 CONSULTING ENGINEERS
 SAN FRANCISCO

PARSONS BRINCKERHOFF-TUDOR-BECHTEL
 GENERAL ENGINEERING CONSULTANTS

BERKELEY-RICHMOND LINE
 RICHMOND YARD
 SERVICE & INSPECTION BLDG
 AIR & LUBE SYSTEMS
 FLOOR PLAN - SOUTH

D-303702A



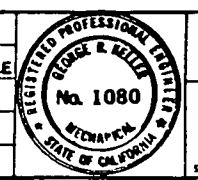
MATCH LINE SEE SHEET ME 303

CONTRACT 155A-110
 REFERENCE DRAWING PAGE NO
 R5-0 11

AS BUILT

SCALE 1/8" = 1'-0"
 CONTRACT-PACKAGE
 IR0101-RO10
 SHEET NO.-REV. PAGE NO.
 ME304-2 215

NO.	DATE	BY	CHK	APP	DESCRIPTION
1-6-72		R.N. AKC			AS BUILT
3 APR 70		EK	RSC	LM	ADDED COMPRESSED AIR PIPING & SERVICE OUTLETS.



DESIGNED BY R. DABNEY
 DRAWN BY C. NIGHTINGALE
 CHECKED BY R. CARTER
 IN CHARGE R. CARTER
 DATE 13 MAY 69

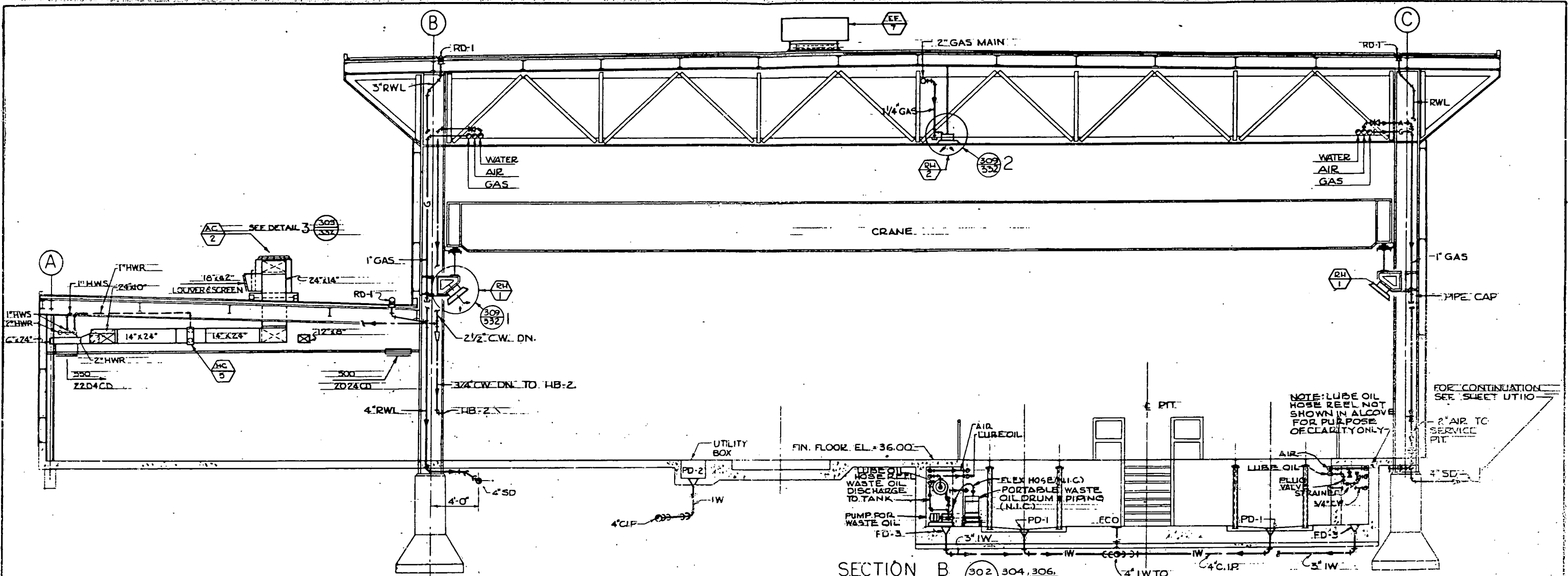
SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT

KELLER & GANNON
 CONSULTING ENGINEERS
 SAN FRANCISCO

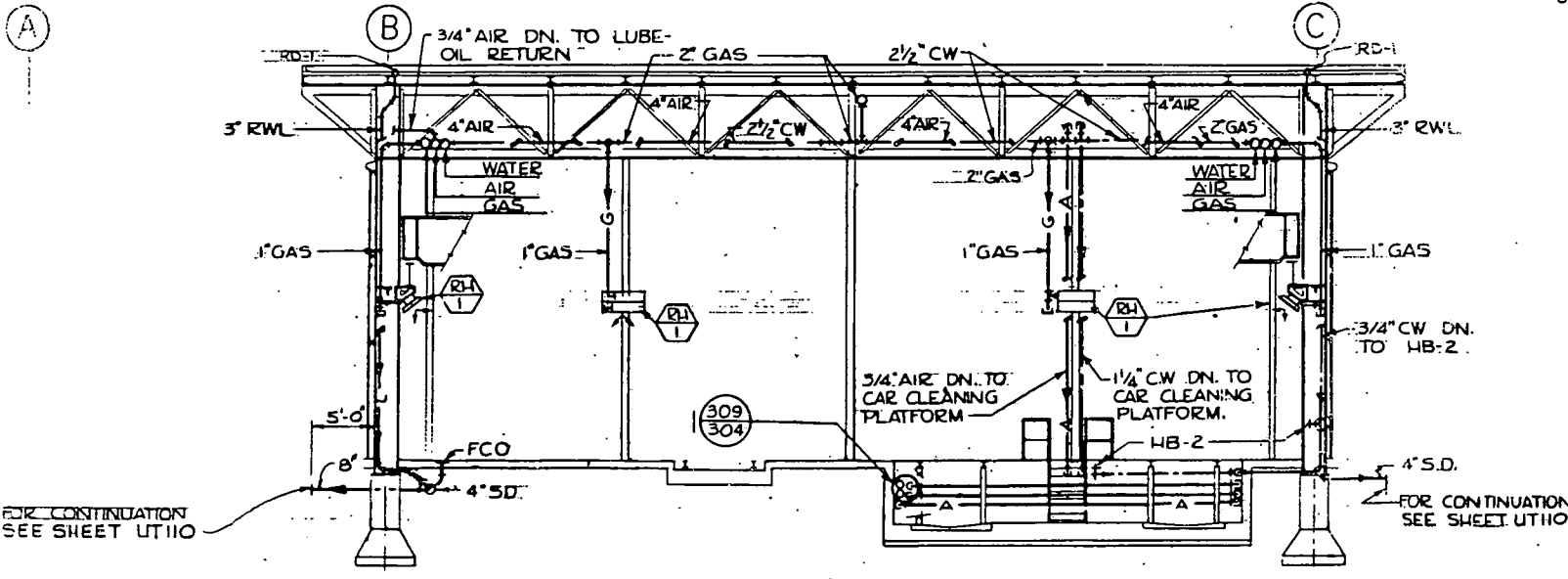
PARSONS BRINCKERHOFF-TUDOR-BECHTEL
 GEORGE & KELLER ENGINEERING CONSULTANTS

BERKELEY-RICHMOND LINE
RICHMOND YARD
 SERVICE & INSPECTION BLDG
 AIR & LUBE SYSTEMS
 FLOOR PLAN - NORTH

D-303703A

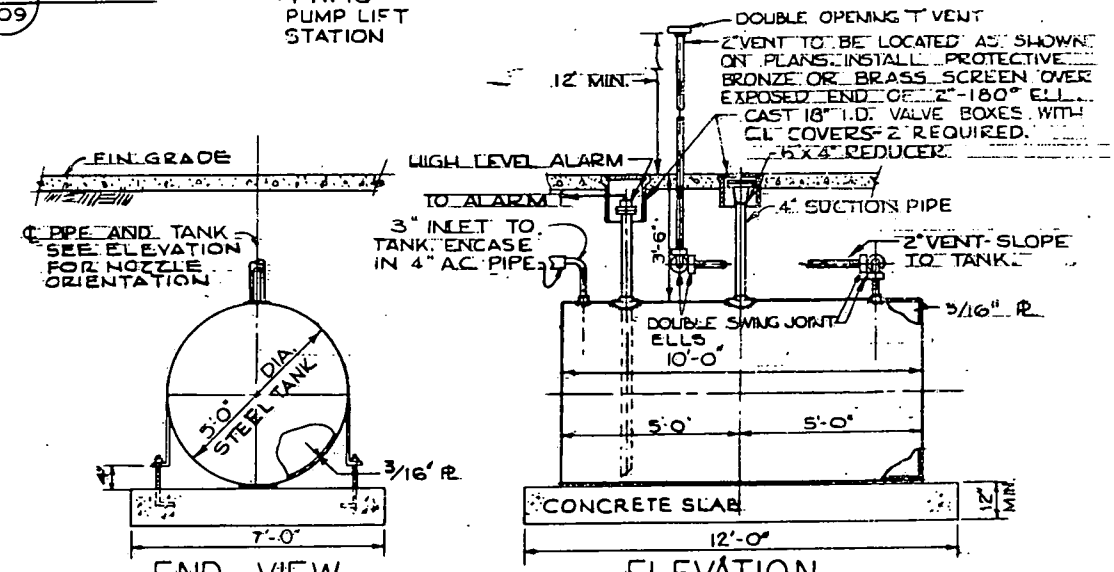


SECTION B (302, 304, 306, 309)
SCALE: 1/4" = 1'-0"



SECTION C (301, 303, 305, 309)
SCALE: 1/8" = 1'-0"

DETAIL 1
NOT TO SCALE



END VIEW
ELEVATION
WASTE OIL STORAGE TANK DETAILS

SCALE: 3/8" = 1'-0" (UNLESS NOTED)
NOTE: FOR PLACEMENT OF TANK AND PIPING SEE SHEETS UT110, ME 303 AND ME 304.

CONTRACT	155A-110
REFERENCE DRAWING	R6-0
PAGE NO.	12

AS BUILT

REV.	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
R. DABNEY
DRAWN BY
A. ALLINA
CHECKED BY
R. CARTER
IN CHARGE
R. CARTER
DATE
13 MAY 69

SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT
KELLER & GANNON
CONSULTING ENGINEERS
SAN FRANCISCO

PARSONS BRINCKERHOFF-TUDOR-BECHTEL
GENERAL ENGINEERING CONSULTANTS

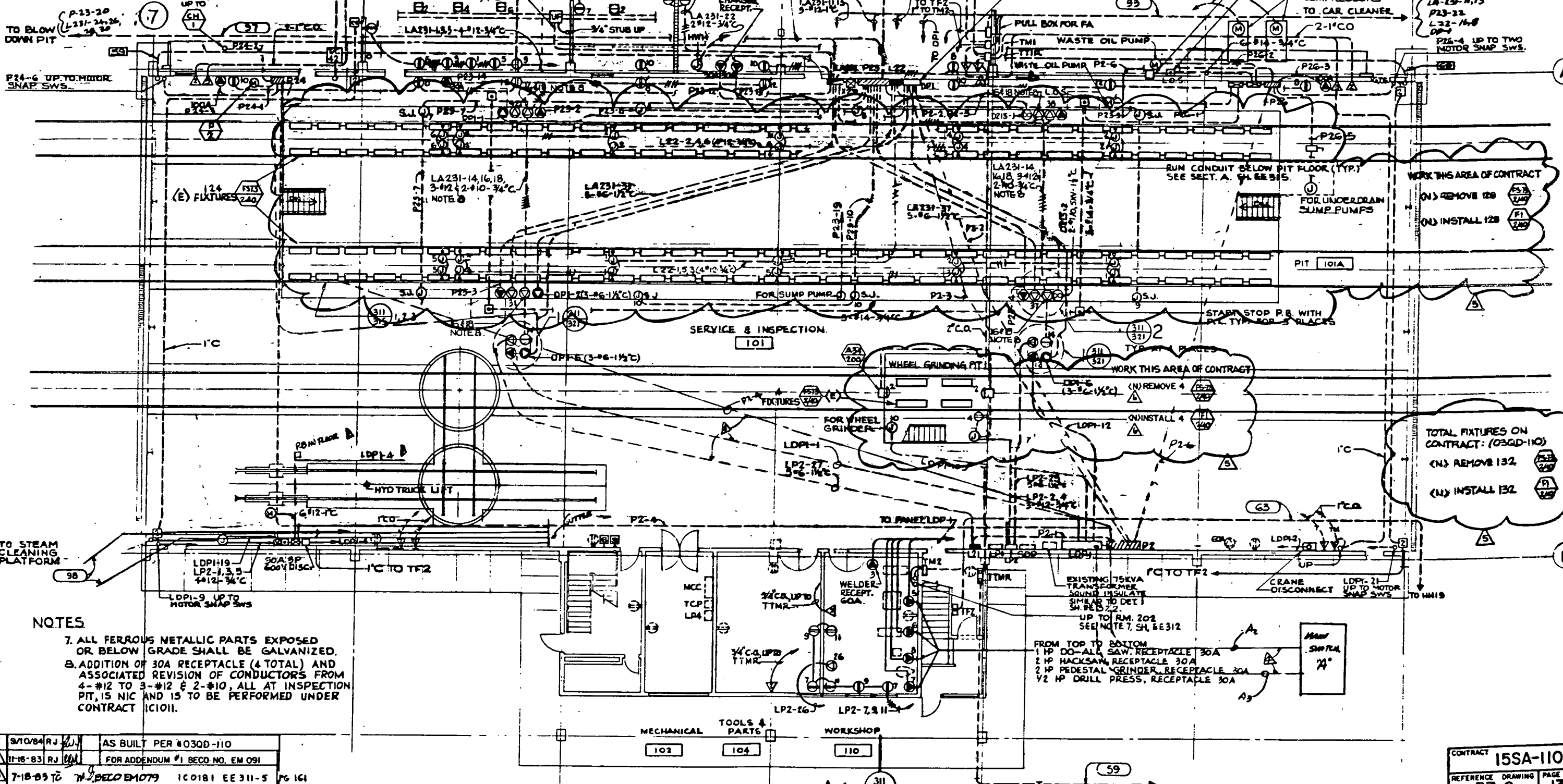
BERKELEY-RICHMOND LINE
RICHMOND YARD
SERVICE & INSPECTION BLDG
MECHANICAL SECTIONS-II

SCALE
AS NOTED
CONTRACT-FACED
IRO101-RO10
SHEET NO.-REV. PAGE NO.
ME309-0220

D-303708A

NOTES

1. ALL CONDUITS ON THIS PLAN SHOWN THUS ARE IN OR UNDER SLAB.
2. 120V. RECEPTACLES IN EAST SIDE SHOP AREA AND SHOWN DOTTED ARE EXISTING & SHALL REMAIN.
3. RECEPTACLES IN BOTH THE EAST & WEST SHOP AREAS AND MARKED FOR 30A SHALL BE RATED 5 WIRE 30A (600A) AC & SHALL BE POLARIZED LOCKING DEVICES, COMPLETE WITH LIFT LIDS & TYPE FD CAST MALLEABLE BOXES.
4. RECEPTACLES MARKED FOR 60A SHALL DUPLICATE, THE 5 WIRE 4 POLE 60A (480V) DEVICE SHOWN IN THE PIT DETAIL 2, EE 321.
5. RECEPTACLES MARKED FOR 100A SHALL BE RATED 4 POLE 3 WIRE 100A (600V) COMPLETE WITH BACK BOX, ANGLE ADAPTER AND SPRING DOOR.
6. #11 = 4-#12-3/4" #12 = 5-#12-3/4" UP TO



NOTES

7. ALL FERROUS METALLIC PARTS EXPOSED OR BELOW GRADE SHALL BE GALVANIZED.
8. ADDITION OF 30A RECEPTACLE (4 TOTAL) AND ASSOCIATED REVISION OF CONDUCTORS FROM 4-#12 TO 3-#12 & 2-#10, ALL AT INSPECTION PIT, IS NIC AND IS TO BE PERFORMED UNDER CONTRACT IC1011.

TOTAL FIXTURES ON CONTRACT: (03GD-110)
 (N) REMOVE 132
 (U) INSTALL 132

REV.	DATE	BY	SUB	APP	DESCRIPTION
7	9/10/84	RJ			AS BUILT PER #030D-110
6	11-18-83	RJ			FOR ADDENDUM #1 BECO NO. EM 091
5	7-18-83	TC			7-18-83 TO 7-18-83 BECO EM 079 IC0181 EE 311-5 PG 161
4	1/19/77	JA			AS BUILT
3	9 NOV 70	MJ	ROD		INCL. CH D-22, ADDED IC1011 PIT RECEPTACLE REVISIONS
2	16 SEP 69	BD	PVC		REVISED FOR UNDERDRAIN PUMPS ADDED TRUCK LIFT CONTROLLER DELETED (1) (4) (4) ADDED 2 (2) ADDED RA PULL BOX, IC TO TM2 ADDED NOTE 6, TM1
1	9 JUN 69	PTW	AVS		

ADDED LIGHTS, RECEPTACLES TO WHEEL GRINDER PIT; PANEL P26, OIL PUMPS, PUSH BUTTONS, CONDUIT FOR RADIO REPEATER. MOVED TM2, OMITTED J.B. AT COL. RECIRCUITED DOOR MOTORS & WELDER RECEPT. CORRECTED STEAM CLEANER CKTS

DESIGNED BY
 RT WILLIS
 DRAWN BY
 C.Y. NG
 CHECKED BY
 A.V. SPENCE
 IN CHARGE
 A.V. SPENCE
 DATE
 15 APR 69



SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT
 KELLER & GANNON CONSULTING ENGINEERS SAN FRANCISCO
 PARSONS BRINCKERHOFF-TUDOR-BECHTEL GENERAL ENGINEERING CONSULTANTS

CONCORD YARD SERVICE & INSPECTION BUILDING
 ELECTRICAL FIRST FLOOR PLAN
 CONTRACT 155A-110
 REFERENCE DRAWING R7-0 PAGE NO 13
 SCALE 1/8" = 1'-0" SHEET NO. 102933

PANEL L22 SURFACE MOUNTED 277/480 VOLTS 3PHASE 4 WIRE 225A BUS												
DESCRIPTION	WATTS			BREAKER TRIP POLE	CIRCUIT NUMBER	BREAKER TRIP POLE	WATTS			DESCRIPTION		
	A	B	C				A	B	C			
PIT LIGHTING	2000			20	1	1	2	20	1	2000	PIT LIGHTING	
		2000			3	4				2000		
			2200		5	6				2200		
ROOF FLOODLIGHT(S)	1000			7	8			1000			ROOF FLOODLIGHTS (N)	
		1000			9	10			1000			
SPARE			1000		11	12			1000		SPARE	
ELECTRONIC REPAIR	2000			13	14			1000			SPARE	
OFFICE VEHICLE STORAGE		1700		15	16			1200			CAR CLEANER	
EMER. BATT. CHARGER			1000	17	18				1200			
SPACE				19	20						SPACE	
				21	22							
				23	24							
				25	26							
				27	28							
				29	30							
				31	32							
				33	34							
				35	36							
				37	38							
				39	40							
				41	42							
TOTAL WATTS	A 9000	B 9900	C 8500	FEEDER AMPS			A 34	B 34	C 35			

PANEL L21 SURFACE MOUNTED 277/480 VOLTS 3PHASE 4 WIRE 225A BUS												
DESCRIPTION	WATTS			BREAKER TRIP POLE	CIRCUIT NUMBER	BREAKER TRIP POLE	WATTS			DESCRIPTION		
	A	B	C				A	B	C			
HIGH BAYS (#2) LIGHTING	3600			20	1	1	2	20	1	3600	HIGH BAYS (#4) LTG.	
		3600			3	4				3600		
			3600		5	6				3600		
HIGH BAYS (#6) LIGHTING	3600			7	8			600			WHEEL GRINDER PIT	
		3600			9	10					SPARE	
			3600		11	12						
				13	14							
				15	16							
				17	18							
				19	20							
				21	22							
				23	24							
				25	26							
				27	28							
				29	30							
				31	32							
				33	34							
				35	36							
				37	38							
				39	40							
				41	42							
TOTAL WATTS	A 9000	B 10800	C 10800	FEEDER AMPS			A 43	B 42	C 42			

DESCRIPTION	WATTS			BREAKER TRIP POLE	CIRCUIT NUMBER	BREAKER TRIP POLE	WATTS			DESCRIPTION		
	A	B	C				A	B	C			
					1	2						
					3	4						
					5	6						
					7	8						
					9	10						
					11	12						
					13	14						
					15	16						
					17	18						
					19	20						
					21	22						
					23	24						
					25	26						
					27	28						
					29	30						
					31	32						
					33	34						
					35	36						
					37	38						
					39	40						
					41	42						
TOTAL WATTS	A	B	C	FEEDER AMPS			A	B	C			

PANEL LA231 SURFACE MOUNTED 120/208 VOLTS 3PHASE 4 WIRE												
DESCRIPTION	WATTS			BREAKER TRIP POLE	CIRCUIT NUMBER	BREAKER TRIP POLE	WATTS			DESCRIPTION		
	A	B	C				A	B	C			
ELECTRONIC REPAIR	1000			20	1	1	2	20	1	1000	LIE DUCT	
		1000			3	4				1000		
			1000		5	6				1000		
WANT. OF WRY OFFICE	1000			7	8			1000			WEST WALL RECPT	
		1000			9	10			1000			
CAR CLEANER			1000	11	12				1000			
		1000			13	14			1000		PIT RECEPTACLES	
SPARE			1000	15	16				1000			
UNIT HEATER		1000		17	18	30		3000				
			1000	19	20	20		1000			SPARE	
RADIANT HEATER		1000		21	22			1000			HOT WATER HEATER	
		1000		23	24			1000			BLOW DOWN PIT	
EXHAUST FAN	1000			25	26			1000				
		1000		27	28			1000				
SPARE			1000	29	30				1000			
3 PH. PIT RECPT.	2000			30	3	31	32	30	3	2000	3PH. PIT RECPT.	
		2000			33	34			2000			
			2000		35	36			2000			
3 PH. PIT RECPT.	2000			30	3	37	38	30	3	2000	3PH. PIT RECPT.	
		2000			39	40			2000			
			2000		41	42			2000			
TOTAL WATTS	A 18000	B 18000	C 20000	FEEDER AMPS			A 150	B 150	C 167			

PANEL DPI SURFACE MOUNTED FUTURE SPECIAL PANEL (N.I.C.)												
DESCRIPTION	WATTS			BREAKER TRIP POLE	CIRCUIT NUMBER	BREAKER TRIP POLE	WATTS			DESCRIPTION		
	A	B	C				A	B	C			
PIT RECEPTACLE					1	2					PIT RECEPTACLE	
	1250				3	4			1250			
FLOOR BOX RECEPT	1250				5	6			1250		FLOOR BOX RECEPT	
SPARE			1250		7	8			1250		SPARE	
SPARE			1250		9	10			1250		SPARE	
					11	12						
					13	14						
					15	16						
					17	18						
					19	20						
					21	22						
					23	24						
					25	26						
					27	28						
					29	30						
					31	32						
					33	34						
					35	36						
					37	38						
					39	40						
					41	42						
TOTAL WATTS	A	B	C	FEEDER AMPS			A	B	C			

DESCRIPTION	WATTS			BREAKER TRIP POLE	CIRCUIT NUMBER	BREAKER TRIP POLE	WATTS			DESCRIPTION		
	A	B	C				A	B	C			
					1	2						
					3	4						
					5	6						
					7	8						
					9	10						
					11	12						
					13	14						
					15	16						
					17	18						
					19	20						
					21	22						
					23	24						
					25	26						
					27	28						
					29	30						
					31	32						
					33	34						
					35	36						
					37	38						
					39	40						
					41	42						
TOTAL WATTS	A	B	C	FEEDER AMPS			A	B	C			

SEE NOTE B, SHEET NO EE 311

CONTRACT 15SA-110
 REFERENCE DRAWING PAGE NO
 R8-0 14

REFERENCE

AS-BUILT

DESIGNED BY P.T. WILLIS DRAWN BY R. OZAWA CHECKED BY A.V. SPENCE IN CHARGE A.V. SPENCE DATE 15 APR 69	9/13/64 PJ 9NOV70 MJ ROD 17 JUL 69 IPW AVS AS BUILT PER 15SA-110 ADDED (C1011 PIT RECEPTACLE REVISIONS TO LA 231) REVISED PANEL L22 CKTS REVISED PANEL LA231 CKTS		SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT KELLER & GANNON CONSULTING ENGINEERS SAN FRANCISCO	PARSONS BRINCKERHOFF-TUDOR-BECHTEL SPECIAL ENGINEERING CONSULTANTS 	CONCORD YARD SERVICE & INSPECTION BLDG ELECTRICAL PANEL SCHEDULES D-303288 A	SCALE NOT TO SCALE CONTRACT-FAKAMP IC0181-CO18 SHEET NO.-REV. PAGE NO. EE331-2 166
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REV	CIRCUIT IDENTIFICATION	FROM	TO	CONDUIT DESCRIPTION			CONDUCTOR DESCRIPTION					REMARKS
				TYPE	SIZE	APPROX. LENGTH	NO. PER CONDUIT	SIZE	INSULAT.	VOLTS	MULTIPLE	
	A2	MAIN SWITCHGEAR	PANEL P2	RSC	4"	80'	4	600 MCM	XLPE	600		
	A3		PANEL LDP-1		4"	90'	4		XLPE	600		
	P2-1	DISTRIBUTION PANEL P2	LIGHTING PANEL L21	RSC	2"	40'	4	#4		600		
	P2-2		L22		2"	120'	4	#4				
	P2-3		DISTRIBUTION PANEL P23		4"	190'	4	500 MCM	XLPE			
	P2-4		P24		2"	230'	3	#2/0				
	P2-5		LDP-1 (TIE)		3"	30'	4	#4/0				
	P2-6		DISTRIBUTION PANEL P26		2"	110'	3	#2/0				
	P23-1	DISTRIBUTION PANEL P23	TRANSFORMER X231	RSC	2"	15'	3	#1		600		
	2		60A RECEPT IN PIT		1 1/2"	75'	5	#6				
	3				1 1/2"	95'	5	#6				
	4				1 1/2"	65'	5	#6				
	5		100A WELDING RECEPT.		2"	50'	5	#1				
	6		J.B. W. ELECTRONICS REPAIR		1"	100'	5	#10				
	7		WHEEL SPINNING JACKS		3/4"	125'	3	#12				
	8					55'	3	#12				
	9					95'	3	#12				
	10					85'	3	#12				
	11		60A RECEPT. IN PIT		1 1/2"	50'	5	#6				
	12		30A BATTERY CHARGER		1"	50'	5	#10				
	13				1"	45'	5	#10				
	14		PEDESTAL GRINDER		3/4"	85'	3	#12				
	15		COMPRESSOR		1 1/4"	20'	3	#6				
	16				1 1/4"	20'	3	#6				
	17		SPARE									
	18		MOTOR OPERATED DOORS		3/4"	130'	3	#12				
	19		SUMP PUMP		3/4"	50'	3	#12				
	20		BLOWDOWN PIT		1"	280'	3	#6				
	21		CAR CLEANER		2"	210'	4	#4				
	P24-1	DISTRIBUTION PANEL P24	AC-2	RSC	3/4"	35'	3	#12		600		
	2		CHILLER		1 1/4"	30'	3	#4				
	3		RECEPT. (100A)		2"	25'	5	#1				
	4		CHILLED WATER PUMP		3/4"	20'	3	#12				
	5		SPARE									
	6		MOTOR OPERATED DOORS		3/4"	60'	3	#12		600		

REV	CIRCUIT IDENTIFICATION	FROM	TO	CONDUIT DESCRIPTION			CONDUCTOR DESCRIPTION					REMARKS
				TYPE	SIZE	APPROX. LENGTH	NO. PER CONDUIT	SIZE	INSULAT.	VOLTS	MULTIPLE	
	X231	TRANSFORMER X231	PANEL LA231	FLEX.	3"	15'	4	#4/0	XLPE	600		
	LDPI-1	DISTRIBUTION PANEL LDP-1	60A RECEPT. IN F.B.	RSC	1 1/2"	120'	5	#6		600		
	LDPI-2		10 TON CRANE		1 1/2"	50'	3	#6				
	LDPI-3		60A RECEPT. IN SHOP		1 1/2"	60'	5	#6				
	LDPI-4		TRUCK LIFT		1"	155'	3	#12				
	LDPI-5		DO-ALL SAW 30A RECEPT.		1"	60'	4	#10				
	6		HACK SAW		1"	65'	4	#10				
	7		DRILL PRESS		1"	75'	4	#10				
	8		GRINDER		1"	70'	4	#10				
	9		DOORS		3/4"	165'	3	#12				
	10		WHEEL GRINDER		1"	65'	3	#10				
	11		PANEL LPI		EXISTING							
	12		60A RECEPT. IN F.B.		1 1/2"	55'	5	#6		600		
	13		SPARE									
	14		MCC		EXISTG.	90'	3	#1		600		
	15		SPARE									
	16		PANEL SDP		EXISTING							
	17		PANEL P2 (TIE)									SEE P2-5
	18		SPARE									
	19		STEAM CLEANER		2"	260'	4	#4		600		
	20		SPARE									
	21		MOTOR OPERATED DOORS		3/4"	65'	3	#12		600		
	P26-1	DISTRIBUTION PANEL P26	LUBE OIL PUMP	RSC	3/4"	50'	3	#12		600		
	P26-2		WASTE		3/4"	35'	3	#12		600		
	P26-3		100A RECEPT.		2"	25'	5	#1		600		
	P26-4		MOTOR OPERATED DOORS		3/4"	35'	3	#12		600		
	P26-5		UNDERDRAIN SUMP PUMPS		3/4"	40'	3	#12		600		
	P26-6		SPARE									

CONTRACT 15SA-110
REFERENCE DRAWING PAGE 15
R9-0 15

DESIGNED BY P.T. WILKINS
DRAWN BY F. SANDERSON
CHECKED BY A.V. SPENCE
IN CHARGE A.V. SPENCE
DATE 15 APR 69

REVISIONS:
16 SEP 69 RSC REVISED FOR UNDERDRAIN SUMP PUMPS
17 JUN 69 PWAYS ADDED APPROX. LENGTH OF ONDS REVISED PNL P23 CKTS. ADDED CKTS P2-4 & P2-6 TO PNL P2, & LDPI-2, LDPI-3 TO LDPI-1. ADDED P24 & P26 CKTS.

REGISTERED PROFESSIONAL ELECTRICIAN
PHILIP E. GANNON
No. 917
STATE OF CALIFORNIA

SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT

KELLER & GANNON
CONSULTING ENGINEERS
SAN FRANCISCO

PARSONS BRINCKERHOFF-TUDOR-BECHTEL
GENERAL ENGINEERING CONSULTANTS

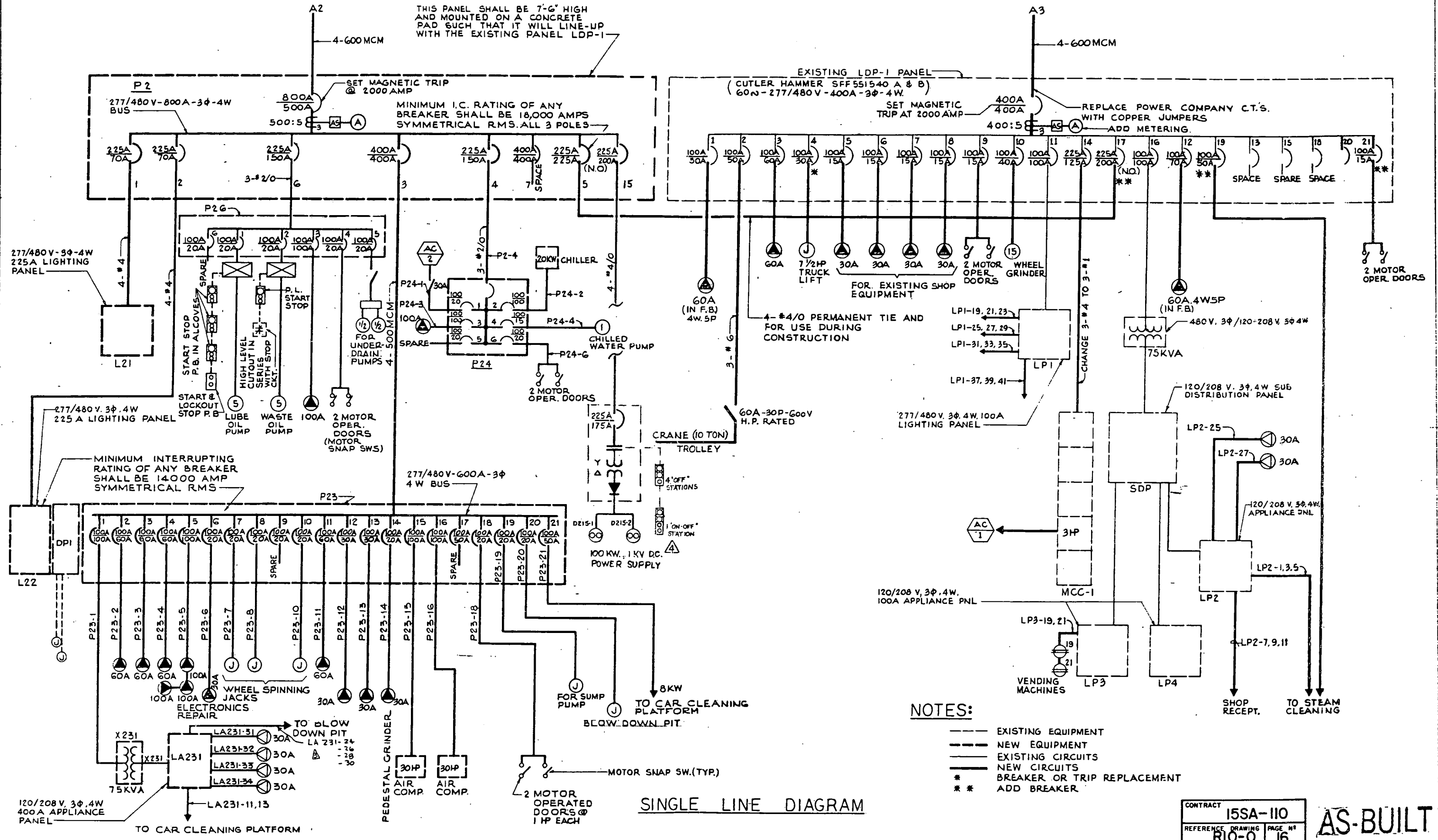
APPROVED: *[Signature]*

CONCORD YARD
SERVICE & INSPECTION BLDG

ELECTRICAL FEEDER AND
CONDUIT SCHEDULE

100181-CO18
SHEET NO. REV. PAGE NO.
EE332-3 167

D-303289A



THIS PANEL SHALL BE 7'-6" HIGH AND MOUNTED ON A CONCRETE PAD SUCH THAT IT WILL LINE-UP WITH THE EXISTING PANEL LDP-1

EXISTING LDP-1 PANEL (CUTLER HAMMER SFF 551540 A & B) 60N-277/480V-400A-3φ-4W. SET MAGNETIC TRIP AT 2000 AMP

REPLACE POWER COMPANY C.T.S. WITH COPPER JUMPERS. ADD METERING.

SET MAGNETIC TRIP @ 2000 AMP. MINIMUM I.C. RATING OF ANY BREAKER SHALL BE 18,000 AMPS SYMMETRICAL RMS. ALL 3 POLES.

MINIMUM INTERRUPTING RATING OF ANY BREAKER SHALL BE 14,000 AMP SYMMETRICAL RMS

NOTES:

- EXISTING EQUIPMENT
- - - NEW EQUIPMENT
- EXISTING CIRCUITS
- - - NEW CIRCUITS
- * BREAKER OR TRIP REPLACEMENT
- ** ADD BREAKER

SINGLE LINE DIAGRAM

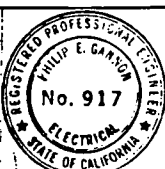
CONTRACT 15SA-110
REFERENCE DRAWING PAGE NO. R10-0 16

AS-BUILT

10-23-73: ADDED 1KV DC. POWER SUPPLY
1/27/74 JH: AS-BUILT
16 SEP 69 B.D. RSC: REVISED FOR 2 UNDERDRAIN PUMPS

ADDED 2 AMMETERS
ADDED 2 DOOR MOTORS, 2 SUMP PUMPS, & AC-2
ADDED BREAKER 19, 21 TO PNL LDPI. REVISED P23.
ADDED P2G & LUBE OIL PUMPS.
ADDED P24, CORRECTED MCC-1

DESIGNED BY P.T. WILLIS
DRAWN BY C.Y. NG
CHECKED BY A.V. SPENCE
IN CHARGE A.V. SPENCE
DATE 15 APR 69



SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT
KELLER & GANNON CONSULTING ENGINEERS SAN FRANCISCO
PARSONS BRINCKERHOFF-TUDOR-BECHTEL ENGINEERING CONSULTANTS


CONCORD YARD SERVICE & INSPECTION BLDG ELECTRICAL SINGLE LINE DIAGRAM
NOT TO SCALE
100181-C018
EE301-4 158

REV	CIRCUIT IDENTIFICATION	FROM	TO	CONDUIT DESCRIPTION			CONDUCTOR DESCRIPTION					REMARKS
				TYPE	SIZE	APPROX LENGTH	NO PER CONDUIT	SIZE	USUAT	VOLTS	MULTIPLE	
	B25-1	MOTOR CONTROL CENTER B25	EXHAUST FAN EF-1	R.S.	1"	40'	3	#12		600		
	B25-2		EF-2			224'						
	B25-3		EF-3			98'						
	B25-4		EF-4			38'						
	B25-5		EF-5			112'						
	B25-6		EF-6			168'						
	B25-7		EF-7			228'						
	B25-8		EF-8			288'						
	P2-9		AIR CONDITIONING UNIT AC-1			10'						
	P2-10		AC-2			158'						
	B25-11		COMPRESSOR CR-1			8'		#10				
	B25-12		HEATING AND VENTILATING UNITS HV-1			14'		#12				
	B25-13		HV-2			138'						
	B25-14		HOT WATER PUMP P-1			18'						
	B25-15		P-2			14'						
	P2-11		AIR COMPRESSOR CP-1		1/4"	8'		#6				
	P2-12		CP-2		1/4"	8'		#6				
	B25-18		LUBE OIL NORTH	R.S.	1"	150±	3	#12		600		
	B25-19		WASTE OIL NORTH									
	B25-20		WASTE OIL SOUTH									
	B25-21		LUBE OIL SOUTH									

REV	CIRCUIT IDENTIFICATION	FROM	TO	CONDUIT DESCRIPTION			CONDUCTOR DESCRIPTION					REMARKS
				TYPE	SIZE	APPROX LENGTH	NO PER CONDUIT	SIZE	USUAT	VOLTS	MULTIPLE	
	P2310-1	PANEL 2310	WELDER RECEPT.	R.S.	1/4"	40	3	#4		600		
	P2310-2		DO-ALL SAW		3/4"	80		#12				
	P2310-3		HACKSAW			10						
	P2310-4		GRINDER			20						
	P2310-5		DRILL PRESS			30						

CONTRACT 15SA-110
REFERENCE DRAWING PAGE NO R11-0 17

AS BUILT

DESIGNED BY P. T. WILLIS		SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT		BERKELEY-RICHMOND LINE		SCALE NOT TO SCALE CONTRACT NUMBER 10101-RO10 SHEET NO.-REV. PAGE NO. EE335-2 251
DRAWN BY C. Y. NG		KELLER & GANNON CONSULTING ENGINEERS SAN FRANCISCO		RICHMOND YARD		
CHECKED BY A. V. SPENCE		PARSONS BRINCKERHOFF-TUDOR-BECHTEL GENERAL ENGINEERING CONSULTANTS		ELECTRICAL FEEDER AND CONDUIT SCHEDULE - II		
IN CHARGE A. V. SPENCE		DATE 13 MAY 69				

1-6-72 B.H.A.K.C. AS BUILT
18 NOV 69 P.T.W.S.C. RECIRCULATED DFCI EQUIP.

PANEL LA211 SURFACE MOUNTED 120/208 V 3φ 4W. 200A MAIN BREAKER.												
DESCRIPTION	WATTS			BREAKER TRIP POLE	CIRCUIT NUMBER	BREAKER TRIP POLE	WATTS			DESCRIPTION		
	A	B	C				A	B	C			
RECEPT. - SHOP	1000			20	1	1	2	20	1	1000	RECEPT.-RM.102	
RM.102,103	1000				3	4		1000			102,103	
		1000			5	6			1000			
103	1000				7	8		1000			SPARE	
108,109,111	1000				9	10		1000			RECEPT.-MECH. RM.	
108 TO 111		1000			11	12			1000		RECEPT. RM.107	
EWC	100	1000			13	14		1000			HEATERS - SOUTH	
RECEPT. 113 TO 115		1000			15	16		1000			CA-1 CONTROL	
			1000		17	18			1000		WH-1&HB-1 CIRC.PUMPS	
FLOOR BOXES		1000			19	20		1000			FLOOR BOXES	
			1000		21	22			1000		FLOOR BOXES	
SPARE	1000				23	24			1000		1/W WASTE OIL HIGH LEVEL ALARM	
		1000			25	26		1000			SPARE	
			1000		27	28			1000		SPARE	
FLOOR BOXES	2000			30	3	31	32	30	3	2000	FLOOR BOXES	
		2000			33	34			2000			
			2000		35	36			2000			
SPACE					37	38					SPACE	
					39	40						
					41	42						
TOTAL WATTS	A 14,000	B 14,000	C 14,000	FEEDER AMPS			A 117	B 117	C 117			

LA231 SURFACE MOUNTED 120/208 V 3φ 4W. 200 A MAIN BREAKER												
DESCRIPTION	WATTS			BREAKER TRIP POLE	CIRCUIT NUMBER	BREAKER TRIP POLE	WATTS			DESCRIPTION		
	A	B	C				A	B	C			
RECEPT. - RM. 115	1000			20	1	1	2	20	1	1000	RECEPT.-RM.116,117	
		1000			3	4			1000			
			1000		5	6			1000			
	1000				7	8			1000		RM 119-125	
		1000			9	10			1000			
			1000		11	12			1000			
UNDERFLOOR DUCT		1000			13	14			1000		HEATERS - EAST	
			1000		15	16			1000		JANITOR	
				1000	17	18			1000		FLOOR BOXES	
WHEEL GRINDER PIT	1000				19	20			1000			
			1000		21	22			1000			
SPACE					23	24				1000		
					25	26	30	3	2000			
					27	28				2000		
					29	30				2000		
FEEDER TO RM.116	4000			50	3	31	32	30	3	2000		
		4000			33	34				2000		
			4000		35	36				2000		
SPACE					37	38					SPACE	
					39	40						
					41	42						
TOTAL WATTS	A 16,000	B 16,000	C 15,000	FEEDER AMPS			A 145	B 145	C 137			

PANEL LA91. SURFACE MOUNTED 120/208 V 3φ 4W. 50A MAIN BREAKER												
DESCRIPTION	WATTS			BREAKER TRIP POLE	CIRCUIT NUMBER	BREAKER TRIP POLE	WATTS			DESCRIPTION		
	A	B	C				A	B	C			
PABX POWER SUPPLY	1000			15	1	1	2	20	1	1000	SPARE	
		1000			3	4		20	1	1000	RECEPT.-RM.105	
EF9			1000	20	1	5	6	20	1	1000		
SPACE					7	8					SPACE	
					9	10						
					11	12						
					13	14						
					15	16						
					17	18						
					19	20						
					21	22						
					23	24						
					25	26						
					27	28						
					29	30						
					31	32						
					33	34						
					35	36						
					37	38						
					39	40						
					41	42						
TOTAL WATTS	A 2,000	B 2,000	C 2,000	FEEDER AMPS			A 18	B 18	C 18			

PANEL LA221 SURFACE MOUNTED 120/208V 3φ 4W. 200A MAIN BREAKER												
DESCRIPTION	WATTS			BREAKER TRIP POLE	CIRCUIT NUMBER	BREAKER TRIP POLE	WATTS			DESCRIPTION		
	A	B	C				A	B	C			
SPARE	1000			20	1	1	2	20	1	1000	HEATERS - S.W	
		1000			3	4			1000		CAR CLEANER PLATFORM	
			1000		5	6			1000			
RECEPT. - SOUTH	1000				7	8			1000			
SPARE		1000			9	10					SPACE	
RECEPT. - NORTH			1000		11	12						
SPARE					13	14						
		1000			15	16						
PIT WALL BOXES			3000	30		17	18					
		1000			19	20						
			3000	30		21	22					
					23	24						
		2000			25	26	30	3	2000		PIT WALL BOXES	
			2000		27	28			2000			
					29	30				2000		
		2000			31	32	30	3	2000			
			2000		33	34			2000			
					35	36				2000		
SPACE					37	38					SPACE	
					39	40						
					41	42						
TOTAL WATTS	A 14,000	B 15,000	C 15,000	FEEDER AMPS			A 117	B 125	C 125			

PANEL LA241 SURFACE MOUNTED 120/208 V 3φ 4W. 200A MAIN BREAKER												
DESCRIPTION	WATTS			BREAKER TRIP POLE	CIRCUIT NUMBER	BREAKER TRIP POLE	WATTS			DESCRIPTION		
	A	B	C				A	B	C			
RECEPT. - NORTH	1000			20	1	1	2	20	1	1000	SPARE	
--- SOUTH		1000			3	4			1000			
HEATER - N.W.			1000		5	6			1000			
SPACE					7	8			1000		SPARE	
					9	10			1000			
					11	12			1000			
					13	14			1000			
					15	16			1000			
					17	18			1000			
					19	20			1000		PIT WALL BOXES	
PIT WALL BOXES		1000		20	1	21	22	30		3000		
		3000			23	24	20		1000		SPARE	
			2000		25	26	30	3	2000		PIT WALL BOXES	
					27	28			2000			
		2000			29	30			2000			
					31	32	30	3	2000			
			2000		33	34			2000			
					35	36			2000			
SPACE					37	38					SPACE	
					39	40						
					41	42						
TOTAL WATTS	A 16,000	B 19,000	C 14,000	FEEDER AMPS			A 133	B 125	C 117			

PANEL LA251 SURFACE MOUNTED 120/208 V 3φ 4W. 200A MAIN BREAKER												
DESCRIPTION	WATTS			BREAKER TRIP POLE	CIRCUIT NUMBER	BREAKER TRIP POLE	WATTS			DESCRIPTION		
	A	B	C				A	B	C			
					1	2						
					3	4						
					5	6						
					7	8						
					9	10						
					11	12						
					13	14						
					15	16						
					17	18						
					19	20						
					21	22						
					23	24						
					25	26						
					27	28						
					29	30						
					31	32						
					33	34						
					35	36						
					37	38						
					39	40						
					41	42						
TOTAL WATTS	A	B	C	FEEDER AMPS			A	B	C			

	DESIGNED BY P. WILLIS	SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT KELLER & GANNON CONSULTING ENGINEERS SAN FRANCISCO	PARSONS BRINCKERHOFF-TUDOR-BECHTEL GENERAL ENGINEERING CONSULTANTS	CONTRACT 15SA-112	AS BUILT SCALE NOT TO SCALE CONTRACT-FACAMP IROIOI-ROIO SHEET NO.-REV. PAGE NO. EE332-2 249
	CHECKED BY A.V. SPENCE			REFERENCE DRAWING PAGE NO. R12-0 18	

D-303737A

PANEL L212 SURFACE MOUNTED. 277/480V. 3 ϕ . 4W. #3/0 MAIN LUGS

DESCRIPTION	WATTS			BREAKER TRIP POLE	CIRCUIT NUMBER	BREAKER TRIP POLE			WATTS			DESCRIPTION
	A	B	C			A	B	C	A	B	C	
SHOP LIGHTING	3000			20	1	1	2	20	1	3000		SHOP LIGHTING
		3000				3	4				3000	
			3000			5	6					3000
	3000					7	8				3000	
		3000				9	10				3000	
			3000			11	12				3000	
	3000					13	14				3000	
		3000				15	16				3000	
			3000			17	18				3000	
	3000					19	20				3000	
		3000				21	22				3000	
			3000			23	24				3000	
LIGHTING, RM. 103 TO 112	2700					25	26				3000	
113	2800					27	28				3000	
104 TO 107		2500				29	30				3000	
102	1200					31	32				3000	
103	1500					33	34				3000	
SPARE			3000			35	36				3000	
SPACE						37	38					SPACE
						39	40					
						41	42					
TOTAL WATTS	A 33,900	B 34,900	C 35,500	FEEDER AMPS			A 128	B 130	C 134			

PANEL L232 SURFACE MOUNTED, 277/480V. 3 ϕ . 4W. #3/0 MAIN LUGS

DESCRIPTION	WATTS			BREAKER TRIP POLE	CIRCUIT NUMBER	BREAKER TRIP POLE			WATTS			DESCRIPTION
	A	B	C			A	B	C	A	B	C	
SHOP LIGHTING	3000			20	1	1	2	20	1	3000		SHOP LIGHTING
		3000				3	4				3000	
			3000			5	6				3000	
	3000					7	8				3000	
		3000				9	10				3000	
			3000			11	12				3000	
	3000					13	14				3000	
		3000				15	16				3000	
			3000			17	18				3000	
	3000					19	20				3000	
		3000				21	22				3000	
			3000			23	24				3000	
LIGHTING, RM. 116	2900					25	26				3000	
117	3000					27	28				3000	
118		3200				29	30				3000	
120,121,123	2300					31	32					SPACE
124,125	1500					33	34					
DOOR LIGHTS & PKG. LOTS		800				35	36					
SPACE						37	38					
						39	40					
						41	42					
TOTAL WATTS	A 32,200	B 31,500	C 30,500	FEEDER AMPS			A 122	B 119	C 115			

DESCRIPTION	WATTS			BREAKER TRIP POLE	CIRCUIT NUMBER	BREAKER TRIP POLE			WATTS			DESCRIPTION
	A	B	C			A	B	C	A	B	C	
						1	2					
						3	4					
						5	6					
						7	8					
						9	10					
						11	12					
						13	14					
						15	16					
						17	18					
						19	20					
						21	22					
						23	24					
						25	26					
						27	28					
						29	30					
						31	32					
						33	34					
						35	36					
						37	38					
						39	40					
						41	42					
TOTAL WATTS	A	B	C	FEEDER AMPS			A	B	C			

PANEL L222 SURFACE MOUNTED. 277/480V. 3 ϕ . 4W. #4 MAIN LUGS


DESCRIPTION	WATTS			BREAKER TRIP POLE	CIRCUIT NUMBER	BREAKER TRIP POLE			WATTS			DESCRIPTION
	A	B	C			A	B	C	A	B	C	
PIT LIGHTING-WEST	2000			20	1	1	2	20	1	2000		PIT LIGHTING-EAST
		2200				3	4				2200	
			2200			5	6				2200	
WEST YARD LIGHTS	1500					7	8			1200		CAR CLEANER LIGHTS
SOUTH		1000				9	10			1200		
DOOR LIGHTS			100			11	12				2000	SPARE
SPACE						13	14					SPACE
						15	16					
						17	18					
						19	20					
						21	22					
						23	24					
						25	26					
						27	28					
						29	30					
						31	32					
						33	34					
						35	36					
						37	38					
						39	40					
						41	42					
TOTAL WATTS	A 6,700	B 6,600	C 6,500	FEEDER AMPS			A 26	B 25	C 25			

PANEL L242 SURFACE MOUNTED, 277/480V. 3 ϕ . 4W. #4 MAIN LUGS

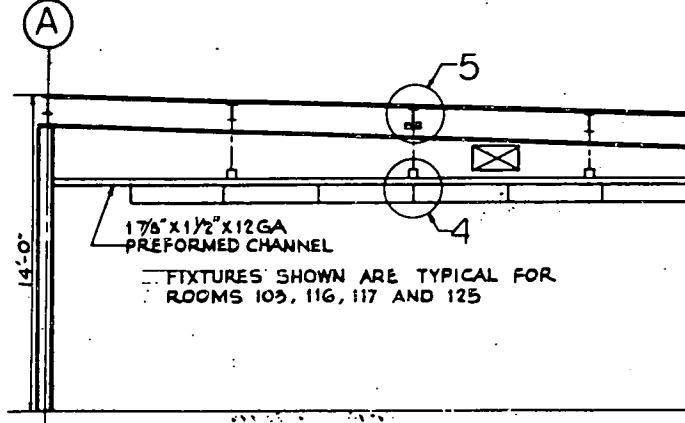
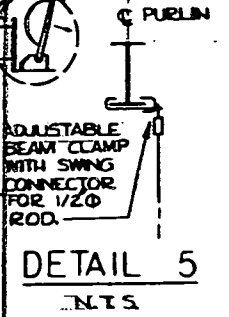
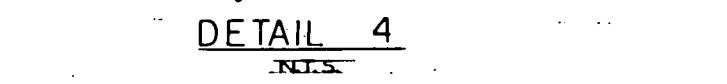
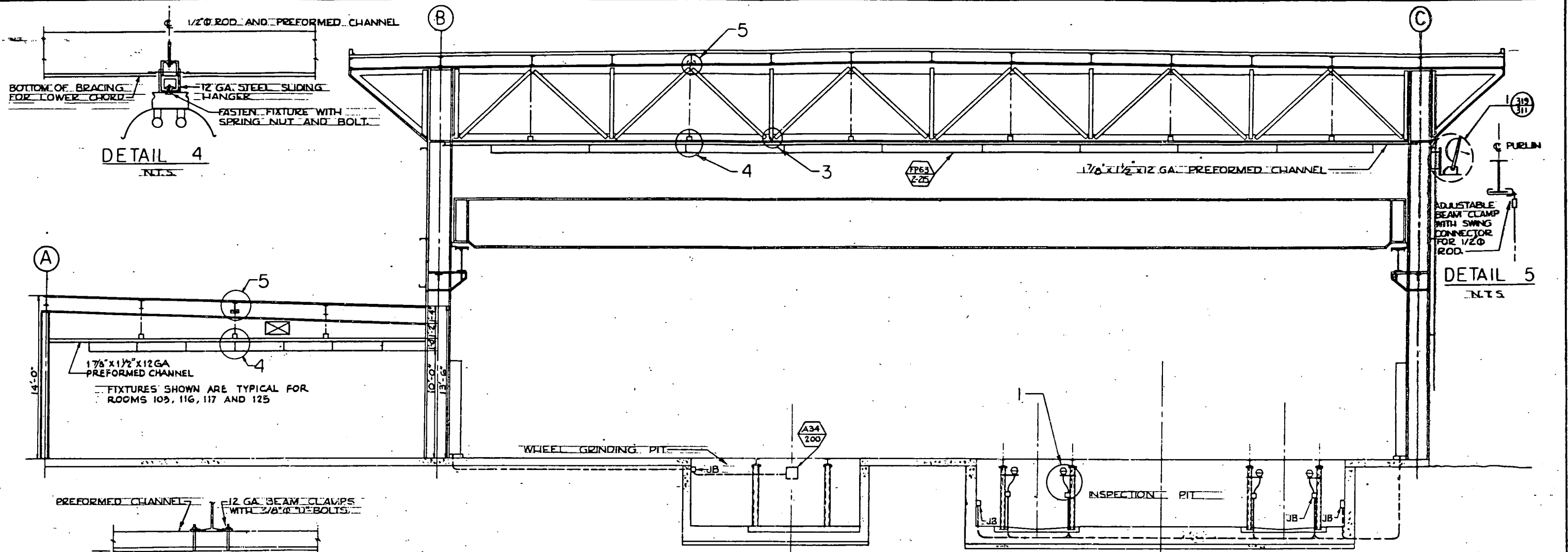
DESCRIPTION	WATTS			BREAKER TRIP POLE	CIRCUIT NUMBER	BREAKER TRIP POLE			WATTS			DESCRIPTION
	A	B	C			A	B	C	A	B	C	
PIT LIGHTING-WEST	2000			20	1	1	2	20	1	2000		PIT LIGHTING-EAST
		2200				3	4				2200	
			2200			5	6				2200	
WEST YARD LIGHTS	1000					7	8			2000		SPARE
NORTH		1000				9	10			2000		
SPARE			2000			11	12			2000		
SPACE						13	14					SPACE
						15	16					
						17	18					
						19	20					
						21	22					
						23	24					
						25	26					
						27	28					
						29	30					
						31	32					
						33	34					
						35	36					
						37	38					
						39	40					
						41	42					
TOTAL WATTS	A 5,000	B 5,400	C 6,400	FEEDER AMPS			A 20	B 21	C 25			

DESCRIPTION	WATTS			BREAKER TRIP POLE	CIRCUIT NUMBER	BREAKER TRIP POLE			WATTS			DESCRIPTION
	A	B	C			A	B	C	A	B	C	
						1	2					
						3	4					
						5	6					
						7	8					
						9	10					
						11	12					
						13	14					
						15	16					
						17	18					
						19	20					
						21	22					
						23	24					
						25	26					
						27	28					
						29	30					
						31	32					
						33	34					
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						41	42					
TOTAL WATTS	A	B	C	FEEDER AMPS			A	B	C			

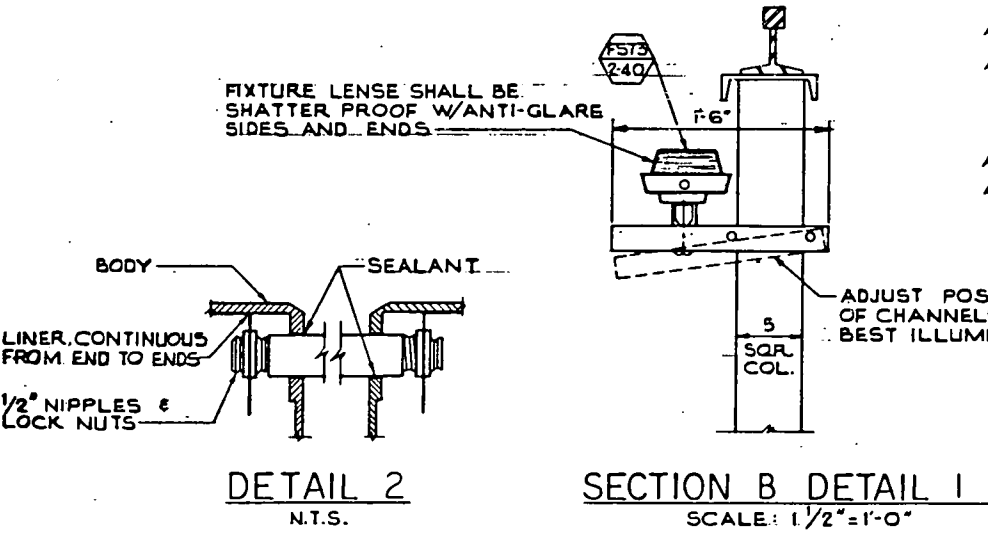
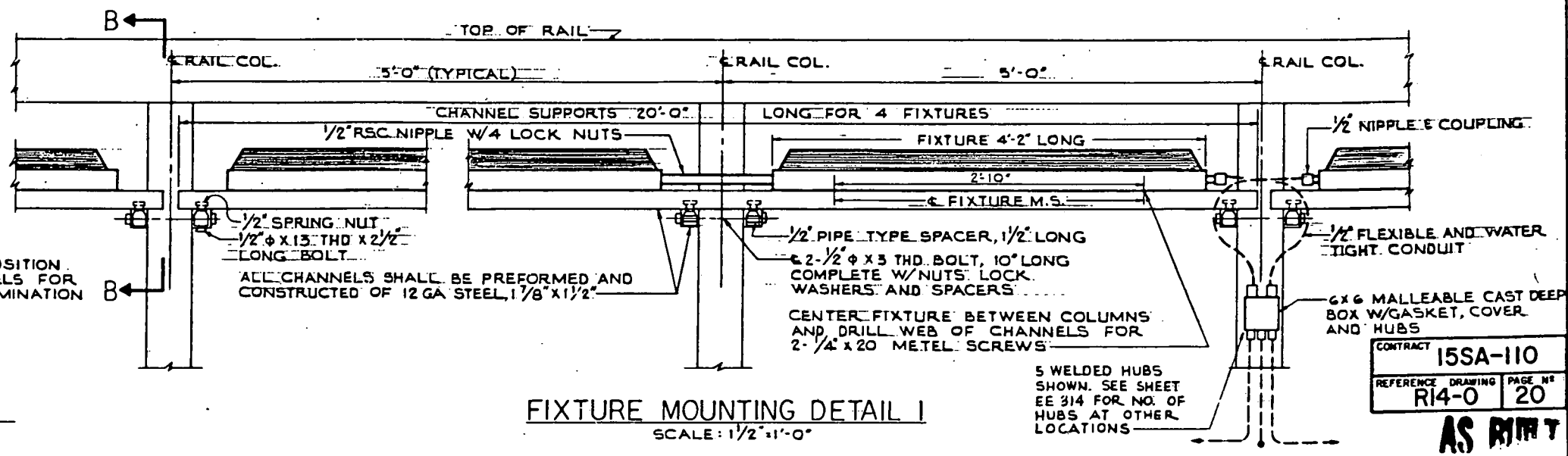
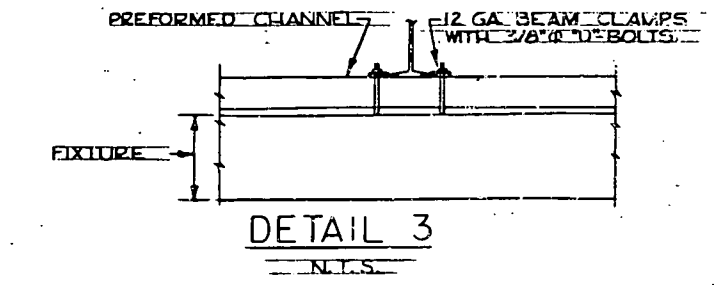
CONTRACT 15SA-110
REFERENCE DRAWING PAGE #
R13-0 19

DATE	BY	APP.	DESCRIPTION	REV.	DATE	BY	APP.	DESCRIPTION		DECIMAL .001 ± .01 ± .1 ± FRACTION ± ANGULAR ± TOLERANCES UNLESS OTHERWISE SPECIFIED	DESIGNED: PBTB DATE 5-69 DRAWN: R. MORGAN 3-84 CHECKED: [Signature] APPROVED: [Signature]	TITLE: BERKELEY/RICHMOND LINE RICHMOND YARD ELECTRICAL PANEL SCHEDULES L212, L222, L232, L242 REF. No. (R101) SHT. # EE 331-1 PG#248 DWG. No. 103219 SCALE BART STOCK No. SHEET OF
------	----	------	-------------	------	------	----	------	-------------	---	--	---	---

3-84 FH [Signature] PKG.LOTS ELECT. BY BECO EM093



SECTION A 319 314
SCALE: 1/4" = 1'-0"



DETAIL 2 N.T.S.

CONTRACT 155A-110
REFERENCE DRAWING PAGE NO. R14-0 20

AS BUILT

REV.	DATE	BY	SUB	APP.	DESCRIPTION

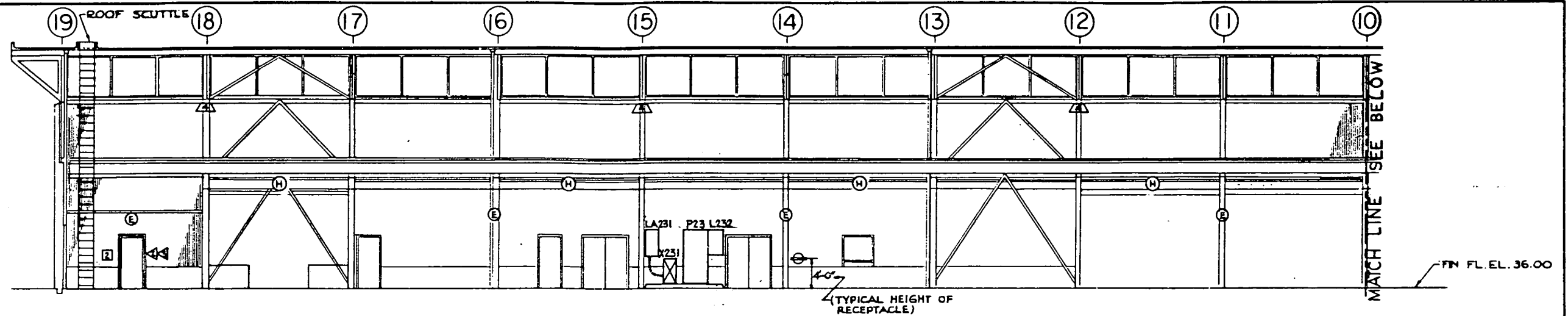
DESIGNED BY P. WILLIS
DRAWN BY J. QUON
CHECKED BY A.V. SPENCE
IN CHARGE R. CARTER
DATE 13 MAY 69

KELLER & GANNON
CONSULTING ENGINEERS
SAN FRANCISCO

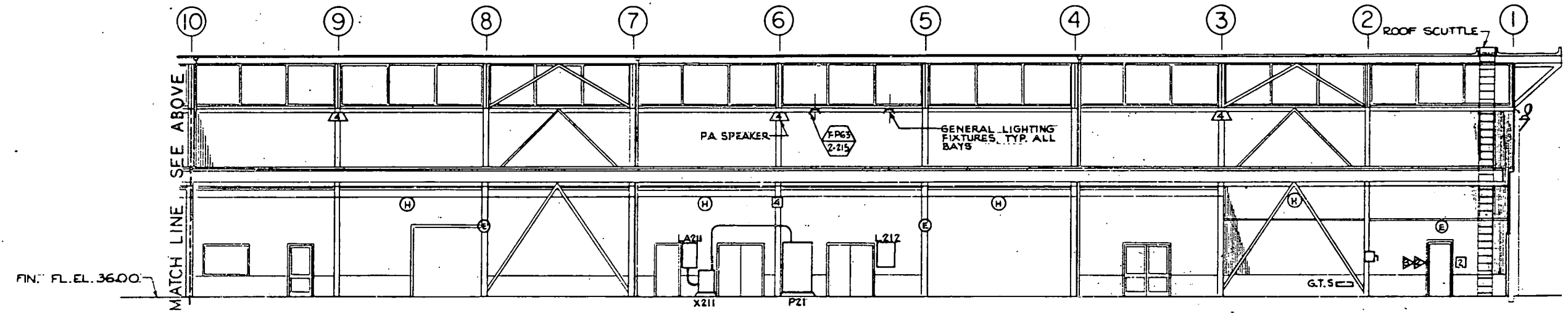
PARSONS BRINCKERHOFF-TUDOR-BECHTEL
GENERAL ENGINEERING CONSULTANTS

BERKELEY-RICHMOND LINE
RICHMOND YARD
SERVICE & INSPECTION BLDG
ELECTRICAL SECTIONS-II

SCALE AS NOTED
CONTRACT-PACKAGE
I10101-RO10
SHEET NO.-REV. PAGE NO.
EE319-1 245



SECTIONAL ELEVATION LOOKING EAST



SECTIONAL ELEVATION LOOKING EAST

CONTRACT 15SA-110
 REFERENCE DRAWING R15-0 PAGE NO. 21

AS BUILT

SCALE 1/8" = 1'-0"
 CONTRACT-PACKAGE IRO101-RO10
 SHEET NO.-SPT. PAGE NO. EE318-0 244

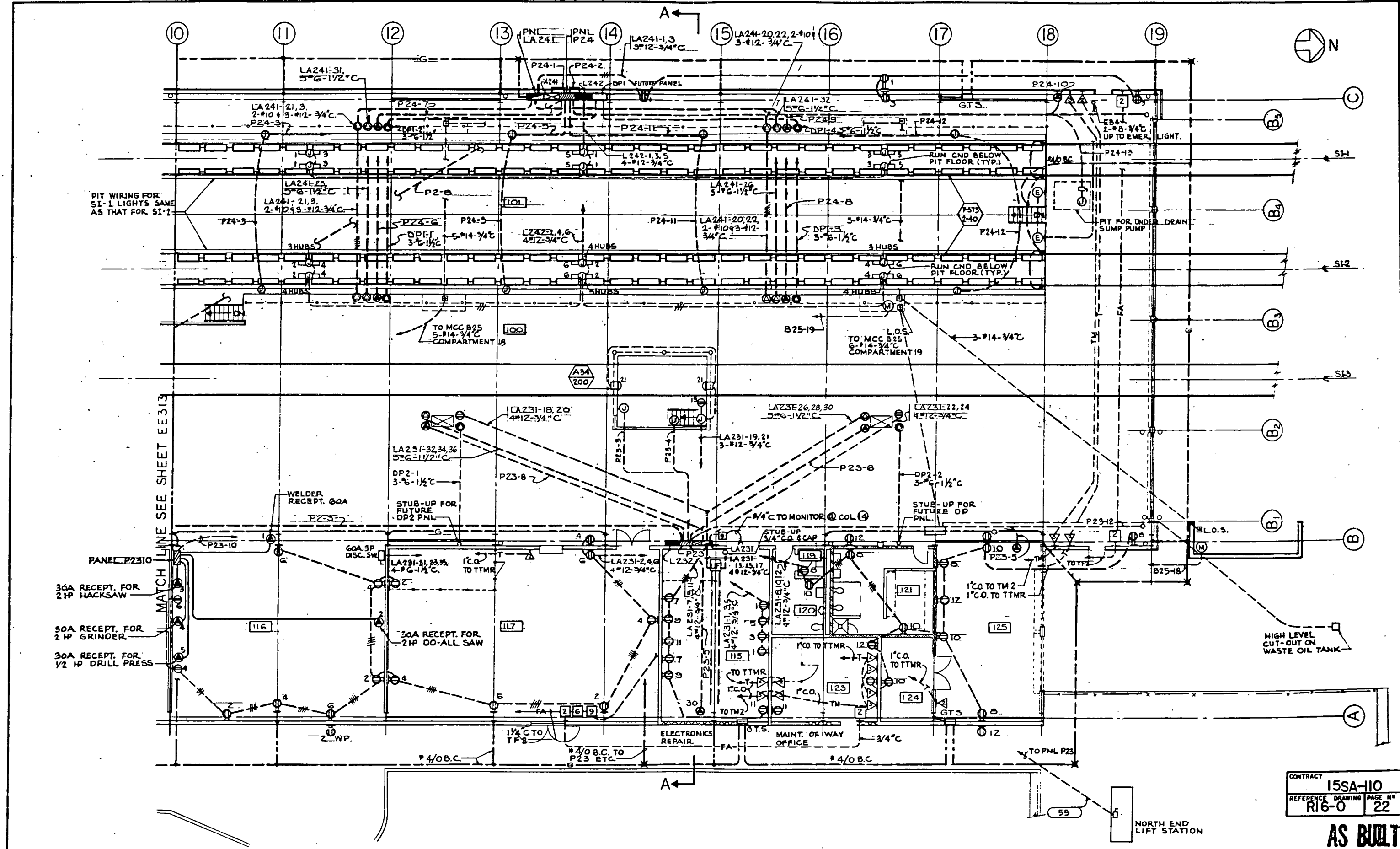
DESIGNED BY P. WILLIS
 DRAWN BY C. Y. NG
 CHECKED BY A.V. SPENCE
 IN CHARGE A.V. SPENCE
 DATE 13 MAY 69



SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT
 KELLER & GANNON CONSULTING ENGINEERS SAN FRANCISCO
 PARSONS BRINCKERHOFF-TUDOR-BECHTEL GENERAL ENGINEERING CONSULTANTS

BERKELEY-RICHMOND LINE RICHMOND YARD
 SERVICE & INSPECTION BLDG
 ELECTRICAL SECTIONS-I

REV.	DATE	BY	APP.	DESCRIPTION



CONTRACT
15SA-110
REFERENCE DRAWING PAGE NO.
R16-0 22

AS BUILT

55
NORTH END LIFT STATION

REV.	DATE	BY	SUB	APP	DESCRIPTION	REV.	DATE	BY	SUB	APP	DESCRIPTION
1	4-6-72	BH	AKC		AS BUILT	1	10 NOV 69	RTW	PC		ADDED CONDUCTOR & CONDUIT SIZES FOR "DP" CIRCUITS. CLARIFIED CONDUIT ROUTING
						2					RE-CIRCUITED DRCL EQUIP. AND CLARIFICATION

DESIGNED BY
P. WILLIS
DRAWN BY
W. SWILLEY
CHECKED BY
A.V. SPENCE
IN CHARGE
A.V. SPENCE
DATE
13 MAY 69

REGISTERED PROFESSIONAL ELECTRICIAN
WILLIAM E. GANNON
No. 917
STATE OF CALIFORNIA

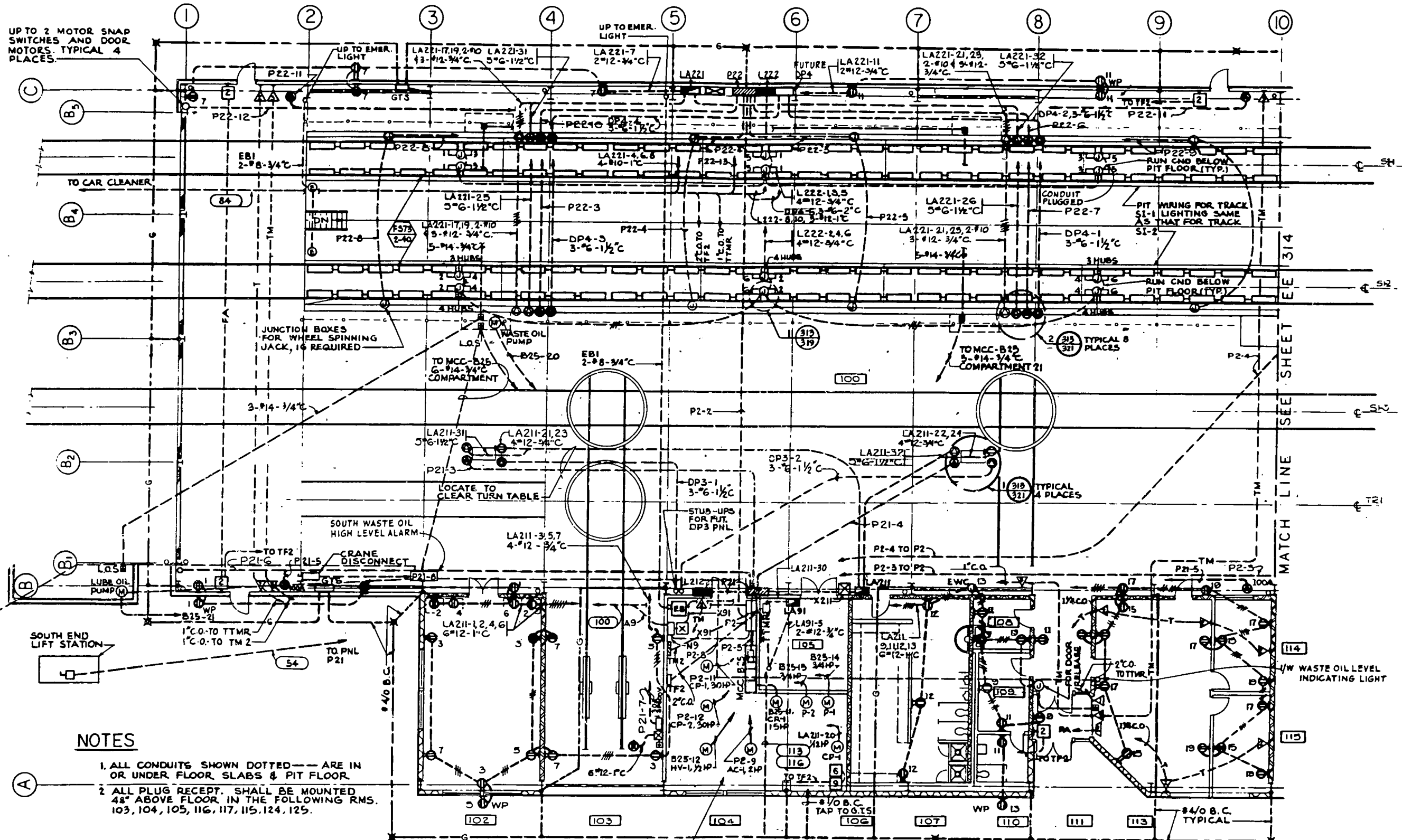
SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT

KELLER & GANNON
CONSULTING ENGINEERS
SAN FRANCISCO

PARSONS BRINCKERHOFF-TUDOR-BECHTEL
GENERAL ENGINEERING CONSULTANTS

BERKELEY-RICHMOND LINE
RICHMOND YARD
SERVICE & INSPECTION BLDG
ELECTRICAL-MISCELLANEOUS
SYSTEMS PLAN-NORTH

SCALE
1/8" = 1'-0"
CONTRACT-PROGRAM
R10101-RO10
SHEET NO.-REV. PAGE NO.
EE314-4 242



NOTES

- 1. ALL CONDUITS SHOWN DOTTED --- ARE IN OR UNDER FLOOR SLABS & PIT FLOOR.
- 2. ALL PLUG RECEPT. SHALL BE MOUNTED 48" ABOVE FLOOR IN THE FOLLOWING RMS. 103, 104, 105, 116, 117, 115, 124, 125.

SEE SHEET EE 316 FOR MECH. RM. AND TEL. EQUIP. RM.

CONTRACT 15SA-110
 REFERENCE DRAWING PAGE NO. R17-0 23

AS BUILT

REV.	DATE	BY	SUB	APP	DESCRIPTION	REV.	DATE	BY	SUB	APP	DESCRIPTION
1	6/23/69	PTW	RSC		RE-CIRCUITED DFCI EQUIP.	1	6/23/69	PTW	AVS		ADDED CONTROL WIRES STARTER PB & DISC TO HYD. LIFT MOTOR. ADDED SOUTH END LIFT STATION, LUBE OIL PUMP & WASTE OIL PUMP
2	6/23/69	PTW	AVS								

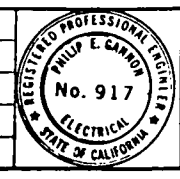
SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT

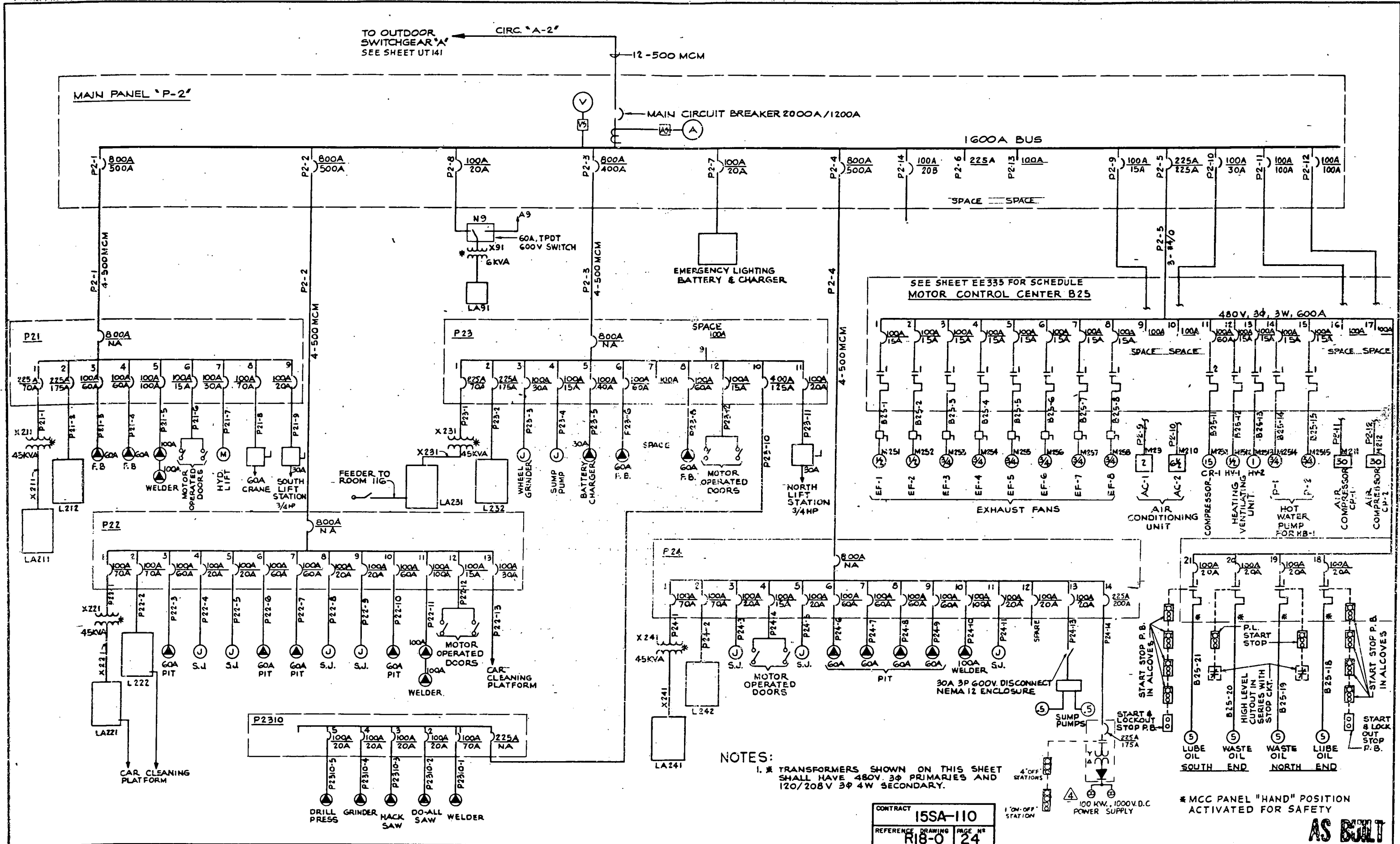
KELLER & GANNON
CONSULTING ENGINEERS
SAN FRANCISCO

PARSONS BRINCKERHOFF-TUDOR-BECHTEL
GENERAL ENGINEERING CONSULTANTS

BERKELEY-RICHMOND LINE
RICHMOND YARD
 SERVICE & INSPECTION BLDG
 ELECTRICAL - MISCELLANEOUS
 SYSTEMS PLAN - SOUTH

SCALE 1/8" = 1'-0"
 CONTRACT - INCLUSE
IR0101 - R010
 SHEET NO. - 244
EE313-5 244





NOTES:
 1. * TRANSFORMERS SHOWN ON THIS SHEET SHALL HAVE 480V 3Ø PRIMARIES AND 120/208V 3Ø 4W SECONDARY.

CONTRACT 15SA-110
 REFERENCE DRAWING PAGE NO. R18-O 24

* MCC PANEL "HAND" POSITION ACTIVATED FOR SAFETY

AS BUILT

1-6-72	BH AKC	AS BUILT	DESIGNED BY P.T. WILLIS		SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT KELLER & GANNON CONSULTING ENGINEERS SAN FRANCISCO	PARSONS BRINCKERHOFF-TUDOR-BECHTEL ELECTRICAL ENGINEERING CONSULTANTS	BERKELEY-RICHMOND LINE RICHMOND YARD SERVICE & INSPECTION BLDG. ELECTRICAL SINGLE LINE DIAGRAM	SCALE NONE
6MAY 70	PC RT	REVISED BREAKER P21-7 CLARIFIED TRANSFORMER SWITCHING RE-CIRCUITING OF DFCI EQUIP. AND CLARIFICATIONS.	CHECKED BY A.V. SPENCE					CONTRACT - PAGE NO. IRO101 - RO10
18 NOV 69	PTW RSC		DATE 15 MAY 69					SHEET NO. - REV. PAGE NO. EE301-4 237

**APPENDIX D
AERIAL PHOTOGRAPHS**

DRAFT



Lake Merritt BART Development

800 Madison Street

Oakland, CA 94607

Inquiry Number: 5623421.8

April 17, 2019

The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

04/17/19

Site Name:

Lake Merritt BART Developme
800 Madison Street
Oakland, CA 94607
EDR Inquiry # 5623421.8

Client Name:

Langan
555 Montgomery St Ste 1300
San Francisco, CA 94111
Contact: Wendy Kwong



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
1998	1"=500'	Flight Date: August 27, 1998	USDA
1993	1"=500'	Acquisition Date: July 10, 1993	USGS/DOQQ
1982	1"=500'	Flight Date: July 08, 1982	USDA
1974	1"=500'	Flight Date: October 14, 1974	USGS
1968	1"=500'	Flight Date: April 20, 1968	USGS
1963	1"=500'	Flight Date: June 24, 1963	EDR Proprietary Aerial Viewpoint
1958	1"=500'	Flight Date: July 25, 1958	USGS
1946	1"=500'	Flight Date: July 26, 1946	USGS
1939	1"=500'	Flight Date: August 02, 1939	USDA

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INQUIRY # 5623421.8

YEAR: 2016

— = 500'





INQUIRY #: 5623421.8

YEAR: 2012

— = 500'





INQUIRY #: 5623421.8

YEAR: 2009

— = 500'





INQUIRY #: 5623421.8

YEAR: 2005

— = 500'



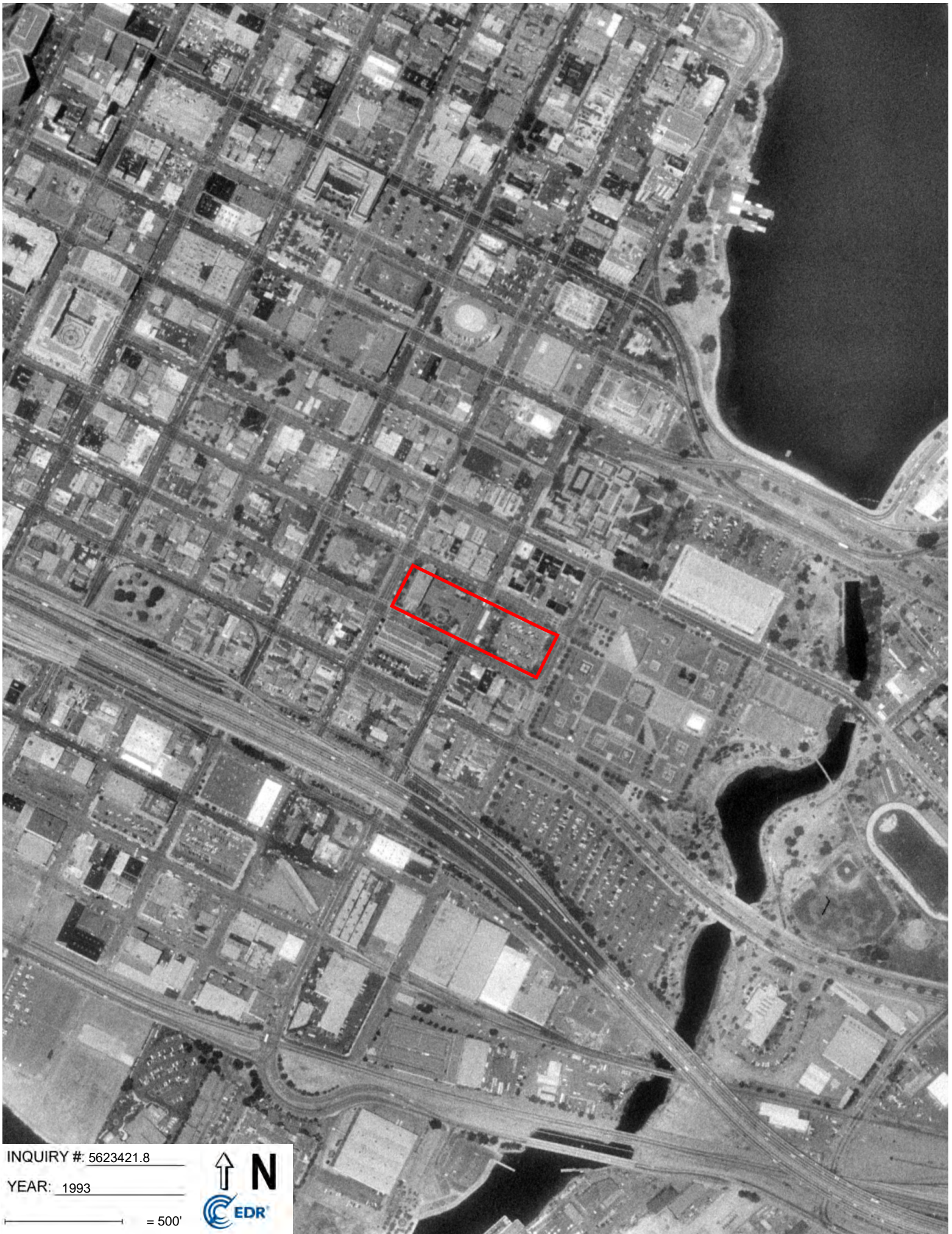


INQUIRY #: 5623421.8

YEAR: 1998

— = 500'





INQUIRY #: 5623421.8

YEAR: 1993

— = 500'





INQUIRY #: 5623421.8

YEAR: 1982

— = 500'





INQUIRY #: 5623421.8

YEAR: 1974

— = 500'





INQUIRY #: 5623421.8

YEAR: 1968

— = 500'





INQUIRY #: 5623421.8

YEAR: 1963

— = 500'





INQUIRY #: 5623421.8

YEAR: 1958

— = 500'





INQUIRY #: 5623421.8

YEAR: 1946

— = 500'





INQUIRY #: 5623421.8

YEAR: 1939

— = 500'



APPENDIX E
SANBORN FIRE INSURANCE MAPS

DRAFT

Lake Merritt BART Development

800 Madison Street

Oakland, CA 94607

Inquiry Number: 5623421.3

April 17, 2019

Certified Sanborn® Map Report



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

04/17/19

Site Name:

Lake Merritt BART Development
800 Madison Street
Oakland, CA 94607
EDR Inquiry # 5623421.3

Client Name:

Langan
555 Montgomery St Ste 1300
San Francisco, CA 94111
Contact: Wendy Kwong



The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Langan were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 3C3E-431E-A9EE
PO # 750650001
Project Lake Merritt BART Development



Sanborn® Library search results

Certification #: 3C3E-431E-A9EE

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- Library of Congress
- University Publications of America
- EDR Private Collection

The Sanborn Library LLC Since 1866™

Maps Provided:

1969	1952
1967	1950
1965	1911
1964	1903
1960	1889
1959	
1957	
1953	

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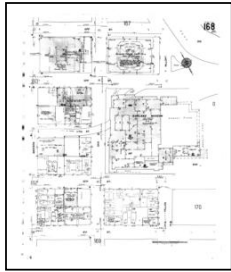
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Sanborn Sheet Key

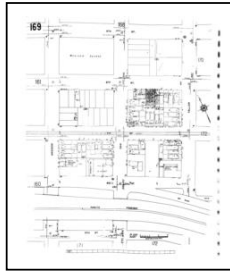
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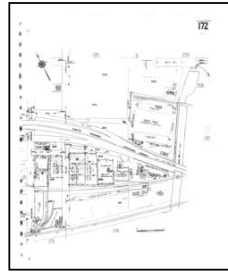
1969 Source Sheets



Volume 2, Sheet 168
1969

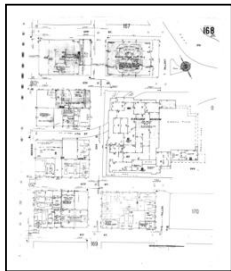


Volume 2, Sheet 169
1969

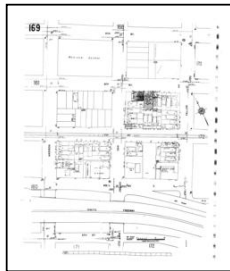


Volume 2, Sheet 172
1969

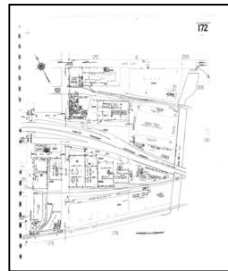
1967 Source Sheets



Volume 2, Sheet 168
1967

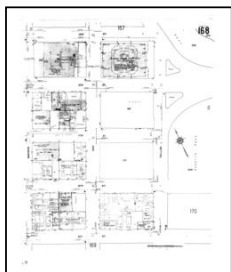


Volume 2, Sheet 169
1967

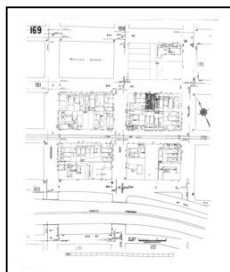


Volume 2, Sheet 172
1967

1965 Source Sheets

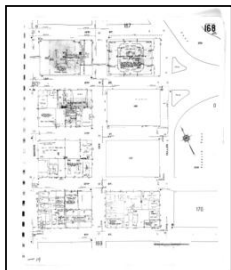


Volume 2, Sheet 168
1965

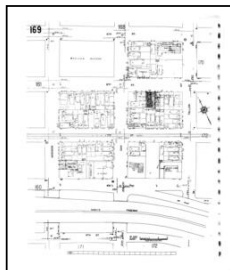


Volume 2, Sheet 169
1965

1964 Source Sheets



Volume 2, Sheet 168
1964



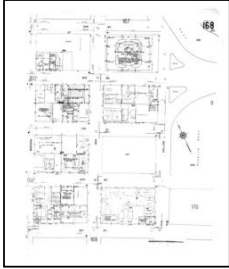
Volume 2, Sheet 169
1964

Sanborn Sheet Key

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1960 Source Sheets

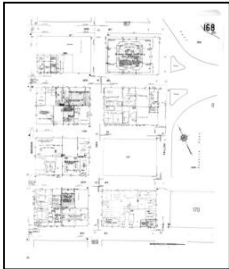


Volume 2, Sheet 168
1960

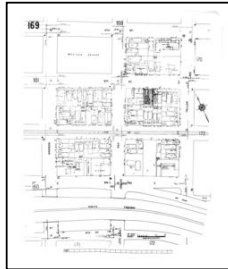


Volume 2, Sheet 169
1960

1959 Source Sheets



Volume 2, Sheet 168
1959



Volume 2, Sheet 169
1959

1957 Source Sheets

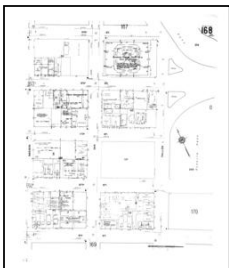


Volume 2, Sheet 168
1957

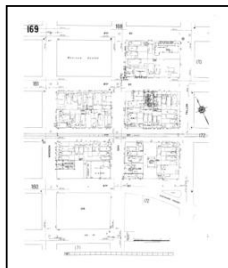


Volume 2, Sheet 169
1957

1953 Source Sheets



Volume 2, Sheet 168
1953



Volume 2, Sheet 169
1953

Sanborn Sheet Key

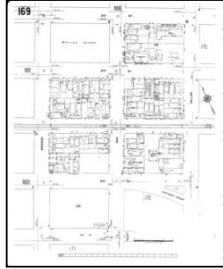
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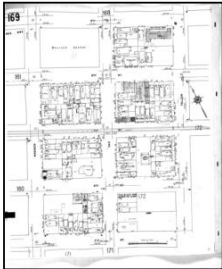


Volume 2, Sheet 168
1952

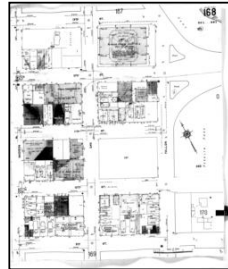


Volume 2, Sheet 169
1952

1950 Source Sheets



Volume 2, Sheet 169
1950



Volume 2, Sheet 168
1950

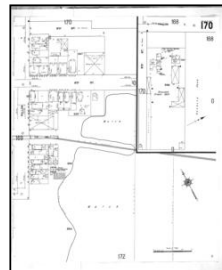
1911 Source Sheets



Volume 2, Sheet 168
1911

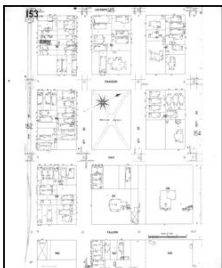


Volume 2, Sheet 169
1911



Volume 2, Sheet 170
1911

1903 Source Sheets



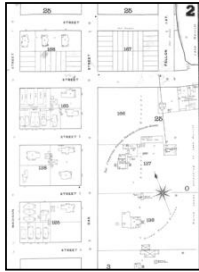
Volume 2, Sheet 153
1903

Sanborn Sheet Key

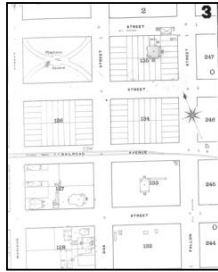
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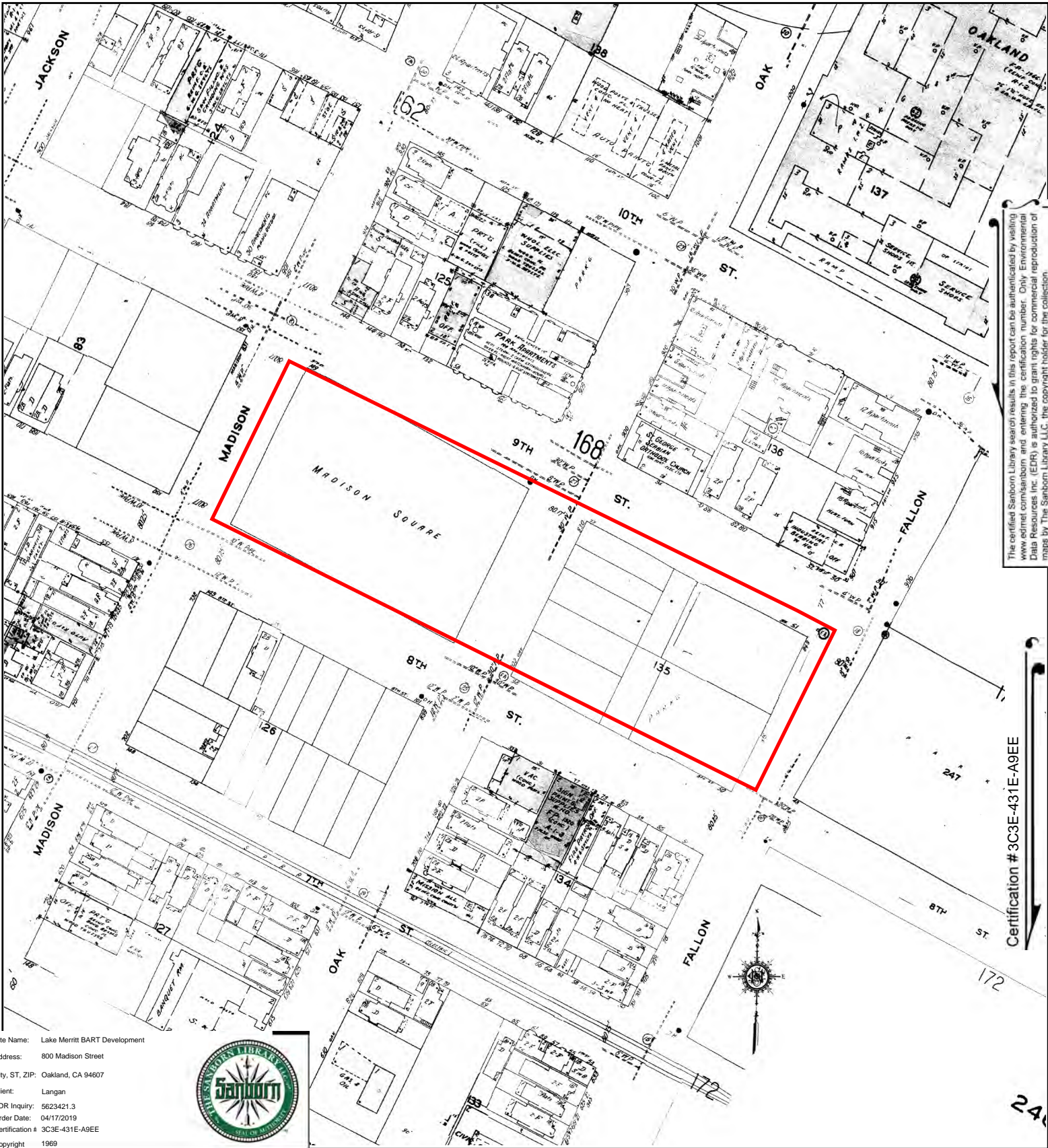
1889 Source Sheets



Volume 1, Sheet 2
1889



Volume 1, Sheet 3
1889



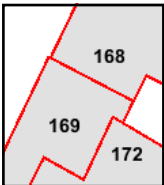
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Certification # 3C3E-431E-A9EE

Site Name: Lake Merritt BART Development
 Address: 800 Madison Street
 City, ST, ZIP: Oakland, CA 94607
 Client: Langan
 EDR Inquiry: 5623421.3
 Order Date: 04/17/2019
 Certification # 3C3E-431E-A9EE
 Copyright 1969

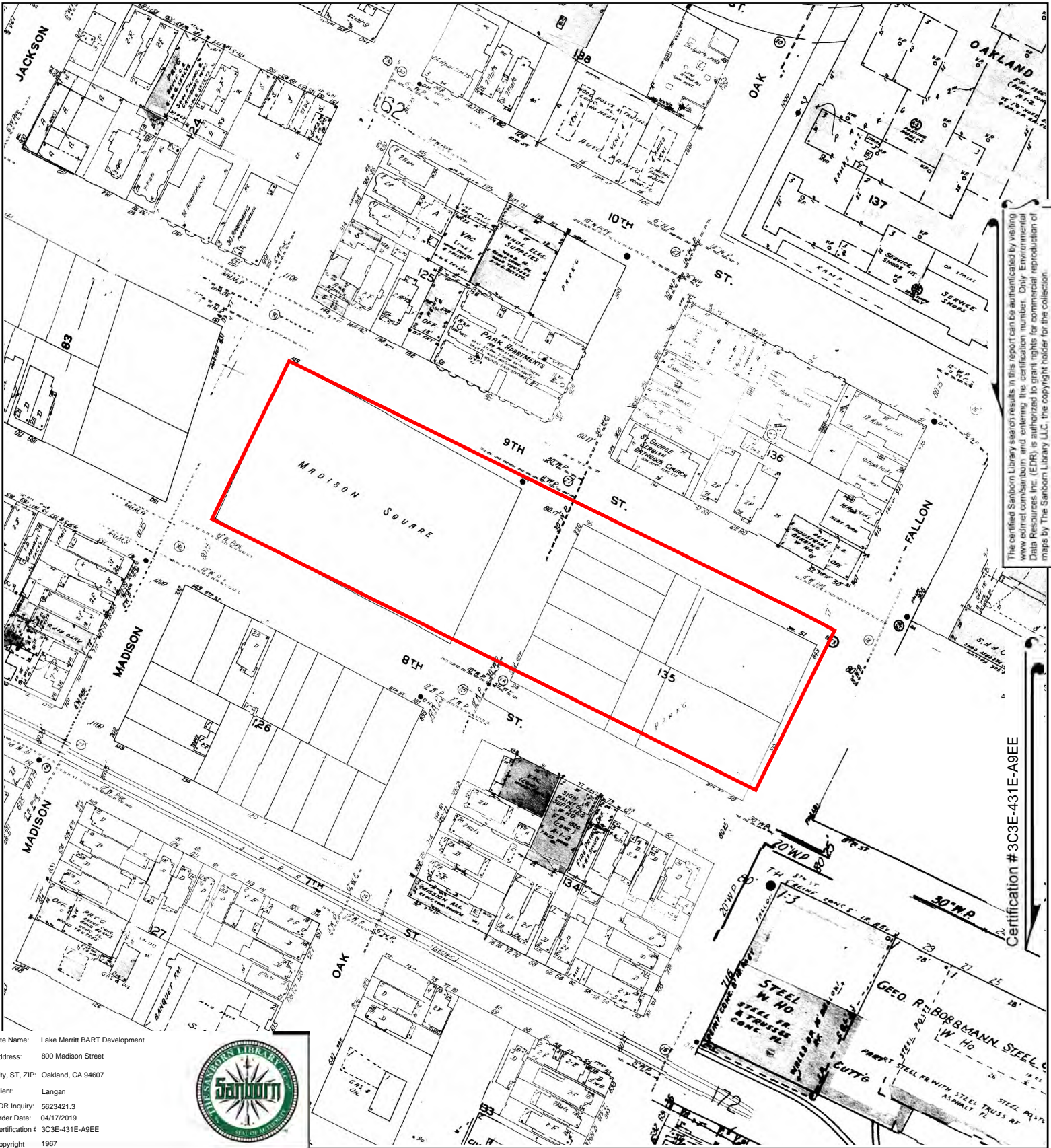


This Certified Sanborn Map combines the following sheets.
 Outlined areas indicate map sheets within the collection.



Volume 2, Sheet 172
 Volume 2, Sheet 169
 Volume 2, Sheet 168





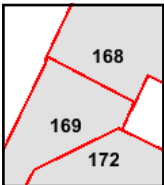
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 Client: Langan
 EDR Inquiry: 5623421.3
 Order Date: 04/17/2019
 Certification # 3C3E-431E-A9EE
 Copyright 1967

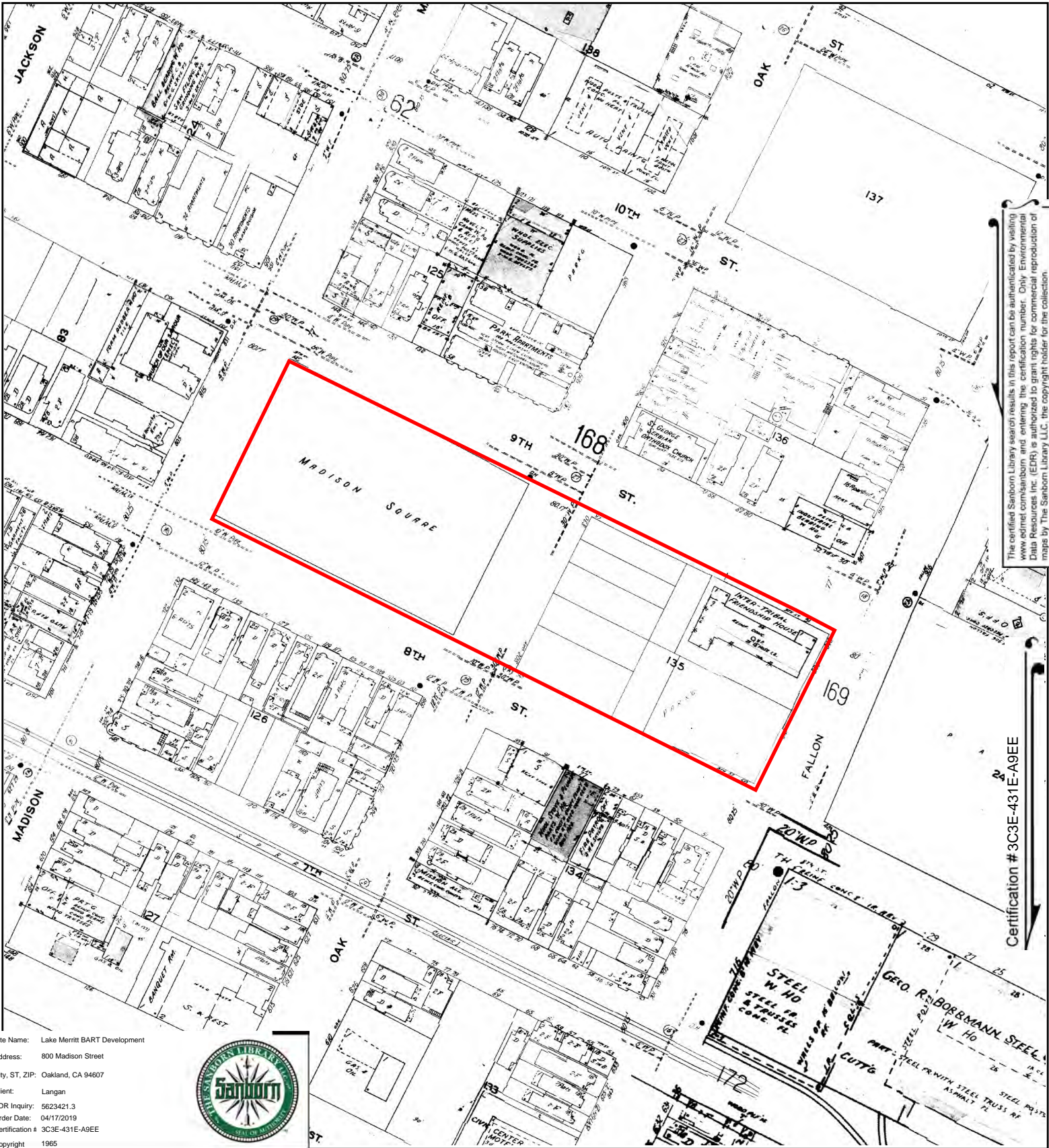


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 Outlined areas indicate map sheets within the collection.



Volume 2, Sheet 172
 Volume 2, Sheet 169
 Volume 2, Sheet 168





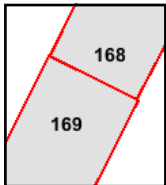
The certified Sanborn Library search results in this report can be authenticated by visiting www.edr.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by The Sanborn Library LLC, the copyright holder for the collection.

Certification # 3C3E-431E-A9EE

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 Client: Langan
 EDR Inquiry: 5623421.3
 Order Date: 04/17/2019
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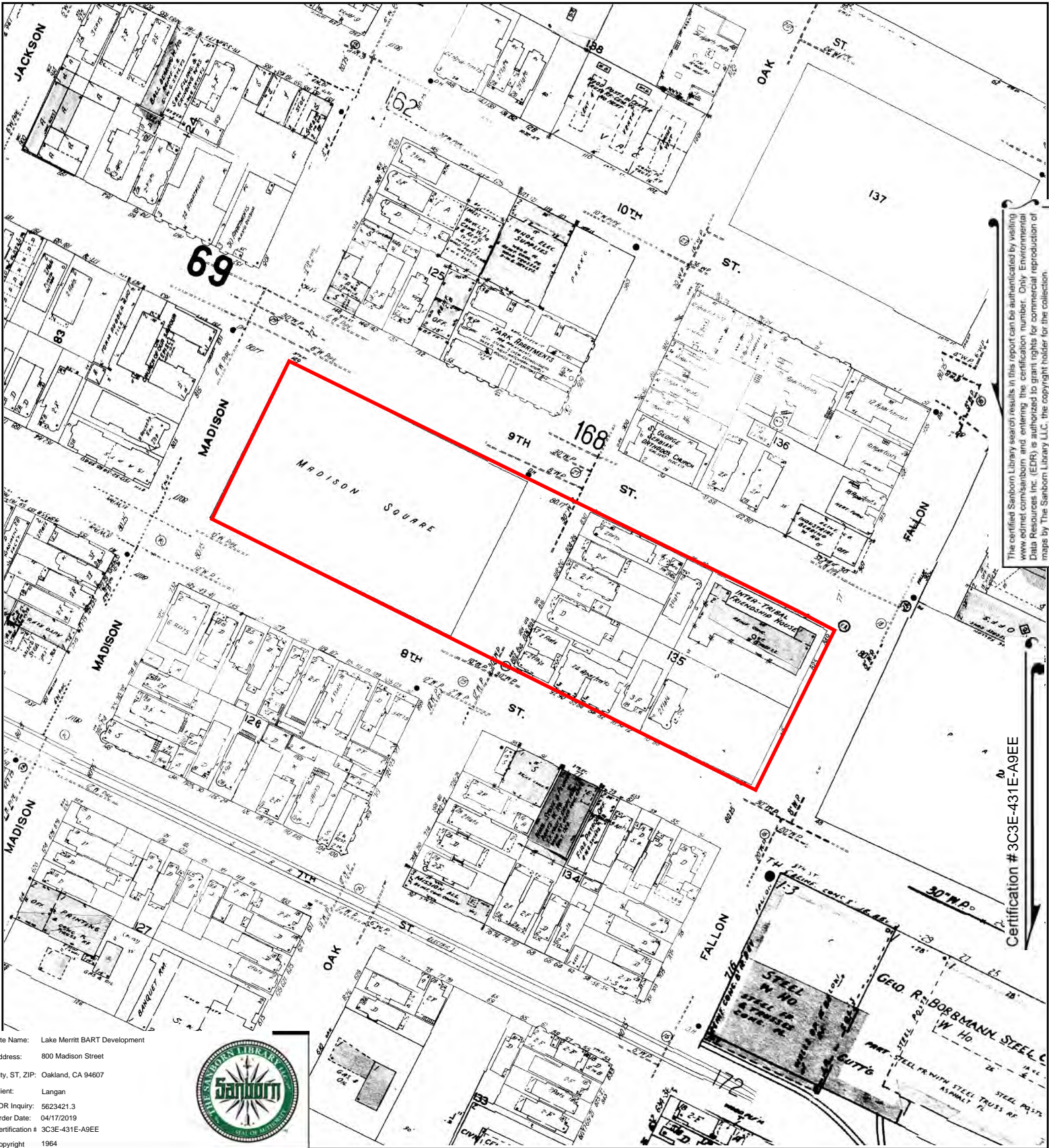


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Volume 2, Sheet 168
 Volume 2, Sheet 169





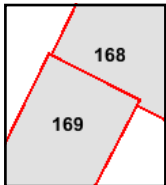
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 City, ST, ZIP: Oakland, CA 94607
 Client: Langan
 EDR Inquiry: 5623421.3
 Order Date: 04/17/2019
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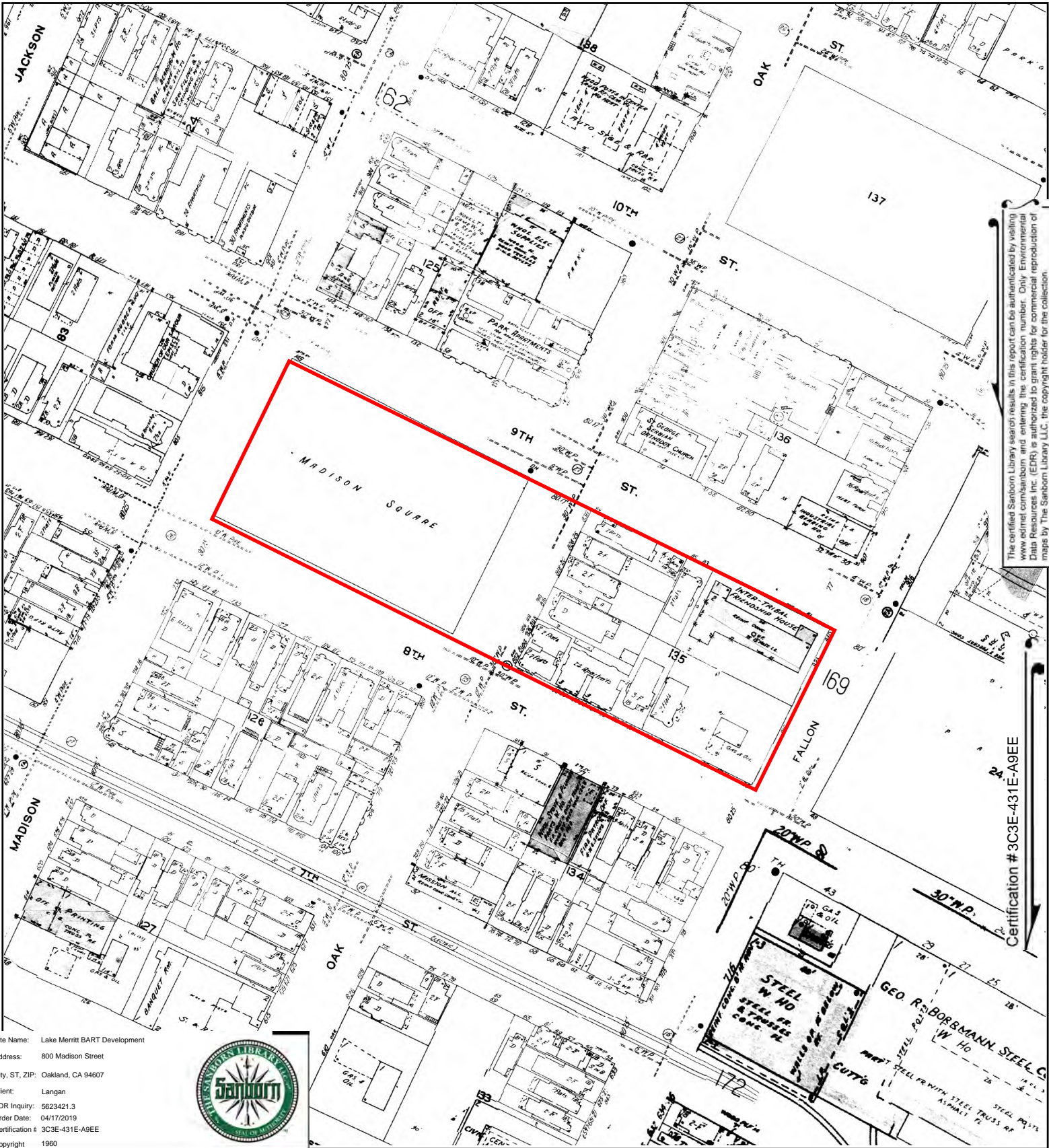


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Volume 2, Sheet 169
 Volume 2, Sheet 168





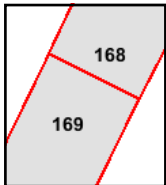
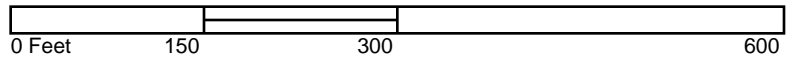
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Certification # 3C3E-431E-A9EE

Site Name: Lake Merritt BART Development
 Address: 800 Madison Street
 City, ST, ZIP: Oakland, CA 94607
 Client: Langan
 EDR Inquiry: 5623421.3
 Order Date: 04/17/2019
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 Copyright 1960

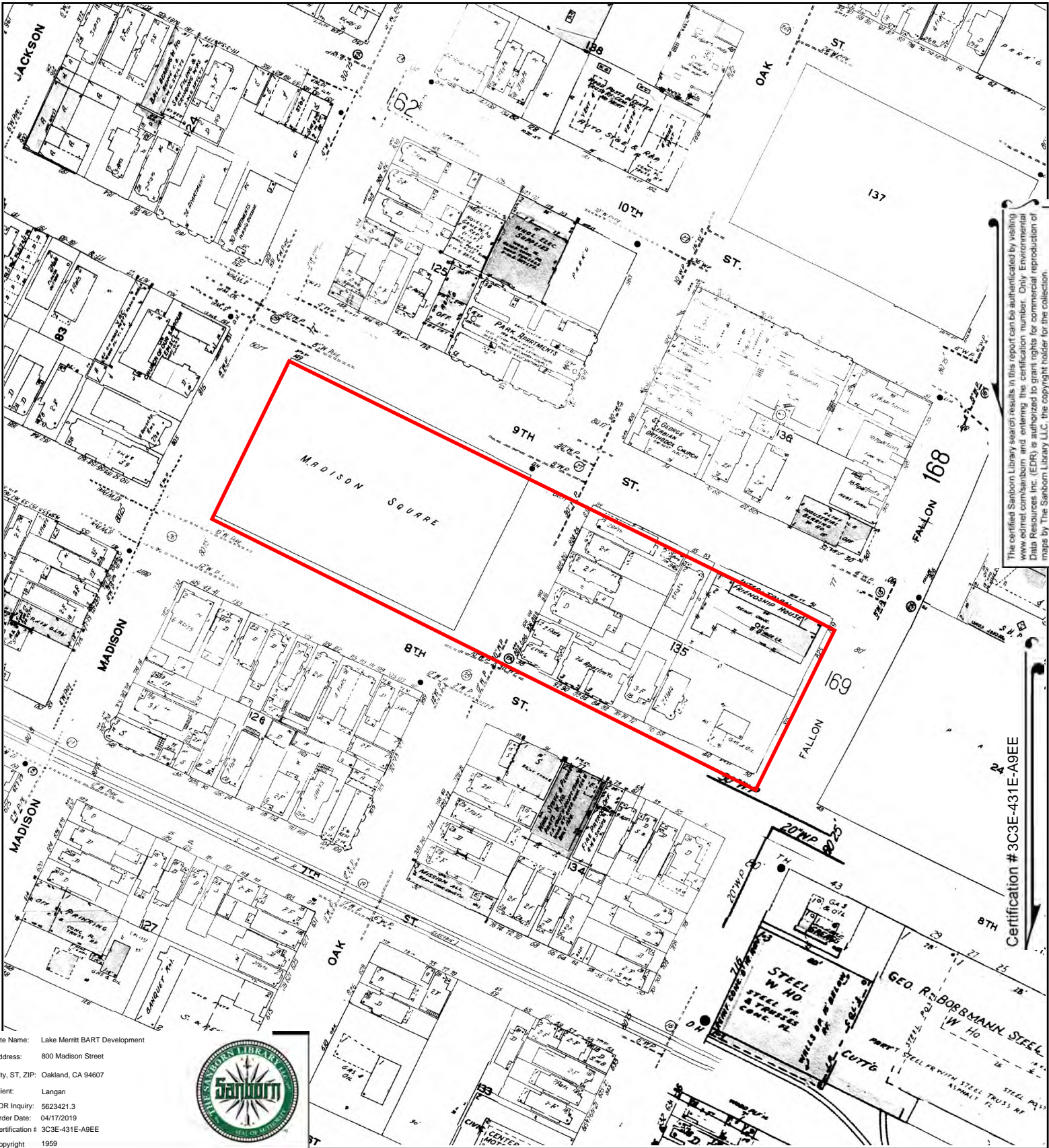


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Volume 2, Sheet 169
 Volume 2, Sheet 168





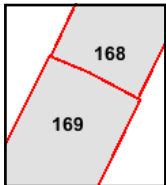
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Site Name: Lake Merritt BART Development
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 City, ST, ZIP: Oakland, CA 94607
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 EDR Inquiry: 5623421.3
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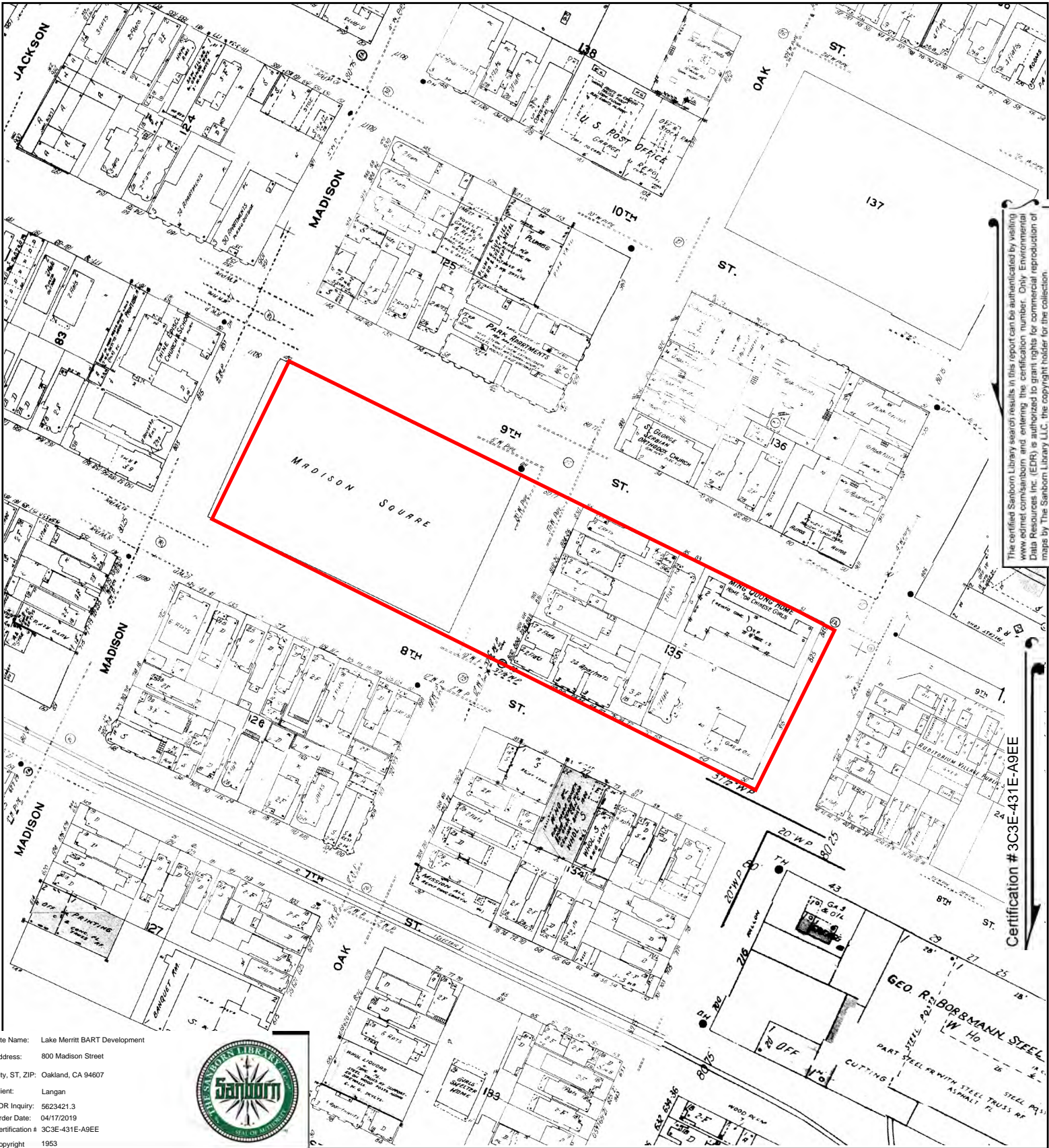


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Volume 2, Sheet 169
 Volume 2, Sheet 168





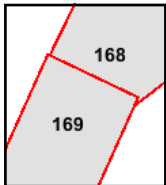
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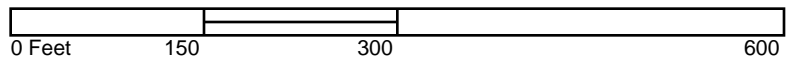
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 Address: 800 Madison Street
 City, ST, ZIP: Oakland, CA 94607
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 Copyright 1953

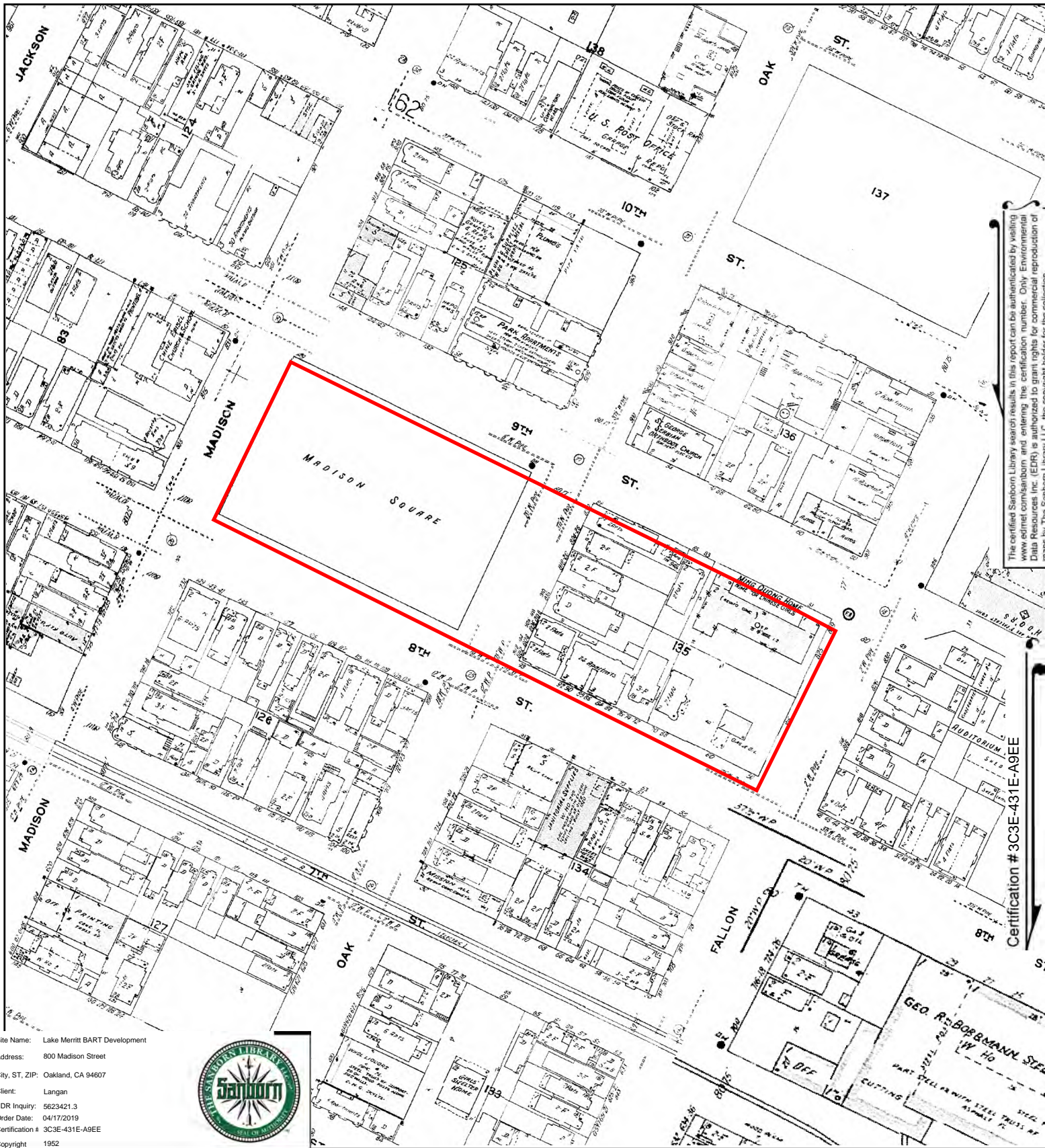


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Volume 2, Sheet 169
 Volume 2, Sheet 168





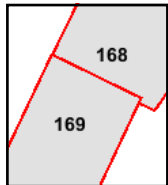
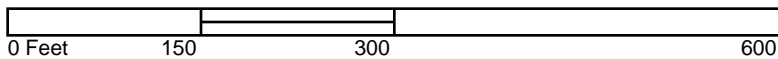
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Site Name: Lake Merritt BART Development
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 City, ST, ZIP: Oakland, CA 94607
 Client: Langan
 EDR Inquiry: 5623421.3
 Order Date: 04/17/2019
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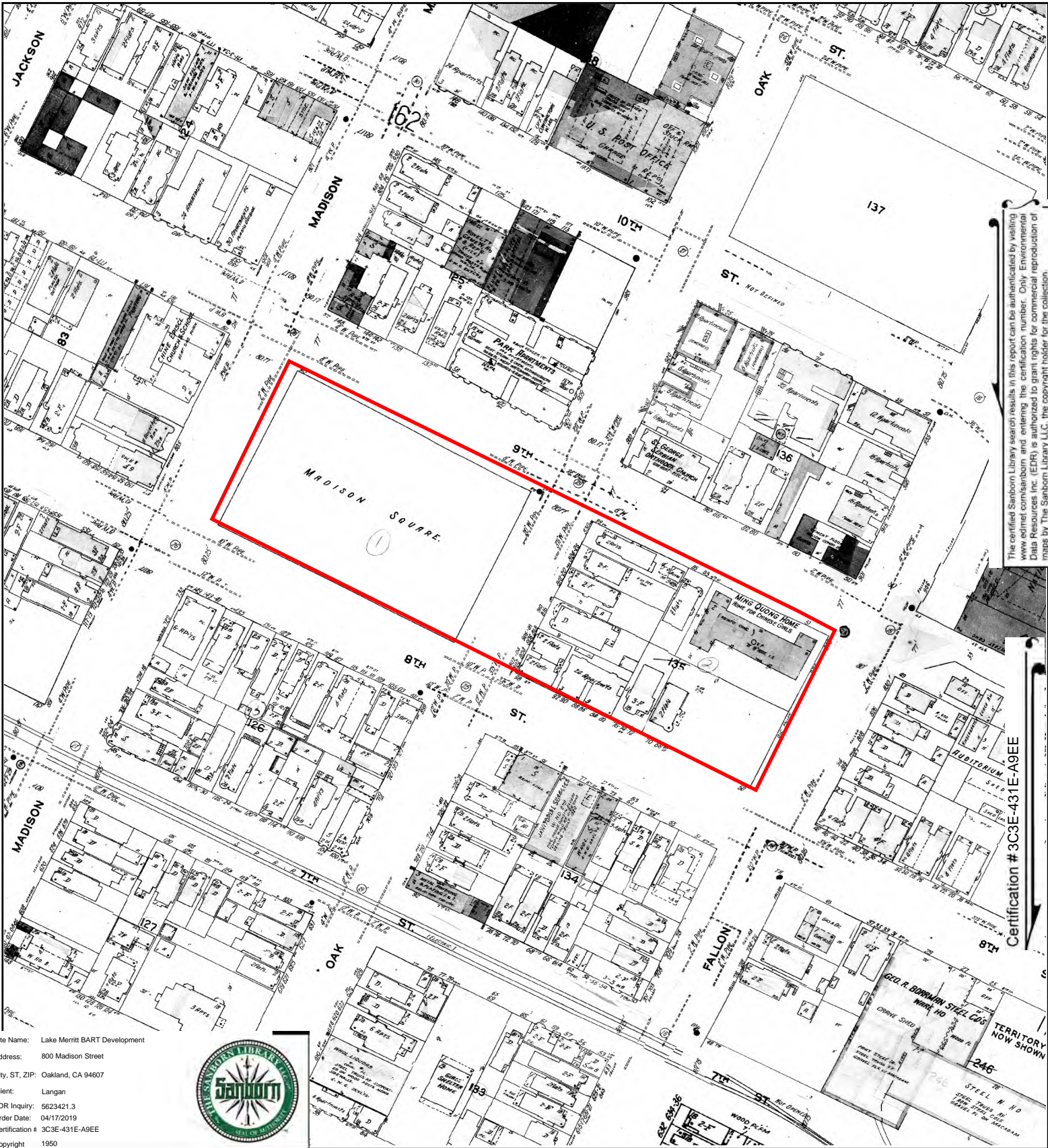


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Volume 2, Sheet 169
 Volume 2, Sheet 168





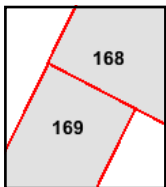
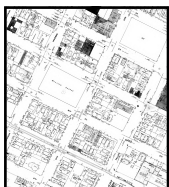
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Site Name: Lake Merritt BART Development
 Address: 800 Madison Street
 City, ST, ZIP: Oakland, CA 94607
 Client: Langan
 EDR Inquiry: 5623421.3
 Order Date: 04/17/2019
 Certification # 3C3E-431E-A9EE
 Copyright 1950

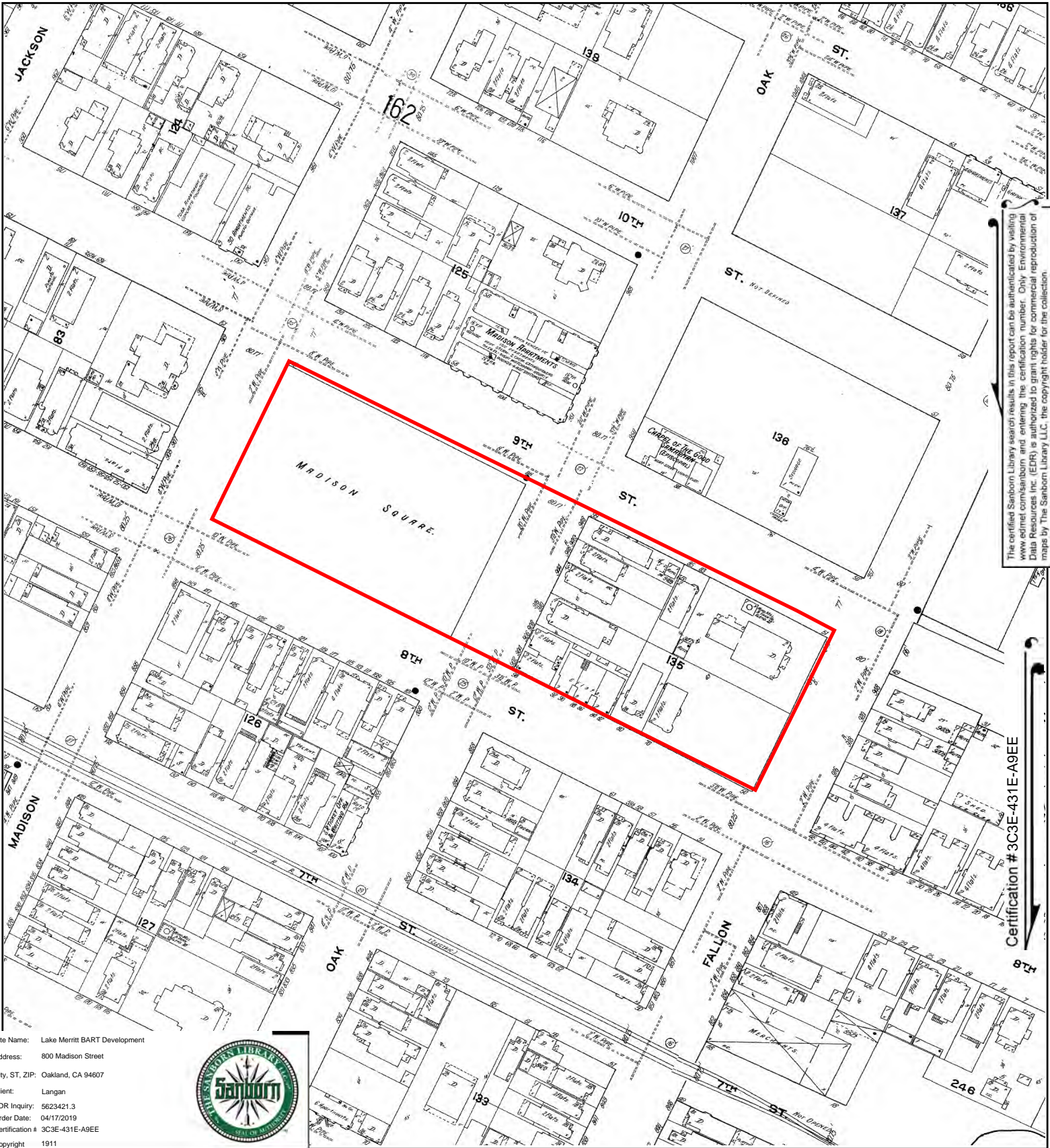


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 Outlined areas indicate map sheets within the collection.



Volume 2, Sheet 168
 Volume 2, Sheet 169





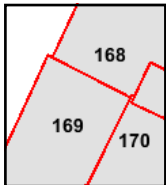
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Site Name: Lake Merritt BART Development
 Address: 800 Madison Street
 City, ST, ZIP: Oakland, CA 94607
 Client: Langan
 EDR Inquiry: 5623421.3
 Order Date: 04/17/2019
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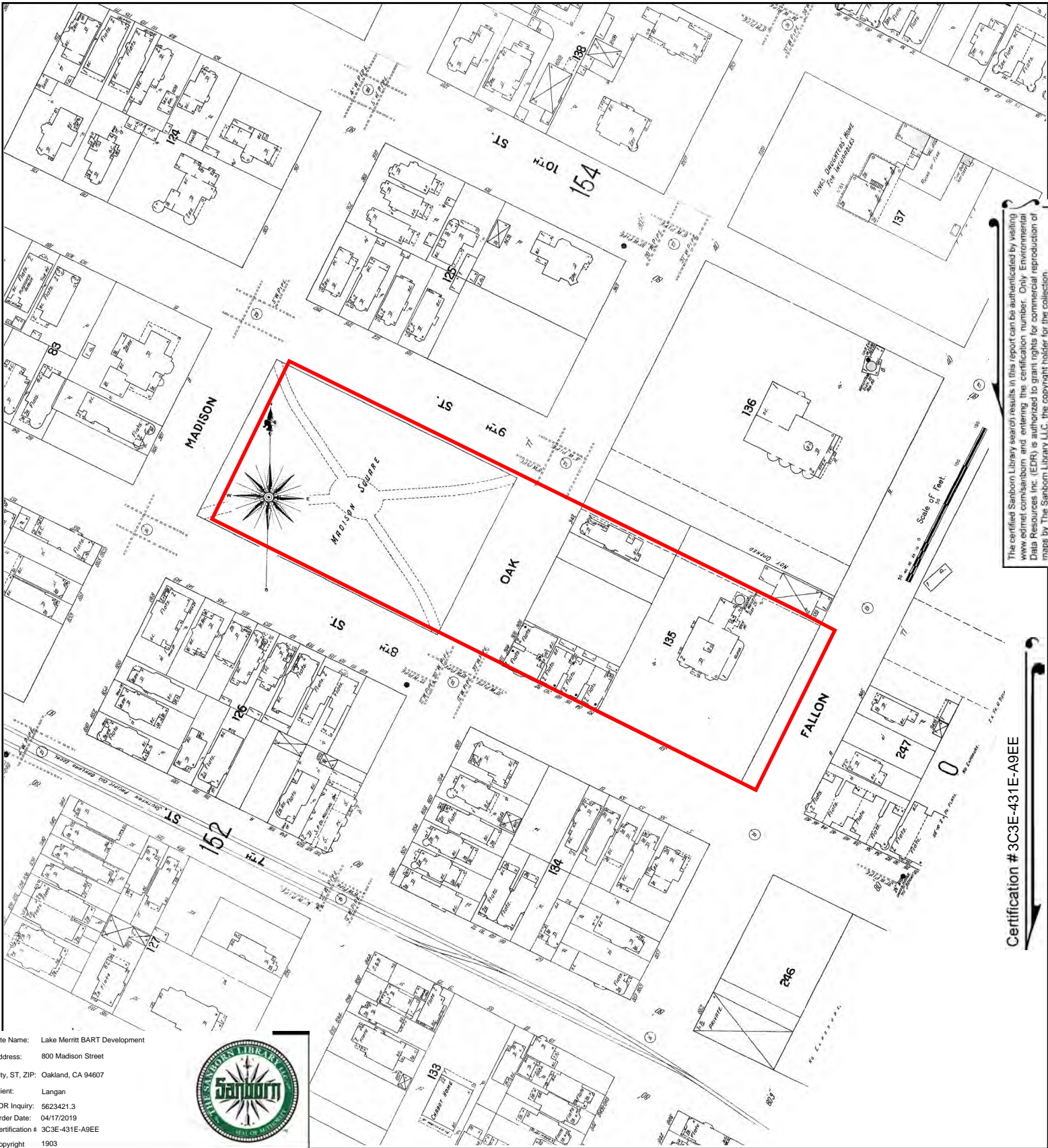


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 Outlined areas indicate map sheets within the collection.



Volume 2, Sheet 170
 Volume 2, Sheet 169
 Volume 2, Sheet 168





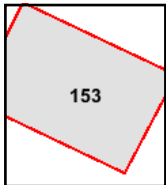
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Site Name: Lake Merritt BART Development
 Address: 800 Madison Street
 City, ST, ZIP: Oakland, CA 94607
 Client: Langan
 EDR Inquiry: 5623421.3
 Order Date: 04/17/2019
 Certification #: 3C3E-431E-A9EE
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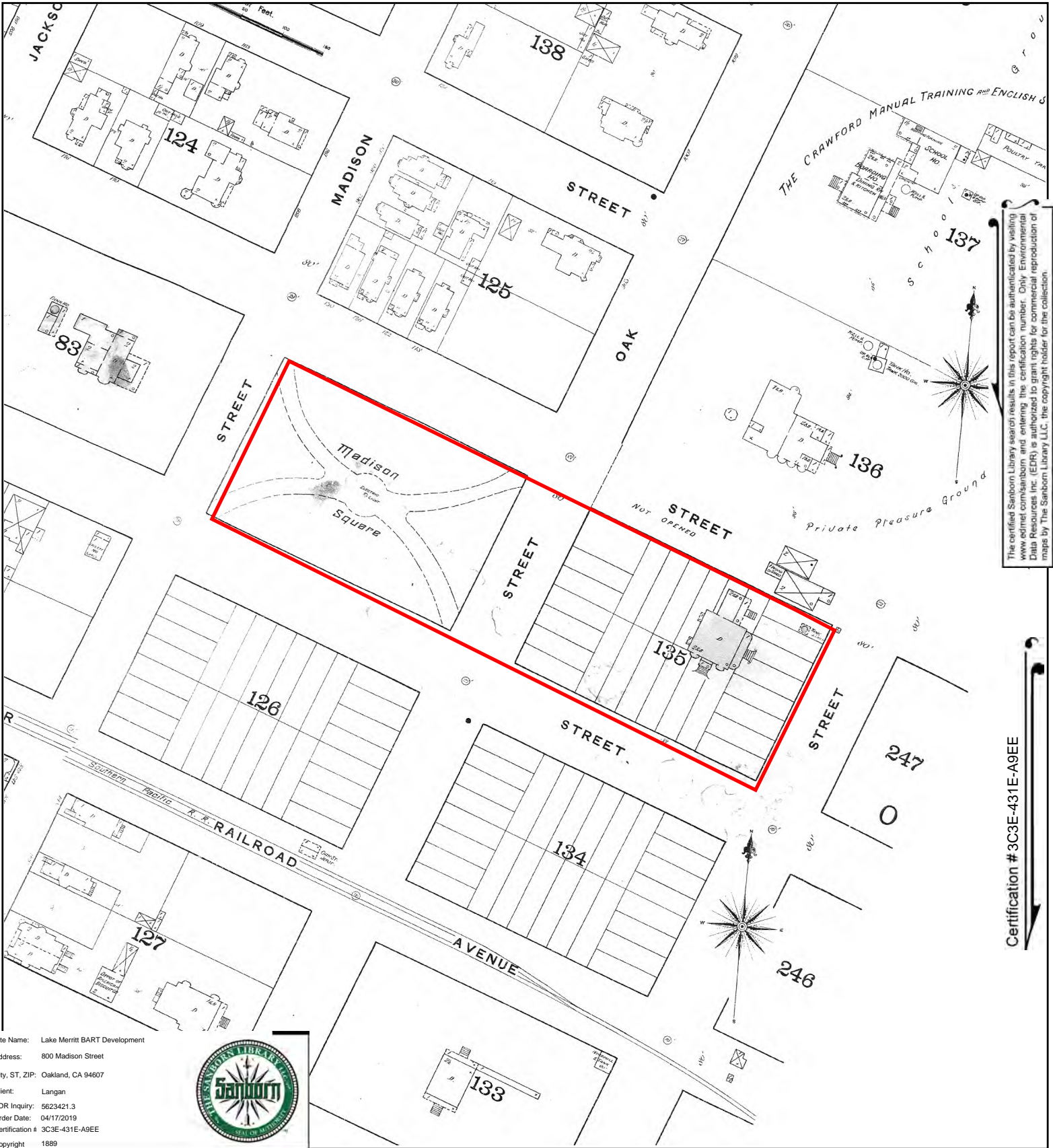


This Certified Sanborn Map combines the following sheets.
 Outlined areas indicate map sheets within the collection.



Volume 2, Sheet 153





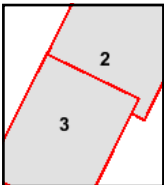
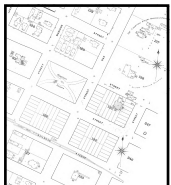
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Site Name: Lake Merritt BART Development
 Address: 800 Madison Street
 City, ST, ZIP: Oakland, CA 94607
 Client: Langan
 EDR Inquiry: 5623421.3
 Order Date: 04/17/2019
 Certification # 3C3E-431E-A9EE
 Copyright 1889



This Certified Sanborn Map combines the following sheets. Outlined areas indicate map sheets within the collection.



Volume 1, Sheet 3
 Volume 1, Sheet 2



**APPENDIX F
TOPOGRAPHIC MAPS**

DRAFT

Lake Merritt BART Development

800 Madison Street

Oakland, CA 94607

Inquiry Number: 5623421.4

April 16, 2019

EDR Historical Topo Map Report

with QuadMatch™



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

04/16/19

Site Name:

Lake Merritt BART Development
800 Madison Street
Oakland, CA 94607
EDR Inquiry # 5623421.4

Client Name:

Langan
555 Montgomery St Ste 1300
San Francisco, CA 94111
Contact: Wendy Kwong



EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Langan were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDR's Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:**Coordinates:**

P.O.#	750650001	Latitude:	37.797513 37° 47' 51" North
Project:	Lake Merritt BART Development	Longitude:	-122.265828 -122° 15' 57" West
		UTM Zone:	Zone 10 North
		UTM X Meters:	564635.62
		UTM Y Meters:	4183602.86
		Elevation:	33.00' above sea level

Maps Provided:

2012	1915
1996, 1997	1899
1980	1895, 1897
1973	
1968	
1959	
1949	
1948	

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets



Oakland East
2012
7.5-minute, 24000



Oakland West
2012
7.5-minute, 24000

1996, 1997 Source Sheets



Oakland West
1996
7.5-minute, 24000
Aerial Photo Revised 1993



Oakland East
1997
7.5-minute, 24000
Aerial Photo Revised 1993

1980 Source Sheets

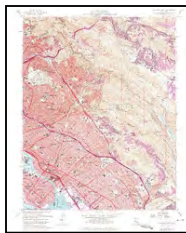


Oakland East
1980
7.5-minute, 24000
Aerial Photo Revised 1979



Oakland West
1980
7.5-minute, 24000
Aerial Photo Revised 1979

1973 Source Sheets



Oakland East
1973
7.5-minute, 24000
Aerial Photo Revised 1973



Oakland West
1973
7.5-minute, 24000
Aerial Photo Revised 1973

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1968 Source Sheets



Oakland West
1968
7.5-minute, 24000
Aerial Photo Revised 1947



Oakland East
1968
7.5-minute, 24000
Aerial Photo Revised 1968

1959 Source Sheets



Oakland East
1959
7.5-minute, 24000
Aerial Photo Revised 1958



Oakland West
1959
7.5-minute, 24000
Aerial Photo Revised 1958

1949 Source Sheets



Oakland East
1949
7.5-minute, 24000
Aerial Photo Revised 1946



Oakland West
1949
7.5-minute, 24000
Aerial Photo Revised 1946

1948 Source Sheets



CONCORD
1948
15-minute, 50000



SAN FRANCISCO
1948
15-minute, 50000

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1915 Source Sheets



Concord
1915
15-minute, 62500



San Francisco
1915
15-minute, 62500

1899 Source Sheets

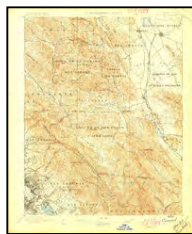


San Francisco
1899
15-minute, 62500

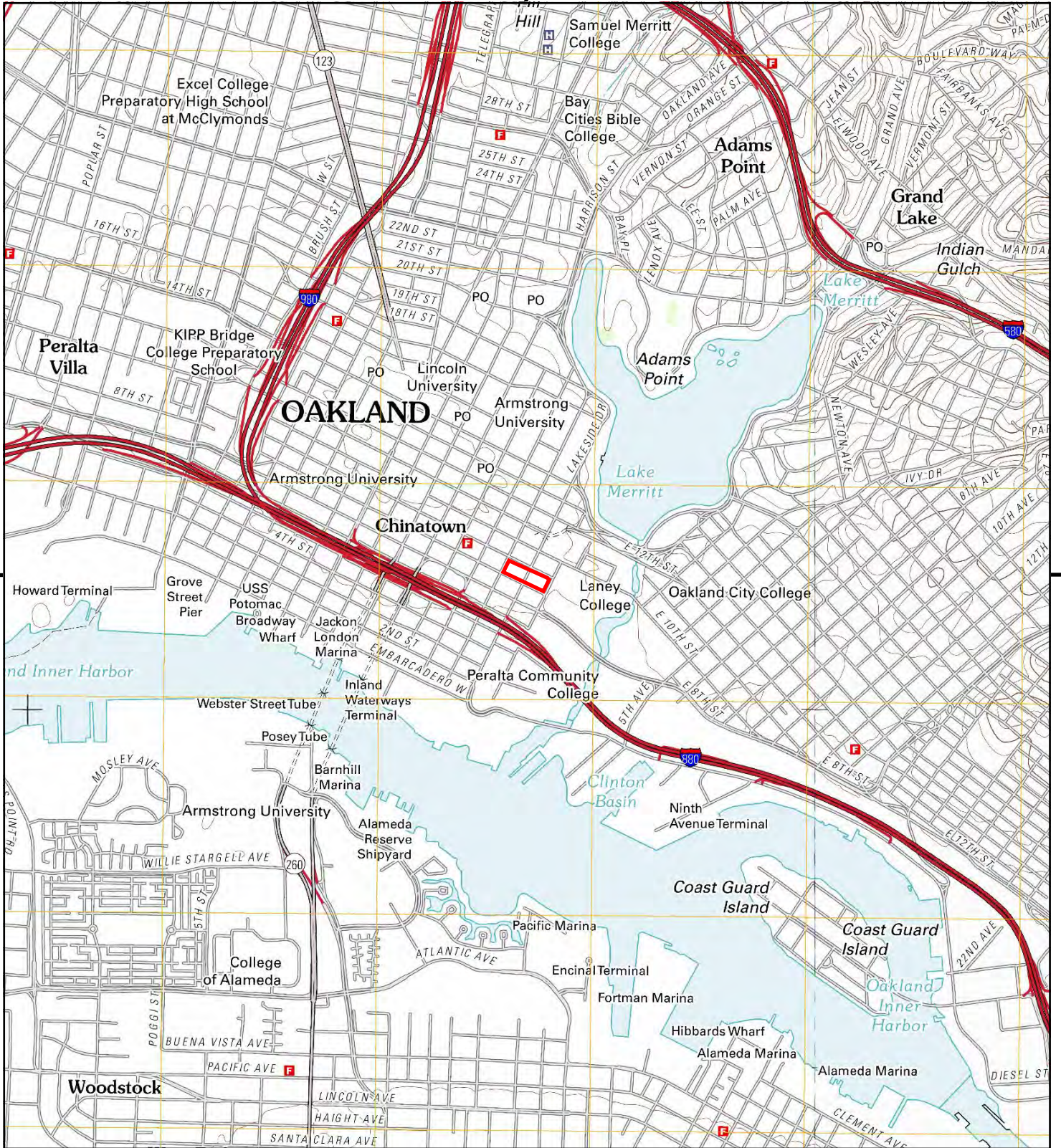
1895, 1897 Source Sheets



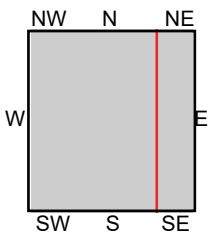
San Francisco
1895
15-minute, 62500



Concord
1897
15-minute, 62500



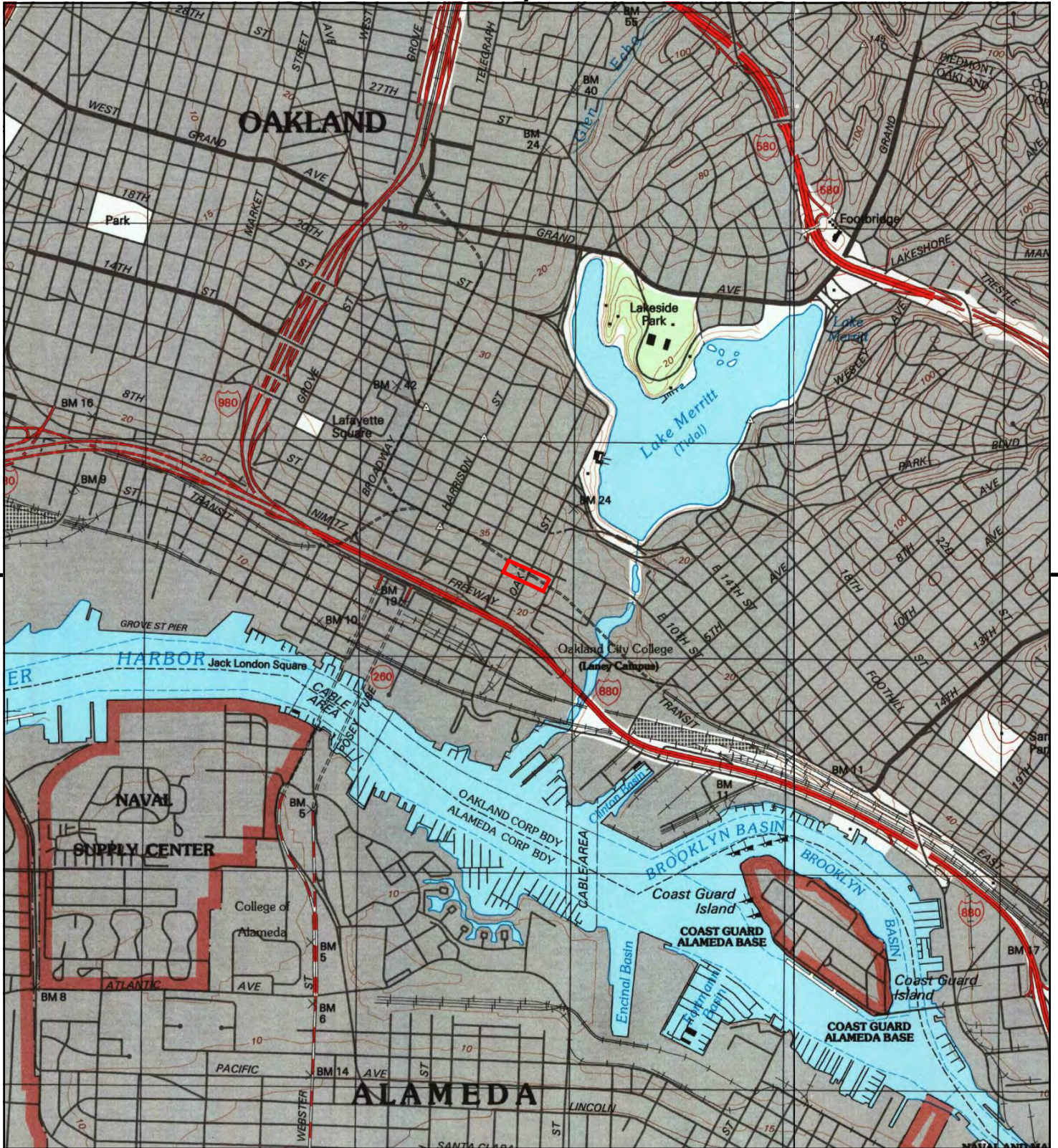
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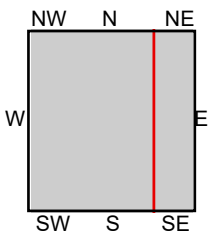
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ADDRESS: 800 Madison Street
Oakland, CA 94607
CLIENT: Langan





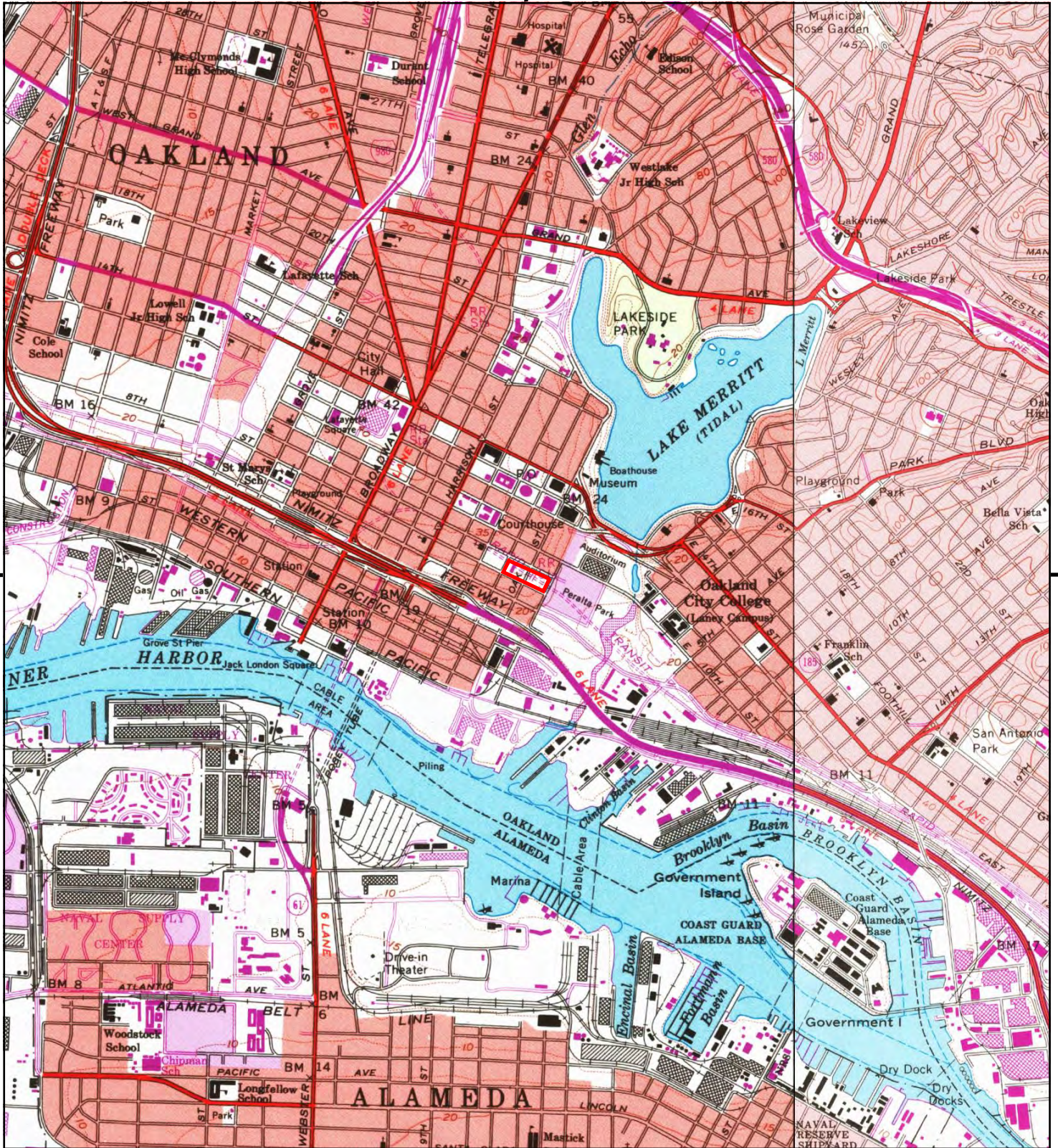
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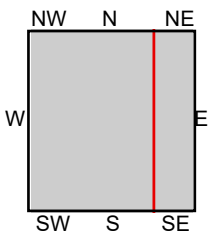
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E, Oakland East, 1997, 7.5-minute

SITE NAME: Lake Merritt BART Development
ADDRESS: 800 Madison Street
Oakland, CA 94607
CLIENT: Langan





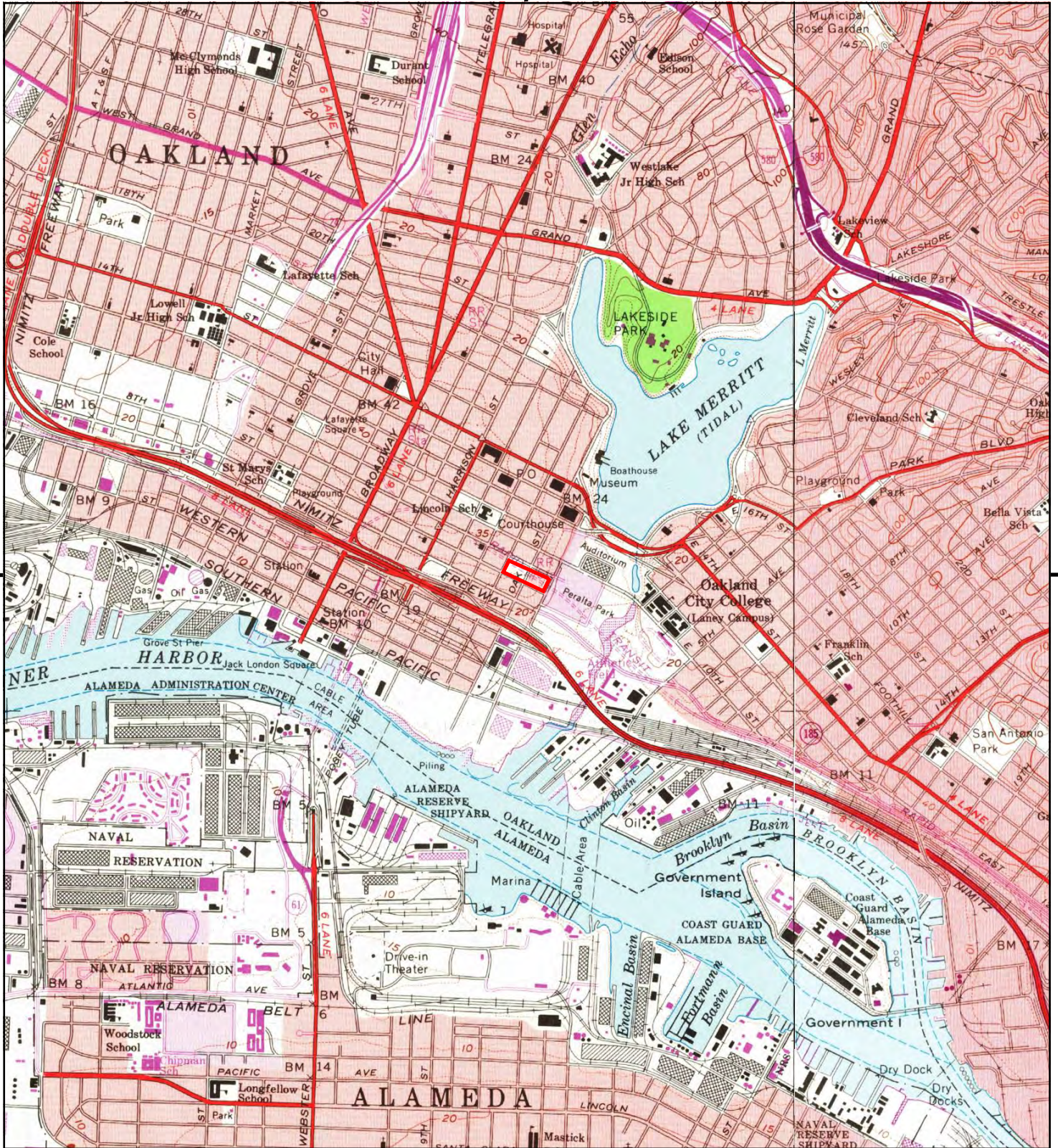
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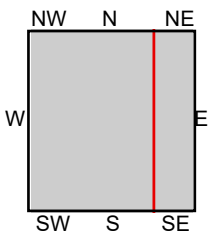
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SITE NAME: Lake Merritt BART Development
ADDRESS: 800 Madison Street
Oakland, CA 94607
CLIENT: Langan





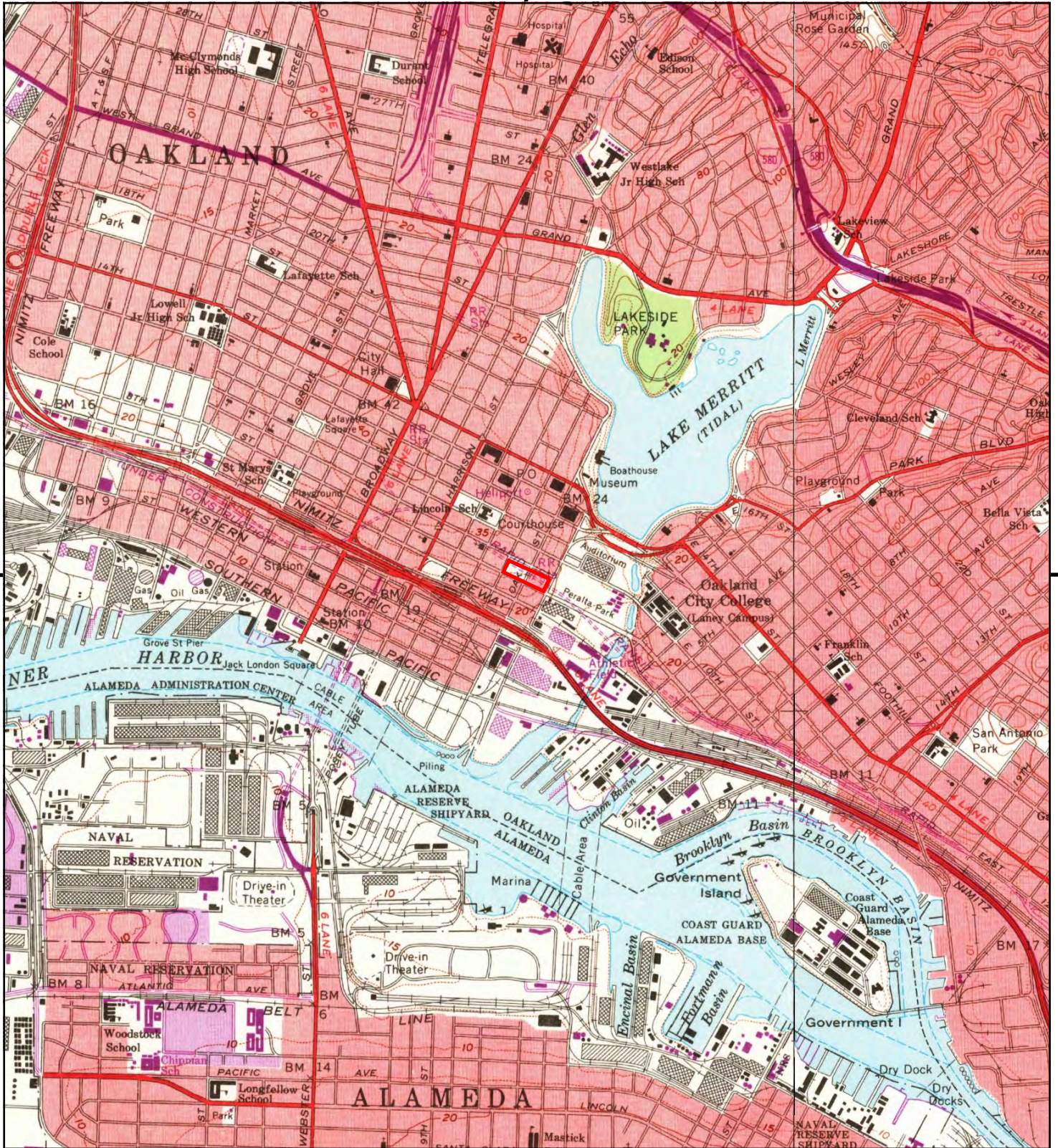
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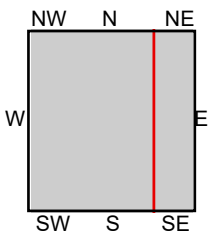
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ADDRESS: 800 Madison Street
Oakland, CA 94607
CLIENT: Langan





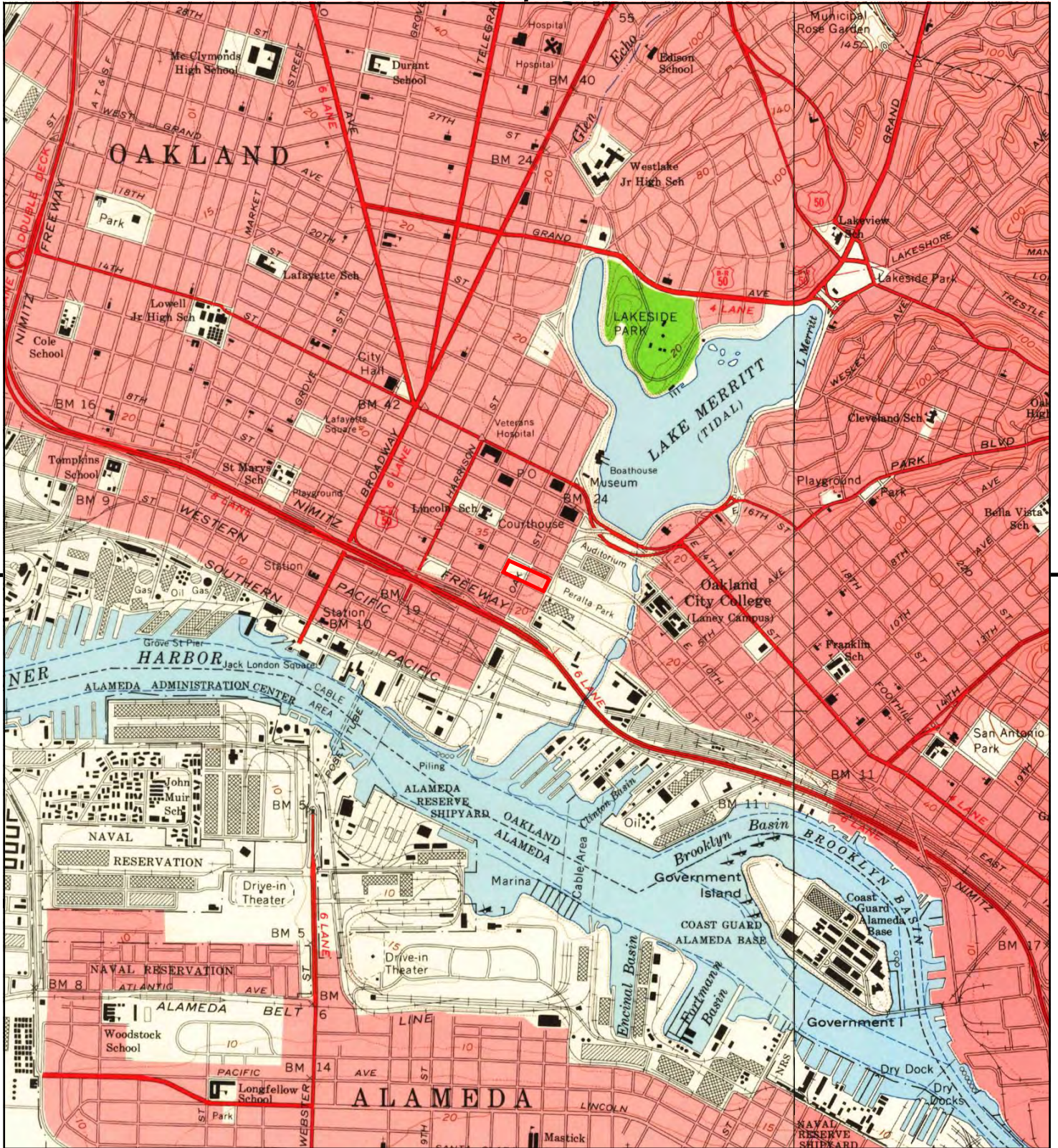
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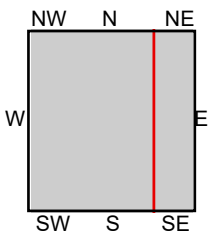
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SITE NAME: Lake Merritt BART Development
ADDRESS: 800 Madison Street
Oakland, CA 94607
CLIENT: Langan





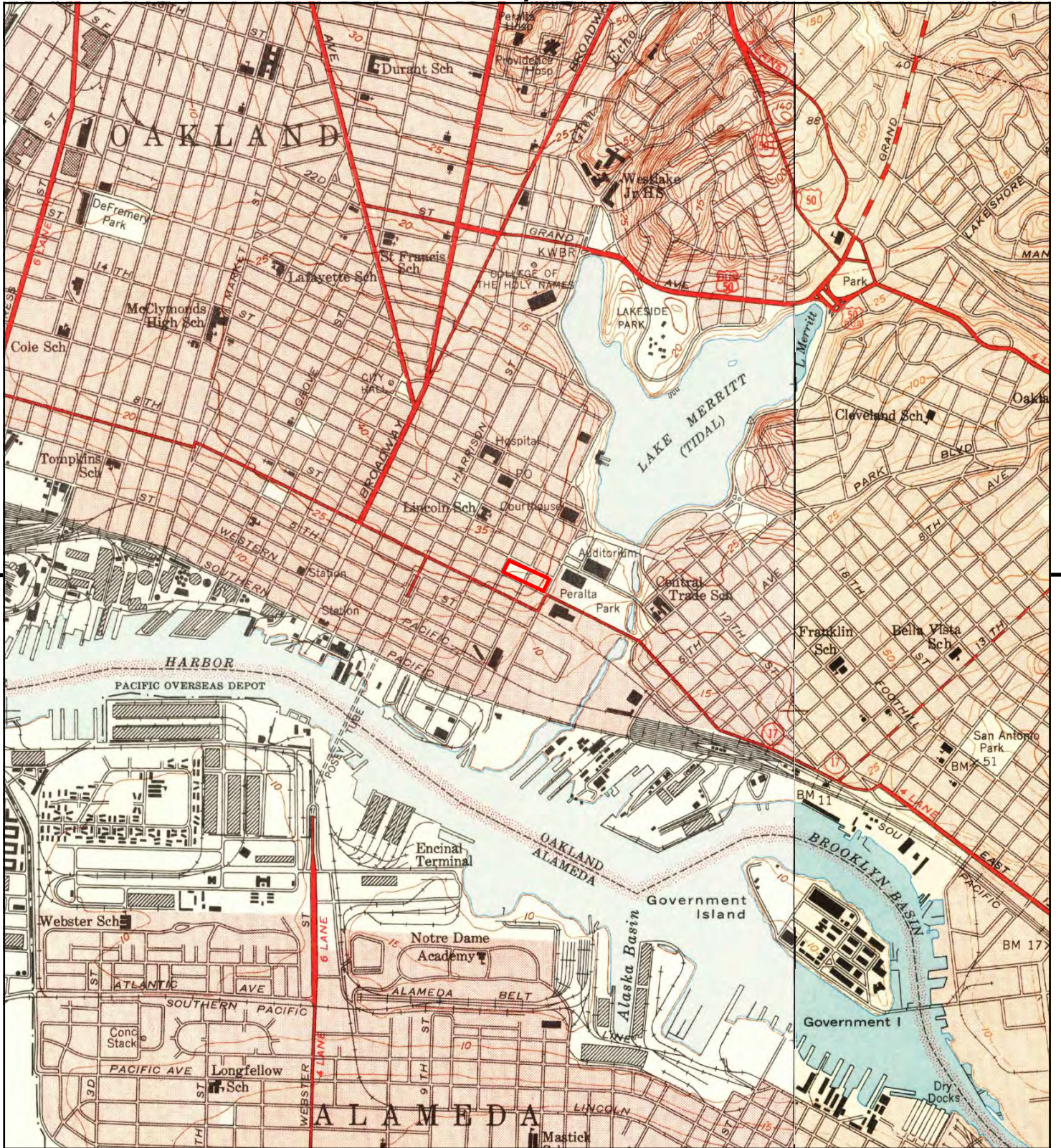
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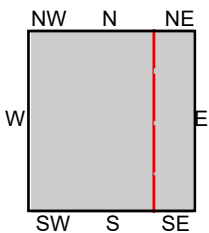
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ADDRESS: 800 Madison Street
Oakland, CA 94607
CLIENT: Langan





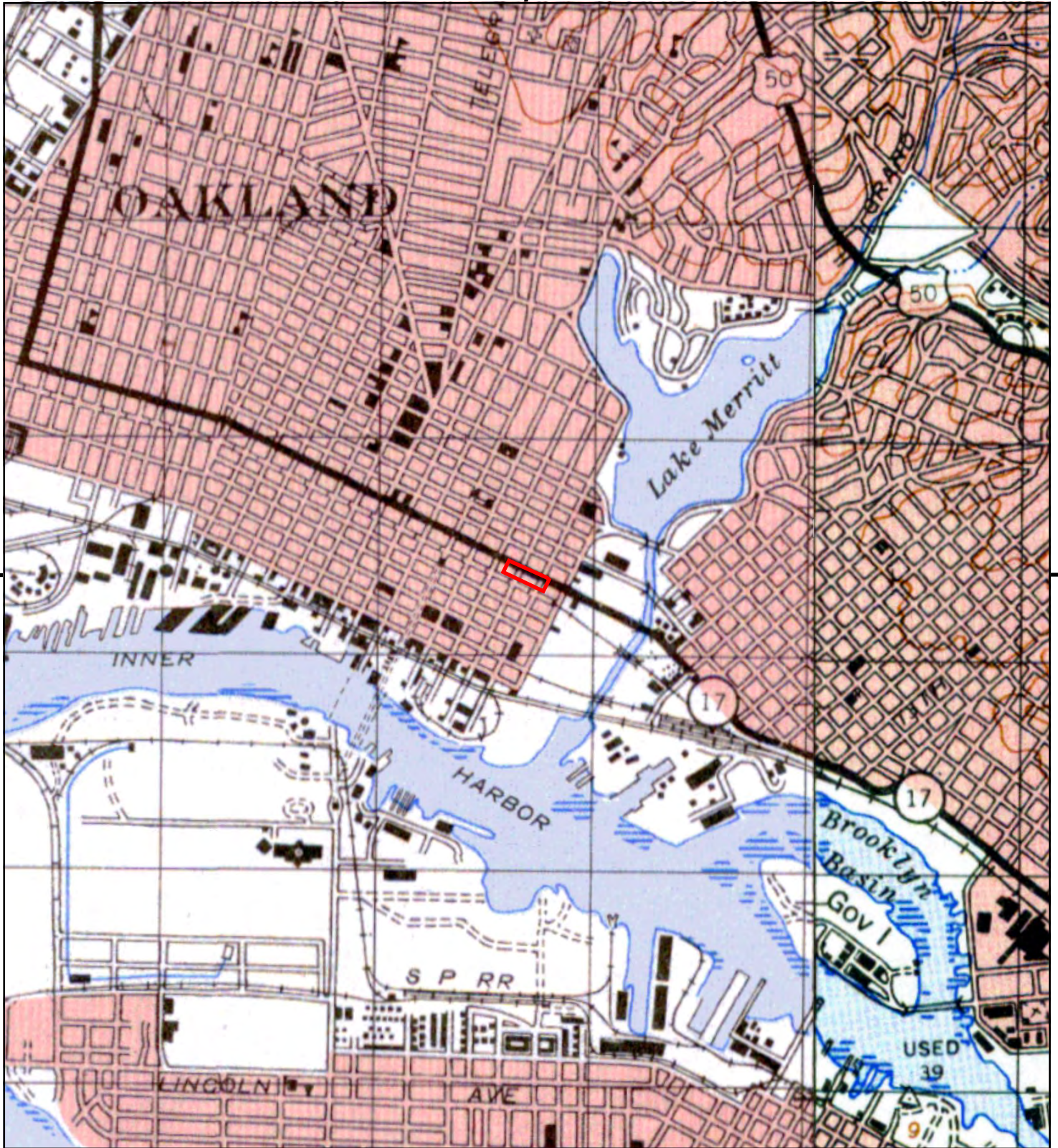
This report includes information from the following map sheet(s).



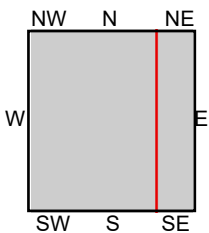
TP, Oakland West, 1949, 7.5-minute
E, Oakland East, 1949, 7.5-minute

SITE NAME: Lake Merritt BART Development
ADDRESS: 800 Madison Street
Oakland, CA 94607
CLIENT: Langan





This report includes information from the following map sheet(s).



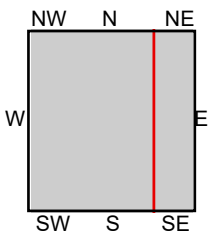
TP, SAN FRANCISCO, 1948, 15-minute
NE, CONCORD, 1948, 15-minute

SITE NAME: Lake Merritt BART Development
ADDRESS: 800 Madison Street
Oakland, CA 94607
CLIENT: Langan





This report includes information from the following map sheet(s).



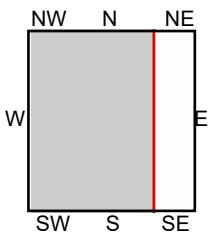
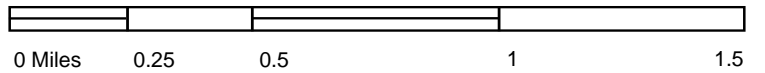
TP, San Francisco, 1915, 15-minute
NE, Concord, 1915, 15-minute

SITE NAME: Lake Merritt BART Development
ADDRESS: 800 Madison Street
Oakland, CA 94607
CLIENT: Langan





This report includes information from the following map sheet(s).



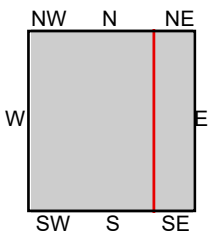
TP, San Francisco, 1899, 15-minute

SITE NAME: Lake Merritt BART Development
ADDRESS: 800 Madison Street
Oakland, CA 94607
CLIENT: Langan





This report includes information from the following map sheet(s).



TP, San Francisco, 1895, 15-minute
NE, Concord, 1897, 15-minute

SITE NAME: Lake Merritt BART Development
ADDRESS: 800 Madison Street
Oakland, CA 94607
CLIENT: Langan



**APPENDIX G
CITY DIRECTORY REPORT**

DRAFT

Lake Merritt BART Development

800 Madison Street
Oakland, CA 94607

Inquiry Number: 5623421.5
April 18, 2019

The EDR-City Directory Abstract

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City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1920 through 2014. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 660 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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Data by

infoUSA[®]

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>	<u>Text Abstract</u>	<u>Source Image</u>
2014	EDR Digital Archive	X	X	X	-
2010	EDR Digital Archive	X	X	X	-
2006	Haines Company, Inc.	-	X	X	-
2002	Haines & Company	-	X	X	-
	R. L. Polk & Co.	-	X	X	-
2000	Pacific Bell	-	X	X	-
	Pacific Bell	X	X	X	-
1996	PACIFIC BELL DIRECTORY	-	X	X	-
	PACIFIC BELL DIRECTORY	X	X	X	-
1993	Pacific Bell	-	-	-	-
1992	PACIFIC BELL DIRECTORY	-	X	X	-
	PACIFIC BELL DIRECTORY	X	X	X	-

EXECUTIVE SUMMARY

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>	<u>Text Abstract</u>	<u>Source Image</u>
1991	PACIFIC BELL WHITE PAGES	-	X	X	-
	PACIFIC BELL WHITE PAGES	X	X	X	-
1986	Pacific Bell	-	X	X	-
	Pacific Bell	X	X	X	-
	PACIFIC BELL WHITE PAGES	-	X	X	-
	PACIFIC BELL WHITE PAGES	X	X	X	-
1984	Pacific Bell	-	-	-	-
1982	Pacific Telephone	-	X	X	-
1980	Pacific Telephone	-	X	X	-
	Pacific Telephone	X	X	X	-
1979	Pacific Telephone	-	X	X	-
1976	R. L. Polk & Co.	-	X	X	-
1975	Pacific Telephone	-	X	X	-
	Pacific Telephone	X	X	X	-
1973	Pacific Telephone	-	X	X	-
1970	Pacific Telephone and Telegraph Co	-	X	X	-
	Pacific Telephone and Telegraph Co	X	X	X	-
	Pacific Telephone Directory	-	X	X	-
	Pacific Telephone Directory	X	X	X	-
1967	R. L. Polk Co.	-	X	X	-
	R. L. Polk Co.	X	X	X	-
1965	R. L. Polk & Co.	-	X	X	-
1962	Pacific Telephone	-	X	X	-
	Pacific Telephone	X	X	X	-
1960	Pacific Telephone	-	X	X	-
1959	R. L. Polk & Co.	-	-	-	-
1956	Pacific Telephone	-	X	X	-
1955	The Pacific Telephone & Telegraph Co.	-	X	X	-
	The Pacific Telephone & Telegraph Co.	X	X	X	-
1954	R. L. Polk & Co. of California	-	-	-	-
1951	R. L. Polk & Co.	-	-	-	-
1950	The Pacific Telephone & Telegraph Co.	-	X	X	-
	The Pacific Telephone & Telegraph Co.	X	X	X	-
1946	R. L. Polk & Co.	-	-	-	-
1945	The Pacific Telephone & Telegraph Co.	-	X	X	-
	The Pacific Telephone & Telegraph Co.	X	X	X	-
1943	R. L. Polk & Co.	-	X	X	-
	R. L. Polk & Co.	X	X	X	-
1940	R. L. Polk & Co.	-	-	-	-
1938	Pacific Telephone	-	X	X	-
	Pacific Telephone	X	X	X	-
1933	R. L. Polk & Co.	-	X	X	-

EXECUTIVE SUMMARY

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>	<u>Text Abstract</u>	<u>Source Image</u>
1933	R. L. Polk & Co.	X	X	X	-
1932	R. L. Polk & Co. of California	-	-	-	-
1928	R.L. Polk and Co of California	-	X	X	-
1926	R. L. Polk & Co.	-	-	-	-
1925	R. L. Polk & Co. of California	-	X	X	-
1920	R. L. Polk & Co. of California	-	X	X	-

EXECUTIVE SUMMARY

SELECTED ADDRESSES

The following addresses were selected by the client, for EDR to research. An "X" indicates where information was identified.

<u>Address</u>	<u>Type</u>	<u>Findings</u>
51 9th Street	Client Entered	X
50 8th Street	Client Entered	
60 8th Street	Client Entered	X
815 Fallon Street	Client Entered	X
43 8th Street	Client Entered	X
716 Fallon Street	Client Entered	X
825 Fallon Street	Client Entered	X
847 Fallon Street	Client Entered	
68 8th Street	Client Entered	X

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

800 Madison Street
Oakland, CA 94607

FINDINGS DETAIL

Target Property research detail.

8TH ST

60 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	STANDARD STATIONS INC	The Pacific Telephone & Telegraph Co.

68 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Chin Walton K	Pacific Telephone
1955	HIGGINS EDW MRS	The Pacific Telephone & Telegraph Co.
1945	LOWE LOUIS B R	The Pacific Telephone & Telegraph Co.
1938	LOWE LOUIS B R	Pacific Telephone
1933	BRACE NELLIE (WID R T) H	R. L. Polk & Co.
	FLOOD EMIL SHTMTLWKR R	R. L. Polk & Co.

8th Street

50 8th Street

<u>Year</u>	<u>Uses</u>	<u>Source</u>
-------------	-------------	---------------

60 8th Street

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	STANDARD STATIONS INC	The Pacific Telephone & Telegraph Co.

68 8th Street

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Chin Walton K	Pacific Telephone
1955	HIGGINS EDW MRS	The Pacific Telephone & Telegraph Co.
1945	LOWE LOUIS B R	The Pacific Telephone & Telegraph Co.
1938	LOWE LOUIS B R	Pacific Telephone
1933	BRACE NELLIE (WID R T) H	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	FLOOD EMIL SHTMTLWKR R	R. L. Polk & Co.

9TH

51 9TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	CHINESE GIRLS HOME	The Pacific Telephone & Telegraph Co.
	MING QUONG HOME	The Pacific Telephone & Telegraph Co.

9TH ST

51 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	INTER TRIBAL FRIENDSHIP HOUSE	R. L. Polk Co.
	RELOCATION PROGRAMS	R. L. Polk Co.
1962	Community Center	Pacific Telephone
	Daniels Lydia	Pacific Telephone
	Daniels Marion Gene	Pacific Telephone
	Director	Pacific Telephone
	Intertribal Friendship House	Pacific Telephone
1955	CHINESE GIRLS HOME	The Pacific Telephone & Telegraph Co.
	MING QUONG HOME	The Pacific Telephone & Telegraph Co.
1945	CHINESE GIRLS HOME	The Pacific Telephone & Telegraph Co.
	MING QUONG HOME	The Pacific Telephone & Telegraph Co.
1943	Carmichael Mary E ofc asst Ming Quong Home r	R. L. Polk & Co.
	Chan Kung Mrs assoc dir Ming Quong Home r	R. L. Polk & Co.
	Kortemeier Lena supvr Ming Owong Home r	R. L. Polk & Co.
	Ming Quong Home for Chinese Girls Ethel V Wiggins dir	R. L. Polk & Co.
1938	CHINESE GIRLS HOME	Pacific Telephone
	MING QUONG HOME	Pacific Telephone

9th Street

51 9th Street

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	INTER TRIBAL FRIENDSHIP HOUSE	R. L. Polk Co.
	RELOCATION PROGRAMS	R. L. Polk Co.
1962	Community Center	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Daniels Lydia	Pacific Telephone
	Daniels Marion Gene	Pacific Telephone
	Director	Pacific Telephone
	Intertribal Friendship House	Pacific Telephone
1955	CHINESE GIRLS HOME	The Pacific Telephone & Telegraph Co.
	MING QUONG HOME	The Pacific Telephone & Telegraph Co.
1950	CHINESE GIRLS HOME	The Pacific Telephone & Telegraph Co.
	MING QUONG HOME	The Pacific Telephone & Telegraph Co.
1945	CHINESE GIRLS HOME	The Pacific Telephone & Telegraph Co.
	MING QUONG HOME	The Pacific Telephone & Telegraph Co.
1943	Carmichael Mary E ofc asst Ming Quong Home r	R. L. Polk & Co.
	Chan Kung Mrs assoc dir Ming Quong Home r	R. L. Polk & Co.
	Kortemeier Lena supvr Ming Owong Home r	R. L. Polk & Co.
	Ming Quong Home for Chinese Girls Ethel V Wiggins dir	R. L. Polk & Co.
1938	CHINESE GIRLS HOME	Pacific Telephone
	MING QUONG HOME	Pacific Telephone

Fallon Street

815 Fallon Street

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	KAIN Clyde J sta atdt r	R. L. Polk & Co.

MADISON CT

800 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	B A R T-S F BAY AREA RAPID TRANSIT DISTRICT	Pacific Telephone
	BAY AREA RAPID TRANSIT DISTRICT	Pacific Telephone

Madison St

800 Madison St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	BART POLICE OFFICERS ASSN	EDR Digital Archive
	SAN FRANCISCO BAY AREA RAPID	EDR Digital Archive
2010	SAN FRANCISCO BAY AREA RAPID	EDR Digital Archive

FINDINGS

MADISON ST

800 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	BAY AREA RAPID TRANSIT DISTRICT	Pacific Bell
1996	BAY AREA RAPID TRANSIT DISTRICT	PACIFIC BELL DIRECTORY
1992	S F BAY AREA RAPID TRANSIT DISTRICT	PACIFIC BELL DIRECTORY
1991	General Office	PACIFIC BELL WHITE PAGES
	Police Services	PACIFIC BELL WHITE PAGES
1986	Employee Relations Office	PACIFIC BELL WHITE PAGES
	Employment Hot Line	PACIFIC BELL WHITE PAGES
	Employment Office	PACIFIC BELL WHITE PAGES
	General Office	PACIFIC BELL WHITE PAGES
	Police Services	PACIFIC BELL WHITE PAGES
1980	Employment Office	Pacific Telephone
	General Office	Pacific Telephone
	Police Service	Pacific Telephone
	Police Services	Pacific Telephone
1970	PARSONS BRINCKERHOFF TUDOR BECHTEL	Pacific Telephone Directory

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

10 HAMRN TR PIE ST

89 10 HAMRN TR PIE ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1979	PATTERSONF PAT	Pacific Telephone

10TH ST

88 10TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Pacific Electric Motor Co W D Vance pres treas F E Boyd v pres	R. L. Polk & Co.
1933	PACIFIC ELECTRIC MOTOR CO W D VANCE PRES F E BOYD SEC	R. L. Polk & Co.
1928	B Electric Motor Co J P Botelhs pres W D Vance sec	R.L. Polk and Co of California

95 10TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	FLKES DOROTHY	Pacific Telephone

102 10TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	WERUM BROS (H A AND O M) GRO	R. L. Polk & Co.
	HOLZMAN ALBT T (MAY) MEATS	R. L. Polk & Co.
1928	mgr Wm M meats	R.L. Polk and Co of California
	Werumn Bros Otto and H A gro	R.L. Polk and Co of California
1925	OAK ST MARKET	R. L. Polk & Co. of California
	WERUM BROS GROCERIES	R. L. Polk & Co. of California

105 10TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	ELLIS Cornell	Haines Company, Inc.
	BUTLER Luereand	Haines Company, Inc.
	BROWN Adean	Haines Company, Inc.
	JIN Mel	Haines Company, Inc.
	D 307 JACOBS Proverb G	Haines Company, Inc.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	JACKSON Alice	Haines Company, Inc.
	HUANG Tao Y	Haines Company, Inc.
	HUANG Sh IQ D	Haines Company, Inc.
	HUANG Rui Diong	Haines Company, Inc.
	C 301 HUANG Qiang	Haines Company, Inc.
	A 302 CAVIZO Conchita	Haines Company, Inc.
	CHAN Mo	Haines Company, Inc.
	CHANG Ho You Wen	Haines Company, Inc.
	CHEN Hui	Haines Company, Inc.
	CHEN Jinzhuang	Haines Company, Inc.
	CHEN Yue Se	Haines Company, Inc.
	CHOW Jenny	Haines Company, Inc.
	E 154 DUONG Toan	Haines Company, Inc.
	CAI Jin Y	Haines Company, Inc.
	GALVAN B	Haines Company, Inc.
	GIBSON Aene	Haines Company, Inc.
	GOJOCCO Pdsiclla E	Haines Company, Inc.
	GUO Pelzhen	Haines Company, Inc.
	C 206 HALILI Angelina M	Haines Company, Inc.
	HESht Rong	Haines Company, Inc.
	HOWWa LIng	Haines Company, Inc.
	HONGDe	Haines Company, Inc.
	HONG Yi Ian	Haines Company, Inc.

106 10TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	GARDNER HARRY P	R. L. Polk Co.

107 10TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	CARLSON JENNY W	R. L. Polk Co.

108 10TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	BELLACQUA VINCENT	R. L. Polk Co.

FINDINGS

10th St

110 10th St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	ARTH GEORGE V & SONS INC	EDR Digital Archive
	ARTH GEORGE V & SONS INC	EDR Digital Archive
2010	ARTH GEORGE V & SONS INC	EDR Digital Archive
	ARTH GEORGE V & SONS INC	EDR Digital Archive

10TH ST

110 10TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	ARTH GEO V & SON	Pacific Bell
1996	ARTH GEO V & SON	PACIFIC BELL DIRECTORY
	ROGER BOAZ AUTO PARTS	PACIFIC BELL DIRECTORY
1992	ARTH GEO V & SON	PACIFIC BELL DIRECTORY
1986	ARTH GE O V & S ON auto rep	PACIFIC BELL WHITE PAGES
1980	ARTH GEO V & SON auto rep	Pacific Telephone
1975	ARTH GEO V & SON AUTO REP	Pacific Telephone
1970	ARTH GEO V & SON AUTO REP	Pacific Telephone Directory
1967	ARTH GEO V & SON AUTO REPR	R. L. Polk Co.
1943	Demello Leslie E Juanita plmbr h	R. L. Polk & Co.
1933	TENTH STREET GARAGE L J GOINS MGR	R. L. Polk & Co.
1928	Bolts Clyde H Mabel garage	R.L. Polk and Co of California
1925	TENTH ST GARAGE	R. L. Polk & Co. of California

10th St

113 10th St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	LANDMARK MANAGEMENT GROUP LLC	EDR Digital Archive
	LANDMARK MANAGEMENT GROUP LLC	EDR Digital Archive
2010	LANDMARK MANAGEMENT GROUP LLC	EDR Digital Archive
	803 INTERNATIONAL LLC	EDR Digital Archive
	APEX TELCOM INC	EDR Digital Archive
	LANDMARK MANAGEMENT GROUP LLC	EDR Digital Archive

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2010	803 INTERNATIONAL LLC	EDR Digital Archive
	APEX TELCOM INC	EDR Digital Archive

10TH ST

113 10TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	WONG HONG	Haines Company, Inc.
	APEXTELCOMINC	Haines Company, Inc.
1955	SCOTT PLUMBING SEE SCOTT CO	The Pacific Telephone & Telegraph Co.
	DURANT PLUMBING	The Pacific Telephone & Telegraph Co.
	SCOTT CO PLMBNG & HEATING	The Pacific Telephone & Telegraph Co.
1945	SCOTT CO PLMBNG & HEATING	The Pacific Telephone & Telegraph Co.
1943	Scott Co P F Scott pres plmbrs	R. L. Polk & Co.
1938	SCOTT CO PLUMBING & HEATING	Pacific Telephone
	LINFORD JAMES B SCOTT CO	Pacific Telephone
1933	SCOTT COMPANY L J MADDEN V- PRES-MGR G J CUMMINGS SEC P F SCOTT TREAS PLUMBI	R. L. Polk & Co.
1928	1966 Company L J Madden v pres mgr W 0 Muther sec P F Scott treas plmbg contrs	R.L. Polk and Co of California

118 10TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	AMER EMPEROR	Haines Company, Inc.
	ELECTRICAL	Haines Company, Inc.
	ARTHGEOV&SON	Haines Company, Inc.
	SUPPLY	Haines Company, Inc.
	CORPORATION	Haines Company, Inc.
	EMPEROR	Haines Company, Inc.

10th St

119 10th St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2010	EMPEROR ELECTRICAL SUPPLY INC	EDR Digital Archive
	EMPEROR ELECTRICAL SUPPLY INC	EDR Digital Archive

FINDINGS

10TH ST

119 10TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	AMERICAN EMPEROR CORPORATION	Pacific Bell
1992	STANDARD ELECTRIC SUPPLY CO INC	PACIFIC BELL DIRECTORY
1991	Standard Electric Time	PACIFIC BELL WHITE PAGES
	Electric Express Co Inc	PACIFIC BELL WHITE PAGES
	S TAN DARD E LE CTRIC S UPPLY CO	PACIFIC BELL WHITE PAGES
1986	S TAN DARD E LE CTRIC S UPPLY CO	PACIFIC BELL WHITE PAGES
1980	STANDARD ELECTRIC SUPPLY CO	Pacific Telephone
1970	STANDARD ELECTRIC SUPPLY CO	Pacific Telephone Directory
1967	STANDARD ELECTRIC SUPPLY CO	R. L. Polk Co.
1962	STANDARD ELECTRIC SUPPLY CO	Pacific Telephone

121 10TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	CHEUNG Y K	Pacific Telephone
1938	OAKLAND AUTOMATIC SALES CO PIN & BALL GAMES	Pacific Telephone
	TESSLER SAM OAKLAND AUTOMATIC SALES CO PIN & BALL GAMES	Pacific Telephone
1925	UNION ELECTRIC CO	R. L. Polk & Co. of California

123 10TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	UNION ELECTRIC CO F H MILLS PRES I B WATERBURY V PRES MYRTLE HARRIS SEC	R. L. Polk & Co.
1928	pastor Electric Co E H Petersen pres P H Mills v pres H L Frazier sec treas	R.L. Polk and Co of California

10th St

125 10th St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	HARRINGTON MCINNIS CO	EDR Digital Archive
	HARRINGTON MCINNIS CO	EDR Digital Archive
2010	HARRINGTON MCINNIS CO	EDR Digital Archive
	HARRINGTON MCINNIS CO	EDR Digital Archive

FINDINGS

10TH ST

125 10TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	HARRINGTON	Haines Company, Inc.
	MCINNIS CO	Haines Company, Inc.
2000	HARRINGTON MCINNIS CO INC	Pacific Bell
1996	HARRINGTON-MCINNIS CO INC	PACIFIC BELL DIRECTORY
1992	HARRINGTON MCINNIS CO INC	PACIFIC BELL DIRECTORY
1991	Hard JF	PACIFIC BELL WHITE PAGES
	HARRINGTON MCINNIS CO INC conl prntrs	PACIFIC BELL WHITE PAGES
	Harrington N B	PACIFIC BELL WHITE PAGES
1986	Hard J F	PACIFIC BELL WHITE PAGES
1980	Hard J F	Pacific Telephone
	HARRINGTON MC INNIS CO INC coml prntrs	Pacific Telephone
1975	HARRINGTON-MC INNIS CO INC COML PRUTRS	Pacific Telephone
	MC INNIS M E HARRINGTON-MC INNIS CO INC COMILPMTRS	Pacific Telephone
1970	HARRINGTON MC INNIS CO INC COML PRNTRS	Pacific Telephone Directory
	MCINNIS M E HARRINGTON MCINNIS CO INC COML PRNTRS	Pacific Telephone Directory
	TOOLEY TOWNE PRNTNG	Pacific Telephone Directory
1967	VACANT	R. L. Polk Co.
1962	Central Automatic Cigarette Service	Pacific Telephone
	Hom Ade Inc	Pacific Telephone
	Oakland Automatic Sales Co pin ball games	Pacific Telephone
	Tessler Sam Oakland Automatic Sales Co pin ball games	Pacific Telephone
1955	AUTOMATIC SALES CO OAKLAND	The Pacific Telephone & Telegraph Co.
	HOM-ADE INC	The Pacific Telephone & Telegraph Co.
	KITCHEN ECONOMY	The Pacific Telephone & Telegraph Co.
	OAKLAND AUTOMATIC SALES CO PIN BALL GAMES	The Pacific Telephone & Telegraph Co.
	TESSLER SAM OAKLAND AUTOMATIC SALES CO PIN BALL GAMES	The Pacific Telephone & Telegraph Co.
1945	ADLER JACK OAKLAND AUTOMATIC SALES CO	The Pacific Telephone & Telegraph Co.
	AUTOMATIC SALES CO OAKLAND	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	OAKLAND AUTOMATIC SALES CO PLN & BALL GAMES	The Pacific Telephone & Telegraph Co.
	TESSLER SAM OAKLAND AUTOMATIC SALES CO PIN & BALL GAMES	The Pacific Telephone & Telegraph Co.
1943	OAKLAND AUTOMATIC SALES CO Samuel B Tessler Wurlitzer Phonographs Vending Machines Pin Ball Games Records	R. L. Polk & Co.

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	LANGLAIS CHAS A CO	The Pacific Telephone & Telegraph Co.
1943	Kenney Carl B Clara M elec contr	R. L. Polk & Co.
1938	KENNEY ELECTRIC CO	Pacific Telephone
1933	NE PAGE KENNY CO A R KOLLS MGR ELEC CONTRS	R. L. Polk & Co.
1928	Ne Page Mc Kenny Co A R Kolls msr elec contrs	R.L. Polk and Co of California
1925	NE PAGE MCKENNY CO	R. L. Polk & Co. of California
1920	TENTH-ST GROCERY	R. L. Polk & Co. of California
	WILLIAMS ROBERT H	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	GRECO V R	R. L. Polk & Co. of California
1920	KEENAN MRS VIOLET R	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	School	PACIFIC BELL WHITE PAGES

132 10TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	XIU Fan	Haines Company, Inc.
1980	Kwong San Pik	Pacific Telephone
1970	CHINN GEO Y	Pacific Telephone Directory
1967	YCHINN GED Y	R. L. Polk Co.
1955	YEE C F R	The Pacific Telephone & Telegraph Co.
1945	YEE C F R	The Pacific Telephone & Telegraph Co.
1943	Foo Yee C Nellie clk h	R. L. Polk & Co.
1938	YEE C F R	Pacific Telephone
1933	CHANG F SUKE (QUAN) H	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	BOLTZ C H R	R. L. Polk & Co. of California
1920	ANDERSON MISS MAY R	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
1991	Lau Ha Nui	PACIFIC BELL WHITE PAGES
	Lau H Thomas & Deborah	PACIFIC BELL WHITE PAGES
	Lau Gor Oi	PACIFIC BELL WHITE PAGES
1986	Lau H G MD	PACIFIC BELL WHITE PAGES
	Lau Gor Oi	PACIFIC BELL WHITE PAGES
1970	LOUIE BANG S	Pacific Telephone Directory
1967	LOUJE BANG S	R. L. Polk Co.
1962	Low Warren	Pacific Telephone
1945	LIM TOM R	The Pacific Telephone & Telegraph Co.
1943	Hing Edw J h	R. L. Polk & Co.
1938	GOW LEW G R	Pacific Telephone
1933	TUCK SEIOU (LEE) H	R. L. Polk & Co.
1928	Jos Margt F sten Fernhoff & Sevier R	R.L. Polk and Co of California
	ct John J Emma tailo R	R.L. Polk and Co of California
	H	R.L. Polk and Co of California
1925	CONNOLLY JOHN R	R. L. Polk & Co. of California
1920	MATHEWSON LYNN D R	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
1992	JEW YEN YING	PACIFIC BELL DIRECTORY
1986	Jew Yen Ying	PACIFIC BELL WHITE PAGES
	Jew Young	PACIFIC BELL WHITE PAGES
1980	Yum Ng	Pacific Telephone
1970	YEE BING CHOW	Pacific Telephone Directory
1967	YEE BING	R. L. Polk Co.
1945	FONG BILL C R	The Pacific Telephone & Telegraph Co.
1943	Fong Henry meats r	R. L. Polk & Co.
	Chan Bill C Mamie clk h	R. L. Polk & Co.
1938	LEONG ELMER WILLIAM R	Pacific Telephone
1928	h Wm J Lulu inspr Okld Health Dept H	R.L. Polk and Co of California
1925	CAMPBELL MRS LUE R	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	CHIN JOE	Pacific Telephone Directory
1967	LEE VAN KIN	R. L. Polk Co.
1955	TABAYOYON ALICE	The Pacific Telephone & Telegraph Co.
1945	LUM BEULAH R	The Pacific Telephone & Telegraph Co.
1943	Buley Horace M Jennie mech h	R. L. Polk & Co.
1938	CHOY JACK R	Pacific Telephone
1933	LIM EFFIE MRS H	R. L. Polk & Co.
1925	TREVASKIS MRS JOHN R	R. L. Polk & Co. of California
1920	SMITH JACOB A R	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CHEN ing	Haines Company, Inc.
2000	CHEN XING	Pacific Bell
1996	CHEN JIA GAN	PACIFIC BELL DIRECTORY
1986	Yu Chun Pong	PACIFIC BELL WHITE PAGES
1975	CHENG HON	Pacific Telephone
1970	CHEW NORMAN S	Pacific Telephone Directory
1967	CHEW NORMAN S	R. L. Polk Co.
1962	Chew Norman S	Pacific Telephone
1955	CHO HONG	The Pacific Telephone & Telegraph Co.
1945	WINE GROWERS GUILD S F	The Pacific Telephone & Telegraph Co.
1943	MAGNUS Earl G watch repr r	R. L. Polk & Co.
	MAGNUS Harry G Ida watch repr h	R. L. Polk & Co.
1928	h Anna Mrs do fnshr R	R.L. Polk and Co of California
1925	CUMMINGS MRS I M R	R. L. Polk & Co. of California
1920	CONEY MRS K R	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	APARTMENTS	Haines Company, Inc.
	CHEN Sheng Mel	Haines Company, Inc.
	CHENSu U	Haines Company, Inc.
	DAHALKC Sonya	Haines Company, Inc.
	HUANG Jie Ung	Haines Company, Inc.
	KUOK Sio Heng	Haines Company, Inc.
	LAUYuet	Haines Company, Inc.
	LI Wal Nung	Haines Company, Inc.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	LIU Jlan	Haines Company, Inc.
	TNELSON Edna M	Haines Company, Inc.
	RUIYUNMa	Haines Company, Inc.
	SIONGANU	Haines Company, Inc.
	SITU Sulan	Haines Company, Inc.
	LZHENG Shun	Haines Company, Inc.
	ZHENGXn	Haines Company, Inc.
2000	101 KUOK SIO HENG	Pacific Bell
	105 YU RUYU	Pacific Bell
	106 MA JIA YU	Pacific Bell
	107 TRAN DIEN	Pacific Bell
	202 LIU JIAN	Pacific Bell
	206 HUANG SUMEI	Pacific Bell
	207 BOWIE ARTHUR	Pacific Bell
	303 TANDIWIJAYA CHARLES	Pacific Bell
	305 ZHANG RUWEI	Pacific Bell
	305 ZHANG RUWEI	Pacific Bell
1996	106 MA JIA YU	PACIFIC BELL DIRECTORY
	201 COVINGTON RICK	PACIFIC BELL DIRECTORY
	203 LAU MING SHAN	PACIFIC BELL DIRECTORY
	307 SALAMONI AUGUST	PACIFIC BELL DIRECTORY
1992	101 HUYNH QUYEN	PACIFIC BELL DIRECTORY
	106 MUI HANG CHAU	PACIFIC BELL DIRECTORY
	203 BANG JAMES Y	PACIFIC BELL DIRECTORY
	207 ZHONG RUI QIANG	PACIFIC BELL DIRECTORY
1991	Cooper Jeff	PACIFIC BELL WHITE PAGES
	Cooper Jeffrey	PACIFIC BELL WHITE PAGES
	Holland Calvin	PACIFIC BELL WHITE PAGES
	Kirkaldie D	PACIFIC BELL WHITE PAGES
	Kirkbride Patricia	PACIFIC BELL WHITE PAGES
	Kirkby Gordon F	PACIFIC BELL WHITE PAGES
	Kirke John C	PACIFIC BELL WHITE PAGES
	Zhong Rui Qlang	PACIFIC BELL WHITE PAGES
	Zhong Rui Quan	PACIFIC BELL WHITE PAGES
1986	Chiu Chan Sik	PACIFIC BELL WHITE PAGES
	Chu Hsien Ming	PACIFIC BELL WHITE PAGES
	Walsh William F	PACIFIC BELL WHITE PAGES
1980	Chin Chan Sik	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Clark G	Pacific Telephone
	Dalton Marton	Pacific Telephone
	Mc Cool Carroll	Pacific Telephone
	Menosaba Cresencio	Pacific Telephone
	Miner John L	Pacific Telephone
1975	ARNOLD SIMON	Pacific Telephone
	CHIONG KAM IP	Pacific Telephone
	HAYES FRANK	Pacific Telephone
	JENKINS CECIL	Pacific Telephone
	MC COOL NORA MRS	Pacific Telephone
1970	ARNOLD SIMON	Pacific Telephone Directory
	COATS DAVID L	Pacific Telephone Directory
	EBERWEIN EMIL	Pacific Telephone Directory
	LETTTS DAVID	Pacific Telephone Directory
	MCCOOL NORA MRS	Pacific Telephone Directory
	MINER O L	Pacific Telephone Directory
	QUIGG MICHAEL	Pacific Telephone Directory
	WESTBROOK TOM	Pacific Telephone Directory
	WHITECAR JOHN	Pacific Telephone Directory
WILLIAMS ARTHUR R	Pacific Telephone Directory	
1967	ENCINAL APARTMENTS	R. L. Polk Co.
	FISHER RAY	R. L. Polk Co.
	CONKLIN GEO	R. L. Polk Co.
	CRAFT L T	R. L. Polk Co.
	WEAVER HILDA A MRS	R. L. Polk Co.
	E 8 ERWEIN EMIL	R. L. Polk Co.
1962	Arnold Simon	Pacific Telephone
	Berryman Margaret	Pacific Telephone
	Eichenhauer Anna Mrs	Pacific Telephone
	Estell Richard E	Pacific Telephone
	Horton Edna L Mrs r	Pacific Telephone
	Knuppe Herman J Sr	Pacific Telephone
	Manlapeg Frank S	Pacific Telephone
	Manning Geo P Mrs	Pacific Telephone
	Mc Cool Nora Mrs	Pacific Telephone
	Murch Alice	Pacific Telephone
	Murch Kenneth D	Pacific Telephone
Peters Jas C	Pacific Telephone	

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Pugh Jas	Pacific Telephone
	Williams Arthur R	Pacific Telephone
1955	EICHENHAUER ANNA MRS	The Pacific Telephone & Telegraph Co.
	ESTELL RICHARD E	The Pacific Telephone & Telegraph Co.
	HARTDEGEN ZELL MRS R	The Pacific Telephone & Telegraph Co.
	HORTON EDNA L MRS R	The Pacific Telephone & Telegraph Co.
	MANNING G P R	The Pacific Telephone & Telegraph Co.
	MCCOOL NORA MRS	The Pacific Telephone & Telegraph Co.
	VANDOOREN MARY J	The Pacific Telephone & Telegraph Co.
	WENDT MARIE D	The Pacific Telephone & Telegraph Co.
	WILLIAMS ARTHUR R R	The Pacific Telephone & Telegraph Co.
	MIRANDA CASTULO	The Pacific Telephone & Telegraph Co.
	OLSON HELEN R	The Pacific Telephone & Telegraph Co.
	PORTER MARGARET MRS R	The Pacific Telephone & Telegraph Co.
	ROEN HELEN C	The Pacific Telephone & Telegraph Co.
	RUSSELL WM J	The Pacific Telephone & Telegraph Co.
	SANTOS ZAFIRA	The Pacific Telephone & Telegraph Co.
	SULLIVAN A L	The Pacific Telephone & Telegraph Co.
1945	ARROWSMITH L E MRS R	The Pacific Telephone & Telegraph Co.
	CHURCH B E MRS R	The Pacific Telephone & Telegraph Co.
	HARTDEGEN ZELL MRS R	The Pacific Telephone & Telegraph Co.
	HORTON EDNA L MRS R	The Pacific Telephone & Telegraph Co.
	LEE CORINNE R	The Pacific Telephone & Telegraph Co.
	MANNING G P R	The Pacific Telephone & Telegraph Co.
	PARKER ROBERT E R	The Pacific Telephone & Telegraph Co.
	PORTER MARGARET MRS R	The Pacific Telephone & Telegraph Co.
	SOLOMON GERTRUDE R	The Pacific Telephone & Telegraph Co.
	STAHL HAZEL R	The Pacific Telephone & Telegraph Co.
	WILLIAMS VINCENT R	The Pacific Telephone & Telegraph Co.
1943	Barnhart Maryon E Mrs smstrs h	R. L. Polk & Co.
	Bartlett Pliny V Maxine driver h	R. L. Polk & Co.
	CLARK Vera Mrs h	R. L. Polk & Co.
	Crane Geo W mech r	R. L. Polk & Co.
	Crane Lee Mrs r	R. L. Polk & Co.
	Cröse John h	R. L. Polk & Co.
	Eder Carl A Joyce welder h	R. L. Polk & Co.
	Encinal Apartments	R. L. Polk & Co.
	Gott Larry Grace h	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Greenlee J Lane mech h	R. L. Polk & Co.
	Hartdegen Cora A sten r	R. L. Polk & Co.
	Hartdegen Zelma wid J E h	R. L. Polk & Co.
	Horton Edna L Mrs mgr Encinal Apts h	R. L. Polk & Co.
	HUGHES Verona Mrs h	R. L. Polk & Co.
	Jackson Frank B blrmkr h	R. L. Polk & Co.
	LEE Connie shipydwkr h	R. L. Polk & Co.
	Manning Geo P Edith M h	R. L. Polk & Co.
	Porter Margt G wid J E h	R. L. Polk & Co.
	Rayson Glenn I Betty welder h	R. L. Polk & Co.
	Roeder Laura M wid E W r	R. L. Polk & Co.
	Sanchez Viola E clk r	R. L. Polk & Co.
	Schlegel Isabelle Mrs smstrs h	R. L. Polk & Co.
	Schoonmaker Margt Mrs h	R. L. Polk & Co.
	Solomon Gertrude E tchr Pub Sch h	R. L. Polk & Co.
	Terrell Albt L Jessie shipydwkr h	R. L. Polk & Co.
	Tremper Bernard Maxine h	R. L. Polk & Co.
	VAUGHAN Wesley Lois mech h	R. L. Polk & Co.
	Williams Arth R h	R. L. Polk & Co.
	Williams Marie H slswn J C Penney Co r	R. L. Polk & Co.
Williams Vincent D Hermine electn h	R. L. Polk & Co.	
Wood Edna M wid H C h	R. L. Polk & Co.	
Wood Lee G shipfr r	R. L. Polk & Co.	
1938	KNUPPE ROSE M RN R	Pacific Telephone
	LEVY DAN R	Pacific Telephone
	MANNING G P R	Pacific Telephone
	MILLER H W R	Pacific Telephone
	WRIGHT SYLVIA I R	Pacific Telephone
1933	COURANT A R	R. L. Polk & Co.
	COURANT JOS W (ALLIE) SPECIALIST OLIVER UNITED FILTERS H	R. L. Polk & Co.
	ENCINAL APARTMENTS	R. L. Polk & Co.
	HARTDEGEN ZELMA MRS H	R. L. Polk & Co.
	MANNING GEO P (EDITH) FORMN PT&TCO H	R. L. Polk & Co.
	MILLER HARRY W (GLADYS) SLSMN A LEVY & J ZENTNER CO H	R. L. Polk & Co.
	REEKS HAROLD (MOLLIE) SLSMN HAIDEN AUTO PARTS LTD R	R. L. Polk & Co.
	STEWART ALICE TCHR R	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	STEWART HANNAH C TCHR H	R. L. Polk & Co.
1928	Mansor Frank E Minnie deolec H	R.L. Polk and Co of California
	av M H	R.L. Polk and Co of California
	Ritchie N H	R.L. Polk and Co of California
	Vista Wm 0 formn SPCo R	R.L. Polk and Co of California
	C Gerald H	R.L. Polk and Co of California
	June H	R.L. Polk and Co of California
	Tile Alice tchr OPS H	R.L. Polk and Co of California
	Hill Hannah C tchr OPS R	R.L. Polk and Co of California
	dr Edw M mgr Cal Auto Parts & Supp Co H	R.L. Polk and Co of California
	Co Edw Mary carp H	R.L. Polk and Co of California
	Claremont Henry C Maria H	R.L. Polk and Co of California
	Claremont Maria W Mrs H	R.L. Polk and Co of California
	dr B J H	R.L. Polk and Co of California
	Emerson Milton H	R.L. Polk and Co of California
	Barnes A H	R.L. Polk and Co of California
	Bowling A H	R.L. Polk and Co of California
	Chruch W H	R.L. Polk and Co of California
	Sydney Wm C elk United Cigar Stores Co R	R.L. Polk and Co of California
	Cobolink Cecelia wid Frank H	R.L. Polk and Co of California
	Cobolink John pntr R	R.L. Polk and Co of California
	Co D A H	R.L. Polk and Co of California
	Courant A H	R.L. Polk and Co of California
	Courant Fos V driller H	R.L. Polk and Co of California
	Deeds Lillian Mrs slswmn H	R.L. Polk and Co of California
	Dyar Harold M slsamn Arthur Ramage Oo R	R.L. Polk and Co of California
	Encinal Apartments	R.L. Polk and Co of California
	Hirschman Josephine Mrs H	R.L. Polk and Co of California
	h Madge S Mrs tchr OPS R	R.L. Polk and Co of California
	elevo apr 8 H	R.L. Polk and Co of California
1925	AHRENS HENRY C R	R. L. Polk & Co. of California
	CRITES OSCAR I R	R. L. Polk & Co. of California
	HIRSCHMAN J M R	R. L. Polk & Co. of California
	MANNING G P R	R. L. Polk & Co. of California
	MANZER FRANK E R	R. L. Polk & Co. of California
	MAXWELL P H R	R. L. Polk & Co. of California
	ROTHENSTEIN J R	R. L. Polk & Co. of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1920	KANN JOS R	R. L. Polk & Co. of California
	PLATT MRS HATTIE R	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	LAUNDROMAT	Haines Company, Inc.
	RELIABLE	Haines Company, Inc.
2000	RELIABLE LAUNDROMAT	Pacific Bell
1967	WE 8 BBS LAUNDR O MAT SELF SERV	R. L. Polk Co.
1955	MERRITT PHARMACY	The Pacific Telephone & Telegraph Co.
1945	MERRITT PHARMACY	The Pacific Telephone & Telegraph Co.
1943	Amerio Alf drugs	R. L. Polk & Co.
1938	MERRITT PHARMACY	Pacific Telephone
1933	NICHOLS GEO A (LUCY E) DRUGS	R. L. Polk & Co.
1928	4th W Scott Evah L drugs	R.L. Polk and Co of California
1925	HEATHORN PHARMACY	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Soo Walter gro	R. L. Polk & Co.

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	SHAFF DORA B RESTR	R. L. Polk & Co.
1928	Stover Harry W Carrie A rest R	R.L. Polk and Co of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	YANGYong XIng	Haines Company, Inc.
2000	1 KUANG XIN HUA	Pacific Bell
1996	1 KUANG ZE L	PACIFIC BELL DIRECTORY
1992	1 LAI DUOI BICH	PACIFIC BELL DIRECTORY
	3 LAU GOR OI	PACIFIC BELL DIRECTORY
	4 LAM BING KWONG	PACIFIC BELL DIRECTORY
	5 LAO CHHAY	PACIFIC BELL DIRECTORY
1991	Lao Chhay	PACIFIC BELL WHITE PAGES
1986	Kuang Bing Huan	PACIFIC BELL WHITE PAGES
	Nguyen Kevin	PACIFIC BELL WHITE PAGES
	Poon Mamie	PACIFIC BELL WHITE PAGES
	Poon May Ann	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Hui On Sum	Pacific Telephone
	Lee John	Pacific Telephone
	Nguyen Kevin	Pacific Telephone
	Poon Mamie	Pacific Telephone
1975	CHIANG KIT CHUNG	Pacific Telephone
	MEW ARNOLD T	Pacific Telephone
	POON MAMIE	Pacific Telephone
1970	FONG WONG W G	Pacific Telephone Directory
	FONG WONG WAI GIN	Pacific Telephone Directory
	LEE CHI YING	Pacific Telephone Directory
	MEW BEN	Pacific Telephone Directory
	POON MAMIE	Pacific Telephone Directory
	SIU VICTOR W H	Pacific Telephone Directory
	WONG FAT YUEN	Pacific Telephone Directory
1967	MEW BEN C	R. L. Polk Co.
	YOUNG AH TONG	R. L. Polk Co.
	VACANT	R. L. Polk Co.
	FONG MARTIN	R. L. Polk Co.
	KWAN JOK	R. L. Polk Co.
	APARTMENTS	R. L. Polk Co.
	FONG GEO	R. L. Polk Co.
1962	Eudey Loretta r	Pacific Telephone
	Fong Benny r	Pacific Telephone
	Fong Mankin	Pacific Telephone
	Young Ah Tong	Pacific Telephone
1955	ALVES ADELINE	The Pacific Telephone & Telegraph Co.
	EUDEY LORETTA R	The Pacific Telephone & Telegraph Co.
	FONG BENNY R	The Pacific Telephone & Telegraph Co.
	YIM W G	The Pacific Telephone & Telegraph Co.
1945	STINE R A R	The Pacific Telephone & Telegraph Co.
	BERNSTEIN SAM R	The Pacific Telephone & Telegraph Co.
	EUDEY LORETTA R	The Pacific Telephone & Telegraph Co.
	SARVER DAVE R	The Pacific Telephone & Telegraph Co.
1943	Baxter Frances M Mrs clk h	R. L. Polk & Co.
	Bernstein Saml slsmn h	R. L. Polk & Co.
	Eudey John E jr mech h	R. L. Polk & Co.
	JOHNSON Jacob mech h	R. L. Polk & Co.
	Keitel Edw C mech h	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Kimell Wood B mech h	R. L. Polk & Co.
	Sarver David Eva clo dlr r	R. L. Polk & Co.
	Sarver Ysiel D mech h	R. L. Polk & Co.
	Stine Richd A May rigger h	R. L. Polk & Co.
1938	BERNSTEIN SAM R	Pacific Telephone
	SARVER DAVE R	Pacific Telephone
1933	BELLING MONROE SLSMN OAKLAND LIQUIDATION CO R	R. L. Polk & Co.
	BERNSTEIN SAML (ROSE) H	R. L. Polk & Co.
	DUBOVSKY DOROTHY HDW	R. L. Polk & Co.
	DUBOVSKY J M H	R. L. Polk & Co.
	MARGAS FANNIE D MRS H	R. L. Polk & Co.
	MARGOS GRACE (MARGOS & PORIKOS) R	R. L. Polk & Co.
	SARVER DAVID Y (EVA) 2D HD CLO	R. L. Polk & Co.
1928	CARNEY Marion L cond H	R.L. Polk and Co of California
	Francisco David Ruth H	R.L. Polk and Co of California
	Dietzler Ida H	R.L. Polk and Co of California
	Dietzler Ralph elk Werum Bros R	R.L. Polk and Co of California
	Drynen Wm J H	R.L. Polk and Co of California
	Francisco Lola C H	R.L. Polk and Co of California
	4th W Scott Evah L drugs	R.L. Polk and Co of California
	H	R.L. Polk and Co of California
1925	ADAMS FRED E R	R. L. Polk & Co. of California
	DRYNEN WM J R	R. L. Polk & Co. of California
	GOODMAN JOSEPH R	R. L. Polk & Co. of California
	SEIF MAX R	R. L. Polk & Co. of California
	SVENNEN L R	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	ZHENWanhe	Haines Company, Inc.
	NGUYEN Henry	Haines Company, Inc.
	RITZTAILOR&	Haines Company, Inc.
	ORIENT BUILDING	Haines Company, Inc.
	MATERIAL SPLY	Haines Company, Inc.
	ALTERATIONS	Haines Company, Inc.
	MATERIAL SPLY	Haines Company, Inc.
1928	Saxton Arth J Edna fruits	R.L. Polk and Co of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	ORIENT BUILDING MTL SUP CO	EDR Digital Archive
	ORIENT BUILDING MTL SUP CO	EDR Digital Archive
2010	ORIENT BUILDING MTL SUP CO	EDR Digital Archive
	ORIENT BUILDING MTL SUP CO	EDR Digital Archive

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	ORIENT BUILDING MATERIAL SUPPLIES	Pacific Bell
	ORIENT BUILDING MATERIAL SUPPLIES	Pacific Bell
1996	ORIENT BUILDING MATERIAL SUPPLIES	PACIFIC BELL DIRECTORY
	ORIENT BUILDING MATERIAL SUPPLIES	PACIFIC BELL DIRECTORY
1992	ORIENT BUILDING MATERIAL SUPPLIES	PACIFIC BELL DIRECTORY
1980	Reliable Grocery & Liquor	Pacific Telephone
	Reliable Grocery & Liquor	Pacific Telephone
1970	RELIABLE GROCERY & LIQUOR	Pacific Telephone Directory
	RELIABLE GROCERY & LIQUOR	Pacific Telephone Directory
1967	RELIA 8 LE GROCERY	R. L. Polk Co.
1962	Reliable Grocery & Liquor	Pacific Telephone
	Reliable Grocery & Liquor	Pacific Telephone
1955	RELIABLE GROCERY	The Pacific Telephone & Telegraph Co.
1945	RELIABLE GROCERY	The Pacific Telephone & Telegraph Co.
1938	MACMARR STORES	Pacific Telephone
1933	MACMARR STORES OPERATED BY MODERN FOOD CO OFFICE AND PLANT	R. L. Polk & Co.
1925	MUTUAL CREAMERY CO	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2010	SMOG QUEEN TEST ONLY	EDR Digital Archive

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2010	SMOG QUEEN TEST ONLY	EDR Digital Archive

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Jos Rachel shoe rep R	R.L. Polk and Co of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
1992	LEE TUCK	PACIFIC BELL DIRECTORY
	RITZ TAILOR	PACIFIC BELL DIRECTORY
1986	Adamation	PACIFIC BELL WHITE PAGES
	Adam Tailor Shop	PACIFIC BELL WHITE PAGES
1970	LEONG T SUN	Pacific Telephone Directory
1967	VACANT	R. L. Polk Co.
1962	Leong T Sun	Pacific Telephone
1955	LENNEAU WINGS	The Pacific Telephone & Telegraph Co.
1945	ENG JAMES L R	The Pacific Telephone & Telegraph Co.
1943	Eng Jas Merk clo clnr	R. L. Polk & Co.
1938	OZAWA F I R	Pacific Telephone
1933	IKEBUCHI USAJI CLO CLNR	R. L. Polk & Co.
1928	Hanaoka J do clnr R	R.L. Polk and Co of California
	ton Dolly Mrs H	R.L. Polk and Co of California
1925	HANAOKA J R	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	RICHMOND INDEPENDENT RICHMOND	Pacific Telephone Directory
1962	RICHMOND INDEPENDENT	Pacific Telephone
1955	RICHMOND INDEPENDENT RICHMOND	The Pacific Telephone & Telegraph Co.

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	RITZ TAYLOR	EDR Digital Archive
	RITZ TAYLOR	EDR Digital Archive
2010	RITZ TAYLOR	EDR Digital Archive

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2010	RITZ TAYLOR	EDR Digital Archive

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	RITZ TAILOR	Pacific Bell
1996	RITZ TAILOR	PACIFIC BELL DIRECTORY
1986	Polyways Agency	PACIFIC BELL WHITE PAGES
	Mei Wah Finance & Invesment US A Inc	PACIFIC BELL WHITE PAGES
	First Foundation Realty Investment Inc	PACIFIC BELL WHITE PAGES
	Dees B	PACIFIC BELL WHITE PAGES
	Deering Trading Co	PACIFIC BELL WHITE PAGES
1980	East Bay Asian Local Development Corp	Pacific Telephone
1975	DAVID & ALLAN TEXTILES	Pacific Telephone
1970	EAST BAY CHINESE YOUTH COUNCIL INC	Pacific Telephone Directory
1967	DISTR	R. L. Polk Co.
	SHAW DONALD 0 6 CO SCH SUP	R. L. Polk Co.
1962	Public Employees Service Assn Inc	Pacific Telephone
1955	BEARING INDUSTRIES INC	The Pacific Telephone & Telegraph Co.
1938	RELIABLE GROCERY	Pacific Telephone
1933	GEORGION STEPH GRO	R. L. Polk & Co.
1928	R Chas B Tena M aro	R.L. Polk and Co of California
1925	MASTERS C B DELICATESSEN	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	QUAN ZUO MA	EDR Digital Archive
	QUAN ZUO MA	EDR Digital Archive
2010	QUAN ZUO MA	EDR Digital Archive
	QUAN ZUO MA	EDR Digital Archive

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	B BAO YAN QING	Pacific Bell

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1996	A FONG K J	PACIFIC BELL DIRECTORY
1992	B FONG JOHN	PACIFIC BELL DIRECTORY
	A FONG K J	PACIFIC BELL DIRECTORY
1991	Liu Kai Li	PACIFIC BELL WHITE PAGES
	Fong K Y	PACIFIC BELL WHITE PAGES
	Fong K&S	PACIFIC BELL WHITE PAGES
	Fong KJ	PACIFIC BELL WHITE PAGES
1986	Ko Wai Yee	PACIFIC BELL WHITE PAGES
	Pong KY	PACIFIC BELL WHITE PAGES
	Fong K & S	PACIFIC BELL WHITE PAGES
	Fong KJ	PACIFIC BELL WHITE PAGES
1980	Fong K J	Pacific Telephone
	Mac Phuoc	Pacific Telephone
1975	FONG KJ	Pacific Telephone
	CHEW JIMMIE	Pacific Telephone
1970	TOY TOMMIE	Pacific Telephone Directory
	FONG K J	Pacific Telephone Directory
1967	A FONG KUM J	R. L. Polk Co.
1943	Visnovsky Carl sausagemkr h	R. L. Polk & Co.
1928	and John electn R	R.L. Polk and Co of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	APARTMENTS	Haines Company, Inc.
	CHAN Yuk Wah	Haines Company, Inc.
	DIEP Llen	Haines Company, Inc.
	FENG Mel	Haines Company, Inc.
	HAN Hong Min	Haines Company, Inc.
	LI Lun An	Haines Company, Inc.
	NG Yin	Haines Company, Inc.
	PUN Kung Heung	Haines Company, Inc.
2000	2 PUN KUNG HEUNG	Pacific Bell
	6 LEI SHI ZHUANG	Pacific Bell
	8 HAN HONG MIN	Pacific Bell
	10 DIEP MY	Pacific Bell
	REAR CHAN YUK WAH	Pacific Bell
1996	2 PUN KUNG HEUNG	PACIFIC BELL DIRECTORY
	3 HESS JOHN	PACIFIC BELL DIRECTORY
	6 DONG SHUQUAN	PACIFIC BELL DIRECTORY

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1996	8 HAN HONG MIN	PACIFIC BELL DIRECTORY
	10 DIEP MY	PACIFIC BELL DIRECTORY
1992	HE SHANCHI	PACIFIC BELL DIRECTORY
	2 PUN KUNG HEUNG	PACIFIC BELL DIRECTORY
	3 HESS JOHN	PACIFIC BELL DIRECTORY
	8 HAN HONG MIN	PACIFIC BELL DIRECTORY
	10 DIEP MY	PACIFIC BELL DIRECTORY
1991	Cerinio Rufino C	PACIFIC BELL WHITE PAGES
	Cerio Gary & Karen	PACIFIC BELL WHITE PAGES
	Diep My	PACIFIC BELL WHITE PAGES
	He Shanchi	PACIFIC BELL WHITE PAGES
	Ng Wanda	PACIFIC BELL WHITE PAGES
	Ng Warren	PACIFIC BELL WHITE PAGES
	Pun Kung Heung	PACIFIC BELL WHITE PAGES
1986	Cerinio Rufino C	PACIFIC BELL WHITE PAGES
	Cerio Gary & Karen	PACIFIC BELL WHITE PAGES
	Gin Bow	PACIFIC BELL WHITE PAGES
	Hess John	PACIFIC BELL WHITE PAGES
	Lau Yiu Chung	PACIFIC BELL WHITE PAGES
	Nunes Fay	PACIFIC BELL WHITE PAGES
	Pun Kung Heung	PACIFIC BELL WHITE PAGES
1980	Cerinio Rufino C	Pacific Telephone
	Hess John	Pacific Telephone
	Hong Caro C	Pacific Telephone
	Nunes Fay	Pacific Telephone
	Pun Kung Heung	Pacific Telephone
	Tai Kit Ming	Pacific Telephone
1975	CERINLO RUFINO C	Pacific Telephone
	DACUMOS NORBERTO	Pacific Telephone
	HESS JOHN	Pacific Telephone
	MARAMBA PHILLIP	Pacific Telephone
1970	NUNES FAY	Pacific Telephone
	BALCITA LARRY	Pacific Telephone Directory
	CERINIO RUFINO C	Pacific Telephone Directory
	HESS JOHN	Pacific Telephone Directory
	SALTIVAN FRANK	Pacific Telephone Directory
1967	SANTOS FRANCISCO	Pacific Telephone Directory
	CHAMBERLAIN APARTMENTS	R. L. Polk Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	LOGAN F RAYMOND	R. L. Polk Co.
	MARTINEZ ALI	R. L. Polk Co.
	HESS MAUDIE MRS	R. L. Polk Co.
	MAC DONALD JACK M	R. L. Polk Co.
	SALEH SAVED	R. L. Polk Co.
	MC EVILLY PATK J	R. L. Polk Co.
	BALCITA LARRY	R. L. Polk Co.
	BANDANYO HENRY	R. L. Polk Co.
	SALTIVAN FRANK	R. L. Polk Co.
1962	Fernandes Robt	Pacific Telephone
	Hess John	Pacific Telephone
	Mathis Geraldine	Pacific Telephone
	Mathis Hollis H	Pacific Telephone
1955	HESS JOHN	The Pacific Telephone & Telegraph Co.
	SLAUGHTER L T	The Pacific Telephone & Telegraph Co.
1945	NETHERTON H W R	The Pacific Telephone & Telegraph Co.
1943	Berryhill Preston W Exie shipydwr h	R. L. Polk & Co.
	Chamberlain Apartments	R. L. Polk & Co.
	Coffee John Essie mech h	R. L. Polk & Co.
	Kusmaul Louis T shipydwr h	R. L. Polk & Co.
	La Rose John J Lorraine mgr Chamberlain Apts h	R. L. Polk & Co.
	Mc DANIEL Robt M Leota steelwkr h	R. L. Polk & Co.
	Mc Millan Thos h	R. L. Polk & Co.
	MURRAY Chas K Jennie h	R. L. Polk & Co.
	Murray Robt E r	R. L. Polk & Co.
	Netherton Hubert W driver r	R. L. Polk & Co.
	Netherton Mary Mrs h	R. L. Polk & Co.
	Pate Delton Gladine shipydwr h	R. L. Polk & Co.
	Rosenthal Geo E Pauline shipydwr h	R. L. Polk & Co.
	Willich Harry r	R. L. Polk & Co.
1938	WRIGHT W MRS R	Pacific Telephone
1933	AVILLA JOHN WAITER R	R. L. Polk & Co.
	CESENA FRANK R CLO CLNR R	R. L. Polk & Co.
	CESENA FREDK W (ANNA) CLK H	R. L. Polk & Co.
	CHAMBERLIN APARTMENTS	R. L. Polk & Co.
	COLLING JOHN T (ELIZ) RTE SUPVR BLUE RIBBON PRODUCTS CO R	R. L. Polk & Co.
	MORRIS ANGELINA H	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	SALAS JOHN H	R. L. Polk & Co.
	TERRA MANUEL (ANNA) JAN H	R. L. Polk & Co.
1928	tli Apartments	R.L. Polk and Co of California
	Fairview W J hb H	R.L. Polk and Co of California
	t Gilbert E driver H	R.L. Polk and Co of California
	G Geo H	R.L. Polk and Co of California
	Kem Beatrice A Mrs H	R.L. Polk and Co of California
	San Irene slswmn R	R.L. Polk and Co of California
	h Thos H	R.L. Polk and Co of California
	Pedrick Percival H	R.L. Polk and Co of California
1925	CHAMBERLIN APARTMENTS	R. L. Polk & Co. of California
1920	CHAMBERLIN RUTH	R. L. Polk & Co. of California
	SILVA M E R	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
1975	HOPKINS DAN I	Pacific Telephone
	FONG KH	Pacific Telephone
1970	FONG K H	Pacific Telephone Directory
1967	FONG K H	R. L. Polk Co.
1962	Fong K H r	Pacific Telephone
1955	LEE CHESTER R	The Pacific Telephone & Telegraph Co.
	FONG K H R	The Pacific Telephone & Telegraph Co.
1943	Murray Wm lab r	R. L. Polk & Co.
	MARTIN Herbt Anna h	R. L. Polk & Co.
	Garnett Wm S r	R. L. Polk & Co.
	Fellnor John E mech r	R. L. Polk & Co.
	Boettcher Robt mech r	R. L. Polk & Co.
1938	UDOVICH JOE R	Pacific Telephone
1933	WILSON VERNE (DORIS) WELDER R	R. L. Polk & Co.
	UDOVICH JOS WLDR R	R. L. Polk & Co.
	ROGERS WM (EVELYN) RADIO MECH H	R. L. Polk & Co.
	MCKENNON JOHN R	R. L. Polk & Co.
1928	i Wm mach rn R	R.L. Polk and Co of California
	Ingelman Ruth Mrs H	R.L. Polk and Co of California
	University Burnell Gertrude H	R.L. Polk and Co of California
	62d Henry auto mech R	R.L. Polk and Co of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	FOX MRS B R	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	LI Wel Llang	Haines Company, Inc.
	LI Rong	Haines Company, Inc.
2000	A ZHONG RUI NENG	Pacific Bell
1996	A ZHONG RUI NENG	PACIFIC BELL DIRECTORY
1992	TANG PHUONG D	PACIFIC BELL DIRECTORY
1991	Gao S	PACIFIC BELL WHITE PAGES
	Gao R	PACIFIC BELL WHITE PAGES
	Gao Qian Qun	PACIFIC BELL WHITE PAGES
1986	Fong Eva	PACIFIC BELL WHITE PAGES
1980	Lam Cho Hon	Pacific Telephone
1975	LEE GILBERT	Pacific Telephone
1970	CHIN GILBERT W	Pacific Telephone Directory
1967	FONG WAN W	R. L. Polk Co.
1962	Fong Warren W	Pacific Telephone
	Satterfield David	Pacific Telephone
	Satterfield Theresa	Pacific Telephone

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	States Fredk C Charlotte mech h	R. L. Polk & Co.

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Tomlin Richd shipydwkr r	R. L. Polk & Co.

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	STANDARD SAW WORKS	Pacific Telephone Directory
1967	STANDARD SAW WORKS	R. L. Polk Co.
1962	Standard Saw Works	Pacific Telephone
1955	STANDARD SAW WORKS	The Pacific Telephone & Telegraph Co.

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	SDJ MARKET INC	EDR Digital Archive
	CHOO INTERNATIONAL INC	EDR Digital Archive
	CHOO INTERNATIONAL INC	EDR Digital Archive
	SDJ MARKET INC	EDR Digital Archive

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CARBOYAUTO	Haines Company, Inc.
	ACCESSORY&	Haines Company, Inc.
	STEREO	Haines Company, Inc.
2000	CAR BOY AUTO ACCESSORIES & STEREO	Pacific Bell
1992	TIN LOK HUNG INC	PACIFIC BELL DIRECTORY
	SINCERE PLUMBING & HARDWARE	PACIFIC BELL DIRECTORY
1991	Sincere Plumbing & Hardware	PACIFIC BELL WHITE PAGES
1986	General Plumbing & Hardware Supply	PACIFIC BELL WHITE PAGES
1980	Bearing Service Whse	Pacific Telephone
	G T Parts & Machine	Pacific Telephone
1975	BEARING SERVICE WHSE	Pacific Telephone
	G-T PARTS & MACHINE	Pacific Telephone
1970	GESTETNER CORPORATION	Pacific Telephone Directory
1967	GESTETNER CORP OF CALIFORNIA	R. L. Polk Co.
	DUPLICATING MACHS	R. L. Polk Co.
1962	Electric Corporation of Oakland The	Pacific Telephone
	The Electric Corporation of Oakland	Pacific Telephone
1955	ELECTRIC CORPORATION THE	The Pacific Telephone & Telegraph Co.
	THE ELECTRIC CORP	The Pacific Telephone & Telegraph Co.
1945	ELECTRIC CORPORATION THE	The Pacific Telephone & Telegraph Co.
1943	ELECTRIC Corporation elec supps W E Ayden mgr	R. L. Polk & Co.
1938	ELECTRIC CORPORATION THE	Pacific Telephone
1933	ELECTRIC CORP W E AYDEN MGR ELEC SUPP	R. L. Polk & Co.
1925	CARPENTER VIOLA R	R. L. Polk & Co. of California
1920	HILL EDMUND C R	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	VACANT	R. L. Polk Co.
1933	BEAUREGARD NORRIS (LILLIAN) BRKLYR R	R. L. Polk & Co.

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	STANDARD SAW WORKS INC	EDR Digital Archive
	STANDARD SAW WORKS INC	EDR Digital Archive
2010	STANDARD SAW WORKS INC	EDR Digital Archive
	STANDARD SAW WORKS INC	EDR Digital Archive

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	WORKS	Haines Company, Inc.
	STANDRD SAW	Haines Company, Inc.
2000	STANDARD SAW WORKS	Pacific Bell
1996	STANDARD SAW WORKS INC	PACIFIC BELL DIRECTORY
1992	STANDARD SAW WORKS INC	PACIFIC BELL DIRECTORY
1991	S T A N D A R D S A W W O R K S I N C	PACIFIC BELL WHITE PAGES
1980	STANDARD SAW WORKS INC	Pacific Telephone
1970	PHOENIX PHOTO ENGRAVING & LITHOGRAPHIC SERVICE	Pacific Telephone Directory
1967	PHOENIX PHOTO ENGRAVING	R. L. Polk Co.
1962	BEARING INDUSTRIES INC	Pacific Telephone
1955	LIAO CHEN CHIEN R	The Pacific Telephone & Telegraph Co.
1943	REGAN Thos M welder r	R. L. Polk & Co.
	POWERS Frank J shipydwkr r	R. L. Polk & Co.
	POWERS Alvin M shipydwkr h	R. L. Polk & Co.
	Horton Jesse F mech r	R. L. Polk & Co.
	Horton Harry A welder r	R. L. Polk & Co.
	Hidalgo Horacio lab r	R. L. Polk & Co.
	Hatch Geo W welder r	R. L. Polk & Co.
	Carver Leonard welder r	R. L. Polk & Co.
	Drakos John h	R. L. Polk & Co.
	Green Wm G shipftr r	R. L. Polk & Co.

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
1938	DRAKOS JOHN R	Pacific Telephone
1933	DRAKAS JOHN H	R. L. Polk & Co.
	LEON MICHL LAB H	R. L. Polk & Co.
	SANDERS LILLIAN F MRS (IDEAL LUNCH) R	R. L. Polk & Co.
	TOPALIS ANGELO (MARGERY) COOK H	R. L. Polk & Co.
1928	Haege Herman R	R.L. Polk and Co of California
	Haege Rose Mrs H	R.L. Polk and Co of California
	Mayo JUla Mrs H	R.L. Polk and Co of California
	F Josie Mrs H	R.L. Polk and Co of California
	35th Lydia Mrs waiter H	R.L. Polk and Co of California
	Drakas Johi H	R.L. Polk and Co of California
1925	DRAKOS JOHN R	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	SANPEDRO METAL	Haines Company, Inc.
1991	Maercks Owen	PACIFIC BELL WHITE PAGES
	Maenchen M	PACIFIC BELL WHITE PAGES
	Maenchen A	PACIFIC BELL WHITE PAGES
	Maelstrom Productions	PACIFIC BELL WHITE PAGES
1980	Weiss Jeffrey	Pacific Telephone
	Weiss Jean Singerman	Pacific Telephone
1945	AMER EXPORT PACKAGING CO	The Pacific Telephone & Telegraph Co.

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
1967	NO RETURN	R. L. Polk Co.
1955	ROCHOCZ RUDOLF	The Pacific Telephone & Telegraph Co.
	CROUCH ROBT J R	The Pacific Telephone & Telegraph Co.
1943	Crouch Robt J L Amelia welder h	R. L. Polk & Co.
	Bahl Eliz clk r	R. L. Polk & Co.
1925	SEGIL M R	R. L. Polk & Co. of California
1920	STROBRIDGE MRS H ARTHUR R	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2010	TOYS IN BABELAND LLC	EDR Digital Archive
	TOYS IN BABELAND LLC	EDR Digital Archive

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	TOYS IN BABELAND	Haines Company, Inc.
1986	Southwest Traders	PACIFIC BELL WHITE PAGES
	Southwest Media Distributing Inc	PACIFIC BELL WHITE PAGES
	No Smoking Foundation	PACIFIC BELL WHITE PAGES
	No Name Records	PACIFIC BELL WHITE PAGES
1980	Ainlay & Alexander	Pacific Telephone
1975	COIN-OP PRODUCTS	Pacific Telephone
1970	BURKE ENGINEERING CO	Pacific Telephone Directory
1967	BURKE ENGINEERING CO CONTROL	R. L. Polk Co.
1945	HOBART EXPRESS CO	The Pacific Telephone & Telegraph Co.
1928	Haddon Rosse M Inc R M Ofson pres H E Perl v pres elec equip	R.L. Polk and Co of California
	versity Harold K slsmn Rosse M Gilson Inc R	R.L. Polk and Co of California
1925	CURRIE MRS EVA R	R. L. Polk & Co. of California
1920	FOLSOM MRS IDA L R	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	KWOKDe Jun	Haines Company, Inc.
	GUOXiao	Haines Company, Inc.
2000	HO MOC	Pacific Bell
1996	HUANG SHI Q	PACIFIC BELL DIRECTORY
1992	LIAO CHEN CHIEN	PACIFIC BELL DIRECTORY
1991	Liao Chen Chien	PACIFIC BELL WHITE PAGES
1986	Liao Chen Chien	PACIFIC BELL WHITE PAGES
1980	Liao Chen Chien	Pacific Telephone
1975	LIAO CHEN CHIEN	Pacific Telephone
1970	LIAO CHEN CHIEN	Pacific Telephone Directory
1967	GEE BING J	R. L. Polk Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	HUGHES J J	The Pacific Telephone & Telegraph Co.
1945	CROUCH LLOYD S R	The Pacific Telephone & Telegraph Co.
1943	Couch Thos E mech r	R. L. Polk & Co.
	Crouch Lloyd S Veronica electn h	R. L. Polk & Co.
1933	MARK HOWARD K PORTER R	R. L. Polk & Co.
1928	h Jas H Lulu M auto mech H	R.L. Polk and Co of California
	t Carl y Pial H	R.L. Polk and Co of California
	Carlos Emma Mrs H	R.L. Polk and Co of California
	Pucci Ferdinand H	R.L. Polk and Co of California
1925	SMITHERS MRS M O R	R. L. Polk & Co. of California
1920	HAMBLETON CHAS G R	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
1992	OWYANG BENNY & JANICE	PACIFIC BELL DIRECTORY
1991	Owyang Calvin C	PACIFIC BELL WHITE PAGES
	Owyang Benny & Janice	PACIFIC BELL WHITE PAGES
1986	Owyang Sam	PACIFIC BELL WHITE PAGES
1980	Owyang Sam	Pacific Telephone
1970	TOM HENRY S	Pacific Telephone Directory
	TOM WM S	Pacific Telephone Directory
1967	TOM HENRY S	R. L. Polk Co.
1962	Tom Henry S r	Pacific Telephone
1955	TOM HENRY S R	The Pacific Telephone & Telegraph Co.
1943	TOM Harry S h	R. L. Polk & Co.
1938	WONG DON R	Pacific Telephone
1928	dolph Eug R	R.L. Polk and Co of California
	Creel Henry BE lk MW&Co R	R.L. Polk and Co of California
1925	ASHER MRS M R	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	OAKLAND SEWING CO	Pacific Bell
1996	OAKLAND SEWING CO	PACIFIC BELL DIRECTORY
1992	OAKLAND SEWING CO	PACIFIC BELL DIRECTORY
1980	Pannycake Food Products	Pacific Telephone
1975	PANNYCAKE FOOD PRODUCTS	Pacific Telephone
1970	BEARING SERVICE WHSE	Pacific Telephone Directory

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	BEARING SERVICE WAREHOUSE INC	R. L. Polk Co.
1962	Coinway Inc vending equip sales	Pacific Telephone
1955	EXCHANGE DISTR	The Pacific Telephone & Telegraph Co.
	HOWARD CO THE	The Pacific Telephone & Telegraph Co.
1945	SEAGRAVE J C MGR RUUD HEATER CO	The Pacific Telephone & Telegraph Co.
	RUUD HEATER CO	The Pacific Telephone & Telegraph Co.
	FRASER FURNACE CO AGENCY	The Pacific Telephone & Telegraph Co.
	POLLARD SEAGRAVE CO SEE RUUD HEATER CO	The Pacific Telephone & Telegraph Co.
1943	Ruud Heater Co J C Seagrave mgr	R. L. Polk & Co.
1938	PINKSTON-TUCKER CO	Pacific Telephone
1933	BAY CITIES ASBESTOS CO LTD S S WELLS PRES M A CLUNE V-PRES A G MARKHAM SEC	R. L. Polk & Co.

10th St

189 10th St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2010	TQCP INC	EDR Digital Archive
	AURORAMAX INC	EDR Digital Archive
	AURORAMAX INC	EDR Digital Archive
	TQCP INC	EDR Digital Archive

10TH ST

189 10TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	KUAN Chi Hong	Haines Company, Inc.
	GUAN Guanyong	Haines Company, Inc.
2000	WONG YUEN	Pacific Bell
1996	WONG YUEN	PACIFIC BELL DIRECTORY
1992	WONG YUEN	PACIFIC BELL DIRECTORY
1991	Wang Yuen	PACIFIC BELL WHITE PAGES
1986	Wong LA	PACIFIC BELL WHITE PAGES
	W ang L C	PACIFIC BELL WHITE PAGES
1975	FANG LUM SUN	Pacific Telephone
1970	FONG LUM SUN	Pacific Telephone Directory
1967	FONG LUM	R. L. Polk Co.
1962	Hsue Paul	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	YUEN JACK	The Pacific Telephone & Telegraph Co.
1943	Lim Yowe Wong S cook h	R. L. Polk & Co.

10th St

190 10th St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	SPEED TAX RETURN	EDR Digital Archive
	SPEED TAX RETURN	EDR Digital Archive
2010	SPEED TAX RETURN	EDR Digital Archive
	LOVANA INSURANCE SERVICES	EDR Digital Archive
	LOVANA INSURANCE SERVICES	EDR Digital Archive
	SPEED TAX RETURN	EDR Digital Archive

10TH ST

190 10TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1920	GWIN ALBERT R	R. L. Polk & Co. of California

192 10TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1996	CUTTING EDGE MAGAZINE	PACIFIC BELL DIRECTORY
1986	Den Bi	PACIFIC BELL WHITE PAGES
	den Breejen Kees	PACIFIC BELL WHITE PAGES
1980	LEngle Frank F Goodman LEngel Nelson & Co accts	Pacific Telephone
	Goodman LEngel Nelson & Co accts	Pacific Telephone
1967	VACANT	R. L. Polk Co.
1955	HUGHETT EARL F ENGRVNG	The Pacific Telephone & Telegraph Co.
	BECKWITH O F BANKERS PRINTING CO	The Pacific Telephone & Telegraph Co.
	BANKERS PRINTING CO	The Pacific Telephone & Telegraph Co.
1945	BECKWITH O F BANKERS PRINTING CO	The Pacific Telephone & Telegraph Co.
	BANKERS PRINTING CO	The Pacific Telephone & Telegraph Co.
1943	Beckwith Oliver F Ruth W printer	R. L. Polk & Co.
1938	BANKERS PRINTING CO	Pacific Telephone
	BECKWITH O F BANKERS PRINTING CO	Pacific Telephone
1933	BANKERS PRINTING CO G E BECKWITH MGR	R. L. Polk & Co.

FINDINGS

195 10TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MEW ARNOLD T	Pacific Telephone
1970	WONG SAML	Pacific Telephone Directory

169A 10TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	FONG EDGAR	The Pacific Telephone & Telegraph Co.

173A 10TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LEE KA PO	Pacific Telephone Directory

185A 10TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	SNYDER BARTON R	The Pacific Telephone & Telegraph Co.

6 ADDISIN INK ST

14 6 ADDISIN INK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	FREEMAN J L	Pacific Telephone

6 AMADOR VALLEY BI ST

76 6 AMADOR VALLEY BI ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1979	DUBLIN PUBLIC LIBRARY	Pacific Telephone

6 ARCADIAN DR CASTRO VALLEY ST

36 6 ARCADIAN DR CASTRO VALLEY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	BRANSON DONALD	Pacific Telephone

6 BAYVW OR ST

28 6 BAYVW OR ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MANDAS JOHN	Pacific Telephone

FINDINGS

6 BRECKNRDGE ST

108 6 BRECKNRDGE ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MARALDO JOHN	Pacific Telephone

6 EDGEMR ST

150 6 EDGEMR ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	DRUMM WILBUR D	Pacific Telephone

6 ELLIS ST

32 6 ELLIS ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	BATCHAN JOHNNIE	Pacific Telephone

6 EVELETH AV SLT ST

173 6 EVELETH AV SLT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	COOK JOHN C JR	Pacific Telephone

6 HIGH ST

72 6 HIGH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	HYMAN GERALD	Pacific Telephone

6 HOLLY ST

76 6 HOLLY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	CALLUM J H	Pacific Telephone

6 JOSEPHNE BIT ST

131 6 JOSEPHNE BIT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MUIHULL ED	Pacific Telephone

FINDINGS

6 KING DR BC ST

122 6 KING DR BC ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	FALCONER D P	Pacific Telephone

6 LOCHARD ST

114 6 LOCHARD ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MATTEUCCI GERALD	Pacific Telephone

6 LYON AV 53 ST

36 6 LYON AV 53 ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	ANKI R	Pacific Telephone

6 OUTMNT OR WELNST CREET ST

121 6 OUTMNT OR WELNST CREET ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	LEWFORD MARGARET FORD	Pacific Telephone

6 PINE VALLEY RD SAN ORMN ST

30 6 PINE VALLEY RD SAN ORMN ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1979	WEST GARY	Pacific Telephone

6 RUTHFRD ST

20 6 RUTHFRD ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	NAVARRO MARGE	Pacific Telephone

6 TAYLOR ST

94 6 TAYLOR ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MEYER WM C JR	Pacific Telephone

FINDINGS

6 THE ALAMEDA ST

60 6 THE ALAMEDA ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	GAGE WM R	Pacific Telephone

6 VIEW P! ST

44 6 VIEW P! ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	BETTERTON JAS S	Pacific Telephone

6 VIEW PIL ST

44 6 VIEW PIL ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	EEGELMAA BN LYLE	Pacific Telephone

6 VIRGINIA ST

24 6 VIRGINIA ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	BLAND BYRON	Pacific Telephone

6 VLRGINIA BRLK ST

24 6 VLRGINIA BRLK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	JARAMILLO D M	Pacific Telephone

6 YOSEMLTE RD BRI ST

18 6 YOSEMLTE RD BRI ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MARSH GERALD E	Pacific Telephone

6HENRYB 3RK ST

14 6HENRYB 3RK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	HAWORTH LEE	Pacific Telephone

FINDINGS

6M SM BIILL ALNR449 ST

44 6M SM BIILL ALNR449 ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1979	ROBERIS JOEN P	Pacific Telephone

6TH PARK AIMNDA ST

152 6TH PARK AIMNDA ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	JOSTLE WM J JR REALTY	Pacific Telephone

6th St

50 6th St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2010	SUPER 8 MOTEL	EDR Digital Archive
	SUPER 8 MOTEL	EDR Digital Archive

6TH ST

50 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	CIVIC CENTER LODGE	Pacific Bell
1996	CIVIC CENTER LODGE	PACIFIC BELL DIRECTORY
	PATEL RAMESH D	PACIFIC BELL DIRECTORY
1992	CIVIC CENTER LODGE	PACIFIC BELL DIRECTORY
1986	Patel Ramesh	PACIFIC BELL WHITE PAGES
1980	Patel Ramesh	Pacific Telephone

60 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	LAHER E R	The Pacific Telephone & Telegraph Co.
1943	SILVA John L Blanche mech h	R. L. Polk & Co.
	GONZALES Henry F Trinidad lab h	R. L. Polk & Co.
1933	SANDERS PHILIP S (ETTA) LAB H	R. L. Polk & Co.
	GAVAGAN THOS M CEMENTWKR R	R. L. Polk & Co.
	DE COIT ARSEN (SIGNA) H	R. L. Polk & Co.
	BUTLER JAS (EFFIE) H	R. L. Polk & Co.
1928	Dawson Agnes wid Jack R	R.L. Polk and Co of California
	h Jack Elsie pntr H	R.L. Polk and Co of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	PP Emma P wid Frank H	R.L. Polk and Co of California

70 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	MORAN THOMAS R	The Pacific Telephone & Telegraph Co.
1943	MORAN Ralph Cora L whsmn h	R. L. Polk & Co.
1928	Jos blksmth H	R.L. Polk and Co of California
	N Florence R	R.L. Polk and Co of California
	Cashin Clara Mrs R	R.L. Polk and Co of California
1925	SCHUSTER HARRY R	R. L. Polk & Co. of California

84 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	ODA NOBU	The Pacific Telephone & Telegraph Co.
	GOYA NEAL	The Pacific Telephone & Telegraph Co.
1943	Peacock Edw W h	R. L. Polk & Co.
1938	DAKUZAKU C R	Pacific Telephone
1928	R	R.L. Polk and Co of California
	Tanaka H S 4582d hd gds	R.L. Polk and Co of California

98 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	YAMAJI FRANK	The Pacific Telephone & Telegraph Co.
	HARADA TOM R	The Pacific Telephone & Telegraph Co.
	FUJINAMI R R	The Pacific Telephone & Telegraph Co.
1945	INSIGNE LAURA R	The Pacific Telephone & Telegraph Co.
1943	Caten Norman R supvr WDCCo r	R. L. Polk & Co.
	GLENN Thos B Libbie lab r	R. L. Polk & Co.
	Insigne Beatrice V clk r	R. L. Polk & Co.
	Insigne Laura V clk r	R. L. Polk & Co.
	Lay Elgin clk r	R. L. Polk & Co.
	Lopez Pacifico V Filomena lab h	R. L. Polk & Co.
	Simerley Saml H Geneva welder h	R. L. Polk & Co.
	Staufer Chas Viola lab h	R. L. Polk & Co.
	Villamor Melecia Mrs r	R. L. Polk & Co.
1938	MIZUSHIMA M R	Pacific Telephone
	SASAKI KIYOTAKA R	Pacific Telephone
	SASANO TOM T R	Pacific Telephone
	YAMADA PAUL Y R	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	KAMADA MAX H	R. L. Polk & Co.
	MATSUDA SAML R	R. L. Polk & Co.
	ONISHI MASATO R	R. L. Polk & Co.
1928	h t Olaire pkr R	R.L. Polk and Co of California
	Harry Irvn lab R	R.L. Polk and Co of California
	h Louise pkr R	R.L. Polk and Co of California
	Oak Apartments	R.L. Polk and Co of California
	Williams Albt fctywkr R	R.L. Polk and Co of California
	Pa Ainie Mrs H	R.L. Polk and Co of California
1925	PRICE FRANK F R	R. L. Polk & Co. of California
	BLATCHLEY A F R	R. L. Polk & Co. of California
1920	BLATCHLEY A F R	R. L. Polk & Co. of California

098 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	POFI LOUIS A	Pacific Telephone

106 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Phelan F J whsmn CS & F r	R. L. Polk & Co.

111 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	SMITH & MILLER	R. L. Polk & Co. of California
	PERFECT POLISH CO	R. L. Polk & Co. of California

112 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	SIMMONS RUSSELL J	Pacific Telephone Directory
	BARKER ROGER E	Pacific Telephone Directory
	BARGIACCHI JOSEPHINE	Pacific Telephone Directory
1962	Simmons Russell J	Pacific Telephone
	Bargiacchi Josephine	Pacific Telephone
	Mc Namara Ann	Pacific Telephone
1955	BARGIACCHI JOSEPHINE	The Pacific Telephone & Telegraph Co.
	DELLIS HARRY C	The Pacific Telephone & Telegraph Co.
	TURNER FRANCIEN	The Pacific Telephone & Telegraph Co.
	GUARD ROSS	The Pacific Telephone & Telegraph Co.

FINDINGS

116 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	VILLA PELUSO	Pacific Telephone
1955	VILLA DE LA PAIX RSTRNT	The Pacific Telephone & Telegraph Co.

117 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Andes Geo Lupe h	R. L. Polk & Co.
1933	DRANE L HENRY (IDELLA) H	R. L. Polk & Co.

118 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	CORBETT JOAN	Pacific Telephone

119 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	DOWNEY JAS F LAB R	R. L. Polk & Co.
1928	Phone Lucy Mrs drayage	R.L. Polk and Co of California
1925	MUIR R DRAYING	R. L. Polk & Co. of California

120 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1956	Fuchs Bob	Pacific Telephone

121 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	SINIBALDI PETER (MARY) HORSESHOER	R. L. Polk & Co.

124 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	CHAN CHESTER R	The Pacific Telephone & Telegraph Co.
1943	Chan Chester Daisy h	R. L. Polk & Co.
1938	CHAN CHESTER R	Pacific Telephone

125 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1920	COURT LEE R	R. L. Polk & Co. of California

126 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	STANDARD STATIONS INC	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	LEE JIMMY R	The Pacific Telephone & Telegraph Co.
1943	Cheant Jos h	R. L. Polk & Co.
	Cheant Matthew USA r	R. L. Polk & Co.

128 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	SAHAGON STANLEY R	The Pacific Telephone & Telegraph Co.

130 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Yee Kam Shin Ng Shee jan r	R. L. Polk & Co.

150 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	CARRILLO LUIS L	Pacific Telephone

151 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	PERUCCA MARGT R BERKELEY	R. L. Polk & Co.

161 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Phlp Irene l	PACIFIC BELL WHITE PAGES
	Ph llps J	PACIFIC BELL WHITE PAGES
	Phillips J	PACIFIC BELL WHITE PAGES

165 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	LEONG EDDIE R	The Pacific Telephone & Telegraph Co.
1943	Moreno Gabriel S Angelina clk h	R. L. Polk & Co.
	Aranas Louis C Lillian seamn r	R. L. Polk & Co.
1938	YAMASAKI K R	Pacific Telephone
1925	YAMASAKI K R	R. L. Polk & Co. of California

169 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	DARE MORRIS R	The Pacific Telephone & Telegraph Co.
1938	KUROTSUCHI Z R	Pacific Telephone
1920	NIESSEN ADOLPH E R	R. L. Polk & Co. of California

FINDINGS

6th St

170 6th St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	BAY AREA GENERAL CONTRACT	EDR Digital Archive
	BAY AREA GENERAL CONTRACT	EDR Digital Archive

6TH ST

170 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
1986	Phan Trieu G	PACIFIC BELL WHITE PAGES
	Phan Tu Van	PACIFIC BELL WHITE PAGES
1980	Chiu Tony	Pacific Telephone
1970	SUE W	Pacific Telephone Directory
1962	Choy Wm D Y	Pacific Telephone
1955	NG LAN FONG MRS	The Pacific Telephone & Telegraph Co.
1945	SUN KOOK R	The Pacific Telephone & Telegraph Co.
1943	Sun Kock Lan F clk h	R. L. Polk & Co.
1938	SUN KOCK R	Pacific Telephone
1925	EPSTEIN S R	R. L. Polk & Co. of California

173 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	HING TIM R	The Pacific Telephone & Telegraph Co.
1943	Conedera John Anna shipydwr h	R. L. Polk & Co.
	Hing Lola C clk r	R. L. Polk & Co.
	Hing Tim G Lola welder h	R. L. Polk & Co.
1938	HING TIM R	Pacific Telephone

174 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Jew Sue K	Pacific Telephone
1955	JEW MING	The Pacific Telephone & Telegraph Co.
1945	CHEW BOCK R	The Pacific Telephone & Telegraph Co.
1943	Jew Bock clk h	R. L. Polk & Co.
1938	CHEW FRANK R	Pacific Telephone

FINDINGS

176 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
1975	LEE YUET	Pacific Telephone
1970	LEE YUET	Pacific Telephone Directory
1962	Lim Lee	Pacific Telephone

177 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	ARMSTRONG B G	Pacific Telephone

178 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	MEI De Chu	Haines Company, Inc.
	XU Hong Ga	Haines Company, Inc.
2000	JIANG SU MEI	Pacific Bell
	SU XIAN MING	Pacific Bell
	XU HONG GE	Pacific Bell
1996	LAM CHUNG KWAN	PACIFIC BELL DIRECTORY
1992	LAM CHUNG KWAN	PACIFIC BELL DIRECTORY
1991	Lam Chung Kwan	PACIFIC BELL WHITE PAGES
1986	Lam Chung Kwan	PACIFIC BELL WHITE PAGES
1980	Lam Chung Kwan	Pacific Telephone
1943	KEY Lum Chen meat ctr h	R. L. Polk & Co.
1938	FONG K H R	Pacific Telephone
1925	OGATA T R	R. L. Polk & Co. of California

180 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	ZENG 2we 0 Xong	Haines Company, Inc.
2000	HUANG FEN YE	Pacific Bell
1996	YANG VHANBO	PACIFIC BELL DIRECTORY
1992	YANG VHANBO	PACIFIC BELL DIRECTORY
1986	Wang Henry	PACIFIC BELL WHITE PAGES
	Wang Henry G	PACIFIC BELL WHITE PAGES
1980	Lee Eva	Pacific Telephone
1970	CHUNG KING	Pacific Telephone Directory
1962	Lee Chan r	Pacific Telephone
1955	LEE CHAN R	The Pacific Telephone & Telegraph Co.
1943	Fong Lillie M nurse OHD r	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	FONG Robt h	R. L. Polk & Co.
1938	FONG ROBERT R	Pacific Telephone
1933	WONG ELMAN L INS AGT R	R. L. Polk & Co.
1925	FUKUI HAPPY H R	R. L. Polk & Co. of California
	TANI K R	R. L. Polk & Co. of California

181 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Quong Yuen h	R. L. Polk & Co.
1938	SHIMAKAWA HIDEO REV R	Pacific Telephone

182 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	B YEYing Yang	Haines Company, Inc.
	ZHONG Yu	Haines Company, Inc.
	LINYaong W	Haines Company, Inc.
	B YEGuo	Haines Company, Inc.
2000	B YE YING YANG	Pacific Bell
1996	B HUANG SUIJUAN	PACIFIC BELL DIRECTORY
1992	B CHOY FA SING	PACIFIC BELL DIRECTORY
	C JEN FUNG PAK	PACIFIC BELL DIRECTORY
	A LUI KIT UNG	PACIFIC BELL DIRECTORY
1991	Lui Kit Ung	PACIFIC BELL WHITE PAGES
1986	Wong Dai Yuen	PACIFIC BELL WHITE PAGES
	Lui Kit Ung	PACIFIC BELL WHITE PAGES
1980	Wong Lun	Pacific Telephone
1970	HUIE KWOK SIN	Pacific Telephone Directory
1955	JEW FAY R	The Pacific Telephone & Telegraph Co.
1943	Lum Philip P Mary clk h	R. L. Polk & Co.

6th St

186 6th St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2010	LANCE LANHAO GAN	EDR Digital Archive
	LANCE LANHAO GAN	EDR Digital Archive

FINDINGS

6TH ST

186 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	LI Wei Jian	Haines Company, Inc.
	HUANGGuanyu	Haines Company, Inc.
2000	HUANG GUANYU	Pacific Bell
1996	WONG KHAI YUEN	PACIFIC BELL DIRECTORY
1992	TRUONG PHUONG	PACIFIC BELL DIRECTORY
	LAU KWOK DONG	PACIFIC BELL DIRECTORY
	HUANG HONG JI	PACIFIC BELL DIRECTORY
1991	Truong Quan	PACIFIC BELL WHITE PAGES
	Truong Phuong	PACIFIC BELL WHITE PAGES
1975	GIM FOR	Pacific Telephone
1970	GIM FOR	Pacific Telephone Directory
1962	Gim For	Pacific Telephone
1955	GIM FOR	The Pacific Telephone & Telegraph Co.
1945	GIM FORD R	The Pacific Telephone & Telegraph Co.
1943	Gim Ford r	R. L. Polk & Co.
	For Yum Gladys clk h	R. L. Polk & Co.
1938	GIM FORD R	Pacific Telephone
1928	graph John T Mary C H	R.L. Polk and Co of California
	av John lab R	R.L. Polk and Co of California

190 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	o KWONGKwok	Haines Company, Inc.
1996	WU LI YING	PACIFIC BELL DIRECTORY
	TAN YIN	PACIFIC BELL DIRECTORY
1986	Kwong L	PACIFIC BELL WHITE PAGES
	Qwong Kwok Pui	PACIFIC BELL WHITE PAGES
1980	Kwong Mo Ching	Pacific Telephone
	Qwong Kwok Pui	Pacific Telephone
1975	CHAN WOO YIN	Pacific Telephone
	PANG KING L	Pacific Telephone
1970	CHAN WOO YIN	Pacific Telephone Directory
	WONG FOON LUN	Pacific Telephone Directory
1962	Lew Yen	Pacific Telephone
	Yee Wing L	Pacific Telephone
1955	CHIN ALBERT	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	MOY MON FONG	The Pacific Telephone & Telegraph Co.
1945	WONG WM R	The Pacific Telephone & Telegraph Co.
1943	Wong Wm Y Ng steward h	R. L. Polk & Co.
1938	WONG WM R	Pacific Telephone
1928	Jas Jr lab R	R.L. Polk and Co of California
	Moss Amy Mrs elk John Breuner Oo R	R.L. Polk and Co of California
	Jas Oath saw filer H	R.L. Polk and Co of California
1925	RALLI ANGELO R	R. L. Polk & Co. of California

194 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Town Lung r	Pacific Telephone
1955	TOWN LUNG R	The Pacific Telephone & Telegraph Co.
1945	LOWE BONG R	The Pacific Telephone & Telegraph Co.
1943	LEE Sing h	R. L. Polk & Co.
1938	LEE SING R	Pacific Telephone

182A 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	YEE JACK	Pacific Telephone Directory

182B 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	LEE H	The Pacific Telephone & Telegraph Co.

6TH VIA JULIA ST

74 6TH VIA JULIA ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	GOODMAN SYLVIA	Pacific Telephone

7 ARCH ST

171 7 ARCH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	HENDRICKSE J	Pacific Telephone

FINDINGS

7 ARCHN

171 7 ARCHN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	ATLIENOUR ROSE R	The Pacific Telephone & Telegraph Co.

7 AUGUSTA DR MORAGA

64 7 AUGUSTA DR MORAGA

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Medak Walter H atty	PACIFIC BELL WHITE PAGES

7 DAN R

155 7 DAN R

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Duarte I W	PACIFIC BELL WHITE PAGES
	Ouarte Jhn F	PACIFIC BELL WHITE PAGES

7 ERLE ST

81 7 ERLE ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MULYANEY ELEANOR M	Pacific Telephone

7 EV GREEN AV SLR ST

82 7 EV GREEN AV SLR ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	BRADLEY J FRANK	Pacific Telephone

7 HESPERLAN 81

152 7 HESPERLAN 81

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	PADIS GEO OFC	R. L. Polk & Co.

7 HOPKI NS

112 7 HOPKI NS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	WALBERG M VICTOR R	The Pacific Telephone & Telegraph Co.

FINDINGS

7 HUNTINGTON WYTMNR

68 7 HUNTINGTON WYTMNR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	ROGGE CHARLES JR	Pacific Telephone

7 KEY

112 7 KEY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Harkey P	PACIFIC BELL WHITE PAGES
	Harker T & A	PACIFIC BELL WHITE PAGES

7 KEY ST

71 7 KEY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MARTIN STELLA	Pacific Telephone

7 LAKECRST CT CASTRO VALLEY ST

114 7 LAKECRST CT CASTRO VALLEY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	DRIGGS DONALD A	Pacific Telephone

7 LAUREL

85 7 LAUREL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Cullen Olaise profsnl engr	PACIFIC BELL WHITE PAGES

7 LIBRTY ST

135 7 LIBRTY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MELGARD GORDON	Pacific Telephone

7 MAC ARTHUR BI ST

73 7 MAC ARTHUR BI ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	FASHION FROCKS	Pacific Telephone

FINDINGS

7 MI IMR

184 7 MI IMR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	PLUMMER ROBT	Pacific Telephone

7 MORPTH 92 ST

82 7 MORPTH 92 ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	CROFT JAS M S	Pacific Telephone

7 NORTORN ST

149 7 NORTORN ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	HAUSER RALPH G	Pacific Telephone

7 OXFORD ST

161 7 OXFORD ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MORGANTI JOE W	Pacific Telephone

7 PASEO LARGAVSTA

157 7 PASEO LARGAVSTA

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	HOFER MARVIN H	Pacific Telephone

7 QUEEN

220 7 QUEEN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1973	ANDERSEN WALTER E	Pacific Telephone

7 REQUEST LINE

103 7 REQUEST LINE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	KLOK FM Radio	PACIFIC BELL WHITE PAGES

FINDINGS

7 STUDIO LINE

103 7 STUDIO LINE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	KKS FFM Radio	PACIFIC BELL WHITE PAGES

7 WAGNR

152 7 WAGNR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	WELCS CHOS R	Pacific Telephone

7 WESTWD

86 7 WESTWD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1973	DANNAR PON D	Pacific Telephone

7B 45TH ST

104 7B 45TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MOYZIS ALBERT	Pacific Telephone

7LEWELLING BI SNLDRO

74 7LEWELLING BI SNLDRO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Robinson Muriel S	PACIFIC BELL WHITE PAGES

7TH

55 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Huang Yu Kun	PACIFIC BELL WHITE PAGES
	Huang Yu Mei	PACIFIC BELL WHITE PAGES
	HUB CAP S E RVICE BY W HE E L COVE RS No Charge To Calling Party	PACIFIC BELL WHITE PAGES
1980	Wong Foo	Pacific Telephone
1950	LOWE ELIZABETH MRS R	The Pacific Telephone & Telegraph Co.

FINDINGS

57 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Wu Shek Kai	PACIFIC BELL WHITE PAGES
1986	Yu Hong Yan	PACIFIC BELL WHITE PAGES

59 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Xiao Lian Feng	PACIFIC BELL WHITE PAGES
1986	He Shanwen	PACIFIC BELL WHITE PAGES
1980	Tse Chiu Yam	Pacific Telephone
1950	LEE PHYLLIS R	The Pacific Telephone & Telegraph Co.

61 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LYM EFFIE R	The Pacific Telephone & Telegraph Co.

64 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	To Hon	PACIFIC BELL WHITE PAGES

65 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Kwan Yuk Wah	PACIFIC BELL WHITE PAGES
1980	Tsang Sik Wah	Pacific Telephone
1950	LONG LEE IVMRS R	The Pacific Telephone & Telegraph Co.

66 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Che Chan	Pacific Telephone
1950	LEE JACK R	The Pacific Telephone & Telegraph Co.

68 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Quan Edwin	PACIFIC BELL WHITE PAGES
1986	Quan Edwin	PACIFIC BELL WHITE PAGES
1980	Kwan Yuk Wah	Pacific Telephone
	Quan Edwin	Pacific Telephone

69 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	CHABOT HONIE	The Pacific Telephone & Telegraph Co.

FINDINGS

70 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Truong Khai	PACIFIC BELL WHITE PAGES
1986	Lee Toshi	PACIFIC BELL WHITE PAGES
	Lee Tong	PACIFIC BELL WHITE PAGES
1950	CHUNG IRA R	The Pacific Telephone & Telegraph Co.

72 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Tso Bing	PACIFIC BELL WHITE PAGES
1980	Tso Bing	Pacific Telephone
1950	JUE THEODORE R	The Pacific Telephone & Telegraph Co.

74 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Lau Yuk Mun	PACIFIC BELL WHITE PAGES
	Lauaki P	PACIFIC BELL WHITE PAGES
	No Charge To Calling Party	PACIFIC BELL WHITE PAGES
1986	Fang Yitsang & Jia Ying Tang	PACIFIC BELL WHITE PAGES
	I Guan De Chao	PACIFIC BELL WHITE PAGES
1980	Lee Bow H	Pacific Telephone
	Lee Eden	Pacific Telephone
1950	FONG HARVEY R	The Pacific Telephone & Telegraph Co.

76 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Wang Jin	PACIFIC BELL WHITE PAGES
	Wang Jin Jerg	PACIFIC BELL WHITE PAGES
	Wang Ken	PACIFIC BELL WHITE PAGES
	Wong Kevin Peik	PACIFIC BELL WHITE PAGES
	Wang Kenley DPM Harbor Bay Podiatry	PACIFIC BELL WHITE PAGES
	Z Wang Kevin	PACIFIC BELL WHITE PAGES
1986	Wang Kevin	PACIFIC BELL WHITE PAGES
1950	GAIN FONG R	The Pacific Telephone & Telegraph Co.

79 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Louie Yin S	Pacific Telephone

FINDINGS

85 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Pien Bea Chi	PACIFIC BELL WHITE PAGES
	Pien Bea Chi	PACIFIC BELL WHITE PAGES
	Pien Jacob	PACIFIC BELL WHITE PAGES
	Pienado Santos	PACIFIC BELL WHITE PAGES
	Piepenbrink E	PACIFIC BELL WHITE PAGES
1986	PIE N BE A CHI	PACIFIC BELL WHITE PAGES
	Pien Bea Chi	PACIFIC BELL WHITE PAGES

92 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	I Open Exchange nwspapers	PACIFIC BELL WHITE PAGES
	I Open Door Mission	PACIFIC BELL WHITE PAGES
1986	Open Exchange nwspapers	PACIFIC BELL WHITE PAGES
	Open Door Mission	PACIFIC BELL WHITE PAGES
1980	Open Door Mission	Pacific Telephone
1950	LANE DAVIS CO	The Pacific Telephone & Telegraph Co.

100 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	MEDERIOS GEO	The Pacific Telephone & Telegraph Co.

102 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	MEDEIROS HELEN R	The Pacific Telephone & Telegraph Co.

103 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Tan Guang Llang	PACIFIC BELL WHITE PAGES
1986	Kong Kin Siang	PACIFIC BELL WHITE PAGES
1950	PURCELL JAS R	The Pacific Telephone & Telegraph Co.

104 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	SHIP CLERK S LOCAL NO	The Pacific Telephone & Telegraph Co.

108 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LOW MUE R	The Pacific Telephone & Telegraph Co.

FINDINGS

110 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	CFS Corp Customs S	PACIFIC BELL WHITE PAGES
	CFS Insurance Management Services	PACIFIC BELL WHITE PAGES

111 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Chau Gary	PACIFIC BELL WHITE PAGES
	Chau Fu Kuen	PACIFIC BELL WHITE PAGES
1950	MARTINEZ CATHLEEN R R	The Pacific Telephone & Telegraph Co.

113 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Lin Wen Bin	PACIFIC BELL WHITE PAGES
	Lin Wendy	PACIFIC BELL WHITE PAGES
1986	Yee Ching	PACIFIC BELL WHITE PAGES
1980	Chang Shu Shein	Pacific Telephone
1950	LOWRY LEE R	The Pacific Telephone & Telegraph Co.

116 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Quon You Hong	Pacific Telephone

119 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Hong Feng Ru	PACIFIC BELL WHITE PAGES
1986	Fong Hilda L	PACIFIC BELL WHITE PAGES
	Zhou Joseph Lin Koag	PACIFIC BELL WHITE PAGES
1980	Yee Gene	Pacific Telephone
	Yang Cynthia	Pacific Telephone
	Fong Wilda L	Pacific Telephone

120 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	GARAND SBERMAN R	The Pacific Telephone & Telegraph Co.

121 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Fa lig Gto	PACIFIC BELL WHITE PAGES
1986	Fong Geo	PACIFIC BELL WHITE PAGES
1980	Fong Geo	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LIM EDWARD W R	The Pacific Telephone & Telegraph Co.
124 7TH		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	TOY LOUIE R	The Pacific Telephone & Telegraph Co.
125 7TH		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Wong Elman L Mrs	Pacific Telephone
1950	WONG ELMAN L R	The Pacific Telephone & Telegraph Co.
126 7TH		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	CHEW GIT YONG R	The Pacific Telephone & Telegraph Co.
129 7TH		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	QUAN EDW R	The Pacific Telephone & Telegraph Co.
130 7TH		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LEE ELVERIA L R	The Pacific Telephone & Telegraph Co.
132 7TH		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	ALASKA SALIONRS & SALES CO I I	The Pacific Telephone & Telegraph Co.
147 7TH		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	BENTIETT S SEWING SHOP	The Pacific Telephone & Telegraph Co.
162 7TH		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Ko Sophia	PACIFIC BELL WHITE PAGES
	Ko Siu Wung	PACIFIC BELL WHITE PAGES
1986	Chan Johan	PACIFIC BELL WHITE PAGES
163 7TH		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	DAVIS MARY TWO DOT S CAFE L	The Pacific Telephone & Telegraph Co.

FINDINGS

164 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Ling Chan	PACIFIC BELL WHITE PAGES
	Ling David	PACIFIC BELL WHITE PAGES
	Lam Chau	PACIFIC BELL WHITE PAGES
1986	Ling David	PACIFIC BELL WHITE PAGES
	Ling Chan	PACIFIC BELL WHITE PAGES
1980	Ling Chan	Pacific Telephone

165 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Chan Bill	Pacific Telephone

166 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Lee R	PACIFIC BELL WHITE PAGES
	Lee RB	PACIFIC BELL WHITE PAGES
1986	Lee R	PACIFIC BELL WHITE PAGES
1980	Lee R	Pacific Telephone
1950	DUCK SING R	The Pacific Telephone & Telegraph Co.

167 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Chen Guang Hui	PACIFIC BELL WHITE PAGES
	Jung Art	PACIFIC BELL WHITE PAGES
	Jung Brad & Andrea	PACIFIC BELL WHITE PAGES
	Jung Brad & Clayton	PACIFIC BELL WHITE PAGES
	Lau Andy	PACIFIC BELL WHITE PAGES
	Lee Matthew W	PACIFIC BELL WHITE PAGES
	Lee Mattiea	PACIFIC BELL WHITE PAGES
	Lee Max	PACIFIC BELL WHITE PAGES
	Lee May Fung	PACIFIC BELL WHITE PAGES
	Lee May L	PACIFIC BELL WHITE PAGES
	Li Guo Wei	PACIFIC BELL WHITE PAGES
	Li Guoping	PACIFIC BELL WHITE PAGES
	Li H	PACIFIC BELL WHITE PAGES
	Luo Li Juan	PACIFIC BELL WHITE PAGES
1986	Chang Ying Y	PACIFIC BELL WHITE PAGES
	Jung Art	PACIFIC BELL WHITE PAGES
	Jung Brad & Clayton	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Lee Anita	PACIFIC BELL WHITE PAGES
	Lee Hon Huen	PACIFIC BELL WHITE PAGES
	Lee Matthew W	PACIFIC BELL WHITE PAGES
	Lee Pom Yiu	PACIFIC BELL WHITE PAGES
	Lee Siu Kow	PACIFIC BELL WHITE PAGES
	Ng Tony	PACIFIC BELL WHITE PAGES
	Ng V	PACIFIC BELL WHITE PAGES
	Ng Valerie	PACIFIC BELL WHITE PAGES
	Yeung Jas Lin Xiang	PACIFIC BELL WHITE PAGES
1980	Chang Ying Y	Pacific Telephone
	Jung Art	Pacific Telephone
	Lac Nhi Thap	Pacific Telephone
	Lee Matthew W	Pacific Telephone
	Lim Ben	Pacific Telephone
	Mak Yee On	Pacific Telephone
	Wong Dai Yuen	Pacific Telephone
1950	LEE JOSEPH S R	The Pacific Telephone & Telegraph Co.

170 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Chan Kwong T	PACIFIC BELL WHITE PAGES
1986	Chan Kwong T	PACIFIC BELL WHITE PAGES
	I Chan L I	PACIFIC BELL WHITE PAGES
1950	CHU SATNUEL W R	The Pacific Telephone & Telegraph Co.

171 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LEE HERBERT R	The Pacific Telephone & Telegraph Co.

173 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	CHINN ROBT MRS R	The Pacific Telephone & Telegraph Co.

175 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Ong Chester H	PACIFIC BELL WHITE PAGES
1986	Ong Chester H	PACIFIC BELL WHITE PAGES
1980	Ong Chester H	Pacific Telephone
1950	ONG CHESTER R	The Pacific Telephone & Telegraph Co.

FINDINGS

176 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Mark So Chun	PACIFIC BELL WHITE PAGES
1950	BROWN H R	The Pacific Telephone & Telegraph Co.

177 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Law In Motion	PACIFIC BELL WHITE PAGES
	Law Ho Kwan	PACIFIC BELL WHITE PAGES
	Law J	PACIFIC BELL WHITE PAGES
	Law James	PACIFIC BELL WHITE PAGES
1986	Wang Grace	PACIFIC BELL WHITE PAGES
1980	Wong Wai Ling	Pacific Telephone

178 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Kwong Mark	PACIFIC BELL WHITE PAGES
1986	Lew W S & Tommy	PACIFIC BELL WHITE PAGES
	Lew Tony Sea	PACIFIC BELL WHITE PAGES
	Kwong Mark	PACIFIC BELL WHITE PAGES

180 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	POSADA EDW	The Pacific Telephone & Telegraph Co.

181 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Quan Norman	PACIFIC BELL WHITE PAGES
1986	Quan Norman L	PACIFIC BELL WHITE PAGES
	Quan Norman	PACIFIC BELL WHITE PAGES
1980	Quan Norman	Pacific Telephone
1950	QUAN LEIONG R	The Pacific Telephone & Telegraph Co.

182 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Owyang Sheen	PACIFIC BELL WHITE PAGES
1986	Owyang Sheen	PACIFIC BELL WHITE PAGES
	Owyang Terence	PACIFIC BELL WHITE PAGES
	Owyang Wm	PACIFIC BELL WHITE PAGES
1980	Owyang Sheen	Pacific Telephone
1950	LUM M MRS R	The Pacific Telephone & Telegraph Co.

FINDINGS

185 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Ho Hing S	PACIFIC BELL WHITE PAGES
1986	Ho Hing S	PACIFIC BELL WHITE PAGES
1980	Poon Lau Yen Quan	Pacific Telephone
1950	MIKE S BARBER SHOP	The Pacific Telephone & Telegraph Co.
	APORILLO MARIANO R	The Pacific Telephone & Telegraph Co.

186 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Iu Mien Auto Body Repair	PACIFIC BELL WHITE PAGES
1986	BUZZS FORE IGN CARBURE TOR RE BUILDIN G	PACIFIC BELL WHITE PAGES
1980	Ace Auto Repair	Pacific Telephone
1950	WALKER H F CO MAYONNAISE & PCKLS	The Pacific Telephone & Telegraph Co.

187 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Siu Moon	PACIFIC BELL WHITE PAGES
	Siu R	PACIFIC BELL WHITE PAGES
	Siu Roberto	PACIFIC BELL WHITE PAGES
1986	He Shan Yi	PACIFIC BELL WHITE PAGES

192 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Lau Wing Jik	PACIFIC BELL WHITE PAGES
	Lau Wing Kit	PACIFIC BELL WHITE PAGES
	Lau Wing Y	PACIFIC BELL WHITE PAGES
1986	Lau Wing Y	PACIFIC BELL WHITE PAGES
	Lau Wing Jik	PACIFIC BELL WHITE PAGES
	Lau Y	PACIFIC BELL WHITE PAGES
1980	Lee Ivy	Pacific Telephone

194 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Lau Tung Chun	Pacific Telephone
	Lee Park	Pacific Telephone
	Wong Ngan Y	Pacific Telephone
1950	DON WOO R	The Pacific Telephone & Telegraph Co.
	MOORE S SPORTSMAN CLULB	The Pacific Telephone & Telegraph Co.

FINDINGS

196 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Wang N	PACIFIC BELL WHITE PAGES
	Wang N	PACIFIC BELL WHITE PAGES
	Wong N	PACIFIC BELL WHITE PAGES
	Wong N	PACIFIC BELL WHITE PAGES
	Wang N	PACIFIC BELL WHITE PAGES
	Wang N H	PACIFIC BELL WHITE PAGES
	Wang N K	PACIFIC BELL WHITE PAGES
	Wang Nellie W W	PACIFIC BELL WHITE PAGES
	Wang Mu Yen	PACIFIC BELL WHITE PAGES
1986	Wang Nancy	PACIFIC BELL WHITE PAGES
	W ang Nancy	PACIFIC BELL WHITE PAGES
	I Wang N J	PACIFIC BELL WHITE PAGES
	I Wang N	PACIFIC BELL WHITE PAGES
	I Wang N	PACIFIC BELL WHITE PAGES
	Wang N	PACIFIC BELL WHITE PAGES
	Wang Mu Yen	PACIFIC BELL WHITE PAGES
1980	Eng Louise	Pacific Telephone
1950	DANDY COAT CO	The Pacific Telephone & Telegraph Co.

201 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Nguyen Tam	PACIFIC BELL WHITE PAGES

203 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Mels Hairstyling	PACIFIC BELL WHITE PAGES
	Meis Ronald D	PACIFIC BELL WHITE PAGES
1986	Meis Hairstyling	PACIFIC BELL WHITE PAGES

205 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Wing Lee Sewing Company	PACIFIC BELL WHITE PAGES

216 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Pringle Phyllis	PACIFIC BELL WHITE PAGES
	Fax Line	PACIFIC BELL WHITE PAGES
	Main Ofc	PACIFIC BELL WHITE PAGES
1986	PRIN GLE ME ATS IN C	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Pringle Meats Inc	Pacific Telephone
	Pringle Geo W Pringte Meats Inc	Pacific Telephone
1950	RICHARDS & PRINGLE MEAT WHSLE	The Pacific Telephone & Telegraph Co.
	PRINGLE GEO W RICHARDS & PRINGIE MEAT WIHSLE	The Pacific Telephone & Telegraph Co.

220 7TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	OGLIAROANGELO R	The Pacific Telephone & Telegraph Co.

7TH AVE

74 7TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	LEE CHUCK MEATS	R. L. Polk & Co.

101 7TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	WELSH ROBT R	The Pacific Telephone & Telegraph Co.

113 7TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	DIXON MARGARET	Pacific Telephone

125 7TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	HARS EGR C	Pacific Telephone

204 7TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	BECK WM	R. L. Polk Co.

205 7TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	FORSBERG TIMOTHY R	R. L. Polk Co.

206 7TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	WALTON JOAN	R. L. Polk Co.

FINDINGS

207 7TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	PILIAVAN ETHEL E MRS	R. L. Polk Co.

208 7TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	CARSON LOUISE MRS	R. L. Polk Co.

209 7TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	HAZARD RICHD P	R. L. Polk Co.

210 7TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	oFUNG B	Haines Company, Inc.

7TH AVENUE TE MPLBAR

100 7TH AVENUE TE MPLBAR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	FUING HENRY F R	The Pacific Telephone & Telegraph Co.

7TH H

76 7TH H

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	PING LEE R	The Pacific Telephone & Telegraph Co.

7TH ST

53 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	MEI Ging	Haines Company, Inc.
1996	A MEI GING QUAN	PACIFIC BELL DIRECTORY
1992	A MEI GING QUAN	PACIFIC BELL DIRECTORY
	B YEUNG PAK CHUI	PACIFIC BELL DIRECTORY
1975	LEUNG WING KAI	Pacific Telephone
	CHAN KIN	Pacific Telephone
1967	VACANT	R. L. Polk Co.
1943	Colborn Fred Sarah h	R. L. Polk & Co.
1928	Buren Montgomery express H	R.L. Polk and Co of California
1925	COLBORN FRED R	R. L. Polk & Co. of California

FINDINGS

55 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	YICK WILLIE	Pacific Telephone Directory
1967	VACANT	R. L. Polk Co.
1962	Choy Benj	Pacific Telephone
1955	PARRAZ ABEL	The Pacific Telephone & Telegraph Co.
1945	LOWE ELIZABETH MRS R	The Pacific Telephone & Telegraph Co.
1943	Lowe Robt M shipydwr h	R. L. Polk & Co.

57 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	JIANG Xun Ying	Haines Company, Inc.
2000	WU SHEK-KAI	Pacific Bell
1996	WU SHEK KAL	PACIFIC BELL DIRECTORY
1992	WU SHEK-KAI	PACIFIC BELL DIRECTORY
1970	YUNG KING FOO	Pacific Telephone Directory
1967	YUNG KING FOO	R. L. Polk Co.
1943	Neuwirth John mech h	R. L. Polk & Co.
1938	FUNG FRANK W REV R	Pacific Telephone
1928	h Jos E blrmkr H	R.L. Polk and Co of California
	A Emma wid Wm R	R.L. Polk and Co of California
1925	MYER HENRY D R	R. L. Polk & Co. of California

59 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1992	FONG HON SOM	PACIFIC BELL DIRECTORY
1970	KWONG NAI-LEUNG	Pacific Telephone Directory
1967	LEE MAY C MRS	R. L. Polk Co.
1962	Lee Paul H Mrs	Pacific Telephone
1955	LEE PAUL H MRS	The Pacific Telephone & Telegraph Co.
1945	LEE PHYLLIS R	The Pacific Telephone & Telegraph Co.
1943	Wiggins Rose F wid A E h	R. L. Polk & Co.
	Wiggins Elijah E lab r	R. L. Polk & Co.

61 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	FANGLi Zhong	Haines Company, Inc.
2000	FANG LI ZHONG	Pacific Bell
1996	EU HUNG SUN	PACIFIC BELL DIRECTORY
1970	WONG YAN BAN	Pacific Telephone Directory

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	VACANT	R. L. Polk Co.
1962	Sottovia Edw	Pacific Telephone
1955	PARRAZ SANTIAGO	The Pacific Telephone & Telegraph Co.
1945	LEE QUAN R	The Pacific Telephone & Telegraph Co.
1943	Quan Lee h	R. L. Polk & Co.

64 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	LEIMei	Haines Company, Inc.
1992	TO HON	PACIFIC BELL DIRECTORY
1970	LING MAY	Pacific Telephone Directory
1967	YOUNG WALTON G	R. L. Polk Co.
1962	Young Walton	Pacific Telephone
1955	WONG EDDIE	The Pacific Telephone & Telegraph Co.
1943	Jan Peter Edith meats h	R. L. Polk & Co.
1938	JAN PETER R	Pacific Telephone
1933	WONG JACK GARAGE	R. L. Polk & Co.
1928	Roosevelt Miriam Mrs sten H	R.L. Polk and Co of California

65 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	ZHENGYong Wen	Haines Company, Inc.
	LEUNGWong	Haines Company, Inc.
	A LIUXiao Hui	Haines Company, Inc.
2000	LIU XIAO HUI	Pacific Bell
	LI ZUO REN	Pacific Bell
1996	LI ZUO REN	PACIFIC BELL DIRECTORY
	LIU XIAO HUI	PACIFIC BELL DIRECTORY
1992	WONG KIM	PACIFIC BELL DIRECTORY
	LAU YUK MUN	PACIFIC BELL DIRECTORY
1967	MARQUEZ JUL	R. L. Polk Co.
1962	Long Lee	Pacific Telephone
1955	LONG IRENE	The Pacific Telephone & Telegraph Co.
1945	LONG LEE MRS R	The Pacific Telephone & Telegraph Co.
1943	Quong Chang h	R. L. Polk & Co.
	Long Lee B Mary clk r	R. L. Polk & Co.
1933	GRIFFIN JAS C BKPR BORDEN CO R	R. L. Polk & Co.
	GRIFFIN EVELYN CANDY DIPPER R	R. L. Polk & Co.
1928	h Meta wid J H H	R.L. Polk and Co of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	h John H stdt R	R.L. Polk and Co of California
	ton Evelyn M choc dipper R	R.L. Polk and Co of California

66 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
1967	CHOY WOO	R. L. Polk Co.
1962	Wong Eddie	Pacific Telephone
1955	POON BILL	The Pacific Telephone & Telegraph Co.
1943	KELLEHER Cornelius Cath h	R. L. Polk & Co.
1933	KELLCHER CORNELIUS (CATH) H	R. L. Polk & Co.
1928	Kelleher Cornelius Cath janitor H	R.L. Polk and Co of California
	Garden Lloyd Virginia R	R.L. Polk and Co of California
	Phone Frances H	R.L. Polk and Co of California

68 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	WONGYap Wing	Haines Company, Inc.
2000	QUAN STEPHEN G	Pacific Bell
1996	QUAN EDWIN	PACIFIC BELL DIRECTORY
1992	QUAN EDWIN	PACIFIC BELL DIRECTORY
1970	QUAN EDWIN	Pacific Telephone Directory
1967	QUAL CHUN	R. L. Polk Co.
1962	Quan Edwin	Pacific Telephone
1955	QUAN STEPHEN G	The Pacific Telephone & Telegraph Co.
1945	QUAN CHUNG R	The Pacific Telephone & Telegraph Co.
1943	Lew Josephine M r	R. L. Polk & Co.
	Jung Harry F Vivian mech h	R. L. Polk & Co.
1928	cort Plna wid John H	R.L. Polk and Co of California
	terey Ethel R	R.L. Polk and Co of California
	terey Elmer Mi mech Howard Automobile Co R	R.L. Polk and Co of California
	terey Ernest R	R.L. Polk and Co of California

69 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	CHABOT HOME	The Pacific Telephone & Telegraph Co.
1945	CHABOT HOME	The Pacific Telephone & Telegraph Co.
1943	Chabot Home Mrs Olivia Moat matron	R. L. Polk & Co.
	Cote Ethel M Mrs r	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Moat Olivia wid T E matron Chabot Home h	R. L. Polk & Co.
1938	CHABOT HOME	Pacific Telephone
1928	11th Home Mary C Stewart matron	R.L. Polk and Co of California
	G Jennie P wid Morgan A; Shirley Sheet Mtl Wks H	R.L. Polk and Co of California
	0 May C matron Chabot Home R	R.L. Polk and Co of California
1925	BRIGGS GERTRUDE R R	R. L. Polk & Co. of California
	CHABOT HOME	R. L. Polk & Co. of California
1920	BRIGGS MISS GERTRUDE R R	R. L. Polk & Co. of California
	CHABOT HOME R	R. L. Polk & Co. of California

70 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	SJANSENShawn	Haines Company, Inc.
	UYong Cheng	Haines Company, Inc.
1992	BASM TRUONG KHAI	PACIFIC BELL DIRECTORY
1970	OWYANG RAY	Pacific Telephone Directory
1967	OWYANG GEORGINA MRS	R. L. Polk Co.
1955	CHUNG IRA R	The Pacific Telephone & Telegraph Co.
1945	CHUNG IRA R	The Pacific Telephone & Telegraph Co.
1943	Chung Ira h	R. L. Polk & Co.
1938	CHUNG IRA R	Pacific Telephone
1928	Grasso Frank D R	R.L. Polk and Co of California
	Assn Phoebe Mrs H	R.L. Polk and Co of California
1925	DOTY MRS PHEBE R	R. L. Polk & Co. of California

72 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
1996	YANG GUAN QUAN	PACIFIC BELL DIRECTORY
1992	YANG GUAN QUAN	PACIFIC BELL DIRECTORY
1970	TSO BING	Pacific Telephone Directory
1967	TSO BING	R. L. Polk Co.
1962	Duran Silvestre	Pacific Telephone
1955	JUE THEODORE R	The Pacific Telephone & Telegraph Co.
1945	JUE THEODORE R	The Pacific Telephone & Telegraph Co.
1943	Jue Theo S Eva shtmtlwkr h	R. L. Polk & Co.
1938	JUE THEODORE R	Pacific Telephone
1933	JUE THEO (EVA) ELEV OPR R	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	SWEENEY MISS A R	R. L. Polk & Co. of California

74 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
1992	TAN GUANG LIANG	PACIFIC BELL DIRECTORY
1970	LEE BOW H	Pacific Telephone Directory
1967	LEE POW GL 1 r	R. L. Polk Co.
1962	Lum Walbert	Pacific Telephone
1955	LUM WALBERT	The Pacific Telephone & Telegraph Co.
1943	Tai Ngim Mrs h	R. L. Polk & Co.
	Lun Foo Wah slsmn Okld Toggery r	R. L. Polk & Co.
1928	Lum Albt restrwkr R	R.L. Polk and Co of California
1925	KWOCK ALFRED R	R. L. Polk & Co. of California
1920	NEFF J P R	R. L. Polk & Co. of California

76 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	LIUCai	Haines Company, Inc.
	WONG Ken	Haines Company, Inc.
2000	WONG KEN	Pacific Bell
1996	WONG KEN	PACIFIC BELL DIRECTORY
1992	WANG JIN	PACIFIC BELL DIRECTORY
	WONG KEVIN	PACIFIC BELL DIRECTORY
	WONG KEN	PACIFIC BELL DIRECTORY
1975	LEE PING	Pacific Telephone
1970	LEE PING	Pacific Telephone Directory
	GAIN FONG	Pacific Telephone Directory
1967	LEE PING	R. L. Polk Co.
1962	Lee Ping	Pacific Telephone
	Gain Fong r	Pacific Telephone
1955	LEE PING	The Pacific Telephone & Telegraph Co.
	GAIN FONG R	The Pacific Telephone & Telegraph Co.
1945	PING LEE R	The Pacific Telephone & Telegraph Co.
	GAIN FONG R	The Pacific Telephone & Telegraph Co.
1943	Ong Louie h	R. L. Polk & Co.
1933	LOWE ANDW MGR NATL DOLLAR STORES R	R. L. Polk & Co.
1928	Andw 0 Lily local mer National Dollar Store H	R.L. Polk and Co of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	LOWE ANDREW R	R. L. Polk & Co. of California

77 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	LOUIE Man	Haines Company, Inc.
1996	LEWIS THOMAS	PACIFIC BELL DIRECTORY
1967	FERNANDEZ ROSE MRS	R. L. Polk Co.
1962	Engel Cecile	Pacific Telephone
1955	ENGEL CECILE	The Pacific Telephone & Telegraph Co.
1943	Livingston Grace L wid Jas r	R. L. Polk & Co.
	Remington M Irene wid C B h	R. L. Polk & Co.

79 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	YANGDong W	Haines Company, Inc.
2000	LAM CHUNG KWAN	Pacific Bell
1975	LOUIE YIN S	Pacific Telephone
1970	LOUIE YIN S	Pacific Telephone Directory
1967	LOUIE YIN S	R. L. Polk Co.
1962	Kuhnle Fred W	Pacific Telephone
1943	Kuhnle Fred jan h	R. L. Polk & Co.
1928	Krohn Elise Mrs H	R.L. Polk and Co of California
	Cecil actress R	R.L. Polk and Co of California

85 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
1992	KWAN CHUI KAM	PACIFIC BELL DIRECTORY

7th St

92 7th St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	OPEN DOOR MISSION	EDR Digital Archive
	OPEN DOOR MISSION	EDR Digital Archive
2010	OPEN DOOR MISSION	EDR Digital Archive
	OPEN DOOR MISSION	EDR Digital Archive

FINDINGS

7TH ST

92 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	OPEN DOOR MISSION	Haines Company, Inc. Haines Company, Inc.
2000	OPEN DOOR MISSION	Pacific Bell
1996	OPEN DOOR MISSION	PACIFIC BELL DIRECTORY
1992	OPEN DOOR MISSION	PACIFIC BELL DIRECTORY
1975	OPEN DOOR MISSION	Pacific Telephone
1970	OPEN DOOR MISSION	Pacific Telephone Directory
1967	OPEN DOOR MISSION	R. L. Polk Co.
1962	Open Door Mission Lavender John	Pacific Telephone Pacific Telephone
1955	OPEN DOOR MISSION LAVENDER JOHN	The Pacific Telephone & Telegraph Co. The Pacific Telephone & Telegraph Co.
1945	DAVIS BRUCE F R FENNEFOS LAURENCE B SERV STA EQUIP LANE DAVIS CO	The Pacific Telephone & Telegraph Co. The Pacific Telephone & Telegraph Co. The Pacific Telephone & Telegraph Co. The Pacific Telephone & Telegraph Co.
1943	ALAMEDA County Industrial Union Council P A Heide sec treas Textile Workers Union UNITED Office Workers Union Utility Workers Joint Council	R. L. Polk & Co. R. L. Polk & Co. R. L. Polk & Co. R. L. Polk & Co.
1938	BROWN PAPER GOODS CO OF CALIF	Pacific Telephone
1933	HEINRICH CHEMICAL CO OF CALIFORNIA W S ANGMAN PRES C M JOHNSON V-PRES H E M	R. L. Polk & Co.

100 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	I Know You Cafe	Pacific Telephone
1955	I KNOW YOU CAFE	The Pacific Telephone & Telegraph Co.
1943	Marinell Julius L Josephine restr	R. L. Polk & Co.
1933	ROSS WM E GRO	R. L. Polk & Co.
1928	Leandro Wm E Marian B gro	R.L. Polk and Co of California
1920	BRADFORD & SON GROCERS	R. L. Polk & Co. of California

FINDINGS

101 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	KKIQ-FM	Pacific Bell
1975	LEOSI EUGENE F	Pacific Telephone

102 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Mc Entee Louise	Pacific Telephone
	Kanouse Helen	Pacific Telephone
1955	KANOUSE HELEN	The Pacific Telephone & Telegraph Co.
	CHRISTENSEN GENE H	The Pacific Telephone & Telegraph Co.
	PEETERS GLADYS	The Pacific Telephone & Telegraph Co.
1943	Bantugan Michl Harriet lab h	R. L. Polk & Co.
	Imus Benito Betty clk h	R. L. Polk & Co.
	Rabaca Edw shipydwkr r	R. L. Polk & Co.
	Tomboc Danl shipydwkr r	R. L. Polk & Co.
1933	KANE MILDRED CLK R	R. L. Polk & Co.
	PINGREE EARL A FORMN SPCO H	R. L. Polk & Co.
	ROSS WM E GRO	R. L. Polk & Co.
	SVEIG SAML PNTR R	R. L. Polk & Co.
	GILLESPIE EDW JAN R	R. L. Polk & Co.
	GILLESPIE FRANK WTCHMN R	R. L. Polk & Co.
	HAMMOND EDW A JAN R	R. L. Polk & Co.
1928	Balthazer Geo driver R	R.L. Polk and Co of California
	Francisco Clarence coremkr R	R.L. Polk and Co of California
	Francisco Eliz Mrs lab R	R.L. Polk and Co of California
1925	FARLEY ORVILLE R	R. L. Polk & Co. of California
	HAGEMANN MISS L A R	R. L. Polk & Co. of California

103 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	HUYNH Lo	Haines Company, Inc.
2000	WONG BRONSON	Pacific Bell
1996	WONG BRONSON	PACIFIC BELL DIRECTORY
1992	LIANG YUN BIN	PACIFIC BELL DIRECTORY
1967	BARBEAU ESTHER H	R. L. Polk Co.

104 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	SHIP CLERKS ASSN LOC 34 I L W U	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1938	TANI JITSUO R	Pacific Telephone
1933	TANI JITSUO SHOE REPR	R. L. Polk & Co.
	TANI MOTO CLO CLNR	R. L. Polk & Co.
1928	Tani J Mrs tailo R	R.L. Polk and Co of California
	Tani Jitsu shoereo R	R.L. Polk and Co of California
	H	R.L. Polk and Co of California
1925	TAKAYANAGI T R	R. L. Polk & Co. of California
1920	TAKAYANAGI T R	R. L. Polk & Co. of California

108 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	GORE LIN W	R. L. Polk Co.
1962	Hom York Bin	Pacific Telephone
	Low Henry W	Pacific Telephone
1955	LOW MUE R	The Pacific Telephone & Telegraph Co.
1943	FLYNN Wm G Fern shipydwkr h	R. L. Polk & Co.
	Prowse Jas Ruby lab h	R. L. Polk & Co.
1938	FULTON R R R	Pacific Telephone
1933	LANGEVIN PHILEOS (ANNIE) CHAUF H	R. L. Polk & Co.
1925	WILLIAMS MRS J R	R. L. Polk & Co. of California
	SAVAGE ROBT H R	R. L. Polk & Co. of California

110 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Lee Shing	Pacific Telephone
	Young Wendy	Pacific Telephone
1955	YOUNG WENDY	The Pacific Telephone & Telegraph Co.
	LEE SHING	The Pacific Telephone & Telegraph Co.
1943	Smith Violet M h	R. L. Polk & Co.
	Hurt Allen M Maxine flanger h	R. L. Polk & Co.
1933	CRAIL ROSE MRS R	R. L. Polk & Co.
	SMITH FRANK (VIOLET) MILLWKR H	R. L. Polk & Co.
1928	av Ralph whsemn R	R.L. Polk and Co of California
1925	SEXTON H L R	R. L. Polk & Co. of California

111 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	PAPPAS GEO	Pacific Telephone
1970	PAPPAS GEO	Pacific Telephone Directory

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	VACANT	R. L. Polk Co.
1962	Moore W H	Pacific Telephone
1945	HILL MARION G R	The Pacific Telephone & Telegraph Co.
1943	LEE Wang Q Sun meatctr h	R. L. Polk & Co.
1925	BRADFORD & SON GROCERS	R. L. Polk & Co. of California

112 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Guinta Mich A Goldie shipftr h	R. L. Polk & Co.

113 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CHANYui Tung	Haines Company, Inc.
1992	LIN HONG WEI	PACIFIC BELL DIRECTORY
1967	RADER RAY D	R. L. Polk Co.
1962	Lowrey Chester L	Pacific Telephone
1955	TRACY EDW	The Pacific Telephone & Telegraph Co.
1945	GIUNTA MICHAEL A R	The Pacific Telephone & Telegraph Co.
1943	De Meo Nicholas C carp r	R. L. Polk & Co.
1928	Straub Wm clk OPS R	R.L. Polk and Co of California

116 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	VACANT	R. L. Polk Co.
	C OUON Y H	R. L. Polk Co.
1955	GEE WM	The Pacific Telephone & Telegraph Co.
1943	CONGDON Chas Amy E h	R. L. Polk & Co.
1933	CONGDON CHAS GRO	R. L. Polk & Co.
1928	Brookdale H eng R	R.L. Polk and Co of California

119 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	MAI Qi Ka	Haines Company, Inc.
	CHEN Shu Fan	Haines Company, Inc.
	CHEN Bo Gln	Haines Company, Inc.
	e CHAN Raymond	Haines Company, Inc.
2000	CHEN BO GIN	Pacific Bell
	LIANG AI MEI	Pacific Bell
1996	CHEN BO GIN	PACIFIC BELL DIRECTORY
1992	CHEN BO GIN	PACIFIC BELL DIRECTORY

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1992	JIANG YUNWEN	PACIFIC BELL DIRECTORY
1967	HALIBURTON HOLLIS	R. L. Polk Co.
1943	Armado Manuel Rose shipydwkr h	R. L. Polk & Co.
1933	REID CLARA SMSTRS R	R. L. Polk & Co.
1928	crest Clara smstrs R	R.L. Polk and Co of California
	rant Clara wid Thos R H	R.L. Polk and Co of California
	Lalli Angelo lab ri R	R.L. Polk and Co of California
	Gee Iva wid J D R	R.L. Polk and Co of California
1925	REED MRS CLARA L R	R. L. Polk & Co. of California
1920	REED MRS CLARA L R	R. L. Polk & Co. of California

120 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	MURPHY ROSE L	The Pacific Telephone & Telegraph Co.
1943	Marzan Jos lab r	R. L. Polk & Co.
	Solomon Julian Antonia mech h	R. L. Polk & Co.
	Soto Victor jan r	R. L. Polk & Co.
	Cavinta Geo restrwkr r	R. L. Polk & Co.
	Acosta Raymond lab r	R. L. Polk & Co.

121 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	FONGJean W	Haines Company, Inc.
2000	FONG JEAN W	Pacific Bell
1996	FONG GEO	PACIFIC BELL DIRECTORY
1992	FONG GEO	PACIFIC BELL DIRECTORY
1975	FONG GEO	Pacific Telephone
1970	FONG GEO	Pacific Telephone Directory
1967	FONG GEO	R. L. Polk Co.
1962	Fong Geo	Pacific Telephone
1955	LIM EDWARD W R	The Pacific Telephone & Telegraph Co.
1945	LIM EDWARD W R	The Pacific Telephone & Telegraph Co.
1943	Robles Wm shipydwkr h	R. L. Polk & Co.
	Chang Chee h	R. L. Polk & Co.
1938	SACCOS TOM R	Pacific Telephone
1933	SACCAS THOS BARBER	R. L. Polk & Co.

FINDINGS

124 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Louie Wm Y J	Pacific Telephone
1955	LOUIE LORETTA R	The Pacific Telephone & Telegraph Co.
1945	TOY LOUIE R	The Pacific Telephone & Telegraph Co.
1943	Toy Louie Shee h	R. L. Polk & Co.
1938	TOY LOUIE R	Pacific Telephone
1920	THOMAS MRS KATHRYN I R	R. L. Polk & Co. of California

125 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
1970	WONG ELMAN L MRS	Pacific Telephone Directory
1967	WONG ESTHER L MRS	R. L. Polk Co.
1962	Wong Elman L Mrs	Pacific Telephone
1955	WONG ELMAN L R	The Pacific Telephone & Telegraph Co.
1945	WONG ELMAN L R	The Pacific Telephone & Telegraph Co.
1943	Wong Elman I Esther agt Sun Life Assurance Co of Canada h	R. L. Polk & Co.
1938	WONG ELMAN L R	Pacific Telephone
1928	P Mnry wid Manuel H	R.L. Polk and Co of California

126 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Chew Yat M	Pacific Telephone
1955	LOUIE FRANKLIN	The Pacific Telephone & Telegraph Co.
1945	ONG FRANK R	The Pacific Telephone & Telegraph Co.
1943	Ong Frank Luck M h	R. L. Polk & Co.
1933	FONG JEAN H	R. L. Polk & Co.
	LOO CLARENCE RESTR BERKELEY	R. L. Polk & Co.
1925	BOHN MRS LOUIS R	R. L. Polk & Co. of California
1920	BOHN MRS LOUIS R	R. L. Polk & Co. of California

128 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	GALLI REV JOSEPH R	R. L. Polk & Co. of California

129 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	QUAN Stanley	Haines Company, Inc.
1967	QU 4 JAN EDW	R. L. Polk Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Quan Edw r	Pacific Telephone
1955	QUAN EDW R	The Pacific Telephone & Telegraph Co.
1945	PETERSON C O R	The Pacific Telephone & Telegraph Co.
1943	Corville Stanley Hilda mech h	R. L. Polk & Co.
1938	PETERSON C O R	Pacific Telephone
1928	Corville Stanley L Hilda slsmn R	R.L. Polk and Co of California
	Birdsanl Chas 0 carp H	R.L. Polk and Co of California
	Redecker Rudolph acct R	R.L. Polk and Co of California
	Corville Hilda J sten E H Barber Co R	R.L. Polk and Co of California
1925	PETERSON C O R	R. L. Polk & Co. of California

130 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Lai Rose	Pacific Telephone
1955	WONG HORNMAN	The Pacific Telephone & Telegraph Co.
1945	LEE ELVERIA L R	The Pacific Telephone & Telegraph Co.
1943	LEE Elveria L gro h	R. L. Polk & Co.
1938	CHINN ALFRED R	Pacific Telephone
1920	FIGONE MISS H R	R. L. Polk & Co. of California

133 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	LOGAN WM MEAT CTR	R. L. Polk & Co.

134 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	AUDITORIUM CLEANERS	The Pacific Telephone & Telegraph Co.
1943	Chow Edw shoe repr	R. L. Polk & Co.
1933	SARVIES JOS MEATS	R. L. Polk & Co.
1928	Sarvies Jos meats	R.L. Polk and Co of California

162 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
1992	KO SIU WUNG	PACIFIC BELL DIRECTORY
1975	MUN MANUFACTURING CO	Pacific Telephone
1970	MUN HENRY C	Pacific Telephone Directory
1967	MUN HENRY C	R. L. Polk Co.
1962	Mun Henry Machine Shop	Pacific Telephone
1955	MUN HENRY MACHINE SHOP	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	LUM M MRS R	The Pacific Telephone & Telegraph Co.
1943	Lum Margt Mrs h	R. L. Polk & Co.
1938	LUM M MRS R	Pacific Telephone

163 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	LEE JOHNSON	Pacific Bell
	LEE JOHNSON	Pacific Bell
1996	U S REGIONAL FUNDING	PACIFIC BELL DIRECTORY

164 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	HUANGU	Haines Company, Inc.
	LAM Chau	Haines Company, Inc.
2000	REAR LAM CHAU	Pacific Bell
1996	REAR LAM CHAU	PACIFIC BELL DIRECTORY
1992	LAM CHAU	PACIFIC BELL DIRECTORY
	LING CHAN	PACIFIC BELL DIRECTORY
1975	LIM MONYICK	Pacific Telephone

165 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	o CHAN Cad	Haines Company, Inc.
	FUNG Salina	Haines Company, Inc.
	WONG Paul	Haines Company, Inc.
1970	FONG M Y	Pacific Telephone Directory
1967	GIN JIN	R. L. Polk Co.
1962	Gin Jake	Pacific Telephone
1955	DON HENRY	The Pacific Telephone & Telegraph Co.
1943	Wong Youe h	R. L. Polk & Co.

166 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	HUANG Da Guo	Haines Company, Inc.
2000	GUON GAY SUEY	Pacific Bell
1975	LEE RICHARD	Pacific Telephone
1970	LEE RICHARD	Pacific Telephone Directory
1967	LEE RICHD	R. L. Polk Co.
1962	Duck Sing r	Pacific Telephone
1955	DUCK SING R	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	DUCK SING R	The Pacific Telephone & Telegraph Co.
1943	LEE Victor Eva restrwkr h	R. L. Polk & Co.
1938	DUCK SING R	Pacific Telephone
1933	KOMORI GEO T 2D HD GDS	R. L. Polk & Co.
	KOMORI TOKITO (KONOVU) H	R. L. Polk & Co.
	MASOU NECEOKU R	R. L. Polk & Co.

167 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	APARTMENTS	Haines Company, Inc.
	CHAN S	Haines Company, Inc.
	FANG Fenghua	Haines Company, Inc.
	KO Chol Shun	Haines Company, Inc.
	KONG ing Yong	Haines Company, Inc.
	LAU Andy	Haines Company, Inc.
	LEIZhen An	Haines Company, Inc.
	LI Guo We!	Haines Company, Inc.
2000	1 LI GUO WEI	Pacific Bell
	2 KO CHOI-SHUN	Pacific Bell
	4 FANG FENGHUA	Pacific Bell
	5 MA ZHI H	Pacific Bell
	7 LAU ANDY	Pacific Bell
	8 JUNG ART	Pacific Bell
	9 LEE MATTHEW W	Pacific Bell
1996	1 LI GUO WEI	PACIFIC BELL DIRECTORY
	2 KO CHOI SHUN	PACIFIC BELL DIRECTORY
	7 LAU ANDY	PACIFIC BELL DIRECTORY
	8 JUNG ART	PACIFIC BELL DIRECTORY
	9 LEE MATTHEW W	PACIFIC BELL DIRECTORY
1992	1 LI GUO WEI	PACIFIC BELL DIRECTORY
	7 LAU ANDY	PACIFIC BELL DIRECTORY
	8 JUNG ART	PACIFIC BELL DIRECTORY
	9 LEE MATTHEW W	PACIFIC BELL DIRECTORY
1967	VACANT	R. L. Polk Co.
1962	Lee You Mrs	Pacific Telephone
1955	LEE YOU MRS	The Pacific Telephone & Telegraph Co.
1945	LEE JOSEPH S R	The Pacific Telephone & Telegraph Co.
1943	LEE Jos S tchr Pub Sch r	R. L. Polk & Co.
	You Lee Lum h	R. L. Polk & Co.

FINDINGS

170 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	CHU SAML W	Pacific Telephone
1970	CHU SAML W	Pacific Telephone Directory
1967	CHU SAML W	R. L. Polk Co.
1962	Chu Samuel W r	Pacific Telephone
1955	CHU SAMUEL W R	The Pacific Telephone & Telegraph Co.
1945	CHU SAMUEL W R	The Pacific Telephone & Telegraph Co.
1933	SIMAN JAS (MARY) H	R. L. Polk & Co.

171 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	VACANT	R. L. Polk Co.
1962	Yiep John D	Pacific Telephone
1955	LEE HERBERT R	The Pacific Telephone & Telegraph Co.
1945	LEW BLNG R	The Pacific Telephone & Telegraph Co.
1943	Lew Bing h	R. L. Polk & Co.
	KING Chung restr r	R. L. Polk & Co.
1925	MENDOZA V R	R. L. Polk & Co. of California

173 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	VACANT	R. L. Polk Co.
1962	Leong Raymond	Pacific Telephone
1955	LEONG RAYMOND	The Pacific Telephone & Telegraph Co.
1943	Chin Robt Emma meat ctr h	R. L. Polk & Co.
1933	CHINN ROBT (EMMA) MEAT CTR H	R. L. Polk & Co.

175 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	HUANG Jian Hong	Haines Company, Inc.
1996	XIAO ZE LIANG	PACIFIC BELL DIRECTORY
	ONG CHESTER H	PACIFIC BELL DIRECTORY
1992	ONG CHESTER H	PACIFIC BELL DIRECTORY
1975	ONG CHESTER H	Pacific Telephone
1970	ONG CHESTER H	Pacific Telephone Directory
1967	ONG CHESTER H	R. L. Polk Co.
1962	Ong Jas M	Pacific Telephone
1955	ONG CHESTER R	The Pacific Telephone & Telegraph Co.
1945	ONG CHESTER R	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Ong Chester h	R. L. Polk & Co.
1938	ONG CHESTER R	Pacific Telephone
1933	LEE WM H (LILLIAN H) PORTER H	R. L. Polk & Co.
1928	dana Alice N R	R.L. Polk and Co of California
	sity Geo A lab R	R.L. Polk and Co of California

176 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	KWONGMark	Haines Company, Inc.
1992	MARK SOCHUN	PACIFIC BELL DIRECTORY
1967	DORENZO MATEO	R. L. Polk Co.
1962	Brown H r	Pacific Telephone
1955	BROWN H R	The Pacific Telephone & Telegraph Co.
1945	BROWN H R	The Pacific Telephone & Telegraph Co.
1943	BROWN Danl H Amelia h	R. L. Polk & Co.
	Dorenzo Mateo Anna driver r	R. L. Polk & Co.
	Souza Jane H Mrs fctywkr r	R. L. Polk & Co.
1938	BROWN H R	Pacific Telephone
1933	BROWN DANL H POLICE OKLD PD R	R. L. Polk & Co.
1928	Dan H police OPD R	R.L. Polk and Co of California

177 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	JIANG Jh I Uang	Haines Company, Inc.
	HUANGJlan	Haines Company, Inc.
1975	CHEW FONG	Pacific Telephone
1970	WONG MING TONE	Pacific Telephone Directory
1967	ONG STANLEY M	R. L. Polk Co.
1955	WAI GEO	The Pacific Telephone & Telegraph Co.

7th St

178 7th St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	STONEWALL VENTURES LLC	EDR Digital Archive
	STONEWALL VENTURES LLC	EDR Digital Archive
2010	STONEWALL VENTURES LLC	EDR Digital Archive
	STONEWALL VENTURES LLC	EDR Digital Archive

FINDINGS

7TH ST

178 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	o LIHui	Haines Company, Inc.
2000	KWONG MARK	Pacific Bell
	CHU MEI XIAN	Pacific Bell
	CAO LYNN	Pacific Bell
1996	KWONG MARK	PACIFIC BELL DIRECTORY
	CHEN WEICHAN	PACIFIC BELL DIRECTORY
	CAO LYNN	PACIFIC BELL DIRECTORY
1992	KWONG MARK	PACIFIC BELL DIRECTORY
1970	YGNACIO GEO	Pacific Telephone Directory
1967	YGNACIO GEO	R. L. Polk Co.
1962	Ygnacio Geo	Pacific Telephone
	Ygnacio Lorraine	Pacific Telephone
1943	Dolan Frank L shipydwkr h	R. L. Polk & Co.
	Dolan Jas A lab r	R. L. Polk & Co.
	Dolan Jos S pntr	R. L. Polk & Co.
	Dolan Thos F lab r	R. L. Polk & Co.
1928	h J A R	R.L. Polk and Co of California

180 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	FRANK S PLACE	The Pacific Telephone & Telegraph Co.
1943	Simonetti Frank liquors	R. L. Polk & Co.

181 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	L 10 UWayne	Haines Company, Inc.
1970	QUAN LEONG	Pacific Telephone Directory
1967	QUAN LEONG	R. L. Polk Co.
1962	Quan Leong	Pacific Telephone
1955	QUAN LEONG R	The Pacific Telephone & Telegraph Co.
1945	QUAN LEONG R	The Pacific Telephone & Telegraph Co.
1943	Lai Chuck T Alice shipftr h	R. L. Polk & Co.
	Mar Gee C burner r	R. L. Polk & Co.
1933	CHLOUPEK MARGT F H	R. L. Polk & Co.
	GILLIGAN JENNIE H	R. L. Polk & Co.
1928	yen Margt wid Vincent R	R.L. Polk and Co of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	B Nellie R	R.L. Polk and Co of California
	B Jennie H	R.L. Polk and Co of California

182 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	SUN Zhi Hoang	Haines Company, Inc.
	e SETTON Susan	Haines Company, Inc.
2000	OWYANG SHEEN	Pacific Bell
1996	OWYANG SHEEN	PACIFIC BELL DIRECTORY
1992	OWYANG SHEEN	PACIFIC BELL DIRECTORY
1975	OWYANG SHEEN	Pacific Telephone
	OWYANG SHEEN	Pacific Telephone
1970	OWYANG SHEEN	Pacific Telephone Directory
	OWYANG SHEEN	Pacific Telephone Directory
1967	OWYANG SHEEN	R. L. Polk Co.
1962	Lum M Mrs r	Pacific Telephone
1955	LUM M MRS R	The Pacific Telephone & Telegraph Co.
1943	Simonetti Frank liquors h	R. L. Polk & Co.
	Simonetti Lena r	R. L. Polk & Co.
1938	WU JACK R	Pacific Telephone
1933	SIMONETTI FRANK H	R. L. Polk & Co.

185 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	LEE Simon	Haines Company, Inc.
2000	DENG HELEN	Pacific Bell
1996	DENG HELEN	PACIFIC BELL DIRECTORY
1975	POON HEUNG WAH	Pacific Telephone
1970	POON HEUNG WAH	Pacific Telephone Directory
1967	POON HEUNG WAH	R. L. Polk Co.
1962	Logg Onn	Pacific Telephone
1955	TOM HARVEY	The Pacific Telephone & Telegraph Co.
1943	Kerr Margt C h	R. L. Polk & Co.
1938	KERR MARGARET C R	Pacific Telephone
1933	KERR WM J (LOUISE) H	R. L. Polk & Co.
	KERR FRED HLPR MOORE DRY DOCK CO R	R. L. Polk & Co.
	GRANT LOUISE TEL OPR R	R. L. Polk & Co.
1928	dale Wm Louise lab H	R.L. Polk and Co of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	n Louise G R	R.L. Polk and Co of California
	dale Welter lab R	R.L. Polk and Co of California

7th St

186 7th St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	TRUST AUTOWORK	EDR Digital Archive
	TRUST AUTOWORK	EDR Digital Archive
2010	TRUST AUTOWORK	EDR Digital Archive
	TRUST AUTOWORK	EDR Digital Archive

7TH ST

186 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	TRUSTAUTOWORK	Haines Company, Inc.
2000	TRUST AUTO WORK	Pacific Bell
1996	TRUST AUTO WORK	PACIFIC BELL DIRECTORY
1992	PACIFIC AUTO BODY REPAIR	PACIFIC BELL DIRECTORY
1970	ACE AUTO REPAIR	Pacific Telephone Directory
1967	ACE AUTO REPAIR	R. L. Polk Co.
1962	Holt Co The	Pacific Telephone
	Holt Co The	Pacific Telephone
1955	STANDARD MFG CO	The Pacific Telephone & Telegraph Co.
1945	WALKER H F CO MAYONNAISE & PCKLS	The Pacific Telephone & Telegraph Co.
1943	WALKER Harry F Josephine condiments	R. L. Polk & Co.
1938	BILL S GARAGE	Pacific Telephone
1933	WONG WM (BILL S GARAGE) R	R. L. Polk & Co.
	JONES GORDON (BAY CITY TIRE CO) R	R. L. Polk & Co.
	BILLS GARAGE (WM WONG) GARAGE AUTO REPAIRS BATTERIES ETC	R. L. Polk & Co.
	BAY CITY TIRE CO (WONG BILLS GORDON JONES) TIRES	R. L. Polk & Co.
1925	LANGTRY BROS	R. L. Polk & Co. of California
	JACKSON STREET GARAGE	R. L. Polk & Co. of California

FINDINGS

187 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	HUANG Bao	Haines Company, Inc.
1970	CHAN SAI	Pacific Telephone Directory
1955	MIKE S BARBER SHOP	The Pacific Telephone & Telegraph Co.

192 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	LEE IVY	Pacific Telephone
1970	FRANK S LAUNDRY	Pacific Telephone Directory
1967	VACANT	R. L. Polk Co.
1955	LIM RAYMOND	The Pacific Telephone & Telegraph Co.

194 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	LI Ananda	Haines Company, Inc.
2000	HUANG YONG LIAN	Pacific Bell
1975	CHAN CHOK YUNG	Pacific Telephone
	LEE PARK	Pacific Telephone
1970	LEE PARK	Pacific Telephone Directory
1967	OANG YOUNG	R. L. Polk Co.
1962	Lee Wah B r	Pacific Telephone
1955	LEE WAH B R	The Pacific Telephone & Telegraph Co.
1945	DON WOO R	The Pacific Telephone & Telegraph Co.
1943	Woo Don mgr Don Woo Herb Co h	R. L. Polk & Co.
1938	DANG Y T DR R	Pacific Telephone
1928	Rita Homer B cook R	R.L. Polk and Co of California
	U Claude mna cook II H	R.L. Polk and Co of California
	Adklns Anna B Mrs furn rms H	R.L. Polk and Co of California
1925	ADKINS MRS A B R	R. L. Polk & Co. of California

196 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	LIN Ji Xiang	Haines Company, Inc.
2000	LIN ZHI FENG	Pacific Bell
1975	CHIN TONY	Pacific Telephone
1970	PANG KING L	Pacific Telephone Directory
1945	POON LELAND JACOB R	The Pacific Telephone & Telegraph Co.
1943	Fong Chun S h	R. L. Polk & Co.
1938	CHON S GROCERY	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	SILVERIA P J R	R. L. Polk & Co. of California
1920	JACKSON MARKET	R. L. Polk & Co. of California

7th St

205 7th St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2010	DW IMPORT & EXPORT INC	EDR Digital Archive
	DW IMPORT & EXPORT INC	EDR Digital Archive

216 7th St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	WON KEE SUPERMARKET INC	EDR Digital Archive
	WON KEE SUPERMARKET INC	EDR Digital Archive

7TH ST

53B 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	HUEY HIN FOO	Pacific Telephone Directory

116B 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	WONG EDW B	The Pacific Telephone & Telegraph Co.

116C 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	CHENG DAVID T K	The Pacific Telephone & Telegraph Co.

7TH VIA EL CRRITO

173 7TH VIA EL CRRITO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	SMITH LAWRENCE E	Pacific Telephone

7TH VIA MELLNA

174 7TH VIA MELLNA

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	BOELINER ELMEI JR	R. L. Polk & Co.

FINDINGS

7TH VIA TOLEDO

176 7TH VIA TOLEDO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	PETERSON AC	Pacific Telephone

8 ACTON ST

29 8 ACTON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	DAVIS LONNLE	Pacific Telephone

8 ADMS ST

39 8 ADMS ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	GOLD SAM I	Pacific Telephone

8 ANSWERIN G EV 4 ST

104 8 ANSWERIN G EV 4 ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1979	LLVERMOWR AUNADOR VALLEY TLHSTRILCSI SOCL ETY	Pacific Telephone

8 ARCH ST

16 8 ARCH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	NEVILLE PADRAIC L	Pacific Telephone

8 ATEINE ST

25 8 ATEINE ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	E-Z-EST PRODUCTS CO INC	Pacific Telephone

8 ATHOL AVTW INOAKS

33 8 ATHOL AVTW INOAKS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	MOREHOUSE MAE E R	The Pacific Telephone & Telegraph Co.

FINDINGS

8 B

071 8 B

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1976	CURTAIN SHOP THE	R. L. Polk & Co.

8 BROADWAY ST

60 8 BROADWAY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	GUEVARA IGNACIO X	Pacific Telephone

8 BTH

10 8 BTH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	MC LIN CHAS M R	The Pacific Telephone & Telegraph Co.

227 8 BTH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Fung Calvin	PACIFIC BELL WHITE PAGES

8 BURKHART AV SRI LRO

112 8 BURKHART AV SRI LRO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Won Hak Y	PACIFIC BELL WHITE PAGES

8 CAIIF ST

25 8 CAIIF ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	LEVINE T F	Pacific Telephone

8 CALIFORNIA BROOK

198 8 CALIFORNIA BROOK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Madiol Blanche	PACIFIC BELL WHITE PAGES

FINDINGS

8 CARLSN ST

15 8 CARLSN ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	EXXON PRODUCT SERVICE STATIONS	Pacific Telephone

8 CARROL 465729 ST

22 8 CARROL 465729 ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	LILLYLWHITE LEGRAD	Pacific Telephone

8 CASTRO VALLEY BI

29 8 CASTRO VALLEY BI

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	CASTRO VALLEY JUNIOR CHAMBER OF COMMERCE	Pacific Telephone

8 CHARLESTN ST

26 8 CHARLESTN ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MIL IWARD GERALD S	Pacific Telephone

8 COLUTMBLANLR ST

31 8 COLUTMBLANLR ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	DRELNER N NY	Pacific Telephone

8 COOLIDGE AVKE HOG

32 8 COOLIDGE AVKE HOG

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	ULLBERG IVLARVIN C R	The Pacific Telephone & Telegraph Co.

8 CRANHROOK

15 8 CRANHROOK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	I Rinetti Frank	PACIFIC BELL WHITE PAGES

FINDINGS

8 CURTIS

10 8 CURTIS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	HARRIS MEL MRS R	The Pacific Telephone & Telegraph Co.

8 CURTIS ALBY

110 8 CURTIS ALBY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Amundson T	PACIFIC BELL WHITE PAGES
	Amusement Corp Of America	PACIFIC BELL WHITE PAGES

8 D

109 8 D

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	MERCURY OFFSET PRLITLRIE CO	R. L. Polk & Co.

8 DESI TINRI CT FRRMT ST

113 8 DESI TINRI CT FRRMT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1979	FITZGERALD MIKE E	Pacific Telephone

8 E 14TH SL

150 8 E 14TH SL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1973	JOHNNY S UNION SERVICE	Pacific Telephone

8 E SAN PABLO AV B

11 8 E SAN PABLO AV B

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	NU LAWN CHEMICAL CO	The Pacific Telephone & Telegraph Co.

8 EAST ST CONCORD ST

23 8 EAST ST CONCORD ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	ELDRED W JAS MD	Pacific Telephone

FINDINGS

8 EDGEMR ST

153 8 EDGEMR ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	HALL WILHELMINA E	Pacific Telephone

8 EILRHRST ST

26 8 EILRHRST ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MAY LACE I JR	Pacific Telephone

8 EMRSN BRNK ST

21 8 EMRSN BRNK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MILLER GREQQ	Pacific Telephone

8 ERNRSN

50 8 ERNRSN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	WILSON DELBERT	Pacific Telephone

8 ESTABRK ST

8 8 ESTABRK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	JOHANSEN MOGENS MACHINE SHOP	Pacific Telephone

8 EUCLID AV SNI DTRO

8 8 EUCLID AV SNI DTRO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Polkinghorn H W	PACIFIC BELL WHITE PAGES

8 FARGO AVENUE ST

8 8 FARGO AVENUE ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	DA ROZA GUSTAVO U	Pacific Telephone

FINDINGS

8 FERNSIDE BI ST

135 8 FERNSIDE BI ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Roeder Jonathan	PACIFIC BELL WHITE PAGES
	Roeder Susan D	PACIFIC BELL WHITE PAGES

8 FIELD ST

30 8 FIELD ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	HEMSWDRTH W G	Pacific Telephone

8 FOLGERL

7 8 FOLGERL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	REI	The Pacific Telephone & Telegraph Co.

8 FOUNTN ST

13 8 FOUNTN ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	HAMILTON ROBT W	Pacific Telephone

8 FRANCISCO ST

12 8 FRANCISCO ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	KIRK H S JR	Pacific Telephone

13 8 FRANCISCO ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	LINDAHL RAY	Pacific Telephone

8 GOODNG EDR ST

8 8 GOODNG EDR ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	KARAYIANNIS NICHOLAOS	Pacific Telephone

FINDINGS

8 GRAFF AY ST

13 8 GRAFF AY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	ORME GENEVA	Pacific Telephone

8 HARRISN ST

37 8 HARRISN ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MASHAK ANTHONY J	Pacific Telephone

8 HEARST ANV BROOK

119 8 HEARST ANV BROOK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Wang Wing	PACIFIC BELL WHITE PAGES
	Wang Wing Han	PACIFIC BELL WHITE PAGES

8 HENRY BRKI ST

15 8 HENRY BRKI ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	HOWARD VIRGINIA EMRS	Pacific Telephone

8 HIGH ST

221 8 HIGH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MCOINNIE BERTA	Pacific Telephone

8 HIGHLH

131 8 HIGHLH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	MFC ELROY F A R	The Pacific Telephone & Telegraph Co.

8 JACKSN

23 8 JACKSN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	GSTSLIALL ROYCE F	Pacific Telephone

FINDINGS

8 JACKSN83 ST

14 8 JACKSN83 ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	FORD LAYMAN	Pacific Telephone

8 JPNNIFER ON R

27 8 JPNNIFER ON R

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1976	MARTIN TONY R	R. L. Polk & Co.

8 JUNIPR ST

156 8 JUNIPR ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	ANDERSON PAUL E	Pacific Telephone

8 KEY ST

7 8 KEY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	BISHOP MERRILYN CHR SCI PR	Pacific Telephone

8 KTLTY

30 8 KTLTY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1976	GLS IUDA ALFREDO	R. L. Polk & Co.

8 LAKE PLLLSBURY DR PMT

32 8 LAKE PLLLSBURY DR PMT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1976	MAXWELL CHESTER	R. L. Polk & Co.

8 LAWTON PI

46 8 LAWTON PI

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	KIRKLAND B H	Pacific Telephone

FINDINGS

8 LIBERTY

150 8 LIBERTY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Lindquist John	PACIFIC BELL WHITE PAGES
	Lindquist Kristopher Erik	PACIFIC BELL WHITE PAGES

8 LOUISE

116 8 LOUISE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Childress S	PACIFIC BELL WHITE PAGES
	Childress Roy C	PACIFIC BELL WHITE PAGES

8 MAC ARTHR BI ST

78 8 MAC ARTHR BI ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MILLER N	Pacific Telephone

8 MC CERMCK ST

41 8 MC CERMCK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	ACTIVE DATA PROCESSING CORP SAN LEANDRO	Pacific Telephone

8 MI 67 2N 3 ST

119 8 MI 67 2N 3 ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1979	LAICANO D	Pacific Telephone

8 MIRCOMNTESL

21 8 MIRCOMNTESL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	MICHEL PAT	R. L. Polk & Co.

FINDINGS

8 NELISN ST

96 8 NELISN ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	EVANS JOHN C	Pacific Telephone

8 PAINTING ST

8 8 PAINTING ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1979	B & B EQUIPMENT REPAIR	Pacific Telephone

8 PALOMR AV SUNNYVALE ST

7 8 PALOMR AV SUNNYVALE ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MARSHALL I INDUSTRIES	Pacific Telephone

8 PARER ST

20 8 PARER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MILLINIAN DAN	Pacific Telephone

8 PEARL

101 8 PEARL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	TIETZ EDW R	The Pacific Telephone & Telegraph Co.

8 PEARMAIN

9 8 PEARMAIN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Cal Ben Soap Co	PACIFIC BELL WHITE PAGES

8 PERALTA BI

37 8 PERALTA BI

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	AMER ACCEPTANCE CORP	R. L. Polk & Co.

FINDINGS

8 PHELPS

44 8 PHELPS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Hawkins Thom	PACIFIC BELL WHITE PAGES
	Hawkins Tina	PACIFIC BELL WHITE PAGES
	Hawkins T Mr & Mrs	PACIFIC BELL WHITE PAGES

8 R 2444 HILGARD AV8AS

8 8 R 2444 HILGARD AV8AS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	DUNWOODY	The Pacific Telephone & Telegraph Co.

8 RALLET W! AV T NEON ST

13 8 RALLET W! AV T NEON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1979	RAOE CAGE THE	Pacific Telephone

8 RICHMND ST

12 8 RICHMND ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	HARMON CHAS E	Pacific Telephone

8 RIZZO

214 8 RIZZO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	VESTAL LLOYD	R. L. Polk & Co.

8 S OMOU NN B

17 8 S OMOU NN B

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Esh	PACIFIC BELL WHITE PAGES
	Eis To	PACIFIC BELL WHITE PAGES

FINDINGS

8 SAN LORENZ8

15 8 SAN LORENZ8

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	MANTELI LYDIA R	The Pacific Telephone & Telegraph Co.

8 SCERMIC AS BRANCH ST

16 8 SCERMIC AS BRANCH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MELIA S	Pacific Telephone

8 SCIPLSTRAIN0 DR FPIVT

31 8 SCIPLSTRAIN0 DR FPIVT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BECKER JOHITI A	Pacific Telephone and Telegraph Co

8 TEAGRDN ST

27 8 TEAGRDN ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	ACME INK CO SAN LEANDRO F	Pacific Telephone

8 UOREST AV CITRO VALLEY

206 8 UOREST AV CITRO VALLEY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1973	PELTON V P	Pacific Telephone

8 VALDEZ PI FILT 657

12 8 VALDEZ PI FILT 657

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1973	GREENBERG ALAN R	Pacific Telephone

8 VERMONT

228 8 VERMONT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1976	FROST ROBERT K	R. L. Polk & Co.
	KLNLL IFRANK	R. L. Polk & Co.

FINDINGS

8 VERMONT ST

8 8 VERMONT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	CABRAL ELIZABETH	Pacific Telephone

8 W BROADMNOOR BI

15 8 W BROADMNOOR BI

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Parker Chas J	PACIFIC BELL WHITE PAGES

8 WALPRT

123 8 WALPRT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	WALTON BARBARA	R. L. Polk & Co.

8 WARRNGTN AV RDWD COUNT

7 8 WARRNGTN AV RDWD COUNT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	STROLL-0-CHAIR	R. L. Polk & Co.

8 WARWICK

32 8 WARWICK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	EDWARDS WAYNE R	The Pacific Telephone & Telegraph Co.

8 WILLIAMS

68 8 WILLIAMS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	News Equipment	PACIFIC BELL WHITE PAGES

8 WILLIAMS ST

196 8 WILLIAMS ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	GREATER BAY AREA NORTH AMERICAN	Pacific Telephone

FINDINGS

8 WOOLSY ST

19 8 WOOLSY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	FOSTER DEORIS	Pacific Telephone

8 WYMAN AVST

147 8 WYMAN AVST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	CURTIS T WR	The Pacific Telephone & Telegraph Co.

8 ARBAR IVRMR ST

124 8 ARBAR IVRMR ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1979	THORN MICHAEL R	Pacific Telephone

8 ATN AN

46 8 ATN AN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Betslenfalvay S & R	PACIFIC BELL WHITE PAGES
	Betilenfalvay G J	PACIFIC BELL WHITE PAGES

8 AY

26 8 AY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	THOM MC AN SHOE STORE	R. L. Polk & Co.

8 AY ST

106 8 AY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	DAVIS B M	Pacific Telephone

8 B LANCERO PNMT

35 8 B LANCERO PNMT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	FICHT LEON M	Pacific Telephone and Telegraph Co

FINDINGS

8B OALONDA

8 8B OALONDA

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	BOGGS CHAS	R. L. Polk & Co.

8H

93 8H

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Eddys LUquor	PACIFIC BELL WHITE PAGES

211 8H

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Ree Porfirio	PACIFIC BELL WHITE PAGES

8IBSN LDRO

76 8IBSN LDRO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Nemerov Bernard	PACIFIC BELL WHITE PAGES

8IH

26 8IH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LUM SUN R	The Pacific Telephone & Telegraph Co.

8IS LZ

17 8IS LZ

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Hesperian & Ruth	PACIFIC BELL WHITE PAGES

8IST AVSW NETWOVL

99 8IST AVSW NETWOVL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	RIVIERA PACKING CO	The Pacific Telephone & Telegraph Co.

FINDINGS

8K 1NNEDY

26 8K 1NNEDY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	BETTENCOURT ROBERT L	Pacific Telephone

8LL RUSSET OAKLND

10 8LL RUSSET OAKLND

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	AMER SINK TOP CO	Pacific Telephone

8LO

8 8LO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	JOHNSON EVA M	The Pacific Telephone & Telegraph Co.

8NANSTRO VALLEY BLCV

39 8NANSTRO VALLEY BLCV

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	DEALY BYROS F	Pacific Telephone

8RLSTT BI ST

28 8RLSTT BI ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MACFARLANE JAS R	Pacific Telephone

8T AV A

172 8T AV A

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Negrosa Bernardo	PACIFIC BELL WHITE PAGES

8T LH ST

211 8T LH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	GEE GIM YUEN	Pacific Telephone

FINDINGS

8TH

7 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	HANSON KENNETH E R	The Pacific Telephone & Telegraph Co.
	PERRINE C E R	The Pacific Telephone & Telegraph Co.

9 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	NOONAN WALTER J R	The Pacific Telephone & Telegraph Co.

11 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	ARELLANES CRUZ R	The Pacific Telephone & Telegraph Co.
	LEON RALPH L R	The Pacific Telephone & Telegraph Co.

12 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	PEABODY D C R L	The Pacific Telephone & Telegraph Co.

15 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	TUCKER ROBT W R	The Pacific Telephone & Telegraph Co.
	SWAYNE R P R	The Pacific Telephone & Telegraph Co.
	MC CADE PAUL L R	The Pacific Telephone & Telegraph Co.

17 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	VASQUEZ MATT R	The Pacific Telephone & Telegraph Co.

20 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	CHIN CHAS R	The Pacific Telephone & Telegraph Co.

22 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	JONG ROBERT R	The Pacific Telephone & Telegraph Co.

24 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	NG EDYTHE R	The Pacific Telephone & Telegraph Co.

FINDINGS

25 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	BORRMANN GEORGE R STEEL CO	R. L. Polk & Co.
1950	BORRIMNAN GEO R STEEL CO	The Pacific Telephone & Telegraph Co.

28 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	CHANI EDWARD R	The Pacific Telephone & Telegraph Co.

30 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	KESLER TP8	Pacific Telephone
1950	TOM EDWARD W R	The Pacific Telephone & Telegraph Co.

32 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LOUIE HANG R	The Pacific Telephone & Telegraph Co.

34 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	MANIATIS CHRIS R	The Pacific Telephone & Telegraph Co.

36 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	YEZNAG J K MRS R	The Pacific Telephone & Telegraph Co.

39 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	DAVI WHOLESALE DISTR	The Pacific Telephone & Telegraph Co.

51 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	POEN W R	The Pacific Telephone & Telegraph Co.
	LAI BEN R	The Pacific Telephone & Telegraph Co.

55 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	DONG JOHN MRS R	The Pacific Telephone & Telegraph Co.

58 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1976	FAITH LUTHERAN CASTRO VALLEY8	R. L. Polk & Co.

FINDINGS

59 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	CHLEW JOE R	The Pacific Telephone & Telegraph Co.
	KLEEN WELL CLEANERS	The Pacific Telephone & Telegraph Co.

61 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	STUART W L R	The Pacific Telephone & Telegraph Co.
	DOOLITTLE CLIFFORD A R	The Pacific Telephone & Telegraph Co.

62 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	PEAT DISPATCH FOR QUALITY8	Pacific Telephone

71 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	FONG JENNIE MRS R	The Pacific Telephone & Telegraph Co.
	TAYLOR MAYOLA R B	The Pacific Telephone & Telegraph Co.

73 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	BLUE RIBBON PRODUCTS CO	The Pacific Telephone & Telegraph Co.

76 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LEE STANLEY R	The Pacific Telephone & Telegraph Co.

77 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	THOMAS SUPPLY CO	The Pacific Telephone & Telegraph Co.
	THOMAS JANITOR SUPPLY CO SEE THOMAS SUPPLY CO	The Pacific Telephone & Telegraph Co.
	MILLER CHEMICAL CO	The Pacific Telephone & Telegraph Co.

91 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	EDDY S FOOD STORE STORE NO 1	The Pacific Telephone & Telegraph Co.

92 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	YEE FRANK R	The Pacific Telephone & Telegraph Co.
	POST VIVIAN MISS R	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	BADUA MARCELO MRS R	The Pacific Telephone & Telegraph Co.
	BILLITER MARGARET B R	The Pacific Telephone & Telegraph Co.
	HARY FRANCIS C R	The Pacific Telephone & Telegraph Co.
	LEE CAY MRS R	The Pacific Telephone & Telegraph Co.
	MC CARTHY VIVIAN A R	The Pacific Telephone & Telegraph Co.
93 8TH		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	SAV MOR LIQUOR STORE	The Pacific Telephone & Telegraph Co.
98 8TH		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	GARDNER JOS E R	The Pacific Telephone & Telegraph Co.
019 8TH		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	WILLIAMS TOM	The Pacific Telephone & Telegraph Co.
036 8TH		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	RICHESON C R R	The Pacific Telephone & Telegraph Co.
101 8TH		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Metropolitan Transportation Commission Metro Center	PACIFIC BELL WHITE PAGES
	Bay Area Regional Earthquake Preparedness Project	PACIFIC BELL WHITE PAGES
102 8TH		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	ROYCE BYRON F MD ROYCE HINKLEY & STEPTIHCNS PHYS & STURGS8	R. L. Polk & Co.
1960	ATON RENTALS8	Pacific Telephone
108 8TH		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1976	HAYWARD ACE HARDWARE8	R. L. Polk & Co.
111 8TH		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	YEN WONG R	The Pacific Telephone & Telegraph Co.

FINDINGS

113 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	SOO HOO MACK R	The Pacific Telephone & Telegraph Co.

115 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	GEE FONG R	The Pacific Telephone & Telegraph Co.

117 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	GEE MAY Y R	The Pacific Telephone & Telegraph Co.
	GEE CHONG NING R	The Pacific Telephone & Telegraph Co.

121 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	GEE ALLAN R	The Pacific Telephone & Telegraph Co.

123 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	NORTON ELIZABETH R	The Pacific Telephone & Telegraph Co.

131 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	HUNT FOODS & INDUSTRIES INC	R. L. Polk & Co.
1960	HUNT FOODS INC	Pacific Telephone
1950	FONG BING R	The Pacific Telephone & Telegraph Co.

135 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	WONG YOW MRS R	The Pacific Telephone & Telegraph Co.

139 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	ALCOHOL INFORMATION CENTERBAY A REA	Pacific Telephone
1950	LEANG WIN R	The Pacific Telephone & Telegraph Co.

141 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LEONG TAT CHANG SAM R	The Pacific Telephone & Telegraph Co.

FINDINGS

143 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	NG DO WING R	The Pacific Telephone & Telegraph Co.

146 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	MALDONADO LUPLE8	Pacific Telephone

150 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LOUIE WM R	The Pacific Telephone & Telegraph Co.

152 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	KAN WONG BACK R	The Pacific Telephone & Telegraph Co.

154 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	MARKLE BOYD A R	The Pacific Telephone & Telegraph Co.

155 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Sin Kwai Yow	Pacific Telephone
1943	Yuen Lee S h	R. L. Polk & Co.

157 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	WING H & CO OVERALLS MFG	The Pacific Telephone & Telegraph Co.

160 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	FONG FRED R	The Pacific Telephone & Telegraph Co.

162 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	MONTOYA YUCCA CAFE8	R. L. Polk & Co.
1950	CHOP ALLEN R	The Pacific Telephone & Telegraph Co.

164 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	YOUNG KOW R	The Pacific Telephone & Telegraph Co.

FINDINGS

165 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	JUNG JEUNG YIRNG R	The Pacific Telephone & Telegraph Co.

167 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	NEWMAN SOLOMON R L	The Pacific Telephone & Telegraph Co.
	WOON LOUIE R	The Pacific Telephone & Telegraph Co.

169 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	TUNG L K R	The Pacific Telephone & Telegraph Co.

170 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	CHLIN BENNY R	The Pacific Telephone & Telegraph Co.
	BAKO JOLT:: R	The Pacific Telephone & Telegraph Co.

171 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	SUEY YAN GOCK R	The Pacific Telephone & Telegraph Co.

172 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LEE CAROL R	The Pacific Telephone & Telegraph Co.

174 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	YEE JOE R	The Pacific Telephone & Telegraph Co.

177 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	TOM PARK C R	The Pacific Telephone & Telegraph Co.

178 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	CHINI LEWIS R	The Pacific Telephone & Telegraph Co.

182 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LONG EDDIE R	The Pacific Telephone & Telegraph Co.

FINDINGS

200 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LEONG TIMN R	The Pacific Telephone & Telegraph Co.

202 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	DONG FRED R	The Pacific Telephone & Telegraph Co.

204 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Huang Can Quiang	PACIFIC BELL WHITE PAGES

206 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	TORRES RICARDO R	The Pacific Telephone & Telegraph Co.

211 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Ng Mon Hoy	PACIFIC BELL WHITE PAGES
	Quan Phone	PACIFIC BELL WHITE PAGES
	Wong Kam	PACIFIC BELL WHITE PAGES
	Lim Giok Eng	PACIFIC BELL WHITE PAGES
	Lim Guim	PACIFIC BELL WHITE PAGES

213 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	ONG DONALD R	The Pacific Telephone & Telegraph Co.

214 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	QUAN BETTY R	The Pacific Telephone & Telegraph Co.

218 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	FONG BOW H R	The Pacific Telephone & Telegraph Co.
1943	Sing Sen h	R. L. Polk & Co.

224 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	DALE SALES INC	The Pacific Telephone & Telegraph Co.

FINDINGS

226 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	GOTTSTEIN FRANK A PLMBNG & HEATNG	The Pacific Telephone & Telegraph Co.

227 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	FUNG JACK R	The Pacific Telephone & Telegraph Co.

228 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1976	COBOS SANTANA8	R. L. Polk & Co.

8TH AVE

7 8TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	VACANT	R. L. Polk Co.
	VACANT	R. L. Polk Co.
	MAXWELL DOROTHY V	R. L. Polk Co.

8 8TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	A BERRY CARLTON	R. L. Polk Co.
	B BECKWITH GAIL MRS C PRICE GENE K	R. L. Polk Co.
	D DOWNING ROBT	R. L. Polk Co.
	E JOCQUES GEO A	R. L. Polk Co.
	F HALL EDW A	R. L. Polk Co.
	VACANT	R. L. Polk Co.
1943	OAKLAND STATUARY MFG CO Dominic Lucchesi Artistic Plastic Work Garden Ornaments Religious Statuary Our Specialty Display Corner E	R. L. Polk & Co.

18 8TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Robbins Roland A	PACIFIC BELL WHITE PAGES

25 8TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	BORRMANN GEORGE R STEEL CO	R. L. Polk & Co.

FINDINGS

71 8TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	S & J SERVICE	The Pacific Telephone & Telegraph Co.
1950	PIMENTEL & SON FUEL INJECTIAON SERVICE	The Pacific Telephone & Telegraph Co.

73 8TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	FIRE DISPATCH & PATROL	R. L. Polk & Co.

77 8TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	VACANT	R. L. Polk Co.

79 8TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	EAST BAY OIL CO	Pacific Telephone Directory
	BAY CITY FUEL OIL CO	Pacific Telephone Directory
1967	EAST BAY OIL CO	R. L. Polk Co.
1962	H A C TRANSPORTATION CO	Pacific Telephone
	Bay City Fuel Oil Co	Pacific Telephone
1955	BAY CITY FUEL OIL CO	The Pacific Telephone & Telegraph Co.
1950	H A C TRUCKING CO	The Pacific Telephone & Telegraph Co.

82 8TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	ERICSON C D CO INC	Pacific Telephone Directory
	WESTERN TUBE AND CONDUIT CORP	Pacific Telephone Directory
1967	WESTERN CONDUIT CO 835 w 4442	R. L. Polk Co.
	ERICSON C O CO PIPE IMPORTER	R. L. Polk Co.

022 8TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	BORGES KATIE	Pacific Telephone

101 8TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	CASS GINA A MRS	R. L. Polk Co.

102 8TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	GEE RAYMOND	R. L. Polk Co.

FINDINGS

103 8TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	GERMANIN STAN E	R. L. Polk Co.

105 8TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	NO RETURN	R. L. Polk Co.

225 8TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	ABILITY METALS	The Pacific Telephone & Telegraph Co.

8TH BROOK

194 8TH BROOK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Mancei Frieda	PACIFIC BELL WHITE PAGES

8TH C

154 8TH C

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	MONTERO ANTHONY R	The Pacific Telephone & Telegraph Co.

8TH GL ENCORT

40 8TH GL ENCORT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	PASHAL ESTELLE R	The Pacific Telephone & Telegraph Co.

8TH I

92 8TH I

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	KAO YORK R	The Pacific Telephone & Telegraph Co.

8TH L ENCORT

59 8TH L ENCORT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	MONTOYA BIERTLIA E MI S R	The Pacific Telephone & Telegraph Co.

FINDINGS

8TH OAKLAND ST

101 8TH OAKLAND ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	ASSOCIATION OF BAY AREA GOVERNMENTS	Pacific Bell
	SAN FRANCISCO BAY AREA REGIONAL EARTHQUAKE PREPAREDNESS PROJECT	Pacific Bell

8TH PARK BI

41 8TH PARK BI

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Cruz C A	PACIFIC BELL WHITE PAGES

8TH PARK BI ST

38 8TH PARK BI ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	LUCILLE S BEAUTY SHOP	Pacific Telephone

8TH PLZ

15 8TH PLZ

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	SANCHEZ ANTHONY C RDR(SI	The Pacific Telephone & Telegraph Co.

8TH ST

1 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	DIXON JOE	Pacific Telephone
1955	SHAPIRO A & SONS	The Pacific Telephone & Telegraph Co.

3 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	LAZA I R	R. L. Polk & Co. of California

4 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	BRUSH ST INTERSECTS	R. L. Polk Co.

FINDINGS

7 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2002	33645 BANUELOS E	Haines & Company
	33645 BANUELOS E	R. L. Polk & Co.
1933	BURNS EDW MGR MET COAL CO	R. L. Polk & Co.
1925	MORSE REV HARRY R	R. L. Polk & Co. of California

8 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1979	JAMIESON W A	Pacific Telephone
1967	NO RETURN APTS	R. L. Polk Co.
	FOUNTAIN LEROY	R. L. Polk Co.

10 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	DELGADO ERNESTE L	Pacific Telephone
1925	PEAK URIAL H JR R	R. L. Polk & Co. of California

11 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	NEWMAN HELEN E MRS MUSIC TCHR R	R. L. Polk & Co.
	NEWMAN SAML W (HELEN E) SLSMN H	R. L. Polk & Co.

14 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	WILLIAMS EMMA C R	R. L. Polk & Co. of California

15 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	GILLICK GERTRUDE STEN R	R. L. Polk & Co.
	GILLICK HELEN CLK R	R. L. Polk & Co.
	GILLICK AGNES (WID W J) H	R. L. Polk & Co.
1928	Vista R H auto wkr R	R.L. Polk and Co of California

17 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	LIMA WAYNE E	R. L. Polk & Co.
1925	COLGAN A L R	R. L. Polk & Co. of California

FINDINGS

18 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	LOWE JAS H	The Pacific Telephone & Telegraph Co.
1945	PON S K R	The Pacific Telephone & Telegraph Co.
	WHITAKER E W R	The Pacific Telephone & Telegraph Co.
1943	Pon S K h	R. L. Polk & Co.
1933	GASPARDONI FRANK JAN H	R. L. Polk & Co.
1928	Pyne Jos E slsmn A G Spalding & Bros R	R.L. Polk and Co of California

19 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	KUBETH MAX RESTR	R. L. Polk & Co.
1925	ZAVALA RAY R	R. L. Polk & Co. of California
1920	WIBECK MILDRED A R	R. L. Polk & Co. of California

1B 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	WHALEN ELIZABETH	The Pacific Telephone & Telegraph Co.

1C 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	BRYANT LUTIE MRS	The Pacific Telephone & Telegraph Co.

1D 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	KAUFMAN F J R	The Pacific Telephone & Telegraph Co.

20 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	YUEN MAY R	The Pacific Telephone & Telegraph Co.
1943	Yuen Tom Indy h	R. L. Polk & Co.
1938	YUEN MAY R	Pacific Telephone
1933	LINDBERG ADOLPH G (RUTH) MTRMN H	R. L. Polk & Co.
1928	Lindberg Adolph G Ruth mtrmn R	R.L. Polk and Co of California

21 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MAK YING WAI	Pacific Telephone
1933	SENS BEAULAH C MRS ARTIST H	R. L. Polk & Co.
	SENS RAYMOND B R	R. L. Polk & Co.

FINDINGS

22 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	WONG STANLEY S	The Pacific Telephone & Telegraph Co.
1945	JONG ROBERT R	The Pacific Telephone & Telegraph Co.
1943	Jong Robt Sieu shipydwkr h	R. L. Polk & Co.
1933	OLANS ISADORE (BESSIE) TAILOR H	R. L. Polk & Co.
	OLANS BETTY CLK R	R. L. Polk & Co.
1925	STUDER H W R	R. L. Polk & Co. of California

23 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1938	KENNEDY KATHERINE R	Pacific Telephone
1933	DYER CATH MRS H	R. L. Polk & Co.
	BRUCE PAUL R	R. L. Polk & Co.
	PYNE JOS A SLSMN A G SPALDING & BROS R	R. L. Polk & Co.
1920	DUKEY MISS ENID V R	R. L. Polk & Co. of California

24 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Ng Timothy L shipydwkr h	R. L. Polk & Co.
1938	JONG ROBERT R	Pacific Telephone
1920	LARSEN L R	R. L. Polk & Co. of California

25 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	BORRMANN GEO R STEEL CO	Pacific Telephone
1955	BORRMANN GEO R STEEL CO	The Pacific Telephone & Telegraph Co.
1945	ALLEGHENY-LUDLUM STEEL CO	The Pacific Telephone & Telegraph Co.
	BORRMANN GEO R STEEL CO	The Pacific Telephone & Telegraph Co.
1943	Borrman Geo R steel prod	R. L. Polk & Co.
1938	LUDLUM STEEL CO	Pacific Telephone
	BORRMANN GEO R STEEL CO	Pacific Telephone
1933	BORRMANN GEO R STEEL CO G R BORRMANN PRES A E DONAHUE V- PRES K M BESSONE SE	R. L. Polk & Co.

26 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	WONG SING	The Pacific Telephone & Telegraph Co.
1945	LUM SUN R	The Pacific Telephone & Telegraph Co.
1943	Shew Gaius Daisy shipydwkr h	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Lum Sunny Maybelle meats r	R. L. Polk & Co.
1938	JOWER DOROTHY MRS R	Pacific Telephone
1933	DUKEY WESLEY S CLK R	R. L. Polk & Co.
	DUKEY CARL W JR WITH MACMARR STORES R	R. L. Polk & Co.
	DUKEY CARL W (MAY) PDLR H	R. L. Polk & Co.
1920	HOOVER ELMER F R	R. L. Polk & Co. of California

28 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	WONG POY LIM	The Pacific Telephone & Telegraph Co.
1945	CHAN EDWARD R	The Pacific Telephone & Telegraph Co.
1943	Chan Edw Gum clk h	R. L. Polk & Co.

29 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	PHILLIPS EMMA (WID C W) H	R. L. Polk & Co.

30 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	WONG POY NG	The Pacific Telephone & Telegraph Co.
1945	TOM EDWARD W R	The Pacific Telephone & Telegraph Co.
1943	Tom Arth M emp DMV h	R. L. Polk & Co.
	TOM Harvey clk Okld PO r	R. L. Polk & Co.
1938	TOM CHUNG MING R	Pacific Telephone
1933	ROSENTHAL ABR CLK R	R. L. Polk & Co.
	ROSENTHAL AARON (JULIA) PDLR H	R. L. Polk & Co.

31 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	LEONG DICK R	The Pacific Telephone & Telegraph Co.
1943	Leong Dick shipydwkr h	R. L. Polk & Co.
1938	LEONG DING R	Pacific Telephone
1920	LEWIS GEO J LAUNCHES	R. L. Polk & Co. of California

32 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	LEW THOS G R	The Pacific Telephone & Telegraph Co.
1938	LEW THOS G R	Pacific Telephone

FINDINGS

33 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Kong Chi Lan	PACIFIC BELL WHITE PAGES
1945	LOWE SUEY WON R	The Pacific Telephone & Telegraph Co.
1943	Sue Won printer r	R. L. Polk & Co.
1938	SUEY WON LOWE R	Pacific Telephone
1925	DISNEY ELEANOR R R	R. L. Polk & Co. of California

34 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	MANIATIS CHRIS R	The Pacific Telephone & Telegraph Co.
1943	LEE Captoria fctywkr r LEE Hing Lee shipydwkr h	R. L. Polk & Co. R. L. Polk & Co.
1933	BOERO ERNEST J (STELLA) SLSMN C W ABBOTT CO H	R. L. Polk & Co.
1925	LINDSAY JAS G R	R. L. Polk & Co. of California

35 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	LEE MAY R	The Pacific Telephone & Telegraph Co.
1943	LEE Edw Y May shipydwkr h	R. L. Polk & Co.

36 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	YGNACIO GEO R	The Pacific Telephone & Telegraph Co.
1943	Ong Betty clk r Ong You Alice clk h	R. L. Polk & Co. R. L. Polk & Co.
1938	ENG WM B R	Pacific Telephone

37 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	LEE YAMOY R	The Pacific Telephone & Telegraph Co.
1943	LEE Kai gro r LEE Yamoy shipydwkr h LEE Saml meats r LEE Shu M meats r	R. L. Polk & Co. R. L. Polk & Co. R. L. Polk & Co. R. L. Polk & Co.
1933	BOWEN JERRY B (MYRTIE) PLSTR H	R. L. Polk & Co.

38 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	PLATIS M	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Cuevas Michl Eliz shipydwkr r	R. L. Polk & Co.
	Espanola Cornelius Bernice shipydwkr h	R. L. Polk & Co.
1920	SCHOMER M R	R. L. Polk & Co. of California

3A 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	MCFARLAND LORNA MRS	The Pacific Telephone & Telegraph Co.

3B 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	ROBINSON A M R	The Pacific Telephone & Telegraph Co.

3C 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	THOMPSON LEE R	The Pacific Telephone & Telegraph Co.
1945	SMITH NISLER R	The Pacific Telephone & Telegraph Co.

3D 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	GARCIA JOE B	The Pacific Telephone & Telegraph Co.

40 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	SILVA Jesse Mary h	R. L. Polk & Co.
1933	SILVA JESSE (MARY) CARP H	R. L. Polk & Co.
1925	LEWIS E R	R. L. Polk & Co. of California

42 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	MULLINS MARGARET	The Pacific Telephone & Telegraph Co.
1945	JOE HENRY MRS R	The Pacific Telephone & Telegraph Co.
1943	Allen Florence h	R. L. Polk & Co.
	ALLEN Jos USA r	R. L. Polk & Co.
1938	JOE HENRY MRS R	Pacific Telephone
1928	R	R.L. Polk and Co of California
	Sarantos Thos confy	R.L. Polk and Co of California
1925	SARANTOS TOM R	R. L. Polk & Co. of California

FINDINGS

43 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Assemblies Of God East Bay Rehabilitation Project S	PACIFIC BELL WHITE PAGES
1962	Lee Robt Texaco Serv Stn	Pacific Telephone
1943	Abbott Harold G Dorothy gas sta	R. L. Polk & Co.

44 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	ENG RAYMOND L DR R	The Pacific Telephone & Telegraph Co.
1943	Lennuey Jas lab h	R. L. Polk & Co.
	Eng Jas Merk clo clnr r	R. L. Polk & Co.
1938	NG RAYMOND L DR R	Pacific Telephone
1933	LENNUEY JAS (MARK Y) H	R. L. Polk & Co.
1920	MCGUE G H R	R. L. Polk & Co. of California

46 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	SARANTOS TOM R	The Pacific Telephone & Telegraph Co.
1945	SARANTOS TOM R	The Pacific Telephone & Telegraph Co.
1943	Sarantos Thos Bessie restrwkr h	R. L. Polk & Co.
	Sarantos Stella r	R. L. Polk & Co.
	Sarantos Olga fctywkr r	R. L. Polk & Co.
	Sarantos Georgia r	R. L. Polk & Co.
1938	SARANTOS TOM R	Pacific Telephone
1933	SARANTOS THOS (BESS) RESTRWKR H	R. L. Polk & Co.
1928	Olans Isadore Bessie tailor R	R.L. Polk and Co of California
1920	RUCKER JAMES R	R. L. Polk & Co. of California

48 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	PHILLIPS MANUEL R	The Pacific Telephone & Telegraph Co.
1945	PHILLIPS MANUEL R	The Pacific Telephone & Telegraph Co.
1943	Phillips Manuel Mary lab h	R. L. Polk & Co.
	Phillips Dorothy M pkr r	R. L. Polk & Co.
	Phillips Lorraine M r	R. L. Polk & Co.
1925	CLYSOSKY SAM R	R. L. Polk & Co. of California

FINDINGS

49 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	BARNET FRANK T (MINNIE) H	R. L. Polk & Co.
1928	Barnet Prtank Minnie H	R.L. Polk and Co of California
1925	BARNET FRANK R	R. L. Polk & Co. of California
1920	BARNET FRANK R	R. L. Polk & Co. of California

8th St

51 8th St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2010	MEEP INC	EDR Digital Archive
	MEEP INC	EDR Digital Archive

8TH ST

51 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
2000	B PERALTA FEDERATION OF TEACHERS	Pacific Bell
	SAVAGE SIHUI	Pacific Bell
1996	B PERALTA FEDERATION OF TEACHERS	PACIFIC BELL DIRECTORY
1986	Do Thang D	PACIFIC BELL WHITE PAGES
	Do Nam Van	PACIFIC BELL WHITE PAGES
1980	Sing Quan Sui	Pacific Telephone
	Lai D	Pacific Telephone
	Chew King Quai	Pacific Telephone
1975	LAI BEN LOP	Pacific Telephone
1970	LAI BEN LOP	Pacific Telephone Directory
1967	LAI LOP	R. L. Polk Co.
1962	Lai Peggy	Pacific Telephone
1955	TANIGUCHI TAKESO	The Pacific Telephone & Telegraph Co.
	LAI WILBUR	The Pacific Telephone & Telegraph Co.
1945	LAI BEN R	The Pacific Telephone & Telegraph Co.
1943	Lai Lop Dorothy slsmn h	R. L. Polk & Co.
	Fook Pon cook h	R. L. Polk & Co.
1938	YOUNG J M MRS R	Pacific Telephone
1928	H M P H	R.L. Polk and Co of California
	Maulbatch Chas Edw H	R.L. Polk and Co of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Jobe Jacqueline Mrs H	R.L. Polk and Co of California
	Glltner Wayne H	R.L. Polk and Co of California
	av Leo H	R.L. Polk and Co of California
	SURROWS Maurice H	R.L. Polk and Co of California
	Lerida Floyd drftsmn PG&ECo R	R.L. Polk and Co of California
	Culver Irma H	R.L. Polk and Co of California
	av Wm H	R.L. Polk and Co of California
1925	WEIR M P R	R. L. Polk & Co. of California
1920	APPELDORN C A R	R. L. Polk & Co. of California

55 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
1970	YEE THICK LING	Pacific Telephone Directory
	YEE CHAU WAN	Pacific Telephone Directory
1967	YEE THICK LING	R. L. Polk Co.
1962	Yee Thick Ling	Pacific Telephone
	Yee Chau Wan	Pacific Telephone
1955	DONG MELVIN	The Pacific Telephone & Telegraph Co.
1945	DONG JOHN MRS R	The Pacific Telephone & Telegraph Co.
1943	Go Hogan L Ruth h	R. L. Polk & Co.
1938	WONG HOGAN R	Pacific Telephone
1933	JOW ALBT (ISABEL) SEC THE OAKLAND TOGGERY R	R. L. Polk & Co.
	CHOW EDW H	R. L. Polk & Co.
1928	cisco Jos restrwkr R	R.L. Polk and Co of California
1925	BLACK B R	R. L. Polk & Co. of California
1920	BALLARD J STERLING R	R. L. Polk & Co. of California

59 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	TAN Man Y	Haines Company, Inc.
	LEE Gan Wah	Haines Company, Inc.
1970	TSO ELI Y	Pacific Telephone Directory
1967	WONG BANSON	R. L. Polk Co.
1962	Chew Joe	Pacific Telephone
1955	CHEW JOE	The Pacific Telephone & Telegraph Co.
1943	Chew Roger S Dorothy clk Okld PO h	R. L. Polk & Co.
1938	CHEW ROGER S R	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	CHEW ROGER S CLK OKLD PO R	R. L. Polk & Co.
1925	DINGWELL A H R	R. L. Polk & Co. of California

5B 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	EDWARDS E L	The Pacific Telephone & Telegraph Co.

5C 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	LIMKE OTTO W	The Pacific Telephone & Telegraph Co.

5D 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	STAFFORD C R	The Pacific Telephone & Telegraph Co.

61 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	WONG Yuk Ping	Haines Company, Inc.
	APARTMENTS	Haines Company, Inc.
	FENG Hul Ung	Haines Company, Inc.
	LI Fang Fang	Haines Company, Inc.
	LIANG Sheng Shu	Haines Company, Inc.
	OU Bngiun	Haines Company, Inc.
2000	1 SIU AURELIA Y J	Pacific Bell
	7 FENG HUI LING	Pacific Bell
	8 LI FANG FANG	Pacific Bell
	9 LIU JU X	Pacific Bell
1992	1 QUACH XE	PACIFIC BELL DIRECTORY
	8 FENG ZU SHAN	PACIFIC BELL DIRECTORY
1986	Feldman Jessica	PACIFIC BELL WHITE PAGES
	Grant Bryce	PACIFIC BELL WHITE PAGES
	Grant C	PACIFIC BELL WHITE PAGES
	Powell Greg	PACIFIC BELL WHITE PAGES
1980	Breckstein A	Pacific Telephone
	Lally John Kevin	Pacific Telephone
	Mc Lean Richard D	Pacific Telephone
	Peterson David	Pacific Telephone
	Wadleigh M	Pacific Telephone
1975	LONERGAN JOHN	Pacific Telephone
	FRESQUES DANI	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	FRESQUES MONA	Pacific Telephone
1970	HENDERSON SARA MRS	Pacific Telephone Directory
	WHITNEY FRANKIE MAE	Pacific Telephone Directory
1967	APARTMENTS	R. L. Polk Co.
	VACANT	R. L. Polk Co.
	KOOUNTZ ELIZ A MRS	R. L. Polk Co.
	EVANS COLUMBUS	R. L. Polk Co.
	DAVIS EVELYN A MRS	R. L. Polk Co.
	HENDERSON SARAH MRS	R. L. Polk Co.
1962	Dismuke R J	Pacific Telephone
1955	BALL DAVID	The Pacific Telephone & Telegraph Co.
	HOLLIMON PAT	The Pacific Telephone & Telegraph Co.
	TURNER LENA MAE	The Pacific Telephone & Telegraph Co.
1945	STUART W L R	The Pacific Telephone & Telegraph Co.
1943	Mann Louis E mech r	R. L. Polk & Co.
	Mc Kelvey Chas E Berneil flanger h	R. L. Polk & Co.
	Plagman Orval shipydwkr r	R. L. Polk & Co.
	Rive Percy S mech r	R. L. Polk & Co.
	Santiago Sylvester welder r	R. L. Polk & Co.
	Stuart Wm L Mabel slsmn h	R. L. Polk & Co.
	Szmaragd Eva r	R. L. Polk & Co.
	Converse Harry W Charlotte shipydwkr h	R. L. Polk & Co.
	Converse Lillie P Mrs r	R. L. Polk & Co.
	EVANS Esther clk r	R. L. Polk & Co.
	Fefer Geo Viola mech h	R. L. Polk & Co.
	French Wm R shipydwkr r	R. L. Polk & Co.
1933	OLMSTEAD JUDSON (ROSILIEA) H	R. L. Polk & Co.
1928	Algate J H	R.L. Polk and Co of California
	Belveder Chas soft drinks	R.L. Polk and Co of California
	R	R.L. Polk and Co of California
	Belvedere Apartments	R.L. Polk and Co of California
	BROWN C H	R.L. Polk and Co of California
	Clay E Mrs H	R.L. Polk and Co of California
	Drooping A H	R.L. Polk and Co of California
	H Selma H	R.L. Polk and Co of California
	Olmstead Judson H Rosalie H	R.L. Polk and Co of California
	Pasch Arth H collr H	R.L. Polk and Co of California
	Pasch Edna restrwkr R	R.L. Polk and Co of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Presler Dewey H	R.L. Polk and Co of California
	Roselen I H	R.L. Polk and Co of California
	n H	R.L. Polk and Co of California
1925	BELVEDERE APARTMENTS	R. L. Polk & Co. of California
1920	BELVEDERE APARTMENTS	R. L. Polk & Co. of California

67 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	RONAYNA MICHL (KATH) PLSTR H	R. L. Polk & Co.
1928	Redden Oath Mrs H	R.L. Polk and Co of California
1925	RODDEN KATIE R	R. L. Polk & Co. of California
1920	RODDEN KATIE R	R. L. Polk & Co. of California

70 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Fong Edw	Pacific Telephone
1955	BRACE NELLIE MRS R	The Pacific Telephone & Telegraph Co.
1945	BRACE NELLIE MRS R	The Pacific Telephone & Telegraph Co.
1943	Brace Nellie Mrs h	R. L. Polk & Co.
1938	BRACE NELLIE MRS R	Pacific Telephone
1928	Phone Nellie Mrs slswmn R	R.L. Polk and Co of California
	Maccall Carl F jr ss opr UOCo R	R.L. Polk and Co of California
	Phone Robt T Mary E tchr H	R.L. Polk and Co of California
1925	BRACE ROBT T R	R. L. Polk & Co. of California
1920	WEST EDNA C R	R. L. Polk & Co. of California

72 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	h E H	R.L. Polk and Co of California

8th St

73 8th St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	BALLET ET CETERA	EDR Digital Archive
	BALLET ET CETERA	EDR Digital Archive
2010	BALLET ET CETERA	EDR Digital Archive
	BALLET ET CETERA	EDR Digital Archive

FINDINGS

8TH ST

73 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	BALLETETCETERA	Haines Company, Inc.
	PONWal Hang	Haines Company, Inc.
2000	LUO BAO QUAN	Pacific Bell
	BALLET ET CETERA	Pacific Bell
1992	PON S P	PACIFIC BELL DIRECTORY
1986	New Way Sewing Shop	PACIFIC BELL WHITE PAGES
1975	GARD STANISLAUS	Pacific Telephone
1970	FDP SECURITY SYSTEM FIRE DISPATCH & PATROL	Pacific Telephone Directory
	FIRE DISPATCH & PATROL	Pacific Telephone Directory
1967	FIRE DISPATCH & PATROL SERV BURGULAR ALARMS	R. L. Polk Co. R. L. Polk Co.
1962	F D P Security System Fire Dispatch & Patrol	Pacific Telephone
	FIRE DISPATCH & PATROL	Pacific Telephone
	Security Watch Fire Dispatch & Patrol	Pacific Telephone
1955	VOEGTLY & WHITE MACHY	The Pacific Telephone & Telegraph Co.

74 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	CHEW LEE SHEE MRS	R. L. Polk Co.
1962	Chew Woon San Lee	Pacific Telephone
	Chew Yee Chai	Pacific Telephone
1943	Alexander Vance D Lorraine shipydwr h	R. L. Polk & Co.
1938	SCOTT ESTELLE MRS R	Pacific Telephone
1920	LIVINGSTON I R	R. L. Polk & Co. of California

76 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	ROMERO JOE	The Pacific Telephone & Telegraph Co.
1945	FARRELL J P R	The Pacific Telephone & Telegraph Co.
1943	Rearick Oral O Opal welder h	R. L. Polk & Co.
1933	AUBREY MANUEL (CARMELITA) SLSMN H	R. L. Polk & Co.
1928	graph John T Eldora H	R.L. Polk and Co of California
	Shadburne Eldora L tchr BPS R	R.L. Polk and Co of California
1925	BORKVIST MRS S R	R. L. Polk & Co. of California

FINDINGS

8th St

77 8th St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	LANE-E KEFA COFFEE	EDR Digital Archive
	CHU JUDY	EDR Digital Archive
	HAPPY CLEANER	EDR Digital Archive
	LANE-E KEFA COFFEE	EDR Digital Archive
	CHU JUDY	EDR Digital Archive
	HAPPY CLEANER	EDR Digital Archive
2010	HAPPY CLEANER	EDR Digital Archive
	MAXUT	EDR Digital Archive
	CAMPUS DELI INC	EDR Digital Archive
	URBAN RECYCLING SOLUTIONS INC	EDR Digital Archive
	TD NETWORKS	EDR Digital Archive
	PANG VICTOR & ASSOC	EDR Digital Archive
	BERKELEYS BEST CAFE	EDR Digital Archive
	CHU JUDY	EDR Digital Archive
	CHURCH OF GOD IN OAKLAND	EDR Digital Archive
	HAPPY CLEANER	EDR Digital Archive
	URBAN RECYCLING SOLUTIONS INC	EDR Digital Archive
	MAXUT	EDR Digital Archive
	CAMPUS DELI INC	EDR Digital Archive
	TD NETWORKS	EDR Digital Archive
	PANG VICTOR & ASSOC	EDR Digital Archive
	BERKELEYS BEST CAFE	EDR Digital Archive
	CHU JUDY	EDR Digital Archive
	CHURCH OF GOD IN OAKLAND	EDR Digital Archive

8TH ST

77 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CHURCH OF GOD IN	Haines Company, Inc.
	OAKLAND THE	Haines Company, Inc.
	EASTBAY	Haines Company, Inc.
	FINANCIAL	Haines Company, Inc.
	MANAGEMENT	Haines Company, Inc.
	GOLDEN LAND	Haines Company, Inc.
	INVESTMENTS	Haines Company, Inc.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	HAPPY CLEANER	Haines Company, Inc.
	LAW OFFICE OF	Haines Company, Inc.
	MARGARET LOWRIE	Haines Company, Inc.
	PANG VICTOR AND 5104 S	Haines Company, Inc.
	ASSOCIATES	Haines Company, Inc.
2000	206 PELICAN INTERNATIONAL	Pacific Bell
	206 PANG VICTOR AND ASSOCIATES	Pacific Bell
	203 BERRY THEODORE ATTY	Pacific Bell
	180 HAPPY CLEANER	Pacific Bell
	MARY ANN S PLACE	Pacific Bell
1996	MARY ANN S PLACE	PACIFIC BELL DIRECTORY
	180 CALIFORNIA URBAN YOUTH CORPS PROGRAM INC	PACIFIC BELL DIRECTORY
	203 T & H LEGAL SERVICES	PACIFIC BELL DIRECTORY
	203 CONNECTION TRAVEL TOUR	PACIFIC BELL DIRECTORY
	206 PANG VICTOR AND ASSOCIATES	PACIFIC BELL DIRECTORY
	206 PELICAN INTERNATIONAL	PACIFIC BELL DIRECTORY
	208 EAST BAY MUSIC CENTER	PACIFIC BELL DIRECTORY
1992	MARY ANN S PLACE	PACIFIC BELL DIRECTORY
	MUSI-VISION	PACIFIC BELL DIRECTORY
	205 PERALTA FEDERATION OF TEACHERS	PACIFIC BELL DIRECTORY
1991	Employment	PACIFIC BELL WHITE PAGES
	Samuel Merritt College Of Nursing	PACIFIC BELL WHITE PAGES
	Mary Anns Place	PACIFIC BELL WHITE PAGES
	Musi Vlsion	PACIFIC BELL WHITE PAGES
	Peralta Federation Of Teachers	PACIFIC BELL WHITE PAGES
	Peralta Hospital	PACIFIC BELL WHITE PAGES
	Business Services 4	PACIFIC BELL WHITE PAGES
	Health Access	PACIFIC BELL WHITE PAGES
1986	Gal Shake	PACIFIC BELL WHITE PAGES
	Comprehensive Tax Management	PACIFIC BELL WHITE PAGES
	Galson Technical Services Inc	PACIFIC BELL WHITE PAGES
	Gait John	PACIFIC BELL WHITE PAGES
1980	Wesco Plastic Products Corp	Pacific Telephone
	Western Sign Supplies Inc	Pacific Telephone
	Western Sign Supplies Inc	Pacific Telephone
1970	WESTERN SIGN SUPPLIES INC	Pacific Telephone Directory
	WESTERN SIGN SUPPLIES INC	Pacific Telephone Directory

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	STOVE PLUMBERS SUPPLIES CO INC	R. L. Polk Co.
	GAS CONTROLS	R. L. Polk Co.
1962	ROBERTSHAW FULTON CONTROLS COMPANY SERVICE STATION	Pacific Telephone
	STOVE PLUMBERS SUPPLIES CO	Pacific Telephone
	THERMOSTAT SALES & SERVICE	Pacific Telephone
	White Rodgers Co	Pacific Telephone
1955	SOLOMON H STOVE PLMBRS SUPPLS CO	The Pacific Telephone & Telegraph Co.
	STOVE PLUMBERS SUPPLIES CO	The Pacific Telephone & Telegraph Co.
1945	SCOTT PAPER CO	The Pacific Telephone & Telegraph Co.
	THOMAS JANITOR SUPPLY CO SEE THOMAS SUPPLY CO	The Pacific Telephone & Telegraph Co.
	THOMAS SUPPLY CO	The Pacific Telephone & Telegraph Co.
1943	Oakland Tribune Garage Claude Blachley formn	R. L. Polk & Co.

7C 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	PERRINE C E R	The Pacific Telephone & Telegraph Co.

7D 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	BACA MOISES	The Pacific Telephone & Telegraph Co.

80 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	MORTUARY INC	Haines Company, Inc.
	BAKER WILLIAMS	Haines Company, Inc.
	TATE Chrias Wm	Haines Company, Inc.

91 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
1962	Johns Food Store	Pacific Telephone
1955	EDDY S FOOD STORE	The Pacific Telephone & Telegraph Co.

92 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Butler Zoria	Pacific Telephone
	Chong David J	Pacific Telephone
	Ellis Raymond B	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Estrella Rose	Pacific Telephone
	Wu Jenny	Pacific Telephone
1955	ANINON BASILIO	The Pacific Telephone & Telegraph Co.
	CHONG DAVID J	The Pacific Telephone & Telegraph Co.
	JUE STANLEY	The Pacific Telephone & Telegraph Co.
	LEE KAY MRS R	The Pacific Telephone & Telegraph Co.
	LEE LILY RN R	The Pacific Telephone & Telegraph Co.
	MCCARTHY E J	The Pacific Telephone & Telegraph Co.
	MEDINA FRANCIS MRS	The Pacific Telephone & Telegraph Co.
	OVERINGTON C H	The Pacific Telephone & Telegraph Co.
	RICHMOND M R	The Pacific Telephone & Telegraph Co.
	RICKMAN ALBERTA	The Pacific Telephone & Telegraph Co.
	TOM CLARENCE	The Pacific Telephone & Telegraph Co.
	WATKINS NORMA MRS	The Pacific Telephone & Telegraph Co.
	YEE BOB	The Pacific Telephone & Telegraph Co.
	YEE THICK LING	The Pacific Telephone & Telegraph Co.
1945	LEE KAY MRS R	The Pacific Telephone & Telegraph Co.
	MUMPER ED L R	The Pacific Telephone & Telegraph Co.
	RICHMOND M R	The Pacific Telephone & Telegraph Co.
1943	Mumper Edw L Rita L shipydwkr h	R. L. Polk & Co.
	Mumper Rita L Mrs mgr Antler Apts r	R. L. Polk & Co.
	Mumper Tena Mrs r	R. L. Polk & Co.
	Perry Kenneth Ruth shipydwkr h	R. L. Polk & Co.
	Post Vivian Mrs welder h	R. L. Polk & Co.
	Richmond Manuel lab h	R. L. Polk & Co.
	Rinaldi Rita Mrs clk r	R. L. Polk & Co.
	Wong Harry Harriet welder h	R. L. Polk & Co.
	Zaus Harry S mech r	R. L. Polk & Co.
	Zaus Robt F r	R. L. Polk & Co.
	Antler Apartments	R. L. Polk & Co.
	Butler Jas J Eliz USN h	R. L. Polk & Co.
	Butler Martha clk Mrs Pearl ONiell r	R. L. Polk & Co.
	Carney Chas welder r	R. L. Polk & Co.
	Casper Arth H Velma mech h	R. L. Polk & Co.
	Casper Edith clk r	R. L. Polk & Co.
	Cheang Albt S Thelma display mgr Fred Benioff h	R. L. Polk & Co.
	COOK Ann Mrs fctywkr h	R. L. Polk & Co.
	Cox Robt mech r	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Farrell Jos P h	R. L. Polk & Co.
	Gannaw Geo mech r	R. L. Polk & Co.
	Gray Thos M jr Frances mech h	R. L. Polk & Co.
	Guttierrec Eva Mrs welder r	R. L. Polk & Co.
	HEWITT Violet Mrs h	R. L. Polk & Co.
	LEE Kay Choy welder h	R. L. Polk & Co.
	LEE Lily L nurse Co Hosp r	R. L. Polk & Co.
	LEMA Michl Rita mech h	R. L. Polk & Co.
	Marks Melvin Dolores mech h	R. L. Polk & Co.
	Mc Devitt John Agnes mech h	R. L. Polk & Co.
	Mc Ray Murray lab h	R. L. Polk & Co.
	Moline Harry lab h	R. L. Polk & Co.
	MORAN Marion Mrs clk h	R. L. Polk & Co.
1938	FULLER ELIZABETH R	Pacific Telephone
1933	ALLEN EDW H	R. L. Polk & Co.
	FINN J LAB R	R. L. Polk & Co.
	GYPEL EDW SLSMN H	R. L. Polk & Co.
	HICKEY HENRY CARRIER R	R. L. Polk & Co.
	KNOEFLE JOS CHAUF H	R. L. Polk & Co.
	MCHOUL JOHN H	R. L. Polk & Co.
	MILLER FRED J HLP R MOORE DRY DOCK CO H	R. L. Polk & Co.
	MURRAY JOHN PLSTR R	R. L. Polk & Co.
	OAK PARK APARTMENTS	R. L. Polk & Co.
	PIERSON JAS H	R. L. Polk & Co.
	RHODE MILDRED MRS SLSWN R	R. L. Polk & Co.
	ROBERTS ROBT H (MARGT) SWITCHMN H	R. L. Polk & Co.
	SETLOW SAML (ANNA) SLSMN H	R. L. Polk & Co.
	VAN SANDT ELIJAH E (SARAH T) MGR OAK PARK APTS H	R. L. Polk & Co.
1928	Pied Mary H	R.L. Polk and Co of California
	Lester E H	R.L. Polk and Co of California
	1884 Laura Mrs smstrs R	R.L. Polk and Co of California
	Co Ruby Mrs H	R.L. Polk and Co of California
	E B H	R.L. Polk and Co of California
	av Ray H	R.L. Polk and Co of California
	Vine Thos msngr R	R.L. Polk and Co of California
	Homan Jesse H	R.L. Polk and Co of California
	Keseling Warren F slsmn T&PCo R	R.L. Polk and Co of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Litrille John H	R.L. Polk and Co of California
	Pied Myrtle Mrs H	R.L. Polk and Co of California
	Oak Park Apartments	R.L. Polk and Co of California
	Peachy Fredk H	R.L. Polk and Co of California
	3 MAT AVE H	R.L. Polk and Co of California
	H L B H	R.L. Polk and Co of California
	Webster Peggy H	R.L. Polk and Co of California
	Crmy Forrest clk Armature & Ignition Supp Co R	R.L. Polk and Co of California
	N Prola Mrs H	R.L. Polk and Co of California
1925	HASENKAMP T R	R. L. Polk & Co. of California
	JOHNSTON MRS A R	R. L. Polk & Co. of California
	LAING MRS B R	R. L. Polk & Co. of California
	MACHADO J B R	R. L. Polk & Co. of California
	MATHEWSON MYRTLE M R	R. L. Polk & Co. of California
	OAK PARK APARTMENTS	R. L. Polk & Co. of California
	SPINNEY MRS LUELLA G R	R. L. Polk & Co. of California
	SUMMEY GEO E R	R. L. Polk & Co. of California
	WOOD GEO F R	R. L. Polk & Co. of California
1920	OAK PARK APARTMENTS	R. L. Polk & Co. of California

93 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	HOMETOWN	Haines Company, Inc.
	DONUTS LIQUOR	Haines Company, Inc.
2000	MOM S PLACE	Pacific Bell
1996	HENG S DONUTS & LIQUOR	PACIFIC BELL DIRECTORY
1992	HOMETOWN LIQUOR	PACIFIC BELL DIRECTORY
1991	Eddys Liquor	PACIFIC BELL WHITE PAGES
1980	Eddys Liquor	Pacific Telephone
1975	EDDY S LIQUOR	Pacific Telephone
1955	SAV-MOR LIQUOR STORE	The Pacific Telephone & Telegraph Co.

9A 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	WILHITE EUGENE	The Pacific Telephone & Telegraph Co.

9B 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	JENSEN J S	The Pacific Telephone & Telegraph Co.

FINDINGS

9D 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	BACA GLORIA	The Pacific Telephone & Telegraph Co.

100 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Jacks P D H	R.L. Polk and Co of California

8th St

101 8th St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	JOSEPH P BORT METROCENTER	EDR Digital Archive
	ASSOCIATION BAY AREA GOVERNMENTS	EDR Digital Archive
	SAN FRANCISCO BAY TRAIL PRJ	EDR Digital Archive
	REGIONAL ADM FCILTY CORP	EDR Digital Archive
	LUNCHSTOP CAFE METROCENTER	EDR Digital Archive
	CUCKOO S NEST METRO	EDR Digital Archive
	ABAG FINANCE AUTHORITY	EDR Digital Archive
	ABAG FINANCE AUTHORITY FOR NON	EDR Digital Archive
	METROPOLITAN TRNSP COMM	EDR Digital Archive
	BAY AREA INFRASTRUCTURE FINANC	EDR Digital Archive
	SAN FRANCISCO BAY AREA RAPID	EDR Digital Archive
	BAY AREA TOLL AUTHORITY	EDR Digital Archive
	BAY AREA TOLL AUTHORITY	EDR Digital Archive
	ABAG PBLCLY OWNED ENRGY RSRCES	EDR Digital Archive
	METROPOLITAN TRNSP COMM	EDR Digital Archive
	ENVIRONMENTAL PROTECTION AGCY	EDR Digital Archive
	JOSEPH P BORT METROCENTER	EDR Digital Archive
	ASSOCIATION BAY AREA GOVERNMENTS	EDR Digital Archive
	SAN FRANCISCO BAY TRAIL PRJ	EDR Digital Archive
	REGIONAL ADM FCILTY CORP	EDR Digital Archive
	METROPOLITAN TRNSP COMM	EDR Digital Archive
	BAY AREA INFRASTRUCTURE FINANC	EDR Digital Archive
	SAN FRANCISCO BAY AREA RAPID	EDR Digital Archive
	LUNCHSTOP CAFE METROCENTER	EDR Digital Archive
	CUCKOO S NEST METRO	EDR Digital Archive
	BAY AREA TOLL AUTHORITY	EDR Digital Archive

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	BAY AREA TOLL AUTHORITY	EDR Digital Archive
	ABAG FINANCE AUTHORITY	EDR Digital Archive
	ABAG FINANCE AUTHORITY FOR NON	EDR Digital Archive
	ABAG PBLCLY OWNED ENRGY RSRCES	EDR Digital Archive
	METROPOLITAN TRNSP COMM	EDR Digital Archive
	ENVIRONMENTAL PROTECTION AGCY	EDR Digital Archive
2010	ENVIRONMENTAL PROTECTION AGCY	EDR Digital Archive
	ABAG PBLCLY OWNED ENRGY RSRCES	EDR Digital Archive
	BAY AREA TOLL AUTHORITY	EDR Digital Archive
	BAY AREA TOLL AUTHORITY	EDR Digital Archive
	SAN FRANCISCO BAY AREA RAPID	EDR Digital Archive
	REGIONAL ADM FCILTY CORP	EDR Digital Archive
	ABAG FINANCE AUTHORITY	EDR Digital Archive
	SAN FRANCISCO BAY TRAIL PRJ	EDR Digital Archive
	ASSOCIATION BAY AREA GOVERNMENTS	EDR Digital Archive
	METROPOLITAN TRNSP COMM	EDR Digital Archive
	ENVIRONMENTAL PROTECTION AGCY	EDR Digital Archive
	ABAG PBLCLY OWNED ENRGY RSRCES	EDR Digital Archive
	BAY AREA TOLL AUTHORITY	EDR Digital Archive
	BAY AREA TOLL AUTHORITY	EDR Digital Archive
	SAN FRANCISCO BAY AREA RAPID	EDR Digital Archive
	ASSOCIATION BAY AREA GOVERNMENTS	EDR Digital Archive
	REGIONAL ADM FCILTY CORP	EDR Digital Archive
	ABAG FINANCE AUTHORITY	EDR Digital Archive
	SAN FRANCISCO BAY TRAIL PRJ	EDR Digital Archive
	METROPOLITAN TRNSP COMM	EDR Digital Archive

8TH ST

101 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	METROTRANS	Haines Company, Inc.
	METRO	Haines Company, Inc.
	CUCKOOSNEST	Haines Company, Inc.
	PROJECT	Haines Company, Inc.
	BAYTRAIL	Haines Company, Inc.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	AREA GVRNMNTS	Haines Company, Inc.
	ASSOCTN OF BAY	Haines Company, Inc.
	CMMSSN MTRO	Haines Company, Inc.
1996	ASSOCIATION OF BAY AREA GOVERNMENTS	PACIFIC BELL DIRECTORY
1992	ASSOCIATION OF BAY AREA GOVERNMENTS	PACIFIC BELL DIRECTORY
1991	Employment Ofc	PACIFIC BELL WHITE PAGES
	Metro Center	PACIFIC BELL WHITE PAGES
	Employment Ofc	PACIFIC BELL WHITE PAGES
1962	Gee Chee	Pacific Telephone
1955	CHINN HARRY K R	The Pacific Telephone & Telegraph Co.
1945	CHAN S GARDEN SERVICE	The Pacific Telephone & Telegraph Co.
1943	Chan Quong gdnr h	R. L. Polk & Co.
1938	JUNG QUON R	Pacific Telephone
1933	LOO ERNEST H	R. L. Polk & Co.
1925	WILLIAM H R	R. L. Polk & Co. of California

103 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Hong Franklin	Pacific Telephone
	Wong Kai Fong	Pacific Telephone
1955	HUM NAN F	The Pacific Telephone & Telegraph Co.
1945	LEE IDA MRS R	The Pacific Telephone & Telegraph Co.
1943	LEE Ida Mrs r	R. L. Polk & Co.
	LEE Willie h	R. L. Polk & Co.
1938	LEE SON R	Pacific Telephone
	LEE IDA MRS R	Pacific Telephone
1928	Ju Slang Chu teller Security Bank & Trust Co	R.L. Polk and Co of California

105 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Wong Dick Mrs	Pacific Telephone
1955	WONG PHILIP R R	The Pacific Telephone & Telegraph Co.
1945	WONG DICK R	The Pacific Telephone & Telegraph Co.
1943	Wong Dick h	R. L. Polk & Co.
1938	WONG DICK R	Pacific Telephone
1933	WONG DICK H	R. L. Polk & Co.
1925	WONG MARY R	R. L. Polk & Co. of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1920	HIRAL S R	R. L. Polk & Co. of California

109 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	VACANf 109 THRU	R. L. Polk Co.
1962	Mar Morton W r	Pacific Telephone
1955	MAR MORTON W R	The Pacific Telephone & Telegraph Co.
1945	YUEN WONG R	The Pacific Telephone & Telegraph Co.
1943	Chew Foo h	R. L. Polk & Co.
1938	ISAACS J B MRS R	Pacific Telephone
1928	Isaacs Reka Mrs H	R.L. Polk and Co of California
	Regent Tessie elk Carol Wills R	R.L. Polk and Co of California
	Isaacs Levin R	R.L. Polk and Co of California
1925	ISAACS MRS J B R	R. L. Polk & Co. of California
1920	ISAACS MRS J B R	R. L. Polk & Co. of California

110 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	COLEMAN JOHN V R	The Pacific Telephone & Telegraph Co.

111 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	PRODUCTS CORP	Pacific Telephone
1962	Oh Harry	Pacific Telephone
1955	YEN WONG R	The Pacific Telephone & Telegraph Co.
1945	YEN WONG R	The Pacific Telephone & Telegraph Co.
1943	Chan Elwood B h	R. L. Polk & Co.
1938	CHAN ELWOOD B R	Pacific Telephone
1928	Regent Sydney clk Miller Pkg Co R	R.L. Polk and Co of California
	Pablo Mamie fctywkr R	R.L. Polk and Co of California
	Isaacs Aif optician R	R.L. Polk and Co of California
1920	KENNEDY MRS M R	R. L. Polk & Co. of California

113 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Louie Yin S	Pacific Telephone
1945	SOO HOO MACK R	The Pacific Telephone & Telegraph Co.
1943	Soo Mack Lily bartndr h	R. L. Polk & Co.
1938	SOO HOO MACK R	Pacific Telephone
1928	Lake Rose Mrs H	R.L. Polk and Co of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	R	R.L. Polk and Co of California
	av Louis tailo R	R.L. Polk and Co of California

115 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Gee Fong r	Pacific Telephone
1955	GEE FONG R	The Pacific Telephone & Telegraph Co.
1945	GEE FONG R	The Pacific Telephone & Telegraph Co.
1943	Gee Fong slsmn h	R. L. Polk & Co.
1938	GEE FONG R	Pacific Telephone
1928	App John Dorothy H	R.L. Polk and Co of California
1925	LANDERS ALICE M R	R. L. Polk & Co. of California

117 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	HIM HOCI K	R. L. Polk Co.
1962	Huey Jim	Pacific Telephone
1955	GEE MAY Y R	The Pacific Telephone & Telegraph Co.
	GEE CHONG NING R	The Pacific Telephone & Telegraph Co.
1945	GEE CHONG NING R	The Pacific Telephone & Telegraph Co.
1943	Gee Chong N clk h	R. L. Polk & Co.
1925	SIN YET R	R. L. Polk & Co. of California

119 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	TOM HARVEY	R. L. Polk Co.
1962	Yee Chester	Pacific Telephone
1955	GEE PETER	The Pacific Telephone & Telegraph Co.
1943	Gee Shung hotel wkr h	R. L. Polk & Co.
1938	CHEE LIN C R	Pacific Telephone
1933	CHEE LIN H	R. L. Polk & Co.
1920	LEWIS THOS F R	R. L. Polk & Co. of California

11A 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	JONES JOY	The Pacific Telephone & Telegraph Co.

11B 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	GOMEZ JOSE	The Pacific Telephone & Telegraph Co.

FINDINGS

121 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Joe Jansen	Pacific Telephone
1955	BYRNES TERESA	The Pacific Telephone & Telegraph Co.

122 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1979	M CROCOMPUTER SOFTWARE ASSOCIATES8	Pacific Telephone

123 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Chew Ng Shee	Pacific Telephone
1955	CHEUNG HOY F	The Pacific Telephone & Telegraph Co.

125 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	SEUNG WONG M	R. L. Polk Co.
1962	Wong M S	Pacific Telephone
1955	WONG M S R	The Pacific Telephone & Telegraph Co.
1945	YICK GLORIA R	The Pacific Telephone & Telegraph Co.
	LOWE DANIEL JR R	The Pacific Telephone & Telegraph Co.
1943	Yick Gloria emp Colbourn Studio r	R. L. Polk & Co.
	Lowe Danl jr h	R. L. Polk & Co.
1938	WONG GLORIA R	Pacific Telephone
1933	CHILIMIDOS NICK FRUIT	R. L. Polk & Co.
1920	KAGAY MISS CARTHA R	R. L. Polk & Co. of California

127 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	CHUN JOHN L	R. L. Polk Co.
1962	Chan Joe r	Pacific Telephone
1955	CHAN JOE R	The Pacific Telephone & Telegraph Co.
1945	CHANG CHEE R	The Pacific Telephone & Telegraph Co.
1943	Heliote Gus Despina Camera Sandwich Shop h	R. L. Polk & Co.
	Heliote Geo C Camera Sandwich Shop r	R. L. Polk & Co.
1938	HELIOTIS GUST R	Pacific Telephone
1933	HELIOTE CONSTANTINE (DESPINIA) H	R. L. Polk & Co.
	HELIOTE GEO CLK R	R. L. Polk & Co.
1928	Hellotis Gus Camera Candies R	R.L. Polk and Co of California

FINDINGS

130 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Stearns Brakes Fmc	Pacific Telephone

131 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	VACANT	R. L. Polk Co.
1945	FONG BING R	The Pacific Telephone & Telegraph Co.
1943	Vela Cui Jose Carlotta antiques r	R. L. Polk & Co.
	Fong Bing Clara waiter h	R. L. Polk & Co.
1933	FUJIMORI N PHYS	R. L. Polk & Co.
1928	Fujimori N Kane phys	R.L. Polk and Co of California
1925	YICK ALVIN R	R. L. Polk & Co. of California
1920	MASUDA T R	R. L. Polk & Co. of California

135 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	WONG JOHN R	R. L. Polk Co.
1962	Wong Herbert H	Pacific Telephone
	Wong Yow Mrs	Pacific Telephone
1955	WONG YOW MRS	The Pacific Telephone & Telegraph Co.
1945	WONG YOW MRS R	The Pacific Telephone & Telegraph Co.
1943	Wong Wallie Ada drftsmn r	R. L. Polk & Co.
	Wong Yue Mrs h	R. L. Polk & Co.
1938	WONG YOW MRS R	Pacific Telephone
1933	YOW WONG MRS H	R. L. Polk & Co.
1925	WONG YOW MRS R	R. L. Polk & Co. of California
1920	WONG YOW MRS R	R. L. Polk & Co. of California

139 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1979	MENGER LYMAN I BROKERS REALTY	Pacific Telephone
1955	CHIN DOY	The Pacific Telephone & Telegraph Co.
1943	Leong Chung K h	R. L. Polk & Co.
	Leong Wm clk r	R. L. Polk & Co.
1933	LEE JOE MRS H	R. L. Polk & Co.

141 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Chin Benny Als Chop Suey h	R. L. Polk & Co.
1938	FOON CHIN R	Pacific Telephone

FINDINGS

143 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	YIM WONG Y	R. L. Polk Co.
1962	Wong Yim	Pacific Telephone
1955	WONG YIM	The Pacific Telephone & Telegraph Co.
1943	Wong Peter S Viola h	R. L. Polk & Co.
1938	ONG DONALD R	Pacific Telephone
1933	LEONG LOUIE H	R. L. Polk & Co.

150 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Lum Chee Hung	Pacific Telephone
	Edwards Archie	Pacific Telephone
1955	LUM CHEE HUNG	The Pacific Telephone & Telegraph Co.
1945	WONG FRANK R	The Pacific Telephone & Telegraph Co.
1943	Lew Yuen clk h	R. L. Polk & Co.
1938	LA NEAL MADELINE R	Pacific Telephone
1933	ALEXANDER MELVINA MRS MGR HOWARD APTS H	R. L. Polk & Co.
	HOWARD APARTMENTS	R. L. Polk & Co.
1928	Mostoum Geo H	R.L. Polk and Co of California
	i Nobles Earl Ruby H	R.L. Polk and Co of California
	PiedJohn H	R.L. Polk and Co of California
	Warrelman Chas H	R.L. Polk and Co of California
	av Harry H	R.L. Polk and Co of California
	Mesasick Harold R	R.L. Polk and Co of California
	Edna Edw Violet H	R.L. Polk and Co of California
	lege Evelyn H	R.L. Polk and Co of California
	Eastburn Violet Mrs H	R.L. Polk and Co of California
	way Robt Jessie H	R.L. Polk and Co of California
	Kladder Edw H	R.L. Polk and Co of California
	Levison John H	R.L. Polk and Co of California

152 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	FRESQUEZ SIMON V	R. L. Polk Co.
1962	Kan Wong Bock r	Pacific Telephone
	Gee Hai Fon	Pacific Telephone
1955	KAN WONG BOCK R	The Pacific Telephone & Telegraph Co.
1945	WELCH WILEY L PAINTNG CONTR	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Hurley Henry Vivian lab h	R. L. Polk & Co.
	Hurley Henry T Flora L gas sta r	R. L. Polk & Co.
	MARTIN Jas lab r	R. L. Polk & Co.
1925	COPPINI MABEL R	R. L. Polk & Co. of California
1920	NICODEMUS L R	R. L. Polk & Co. of California

154 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Industrial Hose Supply	Pacific Telephone
1970	INDUSTRIAL HOSE SUPPLY SAN FRANCISCO	Pacific Telephone Directory
1962	Ong Alan	Pacific Telephone
1955	HOM CHUCK MEE	The Pacific Telephone & Telegraph Co.
	LUM HENRY C	The Pacific Telephone & Telegraph Co.
1943	Chin Huey Shee clk h	R. L. Polk & Co.

155 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	TAN Xue	Haines Company, Inc.
	01 N Ding QIng	Haines Company, Inc.
2000	2 CAI HUI	Pacific Bell
	1 CHIN HING MRS	Pacific Bell
	A QIN DING QING	Pacific Bell
1996	1 CHIN HING MRS	PACIFIC BELL DIRECTORY
	A GEE CHARLIE	PACIFIC BELL DIRECTORY
1992	A GEE CHARLIE	PACIFIC BELL DIRECTORY
	B LI JASON	PACIFIC BELL DIRECTORY
	B HUANG FENG	PACIFIC BELL DIRECTORY
	1 CHIN HING MRS	PACIFIC BELL DIRECTORY
	2 CHAN BILL	PACIFIC BELL DIRECTORY
1991	Chin Hing	PACIFIC BELL WHITE PAGES
	Gee Charlie	PACIFIC BELL WHITE PAGES
	Huang Feng	PACIFIC BELL WHITE PAGES
1986	Chin Hing	PACIFIC BELL WHITE PAGES
	Gee Charlie	PACIFIC BELL WHITE PAGES
	Gee D	PACIFIC BELL WHITE PAGES
	Chan Bill	PACIFIC BELL WHITE PAGES
1980	Chin Hing	Pacific Telephone
	Gee Charlie	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	CHIN HING	Pacific Telephone
	GEE CHARLIE	Pacific Telephone
1970	CHIN HING	Pacific Telephone Directory
	LEONG HENRY	Pacific Telephone Directory
	YOUNG MING WONG	Pacific Telephone Directory
1967	CHING HING	R. L. Polk Co.
	LEONG FRANK	R. L. Polk Co.
	A CHIN ANNIE	R. L. Polk Co.
1955	FLOWERS LA VERN	The Pacific Telephone & Telegraph Co.
	MEEKS VERNITTA	The Pacific Telephone & Telegraph Co.
1925	O CONNOR ELLEN M R	R. L. Polk & Co. of California

156 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	NO RETURN	R. L. Polk Co.
1962	Lum Landon H C	Pacific Telephone
	Lee Jimmy	Pacific Telephone
1955	LEE JIMMY	The Pacific Telephone & Telegraph Co.
	LUM LANDON H C	The Pacific Telephone & Telegraph Co.
1943	Hulsey H Earl Marie mech h	R. L. Polk & Co.
1933	MONTECELLO GEO H	R. L. Polk & Co.
	FONG BOB H	R. L. Polk & Co.
1920	TOSH JAS L R	R. L. Polk & Co. of California

157 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CHAN Yul Hal	Haines Company, Inc.
	CHEN Jing Qin	Haines Company, Inc.
2000	INTERNATIONAL SEQING COMPANY	Pacific Bell
1996	INTERNATIONAL SEWING COMPANY	PACIFIC BELL DIRECTORY
1992	INTERNATIONAL SEWING COMPANY	PACIFIC BELL DIRECTORY
1986	International Sewing Company	PACIFIC BELL WHITE PAGES
1980	Golden Star Sewing Co	Pacific Telephone
1970	MONTGOMERY MFG CO	Pacific Telephone Directory
1967	MONTGOMERY MFG CO MENS CLO	R. L. Polk Co.
1962	Montgomery Mfg Co	Pacific Telephone
1955	WING H & CO OVERALLS MFG	The Pacific Telephone & Telegraph Co.
1945	WING H & CO OVERALLS MFG	The Pacific Telephone & Telegraph Co.
1943	Ming Nig clk r	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Wing Hue h	R. L. Polk & Co.
1938	WING H R	Pacific Telephone
1925	SUN CHUNG R	R. L. Polk & Co. of California

158 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	WACKERLY THEO	The Pacific Telephone & Telegraph Co.
1943	Wackerly Minnie F wid J A r Knight Robt R Celia mech h	R. L. Polk & Co. R. L. Polk & Co.
1938	MATHISON CARL R	Pacific Telephone

159 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
1996	KOO SING & WAL LAN	PACIFIC BELL DIRECTORY
1992	KOO SING & WAI LAN	PACIFIC BELL DIRECTORY
1991	Koo Sing & Wai Lan	PACIFIC BELL WHITE PAGES
1986	Koo Sing&Wai Lan	PACIFIC BELL WHITE PAGES
1980	Koo Sing & Wai Lan	Pacific Telephone
1975	KOO SINGJ	Pacific Telephone
1970	KOO SING	Pacific Telephone Directory
1967	KOD WM	R. L. Polk Co.
1962	Koo Sing	Pacific Telephone
1955	LEONG KOW MRS R	The Pacific Telephone & Telegraph Co.
1945	LEONG KOW MRS R	The Pacific Telephone & Telegraph Co.
1943	Leong Kow Mrs h	R. L. Polk & Co.
1933	PARK FRANK H NIGN FONG H GEN LAW R	R. L. Polk & Co. R. L. Polk & Co. R. L. Polk & Co.

160 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Lee Mun	Pacific Telephone
1943	Smith Frank A Cath h	R. L. Polk & Co.
1938	CHU SAM R SMITH F A MRS R	Pacific Telephone Pacific Telephone
1933	CHU FRANK H VAN DUSEN ERVEN L H	R. L. Polk & Co. R. L. Polk & Co.
1928	Shidy Leland W driver R	R.L. Polk and Co of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1920	TURNER MRS KATE R	R. L. Polk & Co. of California

161 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	LI LI Gui	Haines Company, Inc.
	HUANG Yan Rong	Haines Company, Inc.
1992	LAI PARKER Y	PACIFIC BELL DIRECTORY
1986	Lai Parker Y	PACIFIC BELL WHITE PAGES
1980	Lai Parker Y	Pacific Telephone
1975	LAI PARKER Y	Pacific Telephone
1970	LAI Y P	Pacific Telephone Directory
1967	LAI PARKER Y	R. L. Polk Co.
1962	Lai Y P r	Pacific Telephone
1955	LAI Y P R	The Pacific Telephone & Telegraph Co.
1945	LAI Y P R	The Pacific Telephone & Telegraph Co.
1943	Lai Yee P Helen h	R. L. Polk & Co.

162 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Bing Louie	Pacific Telephone
1955	CHOP ALLEN R	The Pacific Telephone & Telegraph Co.
1945	CHOP LIN C R	The Pacific Telephone & Telegraph Co.
1943	Chee Lin C h	R. L. Polk & Co.
	LEE C Lin Yen Shee cook r	R. L. Polk & Co.
1938	POY KWONG R	Pacific Telephone
1933	PAY KWONG H	R. L. Polk & Co.
1928	Fukui H H photog	R.L. Polk and Co of California
1925	WOODSIDE PEARL A R	R. L. Polk & Co. of California

163 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	QIU Wanr Qia	Haines Company, Inc.
	CHEN O QIng Shan	Haines Company, Inc.
1975	LAI JEROME	Pacific Telephone
1967	VACANT	R. L. Polk Co.
1955	QUAN EDW	The Pacific Telephone & Telegraph Co.
1943	Wing Lee h	R. L. Polk & Co.
1938	LAI Y P R	Pacific Telephone
1928	Shew Chong gro	R.L. Polk and Co of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	LIT C T R	R. L. Polk & Co. of California
1920	RANDALL S GROC	R. L. Polk & Co. of California

164 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Lee Gum C	Pacific Telephone
1945	YOUNG KOW R	The Pacific Telephone & Telegraph Co.
1943	Young Elfreda sten r	R. L. Polk & Co.
	Young Norma sten r	R. L. Polk & Co.
	Young Kow mgr Asia Low Cafe h	R. L. Polk & Co.
1938	YOUNG KOW R	Pacific Telephone
1920	LOWE GEORGE F R	R. L. Polk & Co. of California

165 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CHAN Hong	Haines Company, Inc.
	TAN Guang Lang	Haines Company, Inc.
2000	TAN GUANG LANG	Pacific Bell
1992	JUNG JEUNG Y	PACIFIC BELL DIRECTORY
1991	Jung Joe H	PACIFIC BELL WHITE PAGES
	Jung Jeung Y	PACIFIC BELL WHITE PAGES
	Jung Joachim	PACIFIC BELL WHITE PAGES
	Jung Joanne	PACIFIC BELL WHITE PAGES
1986	Jung Jeung Y	PACIFIC BELL WHITE PAGES
	Jung Joanne	PACIFIC BELL WHITE PAGES
	Jung Joe H	PACIFIC BELL WHITE PAGES
1980	Jung Jeung Y	Pacific Telephone
1975	JUNG JEUNG Y	Pacific Telephone
1970	JUNG JEUNG Y	Pacific Telephone Directory
1967	JUNG JEUNG Y	R. L. Polk Co.
1962	Jung Jeung Y	Pacific Telephone
1955	JUNG JEUNG YING R	The Pacific Telephone & Telegraph Co.
1945	LEE FOOK Y DR R	The Pacific Telephone & Telegraph Co.
1943	LEE Fook Y Dorothy dentist h	R. L. Polk & Co.
1938	LEE FOOK Y DR R	Pacific Telephone
1933	LEE FOOK Y (DOROTHY) DENTIST R203	R. L. Polk & Co.
	SAM LEE MRS R	R. L. Polk & Co.
1928	R	R.L. Polk and Co of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	B Fook Y dentist	R.L. Polk and Co of California

166 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1979	CISNEROS GILBERT8	Pacific Telephone

167 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	KWONG See Ting	Haines Company, Inc.
1986	Fong Yee Ping	PACIFIC BELL WHITE PAGES
1980	Fong Yee Ping	Pacific Telephone
1967	WONG LOUIS	R. L. Polk Co.
1955	WOON LOUIE R	The Pacific Telephone & Telegraph Co.
1943	TOM Guy restr h	R. L. Polk & Co.
1938	GUY TOM R	Pacific Telephone
1933	GUY THOS RESTR	R. L. Polk & Co.
1925	SINAI J R	R. L. Polk & Co. of California
1920	SINAI J R	R. L. Polk & Co. of California

168 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	NG FRANK C	R. L. Polk Co.
1962	Choy Yen Fong	Pacific Telephone
	Ng Frank C	Pacific Telephone
	Wong Sam	Pacific Telephone
1955	LAY LIM	The Pacific Telephone & Telegraph Co.
1945	LEE MAC R	The Pacific Telephone & Telegraph Co.
1943	Chan Yam H gro	R. L. Polk & Co.
	LEE Mack G Lillian slsmn h	R. L. Polk & Co.
1938	LEE MAC R	Pacific Telephone
1933	LEE MACK H	R. L. Polk & Co.
1925	RANDOLPH J W R	R. L. Polk & Co. of California
1920	RANDOLPH J W R	R. L. Polk & Co. of California

169 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	KWONG Sea Ting	Haines Company, Inc.
2000	KWONG SEE TING	Pacific Bell
1996	KWONG SEE TING	PACIFIC BELL DIRECTORY
1992	KWONG SEE TING	PACIFIC BELL DIRECTORY

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Kwong See Ting	PACIFIC BELL WHITE PAGES
1986	Kwong See Ting	PACIFIC BELL WHITE PAGES
1980	Kwong See Ting	Pacific Telephone
1970	WOON HENRY	Pacific Telephone Directory
1967	WOON HENRY	R. L. Polk Co.
1962	Woon Henry	Pacific Telephone
1955	TUNG L K R	The Pacific Telephone & Telegraph Co.
1943	Trunnell Nathaniel h Toy Quong shipydwkr h	R. L. Polk & Co. R. L. Polk & Co.
1933	LEONY CLAYTON R	R. L. Polk & Co.

170 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	CHIN BENNY	R. L. Polk Co.
1962	Chin Benny	Pacific Telephone
1955	CHIN BENNY R	The Pacific Telephone & Telegraph Co.
1945	CHIN BENNY R	The Pacific Telephone & Telegraph Co.
1943	Wong Alf mach G W Ashlock r Wong Sam Y Anna steward h	R. L. Polk & Co. R. L. Polk & Co.
1938	WONG SAM Y R	Pacific Telephone
1933	WONG SAM V (ANNA) JAN H BOWEN ALBT CLK R	R. L. Polk & Co. R. L. Polk & Co.
1925	WEST J R	R. L. Polk & Co. of California
1920	MATHES A R	R. L. Polk & Co. of California

8th St

171 8th St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	ORIENTAL EXPRESS RESTAURANT	EDR Digital Archive
	ORIENTAL EXPRESS RESTAURANT	EDR Digital Archive
2010	ORIENTAL EXPRESS RESTAURANT	EDR Digital Archive
	ORIENTAL EXPRESS RESTAURANT	EDR Digital Archive

8TH ST

171 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	e DANG Duong CHANJason	Haines Company, Inc. Haines Company, Inc.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	WONG R E	Pacific Telephone Directory
1967	WONG R E	R. L. Polk Co.
1962	Cheung Henrietta J	Pacific Telephone
	Cheung Josephine	Pacific Telephone
1955	SUEY YAN GOCK R	The Pacific Telephone & Telegraph Co.
1945	SUEY YAN GOCK R	The Pacific Telephone & Telegraph Co.
1943	Suey Yan G h	R. L. Polk & Co.
1938	SUEY YAN GOCK R	Pacific Telephone
1925	JACOBOVICH MRS S R	R. L. Polk & Co. of California
1920	JACOBOVICH MRS S R	R. L. Polk & Co. of California

172 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Lim Song	Pacific Telephone
1955	CHINN HESTER P	The Pacific Telephone & Telegraph Co.
1943	Chew Long h	R. L. Polk & Co.
1933	WONG RAYMOND H	R. L. Polk & Co.
1925	LOWE GEORGE F R	R. L. Polk & Co. of California
1920	BARNET MRS JOHN R	R. L. Polk & Co. of California

173 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	LEE SINGLEY	R. L. Polk Co.
1962	Lee Chas W	Pacific Telephone
1955	WONG TOY R	The Pacific Telephone & Telegraph Co.
1945	WONG TOY R	The Pacific Telephone & Telegraph Co.
1943	Wong Toy h	R. L. Polk & Co.
1938	WONG TOY R	Pacific Telephone
1933	WONG TOY H	R. L. Polk & Co.

174 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Fong Eddie K	Pacific Telephone
1955	YEE JOE R	The Pacific Telephone & Telegraph Co.
1945	YEE JOE R	The Pacific Telephone & Telegraph Co.
1943	Yee Joe Bertha meatctr h	R. L. Polk & Co.
1938	YEE JOE R	Pacific Telephone
1933	YEE JOE (BERTHA) H	R. L. Polk & Co.
	FONG JIMMIE MEATCTR H	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Adnchi Geo K ship elk H Morton Co R	R.L. Polk and Co of California
1925	ADACHI GEO K R	R. L. Polk & Co. of California
1920	BRANDT AL R	R. L. Polk & Co. of California

175 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	LEE Martin	Haines Company, Inc.
1967	LEE HARRY W	R. L. Polk Co.
1962	Lee Harry	Pacific Telephone
1955	LEE HARRY	The Pacific Telephone & Telegraph Co.
1943	Pappas John h	R. L. Polk & Co.

176 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Fong Nam	Pacific Telephone
	Lim Jas N	Pacific Telephone
	Lim Jean	Pacific Telephone
	Yin Hoowh	Pacific Telephone
1955	CHAN KEW	The Pacific Telephone & Telegraph Co.
	FONG DAVIN	The Pacific Telephone & Telegraph Co.
1945	SEE JOE MRS R	The Pacific Telephone & Telegraph Co.
1943	See Joe dept mgr Natl Dollar Stores h	R. L. Polk & Co.
1938	SEE JOE MRS R	Pacific Telephone
1933	CHEW EDW (OKLD TOGGERY) R	R. L. Polk & Co.
	CHOO CHAS R	R. L. Polk & Co.
	CHOO EDW R	R. L. Polk & Co.
	SEE LIM MRS R	R. L. Polk & Co.
	WU HENRY (MARY) MGR OAKLAND TOGGERY H	R. L. Polk & Co.
	1925	WONG HONG ARK R	R. L. Polk & Co. of California

177 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Lee Harry	Pacific Telephone
1955	LIM FONG R	The Pacific Telephone & Telegraph Co.
	TOM PARK C R	The Pacific Telephone & Telegraph Co.
1945	LIM FONG R	The Pacific Telephone & Telegraph Co.
1943	Lim Fong h	R. L. Polk & Co.
	Lim Jos r	R. L. Polk & Co.
1938	LIM FONG R	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	CHIN JACK H	R. L. Polk & Co.
1920	LUSTIG DOROTHY R	R. L. Polk & Co. of California

178 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Young Ping On	Pacific Telephone
1955	LEE CAROL	The Pacific Telephone & Telegraph Co.
1945	LEE FRANK Y R	The Pacific Telephone & Telegraph Co.
1943	LEE Frank h	R. L. Polk & Co.
1938	LEE FRANK Y R	Pacific Telephone
1933	CHUNG GIT REAL EST	R. L. Polk & Co.
1928	Ohumpas slsmn Sun Life Assurance Co of Canada R	R.L. Polk and Co of California
	Cung Git slsmn Sun Life Assurance Co of Canada R	R.L. Polk and Co of California
1925	CHUNG GIT R	R. L. Polk & Co. of California
1920	SUNKLER MRS W H R	R. L. Polk & Co. of California

17B 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	CORMIER ANDREW	The Pacific Telephone & Telegraph Co.

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	ARTHUR JACKSON J	R. L. Polk Co.
1962	Frizado Norma Mrs	Pacific Telephone
	Wong Dan S	Pacific Telephone
1955	HOM PAULINE LOUIE	The Pacific Telephone & Telegraph Co.
	JUNG NELLIE R	The Pacific Telephone & Telegraph Co.
1943	Hang Jim Lung S h	R. L. Polk & Co.
1938	CHEW BO SHAN R	Pacific Telephone
1920	BOAS GEORGE P R	R. L. Polk & Co. of California

182 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Ng Do Wing	Pacific Telephone
1955	NG DO WING	The Pacific Telephone & Telegraph Co.
1945	LONG EDDIE R	The Pacific Telephone & Telegraph Co.
1943	Long Eddie Koo meat ctr h	R. L. Polk & Co.
1938	LONG EDDIE R	Pacific Telephone
1920	FLASH F W R	R. L. Polk & Co. of California

FINDINGS

187 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	h Leland wtchmn R	R.L. Polk and Co of California

200 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	MO Pei	Haines Company, Inc.
2000	HUI SUN WAY	Pacific Bell
1996	HUI SUN WAY	PACIFIC BELL DIRECTORY
1992	HUI SUN WAY	PACIFIC BELL DIRECTORY
1991	Hui Sun Way	PACIFIC BELL WHITE PAGES
1986	Hui Sun Way	PACIFIC BELL WHITE PAGES
	Hui T	PACIFIC BELL WHITE PAGES
1980	Hui Sun Way	Pacific Telephone
1975	LI JOAQUIN	Pacific Telephone
1970	LI JOAQUIN	Pacific Telephone Directory
1967	LI JOAQUIN	R. L. Polk Co.
1955	LEONG TIM R	The Pacific Telephone & Telegraph Co.
1943	Wong Chan h	R. L. Polk & Co.
1933	LEE LUNG H	R. L. Polk & Co.
1928	graph Jeannette Mrs bkpr Jas Rohan R	R.L. Polk and Co of California
	graph Gladys R	R.L. Polk and Co of California
	Shafter Marat elk E B Water Co R	R.L. Polk and Co of California
	h Margt Mrs H	R.L. Polk and Co of California
1925	MCDONNELL JEANNETTE R	R. L. Polk & Co. of California

202 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CHAN Shu	Haines Company, Inc.
2000	HUIE HOWARD	Pacific Bell
1996	HUIE HOWARD	PACIFIC BELL DIRECTORY
1992	HULE HOWARD	PACIFIC BELL DIRECTORY
1991	Huie Howard	PACIFIC BELL WHITE PAGES
1986	Huie Jack H	PACIFIC BELL WHITE PAGES
	Huie Howard	PACIFIC BELL WHITE PAGES
	Huie J	PACIFIC BELL WHITE PAGES
1980	Huie Howard	Pacific Telephone
1975	HUIE HOWARD	Pacific Telephone
1970	HUIE HOWARD	Pacific Telephone Directory
1967	HUIE HOWARD	R. L. Polk Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Huie Howard	Pacific Telephone
1955	DONG FRED R	The Pacific Telephone & Telegraph Co.
1945	DONG FRED R	The Pacific Telephone & Telegraph Co.
1943	Dong Fred h	R. L. Polk & Co.
1938	DONG FRED R	Pacific Telephone
1933	DONG FRED (IRENE) PHARM SHAMROCK PHARMACY H	R. L. Polk & Co.
1928	Hopkins Augustus C Mary H L Ray K prsmn H	R.L. Polk and Co of California R.L. Polk and Co of California
1925	MILLER MISS L R	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CHEN Zhu	Haines Company, Inc.
2000	CHEN SHI YING	Pacific Bell
	WONG FAI K	Pacific Bell
1996	WONG FAI K	PACIFIC BELL DIRECTORY
1992	WONG FAI K	PACIFIC BELL DIRECTORY
1986	Wang Fat Yuen	PACIFIC BELL WHITE PAGES
1980	Wong Fat Yuen	Pacific Telephone
1975	OWYANG SAM	Pacific Telephone
1970	OWYANG SAM	Pacific Telephone Directory
1967	OWYANG SAM	R. L. Polk Co.
1962	Owyang Sam	Pacific Telephone
1943	Pon Dick M h	R. L. Polk & Co.
1920	SNELL A J R	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	LIUBI	Haines Company, Inc.
2000	LEUNG KWAI BUN	Pacific Bell
1996	LEUNG KWAL BUN	PACIFIC BELL DIRECTORY
1992	CHAU YAT-KUENG	PACIFIC BELL DIRECTORY
1991	Huey Duey Jun	PACIFIC BELL WHITE PAGES
1986	Huey Duey Jun	PACIFIC BELL WHITE PAGES
1980	Huey Duey Jun	Pacific Telephone
1975	HUEY DUEY JUN	Pacific Telephone
1970	HUEY DUEY JUN	Pacific Telephone Directory
1967	HUEY D J	R. L. Polk Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	TORRES RICARDO R	The Pacific Telephone & Telegraph Co.
1945	TARRES RICARDO R	The Pacific Telephone & Telegraph Co.
1943	Torres Ricardo Jue mgr New Eastern Cafe h	R. L. Polk & Co.

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211 8th St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	SATELLITE HOUSING	EDR Digital Archive
	SATELLITE SENIOR HOMES INC	EDR Digital Archive
	SATELLITE SENIOR HOMES INC	EDR Digital Archive
	SATELLITE HOUSING	EDR Digital Archive
2010	SATELLITE HOUSING	EDR Digital Archive
	SATELLITE HOUSING	EDR Digital Archive

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211 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	APARTMENTS	Haines Company, Inc.
	CHAN Sul Sum	Haines Company, Inc.
	CHAN Sulfun	Haines Company, Inc.
	CHAN Tul Kam	Haines Company, Inc.
	CHEN Jjn Chang	Haines Company, Inc.
	CHUE Shulhae	Haines Company, Inc.
	HOUSu	Haines Company, Inc.
	HOUZZh IYun	Haines Company, Inc.
	HUANGJing Wel	Haines Company, Inc.
	HUEY Lan Kam	Haines Company, Inc.
	HUNGYuk Wai	Haines Company, Inc.
	JINQI	Haines Company, Inc.
	KWAN Lee	Haines Company, Inc.
	LAU Tung Chun	Haines Company, Inc.
	LEIWu Bin	Haines Company, Inc.
	LIANGXIng	Haines Company, Inc.
	LIU She	Haines Company, Inc.
	LUI Hankam	Haines Company, Inc.
	NGUYEN Lang	Haines Company, Inc.
	SATELLUTE SENIOR	Haines Company, Inc.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	HOMES INC	Haines Company, Inc.
	SU Yan Fange	Haines Company, Inc.
	TO Sze M	Haines Company, Inc.
	TOYTan	Haines Company, Inc.
	WANG Chen Shih	Haines Company, Inc.
	WONG Cheung Oy	Haines Company, Inc.
	WONG Wahh O	Haines Company, Inc.
	WU Lan Fen	Haines Company, Inc.
	YEShao	Haines Company, Inc.
2000	101 DOH ON YURN	Pacific Bell
	102 CHIN LUI SZE	Pacific Bell
	201 TO SZE M	Pacific Bell
	203 LAM BIK SIM	Pacific Bell
	207 CHEN FU LIN	Pacific Bell
	208 POON WOOT	Pacific Bell
	301 WU CHEUNG LING	Pacific Bell
	302 HUEY LAN KAM	Pacific Bell
	303 WONG MU YEN	Pacific Bell
	307 CHAN SUIFUN	Pacific Bell
	403 WONG CHEUNG OY	Pacific Bell
	404 CHAN SUI SUM	Pacific Bell
	406 KWAN LEE	Pacific Bell
	503 WONG NIN TAI	Pacific Bell
	504 MING LO KINS	Pacific Bell
	505 HOU ZHI YUN	Pacific Bell
	506 LUI HANKAM	Pacific Bell
	608 WU LAN FEN QIN	Pacific Bell
1996	404 CHAN SUI SUM	PACIFIC BELL DIRECTORY
	405 LEUNG HING KWOK	PACIFIC BELL DIRECTORY
	406 KWAN LEE	PACIFIC BELL DIRECTORY
	407 CHUNG NGHE	PACIFIC BELL DIRECTORY
	503 WONG NIN TAI	PACIFIC BELL DIRECTORY
	504 MING LO KINS	PACIFIC BELL DIRECTORY
	505 HOU ZHI YUN	PACIFIC BELL DIRECTORY
	506 LUI HANKAM	PACIFIC BELL DIRECTORY
	608 WU LAN FEN QIN	PACIFIC BELL DIRECTORY
	101 DOH ON YUEN	PACIFIC BELL DIRECTORY
102 CHIN LUI SZE	PACIFIC BELL DIRECTORY	

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1996	103 AUYEUNG CHIU	PACIFIC BELL DIRECTORY
	201 TO SZE HING	PACIFIC BELL DIRECTORY
	203 LAM BIK SIM	PACIFIC BELL DIRECTORY
	206 QUAN PHONE	PACIFIC BELL DIRECTORY
	207 REE PORFIRIO	PACIFIC BELL DIRECTORY
	208 POON WOOL	PACIFIC BELL DIRECTORY
	301 WU CHEUNG LING	PACIFIC BELL DIRECTORY
	302 HUEY LAN KAM	PACIFIC BELL DIRECTORY
	303 WONG MU YEN	PACIFIC BELL DIRECTORY
	307 CHAN SUIFUN	PACIFIC BELL DIRECTORY
1992	403 WONG CHEUNG OY	PACIFIC BELL DIRECTORY
	101 YEE RAYMOND & VIVIAN	PACIFIC BELL DIRECTORY
	102 CHIN LOUIE SHEE	PACIFIC BELL DIRECTORY
	105 PALMER A	PACIFIC BELL DIRECTORY
	201 TO SZE HING	PACIFIC BELL DIRECTORY
	203 LAM BIK SIM	PACIFIC BELL DIRECTORY
	206 QUAN PHONE	PACIFIC BELL DIRECTORY
	207 CHEW POY	PACIFIC BELL DIRECTORY
	208 POON LOUIE	PACIFIC BELL DIRECTORY
	301 WU CHEUNG LING	PACIFIC BELL DIRECTORY
	302 HUEY LAN KAM	PACIFIC BELL DIRECTORY
	304 CHAU PHUONG	PACIFIC BELL DIRECTORY
	308 YEN LOW L	PACIFIC BELL DIRECTORY
	402 WONG KAM	PACIFIC BELL DIRECTORY
	403 WONG CHEUNG OY	PACIFIC BELL DIRECTORY
	404 YU KIM HAN	PACIFIC BELL DIRECTORY
	405 LEUNG HING KWOK	PACIFIC BELL DIRECTORY
	406 KWAN LEE	PACIFIC BELL DIRECTORY
	407 CHUNG NGHE	PACIFIC BELL DIRECTORY
	408 LIM JAS N	PACIFIC BELL DIRECTORY
1991	501 REE PORFIRIO	PACIFIC BELL DIRECTORY
	503 WONG NIN TAI	PACIFIC BELL DIRECTORY
	504 MING LO KINS	PACIFIC BELL DIRECTORY
	505 LEE YAU HO YEUNG	PACIFIC BELL DIRECTORY
	508 CHOY ALFONSO	PACIFIC BELL DIRECTORY
	608 NG MON HOY	PACIFIC BELL DIRECTORY
	502E GEE WING	PACIFIC BELL DIRECTORY
	Chin M 9	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Chin PK	PACIFIC BELL WHITE PAGES
	China Fong Bow	PACIFIC BELL WHITE PAGES
	Chinn Fred R	PACIFIC BELL WHITE PAGES
	Chow Sow D	PACIFIC BELL WHITE PAGES
	Choy Alfonso	PACIFIC BELL WHITE PAGES
	Chung Nghe	PACIFIC BELL WHITE PAGES
	Kwan Lee	PACIFIC BELL WHITE PAGES
	Kwan Lynn	PACIFIC BELL WHITE PAGES
	Kwan Ming Tit	PACIFIC BELL WHITE PAGES
	Kwan P	PACIFIC BELL WHITE PAGES
	Lam Bik Sim	PACIFIC BELL WHITE PAGES
	Lee KG	PACIFIC BELL WHITE PAGES
	Lee KL	PACIFIC BELL WHITE PAGES
	Lee KW	PACIFIC BELL WHITE PAGES
	Lee Yau Ho Yeung	PACIFIC BELL WHITE PAGES
	Lee Yea Kog	PACIFIC BELL WHITE PAGES
	Lim Jas N	PACIFIC BELL WHITE PAGES
	c Ming Lo Kins	PACIFIC BELL WHITE PAGES
	Palmer A	PACIFIC BELL WHITE PAGES
	Palmer Adisa O	PACIFIC BELL WHITE PAGES
	Palmer Albert	PACIFIC BELL WHITE PAGES
	Palmer Alumni Chiropractic Referral Service	PACIFIC BELL WHITE PAGES
	To Sze Hing	PACIFIC BELL WHITE PAGES
	Wong Nin Tai	PACIFIC BELL WHITE PAGES
	Wu Cheung Ling	PACIFIC BELL WHITE PAGES
	Wu Chi Man	PACIFIC BELL WHITE PAGES
	Chan Fung Kee	PACIFIC BELL WHITE PAGES
	Chan Fung Wing	PACIFIC BELL WHITE PAGES
	Chan G	PACIFIC BELL WHITE PAGES
	Chan Gary	PACIFIC BELL WHITE PAGES
	Chau Phuong	PACIFIC BELL WHITE PAGES
	Chew Poy	PACIFIC BELL WHITE PAGES
	Chew R	PACIFIC BELL WHITE PAGES
Chin Louie Shoe	PACIFIC BELL WHITE PAGES	
1986	Chew Poy	PACIFIC BELL WHITE PAGES
	Chin P K	PACIFIC BELL WHITE PAGES
	Chinn Pong Bow	PACIFIC BELL WHITE PAGES
	Chinn Francesca A	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Chinn Fred R	PACIFIC BELL WHITE PAGES
	Chow Ding Yuk	PACIFIC BELL WHITE PAGES
	Chow Sow D	PACIFIC BELL WHITE PAGES
	Choy Alfonso	PACIFIC BELL WHITE PAGES
	Chung Nghe	PACIFIC BELL WHITE PAGES
	Fong Waiman Pang	PACIFIC BELL WHITE PAGES
	Fong W m L	PACIFIC BELL WHITE PAGES
	Fong Wm S W	PACIFIC BELL WHITE PAGES
	Gee Wing	PACIFIC BELL WHITE PAGES
	Joe Thin Si	PACIFIC BELL WHITE PAGES
	Joe Wilbert	PACIFIC BELL WHITE PAGES
	Lam Mez Y	PACIFIC BELL WHITE PAGES
	Lau Tung Chun	PACIFIC BELL WHITE PAGES
	Lau V IKelton Ct	PACIFIC BELL WHITE PAGES
	Lau VS	PACIFIC BELL WHITE PAGES
	Lee K G	PACIFIC BELL WHITE PAGES
	Lee K L	PACIFIC BELL WHITE PAGES
	Lee Matthew W	PACIFIC BELL WHITE PAGES
	Lee Tai Mui	PACIFIC BELL WHITE PAGES
	Lee Taisook	PACIFIC BELL WHITE PAGES
	Lee Tatwina	PACIFIC BELL WHITE PAGES
	Lee Teresa	PACIFIC BELL WHITE PAGES
	Lee Yau Ho Yeung	PACIFIC BELL WHITE PAGES
	Lee Yea Kog	PACIFIC BELL WHITE PAGES
	Mak Lai Kwai	PACIFIC BELL WHITE PAGES
	Mak Loretta	PACIFIC BELL WHITE PAGES
	Mak Ying Wai	PACIFIC BELL WHITE PAGES
	Mak Yuk C	PACIFIC BELL WHITE PAGES
	Palmer A	PACIFIC BELL WHITE PAGES
	Palmer Alumni Chiropractic Referral Service	PACIFIC BELL WHITE PAGES
	Poon Louie	PACIFIC BELL WHITE PAGES
	Quan Phone	PACIFIC BELL WHITE PAGES
	Quan R	PACIFIC BELL WHITE PAGES
	Ree Porfirio	PACIFIC BELL WHITE PAGES
	To Sze Hing	PACIFIC BELL WHITE PAGES
	Wang Kam	PACIFIC BELL WHITE PAGES
	Wu Cheung Ling	PACIFIC BELL WHITE PAGES
	Yen Low L	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Yen Paul	PACIFIC BELL WHITE PAGES
	Yu Kim Han	PACIFIC BELL WHITE PAGES
	Yuen Yeet Ngor	PACIFIC BELL WHITE PAGES
1980	Wong Kam	Pacific Telephone
	Wong Nin Tai	Pacific Telephone
	Wong Wm	Pacific Telephone
	Yao Gom Yuen	Pacific Telephone
	Yee Joe	Pacific Telephone
	Yen Low L	Pacific Telephone
	Ying Tak Poh	Pacific Telephone
	Yuen Yeet Ngor	Pacific Telephone
	Ayo Santos E	Pacific Telephone
	Chan Fung Kee	Pacific Telephone
	Chan Ying	Pacific Telephone
	Chew Poy	Pacific Telephone
	Chin Dong Shee	Pacific Telephone
	Chin Mary	Pacific Telephone
	Chin P K	Pacific Telephone
	Chinn Chu Y	Pacific Telephone
	Chow Ding Yuk	Pacific Telephone
	Fong Waiman Pang	Pacific Telephone
	Ganosa Tiburcio	Pacific Telephone
	Gee Gim Yuen	Pacific Telephone
	Gee Lin How	Pacific Telephone
	Jan Ngan Yuen	Pacific Telephone
	Joe Thin Si	Pacific Telephone
	Joe Wilbert	Pacific Telephone
	Jue Chan C	Pacific Telephone
	Lam Mez Y	Pacific Telephone
	Lau Yuk W	Pacific Telephone
	Lee K G	Pacific Telephone
Lee Wm D	Pacific Telephone	
Li Jose C	Pacific Telephone	
Lim Jas N	Pacific Telephone	
Mak Lai Kwai	Pacific Telephone	
Mak Ying Wai	Pacific Telephone	
Moy Shew S	Pacific Telephone	
Palmer A	Pacific Telephone	

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Payot Peter	Pacific Telephone
	Poon Louie	Pacific Telephone
	Quan Phone	Pacific Telephone
1975	AYO SANTOS E	Pacific Telephone
	CHAN YING	Pacific Telephone
	CHEW PAY	Pacific Telephone
	CHIN DONG SHEE	Pacific Telephone
	CHIN MARY	Pacific Telephone
	CHIN P K	Pacific Telephone
	CHINN CHU Y	Pacific Telephone
	CHOW DING YUK	Pacific Telephone
	FONG WAIMAN PANG	Pacific Telephone
	GANOSA TIBURCIO	Pacific Telephone
	GEE LIN HOW	Pacific Telephone
	JOE TAYLOR S SHELL SERVICE	Pacific Telephone
	JOW KY	Pacific Telephone
	JUE CHAN C	Pacific Telephone
	LAS YUK L IN	Pacific Telephone
	LAS YUK W	Pacific Telephone
	LEE K G	Pacific Telephone
	LEE WM D	Pacific Telephone
	LIM JAS N	Pacific Telephone
	MAT LAI KWAI	Pacific Telephone
PALMER A	Pacific Telephone	
PAYOT PETER	Pacific Telephone	
POON LOUIE	Pacific Telephone	
1970	AYO SANTOS E	Pacific Telephone Directory
	BREWER MARY MRS	Pacific Telephone Directory
	CHEW NG SHEE	Pacific Telephone Directory
	CHEW POY	Pacific Telephone Directory
	CHIN DONG SHEE	Pacific Telephone Directory
	CHIN P K	Pacific Telephone Directory
	CHINN CHU Y	Pacific Telephone Directory
	GEE GIM YUEN	Pacific Telephone Directory
	GEE LIN HOW	Pacific Telephone Directory
	HENRY ADOLPH	Pacific Telephone Directory
HOLMES READIS	Pacific Telephone Directory	
JONES BERNICE 2X	Pacific Telephone Directory	

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	KUNZLER I	Pacific Telephone Directory
	LAU YUK LIN	Pacific Telephone Directory
	LEE LUTHER S	Pacific Telephone Directory
	LEE SHEE	Pacific Telephone Directory
	LEE WM D	Pacific Telephone Directory
	LEM CHEUNG	Pacific Telephone Directory
	LEONG MARY G	Pacific Telephone Directory
	LI JOSE C	Pacific Telephone Directory
	LIM JAS N	Pacific Telephone Directory
	NGIM LOOK	Pacific Telephone Directory
	POON LOUIE	Pacific Telephone Directory
	QUAN PHONE	Pacific Telephone Directory
	RUEBLING FRIEDA	Pacific Telephone Directory
	VILLANTI ROSARIO	Pacific Telephone Directory
	WONG PON	Pacific Telephone Directory
	WONG WM MRS	Pacific Telephone Directory
	WU PAK	Pacific Telephone Directory
	YAO GOM YUEN	Pacific Telephone Directory
	YEN LOW L	Pacific Telephone Directory
	YOUNG AH TONG	Pacific Telephone Directory
	LOW THUNG SHU	Pacific Telephone Directory
	LOWE K B	Pacific Telephone Directory
	MAK YING WAI	Pacific Telephone Directory

213 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	s FON Kame Tang	Haines Company, Inc.
2000	SUI YICK SE	Pacific Bell
	FONG KAM TANG	Pacific Bell
1996	SUI YICK SE	PACIFIC BELL DIRECTORY
	FONG KAM TANG	PACIFIC BELL DIRECTORY
1992	WONG CHONG	PACIFIC BELL DIRECTORY
1986	Wang Chong	PACIFIC BELL WHITE PAGES
1980	Wong Chong	Pacific Telephone
1970	WONG CHONG	Pacific Telephone Directory
1967	CHONG WONG K	R. L. Polk Co.
1962	Wong Chong	Pacific Telephone
1955	LEE WALTON R	The Pacific Telephone & Telegraph Co.
1945	ONG DONALD R	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Yee Donald h	R. L. Polk & Co.
	Yee Koon r	R. L. Polk & Co.
	Yee Quong cigars r	R. L. Polk & Co.
1925	FOO JANSON R	R. L. Polk & Co. of California

214 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	HOM Gary	Haines Company, Inc.
1975	HORN EVA	Pacific Telephone
1970	HOM EVA	Pacific Telephone Directory
1967	HOM EVA MRS	R. L. Polk Co.
1962	Hom Eva	Pacific Telephone
1955	HOM EVA	The Pacific Telephone & Telegraph Co.
1945	QUAN ESTHER L R	The Pacific Telephone & Telegraph Co.
1943	Quan Esther L elev opr HCCCo r	R. L. Polk & Co.
	Quan Richd r	R. L. Polk & Co.
	Quon Chas h	R. L. Polk & Co.
1938	QUON CHARLES R	Pacific Telephone

215 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LEE HENRY	Pacific Telephone Directory
1967	LEE GUEY	R. L. Polk Co.
	ENT BUDDHIST CHURCH	R. L. Polk Co.
1962	Wong Wing Thin	Pacific Telephone
1955	ONG TOMMY	The Pacific Telephone & Telegraph Co.
1945	JUE LILLIAN R	The Pacific Telephone & Telegraph Co.
1943	LEE Tom h	R. L. Polk & Co.
	Jue Laura with Loyalty Group r	R. L. Polk & Co.
	Jue Lillian with Loyalty Group r	R. L. Polk & Co.
1938	SINYORK L R	Pacific Telephone
1933	JANSEN HUGO (LEE) H	R. L. Polk & Co.

8th St

216 8th St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2010	ASIAH HEALTH SERVICES	EDR Digital Archive
	ASIAH HEALTH SERVICES	EDR Digital Archive

FINDINGS

8TH ST

216 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BUDDHIST CHURCH OF OAKLAND	Pacific Telephone Directory
1955	WONG R E R	The Pacific Telephone & Telegraph Co.
1943	Wong Harry Hue bartndr h Wong Frank clk Okld PO r	R. L. Polk & Co. R. L. Polk & Co.
1928	Broadway Tool & Supply Co B H Curry A W Lillon P J Thirion	R.L. Polk and Co of California

218 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	FONG BEW H R	The Pacific Telephone & Telegraph Co.
1943	Wu Jack Shee Indywkr h	R. L. Polk & Co.

222 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	KNOWS HIS GUN FRANKLIN	Pacific Telephone Directory
1943	Wackerly Ruth E wid H H h Wackerly Chas R mech r EVANS Noah shipydwkr r	R. L. Polk & Co. R. L. Polk & Co. R. L. Polk & Co.
1933	HOY YIN H FONG HILBERT H	R. L. Polk & Co. R. L. Polk & Co.
1928	Drummond Frank J Agnes electn H	R.L. Polk and Co of California
1925	DRUMMOND F J R	R. L. Polk & Co. of California

223 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	NUNES MANUEL R	The Pacific Telephone & Telegraph Co.
1943	Doria Jose A kitchen wkr r Yee Chin h	R. L. Polk & Co. R. L. Polk & Co.

224 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	BAILEY Upton O Esta carp h	R. L. Polk & Co.

225 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	VACANT	R. L. Polk Co.
1962	Pong Yook	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	LOWE JOHN W R	The Pacific Telephone & Telegraph Co.
1945	POY KONG R	The Pacific Telephone & Telegraph Co.
1943	KONG Poy Owyang clk h	R. L. Polk & Co.
1938	FUNG JACK R	Pacific Telephone
1928	Sweetser Arch L Inez Sweetser Sc Prance R	R.L. Polk and Co of California
	8th Sami W Ethel H	R.L. Polk and Co of California

226 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Hall Thayer D constltn engnr	PACIFIC BELL WHITE PAGES
1980	Hall Thayer D Inc constltn engnrs	Pacific Telephone
	Miles Suda Engineers Inc	Pacific Telephone
1970	GOTTSTEIN FRANK A PLUMBING & HEATING	Pacific Telephone Directory
1967	GOTTSTEIN FRANK	R. L. Polk Co.
1962	GOTTSTEIN FRANK A PLUMBING & HEATING	Pacific Telephone
1955	GOTTSTEIN FRANK A PLMBNG & HEATNG	The Pacific Telephone & Telegraph Co.
1945	GOTTSTEIN FRANK A PLMBNG & HEATNG	The Pacific Telephone & Telegraph Co.
1943	Gottstein Frank A Gertrude A plmbr	R. L. Polk & Co.
1938	GOTTSTEIN FRANK A PLUMBING	Pacific Telephone
1933	GOTTSTEIN FRANK A (GERTRUDE) PLMBR	R. L. Polk & Co.
1928	GOTTSTEIN Frank A Gertrude plmb R	R.L. Polk and Co of California
1925	GOTTSTEIN FRANK A PLUMBING	R. L. Polk & Co. of California

8th St

227 8th St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	UCS	EDR Digital Archive
	UCS	EDR Digital Archive
2010	UCS	EDR Digital Archive
	UCS	EDR Digital Archive

FINDINGS

8TH ST

227 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	9 FUNG Calvin	Haines Company, Inc.
2000	FUNG CALVIN	Pacific Bell
1996	FUNG CALVIN	PACIFIC BELL DIRECTORY
1992	FUNG CALVIN	PACIFIC BELL DIRECTORY
1991	Fung Jack	PACIFIC BELL WHITE PAGES
1986	Fung Calvin	PACIFIC BELL WHITE PAGES
	Fung Jack	PACIFIC BELL WHITE PAGES
1980	Fung Calvin	Pacific Telephone
	Fung Jack	Pacific Telephone
1975	FUNG CALVIN	Pacific Telephone
	FUNG JACK	Pacific Telephone
1970	FUNG CALVIN MRS	Pacific Telephone Directory
	FUNG JACK	Pacific Telephone Directory
1967	FUNG CALVIN	R. L. Polk Co.
1962	Fung Calvin Mrs	Pacific Telephone
	Fung Jack	Pacific Telephone
1955	FUNG JACK R	The Pacific Telephone & Telegraph Co.
1945	FUNG JACK R	The Pacific Telephone & Telegraph Co.
1943	Fung Koon W Kamy clk h	R. L. Polk & Co.
1933	MCCUTCHEON CHESTER V (JEWELL) R	R. L. Polk & Co.
	MCCUTCHEON WM A H	R. L. Polk & Co.
	MCCUTCHEON WM H SEC TREAS POST ENQUIRER PUB CO R	R. L. Polk & Co.
	NEWMAN MAUDE R	R. L. Polk & Co.
1928	Prince Wm H sec treas Enquirer Publg Co	R.L. Polk and Co of California
1925	MCCUTCHEON W A R	R. L. Polk & Co. of California
1920	GERNREICH MRS W A R	R. L. Polk & Co. of California
	MCCUTCHEON W A R	R. L. Polk & Co. of California

228 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	De Guzman Juan B barber r	R. L. Polk & Co.

231 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Bow Wong h	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Ming Chew r	R. L. Polk & Co.
1933	FUNG RAYMOND (GRACE) H	R. L. Polk & Co.

234 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	BUTLER SONYA	Pacific Bell

236 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	SOFIO R C CO INC SAN FRANCISCO	The Pacific Telephone & Telegraph Co.

239 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	SING CHAS H	R. L. Polk & Co.

155A 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	CHIN ANNIE	Pacific Telephone Directory
1933	WONG YONG H	R. L. Polk & Co.

155B 8TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1938	BING LOUIE R	Pacific Telephone

8th Street

43 8th Street

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Assemblies Of God East Bay Rehabilitation Project S	PACIFIC BELL WHITE PAGES
1962	Lee Robt Texaco Serv Stn	Pacific Telephone
1943	Abbott Harold G Dorothy gas sta	R. L. Polk & Co.

8TH T

70 8TH T

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	BRACE NELLIE MRS R	The Pacific Telephone & Telegraph Co.

FINDINGS

8TH TI

180 8TH TI

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	HANG JAS R	The Pacific Telephone & Telegraph Co.

8TH VIA HARRIET

066 8TH VIA HARRIET

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	CABRAL ANTHONY L	R. L. Polk & Co.

8TH VIA PALMA

106 8TH VIA PALMA

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	CARLBERG RICHARD L	R. L. Polk & Co.

8TH VIA SARTIA

19 8TH VIA SARTIA

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1973	KLEMSTEIN LORY E	Pacific Telephone

8TH\$B

114 8TH\$B

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	WELANDER JOHN H R L	The Pacific Telephone & Telegraph Co.

8THTW INOAKS

152 8THTW INOAKS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	HIRLEY H T PALNTNG CSNTR	The Pacific Telephone & Telegraph Co.

8TI

169 8TI

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	HALL LULU D MRS R	The Pacific Telephone & Telegraph Co.

FINDINGS

8TL

127 8TL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	CLIAN JOE R	The Pacific Telephone & Telegraph Co.

8UAO65 ST

7 8UAO65 ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	LS&L HMKRS	Pacific Telephone

9 ALDER AV PIT

42 9 ALDER AV PIT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1976	MOSER WALTER L	R. L. Polk & Co.

9 ARLINGLTON 81

184 9 ARLINGLTON 81

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Mc Kelvy E	PACIFIC BELL WHITE PAGES

9 BDWAY ST

142 9 BDWAY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MUACK CARL B MUNCH STYLES & BENSON ATTYS	Pacific Telephone

9 BRETON PI

60 9 BRETON PI

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LUNA FLORENCE Y NEWARK 79746	Pacific Telephone and Telegraph Co

9 BUCKEYE PI

75 9 BUCKEYE PI

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	COVELL DONALD F	Pacific Telephone and Telegraph Co

FINDINGS

9 CALIFORNIA

188 9 CALIFORNIA

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1976	BERLOLINO MICHAEL	R. L. Polk & Co.

9 CAPISTRANO DRTR INIRLAD

41 9 CAPISTRANO DRTR INIRLAD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	AVILLA ALFRED R	The Pacific Telephone & Telegraph Co.

9 CEDAR BROOK

184 9 CEDAR BROOK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Hayden John T	PACIFIC BELL WHITE PAGES

9 CENTRAL AV ALMIDA

204 9 CENTRAL AV ALMIDA

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Poulton Donald R orthdnitst	PACIFIC BELL WHITE PAGES

9 CHERRY ST

221 9 CHERRY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	LEMOS GULLHERME	Pacific Telephone

9 CSNTER

0180 9 CSNTER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	BRNUMFIFLELD SS	R. L. Polk & Co.

9 ELM

70 9 ELM

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Piasente Peter A	PACIFIC BELL WHITE PAGES

FINDINGS

9 FAIRWY

62 9 FAIRWY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	NORTE ATFREDO V	R. L. Polk & Co.

9 FRANCLAC

181 9 FRANCLAC

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	MADDUX S D MRS R	The Pacific Telephone & Telegraph Co.

9 FTHL BI

227 9 FTHL BI

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	CREPIT BUREAU OF THE GREATER EAST BAY	Pacific Telephone

9 GANLEY ST

170 9 GANLEY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1979	NORDMAN GEO F	Pacific Telephone

9 GRAND ALMILA ST

141 9 GRAND ALMILA ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MOORE GARY	Pacific Telephone

9 GREEN

64 9 GREEN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Green T	PACIFIC BELL WHITE PAGES
	Green Street Mortuary	PACIFIC BELL WHITE PAGES
	Green T & D	PACIFIC BELL WHITE PAGES
	Green T	PACIFIC BELL WHITE PAGES

FINDINGS

9 HAYS ST

159 9 HAYS ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	BOYD JESSIE MV MRS	Pacific Telephone

9 HOLLY ST

92 9 HOLLY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MC GUIRE SHIRLEY	Pacific Telephone

9 HUTTON

50 9 HUTTON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	MOORE EUGENE	Pacific Telephone and Telegraph Co

9 JACSON

189 9 JACSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	AYLESWORTH I B R	The Pacific Telephone & Telegraph Co.

9 JOSEPHINE BROOK

131 9 JOSEPHINE BROOK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Gtoso AM	PACIFIC BELL WHITE PAGES

9 KNIGHT ST

103 9 KNIGHT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	HARRISON MARIAN S	Pacific Telephone

9 LUSK ST

39 9 LUSK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	COOPER A	Pacific Telephone

FINDINGS

9 MANCHSTR RD SL

191 9 MANCHSTR RD SL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1973	OWEN GREGORY S	Pacific Telephone

216 9 MANCHSTR RD SL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1973	CLATTERBUCK BRUCE	Pacific Telephone

9 MARSHL

204 9 MARSHL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1973	NIELSEN SAM	Pacific Telephone

9 MOKELUMNESW EETWOOD

66 9 MOKELUMNESW EETWOOD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LE VEE JOHN C R	The Pacific Telephone & Telegraph Co.

9 MONTGMRY

213 9 MONTGMRY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1973	B	Pacific Telephone

9 OLAA LR IFLT

46 9 OLAA LR IFLT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1973	NORMAN MARK	Pacific Telephone

9 PARADSE BI

65 9 PARADSE BI

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	ANKRUM ALVA E	R. L. Polk & Co.

FINDINGS

9 PARTER ST

142 9 PARTER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	GALES ANDREW	Pacific Telephone

9 PASEO DI CAMPO

160 9 PASEO DI CAMPO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	MARQUES ROLAND P	Pacific Telephone

9 PATON ST

58 9 PATON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	DAVIS FLORENCE K	Pacific Telephone

9 PLASEN NAVRRO N ISE ST

56 9 PLASEN NAVRRO N ISE ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1979	PATR ICK JERRY & BETTY	Pacific Telephone

9 PURANT AVENUE TR LNIDAD

182 9 PURANT AVENUE TR LNIDAD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	BEACH RALPH G R	The Pacific Telephone & Telegraph Co.

9 REGENT ST

101 9 REGENT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	PARKER MYRLE DICK	Pacific Telephone

9 S 5 VIA ANDETA

161 9 S 5 VIA ANDETA

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1976	BIFARDECI J R	R. L. Polk & Co.

FINDINGS

9 S! ST

213 9 S! ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	DOCTORS HOSPITAL OF SAN LEANDRO	Pacific Telephone

9 SNILHL O VHNINE 447 ST

58 9 SNILHL O VHNINE 447 ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1979	ROBERTS PFRANK B	Pacific Telephone

9 STEVNSN BI

42 9 STEVNSN BI

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BIST GEORGE	Pacific Telephone and Telegraph Co

9 STH A

121 9 STH A

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Administration Office	PACIFIC BELL WHITE PAGES

9 STH AV A

60 9 STH AV A

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	VISION COMPUTERS	PACIFIC BELL WHITE PAGES

9 VA ILE VISTA A

64 9 VA ILE VISTA A

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Mosher Jerry S	PACIFIC BELL WHITE PAGES

9 VIL MRITIMIAII

129 9 VIL MRITIMIAII

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	CARCORANI F H	R. L. Polk & Co.

FINDINGS

9 WESTCHESTER

40 9 WESTCHESTER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1976	FORD GEO E	R. L. Polk & Co.

9 WESTOVRR ST

62 9 WESTOVRR ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	FARREN PAUL T	Pacific Telephone

9 WICKMAN PI

175 9 WICKMAN PI

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1973	JONES MARY ANN	Pacific Telephone

9 WILKIE PI

56 9 WILKIE PI

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	DAVIS ROBT R	Pacific Telephone and Telegraph Co

9 WSUNSET BIL

77 9 WSUNSET BIL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	HOBSON HENRY R	Pacific Telephone

9ALLUWAY LACIER ST

41 9ALLUWAY LACIER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1979	OGLE ELFTTIAABEH	Pacific Telephone

9LH

100 9LH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	BALCER ROBT M R	The Pacific Telephone & Telegraph Co.

FINDINGS

9RR ST

81 9RR ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	FECRGUSASO	Pacific Telephone

9T

152 9T

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	i Mac Anh T	PACIFIC BELL WHITE PAGES

159 9T

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	POLSON ROY R	The Pacific Telephone & Telegraph Co.

160 9T

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	r Chew Yee	PACIFIC BELL WHITE PAGES

9TH

37 9TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	JOE BUDLI S RECREATION HALL	The Pacific Telephone & Telegraph Co.

80 9TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	CHEW GEORGE R	The Pacific Telephone & Telegraph Co.

82 9TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LEW HATTIE MRS R	The Pacific Telephone & Telegraph Co.

85 9TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	MARR HENRY R	The Pacific Telephone & Telegraph Co.

88 9TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	CHUNG CARL R	The Pacific Telephone & Telegraph Co.

FINDINGS

90 9TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	QUAN FRED R	The Pacific Telephone & Telegraph Co.

100 9TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Teng Yu Chun	PACIFIC BELL WHITE PAGES
	Tengeri Barbara	PACIFIC BELL WHITE PAGES
	Tenhunen H B	PACIFIC BELL WHITE PAGES
	Tenijeth Dorothea	PACIFIC BELL WHITE PAGES
	Tenijeth Dorothea	PACIFIC BELL WHITE PAGES
	Teninty Ron L	PACIFIC BELL WHITE PAGES
1950	AGLER JOHN R	The Pacific Telephone & Telegraph Co.
	BRENNAN W J R	The Pacific Telephone & Telegraph Co.
	BRINE A N R	The Pacific Telephone & Telegraph Co.
	CHAMBERLIN JAMES L R	The Pacific Telephone & Telegraph Co.
	FREDSON C HERBERT R	The Pacific Telephone & Telegraph Co.
	GALBREATH LOWELL W R	The Pacific Telephone & Telegraph Co.
	HARRIS LILLIAN R	The Pacific Telephone & Telegraph Co.
	HEINRICHS FRANCES E R	The Pacific Telephone & Telegraph Co.
	HOUSER C H R	The Pacific Telephone & Telegraph Co.
	KEESE IRVIN F R	The Pacific Telephone & Telegraph Co.
	KLUMB BERNICE R	The Pacific Telephone & Telegraph Co.
	KNIGHT CUAS R	The Pacific Telephone & Telegraph Co.
	MARSHALL ANNICE R	The Pacific Telephone & Telegraph Co.
	MC KAY GLENN J R	The Pacific Telephone & Telegraph Co.
	MC KENNEY JOHN M R	The Pacific Telephone & Telegraph Co.
	MIEYERS C D R	The Pacific Telephone & Telegraph Co.
	MILLICAN J W R	The Pacific Telephone & Telegraph Co.
	MURPHY A JEWELL R	The Pacific Telephone & Telegraph Co.
	OLSEN ARTHUR R	The Pacific Telephone & Telegraph Co.
	PASSGIE EDNA MRS R	The Pacific Telephone & Telegraph Co.
	PERRY DAVID R R	The Pacific Telephone & Telegraph Co.
	PIERCE RAY R	The Pacific Telephone & Telegraph Co.
	RALLIS HELEN R	The Pacific Telephone & Telegraph Co.
	REGER ANDREW J R	The Pacific Telephone & Telegraph Co.
	ROBERTS AMY R	The Pacific Telephone & Telegraph Co.
	RUTTER R E R	The Pacific Telephone & Telegraph Co.
	SCHOLZ R A R	The Pacific Telephone & Telegraph Co.
	SNOKE J M R	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	SPEARS RUBY MRS R	The Pacific Telephone & Telegraph Co.
	STACY GERALD L R	The Pacific Telephone & Telegraph Co.
	TORNQUIST NILES R	The Pacific Telephone & Telegraph Co.
	WILSON ELWOOD D R	The Pacific Telephone & Telegraph Co.
	WIRZ E R	The Pacific Telephone & Telegraph Co.
113 9TH		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	BARNES EARL R	The Pacific Telephone & Telegraph Co.
115 9TH		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	SNEED JAS R	The Pacific Telephone & Telegraph Co.
130 9TH		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LOMBARDO P: R	The Pacific Telephone & Telegraph Co.
132 9TH		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	URQUHART JAS B R	The Pacific Telephone & Telegraph Co.
	HILL ADA S R	The Pacific Telephone & Telegraph Co.
135 9TH		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	SHINODA FRANK C INDSCP EOHTR	The Pacific Telephone & Telegraph Co.
138 9TH		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	YIM W G R	The Pacific Telephone & Telegraph Co.
	WONG POK SUN R	The Pacific Telephone & Telegraph Co.
142 9TH		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	SIMONS K C R	The Pacific Telephone & Telegraph Co.
144 9TH		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Tong Yan Ci	PACIFIC BELL WHITE PAGES
1950	LEE CHIAN R	The Pacific Telephone & Telegraph Co.

FINDINGS

152 9TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Chew King Qual	PACIFIC BELL WHITE PAGES
	Godchild Buddy Son	PACIFIC BELL WHITE PAGES
	Goddard B	PACIFIC BELL WHITE PAGES
1950	COLVIN EDNA MRS R	The Pacific Telephone & Telegraph Co.
	EDMONDS L N MRS R	The Pacific Telephone & Telegraph Co.
	ERIKSON HAROLD S R	The Pacific Telephone & Telegraph Co.
	FEHLMAN FRANK R	The Pacific Telephone & Telegraph Co.
	GOODWIN WALTER L R	The Pacific Telephone & Telegraph Co.
	HOOGS E B R	The Pacific Telephone & Telegraph Co.
	LEEN STEPHEN R	The Pacific Telephone & Telegraph Co.
	SAXELBY R A R	The Pacific Telephone & Telegraph Co.
	SMITH HILBURN R	The Pacific Telephone & Telegraph Co.
	WYNN L E R	The Pacific Telephone & Telegraph Co.

160 9TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Phuing Hung Huu	PACIFIC BELL WHITE PAGES
	Phung L	PACIFIC BELL WHITE PAGES
	Phung Huy	PACIFIC BELL WHITE PAGES
1950	BRADFORD G H R	The Pacific Telephone & Telegraph Co.
	CHANI FRANCES L R	The Pacific Telephone & Telegraph Co.
	FANG RICHARD A R	The Pacific Telephone & Telegraph Co.
	HANSON J A R	The Pacific Telephone & Telegraph Co.
	HIGGINS EDW MRS R	The Pacific Telephone & Telegraph Co.
	LITTLE W T R	The Pacific Telephone & Telegraph Co.
	OWYANG WM R	The Pacific Telephone & Telegraph Co.
	QUAN GENEVIEVE G R	The Pacific Telephone & Telegraph Co.
	SCOTT W G R	The Pacific Telephone & Telegraph Co.
	TOM ELWOOD R	The Pacific Telephone & Telegraph Co.
	WANG HARRY R	The Pacific Telephone & Telegraph Co.
	YOUNG LARRY S R	The Pacific Telephone & Telegraph Co.
	ABNEY JOSEPHINE MRS R	The Pacific Telephone & Telegraph Co.
	BIENENFELD J R	The Pacific Telephone & Telegraph Co.

167 9TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	SUEY WON PRINTING CO	The Pacific Telephone & Telegraph Co.

FINDINGS

174 9TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	RYAN EL CERRITO R	The Pacific Telephone & Telegraph Co.
	TURNER BEATRICE R	The Pacific Telephone & Telegraph Co.

178 9TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	MOLINA TILLIE MRS R	The Pacific Telephone & Telegraph Co.
	CROON JOSEPHLINE E R	The Pacific Telephone & Telegraph Co.

179 9TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	HIGGINS ETHEL R	The Pacific Telephone & Telegraph Co.

181 9TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	PONG HENRY R	The Pacific Telephone & Telegraph Co.

183 9TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	FONG JACK R	The Pacific Telephone & Telegraph Co.

184 9TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	CHEW HARRY R	The Pacific Telephone & Telegraph Co.
	HOW EDWIN LEE R	The Pacific Telephone & Telegraph Co.

186 9TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Ho Yaochi	PACIFIC BELL WHITE PAGES

190 9TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	PARLSER R L R L	The Pacific Telephone & Telegraph Co.

197 9TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LEE SHEET	The Pacific Telephone & Telegraph Co.
	DUCKWORTH W C R	The Pacific Telephone & Telegraph Co.

FINDINGS

201 9TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Schnaittacher C	PACIFIC BELL WHITE PAGES
	Schnaldt Michael	PACIFIC BELL WHITE PAGES
	Schnaidt C	PACIFIC BELL WHITE PAGES
	Schnack J Jay Moore Clifford Wolfe Larson & Trutner attys	PACIFIC BELL WHITE PAGES
	Schnake A	PACIFIC BELL WHITE PAGES

212 9TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	JENSEN RADIO MFG CO JENSEN MFG CO	The Pacific Telephone & Telegraph Co.
	SARGENT RAYMENT CO	The Pacific Telephone & Telegraph Co.
	CONIMMERCIAL ELECTRONRICS CORP	The Pacific Telephone & Telegraph Co.

222 9TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	GRAYBAR ELECTRIC CO	The Pacific Telephone & Telegraph Co.

0100 9TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	KOOYMAN P J R	The Pacific Telephone & Telegraph Co.
	VAN CLEAVE BETTY R	The Pacific Telephone & Telegraph Co.
	THOMPSON WM B R	The Pacific Telephone & Telegraph Co.
	STRIPLING BESSIE N R LO	The Pacific Telephone & Telegraph Co.
	SEARS ARTHUR H MRS R O	The Pacific Telephone & Telegraph Co.
	HALE ROBT R R	The Pacific Telephone & Telegraph Co.

9TH AVE

37 9TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	LATRE IRIS 29	Pacific Telephone

38 9TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	SIGNAL SERVICE STATIONS	The Pacific Telephone & Telegraph Co.

FINDINGS

39 9TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	BOG H H A 3800	Pacific Telephone

40 9TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	CLARK KARL W 1437	Pacific Telephone

59 9TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	HARTMANN ANTONE 1494 1 SY	Pacific Telephone

64 9TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	CHANCELLOR M L LOO	Pacific Telephone
1943	Key System A Trains to Havenscourt Blvd or Bus to Springfield Cedar Co R L Arnett v pres A G Fletcher sec treas pencil slot mfrs ft of	R. L. Polk & Co. R. L. Polk & Co.

66 9TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	BONNOM SIBBIE 2600	Pacific Telephone
1962	Plant Ft of	Pacific Telephone

69 9TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	CORPORATION	The Pacific Telephone & Telegraph Co.

72 9TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Aircraft Metal Salvage Co Aird Donald B	PACIFIC BELL WHITE PAGES PACIFIC BELL WHITE PAGES

75 9TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	COLUMBIA MACHINE WORKS 934	Pacific Telephone

89 9TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	EPPERLY MINE MRS 2214	Pacific Telephone
1943	HAZEL ATLAS GLASS CO W R Bennett Director of Sales G and	R. L. Polk & Co.

FINDINGS

94 9TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Joes Do Nut Shop Mac Arthr Bl &	Pacific Telephone

99 9TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	HEATH FRANK WI3	Pacific Telephone

139 9TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	BARRANCO S CITNDY CO	The Pacific Telephone & Telegraph Co.

140 9TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	CHIVELLO PAUL D 1476	Pacific Telephone

148 9TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	H Wm J Nel Ue olk H	R.L. Polk and Co of California

155 9TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Fairmount Hospital A C Jensen supt Foothill blvd and	R. L. Polk & Co.
	Fairmont Hospital of Alameda County A C Jensen supt Foothill blvd and	R. L. Polk & Co.

156 9TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	FAITH CHAPEL PENTECOSTAL HOLINESS CHURCH	Pacific Telephone

191 9TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	CLARKE LEROY MARINER WPRR R	R. L. Polk & Co.

223 9TH AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MITCHELL KENNETH	Pacific Telephone

FINDINGS

9TH GL ENCORT

212 9TH GL ENCORT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	BEITHAMBER PHILIP A OFC	The Pacific Telephone & Telegraph Co.

9TH H

100 9TH H

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	MADISON PARK APTS	The Pacific Telephone & Telegraph Co.

9TH HI GATE

212 9TH HI GATE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	BUSHMAN RISEN CO BKBNDRS	The Pacific Telephone & Telegraph Co.

9TH OAKLND

212 9TH OAKLND

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	GOODWILL INDUSTRIES	Pacific Telephone

9TH SF

156 9TH SF

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	SMITH& CRAWFORD	The Pacific Telephone & Telegraph Co.

9TH ST

52 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	OAKLDMSMOFCA	Haines Company, Inc.
	FNDTN	Haines Company, Inc.
2000	TRANSFAIR USA	Pacific Bell
1992	INDUSTRIAL BEARING SALES INC	PACIFIC BELL DIRECTORY
1991	Industrial Bearing Sales Inc	PACIFIC BELL WHITE PAGES
	Hansen Chas Industrial Besaring Sales Inc	PACIFIC BELL WHITE PAGES
1986	Industrial Bearing Sales Inc	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Hansen Chas Industrial Bearing Sales Inc	PACIFIC BELL WHITE PAGES
1980	INDUSTRIAL BEARING SALES INC	Pacific Telephone
	Hansen Chas Industrial Bearing Sales Inc	Pacific Telephone
1975	INDUSTRIAL BEARING SALES INC	Pacific Telephone
	HANSEN CHAS INDUSTRIAL BEARING SALES INC	Pacific Telephone
1970	HANSEN CHAS INDUSTRIAL BEARING SALES INC	Pacific Telephone Directory
	INDUSTRIAL BEARING SALES INC	Pacific Telephone Directory
1967	INDUSTRIAL BEARING SALES MFG SLS	R. L. Polk Co.
1962	Bechtold Chas O Indstrl Bearng Sales Inc	Pacific Telephone
	Hansen Chas Indstrl Bearng Sales Inc	Pacific Telephone
	INDUSTRIAL BEARING SALES INC	Pacific Telephone

58 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	St Marks Evangelical Reformed Church Rev A F Schroeder pastor Teleg av nw cor	R. L. Polk & Co.

60 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Quan Jean	PACIFIC BELL WHITE PAGES
	Quan Jack Sik M N	PACIFIC BELL WHITE PAGES
1945	BIENENFELD J R	The Pacific Telephone & Telegraph Co.

64 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Fluor Maintenance Inc Ft of	Pacific Telephone
	Pabco Insulations Research Dept Ft of	Pacific Telephone
	Pabco Insulations Plant Ft of	Pacific Telephone

78 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1979	EMIL VILIA S HICK RY PIT9	Pacific Telephone

80 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	PAWLOWSKI Glodate	Haines Company, Inc.
1975	CHEW GEO	Pacific Telephone
1970	CHEW GEO	Pacific Telephone Directory
1967	CHEW GEO	R. L. Polk Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Chew George r	Pacific Telephone
1955	CHEW GEORGE R	The Pacific Telephone & Telegraph Co.
1945	CHEW GEORGE R	The Pacific Telephone & Telegraph Co.
1943	Chew Geo Gladys h	R. L. Polk & Co.
1933	WAN SUEY (MAE) H	R. L. Polk & Co.
1928	rr Walter Dretta slsmn H	R.L. Polk and Co of California
1925	DEHAVEN MRS E G R	R. L. Polk & Co. of California
	LAKE E J R	R. L. Polk & Co. of California
1920	SIEMANN G R	R. L. Polk & Co. of California

82 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
2000	LEW STANLEY	Pacific Bell
1996	LEW STANLEY	PACIFIC BELL DIRECTORY
1992	LEW STANLEY	PACIFIC BELL DIRECTORY
1991	Lew Stanley	PACIFIC BELL WHITE PAGES
1986	Lew Hattie Mrs	PACIFIC BELL WHITE PAGES
	Lew Stanley	PACIFIC BELL WHITE PAGES
1980	Lew Hattie Mrs	Pacific Telephone
	Lew Stanley	Pacific Telephone
1975	LEW HATTIE MRS	Pacific Telephone
	LEW STANLEY	Pacific Telephone
1970	LEW HATTIE MRS	Pacific Telephone Directory
	LEW STANLEY	Pacific Telephone Directory
1967	LEW HARRY	R. L. Polk Co.
1962	Lew Hattie Mrs r	Pacific Telephone
	Lew Stanley	Pacific Telephone
1955	LEW HATTIE MRS R	The Pacific Telephone & Telegraph Co.
1945	GOW LEW G R	The Pacific Telephone & Telegraph Co.
1943	Gow Lew G h	R. L. Polk & Co.
	Sill Wm meats r	R. L. Polk & Co.
1938	SIEMAN G R	Pacific Telephone
1933	SIEMAN GUS (FLORA H) H	R. L. Polk & Co.
1928	Sieman Gus Flora H H	R.L. Polk and Co of California
1925	SIEMANN G R	R. L. Polk & Co. of California

FINDINGS

83 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	MARR MYRON	The Pacific Telephone & Telegraph Co.
1945	WONG TOM R	The Pacific Telephone & Telegraph Co.
1943	Wong Willie Y shipftr r	R. L. Polk & Co.
	Wong Tom H Louise shipftr h	R. L. Polk & Co.
	Wong Lee S Mrs r	R. L. Polk & Co.
	Wong Geo Y shipftr r	R. L. Polk & Co.
1938	BUCHANAN N R R	Pacific Telephone
1928	Beckler Lee Gertrude H	R.L. Polk and Co of California
	Thos A agt Illinois Bankers Life Assn R	R.L. Polk and Co of California
1925	BECKLEY LEE R	R. L. Polk & Co. of California
1920	SPOONER ARTHUR J R	R. L. Polk & Co. of California

85 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Marr Henry r	Pacific Telephone
1955	MARR HENRY R	The Pacific Telephone & Telegraph Co.
1945	MARR HENRY R	The Pacific Telephone & Telegraph Co.
1943	MARR Geo E br mgr White Log Coffee Shop r	R. L. Polk & Co.
	MARR Henry meats h	R. L. Polk & Co.
1938	KAKURES D R	Pacific Telephone
1933	AKAKURES HARRY FRUITS	R. L. Polk & Co.
	KAKURES DENNIS (ANGELICA) PRODUCE	R. L. Polk & Co.
1928	Kahures A H	R.L. Polk and Co of California
	Kakures Dennis Angelica slsmn A K Bouzos H	R.L. Polk and Co of California

86 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	X001	Haines Company, Inc.

87 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	MCELRATH ALDEN R	R. L. Polk & Co. of California

88 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Yam Kwan C	PACIFIC BELL WHITE PAGES
1980	Wong Jack M	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	WONG JACK M	Pacific Telephone Directory
1967	WONG YIN G	R. L. Polk Co.
1962	Wong Henry Y	Pacific Telephone
1955	WONG HENRY Y	The Pacific Telephone & Telegraph Co.
1945	FONG YEE R	The Pacific Telephone & Telegraph Co.
1943	Wong Geo h	R. L. Polk & Co.
1938	VALDEZ LAWRENCE R	Pacific Telephone
1933	ALLEN FRANK H (MYRLE V) CHEM H	R. L. Polk & Co.
1928	E Ida H	R.L. Polk and Co of California
1925	DUNN LOLA C R	R. L. Polk & Co. of California

89 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	ROTHSCHILD RAFFIN INC	Pacific Telephone Directory

90 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	TSOCheong Chung	Haines Company, Inc.
2000	TSO CHEONG CHUNG	Pacific Bell
1996	TSO CHEONG CHUNG	PACIFIC BELL DIRECTORY
1992	TSO CHEONG CHUNG	PACIFIC BELL DIRECTORY
1991	Tso Cheong Chung	PACIFIC BELL WHITE PAGES
	Tso Chun Wai	PACIFIC BELL WHITE PAGES
	Tso D	PACIFIC BELL WHITE PAGES
	Tso Edna	PACIFIC BELL WHITE PAGES
1986	Tso Cheong Chung	PACIFIC BELL WHITE PAGES
	Tso D L	PACIFIC BELL WHITE PAGES
	Tso Edna	PACIFIC BELL WHITE PAGES
1975	HOSI KOON HIM	Pacific Telephone
1970	HOOI KOON HIM	Pacific Telephone Directory
1967	HOCI KOON HIM	R. L. Polk Co.
1962	Quan Fred r	Pacific Telephone
1955	QUAN FRED R	The Pacific Telephone & Telegraph Co.
1945	QUAN FRED R	The Pacific Telephone & Telegraph Co.
1943	Quan Warren shipydwkr h	R. L. Polk & Co.
1933	WHITNEY ALTA J MRS RESTR	R. L. Polk & Co.
	WHITNEY ARTH J (ALTA J) YDMN SPCO R	R. L. Polk & Co.
	HARRIS GEO W (ANNIE E) H	R. L. Polk & Co.

FINDINGS

94 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	ST GEORGE SERBIAN ORTHODOX CHURCH	Pacific Bell
1996	ST GEORGE SERBIAN ORTHODOX CHURCH	PACIFIC BELL DIRECTORY
1992	ST GEORGE SERBIAN ORTHODOX CHURCH	PACIFIC BELL DIRECTORY
1986	St George Serbian Orthodox Church	PACIFIC BELL WHITE PAGES
1980	St George Serbian Orthodox Church	Pacific Telephone
1970	ST GEORGE SERBIAN ORTHODOX CHURCH	Pacific Telephone Directory
1967	SAINT GEORGE CHURCH	R. L. Polk Co.
1938	GLOGOVAC CHRIS R	Pacific Telephone

98 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2002	NG Kwok C	R. L. Polk & Co.
	NG Kwok C	Haines & Company

9th St

100 9th St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	SWEETS SHOP	EDR Digital Archive
	MADISON PARK APARTMENTS	EDR Digital Archive
	CHENG YUAN COMPANY	EDR Digital Archive
	MADISON PARK APARTMENTS	EDR Digital Archive
	CHENG YUAN COMPANY	EDR Digital Archive
	SWEETS SHOP	EDR Digital Archive
2010	SWEETS SHOP	EDR Digital Archive
	MADISON PARK APARTMENTS	EDR Digital Archive
	MADISON PARK APARTMENTS	EDR Digital Archive
	SWEETS SHOP	EDR Digital Archive

9TH ST

100 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	||	Haines Company, Inc.
2000	SILLERS S	Pacific Bell
	CENTERS TAMIKA	Pacific Bell

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	MADISON PARK APARTMENTS	Pacific Bell
	REED IKEENA	Pacific Bell
	103 JIANG RONG ZHI	Pacific Bell
	104 PHAN HOANG THI	Pacific Bell
	115 WILLIAMS MAUNU R	Pacific Bell
	116 JONES KATINA	Pacific Bell
	201 PATTERSON JESSE W	Pacific Bell
	205 SIMS PATRICIA	Pacific Bell
	209 JEUNG HO CHEUNG TAI	Pacific Bell
	210 LI RI QING	Pacific Bell
	217 WEI DING RONG	Pacific Bell
	220 MARSA DEBORAH R	Pacific Bell
	305 DINH TAT VAN	Pacific Bell
	310 WILLIAMS VALARIE	Pacific Bell
	311 CHOY BETTY	Pacific Bell
	312 PANG SULLIVAN	Pacific Bell
	317 WILLIAMS ERICKA N	Pacific Bell
	320 HARNESS BRENDA	Pacific Bell
	401 STEVENSON ANDRE A	Pacific Bell
	405 CHENG QI LI	Pacific Bell
	406 NICOLAS MARISSA E	Pacific Bell
	407 ROBINSON DYER SHEILA R	Pacific Bell
	409 OXLEY HAZEL M	Pacific Bell
	418 LI HUIXIAN	Pacific Bell
	503 SACLOLO ROSERFINO R	Pacific Bell
505 HUI ON SUM	Pacific Bell	
519 WONG WAI KIN	Pacific Bell	
1996	104 LE MINH V	PACIFIC BELL DIRECTORY
	109 VILLAGOMEZ JOE	PACIFIC BELL DIRECTORY
	209 JEUNG HO CHEUNG TAI	PACIFIC BELL DIRECTORY
	217 WEI DING RONG	PACIFIC BELL DIRECTORY
	302 HORTON ANGELA	PACIFIC BELL DIRECTORY
	421 TIMKO S K	PACIFIC BELL DIRECTORY
	505 HUI ON SUM	PACIFIC BELL DIRECTORY
	508 CHEUNG KWAI	PACIFIC BELL DIRECTORY
1986	512 MURCHISON KENNIE	PACIFIC BELL DIRECTORY
	519 WONG WAI KIN	PACIFIC BELL DIRECTORY
	Anderson Audrey A	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Charlie Ralph	PACIFIC BELL WHITE PAGES
	I Chau iem Van	PACIFIC BELL WHITE PAGES
	Chau Xuong	PACIFIC BELL WHITE PAGES
	Cheun Chuang	PACIFIC BELL WHITE PAGES
	Cheun Lichien	PACIFIC BELL WHITE PAGES
	Cheung Alex T	PACIFIC BELL WHITE PAGES
	Chiu Tsi Dat	PACIFIC BELL WHITE PAGES
	Chiu W	PACIFIC BELL WHITE PAGES
	Chiu W	PACIFIC BELL WHITE PAGES
	Chung Fung King	PACIFIC BELL WHITE PAGES
	Chung Van Ba	PACIFIC BELL WHITE PAGES
	Chuy Nary	PACIFIC BELL WHITE PAGES
	Diep Ha	PACIFIC BELL WHITE PAGES
	Diep Y	PACIFIC BELL WHITE PAGES
	Doan Hung T	PACIFIC BELL WHITE PAGES
	Doan Hung Van	PACIFIC BELL WHITE PAGES
	Duong Boun Them	PACIFIC BELL WHITE PAGES
	Wu Zhuo J	PACIFIC BELL WHITE PAGES
	Wuaku David	PACIFIC BELL WHITE PAGES
	Yu Chin Hui	PACIFIC BELL WHITE PAGES
	Yu Ching	PACIFIC BELL WHITE PAGES
	Yu Chueh	PACIFIC BELL WHITE PAGES
	Yu Pak Sun	PACIFIC BELL WHITE PAGES
	Houldson Eddie C	PACIFIC BELL WHITE PAGES
	Hunter Jennie L	PACIFIC BELL WHITE PAGES
	Huong Ho	PACIFIC BELL WHITE PAGES
	Lau Dihong	PACIFIC BELL WHITE PAGES
	Lau George	PACIFIC BELL WHITE PAGES
	Le Em Van	PACIFIC BELL WHITE PAGES
	Le Phuong Thi	PACIFIC BELL WHITE PAGES
	Le Thanh	PACIFIC BELL WHITE PAGES
	Lee Sergio	PACIFIC BELL WHITE PAGES
	Lee Wing Lun	PACIFIC BELL WHITE PAGES
	Luong Hoa	PACIFIC BELL WHITE PAGES
	Luang Hung	PACIFIC BELL WHITE PAGES
	Luuphang Hoan Nhu	PACIFIC BELL WHITE PAGES
	Mak Ha Nui L	PACIFIC BELL WHITE PAGES
	Misawa Tom	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Misch D & M	PACIFIC BELL WHITE PAGES
	Nguyen Lai V	PACIFIC BELL WHITE PAGES
	Nguyen Nhut	PACIFIC BELL WHITE PAGES
	Nto Anh Tu	PACIFIC BELL WHITE PAGES
	Pak Lai	PACIFIC BELL WHITE PAGES
	Quang Truyen	PACIFIC BELL WHITE PAGES
	Quanh Nhi Luong	PACIFIC BELL WHITE PAGES
	Red Johnny	PACIFIC BELL WHITE PAGES
	Schum E	PACIFIC BELL WHITE PAGES
	Sie Tow Song	PACIFIC BELL WHITE PAGES
	Sims Richard	PACIFIC BELL WHITE PAGES
	Troung Ty	PACIFIC BELL WHITE PAGES
	Truong Sam A	PACIFIC BELL WHITE PAGES
	Tu Hao	PACIFIC BELL WHITE PAGES
	Vinyard Linda	PACIFIC BELL WHITE PAGES
	Vinze John P	PACIFIC BELL WHITE PAGES
	Va Deip Thi	PACIFIC BELL WHITE PAGES
	Vo Muoi Van	PACIFIC BELL WHITE PAGES
	Vo Phuoc Tan	PACIFIC BELL WHITE PAGES
	Vo Phuong Van	PACIFIC BELL WHITE PAGES
Wang Seewoon	PACIFIC BELL WHITE PAGES	
1980	Adams David	Pacific Telephone
	Anderson Audrey A	Pacific Telephone
	Baier Gregory L	Pacific Telephone
	Berry Tony	Pacific Telephone
	Bowman Jas III	Pacific Telephone
	Boyd P R	Pacific Telephone
	Brown Liz Debi	Pacific Telephone
	Chan Shan Yan	Pacific Telephone
	Charlie Ralph	Pacific Telephone
	Cheng Ka Sing	Pacific Telephone
	Christensen Mark	Pacific Telephone
	Cray Alonzo	Pacific Telephone
	Dam Joe Huuso	Pacific Telephone
	Dam Sam Nhu	Pacific Telephone
	Douglas G	Pacific Telephone
	Dunlap Annie	Pacific Telephone
	Fong Kam Yim	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Gray L	Pacific Telephone
	Hough Geo	Pacific Telephone
	Houldson Eddie C	Pacific Telephone
	Huneke Greta	Pacific Telephone
	Law L	Pacific Telephone
	Lee Chai Ying	Pacific Telephone
	Lee Wing Lun	Pacific Telephone
	Leung Chiu Ming	Pacific Telephone
	Lockhart L	Pacific Telephone
	Low Geo C	Pacific Telephone
	Luk Isabel	Pacific Telephone
	Ma Long	Pacific Telephone
	Madison Park Apartments	Pacific Telephone
	Mattox Kenneth E	Pacific Telephone
	Mirmalek Nasrin	Pacific Telephone
	Misawa Tom	Pacific Telephone
	Molnar Wm A Mr & Mrs	Pacific Telephone
	Moreno Judith	Pacific Telephone
	Mullen Coralie G	Pacific Telephone
	Nhu Minh Tinh	Pacific Telephone
	Payton M	Pacific Telephone
	Roberts Chris C	Pacific Telephone
	Routt Fred	Pacific Telephone
	Sabatoni Avy	Pacific Telephone
	Saebfar Ali	Pacific Telephone
	Salzgeber Karin	Pacific Telephone
	Schum E	Pacific Telephone
	Sie Tow Song	Pacific Telephone
	Stein Vince	Pacific Telephone
	Stoops Bill	Pacific Telephone
	Truong Sam A	Pacific Telephone
	Vinyard Linda	Pacific Telephone
	Young Hui Wentsou	Pacific Telephone
1975	HOUSER BERTHA	Pacific Telephone
	HOUSER CARY	Pacific Telephone
	JEONG KAY	Pacific Telephone
	JOHN PHOEBE ANN	Pacific Telephone
	LEE WAYNE HUNG	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	LOW GEO C	Pacific Telephone
	LOW GUM OI	Pacific Telephone
	MATS PHYLLIS H	Pacific Telephone
	MULLEN ONRELIE G	Pacific Telephone
	PAYTON M	Pacific Telephone
	ACOB ERNCSTO JR	Pacific Telephone
	ALLEN RADFORD	Pacific Telephone
	ARMENTROUT ROBIN M	Pacific Telephone
	CHA KI SHUN	Pacific Telephone
	DOOLEY ROBT	Pacific Telephone
	DUPUY BRUCE	Pacific Telephone
	EASTMAN GARY	Pacific Telephone
	FONG BENJAMIN	Pacific Telephone
	FRIGAARD L L	Pacific Telephone
HEMPHILL LUTINA J	Pacific Telephone	
HOULDSON EDDIE C	Pacific Telephone	
1970	CHINN DELAINE	Pacific Telephone Directory
	FONG GEO	Pacific Telephone Directory
	FRIGAARD L L	Pacific Telephone Directory
	GILLESPIE ELLA MRS	Pacific Telephone Directory
	HOULDSON EDDIE C	Pacific Telephone Directory
	JOHNSON CHUCK E	Pacific Telephone Directory
	KRAMER ISABELLA	Pacific Telephone Directory
	KUYKENDALL ADELE	Pacific Telephone Directory
	LIENHARD HELEN M	Pacific Telephone Directory
	MADISON PARK APTS	Pacific Telephone Directory
	MIDLAM ALLEN R	Pacific Telephone Directory
	MULLEN CORALIE G	Pacific Telephone Directory
	PETHEL JAS D	Pacific Telephone Directory
	ROUGH TOM	Pacific Telephone Directory
	RUSHLOW LINDA	Pacific Telephone Directory
	SABATONI AVY	Pacific Telephone Directory
	SCHAEFER LEE MRS	Pacific Telephone Directory
	SNOKE J M	Pacific Telephone Directory
	STEADMAN D L	Pacific Telephone Directory
	STOOPS BILL	Pacific Telephone Directory
SWABB VALEDA H	Pacific Telephone Directory	
TERWILLIGER RONALD A	Pacific Telephone Directory	

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	WILSON EDW M	Pacific Telephone Directory
	WUORI ALFRED	Pacific Telephone Directory
	YOUNG NORMAN	Pacific Telephone Directory
	ANDERSON AUDREY A	Pacific Telephone Directory
	CHA KI SHUN	Pacific Telephone Directory
	CHANEY LOREN I	Pacific Telephone Directory
1967	MADISON PARK APARTMENTS	R. L. Polk Co.
1962	Adams Lola Mrs	Pacific Telephone
	Barbee Gilbert	Pacific Telephone
	Bent Lillian E r	Pacific Telephone
	Berge Eva	Pacific Telephone
	Bertsch Ruby E	Pacific Telephone
	Blum Anna	Pacific Telephone
	Bonsey Chas H	Pacific Telephone
	Boots Jane L	Pacific Telephone
	Carr H W	Pacific Telephone
	Caton Bertha	Pacific Telephone
	Creery Robt D	Pacific Telephone
	Daly Ann Frances	Pacific Telephone
	Dyer M T Mrs	Pacific Telephone
	Erikson Harold S	Pacific Telephone
	Fleming Delta L	Pacific Telephone
	Fleming Max L	Pacific Telephone
	Frigaard E L	Pacific Telephone
	Garske E M	Pacific Telephone
	Gillespie Ella Mrs	Pacific Telephone
	Hall Mary M	Pacific Telephone
	Hill I T	Pacific Telephone
	Howes Catherine	Pacific Telephone
	Hunt M Florence	Pacific Telephone
	Jacobson Mary Mrs	Pacific Telephone
	Keefe Clodessa Mrs	Pacific Telephone
	Madison Park Apts	Pacific Telephone
	Marquardsen Clara	Pacific Telephone
Mc Bean John L	Pacific Telephone	
Mc Dowell Thelma B	Pacific Telephone	
Mc Guire Mayme	Pacific Telephone	
Moseley R J	Pacific Telephone	

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Ogilvie C E	Pacific Telephone
	Olsen Arthur	Pacific Telephone
	Ontiveros Norma	Pacific Telephone
	Payne Alma	Pacific Telephone
	Pettit Eleanor	Pacific Telephone
	Rector Grace	Pacific Telephone
	Rowe T D	Pacific Telephone
	Sabatoni Avy	Pacific Telephone
	Sand David W	Pacific Telephone
	Sand Judy E	Pacific Telephone
	Schaefer Lee Mrs	Pacific Telephone
	Sherrill Darice L	Pacific Telephone
	Smalley Edna M	Pacific Telephone
	Snoke J M	Pacific Telephone
	Stoops Bill	Pacific Telephone
	Swabb Valeda H	Pacific Telephone
	Thompson Fred	Pacific Telephone
	Willey Margaret Mrs	Pacific Telephone
	Williams Jas	Pacific Telephone
	Wilson Edw M	Pacific Telephone
Witt Estelle	Pacific Telephone	
Wuori Alfred	Pacific Telephone	
Young Inesse B	Pacific Telephone	
1955	DONOVAN WM J DR	The Pacific Telephone & Telegraph Co.
	DYE F ROBT	The Pacific Telephone & Telegraph Co.
	EARLEY MARION W	The Pacific Telephone & Telegraph Co.
	ERIKSON HAROLD S	The Pacific Telephone & Telegraph Co.
	GALBREATH LOWELL W R	The Pacific Telephone & Telegraph Co.
	HODGES F R	The Pacific Telephone & Telegraph Co.
	HOUSEKNECHT MARGARET B	The Pacific Telephone & Telegraph Co.
	HUFF E E	The Pacific Telephone & Telegraph Co.
	MADISON PARK APTS	The Pacific Telephone & Telegraph Co.
	MEYERS RALPH M R	The Pacific Telephone & Telegraph Co.
	MURPHY PAULINE	The Pacific Telephone & Telegraph Co.
	OLIVER EMMA R	The Pacific Telephone & Telegraph Co.
	OLSEN ARTHUR	The Pacific Telephone & Telegraph Co.
	PAGUE EDNA MRS R	The Pacific Telephone & Telegraph Co.
PALMER AL	The Pacific Telephone & Telegraph Co.	

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	PAYNE ALMA	The Pacific Telephone & Telegraph Co.
	PEARCE GEO A	The Pacific Telephone & Telegraph Co.
	PIERRE C C R	The Pacific Telephone & Telegraph Co.
	RALLIS MICHAEL MRS	The Pacific Telephone & Telegraph Co.
	RALSTON RENA R	The Pacific Telephone & Telegraph Co.
	RECTOR GRACE	The Pacific Telephone & Telegraph Co.
	REEVES ESTELLE L	The Pacific Telephone & Telegraph Co.
	REEVES LAURA E	The Pacific Telephone & Telegraph Co.
	REGER ANDREW J R	The Pacific Telephone & Telegraph Co.
	RICH FRED D	The Pacific Telephone & Telegraph Co.
	ROBERTS SIDNEY MRS R	The Pacific Telephone & Telegraph Co.
	ROWE T D	The Pacific Telephone & Telegraph Co.
	SEARS ARTHUR H MRS R	The Pacific Telephone & Telegraph Co.
	ALDERDICE MARY MRS	The Pacific Telephone & Telegraph Co.
	ALLEN ARCHIE	The Pacific Telephone & Telegraph Co.
	BENT LILLIAN E R	The Pacific Telephone & Telegraph Co.
	BOWDEN RUTH	The Pacific Telephone & Telegraph Co.
	CHAMBERLIN JAMES L R	The Pacific Telephone & Telegraph Co.
	DALQUEST DANL L	The Pacific Telephone & Telegraph Co.
	SNOKE J M	The Pacific Telephone & Telegraph Co.
	SWANSON LEROY K	The Pacific Telephone & Telegraph Co.
	TRAVERSO MARIAN F MRS	The Pacific Telephone & Telegraph Co.
	WILSON M W	The Pacific Telephone & Telegraph Co.
WITT ESTELLE	The Pacific Telephone & Telegraph Co.	
WOODHOUSE FRANCES R	The Pacific Telephone & Telegraph Co.	
WUORI ALFRED	The Pacific Telephone & Telegraph Co.	
1945	ANGLIM MATTHEW VINCENT R	The Pacific Telephone & Telegraph Co.
	BLAIR DAISY B R	The Pacific Telephone & Telegraph Co.
	BRENNAN W J R	The Pacific Telephone & Telegraph Co.
	CASO TERESA R	The Pacific Telephone & Telegraph Co.
	CHAMBERLIN JAMES L R	The Pacific Telephone & Telegraph Co.
	DALLAS JAMES L MRS R	The Pacific Telephone & Telegraph Co.
	EVENSEN JOHAN E R	The Pacific Telephone & Telegraph Co.
	GOODFELLOW ROBT MRS R	The Pacific Telephone & Telegraph Co.
	HODGES F R	The Pacific Telephone & Telegraph Co.
	HOFFMAN HELEN K R	The Pacific Telephone & Telegraph Co.
	HOWLAND HENRY R	The Pacific Telephone & Telegraph Co.
	MADISON PARK APTS	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	MANCUSO ERNEST R	The Pacific Telephone & Telegraph Co.
	MCKAY GLENN J R	The Pacific Telephone & Telegraph Co.
	MCKENNEY JOHN M R	The Pacific Telephone & Telegraph Co.
	MEANY AL R	The Pacific Telephone & Telegraph Co.
	MOREHOUSE HAROLD C R	The Pacific Telephone & Telegraph Co.
	OLSEN ARTHUR R	The Pacific Telephone & Telegraph Co.
	O TOOLE JOHN F R	The Pacific Telephone & Telegraph Co.
	PIERCE RAY R	The Pacific Telephone & Telegraph Co.
	ROBBINS CLIFF R	The Pacific Telephone & Telegraph Co.
	ROBERTS WALTER R	The Pacific Telephone & Telegraph Co.
	SEARS ARTHUR H CAPT R	The Pacific Telephone & Telegraph Co.
	SNOKE J M R	The Pacific Telephone & Telegraph Co.
	SPRAGUE ROY R	The Pacific Telephone & Telegraph Co.
	TIFFANY CURTIS LEON R	The Pacific Telephone & Telegraph Co.
WARWICK YVONNE R	The Pacific Telephone & Telegraph Co.	
1943	WOLLITZ EDNA R	The Pacific Telephone & Telegraph Co.
	Kidder Clifford Eva welder h	R. L. Polk & Co.
	Larson Axel F Frances mech h	R. L. Polk & Co.
	Lewis Walter J Lucy welder h	R. L. Polk & Co.
	Linder John USA h	R. L. Polk & Co.
	Ludwig Elmer h	R. L. Polk & Co.
	Machado Antone Rose cook h	R. L. Polk & Co.
	MACKENZIE John welder h	R. L. Polk & Co.
	Madison Park Apartments	R. L. Polk & Co.
	Mahoney Reavis welder h	R. L. Polk & Co.
	Mallone Mary clk h	R. L. Polk & Co.
	Mann Murray Vera shipydwr h	R. L. Polk & Co.
	Marshall Ann Mrs mlnr h	R. L. Polk & Co.
	Matheson Christine wid M R h	R. L. Polk & Co.
	Mc Clendon Weldon R Ima R mech h	R. L. Polk & Co.
	Mc Hugh Agnes waiter r	R. L. Polk & Co.
	Mc Hugh Thos shipydwr h	R. L. Polk & Co.
	Mc KAY Glenn Ethel electn h	R. L. Polk & Co.
	Mc Kendrick Russell D Lorene welder h	R. L. Polk & Co.
	MEANY Ernest welder h	R. L. Polk & Co.
Melander Robt W Helen mach h	R. L. Polk & Co.	
MEYERS Robt M welder h	R. L. Polk & Co.	
Miller Geo K barber h	R. L. Polk & Co.	

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	MOREHOUSE Harold C welder h	R. L. Polk & Co.
	Morgan Percy Arline h	R. L. Polk & Co.
	Morris Geo USA h	R. L. Polk & Co.
	Morris Louis A USN h	R. L. Polk & Co.
	Nordin Geo W USA h	R. L. Polk & Co.
	OLSEN Arth jan h	R. L. Polk & Co.
	OTOole John h	R. L. Polk & Co.
	Paquette Woodrow J Virginia welder h	R. L. Polk & Co.
	Paster Harold V USN h	R. L. Polk & Co.
	Pattee John W Lillian h	R. L. Polk & Co.
	Patterson Edw A clk h	R. L. Polk & Co.
	Peck Chas E Marian electn h	R. L. Polk & Co.
	Pendleton Ray Aurelia shipydwr h	R. L. Polk & Co.
	Peterson John welder h	R. L. Polk & Co.
	Whitendale Louis M framemn PT & TCo r	R. L. Polk & Co.
	Wollitz Edna Mrs clk h	R. L. Polk & Co.
	Evensen John E jan h	R. L. Polk & Co.
	Farnesi John F Marie shipydwr h	R. L. Polk & Co.
	Fedder Emily A Mrs r	R. L. Polk & Co.
	Fedderson Ernest A bkpr h	R. L. Polk & Co.
	Fischenich Theo J Dorothy mech h	R. L. Polk & Co.
	Francon Halft Mildred barber h	R. L. Polk & Co.
	FRANSON Albt Mildred barber r	R. L. Polk & Co.
	Fuller Dorothy Mrs h	R. L. Polk & Co.
	Goodfellow Phyllis M fctywkr r	R. L. Polk & Co.
	Goodfellow Robt May M pntr h	R. L. Polk & Co.
	GRIMES Walter Myra shipydwr h	R. L. Polk & Co.
	Hale Esther Mrs h	R. L. Polk & Co.
	Hallenberg John V Amelia shipydwr h	R. L. Polk & Co.
	Harris Edw M waiter h	R. L. Polk & Co.
	Harris Erma M Mrs waiter r	R. L. Polk & Co.
	Harris Gertrude nurse Dr Jas A Campbell Dentists r	R. L. Polk & Co.
	Harris Hiram L Gertrude shipydwr h	R. L. Polk & Co.
	Hodges Dora Mrs restr mgr Pub Sch r	R. L. Polk & Co.
	Hodges Frank Dora clk h	R. L. Polk & Co.
	Jarbi Grace Mrs h	R. L. Polk & Co.
	JOHNSON John Estelle seamn h	R. L. Polk & Co.
	Kaercher Roy shipydwr r	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	KAISER Lloyd L mech F A B Mfg Co r	R. L. Polk & Co.
	KAISER Robt shipydwkr h	R. L. Polk & Co.
	Keller Robt E mech h	R. L. Polk & Co.
	Kelly Frank mech h	R. L. Polk & Co.
	KEYS Gladys clk r	R. L. Polk & Co.
	KEYS Harry A Alice electn h	R. L. Polk & Co.
	Phillips Florence Mrs waiter r	R. L. Polk & Co.
	Pierce Raymond G Helen police OPD h	R. L. Polk & Co.
	Pierre Maurice electn h	R. L. Polk & Co.
	Rebell Geo welder h	R. L. Polk & Co.
	Remer Edw r	R. L. Polk & Co.
	Reynolds Robt shipydwkr h	R. L. Polk & Co.
	RUDD Ralph J Myrtle welder h	R. L. Polk & Co.
	Rundin Nels welder h	R. L. Polk & Co.
	Schaffner Otto H Margt USN h	R. L. Polk & Co.
	Sears Arth H h	R. L. Polk & Co.
	SIEBERT Edw mech h	R. L. Polk & Co.
	Siewert Jos USN h	R. L. Polk & Co.
	Simpson Clifford G Georgia welder h	R. L. Polk & Co.
	Snoke Jas M Mary mach PG&E Co h	R. L. Polk & Co.
	Stark Jas L Alice h	R. L. Polk & Co.
	Stark Jas O clk SPCo r	R. L. Polk & Co.
	Swan Roy Jean musician h	R. L. Polk & Co.
	Tarochioni John P firemn h	R. L. Polk & Co.
	Thurman Hazel M Mrs slswn Gerwins r	R. L. Polk & Co.
	Thurman Hugh USA h	R. L. Polk & Co.
	Tweed Jean emp Tinys Waffle Shop r	R. L. Polk & Co.
	Van Cleave Hugh Betty shipydwkr h	R. L. Polk & Co.
	Vogel Margt A sten h	R. L. Polk & Co.
	WAGNER Geo Eileen welder h	R. L. Polk & Co.
	Wallace Geo B Helen Wallace Tool & Machine Wks h	R. L. Polk & Co.
	Walz Walter Anna cook h	R. L. Polk & Co.
	Warwick Yvonne clk h	R. L. Polk & Co.
	WATSON Geo W shipydwkr h	R. L. Polk & Co.
	Adams Arth Freda ydmn h	R. L. Polk & Co.
	Adams J Lester clk r	R. L. Polk & Co.
	Adams Lola M wid J L h	R. L. Polk & Co.
	Alderton Geo Margt USN h	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Anderson Robt B Cecelia shipydwkr h	R. L. Polk & Co.
	Andrade Wm driver h	R. L. Polk & Co.
	Anglim Matthew V Marie shipydwkr h	R. L. Polk & Co.
	ATKINSON Steve shipydwkr h	R. L. Polk & Co.
	Balilokis Chris Anna clk h	R. L. Polk & Co.
	Barlow Jas shipydwkr h	R. L. Polk & Co.
	Barrett Thos mach r	R. L. Polk & Co.
	Beakey Dorothy sten h	R. L. Polk & Co.
	Berry Roy shipydwkr h	R. L. Polk & Co.
	Bishop Edw T Nina mech h	R. L. Polk & Co.
	Blair Max Daisy mech h	R. L. Polk & Co.
	Blankenship Cliff D shipydwkr h	R. L. Polk & Co.
	Bliss Dena maid r	R. L. Polk & Co.
	Boldt Donald Mabel shipydwkr h	R. L. Polk & Co.
	Bothwell Daryl F Luetta bartndr h	R. L. Polk & Co.
	Boyd John G Lily shipydwkr h	R. L. Polk & Co.
	Boyer Fred shipydwkr h	R. L. Polk & Co.
	Brennan Wm J Kathleen welder h	R. L. Polk & Co.
	Brittner Ann clk h	R. L. Polk & Co.
	Brown Hazel Mrs clk r	R. L. Polk & Co.
	Brown Lawrence Hazel shipydwkr h	R. L. Polk & Co.
	Chamberlain Jas L shipydwkr h	R. L. Polk & Co.
	Christie Donald G Frances welder h	R. L. Polk & Co.
	Clancey Michl J Ethel mech h	R. L. Polk & Co.
	Crane Burton B h	R. L. Polk & Co.
	Dallas Jas L h	R. L. Polk & Co.
	DILLON Geo shipydwkr h	R. L. Polk & Co.
	EDWARDS Ernest F Hilda shipydwkr r	R. L. Polk & Co.
	EDWARDS Robt A Marie shipydwkr h	R. L. Polk & Co.
	Ellis Alice Mrs slswn Gerwins h	R. L. Polk & Co.
	Epper Frank J Alma h	R. L. Polk & Co.
	Esmond Wm shipydwkr h	R. L. Polk & Co.
	1938	BROOKS HARRY R	Pacific Telephone
CHAMBERLIN JAMES T R		Pacific Telephone
DALLAS JAMES L MRS R		Pacific Telephone
FIALA FRANK Z R		Pacific Telephone
FLAMM MELVIN K R		Pacific Telephone
GLOVER FRANK R		Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1938	HODGES F R	Pacific Telephone
	HOFFMAN HELEN K R	Pacific Telephone
	HOLGERSON FRED R	Pacific Telephone
	JOHANSEN W R	Pacific Telephone
	MADISON PARK APTS	Pacific Telephone
	O TOOLE JOHN F R	Pacific Telephone
	SEARS ARTHUR H CAPT R	Pacific Telephone
	SUMMERS WRIGHT R	Pacific Telephone
	WINN R B R	Pacific Telephone
1933	ABBAY APARTMENTS	R. L. Polk & Co.
	ATKINS MARGT A CLK H	R. L. Polk & Co.
	GRIFFITH GERALD O (IDA) ACCT H	R. L. Polk & Co.
	HALL MARTHA M H	R. L. Polk & Co.
	HARRIS CLAUDE (HELEN) H	R. L. Polk & Co.
	HAYNIE MARGT N CHIROPRACTOR	R. L. Polk & Co.
	JACKSON PRESSLEY (MARYLAND) SHIP CARP H	R. L. Polk & Co.
	JEFFERS JOSEPHINE MRS SLSWN R	R. L. Polk & Co.
	JESTER PEARL SLSWN R	R. L. Polk & Co.
	JESTER VERNE D SLSMN J G RISNER R	R. L. Polk & Co.
	JOSEPH SIDNEY H CLK R	R. L. Polk & Co.
	KEITEL ANNIE MRS H	R. L. Polk & Co.
	KEITEL BERLIN J CLK R	R. L. Polk & Co.
	KOSKI THADEUS (LILLIAN) H	R. L. Polk & Co.
	KOWSKI T W MACH R	R. L. Polk & Co.
	KOWSKI L MRS SLSWN R	R. L. Polk & Co.
	LE FILS ERNEST (ISABELLE) SIGN PNTR H	R. L. Polk & Co.
	LEVIN SAML (FANNIE) H	R. L. Polk & Co.
	LUHRS HARRY W (IDA V) H	R. L. Polk & Co.
	MCGUCKIN HUGH (GERTRUDE) MARINER H	R. L. Polk & Co.
	MCHOUL JOHN A (RUTH M) MACH H	R. L. Polk & Co.
	METZ EDW CIGARS	R. L. Polk & Co.
	METZ LEROY (ADELINE) CIGARS	R. L. Polk & Co.
	MEYERS EDW S SLSMN WHITTHORNE & SWAN R	R. L. Polk & Co.
	MILLER WALTER J SLSMN H	R. L. Polk & Co.
	MORGADO MANUEL (LUCILE) CLK H	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	NORLEN DORIS CLK R	R. L. Polk & Co.
	NORLEN EINER LAB R	R. L. Polk & Co.
	NORLEN ESTHER STEN R	R. L. Polk & Co.
	NORLEN JACOB H (CHRISTINA) CARP H	R. L. Polk & Co.
	NORLEN JOHN G LAB R	R. L. Polk & Co.
	O TOOLE JOHN (FLORENCE) SHTMTLWKR H	R. L. Polk & Co.
	PETERSEN HANS (ELLEN) SOFT DRINKS	R. L. Polk & Co.
	ROBERTS ALICE MRS H	R. L. Polk & Co.
	ROSENBERRY B CLINTON H	R. L. Polk & Co.
	SCHWARZ GUS CATERING MGR HOTEL OKLD R	R. L. Polk & Co.
	SEARS ARTH H (IRENE) H	R. L. Polk & Co.
	SIMMONS ALF (MAXINE) H	R. L. Polk & Co.
	SNOKE JAS M (MARY E) METERMN R	R. L. Polk & Co.
	SNOKE LELA CLK R	R. L. Polk & Co.
	SPENCE CLIFTON (ELOISE) WAITER H	R. L. Polk & Co.
	SPINDLER NORMAN L SLSMN H	R. L. Polk & Co.
	STARKS JAS (ALICE) H	R. L. Polk & Co.
	STARKS JAS O R	R. L. Polk & Co.
	STEELE LAURA MRS H	R. L. Polk & Co.
	STIMPSON CHAS E (ELIZ) SHTMTLWKR H	R. L. Polk & Co.
	WALLIS EMILY (WID C J) H	R. L. Polk & Co.
	WASHEM ROBT K (BETTY) (WASHEM & MANIS) R	R. L. Polk & Co.
	WERUM FREDERIKA (WID A M) H	R. L. Polk & Co.
	WERUM OTTO M (WERUM BROS) R	R. L. Polk & Co.
	WOOLEVER CLARICE I WAITER R	R. L. Polk & Co.
	BAYLOR JOHN F (MABEL) YDMN SP CO H	R. L. Polk & Co.
	BERRY DONALD (ETHEL) BAKER H	R. L. Polk & Co.
	BODINE ELIZA (WID CARL) H	R. L. Polk & Co.
	BOSSERMAN THELMA MRS H	R. L. Polk & Co.
	BOSSERMAN WM CLK R	R. L. Polk & Co.
	CAHN FRANK (ELLA D) H	R. L. Polk & Co.
	CALHOUN UNA TYPIST H	R. L. Polk & Co.
	CHAMBERLAIN JOHN H	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	CHANDLER MELVIN MGR ABBEY APTS H	R. L. Polk & Co.
	COLLINS DANL J SLSMN H	R. L. Polk & Co.
	COLLINS DELIA J R	R. L. Polk & Co.
	COX ROBT (PATRICIA) CLK H	R. L. Polk & Co.
	CROW CHAS (ALICE) MECH H	R. L. Polk & Co.
	DALLAS JAS L (FLORA B) H	R. L. Polk & Co.
	DE SPAIN SUSAN C (WID J A) H	R. L. Polk & Co.
	DICKERT ANDW R	R. L. Polk & Co.
	DICKERT LEONA MRS H	R. L. Polk & Co.
	DICKERT LOUIS R	R. L. Polk & Co.
	DICKSON CHESTER R (EDNA) SLSMN CHEVROLET MOTOR CO H	R. L. Polk & Co.
	DUNBAR JAS MGR ABBEY APTS R	R. L. Polk & Co.
	DUNKUM RUTH SLSWN R	R. L. Polk & Co.
	EVANS DEXTER W (RACHAEL) H	R. L. Polk & Co.
	FORSS WAINO (MARTHA) CARP R	R. L. Polk & Co.
	FRASIER ROBT CLK R	R. L. Polk & Co.
	FRIEDRICH MARY TCHR OKLD PUB SCH R	R. L. Polk & Co.
	GALUSTI HILMER MRS H	R. L. Polk & Co.
	GENTSCH WALTER (BEATRICE) CLK H	R. L. Polk & Co.
	GOODMAN NATHAN (HORTENSE) H	R. L. Polk & Co.
1928	Effle waiter R	R.L. Polk and Co of California
	Clawson Theo C renmn R	R.L. Polk and Co of California
	av J H	R.L. Polk and Co of California
	Francisco Frank Ella elk H	R.L. Polk and Co of California
	COLE Bena F Clara E H	R.L. Polk and Co of California
	av B Z slsmn Utah Woolen Mills R	R.L. Polk and Co of California
	Crews N H	R.L. Polk and Co of California
	h Jas L H	R.L. Polk and Co of California
	h Lillian H	R.L. Polk and Co of California
	Ralph H	R.L. Polk and Co of California
	Friederick Mary tehr H	R.L. Polk and Co of California
	tonio Mary tchr OPS R	R.L. Polk and Co of California
	Francisco Allen H	R.L. Polk and Co of California
	dana Pauline H	R.L. Polk and Co of California
	Hilburn Boyd F cashr W U Tel Co rn R	R.L. Polk and Co of California
	Hilburn Kath Mrs asst br mgr Molse Klmkner Co R	R.L. Polk and Co of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Howard Alice Mrs nurse Okid Health Dept R	R.L. Polk and Co of California
	Jonsen A C H	R.L. Polk and Co of California
	JOHNSON B H	R.L. Polk and Co of California
	Keenan Alf L electn H	R.L. Polk and Co of California
	mond Clara H	R.L. Polk and Co of California
	Knowlton Benj F Lillian photo engraver H	R.L. Polk and Co of California
	Pied Frank H	R.L. Polk and Co of California
	Lobdell Lian hi H	R.L. Polk and Co of California
	selmo Clara H	R.L. Polk and Co of California
	Dohr Park Apartments	R.L. Polk and Co of California
	Major Geo E electro R	R.L. Polk and Co of California
	r Chas E Nora H	R.L. Polk and Co of California
	Co Della H	R.L. Polk and Co of California
	Byron Marion H	R.L. Polk and Co of California
	Piedmont G H	R.L. Polk and Co of California
	R	R.L. Polk and Co of California
	Margas Fannie rest R	R.L. Polk and Co of California
	Margas J H	R.L. Polk and Co of California
	0 G H	R.L. Polk and Co of California
	h Henry W Gladys slsmn A Levy &c J Zentner Co H	R.L. Polk and Co of California
	HPROW WY H	R.L. Polk and Co of California
	Pied J F H	R.L. Polk and Co of California
	Thos W K H	R.L. Polk and Co of California
	Pireira Elmer dlk SPCo R	R.L. Polk and Co of California
	Pleltnor allz H	R.L. Polk and Co of California
	Lake M C H	R.L. Polk and Co of California
	PRIMROSE 0 L H	R.L. Polk and Co of California
	Co Chas H	R.L. Polk and Co of California
	h Emmett H	R.L. Polk and Co of California
	Madison Thos H	R.L. Polk and Co of California
	Monte Walter S gas sta	R.L. Polk and Co of California
	R	R.L. Polk and Co of California
	SHANNON M H	R.L. Polk and Co of California
	er Peggy H	R.L. Polk and Co of California
	SMITH Alma H	R.L. Polk and Co of California
	Co Frank driver R	R.L. Polk and Co of California
	h Clara Mrs drsmkr H	R.L. Polk and Co of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	R	R.L. Polk and Co of California
	H WFi H cigars	R.L. Polk and Co of California
	t Jos H	R.L. Polk and Co of California
	Sydonia M H	R.L. Polk and Co of California
	Sydonia Ruth beauty opr R	R.L. Polk and Co of California
	Traverso Mary Mrs clk Wt TTeI Co R	R.L. Polk and Co of California
	JUtz Adolph H	R.L. Polk and Co of California
	JUtz dw adv S F Examiner R	R.L. Polk and Co of California
	dolph Otto Werum Bros R	R.L. Polk and Co of California
	Ga Gao A barber H	R.L. Polk and Co of California
	Co Steph H	R.L. Polk and Co of California
1925	BAIERL JOHN F R	R. L. Polk & Co. of California
	BAIL MRS LAURA P R	R. L. Polk & Co. of California
	BENTON CHAS E R	R. L. Polk & Co. of California
	BESAW R A R	R. L. Polk & Co. of California
	BROWNELL JULIA R R	R. L. Polk & Co. of California
	CAHN FRANK R	R. L. Polk & Co. of California
	COLE MRS B F R	R. L. Polk & Co. of California
	COMISKEY OLGA M R	R. L. Polk & Co. of California
	DALLAS JAMES L R	R. L. Polk & Co. of California
	DARLING O E R	R. L. Polk & Co. of California
	FRIEDRICH MARY R	R. L. Polk & Co. of California
	GOSTLIN M A R	R. L. Polk & Co. of California
	HANLEY MRS LEONA C R	R. L. Polk & Co. of California
	HARPER MISS MELISSA NURSE	R. L. Polk & Co. of California
	HERMAN SAM R	R. L. Polk & Co. of California
	HESS PAULINE R	R. L. Polk & Co. of California
	KEEGAN M J R	R. L. Polk & Co. of California
	KELLY MADAME C R	R. L. Polk & Co. of California
	LARKIN R W R	R. L. Polk & Co. of California
	LESTER F H R	R. L. Polk & Co. of California
	LUBOLD A N R	R. L. Polk & Co. of California
	MACKENZIE DONALD R	R. L. Polk & Co. of California
	MADISON PARK APARTMENTS	R. L. Polk & Co. of California
	MARTIN JOSEPH G R	R. L. Polk & Co. of California
	MONROE JAS S R	R. L. Polk & Co. of California
	MYERS MRS WARREN R	R. L. Polk & Co. of California
	O BRIEN F J R	R. L. Polk & Co. of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	RICHEKER MRS VIVIAN R	R. L. Polk & Co. of California
	ROGERS M T K R	R. L. Polk & Co. of California
	SHANNON MARGARET R	R. L. Polk & Co. of California
	SIEGEL MRS BUENDA R	R. L. Polk & Co. of California
	TURNER J N R	R. L. Polk & Co. of California
101 9TH ST		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	TYLER SHEILAGH M MRS	R. L. Polk Co.
102 9TH ST		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	LUNDQUIST ROBT	R. L. Polk Co.
103 9TH ST		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	ROBERTS JAMES	R. L. Polk Co.
104 9TH ST		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	MARCHESINI JOHN	R. L. Polk Co.
105 9TH ST		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	ARMOUR SAML	R. L. Polk Co.
106 9TH ST		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	QUEZADA ALFQNSO	R. L. Polk Co.
107 9TH ST		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	WUORI ALF U	R. L. Polk Co.
108 9TH ST		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	NO RETURN	R. L. Polk Co.
109 9TH ST		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	VACANT	R. L. Polk Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	ISAACS TESSIE R	R. L. Polk & Co.
	ISAACS REKA (WID J B) R	R. L. Polk & Co.
	ISAACS LEWIN F H	R. L. Polk & Co.

110 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	PICCOLA ANTHONY	R. L. Polk Co.

111 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	CURBOW GEO	R. L. Polk Co.
1933	SHEE CHAN W MRS H	R. L. Polk & Co.

112 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	RICHARDS BESSIE J MRS	R. L. Polk Co.

114 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	DOWLING MAE F MRS	R. L. Polk Co.

115 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	VACANT	R. L. Polk Co.

116 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	ATTO FREDK G	R. L. Polk Co.
1955	PAC WHOLESALE CO SAN FRANCISCO	The Pacific Telephone & Telegraph Co.

117 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	REED OLIN F	R. L. Polk Co.

118 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	KEEFE CLODESSA M MRS	R. L. Polk Co.

119 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	CREWOSON CECIL N MRS	R. L. Polk Co.

FINDINGS

9th St

132 9th St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	AMALGMATED TRNST UN LOCAL 1555	EDR Digital Archive
	AMBER INVESTMENT COMPANY INC	EDR Digital Archive
	AMALGMATED TRNST UN LOCAL 1555	EDR Digital Archive
	AMBER INVESTMENT COMPANY INC	EDR Digital Archive
2010	AMBER INVESTMENT COMPANY INC	EDR Digital Archive
	SAW LLC	EDR Digital Archive
	AMALGMATED TRNST UN LOCAL 1555	EDR Digital Archive
	AFSCME LOCAL 3993	EDR Digital Archive
	SAW LLC	EDR Digital Archive
	AMBER INVESTMENT COMPANY INC	EDR Digital Archive
	AMALGMATED TRNST UN LOCAL 1555	EDR Digital Archive
	AFSCME LOCAL 3993	EDR Digital Archive

9TH ST

132 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	AFSCME LOCAL	Haines Company, Inc.
2000	100 AMALGAMATED TRANSIT UNION AFL-CIO	Pacific Bell
	200 AFSCME LOCAL 3993	Pacific Bell
	200 AMBER INVESTMENT CO	Pacific Bell
1996	100 AMALGAMATED TRANSIT UNION AFL-CIO	PACIFIC BELL DIRECTORY
	200 AMBER INVESTMENT CO	PACIFIC BELL DIRECTORY
1992	AMALGAMATED TRANSIT UNION AFL- CIO	PACIFIC BELL DIRECTORY
	TEDDY ENTERPRISES AND ASSOCIATES	PACIFIC BELL DIRECTORY
	100 BART CHAPTER U P E 790	PACIFIC BELL DIRECTORY
	200 AMBER INVESTMENT CO	PACIFIC BELL DIRECTORY
	201 ACCURA TAX AND ACCOUNTING SERVICE	PACIFIC BELL DIRECTORY
1991	Amber Investments	PACIFIC BELL WHITE PAGES
	Teddy Enterprises	PACIFIC BELL WHITE PAGES
	Accura Tax And Accounting Service	PACIFIC BELL WHITE PAGES
	ACCURATE APPRAIS AL S E RVICE	PACIFIC BELL WHITE PAGES
1986	Amber Investments	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Teddy Enterprises	PACIFIC BELL WHITE PAGES
1980	Long J Y Co Engineers	Pacific Telephone
1975	ENKE & LANG	Pacific Telephone
	LONG J Y CO ENGINEERS	Pacific Telephone
1970	ENKE & LONG	Pacific Telephone Directory
	GERLISHE T O ELECTRCL ENGNRS	Pacific Telephone Directory
	LONG J Y CO ENGINEERS	Pacific Telephone Directory
1967	GERLISHE TED O ELEC CONSULTANT	R. L. Polk Co.
	LONG J Y CO ENGINEERS CIVIL	R. L. Polk Co.
1962	Babcock Paul R mechl engr	Pacific Telephone
	Enke & Long	Pacific Telephone
	Gerlishe T O electrl engrns	Pacific Telephone
	Long J Y Co Engineers	Pacific Telephone
1955	ENKE & LONG	The Pacific Telephone & Telegraph Co.
	GERLISHE T O ELECTRL ENGNRS	The Pacific Telephone & Telegraph Co.
	LONG J Y CO ENGINEERS	The Pacific Telephone & Telegraph Co.
	SPAULDING PHILIP F & ASSOCIATES	The Pacific Telephone & Telegraph Co.
1943	BENSON Alf mech r	R. L. Polk & Co.
	BENSON John A whsmn r	R. L. Polk & Co.
	Blakesley Eug A mech r	R. L. Polk & Co.
	Cody Melvin cook r	R. L. Polk & Co.
	Crusha Loren R shipydwr r	R. L. Polk & Co.
	Hertz Ida Mrs h	R. L. Polk & Co.
	Hertz Kenneth C r	R. L. Polk & Co.
	Mc Carthy Patk shtmtlwkr r	R. L. Polk & Co.
	RAMSEY Winburn Arline shipydwr r	R. L. Polk & Co.
	Spiesch Geo jan r	R. L. Polk & Co.
	Taylor Robt shipydwr r	R. L. Polk & Co.
	Thomson Jesse May mech r	R. L. Polk & Co.
1933	BENSON ALBT LAB R	R. L. Polk & Co.
	MIKESELL KENNETH P (ANN) MECH H	R. L. Polk & Co.
	MIKESELL MAY MRS R	R. L. Polk & Co.
	PETERSON SEVERIN (AMALIA) H	R. L. Polk & Co.
	YOUNG WM F (MAY) SWITCHMN ALA BELT LINE RY H	R. L. Polk & Co.
1925	BANGS F R	R. L. Polk & Co. of California
1920	BANGS F R	R. L. Polk & Co. of California

FINDINGS

138 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	GUOZHANGMa 51 G 83 2501	Haines Company, Inc.
	KWOKSau Fun	Haines Company, Inc.
	MAI Luns	Haines Company, Inc.
	WONG Gang Jue	Haines Company, Inc.
2000	1 WONG GANG JUE	Pacific Bell
	5 GUOZHANG MA	Pacific Bell
1996	1 WONG GANG JUE	PACIFIC BELL DIRECTORY
	5 YE YING YANG	PACIFIC BELL DIRECTORY
1992	1 WONG GANG JUE	PACIFIC BELL DIRECTORY
	2 HUANG HSIAO KAN	PACIFIC BELL DIRECTORY
	3 HO SIK TUNG	PACIFIC BELL DIRECTORY
	5 FANG JIN HONG	PACIFIC BELL DIRECTORY
	8 KUANG ZI PING	PACIFIC BELL DIRECTORY
1991	Cal Zhi Fa	PACIFIC BELL WHITE PAGES
	Fong Yung	PACIFIC BELL WHITE PAGES
	Kuang Zi Ping	PACIFIC BELL WHITE PAGES
	Li Shetian	PACIFIC BELL WHITE PAGES
	Li Sh IJie	PACIFIC BELL WHITE PAGES
	Li Shidn	PACIFIC BELL WHITE PAGES
	Li Shu Yu	PACIFIC BELL WHITE PAGES
1986	Cai Fa Zhi	PACIFIC BELL WHITE PAGES
	Wang Gang Jue	PACIFIC BELL WHITE PAGES
	Wu Jiayao	PACIFIC BELL WHITE PAGES
1980	Fong Shee Ng	Pacific Telephone
	Wong Gang Jue	Pacific Telephone
1970	WONG WM	Pacific Telephone Directory
1967	SCOTT JUDY MRS	R. L. Polk Co.
1962	White Abner	Pacific Telephone
	White Dora	Pacific Telephone
	Wong Pok Sun	Pacific Telephone
1955	FONG HARRY J P	The Pacific Telephone & Telegraph Co.
	WONG L YING	The Pacific Telephone & Telegraph Co.
	WONG POK SUN R	The Pacific Telephone & Telegraph Co.
	YOUNG AH TONG	The Pacific Telephone & Telegraph Co.
1943	Nevesny Saml Velma mech h	R. L. Polk & Co.
	Robbins Floyd B Jerry USA r	R. L. Polk & Co.
1938	LAVIN S R	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	MEYERS ADDIE J R	R. L. Polk & Co.
	ERICKSON AMY DIETITIAN GOLDEN STATE CO R	R. L. Polk & Co.
	NELSON EMMA MRS H	R. L. Polk & Co.
	WEBBER ANN E MRS LIBRN CAPWELL SULLIVAN & FURTH R	R. L. Polk & Co.
1928	H	R.L. Polk and Co of California
	Linden Chas D bail bonds	R.L. Polk and Co of California
	Shattuck Gertrude E elk SPCo H	R.L. Polk and Co of California
	h Grace H	R.L. Polk and Co of California
1925	JUDGE A C R	R. L. Polk & Co. of California
	MEYERS CHAS D R	R. L. Polk & Co. of California
	ROHAN JAMES G R	R. L. Polk & Co. of California
	WEBBER MRS J F R R	R. L. Polk & Co. of California
1920	KUHNLE WILLIAM R	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Webber Anna E wid J F R H	R.L. Polk and Co of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	WHOLESALE RADIO & ELECTRIC SUPPLY CO WRESCO SAN FRANCISCO	The Pacific Telephone & Telegraph Co.
1943	Ward Ruth Mrs r	R. L. Polk & Co.
	Ward Jean H mech h	R. L. Polk & Co.

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	FONG John	Haines Company, Inc.
	LIU David	Haines Company, Inc.
1986	Fong John P	PACIFIC BELL WHITE PAGES
1982	MASTER PROTECTION ENTERPRISES SF	Pacific Telephone
1980	Fong John F	Pacific Telephone
1975	FONG SHEW Y	Pacific Telephone
1970	FONG SHEW Y	Pacific Telephone Directory
	PACIFIC FIRE EXTINGUISHER CO MAIN OFC SAN FRANCISCO	Pacific Telephone Directory
1967	CHOY SHEW Y	R. L. Polk Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	PACIFIC FIRE EXTINGUISHER CO MAIN OFC	R. L. Polk & Co.
1962	Choy Shew Y	Pacific Telephone
1955	CHOY SHEW Y	The Pacific Telephone & Telegraph Co.
	PAC FIRE EXTINGUISHER CO MAIN OFC SAN FRANCISCO	The Pacific Telephone & Telegraph Co.
1945	PAC FIRE EXTINGUISHER CO S F	The Pacific Telephone & Telegraph Co.
	SIMONS K C R	The Pacific Telephone & Telegraph Co.
1943	KING Sing h	R. L. Polk & Co.
	Simons Lena O fctywkr r	R. L. Polk & Co.
1938	PAC FIRE EXTINGUISHER CO SAN FRANCISCO	Pacific Telephone

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
1992	TONG YAN CI	PACIFIC BELL DIRECTORY
1986	Tong Yan Ci	PACIFIC BELL WHITE PAGES
1975	CHEN VIRGINIA W MRS	Pacific Telephone
	CHONG CHI MING9 ALICE	Pacific Telephone
1970	CHEN VIRGINIA W MRS	Pacific Telephone Directory
1967	CHUNG KEWI HIN	R. L. Polk Co.
1962	Lee Bing	Pacific Telephone
1955	SEN LOUIE M	The Pacific Telephone & Telegraph Co.
1945	SING FOON R	The Pacific Telephone & Telegraph Co.
1943	Sing Foon h	R. L. Polk & Co.
1938	CURTIS DAVID T MRS R	Pacific Telephone
1933	KIMBALL ELIZ C S PRACT R1226	R. L. Polk & Co.
	VEITCH BENJ BARBER R	R. L. Polk & Co.
	CURTIS E LUELLA (WID D T) H	R. L. Polk & Co.
	JAMESON EDW R	R. L. Polk & Co.
1928	Katsoraa V Mrs H	R.L. Polk and Co of California
1925	CURTIS D T R	R. L. Polk & Co. of California
	KIMBALL MISS ELIZABETH R	R. L. Polk & Co. of California
1920	CURTIS D T R	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
1992	NO-D-LAY DRY CLEANERS	PACIFIC BELL DIRECTORY
1991	No D Lay Dry Cleaners	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	No David	PACIFIC BELL WHITE PAGES
	No Fault Alarms	PACIFIC BELL WHITE PAGES
1986	No D Lay Dry Cleaners	PACIFIC BELL WHITE PAGES
1980	No D Lay Dry Cleaners	Pacific Telephone
1970	NO-D-LAY DRY CLEANERS	Pacific Telephone Directory
1967	NO D LAY CLEANERS CLO	R. L. Polk Co.
1955	NO-D-LAY DRY CLEANERS	The Pacific Telephone & Telegraph Co.
1945	OAK PARK GROCERY	The Pacific Telephone & Telegraph Co.
1943	Douros Peter F Stella gro	R. L. Polk & Co.
1938	OAK PARK GROCERY	Pacific Telephone

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	SCRIMSHAW PRESS SAN FRANCISCO	Pacific Telephone Directory

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	SMITH FRANK A MGR CONCORD APTS H	R. L. Polk & Co.
	CHOW G PORTER R	R. L. Polk & Co.
	CONCORD APARTMENTS	R. L. Polk & Co.
1928	Parment A H	R.L. Polk and Co of California
	h Earl H	R.L. Polk and Co of California
	Francisco N H	R.L. Polk and Co of California
	t Geo R H	R.L. Polk and Co of California
	Fuqua Willis Mabel lab H	R.L. Polk and Co of California
	Mc E H	R.L. Polk and Co of California
	Concord Apartments	R.L. Polk and Co of California
	Blecker A H	R.L. Polk and Co of California
	Adkerson Geo H	R.L. Polk and Co of California
1925	CONCORD APARTMENTS	R. L. Polk & Co. of California
1920	NICODEMUS MRS C L	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	APARTMENTS	Haines Company, Inc.
	CHAN Jia Ai	Haines Company, Inc.
	CHAU Kamr Tong	Haines Company, Inc.
	CHEN Ce Sheng	Haines Company, Inc.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CHEN Guang Q	Haines Company, Inc.
	CHEN Xlan Xiao	Haines Company, Inc.
	GUO Rui Rong	Haines Company, Inc.
	HUANG Shuqng	Haines Company, Inc.
	HUANGSi Hai	Haines Company, Inc.
	ING Buck	Haines Company, Inc.
	LAUWai U	Haines Company, Inc.
	LEI Guangquan	Haines Company, Inc.
	LEI Guoquan	Haines Company, Inc.
	LEIYanxuan	Haines Company, Inc.
	LI Guo	Haines Company, Inc.
	UANGXiao Ping	Haines Company, Inc.
	LIUJian	Haines Company, Inc.
	LIU Shu Zhang	Haines Company, Inc.
	WENMe!Yun	Haines Company, Inc.
	WUYuoe Qing 510 2D	Haines Company, Inc.
YEUn Di	Haines Company, Inc.	
2000	1 LIANG XIAO PING	Pacific Bell
	2 LI BING X	Pacific Bell
	3 YANG YAN SHI	Pacific Bell
	8 WEN MEI YUN	Pacific Bell
	9 WU YU KING	Pacific Bell
	14 YEE G	Pacific Bell
	16 HUANG JUN QI	Pacific Bell
	17 HONG SHI YU	Pacific Bell
	19 HUANG YUE E	Pacific Bell
	20 HARVEY C RISPIN	Pacific Bell
	21 CHEN GUANG Q	Pacific Bell
	22 HAKGHAREUN XIAO H	Pacific Bell
	27 ING BUCK	Pacific Bell
	28 LAU WAI U	Pacific Bell
31 KO HENG BIK	Pacific Bell	
11A WU XIN WEI	Pacific Bell	
1996	4 BOWMAN JEFFREY	PACIFIC BELL DIRECTORY
	9 WU YU KING	PACIFIC BELL DIRECTORY
	15 CHU SHIM	PACIFIC BELL DIRECTORY
	17 WEI L Y	PACIFIC BELL DIRECTORY
	20 HARVEY C RISPIN	PACIFIC BELL DIRECTORY

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1996	21 CHEN GUANG Q	PACIFIC BELL DIRECTORY
	26 CHU MEI XIAN	PACIFIC BELL DIRECTORY
	27 ING BUCK	PACIFIC BELL DIRECTORY
	11A WU XIN WEI	PACIFIC BELL DIRECTORY
1992	1 GAM JEE GIN	PACIFIC BELL DIRECTORY
	3 HUANG FEN YE	PACIFIC BELL DIRECTORY
	4 GUAN XIANG ZHEN	PACIFIC BELL DIRECTORY
	5 CHEW KING QUAI	PACIFIC BELL DIRECTORY
	6 WONG FRANCISCO	PACIFIC BELL DIRECTORY
	7 XIAN RUN TAO	PACIFIC BELL DIRECTORY
	9 WU YU KING	PACIFIC BELL DIRECTORY
	11 WU XIN WEI	PACIFIC BELL DIRECTORY
	14 LY LANG THOAI	PACIFIC BELL DIRECTORY
	15 CHU SHIM	PACIFIC BELL DIRECTORY
	16 SAMMONS WM H	PACIFIC BELL DIRECTORY
	17 HUANG RUN FANG	PACIFIC BELL DIRECTORY
	19 FAN LIN YAN	PACIFIC BELL DIRECTORY
	20 HARVEY C RISPIN	PACIFIC BELL DIRECTORY
	21 CHEN GUANG Q	PACIFIC BELL DIRECTORY
	22 SIU SZE	PACIFIC BELL DIRECTORY
	23 SUE IMELDA	PACIFIC BELL DIRECTORY
	24 QUAN CHI YUN	PACIFIC BELL DIRECTORY
	25 GODCHILD BUDDHY SON	PACIFIC BELL DIRECTORY
	26 HUI ON SUM	PACIFIC BELL DIRECTORY
	27 ING BUCK	PACIFIC BELL DIRECTORY
28 LI HUI Y	PACIFIC BELL DIRECTORY	
29 LAM LAN	PACIFIC BELL DIRECTORY	
11A YU PAN LI	PACIFIC BELL DIRECTORY	
1991	Chau Yu Kan	PACIFIC BELL WHITE PAGES
	Chen Guang Q	PACIFIC BELL WHITE PAGES
	Chen H	PACIFIC BELL WHITE PAGES
	Chen Han Ming	PACIFIC BELL WHITE PAGES
	Chu Shim	PACIFIC BELL WHITE PAGES
	Fan Lin Van	PACIFIC BELL WHITE PAGES
	Fan N	PACIFIC BELL WHITE PAGES
	Guan Xiang Zhen	PACIFIC BELL WHITE PAGES
	Guan Yang Qin	PACIFIC BELL WHITE PAGES
Harvey C Rispin	PACIFIC BELL WHITE PAGES	

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Hiui On Sum	PACIFIC BELL WHITE PAGES
	Ing Buck	PACIFIC BELL WHITE PAGES
	Li Hui Y	PACIFIC BELL WHITE PAGES
	Ly Lang Thoai	PACIFIC BELL WHITE PAGES
	Ly Len	PACIFIC BELL WHITE PAGES
	Mac Anh T	PACIFIC BELL WHITE PAGES
	Mac Arthur Gavin	PACIFIC BELL WHITE PAGES
	Mac Cam Sau	PACIFIC BELL WHITE PAGES
	Sammons Wm H	PACIFIC BELL WHITE PAGES
	Siu Ste	PACIFIC BELL WHITE PAGES
	Siu Tommy K	PACIFIC BELL WHITE PAGES
	Yap Honyin	PACIFIC BELL WHITE PAGES
	Ying Chu Yu	PACIFIC BELL WHITE PAGES
	Ying Halqing	PACIFIC BELL WHITE PAGES
Ying Han	PACIFIC BELL WHITE PAGES	
1986	Balades Rose	PACIFIC BELL WHITE PAGES
	Chen Guang Q	PACIFIC BELL WHITE PAGES
	Chen Gue	PACIFIC BELL WHITE PAGES
	Cheung Fu	PACIFIC BELL WHITE PAGES
	Chew King Quai	PACIFIC BELL WHITE PAGES
	Chew LC&AD :	PACIFIC BELL WHITE PAGES
	Cho Richard	PACIFIC BELL WHITE PAGES
	Cho Rose	PACIFIC BELL WHITE PAGES
	Cho Tony & Sheryl	PACIFIC BELL WHITE PAGES
	Godchild Buddha Son	PACIFIC BELL WHITE PAGES
	Harvey C Rispin	PACIFIC BELL WHITE PAGES
	Hui William	PACIFIC BELL WHITE PAGES
	Jew Sui Jon	PACIFIC BELL WHITE PAGES
	Jew Ted	PACIFIC BELL WHITE PAGES
	Lam Bik Sim	PACIFIC BELL WHITE PAGES
	Lee Yoi Sim	PACIFIC BELL WHITE PAGES
	Lew Ying Choi	PACIFIC BELL WHITE PAGES
	Ng Siu Kam	PACIFIC BELL WHITE PAGES
	Pathammabont Lamngeunh	PACIFIC BELL WHITE PAGES
	Pham Muoi To	PACIFIC BELL WHITE PAGES
I Pham N	PACIFIC BELL WHITE PAGES	
Sammons Wm H	PACIFIC BELL WHITE PAGES	
Ta Hong	PACIFIC BELL WHITE PAGES	

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Truong Quang V	PACIFIC BELL WHITE PAGES
	Truong S	PACIFIC BELL WHITE PAGES
	Wang Che Uk Tong	PACIFIC BELL WHITE PAGES
1980	Balades Rose	Pacific Telephone
	Christler Harold E	Pacific Telephone
	Chui Sching	Pacific Telephone
	Chung Hiu Ning	Pacific Telephone
	Fung Frank	Pacific Telephone
	Godchild Buddy Son	Pacific Telephone
	Jew J & C	Pacific Telephone
	Lau Chak	Pacific Telephone
	Le Hao Trong	Pacific Telephone
	Lee Jum	Pacific Telephone
	Liu King Ku	Pacific Telephone
	Moy Freddie	Pacific Telephone
	Ngo Chui Lan	Pacific Telephone
	Quan Sam P	Pacific Telephone
	Sammons Wm H	Pacific Telephone
Tan Jos	Pacific Telephone	
1975	MURPHY JON P JR	Pacific Telephone
	BALAVES ROSE	Pacific Telephone
	CHRISTLER HAROLD E	Pacific Telephone
	DALTON MARTIN	Pacific Telephone
	GONZALEZ MARTIN	Pacific Telephone
	NYBORG R D	Pacific Telephone
	OSIF GARY	Pacific Telephone
1970	COX PRISCILLA	Pacific Telephone Directory
	EVENSEN P L	Pacific Telephone Directory
	FISHER COLLEEN	Pacific Telephone Directory
	GLEN MARY JANE	Pacific Telephone Directory
	HARRELL E E	Pacific Telephone Directory
	LEW DORMUN	Pacific Telephone Directory
	VELASQUEZ SIMON L	Pacific Telephone Directory
1967	CHOW L K	R. L. Polk Co.
	LAMSON ROBT	R. L. Polk Co.
1962	Chang Moy S	Pacific Telephone
	Delaney Bell E	Pacific Telephone
	Deleon Carlos	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Imholt Linus J	Pacific Telephone
	Lindsey Myrl S	Pacific Telephone
	Martinez Juan I	Pacific Telephone
	Park View Apts	Pacific Telephone
	Parker Jack	Pacific Telephone
	Parker Trilby	Pacific Telephone
	Rhodes Elliot	Pacific Telephone
	Rhodes Mary	Pacific Telephone
	Sam Gunn	Pacific Telephone
	Velasquez Simon L	Pacific Telephone
1955	AMBROGIO STEVE	The Pacific Telephone & Telegraph Co.
	KUHLMAN W T R	The Pacific Telephone & Telegraph Co.
	LEEN STEPHEN R	The Pacific Telephone & Telegraph Co.
	MCMULLEN LELAND	The Pacific Telephone & Telegraph Co.
	MORRIS EARL	The Pacific Telephone & Telegraph Co.
	SIERRA FRANK	The Pacific Telephone & Telegraph Co.
	THIESSEN J W	The Pacific Telephone & Telegraph Co.
	THOMPSON CHAS I R	The Pacific Telephone & Telegraph Co.
1945	WESTERSON GLADYS	The Pacific Telephone & Telegraph Co.
	BROOKIE F M R	The Pacific Telephone & Telegraph Co.
	FEHLMAN FRANK R	The Pacific Telephone & Telegraph Co.
1943	VAN OLDENHAGE ISABELL R	The Pacific Telephone & Telegraph Co.
	Archbold Alston C estimator PG & E Co h	R. L. Polk & Co.
	Bagwell Mary Mrs waiter h	R. L. Polk & Co.
	Boucher Edw Irma shipydwkr h	R. L. Polk & Co.
	Brookie Frank M Gertrude M h	R. L. Polk & Co.
	Brown John O Pattie shipftr h	R. L. Polk & Co.
	Cava Frank bartndr h	R. L. Polk & Co.
	Dekker Alf Hazel A shipydwkr h	R. L. Polk & Co.
	Dekker Hazel A Mrs mgr Park View Apts r	R. L. Polk & Co.
	Fair Clarence clk SP Co h	R. L. Polk & Co.
	French Harry Elaine rigger h	R. L. Polk & Co.
	George Raymond Mona lab h	R. L. Polk & Co.
	Guckert Sherry Mrs h	R. L. Polk & Co.
	Hardy Andw ironwkr h	R. L. Polk & Co.
	HOOVER Wilbur Georgia mech h	R. L. Polk & Co.
	Jameson Laura D wid E C h	R. L. Polk & Co.
	Jones Lloyd Rae shipydwkr h	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Jones Wm eng h	R. L. Polk & Co.
	Linam Le Roy Lucille shipydwkr h	R. L. Polk & Co.
	Lorente Walter Ursula shipydwkr h	R. L. Polk & Co.
	Melvedt Theo carp r	R. L. Polk & Co.
	Metvedt Ole carp h	R. L. Polk & Co.
	Mole Jas guard h	R. L. Polk & Co.
	Monty John Julia shipydwkr h	R. L. Polk & Co.
	Monty Jos Violet mech h	R. L. Polk & Co.
	Mosier Mary Mrs waiter h	R. L. Polk & Co.
	Oguin Wm G Demova butcher Miller Pkg Co h	R. L. Polk & Co.
	OLSEN Elmer O Josephine mech h	R. L. Polk & Co.
	PARK View Apartments	R. L. Polk & Co.
	Pilgreen Jack V Gertrude shipydwkr h	R. L. Polk & Co.
	Royse Edgar Violet plmbr h	R. L. Polk & Co.
	Shepherd Wm Ruth welder h	R. L. Polk & Co.
	SMITH Patk H Amanda h	R. L. Polk & Co.
	Southward Horace mech r	R. L. Polk & Co.
	Vargas Albt Julia lab h	R. L. Polk & Co.
	White Marshall mech h	R. L. Polk & Co.
	Woodward Orville L Vennie shipydwkr h	R. L. Polk & Co.
1938	FRASER DEWEY R R	Pacific Telephone
	SILVA WALTER W R	Pacific Telephone
	SWISHER MARION R	Pacific Telephone
1933	MOORE HENRY BKPR H	R. L. Polk & Co.
	OSBORN LOUISE P H	R. L. Polk & Co.
	PARK PARK VIEW APARTMENTS	R. L. Polk & Co.
	SIEGFRIED W F (THELMA) BARBER H	R. L. Polk & Co.
	SWEENEY JOHN A (HILDA) H	R. L. Polk & Co.
	WALKER WM (MARION) WAITER H	R. L. Polk & Co.
	AMARAL BERTHA MRS H	R. L. Polk & Co.
	BROCKETT FONCE O (WINNIE) MGR PARK VIEW APTS H	R. L. Polk & Co.
	DE ANDRE ALBT (MARJORIE) VULC R	R. L. Polk & Co.
	DE ANDRE MARJORIE CANDLER R	R. L. Polk & Co.
	EWING ERNIE ELEV OPR R	R. L. Polk & Co.
	HEARN ELSIE H	R. L. Polk & Co.
	KLEIN WALLACE (AGNES) WLDR H	R. L. Polk & Co.
	MADEROS ALYCE MRS H	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	MCDONALD JAS SLSMN H	R. L. Polk & Co.
	MCDONALD JOS R	R. L. Polk & Co.
1928	Archbold Alston C olk PG&ECo H	R.L. Polk and Co of California
	B Paul C H	R.L. Polk and Co of California
	Bolce Harry H clk Oakland Bank H	R.L. Polk and Co of California
	UH 1u H	R.L. Polk and Co of California
	Dunbar A A H	R.L. Polk and Co of California
	B B H	R.L. Polk and Co of California
	B G H	R.L. Polk and Co of California
	Faight Edw C H	R.L. Polk and Co of California
	Foothill W H	R.L. Polk and Co of California
	FORREST Winifred sten SPCo R	R.L. Polk and Co of California
	O M H	R.L. Polk and Co of California
	Millsmont E H	R.L. Polk and Co of California
	Gaynor John F H	R.L. Polk and Co of California
	M ichl A mach R	R.L. Polk and Co of California
	r Wm H	R.L. Polk and Co of California
	Highstreet Lawrence G elk H W & A Burke H	R.L. Polk and Co of California
	av Benj Ruth H	R.L. Polk and Co of California
	La H H	R.L. Polk and Co of California
	Mento Mervin R ptrnmkr R	R.L. Polk and Co of California
	Nichol Harry W H	R.L. Polk and Co of California
	av View Apartments	R.L. Polk and Co of California
	Quock E W H	R.L. Polk and Co of California
	h Ernest P garage formn Gt Westn Power Co R	R.L. Polk and Co of California
	Grand A J H	R.L. Polk and Co of California
	Trammel Albt H	R.L. Polk and Co of California
	r L H	R.L. Polk and Co of California
1925	BAILEY MARGUERITE G R	R. L. Polk & Co. of California
	BEGUHL H F R	R. L. Polk & Co. of California
	DUNN E E R	R. L. Polk & Co. of California
	PAGE RUBY W R	R. L. Polk & Co. of California
	WOOD LORENE E R	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	GABLE DMN	Pacific Telephone

FINDINGS

157 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	ARCHBOLD ALSTON C ESTIMATOR PG & E CO R	R. L. Polk & Co.

159 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	sell Ernest baker H	R.L. Polk and Co of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	APARTMENTS	Haines Company, Inc.
	CHENZhan Xi	Haines Company, Inc.
	FANG Rong Zi	Haines Company, Inc.
	HEY Yong	Haines Company, Inc.
	HUANG Guo Bin	Haines Company, Inc.
	HUANG Yan Ping	Haines Company, Inc.
	LUONG Sang	Haines Company, Inc.
	MAC GNU	Haines Company, Inc.
	WONG Geo	Haines Company, Inc.
	YAN Alex	Haines Company, Inc.
	ZHANG Zhao	Haines Company, Inc.
	ZHONG AJ Ping	Haines Company, Inc.
	ZHOU Shao Lan	Haines Company, Inc.
2000	QUAN JACK SIK M	Pacific Bell
	1 HUANG SHAOMAN	Pacific Bell
	2 KAN YUN FOON	Pacific Bell
	3 LEE SAM T	Pacific Bell
	4 WONG GEO	Pacific Bell
	9 CAO DA HUI	Pacific Bell
	10 LAM-FOK MAY SHEUNG	Pacific Bell
	11 LIU BL HUA	Pacific Bell
	17 HUANG GUO BIN	Pacific Bell
	19 TSE MEI-OI	Pacific Bell
	22 WONG YAP WING	Pacific Bell
1996	QUAN JACK SIK M	PACIFIC BELL DIRECTORY
	1 HUANG SHAOMAN	PACIFIC BELL DIRECTORY
	4 WONG GEO	PACIFIC BELL DIRECTORY
	7 CHAN YUK WAH	PACIFIC BELL DIRECTORY
	8 LAO MEI RONG	PACIFIC BELL DIRECTORY

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1996	10 LAM-FOK MAY SHEUNG	PACIFIC BELL DIRECTORY
	16 FANG HUI ZHEN	PACIFIC BELL DIRECTORY
	19 TSE MEI-OI	PACIFIC BELL DIRECTORY
	22 PHUNG HUNG HUU	PACIFIC BELL DIRECTORY
1992	QUAN JACK SIK M	PACIFIC BELL DIRECTORY
	4 WONG GEO	PACIFIC BELL DIRECTORY
	5 YEE YUK FUNG	PACIFIC BELL DIRECTORY
	6 LE HA TO	PACIFIC BELL DIRECTORY
	7 CHAN YUK WAH	PACIFIC BELL DIRECTORY
	8 WEI ZHI YU	PACIFIC BELL DIRECTORY
	10 QUONG HOOI	PACIFIC BELL DIRECTORY
	12 MAH WING FU	PACIFIC BELL DIRECTORY
	14 YU TAI SUN	PACIFIC BELL DIRECTORY
	15 LIU YU LIAN	PACIFIC BELL DIRECTORY
	19 TSE MEI-OI	PACIFIC BELL DIRECTORY
	21 YEE CHEE K	PACIFIC BELL DIRECTORY
	22 PHUNG HUNG HUU	PACIFIC BELL DIRECTORY
	24 OWYANG SUEY GEE	PACIFIC BELL DIRECTORY
1991	Chan Yuk Wah	PACIFIC BELL WHITE PAGES
	Chan Z	PACIFIC BELL WHITE PAGES
	Jiang Jiemin	PACIFIC BELL WHITE PAGES
	Jiang Ming	PACIFIC BELL WHITE PAGES
	Liu Yu Lian	PACIFIC BELL WHITE PAGES
	Owyang Suey Gee	PACIFIC BELL WHITE PAGES
	Phan Tai	PACIFIC BELL WHITE PAGES
	Quong Hooi	PACIFIC BELL WHITE PAGES
	Quong Lawrence & Christina	PACIFIC BELL WHITE PAGES
	Tse Mei Oi	PACIFIC BELL WHITE PAGES
	Wei Zhi Yu	PACIFIC BELL WHITE PAGES
	Yee Chee K	PACIFIC BELL WHITE PAGES
	Yee Yuk Fung	PACIFIC BELL WHITE PAGES
	Yee Yuke Ling	PACIFIC BELL WHITE PAGES
1986	Quong K	PACIFIC BELL WHITE PAGES
	Quong Roland	PACIFIC BELL WHITE PAGES
	Straiton Rudolph B Sr	PACIFIC BELL WHITE PAGES
	Wang Geo	PACIFIC BELL WHITE PAGES
	Wang Geo & Ethel	PACIFIC BELL WHITE PAGES
	Wang Geo Hen	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>	
1986	Yee Chee K	PACIFIC BELL WHITE PAGES	
	Chan Yuk Wah	PACIFIC BELL WHITE PAGES	
	Chew Jimmie	PACIFIC BELL WHITE PAGES	
	Chew Jimmie Jr	PACIFIC BELL WHITE PAGES	
	Chew Jos H	PACIFIC BELL WHITE PAGES	
	Chim Li Him	PACIFIC BELL WHITE PAGES	
	Choy Shiu	PACIFIC BELL WHITE PAGES	
	Choy Stephen	PACIFIC BELL WHITE PAGES	
	Law Joey M	PACIFIC BELL WHITE PAGES	
	Law John & Gloria	PACIFIC BELL WHITE PAGES	
	Law K	PACIFIC BELL WHITE PAGES	
	Law Keith	PACIFIC BELL WHITE PAGES	
	Lee Bak Chin	PACIFIC BELL WHITE PAGES	
	Lew Kwong T	PACIFIC BELL WHITE PAGES	
	Lew Larry	PACIFIC BELL WHITE PAGES	
	Liu Yu Lian	PACIFIC BELL WHITE PAGES	
	Phung Hung Huu	PACIFIC BELL WHITE PAGES	
	Quan Jack Sik M	PACIFIC BELL WHITE PAGES	
	Quon Yee Hing	PACIFIC BELL WHITE PAGES	
	Quong Carl	PACIFIC BELL WHITE PAGES	
	Quong Hooi	PACIFIC BELL WHITE PAGES	
	1980	Chan Yuk Wah	Pacific Telephone
		Chew Jimmie	Pacific Telephone
Chew Yee		Pacific Telephone	
Jung Fook		Pacific Telephone	
Lam S		Pacific Telephone	
Lui Kit Umg		Pacific Telephone	
Quan Jack Sik M		Pacific Telephone	
Quon Yee Hing		Pacific Telephone	
Quong Hooi		Pacific Telephone	
Wong Geo		Pacific Telephone	
Wong Jack		Pacific Telephone	
Wong Kam Yee		Pacific Telephone	
Yee Paul		Pacific Telephone	
Yee Wing Hay		Pacific Telephone	
Young David		Pacific Telephone	
Yu Chun Fong	Pacific Telephone		
1975	CHEW YEE	Pacific Telephone	

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	CHOW HO	Pacific Telephone
	CHUN KAM	Pacific Telephone
	FONG BING CHEW	Pacific Telephone
	FONG SAY	Pacific Telephone
	JUNG FOOK	Pacific Telephone
	LUL KIT UMG	Pacific Telephone
1970	BOW YEE	Pacific Telephone Directory
	DE OCAMPO KELLEY	Pacific Telephone Directory
	FONG SAY	Pacific Telephone Directory
	JUNG FOOK	Pacific Telephone Directory
	LEE FONG	Pacific Telephone Directory
	LEM MEI HO	Pacific Telephone Directory
	LOW CHAS F	Pacific Telephone Directory
	NG TUNG HOY	Pacific Telephone Directory
	QUAN JACK SIK M	Pacific Telephone Directory
	QUONG HOOI	Pacific Telephone Directory
	WONG JACK	Pacific Telephone Directory
	WOO CHUM OR	Pacific Telephone Directory
	WU CHUNG YIK	Pacific Telephone Directory
	YEE PAUL	Pacific Telephone Directory
YEE WING HAY	Pacific Telephone Directory	
YOUNG DAVID	Pacific Telephone Directory	
1967	ALHAMBRA THE APTS	R. L. Polk Co.
	I DAMALERIO BENNY	R. L. Polk Co.
	WONG SUNG T	R. L. Polk Co.
	YEE WING H	R. L. Polk Co.
	WONG GEO	R. L. Polk Co.
	NG MAY SHAW	R. L. Polk Co.
	CHU TOMMY K H	R. L. Polk Co.
	TARVIN HARRIS H	R. L. Polk Co.
	JUNG GUM L	R. L. Polk Co.
	MAK YING W	R. L. Polk Co.
	GEE JANET	R. L. Polk Co.
	CHIN JOE WING	R. L. Polk Co.
	NISPEROS LOUIS	R. L. Polk Co.
	LOW CHARLES F	R. L. Polk Co.
TING WOO YIU	R. L. Polk Co.	
YEE BOW	R. L. Polk Co.	

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	VACANT	R. L. Polk Co.
	SAHAGON STANLEY	R. L. Polk Co.
	OMANIA FABIO	R. L. Polk Co.
	LUM CALVIN C	R. L. Polk Co.
	HO HENRY	R. L. Polk Co.
	FOOK JUNG MRS	R. L. Polk Co.
	YUEN BUN	R. L. Polk Co.
	WU CHUNG Y	R. L. Polk Co.
1962	Chen Janice	Pacific Telephone
	Damalerio B	Pacific Telephone
	Jue Alan	Pacific Telephone
	Jung Fook	Pacific Telephone
	Kong Doris	Pacific Telephone
	Lapitan Sammy	Pacific Telephone
	Low David	Pacific Telephone
	Mak Ying Wai	Pacific Telephone
	Orense Juan Nario	Pacific Telephone
	Shum Hing Lun	Pacific Telephone
	Tarvin Harry	Pacific Telephone
	Tolentino Fred	Pacific Telephone
	Wong Don Chee	Pacific Telephone
	Wong John C	Pacific Telephone
	Wong Lily Mrs	Pacific Telephone
	Wu Chung Yik	Pacific Telephone
Yee Ngon Shew	Pacific Telephone	
Young Ken	Pacific Telephone	
1955	BRADFORD G H R	The Pacific Telephone & Telegraph Co.
	COOLEY JACK	The Pacific Telephone & Telegraph Co.
	ENRIGHT FRANK R	The Pacific Telephone & Telegraph Co.
	FONG JOE H	The Pacific Telephone & Telegraph Co.
	HSIEH BESS	The Pacific Telephone & Telegraph Co.
	LAPITAN SAMMY	The Pacific Telephone & Telegraph Co.
	LEE MADOC	The Pacific Telephone & Telegraph Co.
	LITTLE W T	The Pacific Telephone & Telegraph Co.
	MARK JAS	The Pacific Telephone & Telegraph Co.
	TARVIN HARRY	The Pacific Telephone & Telegraph Co.
THOMPSON J HAROLD	The Pacific Telephone & Telegraph Co.	
TOM BEN G	The Pacific Telephone & Telegraph Co.	

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	TOM ELWOOD R	The Pacific Telephone & Telegraph Co.
	TOM GILBERT R	The Pacific Telephone & Telegraph Co.
	WONG WM MRS	The Pacific Telephone & Telegraph Co.
	YEE GIM LEE	The Pacific Telephone & Telegraph Co.
1945	BRADFORD G H R	The Pacific Telephone & Telegraph Co.
	ELLIOTT ROBERT E MRS R	The Pacific Telephone & Telegraph Co.
	LITTLE W T R	The Pacific Telephone & Telegraph Co.
	MCDONALD WALTER J R	The Pacific Telephone & Telegraph Co.
	SMITH PERRY C R	The Pacific Telephone & Telegraph Co.
	TURNER CHAS T R	The Pacific Telephone & Telegraph Co.
	WHITSETT LOUIS R R	The Pacific Telephone & Telegraph Co.
1943	NELSON Nels P Mary mech h	R. L. Polk & Co.
	Nicholls Louisa r	R. L. Polk & Co.
	OLSEN Ole Hulda mech h	R. L. Polk & Co.
	RIDDLE Carl bkpr h	R. L. Polk & Co.
	RIDDLE Ida Mrs r	R. L. Polk & Co.
	Robb Blanche Mrs h	R. L. Polk & Co.
	Sale Gilbert mech r	R. L. Polk & Co.
	Turner Beatrice Mrs mgr Alhambra Apts h	R. L. Polk & Co.
	Villalon Bernice clk r	R. L. Polk & Co.
	Weiss Hilda Mrs r	R. L. Polk & Co.
	Whitsett Louis R Ruth shipydwkr h	R. L. Polk & Co.
	Williams Edw shipydwkr h	R. L. Polk & Co.
	Williams Marcella Mrs waiter h	R. L. Polk & Co.
	Alhambra Apartments	R. L. Polk & Co.
	Bachstein John C Marie pntr h	R. L. Polk & Co.
	Bienenfeld Jack W slsmn Burts Shoe Store r	R. L. Polk & Co.
	Bienenfeld Jennie Mrs h	R. L. Polk & Co.
	Billalon Dagmar r	R. L. Polk & Co.
	Billalon Frank shipydwkr h	R. L. Polk & Co.
	Bradford Gordon Mary driver h	R. L. Polk & Co.
	Bromiley Albt shipydwkr r	R. L. Polk & Co.
	Cerelli Frank prsmn Post Enquirer h	R. L. Polk & Co.
Croter Mel Esther slsmn h	R. L. Polk & Co.	
Darling Virginia Mrs h	R. L. Polk & Co.	
ELLIOTT Robt Gussie shipydwkr h	R. L. Polk & Co.	
Enright Frank Louise blrmkr h	R. L. Polk & Co.	
Goodrich Carlton driver h	R. L. Polk & Co.	

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Higgins Edw Velma mech h	R. L. Polk & Co.
	Hofer Stewart T Agnes shipydwr h	R. L. Polk & Co.
	Kayfes Roy Dorothy mech h	R. L. Polk & Co.
	Lambert May Mrs r	R. L. Polk & Co.
	Little Wm Mary barber h	R. L. Polk & Co.
	Mize Saml L mech h	R. L. Polk & Co.
1938	BAZZEL J J R	Pacific Telephone
	ELLIOTT ROBERT E MRS R	Pacific Telephone
	ROGERS W T R	Pacific Telephone
	SIMPSON A B R	Pacific Telephone
	TURNER CHAS T R	Pacific Telephone
	WILSON CLIFF L R	Pacific Telephone
1933	ALHAMBRA APARTMENTS	R. L. Polk & Co.
	ALVORD JACK H RESTR	R. L. Polk & Co.
	ANDROVICH JOHN RESTR	R. L. Polk & Co.
	BOWLES ROBT (MARGT) CLK H	R. L. Polk & Co.
	BURKHART CARL (MARY) PHARM H	R. L. Polk & Co.
	DRIGGS FORD R PATROLMN WPRR H	R. L. Polk & Co.
	DU BOCE RUFUS C SWTCHMN SANTA FE R	R. L. Polk & Co.
	DUBOIS RAY C H	R. L. Polk & Co.
	DYNES FRED (BESSIE) H	R. L. Polk & Co.
	KEEFE CLAIRE MAY SLSWN R	R. L. Polk & Co.
	MORGAN JOHN (PAULINE) BELLMN H	R. L. Polk & Co.
	NELSON NELS P BARBER R	R. L. Polk & Co.
	NICHOLS LOUISE R	R. L. Polk & Co.
	ROBINSON HAROLD H	R. L. Polk & Co.
	ROJAS CLIFFORD (BURDETTE) H	R. L. Polk & Co.
	ROJAS NELLIE MRS H	R. L. Polk & Co.
	SCHULTZ ANNIE (WID HERMAN) R	R. L. Polk & Co.
	SHIPMAN SAML T (KATH) WTCHMN H	R. L. Polk & Co.
	TURNER CHAS T (BEATRICE) MGR ALHAMBRA APTS H	R. L. Polk & Co.
	1928	coin mach R	R.L. Polk and Co of California
Lamklins Julia H		R.L. Polk and Co of California
Lemon E H		R.L. Polk and Co of California
Mac Kinder Evelyn slswmn R		R.L. Polk and Co of California
Manfredini P H		R.L. Polk and Co of California
Ray Harry E stdt R		R.L. Polk and Co of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>	
1928	Av V Mrs R	R.L. Polk and Co of California	
	right Chas F clk Co Tax Collr H	R.L. Polk and Co of California	
	Nicholls Louise H	R.L. Polk and Co of California	
	son Louise R	R.L. Polk and Co of California	
	Norrie Beng H	R.L. Polk and Co of California	
	E J H	R.L. Polk and Co of California	
	Wm H	R.L. Polk and Co of California	
	Sander Helen sten Farmers & Merchants Savings Bank R	R.L. Polk and Co of California	
	av Norma J musician R	R.L. Polk and Co of California	
	Scherer Ether dic opr Frigidaire Corp R	R.L. Polk and Co of California	
	pamer Chas H H	R.L. Polk and Co of California	
	pamer Elsie L sten Detroit Steel Prod Co R	R.L. Polk and Co of California	
	Whitlock Stanley J stdt R	R.L. Polk and Co of California	
	Aguayo Leslie with PG&ECO R	R.L. Polk and Co of California	
	Aguire L H	R.L. Polk and Co of California	
	Alhambra Apartments	R.L. Polk and Co of California	
	Barchard Barbara R	R.L. Polk and Co of California	
	rr Dorothy R	R.L. Polk and Co of California	
	O Chas W teleg opr Mackay Radio & Teleg Co R	R.L. Polk and Co of California	
	E C C H	R.L. Polk and Co of California	
	Bevan Alice E H	R.L. Polk and Co of California	
	Bevan Chas S H	R.L. Polk and Co of California	
	Bodle Constance Bodle & Moss R	R.L. Polk and Co of California	
	h J H	R.L. Polk and Co of California	
	Bernice sten Frigidaire Corp R	R.L. Polk and Co of California	
	Caralla M H	R.L. Polk and Co of California	
	nitt J H	R.L. Polk and Co of California	
	Coursey Lee H	R.L. Polk and Co of California	
	Credille Ray H	R.L. Polk and Co of California	
	Hancock Chas printer H	R.L. Polk and Co of California	
	ning Wm J H	R.L. Polk and Co of California	
	1925	EVANS MARIE R	R. L. Polk & Co. of California
		FLEMING BESS R	R. L. Polk & Co. of California
GENTSCH MRS WALTER R		R. L. Polk & Co. of California	
HARRINGTON MISS A R		R. L. Polk & Co. of California	
MACFADDEN HARRY W R		R. L. Polk & Co. of California	
MICHELSON A P R	R. L. Polk & Co. of California		

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	MORTON W O R	R. L. Polk & Co. of California
	REED W E R	R. L. Polk & Co. of California

163 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	True Sunshine Mission Chinese	R. L. Polk & Co.

167 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	UNITED PHARMACEUTICAL CORP	The Pacific Telephone & Telegraph Co.
1945	SUEY WON PRINTING CO	The Pacific Telephone & Telegraph Co.
1943	Sue Won printer	R. L. Polk & Co.
1938	SUEY WON PRINTING CO	Pacific Telephone
1933	SUEY WON PRINTING CO	R. L. Polk & Co.

170 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	GATES RUBBER CO SALES DIVISION INC SAN FRANCISCO	The Pacific Telephone & Telegraph Co.

171 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	PRECISION BEARINGS INC S F	The Pacific Telephone & Telegraph Co.

174 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	LUOYong Juan	Haines Company, Inc.
	KE Cai Llan	Haines Company, Inc.
	YANG Xu Ming	Haines Company, Inc.
2000	1 CHEUNG SIU WIN	Pacific Bell
	2 LEI WU BIN	Pacific Bell
1996	1 HUANG FEN YE	PACIFIC BELL DIRECTORY
1991	Low J	PACIFIC BELL WHITE PAGES
	Low Gum Oi	PACIFIC BELL WHITE PAGES
1986	Low Gum Oi	PACIFIC BELL WHITE PAGES
	Fong Michael	PACIFIC BELL WHITE PAGES
1980	Low Gum Yuen	Pacific Telephone
	Low Gum Oi	Pacific Telephone
	Fong D	Pacific Telephone
1975	LOW GUM YUEN	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	CHU PETER	Pacific Telephone Directory
1967	SALTIBAN MANUEL S	R. L. Polk Co.
1962	Saltiban Marciana Mrs	Pacific Telephone
	Saltivan Frank	Pacific Telephone
	Sabado Danny A	Pacific Telephone
1943	Palmer Roy C guard h	R. L. Polk & Co.
	Montalvo Gilbert C Geneva clo prsr h	R. L. Polk & Co.
	Marshall Benj H Ruth mech h	R. L. Polk & Co.
	Klem Robt Ruby shipydwr h	R. L. Polk & Co.
1928	Hopkins G G H	R.L. Polk and Co of California
	Polite C H	R.L. Polk and Co of California

177 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	DOBHLNS HUGH LLOYD	Pacific Telephone
	OBER JOHN R	Pacific Telephone
1967	NAKAYAMA MITSUYOSHI	R. L. Polk Co.
1962	Nakayama Mits	Pacific Telephone
1955	NAKAYAMA MITS	The Pacific Telephone & Telegraph Co.
1943	Mitchell Herman E Lillian welder h	R. L. Polk & Co.
1938	NAKAYAMA T R	Pacific Telephone
1933	TAIGAN HATA H	R. L. Polk & Co.
1925	CRANDALL E D R	R. L. Polk & Co. of California
1920	BLUMENTHAL FLORA R	R. L. Polk & Co. of California

178 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CHENXunn Ymg	Haines Company, Inc.
	CHENG Sak Wan	Haines Company, Inc.
	LIANG Pel Shi	Haines Company, Inc.
	TAN Yan Tong	Haines Company, Inc.
2000	7 TAN NENG JIAN	Pacific Bell
	8 CHENG SUK WAN	Pacific Bell
1996	7 LI SHAO QI	PACIFIC BELL DIRECTORY
	8 CHENG SUK WAN	PACIFIC BELL DIRECTORY
1992	7 CHENG SUK WAN	PACIFIC BELL DIRECTORY
1991	Zhang Zhao Yun	PACIFIC BELL WHITE PAGES
	Jeoi Y M	PACIFIC BELL WHITE PAGES
	Cheng Su Wan	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Chan S	PACIFIC BELL WHITE PAGES
	Jeong Y M	PACIFIC BELL WHITE PAGES
	Lam Suey K	PACIFIC BELL WHITE PAGES
	Taylor Annie S	PACIFIC BELL WHITE PAGES
	Ziang Zhao Yun	PACIFIC BELL WHITE PAGES
1980	Jeong Y M	Pacific Telephone
	Lam Suey K	Pacific Telephone
	Taylor Annie S	Pacific Telephone
1975	LAM SUEY K	Pacific Telephone
1970	LEE MOON YING	Pacific Telephone Directory
	TAYLOR ANNIE S	Pacific Telephone Directory
1967	C TAYLOR ANNE B MRS	R. L. Polk Co.
	E HOM YEUN Y	R. L. Polk Co.
	LEE MOON V	R. L. Polk Co.
1962	Baumbaugh Caroline Mrs	Pacific Telephone
	Baumbaugh Chas	Pacific Telephone
	Taylor Annie S	Pacific Telephone
1955	CHAVEZ LEE	The Pacific Telephone & Telegraph Co.
	REDMOND MARGARET R	The Pacific Telephone & Telegraph Co.
1945	CROON VINCENT T R	The Pacific Telephone & Telegraph Co.
1943	Kennedy Robt M Lena h	R. L. Polk & Co.
1938	WATERMAN EMMA R	Pacific Telephone
1933	GREGORY WM L MILLHD R	R. L. Polk & Co.
	WARREN PORTIA E (WID W E) H	R. L. Polk & Co.
1928	Amundsen H H	R.L. Polk and Co of California
	Wm L H	R.L. Polk and Co of California
	Clara Floyd K lab R	R.L. Polk and Co of California
	Heffner Floyd H	R.L. Polk and Co of California
	Ma Cary Mrs H	R.L. Polk and Co of California
	Co Portia E Mrs H	R.L. Polk and Co of California
1925	WARREN PORTIA E R	R. L. Polk & Co. of California
1920	WARREN PORTIA E R	R. L. Polk & Co. of California

179 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Higgins Ethel B	Pacific Telephone
1955	HIGGINS ETHEL B	The Pacific Telephone & Telegraph Co.
1945	BLUMENTHAL FLORA R	The Pacific Telephone & Telegraph Co.
1943	Blumenthal Chas slsmn r	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	LUO Shu Nan	Haines Company, Inc.
	MADISON PARK	Haines Company, Inc.
	NG Sun W	Haines Company, Inc.
	OXLEY Hazel M	Haines Company, Inc.
	RICHARDS Carmen	Haines Company, Inc.
	TAN Hul Ying	Haines Company, Inc.
	TAN Ning	Haines Company, Inc.
	WEI Ding Rong	Haines Company, Inc.
	WILLIAMS Matthews	Haines Company, Inc.
	WONG Isikell	Haines Company, Inc.
	WONG Kam Yu I	Haines Company, Inc.
	WONG Wal Kin	Haines Company, Inc.
	WUHal Dong	Haines Company, Inc.
	ZHAOW H	Haines Company, Inc.
	ZHEN Xn Y	Haines Company, Inc.
	ZHENYI	Haines Company, Inc.
	ZHUGui Fang	Haines Company, Inc.
1986	Nguyen Ve Van	PACIFIC BELL WHITE PAGES
	Nguyen Vinh	PACIFIC BELL WHITE PAGES
1975	MARTINEZ EDMUND	Pacific Telephone

181 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Pong Henry r	Pacific Telephone
1955	PONG HENRY R	The Pacific Telephone & Telegraph Co.
1945	PONG HENRY R	The Pacific Telephone & Telegraph Co.
1943	Pong Young wid Ying h	R. L. Polk & Co.
	Pong Henry shipydwr r	R. L. Polk & Co.
1933	PONGNGIN YOUNGSSEE MRS H	R. L. Polk & Co.
1920	PARKER MRS B R	R. L. Polk & Co. of California

182 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CHEEWO	Haines Company, Inc.
2000	CHEE W Q	Pacific Bell
1996	CHEE W Q	PACIFIC BELL DIRECTORY
1992	CHEE W Q	PACIFIC BELL DIRECTORY
1991	Chee W Q	PACIFIC BELL WHITE PAGES
1986	Chee W Q	PACIFIC BELL WHITE PAGES

FINDINGS

183 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	WONG ELEANIR MRS	R. L. Polk Co.
1962	Wong Huey	Pacific Telephone
1955	FONG JACK R	The Pacific Telephone & Telegraph Co.
1945	YIP DONALD R	The Pacific Telephone & Telegraph Co.
1943	Wong Jas USA r	R. L. Polk & Co.
	Wong Danl USA h	R. L. Polk & Co.
1938	QUAN R R	Pacific Telephone
1925	PONG NGIN R	R. L. Polk & Co. of California
1920	SMITH WM B R	R. L. Polk & Co. of California

184 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	SIU Devon	Haines Company, Inc.
1975	FUNG S JEN HUNG	Pacific Telephone
	LEE MON	Pacific Telephone
	LEE SERLINA	Pacific Telephone
1970	LEE MON	Pacific Telephone Directory
	LOUIE GENE W	Pacific Telephone Directory
	YUEN GUEY FONG	Pacific Telephone Directory
1967	LOUt E GENE W	R. L. Polk Co.
	YUEN GUEY FONG	R. L. Polk Co.
	NG 80 HING	R. L. Polk Co.
1962	Tso Jean	Pacific Telephone
	Young Wootmun	Pacific Telephone
	Yuen Guey Fong	Pacific Telephone
	Dang Yuick L	Pacific Telephone
	Tso Edw	Pacific Telephone
1955	CHIN DAVID M	The Pacific Telephone & Telegraph Co.
	LEE WM D R	The Pacific Telephone & Telegraph Co.
1945	LEE STEPHEN F R	The Pacific Telephone & Telegraph Co.
	LOO Y K MRS R	The Pacific Telephone & Telegraph Co.
1943	Cheong Emma Mrs h	R. L. Polk & Co.
	Fritz Carl r	R. L. Polk & Co.
	Gee Jack h	R. L. Polk & Co.
	LEE Dori r	R. L. Polk & Co.
	LEE Richd r	R. L. Polk & Co.
	Loo Sylvia sten Pub Sch r	R. L. Polk & Co.
	Loober Yee K Mrs r	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Louie Alf r	R. L. Polk & Co.
1938	LOO Y K MRS R	Pacific Telephone
	WONG JAMES T R	Pacific Telephone
1933	JACKS VICTOR R	R. L. Polk & Co.
	WALTERS JOS P H	R. L. Polk & Co.
1928	Britting P linemn R	R.L. Polk and Co of California
	Jos Rachel shoe rep R	R.L. Polk and Co of California
	H	R.L. Polk and Co of California
	Jacks Victor H	R.L. Polk and Co of California
	Mc Ida C H	R.L. Polk and Co of California
	blvd Walter H	R.L. Polk and Co of California
	Sycamore Barbara Mrs H	R.L. Polk and Co of California
	h Nell H	R.L. Polk and Co of California
	port Leland H	R.L. Polk and Co of California
	r Leland L formn Oliver Continuous Filter Co R	R.L. Polk and Co of California
	WALTERS Jos P H	R.L. Polk and Co of California
1925	MCCRACKEN IDA C R	R. L. Polk & Co. of California
1920	MONTGOMERY MRS E R	R. L. Polk & Co. of California
186 9TH ST		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
1992	HO YOUNUM	PACIFIC BELL DIRECTORY
188 9TH ST		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	LEONG Kwong M	Haines Company, Inc.
2000	LEONG KWONG M	Pacific Bell
1996	LEONG KWONG M	PACIFIC BELL DIRECTORY
191 9TH ST		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	BALCHICK PAUL C	R. L. Polk Co.
1962	Moutinho Edna	Pacific Telephone
	Luck Theo	Pacific Telephone
	Miller Horace E	Pacific Telephone
1955	DUCKWORTH W C R	The Pacific Telephone & Telegraph Co.
1945	MELQUIOND C H R	The Pacific Telephone & Telegraph Co.
1943	Beall Chas E Mattie F ins h	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Caldecott Robt r	R. L. Polk & Co.
	Crist Ernest mech A H Hayward r	R. L. Polk & Co.
	Crist Homer mech r	R. L. Polk & Co.
	Holdener Jos shipydwr r	R. L. Polk & Co.
	Kress Wm Dixie rigger h	R. L. Polk & Co.
	Melquiond C Harry Christina h	R. L. Polk & Co.
	MEYERS Paul shipydwr r	R. L. Polk & Co.
	Allen Clyde R Vera r	R. L. Polk & Co.
1933	CLARKE PAUL F CLK R	R. L. Polk & Co.
	LITTLEJOHN LEONORA STEN POULTRY PRODUCERS CENT CAL R	R. L. Polk & Co.
	SEYMOUR ARTH R	R. L. Polk & Co.
	TWINING THOS M R	R. L. Polk & Co.
1928	Belle Mel Apartments	R.L. Polk and Co of California
	Co S N H	R.L. Polk and Co of California
	Udvoich Jos welder R	R.L. Polk and Co of California
	Westapher I H	R.L. Polk and Co of California
1925	MELQUIOND C H R	R. L. Polk & Co. of California
	ZAREMBA VICTORIA R	R. L. Polk & Co. of California

192 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Arbuckle Bernard r	R. L. Polk & Co.
1920	ESTILL MRS F T R	R. L. Polk & Co. of California

197 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Brown Frank J	Pacific Telephone
	Nardin Severino L	Pacific Telephone
1955	LEE SHEET	The Pacific Telephone & Telegraph Co.
	CHEW JOE R	The Pacific Telephone & Telegraph Co.
	ARMOUR SAML	The Pacific Telephone & Telegraph Co.
1945	MELBRYN HOUSE	The Pacific Telephone & Telegraph Co.
1943	Abstom Edw M Patricia shipydwr h	R. L. Polk & Co.
	Cherry Luther S r	R. L. Polk & Co.
	Cox Chas B Grace mech r	R. L. Polk & Co.
	GLAZE Mary E h	R. L. Polk & Co.
	Katzman Nettie Mrs r	R. L. Polk & Co.
	Lynch B Hallie Mrs beauty opr r	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Plummer Chas r	R. L. Polk & Co.
	Shauerhamer Ruben r	R. L. Polk & Co.
	Sladett Saml slsmn r	R. L. Polk & Co.
	Van Stone Edw R shipftr r	R. L. Polk & Co.
	Whaley Chas r	R. L. Polk & Co.
	Williams Ernie Marie bartndr r	R. L. Polk & Co.
1938	MELQUIOND C H R	Pacific Telephone
1933	FRANKS MILDRED MRS WAITER R	R. L. Polk & Co.
	MELQUIOND HARRY (IDA) H	R. L. Polk & Co.
	REINHOLD WM (HATTIE) CIGARMKR H	R. L. Polk & Co.
1928	Wilt Lucille A phone opr R	R.L. Polk and Co of California
	Barre Chas H	R.L. Polk and Co of California
	h Jean clk R	R.L. Polk and Co of California
	Catterton Agnes E Mrs H	R.L. Polk and Co of California
	Catterton Edwin R jr clk R	R.L. Polk and Co of California
	Colonial Apartments H	R.L. Polk and Co of California
	Guidice Enul fctywkr R	R.L. Polk and Co of California
	av Lon ship clk A P Burch Co H	R.L. Polk and Co of California
	nr John A driver H	R.L. Polk and Co of California
	Campus Thee fcrwkr H	R.L. Polk and Co of California
	Harmon Silas V plmbr R	R.L. Polk and Co of California
	Mills Volney R	R.L. Polk and Co of California
	way H fctywkr R	R.L. Polk and Co of California
	Wilt Blanche R	R.L. Polk and Co of California
1925	KIEBLE W C R	R. L. Polk & Co. of California
1920	SMITH RUFUS G R	R. L. Polk & Co. of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	DIERKING NORMAN	Pacific Telephone

199 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Wilson Gus r	R. L. Polk & Co.

201 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	CLIFFORD ROBT C MOORE RODE CLIFFORD WOLFE & LARSON ATTYS	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MOORE JOHN L MOORE RODE CLIFFORD WOLFE & LARSON ATTYS	Pacific Telephone
1967	PAUGE EDNA MRS	R. L. Polk Co.
202 9TH ST		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	VACANT	R. L. Polk Co.
203 9TH ST		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	HOPPE WILHELM	R. L. Polk Co.
204 9TH ST		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	SABATONI HERBERT H	R. L. Polk Co.
1943	General Electric Supply Corp E W Garcia mgr	R. L. Polk & Co.
1933	GENERAL ELECTRIC SUPPLY CO W R EDWARDS MGR	R. L. Polk & Co.
205 9TH ST		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	VACANT	R. L. Polk Co.
206 9TH ST		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	BERGE EVA E MRS	R. L. Polk Co.
207 9TH ST		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	THOMPSON FRED	R. L. Polk Co.
208 9TH ST		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	VACANT 208 THRU	R. L. Polk Co.
211 9TH ST		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	HAROMAN JAMES B	R. L. Polk Co.
1965	DEGEN BELTING CO	R. L. Polk & Co.

FINDINGS

9th St

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	FAITH JIREH CHRISTIAN CHURCH	EDR Digital Archive
	AMY CHAN & ASSOCIATES	EDR Digital Archive
	ASIA NETWORK PACIFIC HOME CARE	EDR Digital Archive
	CALNET RE SOLUTIONS INC	EDR Digital Archive
	BRAIN CHILD EDUCATION CENTER	EDR Digital Archive
	LAW OFFICE OF JONATHAN DUNTEN	EDR Digital Archive
	FAST FORWARD & CO	EDR Digital Archive
	HUANG & WU CONSTRUCTION INC	EDR Digital Archive
	LOIS BRADY CHAPTER 7	EDR Digital Archive
	PITTSBURG GLASS CO	EDR Digital Archive
	LO VALERIE DDS	EDR Digital Archive
	GEOLABS INC	EDR Digital Archive
	K HL FINANCIAL AND INSUR SVCS	EDR Digital Archive
	TSAI WUDER DDS	EDR Digital Archive
	OU CHIROPRACTIC	EDR Digital Archive
	BRADY LOIS I	EDR Digital Archive
	AMERICAN ACADEMY OF ENGLISH	EDR Digital Archive
	OAKLAND CHNTOWN OPTMTRIC GROUP	EDR Digital Archive
	AN DING	EDR Digital Archive
	LANDES PHILOMENA LOUIE	EDR Digital Archive
	KAN WILSON	EDR Digital Archive
	CALNET FINANCE & INVESTMENT	EDR Digital Archive
	JI EDUCATION BRIDGE INC	EDR Digital Archive
	RENEES PHOTO SERVICE	EDR Digital Archive
	SELENAS HOLDING PTY LTD	EDR Digital Archive
	BEST REALTY & TAX	EDR Digital Archive
	LEUNG RENEE	EDR Digital Archive
	LEUNG & LEUNG INC	EDR Digital Archive
	WING ON INSURANCE SERVICES	EDR Digital Archive
	L & L REFRIGERATION & MAR SYS	EDR Digital Archive
	G&S/TE STORE INC	EDR Digital Archive
	CHIROPRACTIC HEALTH CENTER	EDR Digital Archive
	LAW OFFICES BARON J DREXEL	EDR Digital Archive
	DREXEL BARON J LAW OFFICES	EDR Digital Archive
	PACIFIC JUSTICE INSTITUTE	EDR Digital Archive

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	BERING SEA LOGISTIC INC	EDR Digital Archive
	SHAOLIN KUNG FU INTERNATIONAL	EDR Digital Archive
	L LUSTER & ASSOCIATES INC	EDR Digital Archive
	LUSTER-SUNDT LLC	EDR Digital Archive
	TONGYU COMMUNICATIONS AMER INC	EDR Digital Archive
	HOA T COOC LAW OFFICES	EDR Digital Archive
	KHL FINANCIAL & INSURANCE	EDR Digital Archive
	CARE PLUS CHIROPRACTIC HEALTH	EDR Digital Archive
	FAITH JIREH CHRISTIAN CHURCH	EDR Digital Archive
	AMY CHAN & ASSOCIATES	EDR Digital Archive
	ASIA NETWORK PACIFIC HOME CARE	EDR Digital Archive
	CALNET RE SOLUTIONS INC	EDR Digital Archive
	BRAIN CHILD EDUCATION CENTER	EDR Digital Archive
	LAW OFFICE OF JONATHAN DUNTEN	EDR Digital Archive
	HUANG & WU CONSTRUCTION INC	EDR Digital Archive
	FAST FORWARD & CO	EDR Digital Archive
	LOIS BRADY CHAPTER 7	EDR Digital Archive
	PITTSBURG GLASS CO	EDR Digital Archive
	LO VALERIE DDS	EDR Digital Archive
	CARE PLUS CHIROPRACTIC HEALTH	EDR Digital Archive
	LUSTER-SUNDT LLC	EDR Digital Archive
	L LUSTER & ASSOCIATES INC	EDR Digital Archive
	HOA T COOC LAW OFFICES	EDR Digital Archive
	TONGYU COMMUNICATIONS AMER INC	EDR Digital Archive
	KHL FINANCIAL & INSURANCE	EDR Digital Archive
	GEOLABS INC	EDR Digital Archive
	BRADY LOIS I	EDR Digital Archive
	AMERICAN ACADEMY OF ENGLISH	EDR Digital Archive
	TSAI WUDER DDS	EDR Digital Archive
	OU CHIROPRACTIC	EDR Digital Archive
	K HL FINANCIAL AND INSUR SVCS	EDR Digital Archive
	OAKLAND CHNTOWN OPTMTRIC GROUP	EDR Digital Archive
	AN DING	EDR Digital Archive
	LANDES PHILOMENA LOUIE	EDR Digital Archive
	KAN WILSON	EDR Digital Archive
	CALNET FINANCE & INVESTMENT	EDR Digital Archive
	G&S/TE STORE INC	EDR Digital Archive

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	L & L REFRIGERATION & MAR SYS	EDR Digital Archive
	LEUNG RENEE	EDR Digital Archive
	LEUNG & LEUNG INC	EDR Digital Archive
	WING ON INSURANCE SERVICES	EDR Digital Archive
	BEST REALTY & TAX	EDR Digital Archive
	JI EDUCATION BRIDGE INC	EDR Digital Archive
	RENEES PHOTO SERVICE	EDR Digital Archive
	SELENAS HOLDING PTY LTD	EDR Digital Archive
	CHIROPRACTIC HEALTH CENTER	EDR Digital Archive
	LAW OFFICES BARON J DREXEL	EDR Digital Archive
	DREXEL BARON J LAW OFFICES	EDR Digital Archive
	PACIFIC JUSTICE INSTITUTE	EDR Digital Archive
	BERING SEA LOGISTIC INC	EDR Digital Archive
	SHAOLIN KUNG FU INTERNATIONAL	EDR Digital Archive
2010	SHAOLIN KUNG FU INTERNATIONAL	EDR Digital Archive
	TRANS PACIFIC ASSOCIATES	EDR Digital Archive
	TRANSPACIFIC ASSOCIATES INC	EDR Digital Archive
	LAW OFFICES BARON J DREXEL	EDR Digital Archive
	BARON J DREXEL LAW OFFICES	EDR Digital Archive
	LEUNG & LEUNG INC	EDR Digital Archive
	RENEES PHOTO SERVICE	EDR Digital Archive
	BEST REALTY & TAX	EDR Digital Archive
	WING ON INSURANCE SERVICES	EDR Digital Archive
	LEUNG RENEE	EDR Digital Archive
	TERGAR MEDITATION CTR OAKLAND	EDR Digital Archive
	CALNET FINANCE & INVESTMENT	EDR Digital Archive
	KAN WILSON	EDR Digital Archive
	LANDES PHILOMENA LOUIE	EDR Digital Archive
	OAKLAND CHNTOWN OPTMTRIC GROUP	EDR Digital Archive
	TSAI WUDER DDS	EDR Digital Archive
	OU CHIROPRACTIC	EDR Digital Archive
	GUANYIN MEDITATION CENTER	EDR Digital Archive
	MYMAXCELL INC	EDR Digital Archive
	PRIME CIRCLE INSURANCE	EDR Digital Archive
	AMERICAN ACADEMY OF ENGLISH	EDR Digital Archive
	KHL FINANCIAL & INSURANCE	EDR Digital Archive
	COMFORT CARE PHARMACY	EDR Digital Archive
	CHANS ACUPUNCTURE CLINIC	EDR Digital Archive

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2010	MOBILE BASE LLC	EDR Digital Archive
	CARE PLUS CHIROPRACTIC HEALTH	EDR Digital Archive
	EVERGREEN CARPET CARE	EDR Digital Archive
	LO VALERIE DDS	EDR Digital Archive
	LEWIS R BIDWELL	EDR Digital Archive
	RAYJUN CONSTRUCTION SVCS INC	EDR Digital Archive
	HUANG & WU CONSTRUCTION INC	EDR Digital Archive
	CONTRRAS VOCATIONAL CONSULTING	EDR Digital Archive
	BRAIN CHILD EDUCATION CENTER	EDR Digital Archive
	CALNET RE SOLUTIONS INC	EDR Digital Archive
	ASIAN NETWORK HOSPICE	EDR Digital Archive
	ASIA NETWORK PACIFIC HOME CARE	EDR Digital Archive
	AMY CHAN & ASSOCIATES	EDR Digital Archive
	FAITH JIREH CHRISTIAN CHURCH	EDR Digital Archive
	CARE PLUS CHIROPRACTIC HEALTH	EDR Digital Archive
	EVERGREEN CARPET CARE	EDR Digital Archive
	KHL FINANCIAL & INSURANCE	EDR Digital Archive
	COMFORT CARE PHARMACY	EDR Digital Archive
	CHANS ACUPUNCTURE CLINIC	EDR Digital Archive
	MOBILE BASE LLC	EDR Digital Archive
	SHAOLIN KUNG FU INTERNATIONAL	EDR Digital Archive
	TRANS PACIFIC ASSOCIATES	EDR Digital Archive
	TRANSPACIFIC ASSOCIATES INC	EDR Digital Archive
	BARON J DREXEL LAW OFFICES	EDR Digital Archive
	LAW OFFICES BARON J DREXEL	EDR Digital Archive
	WING ON INSURANCE SERVICES	EDR Digital Archive
	LEUNG RENEE	EDR Digital Archive
	BEST REALTY & TAX	EDR Digital Archive
	LEUNG & LEUNG INC	EDR Digital Archive
	TERGAR MEDITATION CTR OAKLAND	EDR Digital Archive
	RENEES PHOTO SERVICE	EDR Digital Archive
	CALNET FINANCE & INVESTMENT	EDR Digital Archive
	KAN WILSON	EDR Digital Archive
	LANDES PHILOMENA LOUIE	EDR Digital Archive
	OAKLAND CHNTOWN OPTMTRIC GROUP	EDR Digital Archive
	OU CHIROPRACTIC	EDR Digital Archive
	AMERICAN ACADEMY OF ENGLISH	EDR Digital Archive

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2010	GUANYIN MEDITATION CENTER	EDR Digital Archive
	MYMAXCELL INC	EDR Digital Archive
	TSAI WUDER DDS	EDR Digital Archive
	PRIME CIRCLE INSURANCE	EDR Digital Archive
	LO VALERIE DDS	EDR Digital Archive
	LEWIS R BIDWELL	EDR Digital Archive
	RAYJUN CONSTRUCTION SVCS INC	EDR Digital Archive
	HUANG & WU CONSTRUCTION INC	EDR Digital Archive
	CONTRRAS VOCATIONAL CONSULTING	EDR Digital Archive
	BRAIN CHILD EDUCATION CENTER	EDR Digital Archive
	CALNET RE SOLUTIONS INC	EDR Digital Archive
	ASIAN NETWORK HOSPICE	EDR Digital Archive
	ASIA NETWORK PACIFIC HOME CARE	EDR Digital Archive
	AMY CHAN & ASSOCIATES	EDR Digital Archive
	FAITH JIREH CHRISTIAN CHURCH	EDR Digital Archive

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	BUILDING	Haines Company, Inc.
	AMYCHAN&	Haines Company, Inc.
	ASSOCIATES	Haines Company, Inc.
	ASIAN NETWORK	Haines Company, Inc.
	PACIFIC HOME CRE	Haines Company, Inc.
	ASIANNETWRI	Haines Company, Inc.
	PHYS THRPHY REHAB	Haines Company, Inc.
	BEST REALTY&TAX	Haines Company, Inc.
	BESTREALTY&TAX	Haines Company, Inc.
	BRADYLOISIATTY	Haines Company, Inc.
	BRAIN CHILD	Haines Company, Inc.
	EDUCATION	Haines Company, Inc.
	CENTER	Haines Company, Inc.
	CALNETFNC&	Haines Company, Inc.
	INVSTMT INC	Haines Company, Inc.
	CARE PLUS	Haines Company, Inc.
	CHIROPRACTIC	Haines Company, Inc.
	ACUPUNCTURE	Haines Company, Inc.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CUNIC	Haines Company, Inc.
	CHANKAI WING	Haines Company, Inc.
	CHING STEVEN DDS	Haines Company, Inc.
	DREXEL BARON J	Haines Company, Inc.
	LAW OFFICES OF	Haines Company, Inc.
	HONG KONG	Haines Company, Inc.
	OPTICAL COMPANY	Haines Company, Inc.
	KONG EDITH ODS	Haines Company, Inc.
	LEUNGRENEE	Haines Company, Inc.
	LIN HARRY DDS	Haines Company, Inc.
	MGE ENGINEERING	Haines Company, Inc.
	OAKLD CHINATOWN	Haines Company, Inc.
	OPTOMETRIC GRP	Haines Company, Inc.
	U CHIROPRACTIC 510 4 S	Haines Company, Inc.
	RENEES	Haines Company, Inc.
	SHAOUNKUNGFU	Haines Company, Inc.
	INTR L	Haines Company, Inc.
	SHIELD ONE	Haines Company, Inc.
	INSURANCE	Haines Company, Inc.
	SERVICES	Haines Company, Inc.
	SUNLANO CO	Haines Company, Inc.
	TRANSPAC	Haines Company, Inc.
	ASSOCIATES	Haines Company, Inc.
	TSAI WUDER DDS	Haines Company, Inc.
	VOCATIONAL	Haines Company, Inc.
	CONSULTING	Haines Company, Inc.
WEB HOME CORP	Haines Company, Inc.	
WING ON	Haines Company, Inc.	
INSURANCE	Haines Company, Inc.	
SERVICE	Haines Company, Inc.	
2000	107A CHAN ACUPUNCTURE CLINIC	Pacific Bell
	LEUNG RENEE	Pacific Bell
	108 CHAN ANNA MD	Pacific Bell
	109 OAKLAND CHINESE NEW GENESIS BAPTIST CHURCH	Pacific Bell
	110 OAKLAND CHINATOWN OPTOMETRIC GROUP	Pacific Bell
	110 HONG KONG OPTICAL COMPANY	Pacific Bell
111 RENEE S	Pacific Bell	

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	111 BEST REALTY & TAX	Pacific Bell
	111 BEST REALTY & TAX	Pacific Bell
	111 WING ON INSURANCE SERVICE	Pacific Bell
1996	101 9TH STREET CHIROPRACTIC HEALTH CENTER	PACIFIC BELL DIRECTORY
	103 EVERGREEN CARPET CARE	PACIFIC BELL DIRECTORY
	103 CARE PLUS CHIROPRACTIC HEALTH CENTER	PACIFIC BELL DIRECTORY
	104 DEPENDABLE INSURANCE SERVICES	PACIFIC BELL DIRECTORY
	108 CHANG ANNA MD	PACIFIC BELL DIRECTORY
	109 OAKLAND CHINESE NEW GENESIS BAPTIST CHURCH	PACIFIC BELL DIRECTORY
	110 OAKLAND CHINATOWN OPTOMETRIC GROUP	PACIFIC BELL DIRECTORY
	110 HONG KONG OPTICAL COMPANY	PACIFIC BELL DIRECTORY
	111 RENEE S	PACIFIC BELL DIRECTORY
	111 BEST REALTY & TAX	PACIFIC BELL DIRECTORY
	111 LEUNG & LEUNG INS SERVICE INC	PACIFIC BELL DIRECTORY
	111 BEST REALTY & TAX	PACIFIC BELL DIRECTORY
	401 BNC TESTING LABS INC	PACIFIC BELL DIRECTORY
	401 GREG ROJA & ASSOCIATES INC	PACIFIC BELL DIRECTORY
	110A CHAN ACUPUNCTURE CLINIC	PACIFIC BELL DIRECTORY
1992	BAY AREA TRANSIT CONSULTANTS	PACIFIC BELL DIRECTORY
	103 CHEN STEWART DC	PACIFIC BELL DIRECTORY
	104 PACIFICA INVESTMENT CO	PACIFIC BELL DIRECTORY
	108 JULIAN RADIOLOGY MEDICAL CLINIC	PACIFIC BELL DIRECTORY
	110 OAKLAND CHINATOWN OPTOMETRIC GROUP	PACIFIC BELL DIRECTORY
	110 HONG KONG OPTICAL COMPANY	PACIFIC BELL DIRECTORY
	111 RENEE S	PACIFIC BELL DIRECTORY
	111 BEST REALTY & TAX	PACIFIC BELL DIRECTORY
	111 LEUNG & LEUNG INS SERVICE INC	PACIFIC BELL DIRECTORY
	111 BEST REALTY & TAX	PACIFIC BELL DIRECTORY
1991	Best Realty & Tax	PACIFIC BELL WHITE PAGES
	Best Realty & Tax	PACIFIC BELL WHITE PAGES
	Chen Stewart DC	PACIFIC BELL WHITE PAGES
	Hong Kong Optical Company	PACIFIC BELL WHITE PAGES
	Leung & Leung Ins Service Inc	PACIFIC BELL WHITE PAGES
	Oakland Chinatown Optometric Group	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Pacifica Investment Co	PACIFIC BELL WHITE PAGES
	Pacifica Mortgage	PACIFIC BELL WHITE PAGES
	Renees	PACIFIC BELL WHITE PAGES
1986	Splady Art Studios	PACIFIC BELL WHITE PAGES
1980	GOODWILL INDUSTRIES	Pacific Telephone
	Retail Stores	Pacific Telephone
1975	GOODWILL INDUSTRIES	Pacific Telephone
1970	GOODWILL INDUSTRIES	Pacific Telephone Directory
1967	ONTIVEROS NORMA Y MRS	R. L. Polk Co.
	GOODWILL INDUSTRIES OF OAKLAND	R. L. Polk Co.
1962	GOODWILL INDUSTRIES	Pacific Telephone
1955	GOODWILL INDUSTRIES	The Pacific Telephone & Telegraph Co.
1945	BUSHMAN RISEN CO BKBNDRS	The Pacific Telephone & Telegraph Co.
	JENSEN RADIO MFG CO	The Pacific Telephone & Telegraph Co.
	SARGENT E M CO RADIO	The Pacific Telephone & Telegraph Co.
1943	Jensen Radio Mfg Co A L Oliver mgr h	R. L. Polk & Co.
	Sargent Edw M Mildred E mfrs agt	R. L. Polk & Co.
	Bushman Risen Co W F Bushman H G	R. L. Polk & Co.
	Risen paper rulers and bkbndrs	
1938	BUSHMAN RISEN CO BOOK BINDERS	Pacific Telephone
	JENSEN RADIO MFG CO	Pacific Telephone
	SARGENT E M CO RADIO	Pacific Telephone
1933	BUSHMAN RISEN CO (WM F BUSHMAN HARRY G RISEN) BOOKBINDERS	R. L. Polk & Co.
	RADIO CENTRAL SERVICE L H REYBURN MGR	R. L. Polk & Co.
1928	9lth Radio Mfg Co K K Jensen	R.L. Polk and Co of California
	Tufoak Products Co L E West pres W H Heaton sec treas rubber gds mfrs	R.L. Polk and Co of California

214 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	STOOPS WM B GL	R. L. Polk Co.

215 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	COLE LENORE A MRS	R. L. Polk Co.

216 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	GILLESPIE ELLA M MRS	R. L. Polk Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	cisco Tire & Rubber Co of California Inc E D Sadler office mg R	R.L. Polk and Co of California

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<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	VACANT	R. L. Polk Co.

218 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	MAC FARLANE MABEL A	R. L. Polk Co.

219 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	VACANT	R. L. Polk Co.

221 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	VACANT	R. L. Polk Co.
1933	WOOLEY HENRY H	R. L. Polk & Co.
1928	Christine Carmody Henry Irene collr H Cromrty Bva MM cte Mary A Cooper R S eanry C tltnva I coblm H	R.L. Polk and Co of California R.L. Polk and Co of California R.L. Polk and Co of California
1925	CROMARTY HENRY	R. L. Polk & Co. of California
1920	CROMARTY HENRY R	R. L. Polk & Co. of California

222 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	TAY-HOLBROOK INC PLMBRS & MTL SUPPLS	The Pacific Telephone & Telegraph Co.
1945	GRAYBAR ELECTRIC CO	The Pacific Telephone & Telegraph Co.
1943	Graybar Electric Co M L Wilkins mgr	R. L. Polk & Co.
1938	GRAYBAR ELECTRIC CO	Pacific Telephone
1933	GRAYBAR ELECTRIC CO J L MISEREZ MGR WHOL ELEC SUPP	R. L. Polk & Co.
1928	Graybar Electric Co J L Miserez ingr whol elec supp	R.L. Polk and Co of California

228 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	ILLINOIS TESTING LABORATORIES INC PYROMETERS SAN FRANCISCO	The Pacific Telephone & Telegraph Co.
1938	LUM LONG R	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	OHE MRS A R	R. L. Polk & Co. of California

229 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	WONG S	Pacific Telephone Directory
1967	WONG SHEM W	R. L. Polk Co.
1962	Wong S	Pacific Telephone
1955	WONG SHEM R	The Pacific Telephone & Telegraph Co.
1945	MURPHY GERTRUDE MISS R	The Pacific Telephone & Telegraph Co.
1943	Maderos Mary Mrs r	R. L. Polk & Co.
	Murphy Gertrude A h	R. L. Polk & Co.
	NEARY Patk r	R. L. Polk & Co.
	Tillotson Kate J wid Wm r	R. L. Polk & Co.
1938	MURPHY GERTRUDE MISS R	Pacific Telephone
1933	MURPHY GERTRUDE H	R. L. Polk & Co.
	MILLER MICHL AUTO BODY BLDR OKLD ST DEPT R	R. L. Polk & Co.
	ANDERSON OSCAR TAILOR R	R. L. Polk & Co.
	NEARY PATK LAB R	R. L. Polk & Co.
	RIGNER NELLIE MRS R	R. L. Polk & Co.
1928	h Gertrude H	R.L. Polk and Co of California
	Edwards Michl woodwkr R	R.L. Polk and Co of California
	r Wm Cath H	R.L. Polk and Co of California
1925	MURPHY MRS E R	R. L. Polk & Co. of California
1920	MURPHY MRS E R	R. L. Polk & Co. of California

184 1/2 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	YU NUEN CHUNG	Pacific Telephone Directory
1955	DARE BEN K R	The Pacific Telephone & Telegraph Co.
1945	CHEONG EMMA MRS R	The Pacific Telephone & Telegraph Co.

9TH STH

160 9TH STH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	SORAN MRS GRACE R	R. L. Polk & Co. of California

FINDINGS

9TH STH ST

160 9TH STH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	QUON YEE HING	Pacific Telephone Directory

9TH T

148 9TH T

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	OAK PATK GROCEMY	The Pacific Telephone & Telegraph Co.

160 9TH T

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	BACHOTEIN J C R	The Pacific Telephone & Telegraph Co.

9TH TE MPLBAR

191 9TH TE MPLBAR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	WANG HERBERT VERNON R	The Pacific Telephone & Telegraph Co.

9TH TW

191 9TH TW

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	SIEN HARRY R	The Pacific Telephone & Telegraph Co.

9TH VIA ALAMITS SLZ

158 9TH VIA ALAMITS SLZ

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	A IS GRAZE MRS	Pacific Telephone

9TH VIA CORDOBA

159 9TH VIA CORDOBA

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1973	GRAVES E JACK	Pacific Telephone

FINDINGS

9TH VIA PM FALE

161 9TH VIA PM FALE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1973	HONDA ROBT T	Pacific Telephone

9TH VIA VENTANAT SLZ

168 9TH VIA VENTANAT SLZ

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	SCHRAMM KENNETH	Pacific Telephone

9THB AY

111 9THB AY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	MATTHEWS JAS R	The Pacific Telephone & Telegraph Co.

9THL AY

101 9THL AY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	WILLIS AARON R	The Pacific Telephone & Telegraph Co.

9THTE MPLBAR

152 9THTE MPLBAR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	MC GUIRE FAYE BUTNMAKRS	The Pacific Telephone & Telegraph Co.

9TL

162 9TL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	HALL ROGER J R Z	The Pacific Telephone & Telegraph Co.

ATLONS310 8TH

12 ATLONS310 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Association Of Bay Area Governments Metro Center	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Assn Of Asian Pacific Community Health Organ	PACIFIC BELL WHITE PAGES

BPOE1219 8TH

27 BPOE1219 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Mizpah Temple No	R. L. Polk & Co.

BPOECOLORED1219 8TH

70 BPOECOLORED1219 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	ATHENS Lodge No	R. L. Polk & Co.

E 6TH ST

126 E 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	CRISP CONNIE MAC	Pacific Telephone

140 E 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	DIXON JOHN F ELRL CONTR	Pacific Telephone

E 7TH ST

108 E 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	BOGNAR BERNICE	Pacific Telephone

121 E 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	GIRL SCOUTS OAKLAND COUNCIL	The Pacific Telephone & Telegraph Co.
	ASSOCIATED CHARITIES FAMILY SERVICE BUREAU	The Pacific Telephone & Telegraph Co.
	ALAMEDA COUNTY TUBERCULOSIS & HEALTH ASSN	The Pacific Telephone & Telegraph Co.

122 E 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1920	MOELLER MRS G W R	R. L. Polk & Co. of California

FINDINGS

133 E 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	BUSINESS SERVICES	Pacific Telephone

135 E 7TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1956	Dietrich Lewis C	Pacific Telephone

E 9TH ST

103 E 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	KIST BEVERAGES	The Pacific Telephone & Telegraph Co.

137 E 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	BANN CHAS L	Pacific Telephone

ELLINASNODANA2317 8TH

7 ELLINASNODANA2317 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	ELLINGS MN ELVIN D	Pacific Telephone

Fallon Street

716 Fallon Street

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	ROSENTHAL AARON R	The Pacific Telephone & Telegraph Co.
1945	ROSENTHAL AARON R	The Pacific Telephone & Telegraph Co.
1943	Rosenthal Aaron Julia shipydwr h	R. L. Polk & Co.
	Rosenthal Louis r	R. L. Polk & Co.
	Rosenthal Rosetta bkpr Bearing & Equipment Co r	R. L. Polk & Co.
1938	ROSENTHAL AARON R	Pacific Telephone
1928	R	R.L. Polk and Co of California
	cisco Louis B gro	R.L. Polk and Co of California
1925	LOWE LOUIS B R	R. L. Polk & Co. of California

825 Fallon Street

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Kendall Louis L Helen shipydwr h	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	MCELRATH ALDEN (MARY) H	R. L. Polk & Co.
1928	L Pauline R	R.L. Polk and Co of California
	Plant Erlinda nurse R	R.L. Polk and Co of California
	h Cath Mrs R	R.L. Polk and Co of California
	G Gertrude R	R.L. Polk and Co of California
1925	HUFFMAN P L R	R. L. Polk & Co. of California
	SMILIE J A R	R. L. Polk & Co. of California
1920	MCELRATH ALDEN R	R. L. Polk & Co. of California
	SMILIE J A R	R. L. Polk & Co. of California

GR1216 8TH

7 GR1216 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	BAKER	The Pacific Telephone & Telegraph Co.

JACKSON

601 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	FRERE JACQUES BANQUET HALL & CATERING SERVICE	Pacific Telephone Directory
	SUTAK THOS A	Pacific Telephone Directory
	SIMMONDS FREDERICK H FRERE JACQUES CATERING SERVICE	Pacific Telephone Directory
	JACQUES FRERE CATERING SERVICE	Pacific Telephone Directory
	FRERE JACQUES CATERING SERVICE	Pacific Telephone Directory
	EDWARDS J H	Pacific Telephone Directory
	DUGRE DONALD H	Pacific Telephone Directory
	DOVE RICHARD K	Pacific Telephone Directory
	CSAJKO JOHN J FRERE JACQUES CATERING SERVICE	Pacific Telephone Directory
1955	PLUMBING & PIPE FITTING INDUSTRY UA LOCAL UNION NO 38	The Pacific Telephone & Telegraph Co.
	PIPE FITTING & PLUMBING INDUSTRY UA LOCAL NO 38	The Pacific Telephone & Telegraph Co.
	BOILERMAKER WELDERS UNION LOCAL 681	The Pacific Telephone & Telegraph Co.

612 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LEE YICK SOO REV	Pacific Telephone Directory

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	LEE YICK SOO REV R	The Pacific Telephone & Telegraph Co.
614 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LAM WAY SHEUNG	Pacific Telephone Directory
1955	WAH PON GIN	The Pacific Telephone & Telegraph Co.
1925	KOKORES GEO R	R. L. Polk & Co. of California
615 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	ASH IRENE	Pacific Telephone Directory
	MASON DENISE E	Pacific Telephone Directory
	PARKER NORMA	Pacific Telephone Directory
1955	BIAGAS ONEZIME	The Pacific Telephone & Telegraph Co.
616 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LEW JUDY	Pacific Telephone Directory
1955	GEE KING	The Pacific Telephone & Telegraph Co.
617 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BRAGG MARGARET	Pacific Telephone Directory
1955	JUCUTAN JOE	The Pacific Telephone & Telegraph Co.
	DEGUZMAN JUAN	The Pacific Telephone & Telegraph Co.
1925	PON SAM K R	R. L. Polk & Co. of California
619 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	LUM NORMAN	The Pacific Telephone & Telegraph Co.
1925	QUAN SUE R	R. L. Polk & Co. of California
621 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	CHU JOE WING	Pacific Telephone Directory
1955	CHIN HO MRS R	The Pacific Telephone & Telegraph Co.
623 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	cock Henry G Josephine lab H	R.L. Polk and Co of California

FINDINGS

624 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	CHAN F	Pacific Telephone Directory

625 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	JEX LEONARD MRS DREYER CLINTON	Pacific Telephone Directory Pacific Telephone Directory
1928	Bowes Edwin pkr R pi John R Sarah driver H	R.L. Polk and Co of California R.L. Polk and Co of California
1925	BOWES MRS J R R	R. L. Polk & Co. of California

627 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Leandro Wm E Violet A Imbr H	R.L. Polk and Co of California

628 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	HO JAS	Pacific Telephone Directory
1955	KAHLER CHAS R	The Pacific Telephone & Telegraph Co.
1928	C Lena wid Chas H	R.L. Polk and Co of California
1925	KAHLER CHAS R	R. L. Polk & Co. of California

629 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	JOHNSON Albt Elsie auto mech H	R.L. Polk and Co of California

631 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	ROSE GEO F JR	Pacific Telephone Directory
1955	ROSE GEO F JR R	The Pacific Telephone & Telegraph Co.

635 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	WILLIAMSON STANLEY R	Pacific Telephone Directory
1955	MILLER KEITH S	The Pacific Telephone & Telegraph Co.

641 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	WARD BOB	Pacific Telephone Directory
1955	MULLEN ROBT G MOORE MELVIN A	The Pacific Telephone & Telegraph Co. The Pacific Telephone & Telegraph Co.

FINDINGS

643 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	RUSSELL E J R	The Pacific Telephone & Telegraph Co.

651 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	METCALFE MARY E	Pacific Telephone Directory
	METCALFE JAS H	Pacific Telephone Directory
1955	ROGERS F A	The Pacific Telephone & Telegraph Co.

653 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	NOLL ROBT E	The Pacific Telephone & Telegraph Co.

701 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Jung N	PACIFIC BELL WHITE PAGES
1970	LEWIS WM A	Pacific Telephone Directory
	JUNG NELLIE	Pacific Telephone Directory
1955	YOUNG WANDA B R	The Pacific Telephone & Telegraph Co.
	COWGILL GEO WM	The Pacific Telephone & Telegraph Co.
1925	WONG GING R	R. L. Polk & Co. of California

703 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LEE PAUL S	Pacific Telephone Directory
1928	Bun Chee C slsmn L B Low R	R.L. Polk and Co of California

705 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BANKS DAVID A	Pacific Telephone Directory
1955	WILLIAMSON ALICE M R	The Pacific Telephone & Telegraph Co.
	WILLIAMSON R BILL R	The Pacific Telephone & Telegraph Co.
1928	mont Viralnia sten Owynn Wright Co R	R.L. Polk and Co of California
	R	R.L. Polk and Co of California
	tonio Jos dry gds	R.L. Polk and Co of California

707 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LUM JOE	Pacific Telephone Directory
1955	LUM JOE R	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	CHOY MON HON R	R. L. Polk & Co. of California
708 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	KWONG CHING	Pacific Telephone Directory
1955	WONG KERN	The Pacific Telephone & Telegraph Co.
	WONG OY R	The Pacific Telephone & Telegraph Co.
709 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	HOLMES HAROLD I	Pacific Telephone Directory
1955	HOLMES HAROLD I	The Pacific Telephone & Telegraph Co.
710 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	WONG HAY WM	Pacific Telephone Directory
711 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	STROMBERG F W R	R. L. Polk & Co. of California
712 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	RICKY S AUTO REPAIR	Pacific Telephone Directory
713 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BORREANI C	Pacific Telephone Directory
1955	TSANG H P R	The Pacific Telephone & Telegraph Co.
	BORREANI C R	The Pacific Telephone & Telegraph Co.
715 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	MEDEARIS LESTER E	Pacific Telephone Directory
1955	SOO HOO DONALD R	The Pacific Telephone & Telegraph Co.
1925	GRAHAM L MYRTLE R	R. L. Polk & Co. of California
	JOHNSON H D R	R. L. Polk & Co. of California
	THOMPSON E C R	R. L. Polk & Co. of California

FINDINGS

717 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	CONLEY ROBT	Pacific Telephone Directory
1955	LUM YUEN	The Pacific Telephone & Telegraph Co.
	CONLEY ROBERT R	The Pacific Telephone & Telegraph Co.
1925	WEST WALTER J R	R. L. Polk & Co. of California

719 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	ALFORNO M	Pacific Telephone Directory
1955	CHEW BOCK HONG	The Pacific Telephone & Telegraph Co.
	ALFORNO M	The Pacific Telephone & Telegraph Co.
1925	REGALIA CHAS R	R. L. Polk & Co. of California
	DALE MRS C R	R. L. Polk & Co. of California

720 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	ALBANY CITY OF	Pacific Telephone Directory
1955	VISTA SCHOOL BD OF EDUCATION	The Pacific Telephone & Telegraph Co.

722 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LEE GUEY K	Pacific Telephone Directory
	CHIN JIMMIE	Pacific Telephone Directory
	CHAN CHOI SHEUNG	Pacific Telephone Directory

723 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	HAN SUNGJOO	Pacific Telephone Directory
1955	CRIPPS J R R	The Pacific Telephone & Telegraph Co.
	FONG ALYCE R	The Pacific Telephone & Telegraph Co.

725 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	LEONG YOW	The Pacific Telephone & Telegraph Co.

727 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BENJAMINS THEO	Pacific Telephone Directory
1955	STAPLES L S	The Pacific Telephone & Telegraph Co.
1928	way Pong restrwkr R	R.L. Polk and Co of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	PARKER MRS NORVAL R	R. L. Polk & Co. of California
729 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	BROOKS M E R	R. L. Polk & Co. of California
731 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	JAHRL ODLN J R	The Pacific Telephone & Telegraph Co.
733 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	DAVIS FLORA R	The Pacific Telephone & Telegraph Co.
737 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	TANER M O	Pacific Telephone Directory
1955	GREEN JAMES MRS R	The Pacific Telephone & Telegraph Co.
1925	GREEN MRS JAMES R	R. L. Polk & Co. of California
738 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	HRITZ JOHN R	The Pacific Telephone & Telegraph Co.
739 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	AGUIRRE W M	Pacific Telephone Directory
1955	SAVAGE S A R	The Pacific Telephone & Telegraph Co.
741 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	ELY JOE	Pacific Telephone Directory
1955	ELY JOE	The Pacific Telephone & Telegraph Co.
742 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	GOLDSMITH LYDIA T	Pacific Telephone Directory
1955	LOTSPEICH LEO J R	The Pacific Telephone & Telegraph Co.

FINDINGS

743 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BRASEN G N	Pacific Telephone Directory
1955	BRASEN G N R	The Pacific Telephone & Telegraph Co.

746 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	HOCKANSON ROBT W	Pacific Telephone Directory

747 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	POKORNY J R MRS	Pacific Telephone Directory

750 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	TALLERICO SAM	Pacific Telephone Directory
1955	TALLERICO SAM	The Pacific Telephone & Telegraph Co.

801 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	TORRES SAUL	Pacific Telephone Directory

802 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	DECKER EDW D	Pacific Telephone Directory
	DECKER JOAN C	Pacific Telephone Directory
1955	NEELY ANNE MRS	The Pacific Telephone & Telegraph Co.

805 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	POLETTI FRANK	Pacific Telephone Directory
1955	POLETTI FRANK R	The Pacific Telephone & Telegraph Co.
1925	POLETTI FRANK R	R. L. Polk & Co. of California

806 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	KELLEY MICHAEL C	Pacific Telephone Directory
1955	SIVEMARK DAGMAR	The Pacific Telephone & Telegraph Co.
	POON MAMIE R	The Pacific Telephone & Telegraph Co.
	LOW HON KEUNG	The Pacific Telephone & Telegraph Co.
1928	Gernant John Z Florence sta mstr SPCo H	R.L. Polk and Co of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	GERNANT J R	R. L. Polk & Co. of California
	WILLIAMS GRIFFITH R	R. L. Polk & Co. of California

807 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	CHILDS GEO R	Pacific Telephone Directory
	CHUN WAY	Pacific Telephone Directory
	HOM ROGER WONG	Pacific Telephone Directory
	SHINTAKU TOMEKO MRS	Pacific Telephone Directory
	TSUBOI SHIZU	Pacific Telephone Directory
	TSUKIMURA EIKO MRS	Pacific Telephone Directory
	YOUNG WAH FANG	Pacific Telephone Directory
1955	ASANO MOICHI	The Pacific Telephone & Telegraph Co.
	CHAFFEE LILLIAN R	The Pacific Telephone & Telegraph Co.
	HOLLENBECK FERN MRS R	The Pacific Telephone & Telegraph Co.
	HUFF JACK F R	The Pacific Telephone & Telegraph Co.
	MOUNTFORD MADGE R	The Pacific Telephone & Telegraph Co.
	MURPHY LOUISE MRS	The Pacific Telephone & Telegraph Co.
	PETTIT ELEANOR R	The Pacific Telephone & Telegraph Co.
	SABATONI AVY R	The Pacific Telephone & Telegraph Co.
	TOM WING M	The Pacific Telephone & Telegraph Co.
	WILLIAMS JAS R	The Pacific Telephone & Telegraph Co.
	YAMAMOTO EIJI	The Pacific Telephone & Telegraph Co.
1928	Morse PH E slsmn Okld Pioneer Soda Water Co H	R.L. Polk and Co of California
	Grove Jessle M H	R.L. Polk and Co of California
	h Geo H	R.L. Polk and Co of California
	Thos H	R.L. Polk and Co of California
	Apartments	R.L. Polk and Co of California
	Kent C E H	R.L. Polk and Co of California
	h H P H	R.L. Polk and Co of California
	Langevin Phileas Annie driver H	R.L. Polk and Co of California
	Margonine Anna Mrs slswmn R	R.L. Polk and Co of California
	Margonine Irwin clk Farmers Produce Corp R	R.L. Polk and Co of California
	H Edw R	R.L. Polk and Co of California
	ington Thelma Mrs credit mgr Silvers Inc R	R.L. Polk and Co of California
	9 John C slsmn Jackson Purn Co R	R.L. Polk and Co of California
	inal Wm S ship elk Electric Corp H	R.L. Polk and Co of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	JACKSON APARTMENTS	R. L. Polk & Co. of California
809 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	STURGEON JAS	Pacific Telephone Directory
1955	DAVIES J L	The Pacific Telephone & Telegraph Co.
1928	Jos Patk lab R	R.L. Polk and Co of California
810 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	MAYO W B	Pacific Telephone Directory
811 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	HILL CLARENCE A	Pacific Telephone Directory
1955	KNOTT T CLIFTON	The Pacific Telephone & Telegraph Co.
814 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	SMITH JOHN S	Pacific Telephone Directory
1955	SMITH JOHN S R	The Pacific Telephone & Telegraph Co.
815 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	CASEY PATRICK M	Pacific Telephone Directory
817 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	DONOVAN D N	Pacific Telephone Directory
1955	LUCHESSA CHESTER M	The Pacific Telephone & Telegraph Co.
818 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	AKACICH STANLEY	Pacific Telephone Directory
1955	AKACICH STANLEY	The Pacific Telephone & Telegraph Co.
819 JACKSON		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	PADGETT WM E	Pacific Telephone Directory

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820 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	GRAUL ROBT J	The Pacific Telephone & Telegraph Co.

821 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	YOUNG KENT K	Pacific Telephone Directory
1955	CELLI HENRY J	The Pacific Telephone & Telegraph Co.

824 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	RUSSELL E H MRS	Pacific Telephone Directory
1955	RUSSELL E H MRS	The Pacific Telephone & Telegraph Co.

825 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BUDDHIST CHURCH OF OAKLAND	Pacific Telephone Directory
	BUDDHIST CHURCH OF OAKLAND	Pacific Telephone Directory
1955	BUDDHIST CHURCH OF OAKLAND	The Pacific Telephone & Telegraph Co.
	BUDDHIST CHURCH OF OAKLAND	The Pacific Telephone & Telegraph Co.

827 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	HAMANN W A	Pacific Telephone Directory
1955	HAMANN W A	The Pacific Telephone & Telegraph Co.

829 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	TORREZ LUPE F	Pacific Telephone Directory
1955	AVENINGO WM J R	The Pacific Telephone & Telegraph Co.
1925	IVERSEN OLAF R	R. L. Polk & Co. of California

830 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	JOHNSON ERNEST B METL WEATHR STRIPPNG	Pacific Telephone Directory
1955	JOHNSON ERNEST B METAL WEATHER STRIPPING	The Pacific Telephone & Telegraph Co.
1925	CLEGG HARRY N R	R. L. Polk & Co. of California

FINDINGS

833 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	STOLTIE CECIL	Pacific Telephone Directory
1955	MCCORMICK JAS F	The Pacific Telephone & Telegraph Co.
1925	DIEHL MRS ROSA E R	R. L. Polk & Co. of California

834 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	ATWOOD DAVE	Pacific Telephone Directory
1955	ATWOOD DAVE R	The Pacific Telephone & Telegraph Co.

835 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	CREIGHTON ORVILLE D	Pacific Telephone Directory
	DENMAN ERNESTINE L	Pacific Telephone Directory

836 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	MATHESON JON J	Pacific Telephone Directory
1955	FEIST DORA MRS R	The Pacific Telephone & Telegraph Co.

837 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	AGUIRRE YOLANDA M	Pacific Telephone Directory
1955	ACCORNERO B G R	The Pacific Telephone & Telegraph Co.

838 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	MUTHA S C	Pacific Telephone Directory
1955	EVERINGTON EDW	The Pacific Telephone & Telegraph Co.

841 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	MARASCO JENNIE	Pacific Telephone Directory
1955	MARASCO JENNIE	The Pacific Telephone & Telegraph Co.

842 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	WEBER EDWIN	Pacific Telephone Directory
1955	WEBER EDWIN R	The Pacific Telephone & Telegraph Co.

FINDINGS

843 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	VARE O F CAPT	Pacific Telephone Directory
1955	VARE OSCAR F R	The Pacific Telephone & Telegraph Co.

844 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	MCQUINN FRANCES	Pacific Telephone Directory
	BIVIN K	Pacific Telephone Directory
1955	WILLIAMS NELLIE V R	The Pacific Telephone & Telegraph Co.
1925	BECK H R	R. L. Polk & Co. of California

845 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BIASOTTI JOHN B	Pacific Telephone Directory
1955	BIASOTTI JOHN B R	The Pacific Telephone & Telegraph Co.
1928	side Edw C electn H	R.L. Polk and Co of California
	Beaudry John mach R	R.L. Polk and Co of California
1925	DALTON E C R	R. L. Polk & Co. of California

848 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	WALTHER FRED H	Pacific Telephone Directory
1955	TRUEMAN ROBT	The Pacific Telephone & Telegraph Co.

900 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	NOLAN JERRY R	The Pacific Telephone & Telegraph Co.

901 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	KOCHENDORFER J	Pacific Telephone Directory
1955	SMITH M MRS	The Pacific Telephone & Telegraph Co.

903 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	RODRIGUEZ DANL	Pacific Telephone Directory
1955	FITZGERALD GLORIA	The Pacific Telephone & Telegraph Co.

904 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	YOCUM I G	The Pacific Telephone & Telegraph Co.

FINDINGS

905 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	TORTORICE PETE	The Pacific Telephone & Telegraph Co.

907 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	KASAI SAM	Pacific Telephone Directory
1955	GRALISH G M	The Pacific Telephone & Telegraph Co.

908 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	MARICH DOROTHY	The Pacific Telephone & Telegraph Co.
	LARIMORE B E MRS	The Pacific Telephone & Telegraph Co.

909 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	NESBITT VIOLET	Pacific Telephone Directory
1955	NESBITT VIOLET	The Pacific Telephone & Telegraph Co.

910 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	ZWEIG ADELINE	The Pacific Telephone & Telegraph Co.

911 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	COLLIER LEROY V	Pacific Telephone Directory
1955	WEST WYNONA B	The Pacific Telephone & Telegraph Co.

912 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	GIBLIN ROBT M	Pacific Telephone Directory
1955	FIELDING ROBT O III R	The Pacific Telephone & Telegraph Co.

913 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BURKLUND R	Pacific Telephone Directory
1955	STAEHLI ROBT L	The Pacific Telephone & Telegraph Co.

915 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	HALAZ PAUL M JR R	The Pacific Telephone & Telegraph Co.

FINDINGS

916 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	CORREIA JOHN	Pacific Telephone Directory
1955	S & P INVENTORY SERVICE SCHLOSBERG THEO A R	The Pacific Telephone & Telegraph Co. The Pacific Telephone & Telegraph Co.

917 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	GALAWAY C V	Pacific Telephone Directory
1955	STORM ALBERT J JR	The Pacific Telephone & Telegraph Co.

918 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	RINTOUL WALTER S	Pacific Telephone Directory
1955	RINTOUL WALTER S R	The Pacific Telephone & Telegraph Co.

919 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	SELVAGGI IDA	Pacific Telephone Directory
1955	ZICKEFOOSE JACK R	The Pacific Telephone & Telegraph Co.

920 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LINDH ARTHUR S	Pacific Telephone Directory
1955	LINDH ARTHUR S R	The Pacific Telephone & Telegraph Co.

921 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	SULTAN ERIC G	Pacific Telephone Directory
1955	YOST G EILEEN MRS	The Pacific Telephone & Telegraph Co.

923 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LEATH ANN	Pacific Telephone Directory

924 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	SHORT EDNA E	The Pacific Telephone & Telegraph Co.

925 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	HOWARD OPAL W	The Pacific Telephone & Telegraph Co.

FINDINGS

926 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	VON LANGWORTH GLADYS	Pacific Telephone Directory
1955	VON LANGWORTH GLADYS	The Pacific Telephone & Telegraph Co.

927 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LUTY R F	Pacific Telephone Directory
1955	UMBERGER W P R	The Pacific Telephone & Telegraph Co.

928 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	WEE LEO TOM	Pacific Telephone Directory
	MEW FRANK	Pacific Telephone Directory
	CHAN CONNIE	Pacific Telephone Directory

929 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LYON TROY R	Pacific Telephone Directory
1955	VILLA ROSA MRS R	The Pacific Telephone & Telegraph Co.

931 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	SCHMIDT FRED MRS	Pacific Telephone Directory

933 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	WILSON HOWARD M JR	Pacific Telephone Directory
	SORTILE V MRS	Pacific Telephone Directory
	MIZUTANI HENRY Y	Pacific Telephone Directory
	COLEMAN SUSAN J	Pacific Telephone Directory

934 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	PARKANS STEPHEN R	The Pacific Telephone & Telegraph Co.

935 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	MCDANIEL L M	Pacific Telephone Directory
1955	PIERCE RICHARD M	The Pacific Telephone & Telegraph Co.

FINDINGS

936 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	RICHARD FRANK	Pacific Telephone Directory
1955	KAHLER JOHN R R	The Pacific Telephone & Telegraph Co.

937 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	SCHUMACHER FRED E	Pacific Telephone Directory
1955	SCHUMACHER FRED E R	The Pacific Telephone & Telegraph Co.

938 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	KERLEE JOY H	Pacific Telephone Directory
	HALVERSON MELVIN	Pacific Telephone Directory
1955	LEFFLER H P	The Pacific Telephone & Telegraph Co.

940 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	KILKER D T	Pacific Telephone Directory
1955	KILKER D T R	The Pacific Telephone & Telegraph Co.

941 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	RABEI MAHMOUD	Pacific Telephone Directory
1955	REECE LEWIS R	The Pacific Telephone & Telegraph Co.

943 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	CASTELLI LAWRENCE J	Pacific Telephone Directory
1955	TOULI C L	The Pacific Telephone & Telegraph Co.

944 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	KEHRIOTIS JAS G MRS	Pacific Telephone Directory
1955	KEHRIOTIS JAS G R	The Pacific Telephone & Telegraph Co.

945 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	ROGERS WM	Pacific Telephone Directory
1955	ROGERS WM R	The Pacific Telephone & Telegraph Co.

FINDINGS

946 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	INGENTHON WALTER W JR	Pacific Telephone Directory
1955	BRISSEY ROY	The Pacific Telephone & Telegraph Co.

947 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	DAWE CHAS	The Pacific Telephone & Telegraph Co.

949 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	MACHADO ERNEST M	Pacific Telephone Directory

951 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	SELBY JOHN D	Pacific Telephone Directory
1955	JEWELL MARION E	The Pacific Telephone & Telegraph Co.

953 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	HOWELL JERRY C	Pacific Telephone Directory
1955	HANSEN NICK	The Pacific Telephone & Telegraph Co.

955 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	ORTIZ CARMEN	The Pacific Telephone & Telegraph Co.

961 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	av Geo R	R.L. Polk and Co of California
	h Carl R	R.L. Polk and Co of California
	B Win R	R.L. Polk and Co of California
	Henriksen A R	R.L. Polk and Co of California
	DOUGHERTY Jas H	R.L. Polk and Co of California
	B Harry R	R.L. Polk and Co of California
	H David R	R.L. Polk and Co of California
1925	MCGILL GEO R	R. L. Polk & Co. of California

965 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	n Thos gdnr R	R.L. Polk and Co of California
	Co Milton A R	R.L. Polk and Co of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Bayne Howard W Cecelia mech PG&ECo R	R.L. Polk and Co of California
	Rubber Edwin J R	R.L. Polk and Co of California
	Cochennette Frank lab R	R.L. Polk and Co of California
	rr Chas L Mary H	R.L. Polk and Co of California
1925	MCCRAY C D R	R. L. Polk & Co. of California

969 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	N Clara M Mrs H	R.L. Polk and Co of California
	r Peter Gertrude clk C F Honeywell & Co H	R.L. Polk and Co of California
	graph John printer R	R.L. Polk and Co of California
1925	BROWN MRS C R	R. L. Polk & Co. of California

972 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	KILTZ NATALIE G	The Pacific Telephone & Telegraph Co.
1928	54th John O H	R.L. Polk and Co of California
	Co C L Mrs H	R.L. Polk and Co of California
	h Geo Mary cementwkr H	R.L. Polk and Co of California
	Wiedeman Susan E H	R.L. Polk and Co of California
1925	THOMAS GEO R	R. L. Polk & Co. of California

616 1/2 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	TANG FU	Pacific Telephone Directory
1955	LEW GEO R	The Pacific Telephone & Telegraph Co.

811 1/2 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	COX DOROTHY M	Pacific Telephone Directory
1955	CRANDALL RAYMOND A	The Pacific Telephone & Telegraph Co.

819 1/2 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	FENNELL B J	The Pacific Telephone & Telegraph Co.

833 1/2 JACKSON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	DASHIELL FREDERICK K JR	Pacific Telephone Directory

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	DOOLEY JESSIE W MRS	The Pacific Telephone & Telegraph Co.

JACKSON AVE

701 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Lewis Wm A	PACIFIC BELL WHITE PAGES
1986	Lewis Wm A	PACIFIC BELL WHITE PAGES
1980	Lewis Wm A	Pacific Telephone
1950	CLIPCHASE CHLESTER G R	The Pacific Telephone & Telegraph Co.

705 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Kahn Michael	PACIFIC BELL WHITE PAGES
	Kahn Mollie & Steve	PACIFIC BELL WHITE PAGES
1980	Brown Mike J	Pacific Telephone

713 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Borregard Betsy	PACIFIC BELL WHITE PAGES
	Borreani C	PACIFIC BELL WHITE PAGES
1986	Borregard B	PACIFIC BELL WHITE PAGES
	Borreani C	PACIFIC BELL WHITE PAGES
1980	Borreani C	Pacific Telephone
1975	BORREANI C	Pacific Telephone

717 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Conley Robt	PACIFIC BELL WHITE PAGES
1986	Conley Robt	PACIFIC BELL WHITE PAGES
1980	Conley Robt	Pacific Telephone

719 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Smith Mona R MS MFCC thrpst	PACIFIC BELL WHITE PAGES
	Smith Mona	PACIFIC BELL WHITE PAGES
1986	Smith Mona	PACIFIC BELL WHITE PAGES
	Smith Mongo	PACIFIC BELL WHITE PAGES
	Smith Mona R MS MFCC thrpst	PACIFIC BELL WHITE PAGES
1980	Whittemore Don	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Smith Mona	Pacific Telephone

720 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Vista School	PACIFIC BELL WHITE PAGES
1980	Vista School	Pacific Telephone
1950	VISTA SCHOOL	The Pacific Telephone & Telegraph Co.

723 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Drulis Gall & Chuck	PACIFIC BELL WHITE PAGES
1986	Slichter K C & Ann	PACIFIC BELL WHITE PAGES
	Slichter M J	PACIFIC BELL WHITE PAGES
1980	Brown Keith Mrs	Pacific Telephone
1950	CRIPPS J R R	The Pacific Telephone & Telegraph Co.

727 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Benjamins Theo	PACIFIC BELL WHITE PAGES
1980	Benjamins Theo	Pacific Telephone
1950	PARKER NORVAL R	The Pacific Telephone & Telegraph Co.

731 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	JOUR ODIN J R	The Pacific Telephone & Telegraph Co.
1928	Gaskill Jos H Wynne estimator H	R.L. Polk and Co of California

733 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Lydon Richard M	Pacific Telephone

737 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Taner M O	Pacific Telephone

739 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Rotman Kenneth	PACIFIC BELL WHITE PAGES
1986	Rotman Kenneth	PACIFIC BELL WHITE PAGES
1980	Burgess J M	Pacific Telephone
1945	GREATHOUSE E A R	The Pacific Telephone & Telegraph Co.

FINDINGS

741 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Ely Joe	Pacific Telephone

742 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Goldsmith M	PACIFIC BELL WHITE PAGES
	Goldsmith Lydia T	PACIFIC BELL WHITE PAGES
1986	Goldsmith Lydia T	PACIFIC BELL WHITE PAGES
1980	Goldsmith Lydia T	Pacific Telephone
1950	LOTSPEICH LEO R	The Pacific Telephone & Telegraph Co.

743 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Sorensen Marc	PACIFIC BELL WHITE PAGES
	Sorensen Marion	PACIFIC BELL WHITE PAGES

747 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Pokorny J R Mrs	Pacific Telephone

750 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Granada Associates	PACIFIC BELL WHITE PAGES
1980	Tallerico Sam	Pacific Telephone

771 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Gran Tree Furniture Rental	PACIFIC BELL WHITE PAGES
	Gran Tree Furniture	PACIFIC BELL WHITE PAGES

775 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	HAYWARD BUILDING MATERIALS CO	The Pacific Telephone & Telegraph Co.
	CLEMENTS & CO GEN CONTR	The Pacific Telephone & Telegraph Co.

800 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Hayward Store	PACIFIC BELL WHITE PAGES
1986	Hayward Store	PACIFIC BELL WHITE PAGES
1980	Hayward Store	Pacific Telephone

FINDINGS

801 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Carson N	PACIFIC BELL WHITE PAGES
1986	Carson N	PACIFIC BELL WHITE PAGES
1980	Carson N	Pacific Telephone
1950	BUTILER KARL W MRS R	The Pacific Telephone & Telegraph Co.

802 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Dokic John & Vera	PACIFIC BELL WHITE PAGES
1980	Dokic John & Vera	Pacific Telephone
1950	SMITH OLIVER L R	The Pacific Telephone & Telegraph Co.

805 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Giganti Paul Jr	PACIFIC BELL WHITE PAGES
1986	Giganti Paul Jr	PACIFIC BELL WHITE PAGES
	Giger J	PACIFIC BELL WHITE PAGES
1980	Giganti Paul Jr	Pacific Telephone
	Peter & Pauls Parts	Pacific Telephone

806 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	I Dulka Matthew	PACIFIC BELL WHITE PAGES
	Duley H	PACIFIC BELL WHITE PAGES
	Dulberg N	PACIFIC BELL WHITE PAGES
1980	Sidun Thos	Pacific Telephone
	Loeffler S	Pacific Telephone

807 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	HOLLENBECK FERN MRS R	The Pacific Telephone & Telegraph Co.
	MC KNIGHT PETER G R	The Pacific Telephone & Telegraph Co.
	PETTIT ELEANOR R	The Pacific Telephone & Telegraph Co.

810 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Oliver Andrew J	PACIFIC BELL WHITE PAGES
	Oliver Alfred C	PACIFIC BELL WHITE PAGES
	Oliver Anita	PACIFIC BELL WHITE PAGES
1986	Oliver Andrew J	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Oliver Alfred C	PACIFIC BELL WHITE PAGES
1980	Michell Carolyn	Pacific Telephone

811 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	L Wulfing Fax	PACIFIC BELL WHITE PAGES
	i Wulffraat Robert	PACIFIC BELL WHITE PAGES
	L Wtulffraat Vaughan K	PACIFIC BELL WHITE PAGES
1986	Reasoner Richard	PACIFIC BELL WHITE PAGES
1980	Hill Clarence A	Pacific Telephone
	Ahsing Chas K	Pacific Telephone
1950	BERRY JAS I R	The Pacific Telephone & Telegraph Co.

814 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Smith John S	Pacific Telephone
1950	SMITH JOHN S R	The Pacific Telephone & Telegraph Co.

815 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Johnson Lisa & Wayne	PACIFIC BELL WHITE PAGES
	Johnson Listen	PACIFIC BELL WHITE PAGES

817 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Ridge C M & M D	PACIFIC BELL WHITE PAGES
1986	Ridge C M & M D	PACIFIC BELL WHITE PAGES
1980	Rogers Jas W	Pacific Telephone
1950	LUCHESSA CHESTER M R	The Pacific Telephone & Telegraph Co.

818 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Akagi GK	PACIFIC BELL WHITE PAGES
	Akagi DM	PACIFIC BELL WHITE PAGES
	Akacich Stanley	PACIFIC BELL WHITE PAGES
1980	Akacich Stanley	Pacific Telephone

819 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Harvey John	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Wulffraat Robt	PACIFIC BELL WHITE PAGES
	Wulffraat Vaughan K	PACIFIC BELL WHITE PAGES
	Wuifs Portable Grinding	PACIFIC BELL WHITE PAGES
1980	Mill Don	Pacific Telephone
	Smith Craig	Pacific Telephone
	Wulffraat Robt	Pacific Telephone

821 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Graham Michael	Pacific Telephone
1950	HUGILL T A R	The Pacific Telephone & Telegraph Co.

824 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Harbo Teresa	PACIFIC BELL WHITE PAGES
1980	Harbo Teresa	Pacific Telephone
	Harbo Appliance Repair	Pacific Telephone

827 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Rubinate Dan	PACIFIC BELL WHITE PAGES
	Rubin Yoram & Atalya	PACIFIC BELL WHITE PAGES
1986	Hamann W A	PACIFIC BELL WHITE PAGES
	Hamano Stephen	PACIFIC BELL WHITE PAGES
1980	Hamann W A	Pacific Telephone

829 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Torrez Lupe F & Naomi E	PACIFIC BELL WHITE PAGES
1980	Torrez Lupe F & Naomi E	Pacific Telephone

830 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Slocum CL	PACIFIC BELL WHITE PAGES
1986	Johnson Ernest B	PACIFIC BELL WHITE PAGES
1980	Johnson Ernest B	Pacific Telephone

833 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Prior Janie	Pacific Telephone

FINDINGS

834 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Atwood D Mrs	Pacific Telephone

836 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Matheson Jon J	PACIFIC BELL WHITE PAGES
1986	Matheson Jon J	PACIFIC BELL WHITE PAGES
	Matheson Jon Jorg AIA	PACIFIC BELL WHITE PAGES
1980	Matheson Jon J	Pacific Telephone

837 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Richardson Talbot	PACIFIC BELL WHITE PAGES
1980	Richardson Talbot	Pacific Telephone

838 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Slocum C I	PACIFIC BELL WHITE PAGES

841 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Marasco Jennie	Pacific Telephone

842 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Weber Edwin	PACIFIC BELL WHITE PAGES
1980	Weber Edwin	Pacific Telephone

843 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Wang X	PACIFIC BELL WHITE PAGES
1986	Seibel D W	PACIFIC BELL WHITE PAGES
	Seibel D L	PACIFIC BELL WHITE PAGES
	Sehulster Margot artist	PACIFIC BELL WHITE PAGES
	Sehulster J	PACIFIC BELL WHITE PAGES
1980	Vare O F Capt	Pacific Telephone
	Summerly Karen	Pacific Telephone

844 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Phillips Macwain	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Phillips Maggie MS MFCC	PACIFIC BELL WHITE PAGES
	Phillips Margaret	PACIFIC BELL WHITE PAGES
1980	Petty Jas R	Pacific Telephone

845 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Goldman Steven	PACIFIC BELL WHITE PAGES
	Paradis Phillippe	PACIFIC BELL WHITE PAGES
	Goldman Steve	PACIFIC BELL WHITE PAGES
1980	Yanov Alexander	Pacific Telephone
1950	BIASOTTI A A R	The Pacific Telephone & Telegraph Co.

848 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Mohler Kenneth	PACIFIC BELL WHITE PAGES
	Mohler Timothy & Jackie	PACIFIC BELL WHITE PAGES
	Mohier Timothy J	PACIFIC BELL WHITE PAGES
1986	Rosenthal John	PACIFIC BELL WHITE PAGES
	Drach S	PACIFIC BELL WHITE PAGES
1980	Demmel Wayne	Pacific Telephone

900 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Chandler Raymond G	PACIFIC BELL WHITE PAGES
1980	Chandler Raymond G	Pacific Telephone
1950	NOLAN JERRY R	The Pacific Telephone & Telegraph Co.

901 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Genovese Vince	PACIFIC BELL WHITE PAGES
1980	Lewis Susan	Pacific Telephone

904 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Rueppel Bruce Jr	Pacific Telephone

907 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Kasalo C	PACIFIC BELL WHITE PAGES
	Kasai Yo	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Kasai Sam	PACIFIC BELL WHITE PAGES
1986	Kasai Yo	PACIFIC BELL WHITE PAGES
	Kasai Sam	PACIFIC BELL WHITE PAGES
1980	Kasai Sam	Pacific Telephone

909 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Yeung Norman T	PACIFIC BELL WHITE PAGES
1980	Nesbitt Violet	Pacific Telephone

910 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Giblin James A	PACIFIC BELL WHITE PAGES
1986	York Paula	PACIFIC BELL WHITE PAGES
1980	York Dennis	Pacific Telephone

911 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Morris Hal	PACIFIC BELL WHITE PAGES
	Oldenburg Michael	PACIFIC BELL WHITE PAGES
	Morris Gwen	PACIFIC BELL WHITE PAGES
1980	Oldenburg Michael	Pacific Telephone
	Morris Gwen	Pacific Telephone

912 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Giblin Robt M	PACIFIC BELL WHITE PAGES
1986	Giblin Robt M	PACIFIC BELL WHITE PAGES
1980	Giblin Robt M	Pacific Telephone

913 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Burklund R	PACIFIC BELL WHITE PAGES
1986	BSurklund R	PACIFIC BELL WHITE PAGES
1980	Burklund R	Pacific Telephone
1950	DRUCKER MAXIMN R	The Pacific Telephone & Telegraph Co.

915 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Cummings E J	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Kauffman Boone	PACIFIC BELL WHITE PAGES
	Cummings E	PACIFIC BELL WHITE PAGES
	Cummings Dutch	PACIFIC BELL WHITE PAGES
	Cummings Dian	PACIFIC BELL WHITE PAGES
916 JACKSON AVE		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Correia N	Pacific Telephone
917 JACKSON AVE		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Protzen J P	PACIFIC BELL WHITE PAGES
	Protus Mark	PACIFIC BELL WHITE PAGES
919 JACKSON AVE		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Crary A	Pacific Telephone
920 JACKSON AVE		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Lindh I	PACIFIC BELL WHITE PAGES
	Lindh Arthur S	PACIFIC BELL WHITE PAGES
1980	Lindh Arthur S	Pacific Telephone
923 JACKSON AVE		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Leath Marcia	PACIFIC BELL WHITE PAGES
	Leath DA	PACIFIC BELL WHITE PAGES
	Leath G	PACIFIC BELL WHITE PAGES
	Leath Leonard	PACIFIC BELL WHITE PAGES
1986	Leath D A	PACIFIC BELL WHITE PAGES
	Leath G	PACIFIC BELL WHITE PAGES
1980	Leath D A	Pacific Telephone
924 JACKSON AVE		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Turturice A	PACIFIC BELL WHITE PAGES
1980	Turturice A	Pacific Telephone
1950	BOETTGER E W R	The Pacific Telephone & Telegraph Co.

FINDINGS

927 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Luty R F	PACIFIC BELL WHITE PAGES
1986	Luty R F	PACIFIC BELL WHITE PAGES
	Lutz Breck	PACIFIC BELL WHITE PAGES
1980	Luty R F	Pacific Telephone
1950	UMBERGER W P R	The Pacific Telephone & Telegraph Co.

929 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Lyon Troy R	Pacific Telephone
1950	VILLA ROSA MRS R	The Pacific Telephone & Telegraph Co.

931 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Baker Wm R Dr	Pacific Telephone

933 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Brenner Dorit	PACIFIC BELL WHITE PAGES
	Snyder Barry & Wendy	PACIFIC BELL WHITE PAGES
	Snyder Barry & Susan	PACIFIC BELL WHITE PAGES
	Mizutani Sachi	PACIFIC BELL WHITE PAGES
	Mizutani Henry Y	PACIFIC BELL WHITE PAGES
1986	Genievich Jos F	PACIFIC BELL WHITE PAGES
	Mizutani Henry Y	PACIFIC BELL WHITE PAGES
1980	Gallup K	Pacific Telephone
	Mizutani Henry Y	Pacific Telephone
	Ruderman Rick	Pacific Telephone
	Saul Russell J	Pacific Telephone
	Genievich Jos F	Pacific Telephone

934 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	PARKANS STEPHEN R	The Pacific Telephone & Telegraph Co.

935 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Mc Daniel Lawrence ill OBerkeley Wy Brk	PACIFIC BELL WHITE PAGES
	Mc Daniel L M	PACIFIC BELL WHITE PAGES
1986	Mc Daniel L M	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Mc Daniel L M	Pacific Telephone

936 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Martinez R	PACIFIC BELL WHITE PAGES
	Martinez R	PACIFIC BELL WHITE PAGES
	Martinez R&C	PACIFIC BELL WHITE PAGES
	Martinez R	PACIFIC BELL WHITE PAGES
	Martinez Phillipd	PACIFIC BELL WHITE PAGES
1986	Martinez R D	PACIFIC BELL WHITE PAGES
	Martinez R	PACIFIC BELL WHITE PAGES
	Martinez Phillip J	PACIFIC BELL WHITE PAGES
1980	Martinez Phillip J	Pacific Telephone

937 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Chambers Stephen	PACIFIC BELL WHITE PAGES
1986	Chambers T	PACIFIC BELL WHITE PAGES
	Chambers Stephen	PACIFIC BELL WHITE PAGES
1980	Chambers Stephen	Pacific Telephone

938 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Savitt D V	PACIFIC BELL WHITE PAGES
	Savitz S	PACIFIC BELL WHITE PAGES
	Savitala Murty	PACIFIC BELL WHITE PAGES
1986	Halverson Melvin	PACIFIC BELL WHITE PAGES
	Halverson N C	PACIFIC BELL WHITE PAGES
	Halverson Steven	PACIFIC BELL WHITE PAGES
	Halvonik Deborah	PACIFIC BELL WHITE PAGES
1980	Halverson Melvin	Pacific Telephone

940 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Kim Yong Kook	PACIFIC BELL WHITE PAGES
1986	Kim Yong Kook	PACIFIC BELL WHITE PAGES
1980	Kim Yong Kook	Pacific Telephone
1950	KILKER D T R	The Pacific Telephone & Telegraph Co.

FINDINGS

941 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Maynard Reggie	Pacific Telephone

943 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	TOULI C L R	The Pacific Telephone & Telegraph Co.

944 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Kehrlotis Virginia	PACIFIC BELL WHITE PAGES
1986	Kehriotis Virginia	PACIFIC BELL WHITE PAGES
	Kel Wing	PACIFIC BELL WHITE PAGES
1980	Kehriotis Virginia	Pacific Telephone
1950	KEHRIOTIS JAS C R	The Pacific Telephone & Telegraph Co.

946 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Ingerman & Associates Inc plngng constnts Nicasio	PACIFIC BELL WHITE PAGES
	Inger P	PACIFIC BELL WHITE PAGES
	Ingenthron Walter W Jr	PACIFIC BELL WHITE PAGES
1980	Ingenthron Walter W Jr	Pacific Telephone

947 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Stillerman Lori	PACIFIC BELL WHITE PAGES
	Stillion Ann Marie	PACIFIC BELL WHITE PAGES
	Smith Garrett	PACIFIC BELL WHITE PAGES

948 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Sharp W D	PACIFIC BELL WHITE PAGES
1980	Sharp W D	Pacific Telephone

949 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Ahn Peter P Rev	Pacific Telephone

950 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Rojo Robert	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Rok Wm	PACIFIC BELL WHITE PAGES

951 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Orona Roberta	Pacific Telephone

953 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	MULOCK CHAS SR R	The Pacific Telephone & Telegraph Co.

961 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	WILFIAMSON ROBERT P R	The Pacific Telephone & Telegraph Co.

972 JACKSON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	TIIOMTIAS MARY D R	The Pacific Telephone & Telegraph Co.

JACKSON CT

601 JACKSON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	BOILERIALSER WELDERS UTTION LOCAL 681	The Pacific Telephone & Telegraph Co.

614 JACKSON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	WOANG GEO Q R	The Pacific Telephone & Telegraph Co.

616 JACKSON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	MOY FONG M R	The Pacific Telephone & Telegraph Co.

625 JACKSON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LOUIE HARRY R	The Pacific Telephone & Telegraph Co.

707 JACKSON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LUM JOE R	The Pacific Telephone & Telegraph Co.

FINDINGS

807 JACKSON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	CHILDS GEO R	Pacific Telephone
1950	IIGLIAMI MI W R	The Pacific Telephone & Telegraph Co.

965 JACKSON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	JAMES DAVID R	The Pacific Telephone & Telegraph Co.

JACKSON ST

601 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	LOPEZ DAVID I	Pacific Bell
	HABIB RAHIM	Pacific Bell
1996	JACKSON STREET STUDIOS	PACIFIC BELL DIRECTORY
	DOWN TO EARTH RECORDS	PACIFIC BELL DIRECTORY
1992	BOOM TOWN STUDIOS	PACIFIC BELL DIRECTORY
	JACKSON STREET STUDIOS	PACIFIC BELL DIRECTORY
	MCCLERNON MICHAEL	PACIFIC BELL DIRECTORY
1991	Mc Cleskey G	PACIFIC BELL WHITE PAGES
	Mc Clernon Michael	PACIFIC BELL WHITE PAGES
	Jackson Street Studios	PACIFIC BELL WHITE PAGES
1967	FRERE JACQUES CATERING	R. L. Polk Co.
	VACANT	R. L. Polk Co.
1962	Csajko John J Frere Jacques Catrng Serv	Pacific Telephone
	FRERE JACQUES CATERING SERVICE	Pacific Telephone
	Simmonds Frederick H Frere Jacques Catrng Serv	Pacific Telephone
	JACQUES FRERE CATERING SERVICE	Pacific Telephone
1945	BOILERMAKER WELDERS UNION LOCAL 681	The Pacific Telephone & Telegraph Co.
1938	WANTO GAKUYEN JAPANESE SCHOOL	Pacific Telephone

602 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	JONES HOWARD J	R. L. Polk Co.

603 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	MENDEL HILDA MRS	R. L. Polk Co.

FINDINGS

604 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	VACANT	R. L. Polk Co.

605 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	MILLER HARRY E	R. L. Polk Co.

606 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	CROCKER GEO	R. L. Polk Co.
	GREVEL EUG A	R. L. Polk Co.

607 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	ROGERS ISAAC C	R. L. Polk Co.
1933	JAPANESE AMERICAN SOCIETY OF OAKLAND ICHIRO ENDO PRES	R. L. Polk & Co.
	ENDO ICHIRO PRES JAPANESE AMERICAN SOC R	R. L. Polk & Co.

608 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	POMFRET WILFRED R	R. L. Polk Co.

609 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Lakora Club	PACIFIC BELL WHITE PAGES
1980	On On Noodle Co	Pacific Telephone
1967	GROVE VALERIE V MPS	R. L. Polk Co.

610 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	MITCHENER CLAIR MRS	R. L. Polk Co.

611 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	VACANT	R. L. Polk Co.

612 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CHIN Keith	Haines Company, Inc.
1992	CHIN KAI KEL	PACIFIC BELL DIRECTORY

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Chin Kurtis H DPM	PACIFIC BELL WHITE PAGES
	Chin Ken C	PACIFIC BELL WHITE PAGES
	Chin Kai Kei	PACIFIC BELL WHITE PAGES
1986	Chin Kai Kei	PACIFIC BELL WHITE PAGES
	Chin Katherine G	PACIFIC BELL WHITE PAGES
	Chin Ken C	PACIFIC BELL WHITE PAGES
1980	Chin Kai Kei	Pacific Telephone
1975	CHIN KAI KEI	Pacific Telephone
1967	YICK SOO LEE	R. L. Polk Co.
	SMITH SIDNEY	R. L. Polk Co.
1962	Lee Yick Soo Rev	Pacific Telephone
1950	LEE YICK SOA REV R	The Pacific Telephone & Telegraph Co.
1945	LEE YICK SOO REV R	The Pacific Telephone & Telegraph Co.
1943	LEE Yick S Hoh S h	R. L. Polk & Co.
1938	LEE YICK SOO REV R	Pacific Telephone

613 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	MARu	Haines Company, Inc.
1991	King Chung Yuk	PACIFIC BELL WHITE PAGES
1986	Chen Hong Jin	PACIFIC BELL WHITE PAGES
1980	Chen Ah Qu	Pacific Telephone
1975	CHEN AH QA	Pacific Telephone
1967	CHOY ALBERT Y	R. L. Polk Co.
1962	Choy Albert Y	Pacific Telephone
1950	TOMN LOY R	The Pacific Telephone & Telegraph Co.

614 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	GRAVES FLORENCE A MRS	R. L. Polk Co.
	LEE CHICK	R. L. Polk Co.
	VACANT	R. L. Polk Co.
1945	WONG GEO Q R	The Pacific Telephone & Telegraph Co.
1943	Chan Hung Yuen h	R. L. Polk & Co.

615 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	SITU Su Zhen	Haines Company, Inc.
	e MA Vinson	Haines Company, Inc.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	CHEN NANCY	Pacific Bell
1980	Gee John	Pacific Telephone
1975	GEE JOHN	Pacific Telephone
1967	VACANT	R. L. Polk Co.
1962	Lee Richard T	Pacific Telephone
1943	Wing Sing shipydwkr r	R. L. Polk & Co.
	Wing Lee shipydwkr r	R. L. Polk & Co.
	Wing Geo Lim See h	R. L. Polk & Co.
	Wing Don lab r	R. L. Polk & Co.

616 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	TANGFU	Haines Company, Inc.
1991	He Shan Chi	PACIFIC BELL WHITE PAGES
1980	Lew Judy	Pacific Telephone
1967	ROGERS ANN J MRS	R. L. Polk Co.
	X VACANT	R. L. Polk Co.
	WONG ALLAN S	R. L. Polk Co.
1962	Lew Geo r	Pacific Telephone
	Moy Mon Fong	Pacific Telephone
1943	Sing Young h	R. L. Polk & Co.
	Wong Henry clk Albt B Samuels Co r	R. L. Polk & Co.
	Wong Sam Eng mech h	R. L. Polk & Co.

617 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
2000	LUK LAI SIM	Pacific Bell
1996	LUK LAI SIM	PACIFIC BELL DIRECTORY
1986	He Shan Chi	PACIFIC BELL WHITE PAGES
1967	SANDIFER JAMES R	R. L. Polk Co.
	BRAGG MARGT J MRS	R. L. Polk Co.
1962	Bragg Margaret	Pacific Telephone
1950	YEE ON Y R	The Pacific Telephone & Telegraph Co.
1943	Eng Raymond L May optom h	R. L. Polk & Co.
1933	WANTOGAKUYEN SCHOOL (JAPANESE) T R MORITA PRIN	R. L. Polk & Co.

FINDINGS

618 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	STONE FRANCES A MRS	R. L. Polk Co.

619 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CHU Frank	Haines Company, Inc.
	CHUAI Ica Chong	Haines Company, Inc.
2000	CHU FRANK	Pacific Bell
1996	SUN YI TING	PACIFIC BELL DIRECTORY
1986	I Chu John Miller Starr & Regalia attys Ordway Bldg	PACIFIC BELL WHITE PAGES
	I Chu Joe Wing	PACIFIC BELL WHITE PAGES
	Chu John	PACIFIC BELL WHITE PAGES
1950	TAL GEO R	The Pacific Telephone & Telegraph Co.
1943	Wong Geo Q Marguerite radio opr h	R. L. Polk & Co.
1920	MUKAI RIYOICHI R	R. L. Polk & Co. of California

621 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	HUANG LI Chang	Haines Company, Inc.
2000	YANG HUI JIN	Pacific Bell
	YANG ZHI HUA	Pacific Bell
1992	CHU JOE WING	PACIFIC BELL DIRECTORY
1991	Chu John	PACIFIC BELL WHITE PAGES
	Chu Joe Wing	PACIFIC BELL WHITE PAGES
1986	i Chu Joe Wing	PACIFIC BELL WHITE PAGES
1980	Chu Joe Wing	Pacific Telephone
1967	CHU JOE W	R. L. Polk Co.
1962	Chu Joe Wing	Pacific Telephone
1950	CHIN HO MIVRS R	The Pacific Telephone & Telegraph Co.
1945	CHIN NANCY R	The Pacific Telephone & Telegraph Co.
1943	Haw Louie mech h	R. L. Polk & Co.
1938	CHIN HO R	Pacific Telephone

623 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LEW HEM T R	The Pacific Telephone & Telegraph Co.
1945	LEW HEM T R	The Pacific Telephone & Telegraph Co.
1943	Chin Ernest W shipydwkr h	R. L. Polk & Co.
	Chin Wong S Mrs r	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	O CONNELL HENRY G FORMN OKLD PORT DEPT R	R. L. Polk & Co.

624 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
2000	CHAN F	Pacific Bell
1996	CHAN F	PACIFIC BELL DIRECTORY
1992	CHAN F	PACIFIC BELL DIRECTORY
1991	Chan F	PACIFIC BELL WHITE PAGES
1980	Chan F	Pacific Telephone
1967	CHAN FRANCES	R. L. Polk Co.
1962	Chan Frances	Pacific Telephone
1943	Kemp Frank L USN r Kemp Betty V clk r	R. L. Polk & Co. R. L. Polk & Co.
1933	PATRICK MARIE OPR WESTN PAPER BOX CO R	R. L. Polk & Co.
1920	GUTENBERGER J R	R. L. Polk & Co. of California

625 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	BUDDHIST CHURCH OF OAKLAND	Pacific Telephone
1945	LOUIS HARRY R	The Pacific Telephone & Telegraph Co.
1943	Louie Harry restr h Kemp Frank Julia lab h	R. L. Polk & Co. R. L. Polk & Co.
1938	LOUIS HARRY R	Pacific Telephone

627 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LEE HOIIG NIN R	The Pacific Telephone & Telegraph Co.
1945	WONG YIM R	The Pacific Telephone & Telegraph Co.
1943	Young Wong h	R. L. Polk & Co.

628 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	o LIN Mike	Haines Company, Inc.
2000	LIN MIKE Y	Pacific Bell
1992	HO JAS	PACIFIC BELL DIRECTORY
1991	Ho Jas	PACIFIC BELL WHITE PAGES
1986	Ho Jas	PACIFIC BELL WHITE PAGES
1980	Ho Jas	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	HO JAS	Pacific Telephone
1967	HO JAMES	R. L. Polk Co.
1950	KAHIER CHAS R	The Pacific Telephone & Telegraph Co.
1945	KAHLER CHAS R	The Pacific Telephone & Telegraph Co.
1943	KAHLER Lena wid Chas h	R. L. Polk & Co.
	KAHLER Van R carp r	R. L. Polk & Co.
1938	KAHLER CHAS R	Pacific Telephone
1920	KAHLER CHAS R	R. L. Polk & Co. of California

629 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	WONG YIM R	The Pacific Telephone & Telegraph Co.
1943	Yee Lew Mrs h	R. L. Polk & Co.

641 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	HOFFLER EARL R	The Pacific Telephone & Telegraph Co.
1938	HOFFLER EARL R	Pacific Telephone

701 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
1980	Jung N	Pacific Telephone
1975	JUNG N	Pacific Telephone
1967	JUNG DRONDALD E	R. L. Polk Co.
	PNAS IRVING	R. L. Polk Co.
1962	Yee Joe Hoo	Pacific Telephone
1945	COWGILL GEO WM R	The Pacific Telephone & Telegraph Co.
	CHIPCHASE CHESTER G R	The Pacific Telephone & Telegraph Co.
	YOUNG WANDA B R	The Pacific Telephone & Telegraph Co.
1943	Chin Fong T clk h	R. L. Polk & Co.
1938	SIU GEORGE R	Pacific Telephone
	VAN CLEAF MARY MRS R	Pacific Telephone
1933	HO CHIN LAB R	R. L. Polk & Co.
1920	EPSTEIN JOE R	R. L. Polk & Co. of California

702 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
1991	Deah Chung Ying	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Leung Puiching	PACIFIC BELL WHITE PAGES
1967	VACANT	R. L. Polk Co.

703 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	LEE Paul S	Haines Company, Inc.
2000	LEE PAUL S	Pacific Bell
1996	LEE PAUL S	PACIFIC BELL DIRECTORY
1992	LEE PAUL S	PACIFIC BELL DIRECTORY
1991	Lee Paul S	PACIFIC BELL WHITE PAGES
1986	Lee Paul S	PACIFIC BELL WHITE PAGES
1980	Lee Paul S	Pacific Telephone
1967	SWANSON THELMA B	R. L. Polk Co.
	LEE PAUL S	R. L. Polk Co.
1962	Fong Mon Joe	Pacific Telephone
1945	ALEJAN GEORGE R	The Pacific Telephone & Telegraph Co.
1943	Alejan Geo jan h	R. L. Polk & Co.
1933	BUN CHENG C GRO	R. L. Polk & Co.
1920	OTTMANN MRS R P R	R. L. Polk & Co. of California

704 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	VACANT	R. L. Polk Co.

705 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	ZHU De Juan	Haines Company, Inc.
1991	Lum June	PACIFIC BELL WHITE PAGES
	Lum Joseph	PACIFIC BELL WHITE PAGES
	Lum Joseph	PACIFIC BELL WHITE PAGES
	Lum Joe	PACIFIC BELL WHITE PAGES
1986	Lum Kevin S	PACIFIC BELL WHITE PAGES
	Lum Jos	PACIFIC BELL WHITE PAGES
	Lum Jos	PACIFIC BELL WHITE PAGES
	Lum Joe	PACIFIC BELL WHITE PAGES
1980	Lum Joe	Pacific Telephone
1975	LUM JOE	Pacific Telephone
1967	GROSS RUDOLPH H	R. L. Polk Co.
	VACANT	R. L. Polk Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LEE T IK R	The Pacific Telephone & Telegraph Co.
1945	WILLIAMSON R BILL R	The Pacific Telephone & Telegraph Co.
	WILLIAMSON ALICE M R	The Pacific Telephone & Telegraph Co.
1943	Lum Jos h	R. L. Polk & Co.
1938	JENNINGS GEO A R	Pacific Telephone
1933	JEWETT HOMER L (HELEN) SLSMN CUDAHY PKG CO R	R. L. Polk & Co.

706 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	KNOWLES ANN I MRS	R. L. Polk Co.

707 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	SHEN Pal Ling	Haines Company, Inc.
2000	SHEN PEI LING	Pacific Bell
1996	SHEN PEI LING	PACIFIC BELL DIRECTORY
1992	SHEN PEI LING	PACIFIC BELL DIRECTORY
1991	Shen Pei Ling	PACIFIC BELL WHITE PAGES
1986	Lime F	PACIFIC BELL WHITE PAGES
	Lime A	PACIFIC BELL WHITE PAGES
	Lim Young	PACIFIC BELL WHITE PAGES
1980	Lim Young	Pacific Telephone
1975	LIM YOUNG	Pacific Telephone
1967	VACANT	R. L. Polk Co.
	LUM JEE	R. L. Polk Co.
1962	Lum Joe r	Pacific Telephone
1945	LUM JOE R	The Pacific Telephone & Telegraph Co.
1943	Lai Yung T Rose shipydwkr h	R. L. Polk & Co.
1933	MIEU EDW H	R. L. Polk & Co.

708 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Fong Michael	PACIFIC BELL WHITE PAGES
	Fong Milton	PACIFIC BELL WHITE PAGES
1980	Chu Shu Chiu	Pacific Telephone
1975	LAM WAY SHEUNG	Pacific Telephone
1967	TORGERSON FLORENCE E MRS	R. L. Polk Co.
	TANG ALICE MRS	R. L. Polk Co.
1962	Young O T	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LEUNG LOK WOON R	The Pacific Telephone & Telegraph Co.
	WONG OY R	The Pacific Telephone & Telegraph Co.

709 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	SHELBY WALLACE E R	The Pacific Telephone & Telegraph Co.

710 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	LIZht Tao	Haines Company, Inc.
1991	He Shanwen	PACIFIC BELL WHITE PAGES
	He Song Guang	PACIFIC BELL WHITE PAGES
1986	Guan Nan Zi	PACIFIC BELL WHITE PAGES
	I Guan Guo Ying & Shanmneihe	PACIFIC BELL WHITE PAGES
1980	Wong Hay Win	Pacific Telephone
1967	HUGHES LUCILE MRS	R. L. Polk Co.
1962	Jue Tung Sang	Pacific Telephone

711 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CHEN Jing Shang	Haines Company, Inc.
1991	Huang Yuting	PACIFIC BELL WHITE PAGES
1986	Lam Way Sheung	PACIFIC BELL WHITE PAGES
	Lam Wendy	PACIFIC BELL WHITE PAGES
	Wu Shek Kai	PACIFIC BELL WHITE PAGES
	Wu Siu Yin Lee	PACIFIC BELL WHITE PAGES
1980	Lam Way Sheung	Pacific Telephone
1967	FRASHER MARIAN P MRS	R. L. Polk Co.
	JACKSON DANL A	R. L. Polk Co.
1962	Albano Agusti	Pacific Telephone
1950	JARIN P V R	The Pacific Telephone & Telegraph Co.
	KIDO MARY R	The Pacific Telephone & Telegraph Co.
1943	Jarin Amador lab r	R. L. Polk & Co.
	Jarin Pantaleon Vedasta lab h	R. L. Polk & Co.
	Quong Yuen h	R. L. Polk & Co.
1938	YUEN COY R	Pacific Telephone
1933	DEE HOO H	R. L. Polk & Co.
1920	STROMBERG F W R	R. L. Polk & Co. of California

FINDINGS

Jackson St

712 Jackson St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	SHEEN LONG USA INC	EDR Digital Archive
	SHEEN LONG USA INC	EDR Digital Archive
2010	SHEEN LONG USA INC	EDR Digital Archive
	SHEEN LONG USA INC	EDR Digital Archive

JACKSON ST

712 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	SOLAIRCO	Haines Company, Inc.
2000	SOLAIR CO	Pacific Bell
1996	VENETIAN FASHION COMPANY	PACIFIC BELL DIRECTORY
1991	Sunny Way Sewing Company	PACIFIC BELL WHITE PAGES
1986	Sunny Way Sewing Company	PACIFIC BELL WHITE PAGES
1980	May May Sewing Co	Pacific Telephone
1967	HUCK CAROLYN B MRS	R. L. Polk Co.

713 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Jung Nellie	Pacific Telephone
1950	TSANG H P R	The Pacific Telephone & Telegraph Co.
1943	Ying Wing Chan M Byeen Chinese Consulate General h	R. L. Polk & Co.
	Jeong B Yeen phys h	R. L. Polk & Co.
1938	YORK CHEN R	Pacific Telephone
1920	KAUSRUD MRS BERTINA R	R. L. Polk & Co. of California

714 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	KLINDT GLADYS M MRS	R. L. Polk Co.

715 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	BOTTOME CLARENCE E	R. L. Polk Co.
1950	SOO HOO DONTALD R	The Pacific Telephone & Telegraph Co.
1945	THORNE J P R	The Pacific Telephone & Telegraph Co.
1943	Eng Foong h	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Siw Harry gro r	R. L. Polk & Co.
1938	JESSUP FRANK A R	Pacific Telephone
	LEE GIN R	Pacific Telephone
1933	LEE FOOK COOK R	R. L. Polk & Co.
	LEE GEO H	R. L. Polk & Co.
1920	GEDDIS MRS J R	R. L. Polk & Co. of California

716 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	VACANT	R. L. Polk Co.

717 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	PEAKES EDITH	R. L. Polk Co.
1962	Lum Yuen	Pacific Telephone
1950	LUOS JCHN R	The Pacific Telephone & Telegraph Co.
1945	CONLEY ROBERT R	The Pacific Telephone & Telegraph Co.
	FONG JACK R	The Pacific Telephone & Telegraph Co.
1943	Fong Jack Ada B meats h	R. L. Polk & Co.
1938	LANCASTER A G R	Pacific Telephone
1933	WONG PAUL H	R. L. Polk & Co.
1920	SARDOUNIS GEO R	R. L. Polk & Co. of California

718 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	AIKMAN RUBY D MRS	R. L. Polk Co.

719 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LIM CHOORS H R	The Pacific Telephone & Telegraph Co.
1945	ALFORNO M R	The Pacific Telephone & Telegraph Co.
	WONG LOUIE R	The Pacific Telephone & Telegraph Co.
1943	Wong Rachel wid Louie h	R. L. Polk & Co.
1920	BRESLOV L R	R. L. Polk & Co. of California

722 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	LI Shan Lao	Haines Company, Inc.
1992	A XU SULAN	PACIFIC BELL DIRECTORY
1991	Xu Sulan	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Xu Sulan	PACIFIC BELL WHITE PAGES
1986	Yuen Pui Ying	PACIFIC BELL WHITE PAGES
	Yuen R	PACIFIC BELL WHITE PAGES
	Yuen Po Cong	PACIFIC BELL WHITE PAGES
1980	Yuen Chong Dia	Pacific Telephone
1975	LOW CHAS F	Pacific Telephone
	GOON YIN SUEY	Pacific Telephone
1967	VACANT	R. L. Polk Co.

723 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Gee Jas	Pacific Telephone
1950	FONG ALYCE R	The Pacific Telephone & Telegraph Co.
1945	WONG EMMA R	The Pacific Telephone & Telegraph Co.
1943	Wong Alyce L wrapper HCCC o r	R. L. Polk & Co.
	Fong Albt G Alice shipydwr h	R. L. Polk & Co.
1933	O BRIEN WM J SEC-TREAS PAC COAST CANNERS R BERKELEY	R. L. Polk & Co.

725 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Young Frank	Pacific Telephone
1950	LIM PHILIP W R	The Pacific Telephone & Telegraph Co.
1945	LEE S H R	The Pacific Telephone & Telegraph Co.
1943	Leong Louie h	R. L. Polk & Co.

727 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Frek Hock F	Pacific Telephone
1950	NG CARRIE R	The Pacific Telephone & Telegraph Co.
1945	PARKER NORVAL R	The Pacific Telephone & Telegraph Co.
	FONG K H R	The Pacific Telephone & Telegraph Co.
1943	Fong Kee H mgr Ninth Street Mkt h	R. L. Polk & Co.
1938	PARKER NORVAL MRS R	Pacific Telephone

729 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	DELITE BEAUTY SALON	The Pacific Telephone & Telegraph Co.
1945	DELITE BEAUTY SALON	The Pacific Telephone & Telegraph Co.
1943	Dai Nancy beauty shop	R. L. Polk & Co.

FINDINGS

731 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	PERROT E R	The Pacific Telephone & Telegraph Co.

733 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	DAVIS FLORA R	The Pacific Telephone & Telegraph Co.

737 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	GREEN JAMES MRS R	The Pacific Telephone & Telegraph Co.
1938	GREEN JAMES MRS R	Pacific Telephone

738 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	JENSEN GEORGE E R	The Pacific Telephone & Telegraph Co.

739 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1938	BORGNINO LORENZO R	Pacific Telephone

741 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	ELY JOE R	The Pacific Telephone & Telegraph Co.
1938	BORGNINO LOUIE R	Pacific Telephone

743 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	MAYNARD MARVIN T R	The Pacific Telephone & Telegraph Co.

801 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	SUMMERFIELD HERMAN L	R. L. Polk Co.
1945	BUTLER KARL W MRS R	The Pacific Telephone & Telegraph Co.
1938	BUTLER KARL W MRS R	Pacific Telephone

802 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	DURNEY SAML P	R. L. Polk Co.
1945	SMITH JOHN H R	The Pacific Telephone & Telegraph Co.
1938	FARNSWORTH T L R	Pacific Telephone

FINDINGS

803 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	SERVICE	Haines Company, Inc.
	S&JCELLULAR	Haines Company, Inc.
1967	BEST LOUIS C	R. L. Polk Co.

804 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	BRYCE FORREST	R. L. Polk Co.

805 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	JORDAN DEMPSEY	R. L. Polk Co.
1945	POLETTO FRANK R	The Pacific Telephone & Telegraph Co.
1938	POLETTO FRANK R	Pacific Telephone

806 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	MC LAUGHLIN EDW J	R. L. Polk Co.
	KWAN DAVID	R. L. Polk Co.
1962	Poon Mamie r	Pacific Telephone
1950	POON MAMIE R	The Pacific Telephone & Telegraph Co.
	YEE LESLIE R	The Pacific Telephone & Telegraph Co.
1945	MEDLEN G L R	The Pacific Telephone & Telegraph Co.
	POON MAMIE R	The Pacific Telephone & Telegraph Co.
1943	Wai Chen B r	R. L. Polk & Co.
	Fong Geo K h	R. L. Polk & Co.
	Poon Mamie r	R. L. Polk & Co.
1938	WILLIAMS GRIFFITH R	Pacific Telephone
1920	WILLIAMS GRIFFITH R	R. L. Polk & Co. of California

807 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	APARTMENTS	Haines Company, Inc.
	CHEN JInyuan	Haines Company, Inc.
	CHENS	Haines Company, Inc.
	CHUN Way	Haines Company, Inc.
	HOSHINO Kash Iro	Haines Company, Inc.
	XIE Nai Bln	Haines Company, Inc.
	2 Frank	Haines Company, Inc.
	YANG Dong Lun	Haines Company, Inc.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	YAU Man Ilm	Haines Company, Inc.
2000	3 XU WO WEN	Pacific Bell
	6 CHUN WAY	Pacific Bell
	8 HOSHINO KASHIRO	Pacific Bell
	9 YAU MAN TIM	Pacific Bell
	12 NGUYEN TRUYEN	Pacific Bell
	19 YANG LI XING	Pacific Bell
1996	1 XU BAN LING	PACIFIC BELL DIRECTORY
	3 XU WO WEN	PACIFIC BELL DIRECTORY
	6 CHUN WAY	PACIFIC BELL DIRECTORY
	19 YANG LI XING	PACIFIC BELL DIRECTORY
1992	16 CHILDS GEO R	PACIFIC BELL DIRECTORY
	17 HATTORI ROBT M	PACIFIC BELL DIRECTORY
	18 LI J Q	PACIFIC BELL DIRECTORY
	19 RUAN LIYAN	PACIFIC BELL DIRECTORY
	6 CHUN WAY	PACIFIC BELL DIRECTORY
1991	Childs Geo R	PACIFIC BELL WHITE PAGES
	Chun Way	PACIFIC BELL WHITE PAGES
	Chun Wesley J	PACIFIC BELL WHITE PAGES
	Hattori Robt M	PACIFIC BELL WHITE PAGES
	Huang T P Robert	PACIFIC BELL WHITE PAGES
	Wong Kau Koong	PACIFIC BELL WHITE PAGES
1986	Childs Gao R	PACIFIC BELL WHITE PAGES
	Chin Harry	PACIFIC BELL WHITE PAGES
	Chun Way	PACIFIC BELL WHITE PAGES
	Hattori Robt M	PACIFIC BELL WHITE PAGES
	Tsukimura Eiko Mrs	PACIFIC BELL WHITE PAGES
	Tsurumoto Matsutaro	PACIFIC BELL WHITE PAGES
	Wang Kau Koong	PACIFIC BELL WHITE PAGES
1980	Childs Geo R	Pacific Telephone
	Chin Harry	Pacific Telephone
	Chun Way	Pacific Telephone
	Murakami K	Pacific Telephone
	Shintaku Tomeko Mrs	Pacific Telephone
	Taniguchi Z Rev	Pacific Telephone
	Tsukimura Eiko Mrs	Pacific Telephone
	Utsumi Kinji	Pacific Telephone
	Young Wah Fang	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MURAKAMI K	Pacific Telephone
	CHUN WAY	Pacific Telephone
	LEUNG EDWIN	Pacific Telephone
1967	KENT MARK	R. L. Polk Co.
	APARTMENTS	R. L. Polk Co.
	I CAPAPAS NASKOR	R. L. Polk Co.
	TSUKIMURA EIKO MRS	R. L. Polk Co.
	WAKIMOTO TIM	R. L. Polk Co.
	SHINTAKU TOMEKO MRS	R. L. Polk Co.
	CHAN Y W	R. L. Polk Co.
	KAYATANI KIM	R. L. Polk Co.
	MURAKAMI Y C	R. L. Polk Co.
	LOWE K 8 893 944 S	R. L. Polk Co.
	NAKASHIMA TOW	R. L. Polk Co.
	CHIN WONG T	R. L. Polk Co.
	ROGER HOM W	R. L. Polk Co.
	TSUBOI QUONG	R. L. Polk Co.
	CHILDS ALICE R MRS	R. L. Polk Co.
	JUAREZ JESUS	R. L. Polk Co.
	WONG CHIN H	R. L. Polk Co.
MEW BEN	R. L. Polk Co.	
1962	Childs Geo R	Pacific Telephone
	Fitch Victor	Pacific Telephone
	Kinoshita Sadako	Pacific Telephone
	Stutsman D B	Pacific Telephone
	Tsukimura Eiko	Pacific Telephone
	Wong Ching Han Mrs	Pacific Telephone
1950	CISLER RAY MRS R	The Pacific Telephone & Telegraph Co.
	DALEN G H R	The Pacific Telephone & Telegraph Co.
	GROSS IRENE MIS R	The Pacific Telephone & Telegraph Co.
	HUFF JACK F R	The Pacific Telephone & Telegraph Co.
	LYONS H J R	The Pacific Telephone & Telegraph Co.
	MURPHY JOHN J R	The Pacific Telephone & Telegraph Co.
	OHLSEN DORIS R	The Pacific Telephone & Telegraph Co.
	PEDRO GILBERT P R	The Pacific Telephone & Telegraph Co.
	PRUSZYNSKI JOS E R	The Pacific Telephone & Telegraph Co.
SABATONI AVY R	The Pacific Telephone & Telegraph Co.	
WILLIAMS JAS R	The Pacific Telephone & Telegraph Co.	

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	BROWN VELIA R	The Pacific Telephone & Telegraph Co.
1945	BRYANT CARLYSLE L R	The Pacific Telephone & Telegraph Co.
	COOPER THEODORE M R	The Pacific Telephone & Telegraph Co.
	DALEN G H R	The Pacific Telephone & Telegraph Co.
	MURPHY JOHN J R	The Pacific Telephone & Telegraph Co.
	RUSSELL D B R	The Pacific Telephone & Telegraph Co.
	SABATONI AVY R	The Pacific Telephone & Telegraph Co.
	SHAKLEE ENTERPRISE	The Pacific Telephone & Telegraph Co.
	WEGENER F J R	The Pacific Telephone & Telegraph Co.
1943	Williams Jas Vera shipydwr h	R. L. Polk & Co.
	Wood Chas Wilma police OPD h	R. L. Polk & Co.
	AMES Robt D r	R. L. Polk & Co.
	BROWN Fern Mrs clk r	R. L. Polk & Co.
	Brown Velma clk h	R. L. Polk & Co.
	Coleman Victor B Gladys shipydwr h	R. L. Polk & Co.
	COOPER Theo M Grace driver h	R. L. Polk & Co.
	Dunham Wm Grace shipydwr h	R. L. Polk & Co.
	Encinas Bernice R usher r	R. L. Polk & Co.
	Fields Gerry M clk h	R. L. Polk & Co.
	Golden Madeline clk h	R. L. Polk & Co.
	Holgerson Fredk C Amanda books h	R. L. Polk & Co.
	HUFF John F Bernice restr wkr h	R. L. Polk & Co.
	Lair Carl E Jessie pntr h	R. L. Polk & Co.
	Lucido Jos Ruby shipydwr h	R. L. Polk & Co.
	Murphy Jas Margt lab h	R. L. Polk & Co.
	NEIL Wm A Florence slsmn E C Jeffreys h	R. L. Polk & Co.
	NELSON Richd B Genevieve driver h	R. L. Polk & Co.
	Sabatino Herbt H cook h	R. L. Polk & Co.
	Simmons Jas H Opal shipydwr h	R. L. Polk & Co.
	Tinsley Cathryn R sten W T Rawleigh Co r	R. L. Polk & Co.
	Tinsley Wm A Kath guard h	R. L. Polk & Co.
	Tucker Eliz Mrs h	R. L. Polk & Co.
	Tucker Harold jan r	R. L. Polk & Co.
	Wifer Cath Mrs clk r	R. L. Polk & Co.
1938	BUSHMAN WM F R	Pacific Telephone
	GRAHAM J T R	Pacific Telephone
	SMITH C V MRS R	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	DODGE JESSIE ATDT OKLD PUB MUSEUM R	R. L. Polk & Co.
	FITZGERALD THOS A (AGNES) SHTMTLWKR H	R. L. Polk & Co.
	JACKSON APARTMENTS	R. L. Polk & Co.
	KENT CARRIE E (WID J E) H	R. L. Polk & Co.
	METCALFE CHAS A (LUELLA) SLSMN H	R. L. Polk & Co.
	STANLEY EDW (KATH) STA ENG H	R. L. Polk & Co.
1920	JACKSON APARTMENTS	R. L. Polk & Co. of California
	KAIGLER T E NURSE	R. L. Polk & Co. of California

808 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	HARVEY ALICE MRS	R. L. Polk Co.

809 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	SCHRODT ALF	R. L. Polk Co.

810 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	POWER BETTY P	R. L. Polk Co.
1943	Richmond Rachel clk r	R. L. Polk & Co.

811 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	GEODES WILMINA S MRS	R. L. Polk Co.
1945	BOCK ALBERT H R	The Pacific Telephone & Telegraph Co.
1938	BOCK ALBERT H R	Pacific Telephone

812 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	TAYLOR LOUISE M MRS	R. L. Polk Co.

814 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	LEHRMAN ABE J	R. L. Polk Co.
1945	SMITH JOHN S R	The Pacific Telephone & Telegraph Co.

815 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	HOWARD CHARLES	R. L. Polk Co.

FINDINGS

816 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	NO RETURN	R. L. Polk Co.

817 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Xu Shi Huan	PACIFIC BELL WHITE PAGES

818 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	MANNING DAVID	R. L. Polk Co.

820 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	DOLBY G E R	The Pacific Telephone & Telegraph Co.

824 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	SCOTT LINDEN R	The Pacific Telephone & Telegraph Co.

Jackson St

825 Jackson St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	BUDDHIST CHURCH OF OAKLAND	EDR Digital Archive
	BUDDHIST CHURCH OF OAKLAND	EDR Digital Archive
2010	BUDDHIST CHURCH OF OAKLAND	EDR Digital Archive
	BUDDHIST CHURCH OF OAKLAND	EDR Digital Archive

JACKSON ST

825 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	OF OAKLAND	Haines Company, Inc.
	BUDDHIST CHURCH	Haines Company, Inc.
	OFOAKANLD	Haines Company, Inc.
	BUDDHIST CHURCH	Haines Company, Inc.
2000	BUDDHIST CHURCH OF OAKLAND	Pacific Bell
1996	BUDDHIST CHURCH OF OAKLAND	PACIFIC BELL DIRECTORY
1992	BUDDHIST CHURCH OF OAKLAND	PACIFIC BELL DIRECTORY
1991	Buddhist Peace Fellowship	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Buddhist Church Of Oakland	PACIFIC BELL WHITE PAGES
1980	Buddhist Church Of Oakland	Pacific Telephone
1967	BUDDHIST CHURCH OF OAKLAND	R. L. Polk Co.
1962	Buddhist Church of Oakland	Pacific Telephone
	Buddhist Church of Oakland	Pacific Telephone

830 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	JOHNSON ERNEST B R	The Pacific Telephone & Telegraph Co.
1938	JONES MAURICE T R	Pacific Telephone

833 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	BRANCH WILLIAM G R	The Pacific Telephone & Telegraph Co.
1920	DIEHL MRS ROSA E R	R. L. Polk & Co. of California

834 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	ATWOOD DAVE R	The Pacific Telephone & Telegraph Co.

836 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	FEIST DORA MRS R	The Pacific Telephone & Telegraph Co.
1938	FEIST DORA MRS R	Pacific Telephone
1933	FEIST DORA MRS CLK MACMARR STORES R ALAMEDALBANY	R. L. Polk & Co.

837 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	ACCORNERO B G R	The Pacific Telephone & Telegraph Co.

843 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	VARE OSCAR F R	The Pacific Telephone & Telegraph Co.
1938	VARE OSCAR F R	Pacific Telephone

844 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	WILLIAMS NELLIE V R	The Pacific Telephone & Telegraph Co.
1938	WILLIAMS J M B R	Pacific Telephone

FINDINGS

845 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	DALTON EDW C ELECTN H	R. L. Polk & Co.
1920	DALTON E C R	R. L. Polk & Co. of California

848 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	STRINGER E J MRS R	The Pacific Telephone & Telegraph Co.

Jackson St

900 Jackson St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	WONG HENRY G	EDR Digital Archive
	WONG HENRY G	EDR Digital Archive
2010	WONG HENRY G	EDR Digital Archive
	WONG HENRY & HELEN	EDR Digital Archive
	WONG HENRY G	EDR Digital Archive
	WONG HENRY & HELEN	EDR Digital Archive

JACKSON ST

900 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	APARTMENTS	Haines Company, Inc.
	BURR Veronica M	Haines Company, Inc.
	CHEN Rui Ming	Haines Company, Inc.
	KIANG Leonard L	Haines Company, Inc.
	LUO Gouyl	Haines Company, Inc.
	OU Dwen	Haines Company, Inc.
	WONG Henry G	Haines Company, Inc.
	ZHU YunIng	Haines Company, Inc.
	XIANLIYe	Haines Company, Inc.
	2000	104 WONG HENRY G	Pacific Bell
203 BURR VERONICA M		Pacific Bell
301 CHEN RUI MING		Pacific Bell
302 ZHU YUNING		Pacific Bell
304 KIANG LEONARD L		Pacific Bell
1996	102 HUANG XHEN CHAO	PACIFIC BELL DIRECTORY
	104 WONG HENRY G	PACIFIC BELL DIRECTORY

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1996	203 BURR VERONICA M	PACIFIC BELL DIRECTORY
	301 CHEN RUI MING	PACIFIC BELL DIRECTORY
	302 DO QUAN	PACIFIC BELL DIRECTORY
	304 KIANG LEONARD L	PACIFIC BELL DIRECTORY
1992	101 CHIN DAVE	PACIFIC BELL DIRECTORY
	104 WONG HENRY G	PACIFIC BELL DIRECTORY
	203 CHEN JOSEPH PING	PACIFIC BELL DIRECTORY
	204 CHEN JERRY	PACIFIC BELL DIRECTORY
	205 LIU ALEX	PACIFIC BELL DIRECTORY
	302 YEUNG NORMAN T	PACIFIC BELL DIRECTORY
	304 KIANG LEONARD L	PACIFIC BELL DIRECTORY
1991	Chen Joseph Ping	PACIFIC BELL WHITE PAGES
	Chu Bill	PACIFIC BELL WHITE PAGES
	Chu C	PACIFIC BELL WHITE PAGES
	Kiang Leonard L	PACIFIC BELL WHITE PAGES
	Wong Karen	PACIFIC BELL WHITE PAGES
	Zhong Wan Wen	PACIFIC BELL WHITE PAGES
	Yeung Sik Hung	PACIFIC BELL WHITE PAGES
1986	Chen Jerry	PACIFIC BELL WHITE PAGES
	Chen Jessica C	PACIFIC BELL WHITE PAGES
	Chung K	PACIFIC BELL WHITE PAGES
	Chung Ken	PACIFIC BELL WHITE PAGES
	Ham Ceasar	PACIFIC BELL WHITE PAGES
	Kiang Leonard L	PACIFIC BELL WHITE PAGES
	Kiang T C	PACIFIC BELL WHITE PAGES
	Kwan Jerry	PACIFIC BELL WHITE PAGES
	Kwan Joe I	PACIFIC BELL WHITE PAGES
Wang Henry G	PACIFIC BELL WHITE PAGES	
1980	Chung K	Pacific Telephone
	Ham Ceasar	Pacific Telephone
	Kiang Leonard L	Pacific Telephone
	Kwan Jerry	Pacific Telephone
	Wong Henry G	Pacific Telephone
1975	EISENHASER ALBERTA	Pacific Telephone
	LAI MELVYN	Pacific Telephone
	PENROSE GLENN G	Pacific Telephone
1945	POTTER GALEN R	The Pacific Telephone & Telegraph Co.

FINDINGS

901 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	VACANT	R. L. Polk Co.

902 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	GRUHN RUDY	R. L. Polk Co.

903 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	COTTON FRIEDA MRS	R. L. Polk Co.
1945	FIELDING ROBERT O III R	The Pacific Telephone & Telegraph Co.

904 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	QUIGLEY FRED A MRS	R. L. Polk Co.
1945	BATCHELDER J E MRS R	The Pacific Telephone & Telegraph Co.
1938	BATCHELDER MARJORIE MISS R	Pacific Telephone

905 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	COLLINS WM E	R. L. Polk Co.
1945	DAVIS MARTHA E R	The Pacific Telephone & Telegraph Co.

906 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	COON CHESTER C	R. L. Polk Co.
	WARD MARION A	R. L. Polk Co.

907 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	PERRY JEAN M MRS	R. L. Polk Co.

908 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	SMITH C H MRS R	The Pacific Telephone & Telegraph Co.

909 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	CRUISE SCOTT	R. L. Polk Co.
1945	MCDONALD D L R	The Pacific Telephone & Telegraph Co.

FINDINGS

910 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	GARLAND MAY M MRS	R. L. Polk Co.
1945	RANDALL FLORENCE MRS R	The Pacific Telephone & Telegraph Co.

911 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	VACANT	R. L. Polk Co.

912 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	STRAUB BERTHA B MRS	R. L. Polk Co.

913 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	FREDERICK G V R	The Pacific Telephone & Telegraph Co.

914 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	WAGONER CHARLES	R. L. Polk Co.

916 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	KAVANAGH KATHLEEN T MRS	R. L. Polk Co.

917 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	ALLEN KENNETH F R	The Pacific Telephone & Telegraph Co.

920 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	DYER JOHN B R	The Pacific Telephone & Telegraph Co.

924 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	DAVIS BRUCE R	The Pacific Telephone & Telegraph Co.

Jackson St

925 Jackson St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	US REGIONAL FUNDING INC	EDR Digital Archive

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	OPTIMA REALTY & INVESTMENTS	EDR Digital Archive
	OPTIMA REALTY & INVESTMENTS	EDR Digital Archive
	US REGIONAL FUNDING INC	EDR Digital Archive
2010	US REGIONAL FUNDING INC	EDR Digital Archive
	OPTIMA REALTY & INVESTMENTS	EDR Digital Archive
	AMY T LEE LAW OFFICES	EDR Digital Archive
	OPTIMA REALTY & INVESTMENTS	EDR Digital Archive
	AMY T LEE LAW OFFICES	EDR Digital Archive
	US REGIONAL FUNDING INC	EDR Digital Archive

JACKSON ST

925 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	FUNDING	Haines Company, Inc.
	US REGIONAL	Haines Company, Inc.
	INVESTMENTS	Haines Company, Inc.
	OPTIMA REALTY&	Haines Company, Inc.
	AMY T LEE	Haines Company, Inc.
	LAW OFFICES OF	Haines Company, Inc.
	INTERNATIONAL	Haines Company, Inc.
	GENEX	Haines Company, Inc.
1945	HUNTER EDNA C R	The Pacific Telephone & Telegraph Co.
	HUNTER CHAS P JR R	The Pacific Telephone & Telegraph Co.
1938	HUNTER EDNA C R	Pacific Telephone
	HUNTER CHAS P JR R	Pacific Telephone

927 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	UMBERGER W P R	The Pacific Telephone & Telegraph Co.
1938	UMBERGER W P R	Pacific Telephone

928 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	HUANG Sumei	Haines Company, Inc.
2000	C YEUNG PAK KWAN	Pacific Bell
	B DIEP THINH	Pacific Bell
1996	C YEUNG PAK KWAN	PACIFIC BELL DIRECTORY
	B LAU TSE MON	PACIFIC BELL DIRECTORY
1992	C YEUNG PAK KWAN	PACIFIC BELL DIRECTORY

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Yeung Pak Kwan	PACIFIC BELL WHITE PAGES
	Yeung Pao Hon	PACIFIC BELL WHITE PAGES
1986	Leung Tzeson	PACIFIC BELL WHITE PAGES
	Cho Hong Foo	PACIFIC BELL WHITE PAGES
1980	Cho Hong Foo	Pacific Telephone
1975	CHO HONG-FOO	Pacific Telephone
1967	C WEE LEO	R. L. Polk Co.
	A WONG TUEY N MRS	R. L. Polk Co.

929 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	VILLA ROSA MRS R	The Pacific Telephone & Telegraph Co.

Jackson St

933 Jackson St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	LIN HARRY DDS	EDR Digital Archive
	LIN HARRY DDS	EDR Digital Archive
2010	CHING STEVEN DDS	EDR Digital Archive
	LIN HARRY DDS	EDR Digital Archive
	LIN HARRY DDS	EDR Digital Archive
	CHING STEVEN DDS	EDR Digital Archive

JACKSON ST

934 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	RAMOS FRED J R	The Pacific Telephone & Telegraph Co.
1938	VERSELL H J R	Pacific Telephone

935 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	SARGENT W B R	The Pacific Telephone & Telegraph Co.

936 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	MAXAM ARTHUR J R	The Pacific Telephone & Telegraph Co.

FINDINGS

938 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	SALVAGGI W R	The Pacific Telephone & Telegraph Co.

940 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	KILKER D T R	The Pacific Telephone & Telegraph Co.
1938	KILKER D T R	Pacific Telephone

941 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	DANIELS KEITH S R	The Pacific Telephone & Telegraph Co.

943 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	TOULI C L R	The Pacific Telephone & Telegraph Co.

945 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	ROGERS WM R	The Pacific Telephone & Telegraph Co.

947 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	LEMATTA ERNEST R	The Pacific Telephone & Telegraph Co.
1938	CORBETT MARGARET MISS R	Pacific Telephone

951 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	WILTS MARION R	The Pacific Telephone & Telegraph Co.

953 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	WARD DONALD W R	The Pacific Telephone & Telegraph Co.
1938	STEPHENS IRVING T R	Pacific Telephone

955 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1920	CUNNINGHAM MRS NETTIE R	R. L. Polk & Co. of California

957 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	LINGS	Haines Company, Inc.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	PHOTOGRAPHY& BRIDAL SERV	Haines Company, Inc. Haines Company, Inc.

961 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	WILLIAMSON ROBERT P R	The Pacific Telephone & Telegraph Co.
1943	Potts Elmer O Virginia welder h	R. L. Polk & Co.
	Simpson Richd mech r	R. L. Polk & Co.
	Nichols Vera clk r	R. L. Polk & Co.
	Morris Claude welder r	R. L. Polk & Co.
	MOORE Chas M Betty driver r	R. L. Polk & Co.
1938	WILLIAMSON ROBERT P R	Pacific Telephone
1920	HERRING MRS A C R	R. L. Polk & Co. of California

965 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	YORK S L R	The Pacific Telephone & Telegraph Co.
1943	Boothe Geo H Dorothea welder r	R. L. Polk & Co.
	Cohen Fred lab r	R. L. Polk & Co.
	Gettel Elmer P Geneva electn h	R. L. Polk & Co.
	Woodruff Earl T electn r	R. L. Polk & Co.
	Woodruff Edgar A Lorene flanger r	R. L. Polk & Co.
	Woodruff Ernest H flanger r	R. L. Polk & Co.
1938	JEFFREY J R	Pacific Telephone
1933	CEREZO ISLAS RESTRWKR R	R. L. Polk & Co.
	FINLEY WM CLK R	R. L. Polk & Co.
	KING FRED CLK R	R. L. Polk & Co.
	LEWIS JOHN R	R. L. Polk & Co.
	MELVIN LOUIS (ROSE) AUTO MECH H	R. L. Polk & Co.
	MURRAY LAURA MRS R	R. L. Polk & Co.
1920	MCCRAY C D R	R. L. Polk & Co. of California

969 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	VEGA LHLIA C R	The Pacific Telephone & Telegraph Co.
1945	OLSEN FRANK L R	The Pacific Telephone & Telegraph Co.
	STILLWELL DONLA R	The Pacific Telephone & Telegraph Co.
1943	Williams Wallace Margt welder r	R. L. Polk & Co.
	Stillwell Thos G Donia h	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	NELSON Preston M Ethel shipydwkr r	R. L. Polk & Co.
	Laird Burnace G Ella welder r	R. L. Polk & Co.
	Mc Govern J Patk welder r	R. L. Polk & Co.
1938	STILLWELL DONIA R	Pacific Telephone
1920	FROEBE EMMA S R	R. L. Polk & Co. of California

972 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Chesnutt Wilbert A	Pacific Telephone
1945	THOMAS MARY D R	The Pacific Telephone & Telegraph Co.
1943	PARKER Chas P Ruth mech r	R. L. Polk & Co.
	Parra Benj Victoria welder r	R. L. Polk & Co.
	Steele Robt T whsmn r	R. L. Polk & Co.
	Thomas Mary D Mrs h	R. L. Polk & Co.
1938	THOMAS GEO R	Pacific Telephone

993 JACKSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	S & J CELLULAR REPAIR SERVICE	Pacific Bell
1996	CHINESE MARTIAL ARTS & ENTERTAINMENT	PACIFIC BELL DIRECTORY
1992	LAKE MERRITT CHILD CARE CENTER NUMBER TWO	PACIFIC BELL DIRECTORY
1991	Lake Merritt Child Care Center Number Two	PACIFIC BELL WHITE PAGES

MADISON AVE

602 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	CARLEVARO JOE	Pacific Telephone
1928	Des Marais Lafayettese L sismn uwi Drug Co R	R.L. Polk and Co of California

606 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Yi Chon Kyu	PACIFIC BELL WHITE PAGES
1986	Yi Chon Kyu	PACIFIC BELL WHITE PAGES
1980	Yi Chon Kyu	Pacific Telephone

FINDINGS

609 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Arcol Manuel V	PACIFIC BELL WHITE PAGES
1986	I Arctander B	PACIFIC BELL WHITE PAGES
	Arcol Manuel V	PACIFIC BELL WHITE PAGES
1980	Arcol Manuel V	Pacific Telephone

610 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Rose MA	PACIFIC BELL WHITE PAGES
1986	Rose M A	PACIFIC BELL WHITE PAGES
1980	Rose M A	Pacific Telephone

611 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Woodruff Mark M	Pacific Telephone

614 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Coates John	Pacific Telephone

615 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Brydolf Carol	PACIFIC BELL WHITE PAGES
	Jacobs John	PACIFIC BELL WHITE PAGES
	Jacobs Jos N Mrs	PACIFIC BELL WHITE PAGES
	Jacobs K	PACIFIC BELL WHITE PAGES
1986	Ferguson Susan	PACIFIC BELL WHITE PAGES
	Ferguson Steve	PACIFIC BELL WHITE PAGES
1980	Ferguson Steve	Pacific Telephone

616 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Tanaka Hideo	Pacific Telephone

617 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Chan S	PACIFIC BELL WHITE PAGES
1986	Chan S	PACIFIC BELL WHITE PAGES
1980	Robison Bruce & Martha	Pacific Telephone
	Chan S	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	MILLER CYRUS A R	The Pacific Telephone & Telegraph Co.

619 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Chu Geo S	PACIFIC BELL WHITE PAGES
1980	Chu Geo S	Pacific Telephone

620 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Marsalis CD	PACIFIC BELL WHITE PAGES
	Marsala Jos L	PACIFIC BELL WHITE PAGES
	Marsan Harold W ins	PACIFIC BELL WHITE PAGES
1986	Marsala Jos L	PACIFIC BELL WHITE PAGES
	Marsalis C D	PACIFIC BELL WHITE PAGES
1980	Marsala Jos L	Pacific Telephone

621 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Eiland Emmett	PACIFIC BELL WHITE PAGES
	E ILAN OS E MME TT ORIE N TAL RUG	PACIFIC BELL WHITE PAGES
1986	Schindelman E	PACIFIC BELL WHITE PAGES
1980	Foster C W	Pacific Telephone
1928	B Helma J music tch R	R.L. Polk and Co of California

622 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Foster GT	PACIFIC BELL WHITE PAGES
1986	Foster G T	PACIFIC BELL WHITE PAGES
	Foster Gaylord	PACIFIC BELL WHITE PAGES
1980	Foster G T	Pacific Telephone

625 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Dorenzo Anthony	PACIFIC BELL WHITE PAGES
1986	Dorenzo Anthony	PACIFIC BELL WHITE PAGES
1980	Dorenzo Anthony	Pacific Telephone

626 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Poock David W	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Anderson Gerald C	PACIFIC BELL WHITE PAGES
1986	Poock David W	PACIFIC BELL WHITE PAGES
	Anderson Gerald C	PACIFIC BELL WHITE PAGES
1980	Poock David W	Pacific Telephone

629 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Canoga Gilbert	PACIFIC BELL WHITE PAGES
1986	Canoga Gilbert	PACIFIC BELL WHITE PAGES
1980	Canoga Gilbert	Pacific Telephone

630 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Bohannon A	PACIFIC BELL WHITE PAGES
	Bohannon Andrew W	PACIFIC BELL WHITE PAGES
	Bohannon Bert W	PACIFIC BELL WHITE PAGES
1980	Bakke Helen	Pacific Telephone

635 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Long S M	PACIFIC BELL WHITE PAGES
1986	Long S M	PACIFIC BELL WHITE PAGES
1980	Long S M	Pacific Telephone

636 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Bullard Mc Gregor	PACIFIC BELL WHITE PAGES
	Bullard N A	PACIFIC BELL WHITE PAGES
1986	Pipersky Paul	PACIFIC BELL WHITE PAGES
1980	Etingoff Kathryne	Pacific Telephone
1950	ETINGOFF MAX R	The Pacific Telephone & Telegraph Co.
1928	Etingoff Max Kath H	R.L. Polk and Co of California

637 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Schipper Adrian	PACIFIC BELL WHITE PAGES
	Hernandez Julie	PACIFIC BELL WHITE PAGES
	Schipani Frank	PACIFIC BELL WHITE PAGES
	Hernandez Juan F	PACIFIC BELL WHITE PAGES
1986	Hernandez Francy	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Schipani Frank	PACIFIC BELL WHITE PAGES
1980	Fuguet Amarilys	Pacific Telephone

639 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Albert Leslee	PACIFIC BELL WHITE PAGES
	Partington S	PACIFIC BELL WHITE PAGES
	Albert M	PACIFIC BELL WHITE PAGES
	Albert Kris	PACIFIC BELL WHITE PAGES
	Albert Jonathan J	PACIFIC BELL WHITE PAGES
1980	Gilbert Chas R	Pacific Telephone

643 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Parks Anita L	PACIFIC BELL WHITE PAGES
1986	Smith Barnabas	PACIFIC BELL WHITE PAGES
	Smith Barney Harris Upham & Co Incorporated	PACIFIC BELL WHITE PAGES

645 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	MAYO W B R	The Pacific Telephone & Telegraph Co.

649 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Wait Joshua	PACIFIC BELL WHITE PAGES
	Wait Edw M	PACIFIC BELL WHITE PAGES
1980	Wait Edw M	Pacific Telephone
1950	BEILSMITH VINCENT R	The Pacific Telephone & Telegraph Co.

650 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Blum Jos E	PACIFIC BELL WHITE PAGES
	Blum Jos S Mrs	PACIFIC BELL WHITE PAGES
	Blum J	PACIFIC BELL WHITE PAGES

701 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	St John Mark & Hester	Pacific Telephone

FINDINGS

704 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Levine D	PACIFIC BELL WHITE PAGES
	Levine David I	PACIFIC BELL WHITE PAGES
1986	I Battles Jake	PACIFIC BELL WHITE PAGES
	I Battles Olen	PACIFIC BELL WHITE PAGES
1980	Battles Jake	Pacific Telephone

705 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Aedo Eusebio	PACIFIC BELL WHITE PAGES
	Aegis Books PO Box 3239	PACIFIC BELL WHITE PAGES
	Aegis Securitiy	PACIFIC BELL WHITE PAGES
1986	I Aedo Eusebio	PACIFIC BELL WHITE PAGES
	Aegis Securitiy	PACIFIC BELL WHITE PAGES
	Aegis Systems POBox 23603	PACIFIC BELL WHITE PAGES
1980	Aedo Eusebio	Pacific Telephone
1950	HATCH DONALD R	The Pacific Telephone & Telegraph Co.

708 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Alexander Cleola L	PACIFIC BELL WHITE PAGES
1980	Alexander Cleola L	Pacific Telephone

709 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Clements Thos	PACIFIC BELL WHITE PAGES
1986	Clenments Thos	PACIFIC BELL WHITE PAGES
1980	Clements Thos	Pacific Telephone

711 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Curry Wm R	PACIFIC BELL WHITE PAGES

712 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Mourgos Steve	PACIFIC BELL WHITE PAGES
1986	Mourgos Steve	PACIFIC BELL WHITE PAGES
1980	Mourgos Steve	Pacific Telephone
1955	MOURGOS STEVE	The Pacific Telephone & Telegraph Co.

FINDINGS

713 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Tseng ML	PACIFIC BELL WHITE PAGES
	Lee Hor	PACIFIC BELL WHITE PAGES
	Lee Hoo	PACIFIC BELL WHITE PAGES
	Tseng Li Shu	PACIFIC BELL WHITE PAGES
1980	Tseng Li Shu	Pacific Telephone

714 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Grimes Fred B	PACIFIC BELL WHITE PAGES
1986	Grimes Fred B	PACIFIC BELL WHITE PAGES
1980	Grimes Fred B	Pacific Telephone

715 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Whetstone Joe Mrs	PACIFIC BELL WHITE PAGES
	Accomazzo A	PACIFIC BELL WHITE PAGES
1986	Accomazzo A	PACIFIC BELL WHITE PAGES
	Accomazzo B A	PACIFIC BELL WHITE PAGES
	Whetstone Joe	PACIFIC BELL WHITE PAGES
1980	Accomazzo A	Pacific Telephone
	Whetstone Joe	Pacific Telephone

716 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Harford Roy	PACIFIC BELL WHITE PAGES
	Hargan Richard E	PACIFIC BELL WHITE PAGES
	Hargan T	PACIFIC BELL WHITE PAGES
	Harger B L	PACIFIC BELL WHITE PAGES
1980	Harford Roy	Pacific Telephone
1950	HARFORD ROY R	The Pacific Telephone & Telegraph Co.

717 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Albee S F	Pacific Telephone

719 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	COLLINS JOHN F JR R	The Pacific Telephone & Telegraph Co.

FINDINGS

720 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Olson S	PACIFIC BELL WHITE PAGES
	Olson S J	PACIFIC BELL WHITE PAGES
1986	i Olson S	PACIFIC BELL WHITE PAGES
1970	GLUCK SAM	Pacific Telephone Directory

722 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Cortese Francesco	Pacific Telephone

730 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Rabin Harry K	PACIFIC BELL WHITE PAGES

732 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Heenan Ames Barbara	PACIFIC BELL WHITE PAGES
	Ames Bill	PACIFIC BELL WHITE PAGES
1980	Heenan Ames Barbara	Pacific Telephone
	Center For Living Skills	Pacific Telephone
	Ames Bill	Pacific Telephone
1950	WANNOP G B R	The Pacific Telephone & Telegraph Co.

733 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LIAO CHEN CHIEN R	The Pacific Telephone & Telegraph Co.

735 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Bielski Casimer A	PACIFIC BELL WHITE PAGES
	Bielsteln L	PACIFIC BELL WHITE PAGES
1986	Bielstein L	PACIFIC BELL WHITE PAGES
	Bielski Casimer A	PACIFIC BELL WHITE PAGES
1980	Bielski Casimer A	Pacific Telephone

738 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Rabin Harry K	PACIFIC BELL WHITE PAGES
1980	Rabin Harry K	Pacific Telephone
1950	OLSON ANNA R	The Pacific Telephone & Telegraph Co.

FINDINGS

739 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Chiarantano Tony	PACIFIC BELL WHITE PAGES
1986	Chiarenza Suzanne	PACIFIC BELL WHITE PAGES
	CChiarenza A	PACIFIC BELL WHITE PAGES
	Chiarantano Tony	PACIFIC BELL WHITE PAGES
1980	Chiarantano Tony	Pacific Telephone
1955	CHIARANTANO TONY	The Pacific Telephone & Telegraph Co.

740 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Bel K A	PACIFIC BELL WHITE PAGES

742 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Hill Fred Jr	PACIFIC BELL WHITE PAGES
	Hill G	PACIFIC BELL WHITE PAGES
	Hill Frederick H	PACIFIC BELL WHITE PAGES
1980	Hill Fred Jr	Pacific Telephone
1955	DEMPSEY JAS R R	The Pacific Telephone & Telegraph Co.

745 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	GIRAY C MARSHALL R	The Pacific Telephone & Telegraph Co.

746 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Rogers Edna M	PACIFIC BELL WHITE PAGES
	Rogers Geo Jr	PACIFIC BELL WHITE PAGES
1986	Rogers Edna M	PACIFIC BELL WHITE PAGES
	Rogers Geo Jr	PACIFIC BELL WHITE PAGES
1980	Rogers Edna M	Pacific Telephone
	Rogers Geo Jr	Pacific Telephone

747 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Man Lap Pui	PACIFIC BELL WHITE PAGES
	Man Lap Kan	PACIFIC BELL WHITE PAGES
	Man Lawrence	PACIFIC BELL WHITE PAGES
1950	COCHRANE ROBT R	The Pacific Telephone & Telegraph Co.

FINDINGS

748 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Fullingim Bertram	PACIFIC BELL WHITE PAGES
1980	Fullingim Bertram	Pacific Telephone

749 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Sampietro Jos	PACIFIC BELL WHITE PAGES
	Sampletro N	PACIFIC BELL WHITE PAGES
1986	Sampietro Jos	PACIFIC BELL WHITE PAGES
	Sampietro N	PACIFIC BELL WHITE PAGES
	Sample Desi	PACIFIC BELL WHITE PAGES
1980	Sampietro Jos	Pacific Telephone
1950	SAMPIETRO JOS PRES TO LOGS DISTR OF CALIF INC	The Pacific Telephone & Telegraph Co.

780 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	CORNETT L H R	The Pacific Telephone & Telegraph Co.

801 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Baker F L	PACIFIC BELL WHITE PAGES
1986	Baker F L	PACIFIC BELL WHITE PAGES
1980	Baker F L	Pacific Telephone

802 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Ochoa Wm	PACIFIC BELL WHITE PAGES
1980	Ochoa Wm	Pacific Telephone

804 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Lindahl A	PACIFIC BELL WHITE PAGES
1980	Wichner Leo	Pacific Telephone
1928	Bh I Sidney H	R.L. Polk and Co of California

805 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Lindsey C	PACIFIC BELL WHITE PAGES
1980	Prizer M M	Pacific Telephone
1928	R	R.L. Polk and Co of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Prizer Marjorie notary	R.L. Polk and Co of California

806 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Laib Richard	Pacific Telephone
1975	GUILD J RUSSELL JR CLU NORTHWESTERN MUTUAL LIFE INS CO OF MILWAUKEE WISCONS	Pacific Telephone

807 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Blume Chas A	PACIFIC BELL WHITE PAGES
1980	Blume Chas A	Pacific Telephone

812 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Hartman Ronald L	PACIFIC BELL WHITE PAGES
1986	Bensted Arnold	PACIFIC BELL WHITE PAGES
1980	Bensted Arnold	Pacific Telephone

815 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Ladvala Mabel	PACIFIC BELL WHITE PAGES
	Ladvala Dona M	PACIFIC BELL WHITE PAGES
1980	Ladvala Mabel	Pacific Telephone
	Ladvala Dona M	Pacific Telephone

816 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Morabito Louie	PACIFIC BELL WHITE PAGES
1980	Morabito Peter	Pacific Telephone

817 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Ferguson David L	PACIFIC BELL WHITE PAGES
1986	Hein Geo Jr	PACIFIC BELL WHITE PAGES
1980	Hein Geo Jr	Pacific Telephone

820 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Morabito Peter & Andrea	PACIFIC BELL WHITE PAGES
1980	Morabito Pete	Pacific Telephone

FINDINGS

822 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Leonetti PA	PACIFIC BELL WHITE PAGES
	Leong A	PACIFIC BELL WHITE PAGES
	Leong A	PACIFIC BELL WHITE PAGES
	Leong A	PACIFIC BELL WHITE PAGES
	Leonetti Luigi	PACIFIC BELL WHITE PAGES
1986	Leonetti Luigi	PACIFIC BELL WHITE PAGES
1980	Leonetti Luigi	Pacific Telephone
1950	LEONETTI LUIGI R	The Pacific Telephone & Telegraph Co.

823 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Koller Farraday	PACIFIC BELL WHITE PAGES
	Koller E	PACIFIC BELL WHITE PAGES
	Koller D M	PACIFIC BELL WHITE PAGES
	Kollenbaum J	PACIFIC BELL WHITE PAGES
1980	Kollenbaum J	Pacific Telephone

825 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Bianucci N M	PACIFIC BELL WHITE PAGES
	Bianconi Arthur	PACIFIC BELL WHITE PAGES
1980	Bianconi Arthur	Pacific Telephone

827 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Dori Meir	Pacific Telephone

829 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Howard G D Nick	PACIFIC BELL WHITE PAGES
1986	Howard GD Nick	PACIFIC BELL WHITE PAGES
1980	Howard G D Nick	Pacific Telephone

833 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Raju John A	Pacific Telephone

FINDINGS

835 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Wagner Tim	PACIFIC BELL WHITE PAGES

838 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Berrie I J	PACIFIC BELL WHITE PAGES
	Creating Advantages	PACIFIC BELL WHITE PAGES
	Berriault John	PACIFIC BELL WHITE PAGES
	Berrick Ken	PACIFIC BELL WHITE PAGES
1986	Farmer Philip	PACIFIC BELL WHITE PAGES

840 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Koop Chas R	Pacific Telephone

841 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Siegel Paul	PACIFIC BELL WHITE PAGES
1980	Zaldivar M G	Pacific Telephone

843 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Hochscheid P	PACIFIC BELL WHITE PAGES
	Hochschild Gerhard P	PACIFIC BELL WHITE PAGES
	I Hochman Renee	PACIFIC BELL WHITE PAGES
	Hochman Robin	PACIFIC BELL WHITE PAGES
	Hochmann C C	PACIFIC BELL WHITE PAGES
	I Hochman S	PACIFIC BELL WHITE PAGES
1986	Hochman Renee	PACIFIC BELL WHITE PAGES

845 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	BORGERSON BRET Z	Pacific Telephone
1955	HANSON ELWOOD A MRS	The Pacific Telephone & Telegraph Co.

847 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Lentz Lorne	PACIFIC BELL WHITE PAGES
	Lentz Leroy	PACIFIC BELL WHITE PAGES
1986	Lentz M G	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Sciacero Victor & Amalia	PACIFIC BELL WHITE PAGES
	Gosselin R	PACIFIC BELL WHITE PAGES
	Gosselin Sharon	PACIFIC BELL WHITE PAGES
	Lentz Leroy	PACIFIC BELL WHITE PAGES
	Lentz Lorne	PACIFIC BELL WHITE PAGES
1980	Gosselin R	Pacific Telephone
	Lentz Leroy	Pacific Telephone
	Sciacero Victor & Amalia	Pacific Telephone

848 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Stark Mariyln	PACIFIC BELL WHITE PAGES
	Stark M P	PACIFIC BELL WHITE PAGES

849 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Gill Michael	PACIFIC BELL WHITE PAGES
1980	Dennis Robt G	Pacific Telephone

902 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Morrison D	PACIFIC BELL WHITE PAGES
	Morrison D M	PACIFIC BELL WHITE PAGES
1986	Morrison D	PACIFIC BELL WHITE PAGES

904 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Fruento Jerry	PACIFIC BELL WHITE PAGES
	Frumkin K	PACIFIC BELL WHITE PAGES
	Frumper Fred	PACIFIC BELL WHITE PAGES
	Frumson D L	PACIFIC BELL WHITE PAGES
	Frus Steven	PACIFIC BELL WHITE PAGES
	Frustino R	PACIFIC BELL WHITE PAGES

906 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Fitzgerald C K	Pacific Telephone

FINDINGS

907 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Chin George ins Albany	PACIFIC BELL WHITE PAGES PACIFIC BELL WHITE PAGES
1986	Johnson Virginia Johnson Violet Mrs	PACIFIC BELL WHITE PAGES PACIFIC BELL WHITE PAGES
1980	Johnson Violet Mrs	Pacific Telephone

908 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Ard Suzan & Marlin Arcol Manuel VJr Arcuri K Arcus Inc Ard Bronze	PACIFIC BELL WHITE PAGES PACIFIC BELL WHITE PAGES PACIFIC BELL WHITE PAGES PACIFIC BELL WHITE PAGES PACIFIC BELL WHITE PAGES
1986	Zimmerman Barry i Janusz Daniella	PACIFIC BELL WHITE PAGES PACIFIC BELL WHITE PAGES
1980	La Douche Babs	Pacific Telephone

909 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Osofsky Sam Levine Steven Beckhusen Thos E Mrs	PACIFIC BELL WHITE PAGES PACIFIC BELL WHITE PAGES PACIFIC BELL WHITE PAGES
1986	Urban David & Molly Minshall Greg Levine Steven	PACIFIC BELL WHITE PAGES PACIFIC BELL WHITE PAGES PACIFIC BELL WHITE PAGES
1980	Leskowski H G Harber K Sasaki Kozo Levine Steven	Pacific Telephone Pacific Telephone Pacific Telephone Pacific Telephone

910 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Hughes Jas G	PACIFIC BELL WHITE PAGES
1980	Hughes Jas G	Pacific Telephone
1950	CALL H F R	The Pacific Telephone & Telegraph Co.

911 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	i Endsley Harry B	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Endsley R	PACIFIC BELL WHITE PAGES
	I Endsley DSteven	PACIFIC BELL WHITE PAGES
1980	Kim Chong Sik	Pacific Telephone
914 MADISON AVE		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	OAK PARK LIQUOR	The Pacific Telephone & Telegraph Co.
915 MADISON AVE		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Lopez Nelson	PACIFIC BELL WHITE PAGES
	Lopez Nadenia	PACIFIC BELL WHITE PAGES
916 MADISON AVE		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Zola D	Pacific Telephone
917 MADISON AVE		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Mc Gifflin A	PACIFIC BELL WHITE PAGES
1986	Mc Gifflin A	PACIFIC BELL WHITE PAGES
1980	Panichas Geo E Dr	Pacific Telephone
1938	ROSS DOROTHY E R	Pacific Telephone
918 MADISON AVE		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Bailey M	PACIFIC BELL WHITE PAGES
1980	Bailey M	Pacific Telephone
919 MADISON AVE		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Jewel B Alberta firemn H	R.L. Polk and Co of California
920 MADISON AVE		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Cook Cati A	PACIFIC BELL WHITE PAGES
1986	Christianson Barbara	PACIFIC BELL WHITE PAGES
924 MADISON AVE		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Baisch Deborah Ann M	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Baitinger Carl & Eila	PACIFIC BELL WHITE PAGES
1986	i Baisch Deborah Ann M	PACIFIC BELL WHITE PAGES
1980	Voss Fred G	Pacific Telephone
	Niwa Akira	Pacific Telephone
	Butler Rick	Pacific Telephone

925 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Ross Claudia	PACIFIC BELL WHITE PAGES
	Hensher David	PACIFIC BELL WHITE PAGES
1986	Paradis Lise	PACIFIC BELL WHITE PAGES
	Johnson Kris	PACIFIC BELL WHITE PAGES
	Johnson Kirk L	PACIFIC BELL WHITE PAGES
	Goodall J V	PACIFIC BELL WHITE PAGES
	Goodall David	PACIFIC BELL WHITE PAGES
	Fischer J	PACIFIC BELL WHITE PAGES
	Fischer Hugo	PACIFIC BELL WHITE PAGES
	Fischer Howard	PACIFIC BELL WHITE PAGES
1980	Haro Robt P	Pacific Telephone
	Lawson Phillip & Jo Anne	Pacific Telephone

926 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Greene Donald	Pacific Telephone
1950	GREENE DONALD R	The Pacific Telephone & Telegraph Co.

928 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Elldrissi Ismail	PACIFIC BELL WHITE PAGES
1955	CAUGHEY WM T	The Pacific Telephone & Telegraph Co.
1950	BECHTEL LAWRENCE N R	The Pacific Telephone & Telegraph Co.

930 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Madison Benjamin J	PACIFIC BELL WHITE PAGES
1980	Madison Benjamin J	Pacific Telephone

931 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Wheeler Edw L	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	STENSHOLT EMIL R	The Pacific Telephone & Telegraph Co.

932 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Walker Arie D	Pacific Telephone

934 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Tronoff Chas F	Pacific Telephone

935 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Puleston Cedric	PACIFIC BELL WHITE PAGES
	Pulgar L M	PACIFIC BELL WHITE PAGES
	Pulgar Rebekah	PACIFIC BELL WHITE PAGES
	Pulgarin S	PACIFIC BELL WHITE PAGES
1986	Desser Clark S	PACIFIC BELL WHITE PAGES
	Kibrick Jon	PACIFIC BELL WHITE PAGES
	Kice Richard S	PACIFIC BELL WHITE PAGES
	Kich Geo Kitahara Ph D	PACIFIC BELL WHITE PAGES
	Passaniti Mario	PACIFIC BELL WHITE PAGES
1980	Shifflett Scott	PACIFIC BELL WHITE PAGES
	Barrera S	Pacific Telephone
1950	Ifshin Jay	Pacific Telephone
	GUNNARSON JOHN MRS R	The Pacific Telephone & Telegraph Co.

940 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Revoir Wallace & Isabelle	Pacific Telephone

941 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Pacheco AL	PACIFIC BELL WHITE PAGES
	Pacheco AI N	PACIFIC BELL WHITE PAGES
	Pacheco Anthony	PACIFIC BELL WHITE PAGES
1986	Pacheco AL	PACIFIC BELL WHITE PAGES
1980	Pacheco A L	Pacific Telephone

FINDINGS

943 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	i Le Gate Kenneth Le Gate Arlen A	PACIFIC BELL WHITE PAGES PACIFIC BELL WHITE PAGES
1980	Le Gate Arlen A	Pacific Telephone

945 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Vancoops Jon	Pacific Telephone

946 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Durand Henry R	PACIFIC BELL WHITE PAGES
1986	Durand Jose Durand Henry R	PACIFIC BELL WHITE PAGES PACIFIC BELL WHITE PAGES
1980	Durand Henry R	Pacific Telephone
1950	ZUGNONI ARTHUR MRS R	The Pacific Telephone & Telegraph Co.

947 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Hogue Paul N	PACIFIC BELL WHITE PAGES
1986	Hogue Paul N	PACIFIC BELL WHITE PAGES
1980	Hogue Paul N	Pacific Telephone
1950	HOGUE PAUL N R	The Pacific Telephone & Telegraph Co.

948 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Brown Frederic M & Vilma G	Pacific Telephone

949 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Beckhusen Thos E Mrs	PACIFIC BELL WHITE PAGES
1980	Beckhusen Thos E Mrs	Pacific Telephone

950 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Senne S K	PACIFIC BELL WHITE PAGES
1980	Senne S K	Pacific Telephone

951 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Pierce Michael	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Pena Gustavo A	Pacific Telephone

953 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Silva M P	Pacific Telephone

954 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	De Maria Jos	PACIFIC BELL WHITE PAGES
1980	De Maria Jos	Pacific Telephone

955 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Oberto F	Pacific Telephone

956 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Selvaggi Ida	Pacific Telephone

957 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Kravin Jeffrey	PACIFIC BELL WHITE PAGES
	Kravin Andrew M	PACIFIC BELL WHITE PAGES
1986	Nedeff N	PACIFIC BELL WHITE PAGES
1980	Curtis Bruce M	Pacific Telephone
1928	Milligan Jas P Sarah pntr H	R.L. Polk and Co of California

959 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Hashay Beatrice	PACIFIC BELL WHITE PAGES
1986	Hashay Beatrice	PACIFIC BELL WHITE PAGES
1980	Hashay Beatrice	Pacific Telephone

963 MADISON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Cravotto Jos	PACIFIC BELL WHITE PAGES
	Cravotto Jos	PACIFIC BELL WHITE PAGES
1980	Cravotto Jos	Pacific Telephone
	Cravotto Jos	Pacific Telephone
1950	YURASKO PETER R	The Pacific Telephone & Telegraph Co.

FINDINGS

MADISON CT

602 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	CHIOCCA RICHARD	The Pacific Telephone & Telegraph Co.

603 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	MINAMOTO TOSHI	The Pacific Telephone & Telegraph Co.
1945	BALL C W R	The Pacific Telephone & Telegraph Co.

607 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	HO DAVID	Pacific Telephone
1955	HO DAVID	The Pacific Telephone & Telegraph Co.

609 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	ONG EDWIN D	Pacific Telephone

611 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	PALMER CHAS W	The Pacific Telephone & Telegraph Co.

617 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	MILLER KENNETH A	The Pacific Telephone & Telegraph Co.

619 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	LOW YOUNG KWAI	Pacific Telephone

620 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	HALL WILBUR R	The Pacific Telephone & Telegraph Co.

621 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	LOW SING	Pacific Telephone
1955	FERREIRA ANTHONY	The Pacific Telephone & Telegraph Co.

FINDINGS

622 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	DRAY JEROME H	The Pacific Telephone & Telegraph Co.

626 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	KUKKOLA ARMAS J	The Pacific Telephone & Telegraph Co.

627 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	HUIE WO	Pacific Telephone
1955	SIW CALVIN	The Pacific Telephone & Telegraph Co.
1945	LEE HARRY R	The Pacific Telephone & Telegraph Co.

628 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	QUAN BILL	The Pacific Telephone & Telegraph Co.

629 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	LOW YING	The Pacific Telephone & Telegraph Co.
	CAVA W J	The Pacific Telephone & Telegraph Co.

632 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	PANG CHI TUNG	Pacific Telephone
	LIM SAN	Pacific Telephone
1955	LIM STANLEY	The Pacific Telephone & Telegraph Co.

635 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	LAESSLE FRANK W	The Pacific Telephone & Telegraph Co.

646 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	COLLIER GORDON W	The Pacific Telephone & Telegraph Co.

704 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	NG LAI QUAN	The Pacific Telephone & Telegraph Co.
	CORTESE FRANK V	The Pacific Telephone & Telegraph Co.

FINDINGS

706 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	KEOGH M E	The Pacific Telephone & Telegraph Co.

708 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	LAURELLA JERRY A	The Pacific Telephone & Telegraph Co.

710 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	FONG LOY	The Pacific Telephone & Telegraph Co.

711 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	MARENGO JOSEPHINE R	The Pacific Telephone & Telegraph Co.

713 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	CARDOZA JOS	The Pacific Telephone & Telegraph Co.

715 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	CHU BILL CANTON GARAGE	Pacific Telephone
	CANTON GARAGE	Pacific Telephone

717 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	KOLAR W L	The Pacific Telephone & Telegraph Co.
1945	CAMPBELL J O R	The Pacific Telephone & Telegraph Co.

719 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MA CHE KEUNG	Pacific Telephone

720 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	MCMAHON MARY A	The Pacific Telephone & Telegraph Co.

721 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	LOWE FRANKLIN	Pacific Telephone

FINDINGS

722 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	LEE KELLY	The Pacific Telephone & Telegraph Co.

725 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	LOUIE YIN S	The Pacific Telephone & Telegraph Co.

727 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	OW WING HERBERT	The Pacific Telephone & Telegraph Co.

729 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	HUNG LUM YOW	Pacific Telephone
1928	Balm Abr Ray mgr Reliable Furn Co Inc H	R.L. Polk and Co of California

731 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	LEE FLORENCE YOUNG	The Pacific Telephone & Telegraph Co.

732 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	YEE ON Y	The Pacific Telephone & Telegraph Co.

733 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	BESS JOHNNIE	The Pacific Telephone & Telegraph Co.

735 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	BROOKS MAY H	The Pacific Telephone & Telegraph Co.
	BIELSKI CASIMER A	The Pacific Telephone & Telegraph Co.

745 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	WELLS JAS B	The Pacific Telephone & Telegraph Co.

748 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	JIMENEZ ALBERT	The Pacific Telephone & Telegraph Co.

FINDINGS

749 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	SAMPIETRO PAULINE	The Pacific Telephone & Telegraph Co.

805 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	SIMERLEY G C	The Pacific Telephone & Telegraph Co.

810 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	STEIN ROBT J	The Pacific Telephone & Telegraph Co.
	STEVENER CORA	The Pacific Telephone & Telegraph Co.

815 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	KO STEPHEN S H REV	The Pacific Telephone & Telegraph Co.

816 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	MORABITO LOUIE V	The Pacific Telephone & Telegraph Co.

825 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	BIANCONI ARTHUR	The Pacific Telephone & Telegraph Co.

829 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	KNOBEN EVELYN	The Pacific Telephone & Telegraph Co.

831 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	HINCH ANNE M	The Pacific Telephone & Telegraph Co.

833 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	QUARELLO EMILIO	The Pacific Telephone & Telegraph Co.

838 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	CRESCENTI SALVADOR	The Pacific Telephone & Telegraph Co.

FINDINGS

840 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	KELLY MAY C R	The Pacific Telephone & Telegraph Co.

841 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	BRUCE BETTYE ANN R	The Pacific Telephone & Telegraph Co.

843 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	DALTON BERNARD F	The Pacific Telephone & Telegraph Co.

848 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	LYNCH RICHARD P MAJ RET	The Pacific Telephone & Telegraph Co.

902 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	DRUHE P A MRS	The Pacific Telephone & Telegraph Co.

904 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	BUCKLEY META S MRS	The Pacific Telephone & Telegraph Co.

907 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	HELMKE CHAS J MRS R	The Pacific Telephone & Telegraph Co.

910 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	OWENS EUGENE R	The Pacific Telephone & Telegraph Co.

911 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	WINTON ANONA MRS R	The Pacific Telephone & Telegraph Co.

917 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	GROSSO JAS	The Pacific Telephone & Telegraph Co.

918 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	NESBITT REGINA	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	GOE CHOY	The Pacific Telephone & Telegraph Co.
919 MADISON CT		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	GAFFNEY P A	The Pacific Telephone & Telegraph Co.
921 MADISON CT		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Erkson Wm L elev opr H	R.L. Polk and Co of California
924 MADISON CT		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	TEMPLE HAROLD	The Pacific Telephone & Telegraph Co.
1945	HILLENBRAND D J R	The Pacific Telephone & Telegraph Co.
926 MADISON CT		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	HUI YING HO	Pacific Telephone
1955	BING LOUIE	The Pacific Telephone & Telegraph Co.
930 MADISON CT		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	O SHEA D H	The Pacific Telephone & Telegraph Co.
1945	PALMER ROY C R	The Pacific Telephone & Telegraph Co.
934 MADISON CT		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	TRONOFF CHAS F	The Pacific Telephone & Telegraph Co.
940 MADISON CT		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	ZUGNONI ARTHUR MRS	The Pacific Telephone & Telegraph Co.
941 MADISON CT		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	FREEZE C R	The Pacific Telephone & Telegraph Co.
943 MADISON CT		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	LEGATE ARLEN A	The Pacific Telephone & Telegraph Co.

FINDINGS

945 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	NELSON REYNOLD B	The Pacific Telephone & Telegraph Co.
1945	NASH JACK R	The Pacific Telephone & Telegraph Co.

946 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	NEAL HAYDEN C	The Pacific Telephone & Telegraph Co.

956 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	WHITE GEO I JR	The Pacific Telephone & Telegraph Co.

963 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	CRAVOTTO JOS	The Pacific Telephone & Telegraph Co.

1009 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	EDWARDS DOUGLAS R	The Pacific Telephone & Telegraph Co.
1928	Shore Edw H	R.L. Polk and Co of California

1013 MADISON CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	CHOW HENRY	Pacific Telephone

MADISON LN

603 MADISON LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Ball Chas W Pauline h	R. L. Polk & Co.

607 MADISON LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	HASENMAN CHRISTIE R	The Pacific Telephone & Telegraph Co.

625 MADISON LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	DORENZO ANTHONY R ALBANY LA NSCAPE5125	The Pacific Telephone & Telegraph Co.

FINDINGS

639 MADISON LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1938	BIGLOW EVANGELINE MRS R	Pacific Telephone

701 MADISON LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	MARCHANT ELDON L R	The Pacific Telephone & Telegraph Co.

711 MADISON LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	MIARENGO JOSEPHINE R	The Pacific Telephone & Telegraph Co.

801 MADISON LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	BAKER F L R	The Pacific Telephone & Telegraph Co.

838 MADISON LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Seminary Geo W Adelaide R pntr H	R.L. Polk and Co of California

907 MADISON LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	HELMKE CHAS J MRS R	The Pacific Telephone & Telegraph Co.

917 MADISON LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	TRESSMER CLARA MRS R	The Pacific Telephone & Telegraph Co.

934 MADISON LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	HAYES E Q R	The Pacific Telephone & Telegraph Co.

MADISON ST

600 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Jung Edw shipydwkr r	R. L. Polk & Co.
	Jung David shipydwkr h	R. L. Polk & Co.
1933	JUNG EDW H	R. L. Polk & Co.
	JUNG ALBT H	R. L. Polk & Co.
	JUNG DAVID H	R. L. Polk & Co.

FINDINGS

601 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	DAMONTE E	Pacific Telephone Directory

602 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	CARLEVARO CARLENE	Pacific Telephone Directory
	CARLEVARO JOE	Pacific Telephone Directory
1950	JUNG GODWIN R	The Pacific Telephone & Telegraph Co.
1945	HONG DAN R	The Pacific Telephone & Telegraph Co.
1943	Hong Dan h	R. L. Polk & Co.
1938	LEE EUGENE R	Pacific Telephone
1928	Demello Antone lab H	R.L. Polk and Co of California
	destrian Lester Kath lab R	R.L. Polk and Co of California
1925	STROLL H R	R. L. Polk & Co. of California
1920	DE MARTINI N R	R. L. Polk & Co. of California

603 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	YANZhi	Haines Company, Inc.
	CHEN Guo	Haines Company, Inc.
	WOO David	Haines Company, Inc.
2000	FANG JIN LUN	Pacific Bell
	LIU XIAO MIN	Pacific Bell
1996	TOSH HOME FURNISHINGS	PACIFIC BELL DIRECTORY
1992	TOSH HOME FURNISHINGS	PACIFIC BELL DIRECTORY
1991	Tosh Home Furnishings	PACIFIC BELL WHITE PAGES
1980	Hom P	Pacific Telephone
1967	SATARO HIRAI	R. L. Polk Co.
1962	Hirai S	Pacific Telephone
1950	MINAMOTO H R	The Pacific Telephone & Telegraph Co.
1938	HIRAI S R	Pacific Telephone
1933	HIRAI KAY OPTICIAN R H WE HARA R	R. L. Polk & Co.

604 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LEW TOY R	The Pacific Telephone & Telegraph Co.
1943	Lew Shane H shipftr h	R. L. Polk & Co.
	Lew Toy clk r	R. L. Polk & Co.
	Lew Dea Shee Mrs r	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Lew Moy clk h	R. L. Polk & Co.

Madison St

605 Madison St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2010	LIU XIAO MIN	EDR Digital Archive
	LIU XIAO MIN	EDR Digital Archive

MADISON ST

605 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
2000	LIU XIN XIN	Pacific Bell
1970	MUKAI MAE	Pacific Telephone Directory
1967	MUKAI MAE K MRS	R. L. Polk Co.
1962	Riu Keisuke r	Pacific Telephone
1955	RIU KEISUKE R	The Pacific Telephone & Telegraph Co.
1943	Wong Chan h	R. L. Polk & Co.
1925	HIRAI S R	R. L. Polk & Co. of California
	LOUIE HARRY R	R. L. Polk & Co. of California
1920	HAMELIN W W R	R. L. Polk & Co. of California
	SANDUSKEY E R	R. L. Polk & Co. of California

606 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	VILA GEO	Pacific Telephone Directory
1950	WONG ERNEST C R	The Pacific Telephone & Telegraph Co.
1943	Jew Quong h	R. L. Polk & Co.

607 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	LEONG Chu Wun	Haines Company, Inc.
2000	LEONG CHU WUN	Pacific Bell
1996	HO DAVID	PACIFIC BELL DIRECTORY
1992	HO DAVID	PACIFIC BELL DIRECTORY
1991	Ho David	PACIFIC BELL WHITE PAGES
1986	Ho David	PACIFIC BELL WHITE PAGES
1980	Ho David	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	HO DAVID	Pacific Telephone Directory
1967	HO DAVID GL	R. L. Polk Co.
1962	Ho David	Pacific Telephone
1955	HAGEMAN CHRISTLE R	The Pacific Telephone & Telegraph Co.
1945	HAGEMAN CHRISTIE R	The Pacific Telephone & Telegraph Co.
	LIU BETTY R	The Pacific Telephone & Telegraph Co.
1943	Keough Jos R Cath welder h	R. L. Polk & Co.
1938	HAGEMAN CHRISTLE R	Pacific Telephone
	YAMANE S R	Pacific Telephone
1925	HAGEMAN CHRISTLE R	R. L. Polk & Co. of California
1920	HAGEMAN CHRISTLE R	R. L. Polk & Co. of California

Madison St

609 Madison St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	WATSON COMPUTER CENTER	EDR Digital Archive
	WATSON COMPUTER CENTER	EDR Digital Archive
2010	WATSON COMPUTER CENTER	EDR Digital Archive
	WATSON COMPUTER CENTER	EDR Digital Archive

MADISON ST

609 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	YUNG Joyce	Haines Company, Inc.
	FANG JIn Lun	Haines Company, Inc.
2000	LIN WAN JIA	Pacific Bell
	TSE SHUI KAM	Pacific Bell
1996	ONG EDWIN D	PACIFIC BELL DIRECTORY
1992	ONG EDWIN D	PACIFIC BELL DIRECTORY
1991	Ong Edwin D	PACIFIC BELL WHITE PAGES
	Ong FPaul	PACIFIC BELL WHITE PAGES
	Ong G	PACIFIC BELL WHITE PAGES
	Ong G	PACIFIC BELL WHITE PAGES
1986	Ong G	PACIFIC BELL WHITE PAGES
	Ong G	PACIFIC BELL WHITE PAGES
	Ong Fee N	PACIFIC BELL WHITE PAGES
	Ong F Paul	PACIFIC BELL WHITE PAGES

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Ong Edwin D	PACIFIC BELL WHITE PAGES
1980	Ong Edwin D	Pacific Telephone
1970	ARCOL MANUEL V ONG EDWIN D	Pacific Telephone Directory Pacific Telephone Directory
1967	ONG E D	R. L. Polk Co.
1962	Ong Edwin D r	Pacific Telephone
1955	ONG EDWIN D R	The Pacific Telephone & Telegraph Co.
1950	JOW HAROLD R	The Pacific Telephone & Telegraph Co.
1945	JOW HAROLD R	The Pacific Telephone & Telegraph Co.
1943	Chang Li H Mah Y clk h	R. L. Polk & Co.

610 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	ROSE M A	Pacific Telephone Directory
1955	ROACH M A R	The Pacific Telephone & Telegraph Co.
1945	SCHAFER EARL L R	The Pacific Telephone & Telegraph Co.
1928	Co Philip Gussle nImb R	R.L. Polk and Co of California
1925	SCHOENFELD P R	R. L. Polk & Co. of California
1920	STROLL H R	R. L. Polk & Co. of California

611 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	SMITH JOANNE	Pacific Telephone Directory

Madison St

613 Madison St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2010	FRIENDS WHOLESale INC	EDR Digital Archive
	FRIENDS WHOLESale INC	EDR Digital Archive

614 Madison St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	INTER-CITY PRINTING CO INC	EDR Digital Archive
	INTER-CITY PRINTING CO INC	EDR Digital Archive
2010	INTER-CITY PRINTING CO INC	EDR Digital Archive
	INTER-CITY PRINTING CO INC	EDR Digital Archive

FINDINGS

MADISON ST

614 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	MADISON STREET PRes	Haines Company, Inc. Haines Company, Inc.
2000	MADISON STREET PRESS	Pacific Bell
1996	MADISON STREET PRESS	PACIFIC BELL DIRECTORY
1992	MADISON STREET PRESS	PACIFIC BELL DIRECTORY
1991	Inter City Printing Co See Madison Street Press Madison Street Press	PACIFIC BELL WHITE PAGES PACIFIC BELL WHITE PAGES
1986	Daily Journal Co Inter City Express Publishing Co IN TE R CITY PRIN TIN G CO	PACIFIC BELL WHITE PAGES PACIFIC BELL WHITE PAGES PACIFIC BELL WHITE PAGES
1980	Inter City Express Publishing Co INTER CITY PRINTING CO	Pacific Telephone Pacific Telephone
1970	HOLADAY JEAN INTER-CITY EXPRESS PUBLISHING CO INTER-CITY PRINTING CO	Pacific Telephone Directory Pacific Telephone Directory Pacific Telephone Directory
1967	INTER CITY EXPRESS PUBLISHING CO THE NEWSPAPER	R. L. Polk Co. R. L. Polk Co.
1962	INTER CITY EXPRESS newspr INTER CITY PRINTING CO	Pacific Telephone Pacific Telephone
1955	ROSE M A R INTER CITY PRINTING CO INTER CITY EXPRESS NEWSPR	The Pacific Telephone & Telegraph Co. The Pacific Telephone & Telegraph Co. The Pacific Telephone & Telegraph Co.
1945	MERRILL D J R	The Pacific Telephone & Telegraph Co.
1938	SWENSEN ARNOLD C MRS R	Pacific Telephone
1925	KATAYAMA M R	R. L. Polk & Co. of California

Madison St

615 Madison St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2010	NEW ENTERPRISE TRADING NEW ENTERPRISE TRADING	EDR Digital Archive EDR Digital Archive

FINDINGS

MADISON ST

615 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	ZENG Weigan	Haines Company, Inc.
1996	LAU GEORGE	PACIFIC BELL DIRECTORY
1992	LAU GEORGE	PACIFIC BELL DIRECTORY
1970	SANDERS CAROL	Pacific Telephone Directory
	VILLEDROUIN ARMAND	Pacific Telephone Directory
1967	YIP DAVID L	R. L. Polk Co.
1962	Yip David L	Pacific Telephone
1955	YIPP THOMAS R	The Pacific Telephone & Telegraph Co.
1950	YIPP THOMAS R	The Pacific Telephone & Telegraph Co.
1945	YIPP THOMAS R	The Pacific Telephone & Telegraph Co.
1943	Yip David Harriet lab h	R. L. Polk & Co.
	Yip Wah Cheang jan r	R. L. Polk & Co.

616 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	HUBER RUSSELL	Pacific Telephone Directory

617 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
1970	EASLEY JOHN C	Pacific Telephone Directory
1967	YIP ELRFRT	R. L. Polk Co.
	YIP MAY Y MRS	R. L. Polk Co.
1962	Yip Elbert Q r	Pacific Telephone
1955	YIP ELBERT Q R	The Pacific Telephone & Telegraph Co.
1950	ADOBE CONSTRUCTION CO	The Pacific Telephone & Telegraph Co.
	YIP ELBERT Q R	The Pacific Telephone & Telegraph Co.
1945	MILLER CYRUS A R	The Pacific Telephone & Telegraph Co.
1943	Yip Elbert Q mae lab h	R. L. Polk & Co.
1938	COREY ROSS T R	Pacific Telephone

619 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Wong Newton	Pacific Telephone
1970	LUM A C	Pacific Telephone Directory
	LOW YOUNG KWAI	Pacific Telephone Directory

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	POW HARRY T	R. L. Polk Co.
1962	Chin David M	Pacific Telephone
1933	ONG YOU (ALICE) H	R. L. Polk & Co.

620 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CHEN Wu	Haines Company, Inc.
1996	A TAI HONG	PACIFIC BELL DIRECTORY
1992	A TAI HONG	PACIFIC BELL DIRECTORY
1991	Tai Hong	PACIFIC BELL WHITE PAGES
1970	MARSALA LAURA J MRS	Pacific Telephone Directory
	HALL WILBUR	Pacific Telephone Directory
1967	HALL WM	R. L. Polk Co.
1962	Hall Wilbur	Pacific Telephone
1955	MARSALA LAURA J MRS R	The Pacific Telephone & Telegraph Co.
	HALL WILBUR	The Pacific Telephone & Telegraph Co.
1950	HALL WILBUR R	The Pacific Telephone & Telegraph Co.
1945	MARSALA LAURA J MRS R	The Pacific Telephone & Telegraph Co.
1943	Fong Jos welder r	R. L. Polk & Co.
	Fong Chin Yuen meat ctr h	R. L. Polk & Co.
1938	FUNG H R	Pacific Telephone
1933	FUNG HING H	R. L. Polk & Co.
1925	DEAL JAS R	R. L. Polk & Co. of California

Madison St

621 Madison St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	CLAREMONT REALTY	EDR Digital Archive
	CLAREMONT REALTY	EDR Digital Archive
2010	CLAREMONT REALTY	EDR Digital Archive
	CLAREMONT REALTY	EDR Digital Archive

MADISON ST

621 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	REALTY	Haines Company, Inc.
	CLAREMONT	Haines Company, Inc.
2000	CLAREMONT REALTY	Pacific Bell

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1996	CLAREMONT REALTY	PACIFIC BELL DIRECTORY
1992	CLAREMONT REALTY	PACIFIC BELL DIRECTORY
1980	Woo Har	Pacific Telephone
1970	FOSTER C W	Pacific Telephone Directory
1967	SING LOW	R. L. Polk Co.
1945	CHRISTENSEN ANDREW R	The Pacific Telephone & Telegraph Co.
1943	Teung Leo shoe repr h	R. L. Polk & Co.
1938	CHRISTENSEN A MRS R	Pacific Telephone
1925	WILSON GEO A R	R. L. Polk & Co. of California

622 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	FOSTER G T	Pacific Telephone Directory
1955	SOSNOWY MATTHEW R	The Pacific Telephone & Telegraph Co.
1945	BLODGETT ROBERT G MRS R	The Pacific Telephone & Telegraph Co.
1938	HAZZARD M B MRS R	Pacific Telephone

624 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	o CCHEWYow	Haines Company, Inc.
1970	CHEW AMABEL	Pacific Telephone Directory
1967	CHEW PARK Y	R. L. Polk Co.
1962	Chew Amabel	Pacific Telephone
1955	MOORE CHEW KAY R	The Pacific Telephone & Telegraph Co.
1950	MOORE CLIEW KAY E	The Pacific Telephone & Telegraph Co.
1945	MOORE CHEW KAY R	The Pacific Telephone & Telegraph Co.
1943	MOORE Chew K Yen h	R. L. Polk & Co.
1938	MOORE C KAY R	Pacific Telephone
1933	WOO CHEW H	R. L. Polk & Co.

Madison St

625 Madison St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	VICTOR WHOLESALE CO	EDR Digital Archive
	VICTOR WHOLESALE CO	EDR Digital Archive
2010	VICTOR WHOLESALE CO	EDR Digital Archive
	ASIAN SKY MEDIA INC	EDR Digital Archive
	WONGS DESIGN	EDR Digital Archive
	VICTOR WHOLESALE CO	EDR Digital Archive

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2010	ASIAN SKY MEDIA INC	EDR Digital Archive
	WONGS DESIGN	EDR Digital Archive

MADISON ST

625 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	APARTMENTS	Haines Company, Inc.
	CHANKI	Haines Company, Inc.
	a CHEUNGJla	Haines Company, Inc.
	CHEUNG Tin Mul	Haines Company, Inc.
	a CHOW Gerald	Haines Company, Inc.
	HUANG Szuyen	Haines Company, Inc.
	JONG Kay C	Haines Company, Inc.
	e JUI Georglna	Haines Company, Inc.
	LAU Siu Ying	Haines Company, Inc.
	LIUXIn	Haines Company, Inc.
	LIU In Xin	Haines Company, Inc.
	a TANG Joseph	Haines Company, Inc.
	e WONG Paul	Haines Company, Inc.
	WONG Wayne	Haines Company, Inc.
	YANG Guang	Haines Company, Inc.
2000	104 TRAN QUAN LIEN	Pacific Bell
	207 WONG WAYNE	Pacific Bell
	307 JONG KAY C	Pacific Bell
	308 PO KEUNG CHEUK	Pacific Bell
	308 HSIA LAWRENCE	Pacific Bell
1996	205 LU HUE	PACIFIC BELL DIRECTORY
	206 KWAN YIM	PACIFIC BELL DIRECTORY
	305 LIM RONG BR	PACIFIC BELL DIRECTORY
	307 JONG KAY C	PACIFIC BELL DIRECTORY
	308 MAI LIFANG	PACIFIC BELL DIRECTORY
1992	WANG K Y	PACIFIC BELL DIRECTORY
	105 CHEW YUT SUENG	PACIFIC BELL DIRECTORY
	203 HUANG S Y	PACIFIC BELL DIRECTORY
	205 LUU THUAN	PACIFIC BELL DIRECTORY
	305 LIM RONG BR	PACIFIC BELL DIRECTORY
	306 CHEN JIAN C	PACIFIC BELL DIRECTORY
	307 NG EDMOND S	PACIFIC BELL DIRECTORY

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Chew Yut Sueng	PACIFIC BELL WHITE PAGES
	Cheyne Frances	PACIFIC BELL WHITE PAGES
	Cheyne Frances J LCS W	PACIFIC BELL WHITE PAGES
	Huang S Y	PACIFIC BELL WHITE PAGES
	Huang Sander	PACIFIC BELL WHITE PAGES
	Huynh Vien	PACIFIC BELL WHITE PAGES
	Kuang Pei Qiong	PACIFIC BELL WHITE PAGES
	Lau Kwok Dong	PACIFIC BELL WHITE PAGES
	Lim Rong Br	PACIFIC BELL WHITE PAGES
	Tam TN	PACIFIC BELL WHITE PAGES
	Wang KY	PACIFIC BELL WHITE PAGES
	Wang Kalde	PACIFIC BELL WHITE PAGES
1986	Chew Erwin	PACIFIC BELL WHITE PAGES
	Huang S Y	PACIFIC BELL WHITE PAGES
1970	DORENZO ANTHONY	Pacific Telephone Directory
	KAWAIHAU JEANETTE	Pacific Telephone Directory
1967	THOMPSON LARPY	R. L. Polk Co.
1955	CHEW ERWIN R	The Pacific Telephone & Telegraph Co.
	DORENZO ANTHONY R	The Pacific Telephone & Telegraph Co.
1950	CHEW EI WIN R	The Pacific Telephone & Telegraph Co.
1945	CHEW HING R	The Pacific Telephone & Telegraph Co.
	SHOEMAKER A M R	The Pacific Telephone & Telegraph Co.
1943	Chew Erwin H Melene welder r	R. L. Polk & Co.
	Chew Guie Mrs h	R. L. Polk & Co.
1925	SUTCLIFFE F CHMNY SWEEP	R. L. Polk & Co. of California
	SUTCLIFFE F R	R. L. Polk & Co. of California

626 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	YEE Paul	Haines Company, Inc.
1992	HUI SUN CHONG	PACIFIC BELL DIRECTORY
1991	Hui Sun Chong	PACIFIC BELL WHITE PAGES
1980	Tom Shee Keong	Pacific Telephone
1970	ROWELL GALEN A	Pacific Telephone Directory
1950	CHIN JOHNNY F R	The Pacific Telephone & Telegraph Co.

627 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Chan Kwok Keung	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	HUIE WO	Pacific Telephone Directory
1967	CHOW BING	R. L. Polk Co.
1962	Chong Wah Hong	Pacific Telephone
1950	ENG HIRAM R	The Pacific Telephone & Telegraph Co.
1943	Quan Herbt meats r	R. L. Polk & Co.
	LEE Harry Kim meats h	R. L. Polk & Co.
1933	CHAN GEO C (MAY Y) H	R. L. Polk & Co.

628 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	YEE Paul	Haines Company, Inc.
	WONG Mon S	Haines Company, Inc.
1991	Choy Franklin	PACIFIC BELL WHITE PAGES
	Choy Fa Sing	PACIFIC BELL WHITE PAGES
1970	WONG SING	Pacific Telephone Directory
1962	Wye Chas B	Pacific Telephone
	Wong Sing	Pacific Telephone
1950	YOUNG FOOK R	The Pacific Telephone & Telegraph Co.
1943	Chew Bow Katie waiter h	R. L. Polk & Co.
1933	TAKAHASHI YOSHIHIKO (TAMENO) H	R. L. Polk & Co.
1925	MIWA J R	R. L. Polk & Co. of California
	GOTTLIEB RABBI M R	R. L. Polk & Co. of California

629 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Cheung Liza	Pacific Telephone
1970	CHIN KENNETH CHEUNG KAU	Pacific Telephone Directory
	LEPPALUOTO DAVID A	Pacific Telephone Directory
1967	CHIN KENNETH	R. L. Polk Co.
1950	LOW WM R	The Pacific Telephone & Telegraph Co.
1943	Yip Leon Wan T shipydwkr h	R. L. Polk & Co.
1933	HONG LUM CLK R	R. L. Polk & Co.

630 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BAKKE OLAF B	Pacific Telephone Directory
1955	TJALLDEEN IRVING J R	The Pacific Telephone & Telegraph Co.
1945	BROWNE GEORGE W R	The Pacific Telephone & Telegraph Co.

FINDINGS

Madison St

632 Madison St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	UNITED BRIDGE TRNSP LLC	EDR Digital Archive
	UNITED BRIDGE TRNSP LLC	EDR Digital Archive

MADISON ST

632 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	LIMDanny	Haines Company, Inc.
2000	CHIU SIN HEUNG	Pacific Bell
1996	LIM STANLEY	PACIFIC BELL DIRECTORY
	CHIU SIN HEUNG	PACIFIC BELL DIRECTORY
1992	CHLU SIN HEUNG	PACIFIC BELL DIRECTORY
	LIM STANLEY	PACIFIC BELL DIRECTORY
1991	Lim Stanley	PACIFIC BELL WHITE PAGES
	Chiu Sum	PACIFIC BELL WHITE PAGES
	Chiu Suet	PACIFIC BELL WHITE PAGES
	Chiu Sin Heung	PACIFIC BELL WHITE PAGES
1986	Chiu Sin Heung	PACIFIC BELL WHITE PAGES
	Lim Stanley	PACIFIC BELL WHITE PAGES
1980	Lim Stanley	Pacific Telephone
	Pang Yeu Sun	Pacific Telephone
1970	LIM STANLEY	Pacific Telephone Directory
	LOUIE BANG CHUNG	Pacific Telephone Directory
1962	Hing Milton	Pacific Telephone
	Lim Stanley	Pacific Telephone
1950	LIM FRED S R	The Pacific Telephone & Telegraph Co.
1945	LIM FRED S R	The Pacific Telephone & Telegraph Co.
1943	Lim Fred S Alice Lim Bros h	R. L. Polk & Co.
1938	CHEW GEORGE R	Pacific Telephone
1933	CHINN AL PANTRYMN R	R. L. Polk & Co.
	KUNIBE JAS N DRUGS	R. L. Polk & Co.

634 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	GORIN FRANK R	The Pacific Telephone & Telegraph Co.

FINDINGS

635 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	POTTER NORMAN F R	The Pacific Telephone & Telegraph Co.
1938	POTTER N F R	Pacific Telephone
1925	BITTENCURT E J R	R. L. Polk & Co. of California

636 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	ETINGOFF KATHRYNE	Pacific Telephone Directory
1955	ETINGOFF MAX	The Pacific Telephone & Telegraph Co.
1945	ETINGOFF MAX R	The Pacific Telephone & Telegraph Co.
1938	ETINGOFF MAX R	Pacific Telephone

639 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	CONNY SEVERN	Pacific Telephone Directory
1955	BIGLOW EVANGELINE MRS R	The Pacific Telephone & Telegraph Co.
1945	BIGLOW EVANGELINE MRS R	The Pacific Telephone & Telegraph Co.

640 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	NOE PETER R	The Pacific Telephone & Telegraph Co.

645 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	MAYO W B R	The Pacific Telephone & Telegraph Co.
1945	MAYO W B R	The Pacific Telephone & Telegraph Co.
1938	MAYO W B R	Pacific Telephone

646 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	CAMBIS J P R	The Pacific Telephone & Telegraph Co.

649 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BEILSMITH VINCENT	Pacific Telephone Directory
1955	BEILSMITH VINCENT R	The Pacific Telephone & Telegraph Co.

650 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	PIANTANIDA A C	Pacific Telephone Directory
1955	PIANTANIDA A C R	The Pacific Telephone & Telegraph Co.

FINDINGS

700 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	S & M GROCERY	The Pacific Telephone & Telegraph Co.
1950	S & M GROCERY	The Pacific Telephone & Telegraph Co.
1945	ACORN GROCERY	The Pacific Telephone & Telegraph Co.
1943	Eng Hector Jennie L gro	R. L. Polk & Co.
1938	MACMARR STORES	Pacific Telephone
1933	MACMARR STORES OPERATED BY MODERN FOOD CO OFFICE AND PLANT	R. L. Polk & Co.
1925	ROSS W E GROC	R. L. Polk & Co. of California

702 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	FUNG ALBERT R	The Pacific Telephone & Telegraph Co.
1950	FUNG ALBERT R	The Pacific Telephone & Telegraph Co.
1945	FUNG ALBERT R	The Pacific Telephone & Telegraph Co.
1943	Chinn Key Margt clk h	R. L. Polk & Co.
1938	LEE S H R	Pacific Telephone
1925	CLEMMER O H R	R. L. Polk & Co. of California

704 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	MCDOWELL DON	Pacific Telephone Directory
1962	Sen Louie M	Pacific Telephone
1950	NG LAI QUAM R	The Pacific Telephone & Telegraph Co.
1945	WAY QUAN R	The Pacific Telephone & Telegraph Co.
1943	Ross Eliz G wid D M h	R. L. Polk & Co.

705 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	AEDO EUSEBIO	Pacific Telephone Directory
1955	HATCH JOHN L R	The Pacific Telephone & Telegraph Co.

706 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	JAMES V A R	The Pacific Telephone & Telegraph Co.
1943	Yee Louie h Chung Lim Indywkr h	R. L. Polk & Co. R. L. Polk & Co.
1938	CASE ED N R	Pacific Telephone

FINDINGS

708 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	ALEXANDER CLEOLA L	Pacific Telephone Directory
1962	Jan Ray	Pacific Telephone
1955	WONG HARRY D R	The Pacific Telephone & Telegraph Co.
1945	HORTON DALE R	The Pacific Telephone & Telegraph Co.
1943	Louie John L restr wkr r	R. L. Polk & Co.
	Jee Long h	R. L. Polk & Co.
	Ramos Emanuel Lupe lab h	R. L. Polk & Co.
	Mue Low meats r	R. L. Polk & Co.
1925	BIRCH MRS LAURA R	R. L. Polk & Co. of California

709 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	MARENGO PAUL	Pacific Telephone Directory
1955	MARENGO PAUL R	The Pacific Telephone & Telegraph Co.

710 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Lee Foon M	Pacific Telephone
1950	LOUIE YUET WAH R	The Pacific Telephone & Telegraph Co.
1945	SHEW TUCK R	The Pacific Telephone & Telegraph Co.
1943	Shew Tuck Mrs h	R. L. Polk & Co.
1938	SHEW TUCK R	Pacific Telephone
1920	OKINA R K R	R. L. Polk & Co. of California

711 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	APARTMENTS	Haines Company, Inc.
	CHING Kwun Y	Haines Company, Inc.
	JIOlang Xlal	Haines Company, Inc.
	LI Bo Chuan	Haines Company, Inc.
	LU Hue	Haines Company, Inc.
	OUXInghan	Haines Company, Inc.
2000	1 CHING KWUN Y	Pacific Bell
	2 TSO YIU CHEN	Pacific Bell
	3 LU HUE	Pacific Bell
	6 KWOK KAM	Pacific Bell
	7 LI BO CHUAN	Pacific Bell
1996	1 CHING KWUN Y	PACIFIC BELL DIRECTORY

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1996	3 WU GUO PING	PACIFIC BELL DIRECTORY
	6 KWOK KAM	PACIFIC BELL DIRECTORY
1992	5 LAU DANNY	PACIFIC BELL DIRECTORY
	7 CHING KWUN Y	PACIFIC BELL DIRECTORY
1991	Ching Kwun Y	PACIFIC BELL WHITE PAGES
	Ching L	PACIFIC BELL WHITE PAGES
	Lau Danny	PACIFIC BELL WHITE PAGES
	Lau Felix	PACIFIC BELL WHITE PAGES
	Lau G	PACIFIC BELL WHITE PAGES
	Lau George	PACIFIC BELL WHITE PAGES
	Lau George & Susan	PACIFIC BELL WHITE PAGES
	Tang Sheng Jie	PACIFIC BELL WHITE PAGES
	Tang Shirley	PACIFIC BELL WHITE PAGES
	Tang So Jut	PACIFIC BELL WHITE PAGES
	Tso Bing	PACIFIC BELL WHITE PAGES
1986	Kwong Chat Chor	PACIFIC BELL WHITE PAGES
	Lee Sui Bill	PACIFIC BELL WHITE PAGES
	Lee Suk C	PACIFIC BELL WHITE PAGES
	Ng Wai Pui	PACIFIC BELL WHITE PAGES
	Ng Walter J	PACIFIC BELL WHITE PAGES
	Wirawan Janto	PACIFIC BELL WHITE PAGES
1980	Chan Lai Fong	Pacific Telephone
	Lam Hoi Yuen	Pacific Telephone
	Lee Sul Bill	Pacific Telephone
	Ng Wai Pui	Pacific Telephone
	Por Yuen Chung	Pacific Telephone
	Yeung Etta	Pacific Telephone
1970	FONG HING	Pacific Telephone Directory
	FONG NAM	Pacific Telephone Directory
	FONG TIM P	Pacific Telephone Directory
	LOUI GORDON	Pacific Telephone Directory
1967	APARTMENTS	R. L. Polk Co.
	I WONG SAM H	R. L. Polk Co.
	YOUNG CHON C	R. L. Polk Co.
	FONG TOMY P	R. L. Polk Co.
	RAY JAN LOUIE	R. L. Polk Co.
	YOUNG HOOK	R. L. Polk Co.
LEE FONG W	R. L. Polk Co.	

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	FLOPES JOSE	R. L. Polk Co.
1955	MARENGO JOSEPHINE R	The Pacific Telephone & Telegraph Co.
1938	MARENGO JOSEPHINE R	Pacific Telephone

712 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	MOURGOS STEVE	Pacific Telephone Directory
1962	Fong Quan	Pacific Telephone
1955	LEE LESTER R	The Pacific Telephone & Telegraph Co.
1950	LEE LESTER R	The Pacific Telephone & Telegraph Co.
1943	Marzan Mariano shipydwkr r	R. L. Polk & Co.
	Florindo Marcos shipydwkr r	R. L. Polk & Co.
	Marzan Jos restrwkr h	R. L. Polk & Co.
	Caleca Fruellan shipydwkr r	R. L. Polk & Co.
1938	LUM BING JUNG R	Pacific Telephone

714 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	GRIMES FRED B	Pacific Telephone Directory
1962	Marr Arthur	Pacific Telephone
1955	GRIMES FRED B R	The Pacific Telephone & Telegraph Co.
	CHANG MILDRED R	The Pacific Telephone & Telegraph Co.
1950	CHIANG MILDRED R	The Pacific Telephone & Telegraph Co.
	CHANG JIMMY Y R	The Pacific Telephone & Telegraph Co.
1945	GRIMES FRED B R	The Pacific Telephone & Telegraph Co.
1943	Chew Louie lab h	R. L. Polk & Co.
1938	GRIMES FRED B R	Pacific Telephone
	CHOW CHARLIE R	Pacific Telephone
1933	CHOW CHAS H	R. L. Polk & Co.
1928	Won John W clk Okld PO R	R.L. Polk and Co of California
1925	WON J W R	R. L. Polk & Co. of California

715 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	ACCOMAZZO LINDA	Pacific Telephone Directory
	CANTON GARAGE	Pacific Telephone Directory
	CHU BIL CANTON GARAGE	Pacific Telephone Directory
	WHETSTONE JOE	Pacific Telephone Directory
1967	CANTON GARAGE AUTO PFPR	R. L. Polk Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Canton Garage	Pacific Telephone
	Chu Bill Canton Garage	Pacific Telephone
1955	ACCOMAZZO ORACIO R	The Pacific Telephone & Telegraph Co.
	CANTON GARAGE	The Pacific Telephone & Telegraph Co.
	CHU BILL CANTON GARAGE	The Pacific Telephone & Telegraph Co.
1945	ACCOMAZZO ORACIO R	The Pacific Telephone & Telegraph Co.

716 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	HARFORD ROY	Pacific Telephone Directory
1962	Young Gilbert	Pacific Telephone
1955	CHOW CHARLIE R	The Pacific Telephone & Telegraph Co.
	HARFORD ROY R	The Pacific Telephone & Telegraph Co.
1950	CHOW CHARLIE R	The Pacific Telephone & Telegraph Co.
1945	CHOW CHARLIE R	The Pacific Telephone & Telegraph Co.
	MCCOURTNEY J R	The Pacific Telephone & Telegraph Co.
1943	Chow Charlie T Lee C h	R. L. Polk & Co.
	Chow Harold lab h	R. L. Polk & Co.
1938	CHOW DAVID B R	Pacific Telephone
	HARDIE CHAS R	Pacific Telephone
1925	AKASAKI E R	R. L. Polk & Co. of California
	HARDIE CHAS R	R. L. Polk & Co. of California
1920	AKASAKI E R	R. L. Polk & Co. of California
	IDE GEO R	R. L. Polk & Co. of California

717 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1992	TANG QING FAN	PACIFIC BELL DIRECTORY
1980	Yee Paul	Pacific Telephone
1970	FULLINGIM BERTRAM	Pacific Telephone Directory
	YEE PAUL	Pacific Telephone Directory
1967	YEE PAUL	R. L. Polk Co.
1962	Yee Paul r	Pacific Telephone
1955	YEE PAUL R	The Pacific Telephone & Telegraph Co.
1950	YEE PAUL R	The Pacific Telephone & Telegraph Co.
1945	YEE PAUL R	The Pacific Telephone & Telegraph Co.
1943	Bautista Ray S Billie pntr h	R. L. Polk & Co.
1938	REYNOLDS DALE R	Pacific Telephone
1933	SCOTT WALTER (RAMONA) H	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	ICANBERRY MRS GEORGIA R	R. L. Polk & Co. of California
1920	PICKRELL A J R	R. L. Polk & Co. of California

719 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1992	LIU YI YUAN	PACIFIC BELL DIRECTORY
1970	DROZDA A F MRS	Pacific Telephone Directory
	GEE STANLEY T	Pacific Telephone Directory
1967	KWONG MAR	R. L. Polk Co.
1955	COLLINS JOHN F JR R	The Pacific Telephone & Telegraph Co.
1943	Garcia Lorenzo Jesus lab h	R. L. Polk & Co.
1933	DAVIS AGNES R	R. L. Polk & Co.
	POWELL ROSE MRS H	R. L. Polk & Co.

720 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	HARFORD ROY R	The Pacific Telephone & Telegraph Co.
1938	PENALOSA F R	Pacific Telephone

721 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	YANG Hul	Haines Company, Inc.
2000	LEONG CHENG MAN	Pacific Bell
1996	LEONG CHENG MAN	PACIFIC BELL DIRECTORY
1992	LEONG CHENG MAN	PACIFIC BELL DIRECTORY
1991	Leong Cheng Man	PACIFIC BELL WHITE PAGES
	Leong Chong	PACIFIC BELL WHITE PAGES
1986	Lee Che How	PACIFIC BELL WHITE PAGES
1980	Kwok Yung Ngan	Pacific Telephone
1970	LOWE FRANKLIN	Pacific Telephone Directory
1967	JUNG FRANKLIN GLI 1139	R. L. Polk Co.
1962	Lowe Franklin	Pacific Telephone
1943	Bautista Salvadore shipydwkr h	R. L. Polk & Co.
1938	PON FOOK R	Pacific Telephone

722 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	CORTESE FRANCESCO	Pacific Telephone Directory
1967	LEE TOY S MRS	R. L. Polk Co.
1962	Lee Toy	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	CORTESE FRANK R	The Pacific Telephone & Telegraph Co.
1945	CORTESE FRANK R	The Pacific Telephone & Telegraph Co.
1943	Lueng Quon r	R. L. Polk & Co.
1925	CALLEN MRS RINA R	R. L. Polk & Co. of California

723 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	ZHONG Chang Di	Haines Company, Inc.
2000	ZHONG CHANG DI	Pacific Bell
1996	YEUNG SUK YING	PACIFIC BELL DIRECTORY
1980	Mark Eugene	Pacific Telephone
1970	YEE BING WAH	Pacific Telephone Directory
1967	VACANT	R. L. Polk Co.
1943	Pitt Fred Ethel sausage mkr h	R. L. Polk & Co.
1938	PITT FRED R	Pacific Telephone

724 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Ng Henry	Pacific Telephone
1955	ONG THOMPSON M R	The Pacific Telephone & Telegraph Co.
1950	CHIN TAYLOR R	The Pacific Telephone & Telegraph Co.
1943	Toy Ming bkpr h	R. L. Polk & Co.

725 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	YEE Geo WIng	Haines Company, Inc.
	LAU Slu Hung	Haines Company, Inc.
2000	YEE GEO WING	Pacific Bell
	B LAM PHAT	Pacific Bell
1996	YEE GEO WING	PACIFIC BELL DIRECTORY
	A ZHU JIN SHAO	PACIFIC BELL DIRECTORY
1992	YEE GEO WING	PACIFIC BELL DIRECTORY
	B TRUONG VAN CHI	PACIFIC BELL DIRECTORY
1991	Yee Geo Wing	PACIFIC BELL WHITE PAGES
	Truong Van Chi	PACIFIC BELL WHITE PAGES
	Chen Chong Jun	PACIFIC BELL WHITE PAGES
1986	Yee Geo Wing	PACIFIC BELL WHITE PAGES
1980	Yee Geo Wing	Pacific Telephone
1970	HUIE H	Pacific Telephone Directory

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	WING GEEM	R. L. Polk Co.
1962	Huie H	Pacific Telephone
1950	LOW YING R	The Pacific Telephone & Telegraph Co.
1945	PITT FRED R	The Pacific Telephone & Telegraph Co.
1943	Smith Helena M wid A P h	R. L. Polk & Co.
1938	CHEN MARY YEE R	Pacific Telephone
1933	OLTREN BERNICE R	R. L. Polk & Co.
	BUN T C R	R. L. Polk & Co.

726 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	ANDERSEN R J	Pacific Telephone Directory
1955	ANDERSEN ALBERTINUS CAPT R	The Pacific Telephone & Telegraph Co.
1945	ANDERSEN ALBERTINUS R	The Pacific Telephone & Telegraph Co.

727 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	TAN Guang	Haines Company, Inc.
2000	LEE C	Pacific Bell
1996	LEE C	PACIFIC BELL DIRECTORY
1992	CHIANG KIT CHUNG	PACIFIC BELL DIRECTORY
1991	Chiang Kit Chung	PACIFIC BELL WHITE PAGES
	Chiang Mai Lin	PACIFIC BELL WHITE PAGES
1986	Chiang Kit Chung	PACIFIC BELL WHITE PAGES
	Chiang L	PACIFIC BELL WHITE PAGES
1980	Chiang Kit Chung	Pacific Telephone
1970	TOWN LYNDA	Pacific Telephone Directory
	TOWN FRED JR	Pacific Telephone Directory
	CHAN CHI CHURK	Pacific Telephone Directory
1967	CHANCHI CHURK GLI 5886	R. L. Polk Co.
1962	Ching Hong Ning	Pacific Telephone
1955	EPPSON ANNIE E R	The Pacific Telephone & Telegraph Co.
1950	WANG BENNV R	The Pacific Telephone & Telegraph Co.
1945	LEONG CLAYTON R	The Pacific Telephone & Telegraph Co.
1943	Leong Clayton meatctr h	R. L. Polk & Co.
1933	WIESS WM TAILOR R	R. L. Polk & Co.
	JACOBS GERTRUDE G BKPR GREAT WESTN METER CO H	R. L. Polk & Co.
1928	47th Gertrude 0 bkpr Great Western Meter Oo R	R.L. Polk and Co of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Co Blanche sten C 0 F Weber & Co R	R.L. Polk and Co of California
1925	JACOBS IDA R	R. L. Polk & Co. of California
	EPPSON GUSTAVE R	R. L. Polk & Co. of California
1920	SANDRONE MISS CAMILLE R	R. L. Polk & Co. of California

729 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	OUYANG Shao Rong	Haines Company, Inc.
	CAI Jing Shang	Haines Company, Inc.
1992	WOO KUO WING	PACIFIC BELL DIRECTORY
1991	Hung Lum Yow	PACIFIC BELL WHITE PAGES
1986	Hung Lum Yow	PACIFIC BELL WHITE PAGES
1980	Hung Lum Yow	Pacific Telephone
1970	HUNG LUM YOW	Pacific Telephone Directory
1967	HUNG LUM Y	R. L. Polk Co.
1962	Hung Lum Yow r	Pacific Telephone
1955	HUNG LUM YOW R	The Pacific Telephone & Telegraph Co.
1950	HANG LUNI YEW R	The Pacific Telephone & Telegraph Co.
1945	LUM BING JUNG R	The Pacific Telephone & Telegraph Co.
1943	Lum Bing J h	R. L. Polk & Co.
	Yow Lum H meats r	R. L. Polk & Co.
1938	JACOBS I R	Pacific Telephone
1933	SEE JOE MRS H	R. L. Polk & Co.
1920	BENSON MRS W H R	R. L. Polk & Co. of California

731 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	YANMING Su	Haines Company, Inc.
2000	GONG BANG JI	Pacific Bell
1996	LAU KWOK BEN	PACIFIC BELL DIRECTORY
1992	LAU KWOK BEN	PACIFIC BELL DIRECTORY
1980	Jeung Kay	Pacific Telephone
1970	ALLISON J B	Pacific Telephone Directory
	LEE MUN	Pacific Telephone Directory
1967	YUEN LOUIF	R. L. Polk Co.
	YEE ON LOUIE	R. L. Polk Co.
1962	Chiu Katherine W	Pacific Telephone
	Chiu Teng Kiat Rev	Pacific Telephone
1955	ALLISON J B	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	GEE BING R	The Pacific Telephone & Telegraph Co.
1938	CHEW JOE R	Pacific Telephone
	YOUNG FLORENCE R	Pacific Telephone
1933	LEE GEO Y H	R. L. Polk & Co.

732 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	WANNOP G B	Pacific Telephone Directory
1962	Won Geo	Pacific Telephone
1955	WANNOP G B R	The Pacific Telephone & Telegraph Co.
1945	WANNOP G B R	The Pacific Telephone & Telegraph Co.
1943	Eng Hector Jennie L gro r	R. L. Polk & Co.
1938	TREACY W R R	Pacific Telephone
	CHIN HONG R	Pacific Telephone
1928	Chilos Gus N lab H	R.L. Polk and Co of California
	n Budd uphol R	R.L. Polk and Co of California
	Lundie Jacob Marie H	R.L. Polk and Co of California
1925	DUNN VICTOR A R	R. L. Polk & Co. of California
1920	WRUBEL MRS C M R	R. L. Polk & Co. of California

733 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
2000	ZHU WEI ZHAO	Pacific Bell
1992	LEI RONG GEN	PACIFIC BELL DIRECTORY
1986	Yee Hue Yip	PACIFIC BELL WHITE PAGES
1970	CHOW JOE FONG	Pacific Telephone Directory
1967	VACANT	R. L. Polk Co.
1962	Lee Gow Ser	Pacific Telephone
1955	SUEZ EDNA R	The Pacific Telephone & Telegraph Co.
1938	KAI-KEE H MRS R	Pacific Telephone
1928	cort Harold trucker R	R.L. Polk and Co of California
1925	DAVIS MRS L R	R. L. Polk & Co. of California
1920	MCALLISTER MRS M R	R. L. Polk & Co. of California

735 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BIELSKI CASIMER A	Pacific Telephone Directory
1945	BROOKS MELVA M R	The Pacific Telephone & Telegraph Co.

FINDINGS

738 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LOO CHEN YEE	Pacific Telephone Directory
1955	OLSON ANNA R	The Pacific Telephone & Telegraph Co.
1945	OLSON ANNA R	The Pacific Telephone & Telegraph Co.
1938	OLSON ANNA R	Pacific Telephone

739 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	CHIARANTANO TONY	Pacific Telephone Directory

742 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	KLEMM J BRADLEY	Pacific Telephone Directory
1945	MARTINDALE LEE A DR R	The Pacific Telephone & Telegraph Co.
1938	JACKSA J MRS R	Pacific Telephone

746 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	ROGERS EDNA M	Pacific Telephone Directory
	ROGERS GEO JR	Pacific Telephone Directory
1955	CROSS ARTHUR R	The Pacific Telephone & Telegraph Co.
1945	CROSS ARTHUR R	The Pacific Telephone & Telegraph Co.

747 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	KAVANAGH RUTH C	Pacific Telephone Directory
1955	COCHRANE ROBT R	The Pacific Telephone & Telegraph Co.

749 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	SAMPIETRO JOS	Pacific Telephone Directory
1955	PRES-TO-LOGS DISTRS OF CALIF INC	The Pacific Telephone & Telegraph Co.
	SAMPIETRO JOS PRES-TO-LOGS DISTRS OF CALIF INC	The Pacific Telephone & Telegraph Co.
1945	SAMPIETRO J R	The Pacific Telephone & Telegraph Co.
1938	SAMPIETRO J R	Pacific Telephone

801 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BAKER F L	Pacific Telephone Directory
1955	BAKER F L R	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	BAKER F L R	The Pacific Telephone & Telegraph Co.
1938	CARROLL MINNIE R	Pacific Telephone

802 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	OCHOA WM R	The Pacific Telephone & Telegraph Co.
1945	HEIN GEORGE JR R	The Pacific Telephone & Telegraph Co.
1938	STITT ROBERT H R	Pacific Telephone

804 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	DANIEL ERNEST	Pacific Telephone Directory
1955	WINLUND PETER N R	The Pacific Telephone & Telegraph Co.
1938	ICARDO JOE R	Pacific Telephone

805 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	PRIZER M N	Pacific Telephone Directory
1962	Simerley Sam	Pacific Telephone
	Simerley Geneva	Pacific Telephone
	Simerley G C	Pacific Telephone
	Rutherford R W	Pacific Telephone
	Rutherford Georgette	Pacific Telephone
	Grabe Frank E	Pacific Telephone
	1955	PRIZER MARJORIE R	The Pacific Telephone & Telegraph Co.
1950	MILLER THOS E R	The Pacific Telephone & Telegraph Co.
1945	PRIZER MARJORIE R	The Pacific Telephone & Telegraph Co.
	MILLER J S R	The Pacific Telephone & Telegraph Co.
1943	Asbe Bert H Alice lab h	R. L. Polk & Co.
	Asbe Doris M clk r	R. L. Polk & Co.
	CONRAD Chas mech h	R. L. Polk & Co.
	CONRAD Lawrence L Florence tmstr r	R. L. Polk & Co.
	Gardner May Mrs r	R. L. Polk & Co.
	Golden John clk r	R. L. Polk & Co.
	Golden Patk mech r	R. L. Polk & Co.
	Kent Carrie Mrs r	R. L. Polk & Co.
	Magdale Frank welder r	R. L. Polk & Co.
	Rickard Lea Mrs r	R. L. Polk & Co.
	Terry Louise clk r	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Walton Betty J Mrs clk r	R. L. Polk & Co.
1938	EWING FERN MRS R	Pacific Telephone
	PRIZER MARJORIE R	Pacific Telephone
1933	DOYLE GERTRUDE K H	R. L. Polk & Co.
	DOYLE JOHN H (AGNES) MGR LORAIN APTS H	R. L. Polk & Co.
	JOHNS THOS R	R. L. Polk & Co.
	JOHNS WM (JENNIE) H	R. L. Polk & Co.
	MCINTOSH BENJ W CIGARS	R. L. Polk & Co.
	MCINTOSH JOHN CLK H	R. L. Polk & Co.
	SNOW WM GDNR OKLD PARK DEPT R	R. L. Polk & Co.
	VALANCIE DAVID LAB H	R. L. Polk & Co.
	ZETKA FRANCES WAITER H	R. L. Polk & Co.
1928	Garanso Libardo D mgr Flllpino Federation of America R	R.L. Polk and Co of California
	A Hans P H	R.L. Polk and Co of California
	Wks Chas H	R.L. Polk and Co of California
	Loraine Apartments	R.L. Polk and Co of California
	h Percy G H	R.L. Polk and Co of California
	Fair Jas N mtrmn R	R.L. Polk and Co of California
	Fair John electn H	R.L. Polk and Co of California
	P M G H	R.L. Polk and Co of California
	Garaaso Libardo D mar Flfpino Federation of America R	R.L. Polk and Co of California
1925	LORAIN APARTMENTS	R. L. Polk & Co. of California
1920	LORAIN APARTMENTS	R. L. Polk & Co. of California

806 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	OCHOA K L	Pacific Telephone Directory
1955	HAMPTON CATHERINE M R	The Pacific Telephone & Telegraph Co.
1945	HAMPTON W H R	The Pacific Telephone & Telegraph Co.
1938	HAMPTON W H R	Pacific Telephone
1925	HAMPTON W H R	R. L. Polk & Co. of California

807 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BLUME CHAS A	Pacific Telephone Directory

FINDINGS

810 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	STEVENER CORA	Pacific Telephone Directory
1945	RANDOLPH H G R	The Pacific Telephone & Telegraph Co.
1938	VARNI L J R	Pacific Telephone

811 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	BLUME C A R	The Pacific Telephone & Telegraph Co.
1945	BLUME C A R	The Pacific Telephone & Telegraph Co.

812 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BENSTED ARNOLD	Pacific Telephone Directory
1955	BENSTED ARNOLD R	The Pacific Telephone & Telegraph Co.

815 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LADVALA DONA M	Pacific Telephone Directory
	LADVALA MABEL	Pacific Telephone Directory
1962	Sung Mary Anna Dr	Pacific Telephone
	Hsi Walter Y M Rev Episcopal Chrch of Our Savior	Pacific Telephone
	Episcopal Church of Our Savior	Pacific Telephone
1955	KLARE A H R	The Pacific Telephone & Telegraph Co.
1945	KLARE A H R	The Pacific Telephone & Telegraph Co.
1938	KLARE A H R	Pacific Telephone

817 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	HEIN GEO JR	Pacific Telephone Directory
1955	HEIN GEO JR R	The Pacific Telephone & Telegraph Co.

820 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	MORABITO PETE	Pacific Telephone Directory
1955	MORABITO PETE R	The Pacific Telephone & Telegraph Co.

822 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LEONETTI LUIGI	Pacific Telephone Directory
1955	LEONETTI LUIGL R	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	LEONETTI LUIGI R	The Pacific Telephone & Telegraph Co.

823 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	KOLLENBAUM J	Pacific Telephone Directory
1955	KOLLENBAUM J R	The Pacific Telephone & Telegraph Co.
1945	KOLLENBAUM J R	The Pacific Telephone & Telegraph Co.

824 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BROWN L G	Pacific Telephone Directory
1955	CORTESE VINCENT R	The Pacific Telephone & Telegraph Co.
1945	CORTESE VINCENT R	The Pacific Telephone & Telegraph Co.
1938	BRUNSTEIN LELA J R	Pacific Telephone

825 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BIANCONI ARTHUR	Pacific Telephone Directory
1945	MAZZONI J R	The Pacific Telephone & Telegraph Co.
1938	WOOLWORTH WILLIAM G R	Pacific Telephone

827 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	NG YIUTO DOMINIC	Pacific Telephone Directory
1945	FARAMIA J R	The Pacific Telephone & Telegraph Co.
1938	FARAMIA J R	Pacific Telephone

829 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	HOWARD G D NICK	Pacific Telephone Directory

830 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	CULLEY WM W JR	Pacific Telephone Directory
1955	RAYMOND BEATRICE R	The Pacific Telephone & Telegraph Co.
1945	RAYMOND BEATRICE R	The Pacific Telephone & Telegraph Co.
1938	RAYMOND BEATRICE R	Pacific Telephone
1925	RYAN HENRY R	R. L. Polk & Co. of California
1920	MORGAN B W R	R. L. Polk & Co. of California

FINDINGS

831 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	KELL SALLY	Pacific Telephone Directory
	BALLINGER PETER	Pacific Telephone Directory

832 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Hussey Benj mach R	R.L. Polk and Co of California

833 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BARNETT ROBERTA	Pacific Telephone Directory
1945	MCLACHLAN C G R	The Pacific Telephone & Telegraph Co.
1943	Mc Lachlan Chas G Club San Pablo r	R. L. Polk & Co.
1938	MILLER H D R	Pacific Telephone

834 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BROWNE GERALD D	Pacific Telephone Directory
1955	BROWNE GERALD D R	The Pacific Telephone & Telegraph Co.
1945	BROWNE GERALD D R	The Pacific Telephone & Telegraph Co.
1938	BROWNE GERALD D R	Pacific Telephone

835 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	CHUAN JAS L	Pacific Telephone Directory
1938	VEALE L C R	Pacific Telephone

838 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	MALLINEN JENNIE E	Pacific Telephone Directory
1945	WILSON O S R	The Pacific Telephone & Telegraph Co.
1938	HENRICKSEN H O R	Pacific Telephone
1925	BROWNE GEO W R	R. L. Polk & Co. of California

839 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	WEINER M M R	The Pacific Telephone & Telegraph Co.
1925	BEEMER A C R	R. L. Polk & Co. of California

FINDINGS

840 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	ALLEN CHAS W	Pacific Telephone Directory
1955	KELLY MAY C R	The Pacific Telephone & Telegraph Co.
1938	ZIERTEN N R	Pacific Telephone

841 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LONG WILFORD E	Pacific Telephone Directory
1955	GIVENS FRANCES R	The Pacific Telephone & Telegraph Co.
1938	MATERNE CHAS R	Pacific Telephone
1925	CUSHING E D R	R. L. Polk & Co. of California

843 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	EVIGLIA F R	The Pacific Telephone & Telegraph Co.

844 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	NICHOLS C L R	The Pacific Telephone & Telegraph Co.
1945	EVIGLIA F R	The Pacific Telephone & Telegraph Co.

847 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	PARDINI A J	Pacific Telephone Directory
	LENTZ LEROY	Pacific Telephone Directory
	SCIACERO VICTOR	Pacific Telephone Directory

848 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LANKFORD H G	Pacific Telephone Directory
1938	DUKES P A R	Pacific Telephone

849 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	DENNIS ROBT G	Pacific Telephone Directory
1955	DENNIS ROBT G R	The Pacific Telephone & Telegraph Co.

886 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	SAN FRAN BAY	Haines Company, Inc.
	AREA RAPID TRNST	Haines Company, Inc.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	AREA RAPID TRNST	Haines Company, Inc.
	SAN FRAN BAY	Haines Company, Inc.
	AREA RAPD TRNST	Haines Company, Inc.
	BARTSFBAY	Haines Company, Inc.
	BARTSFBAY	Haines Company, Inc.
	AREA RAPD TRNST	Haines Company, Inc.
902 MADISON ST		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	CARLSON E L	Pacific Telephone Directory
904 MADISON ST		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LANGDON KEVIN G	Pacific Telephone Directory
1945	DUNCAN LAMOYNE R	The Pacific Telephone & Telegraph Co.
906 MADISON ST		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	PIKE M V	Pacific Telephone Directory
907 MADISON ST		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	JOHNSON VIOLET MRS	Pacific Telephone Directory
1955	HELMKE CHAS J MRS R	The Pacific Telephone & Telegraph Co.
	SOUZA JOHN J R	The Pacific Telephone & Telegraph Co.
908 MADISON ST		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	MURDOCK V	Pacific Telephone Directory
909 MADISON ST		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	SHAW PEGGY L	Pacific Telephone Directory
	ROMERO JOSE CONST	Pacific Telephone Directory
	KERR M E	Pacific Telephone Directory
	BROWN SUTCLIFFE	Pacific Telephone Directory
1955	SULLIVAN BYRON R	The Pacific Telephone & Telegraph Co.
1945	DUNN WM N R	The Pacific Telephone & Telegraph Co.
1938	DUNN WM N R	Pacific Telephone

FINDINGS

910 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	JERRO DAVID	Pacific Telephone Directory
1945	GAVILLET ALBERT R GAVILLET FERN R	The Pacific Telephone & Telegraph Co. The Pacific Telephone & Telegraph Co.

911 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	REED ROBT R	Pacific Telephone Directory
1955	DELAMATER HOWARD P R	The Pacific Telephone & Telegraph Co.

914 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	OAKLAND RAIDERS TICKET OFC	R. L. Polk Co.
1955	OAK PARK LIQUOR	The Pacific Telephone & Telegraph Co.

915 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	DREYER ALBERT E	Pacific Telephone Directory
1955	RUDE WARREN H R	The Pacific Telephone & Telegraph Co.
1945	COGGIOLA JOE R	The Pacific Telephone & Telegraph Co.
1938	COGGIOLA JOE R	Pacific Telephone

916 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	KJOSE JOHN T	Pacific Telephone Directory
1955	MERRILL ELSIE R	The Pacific Telephone & Telegraph Co.
1945	SHAW LAWRENCE R	The Pacific Telephone & Telegraph Co.
1938	CASSIN DON R	Pacific Telephone
1933	MCCAMPBELL CHAS (EDITH) CHAUF R BERKELEY	R. L. Polk & Co.

917 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	THOMSEN JOHN H	Pacific Telephone Directory
1945	BRUCE M V R	The Pacific Telephone & Telegraph Co.

918 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CHANBin Zhong	Haines Company, Inc.
	CHOI Kam Hung	Haines Company, Inc.
	PANG Yeu Sun	Haines Company, Inc.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	PANG YEUN SUN	Pacific Bell
	CAI MING GAO	Pacific Bell
	LIU MING JIE	Pacific Bell
1996	PANG YEUN SUN	PACIFIC BELL DIRECTORY
	CAI MING GAO	PACIFIC BELL DIRECTORY
1992	PANG YEUN SUN	PACIFIC BELL DIRECTORY
1991	Pang Yeu Sun	PACIFIC BELL WHITE PAGES
1986	Pang Yeu Sun	PACIFIC BELL WHITE PAGES
1970	GATES CLAIRE MRS	Pacific Telephone Directory
1967	YEE SHEE GO	R. L. Polk Co.
1962	Goe Choy	Pacific Telephone
1945	DAHLGREN W G R	The Pacific Telephone & Telegraph Co.
	JESPERSON O F R	The Pacific Telephone & Telegraph Co.
1943	Crum Elton M shipydwkr r	R. L. Polk & Co.
	Dahlgren Wm G Jennie carp h	R. L. Polk & Co.
	Miller Jas S Jennie gas sta r	R. L. Polk & Co.
	Nuckols Louis Velma welder r	R. L. Polk & Co.
1938	MOREAU ARTHUR J R	Pacific Telephone
1933	BRADLEY DEE R	R. L. Polk & Co.
	BRADLEY THOS (BELLE) SLSMN H	R. L. Polk & Co.
1928	r Julia Mrs H	R.L. Polk and Co of California
	Samuel K Edith R	R.L. Polk and Co of California
	i Wm R R	R.L. Polk and Co of California
1920	FARMER C A R	R. L. Polk & Co. of California

919 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	GAFFNEY P A	Pacific Telephone Directory
1945	GAFFNEY P A R	The Pacific Telephone & Telegraph Co.
1938	SIMON LAURENCE J R	Pacific Telephone
1933	MONIZE VIOLET R	R. L. Polk & Co.

920 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BEALS ERIC	Pacific Telephone Directory
1955	MOORE ROBT L R	The Pacific Telephone & Telegraph Co.
1938	ROSENSTRAUCH J R R	Pacific Telephone

FINDINGS

921 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	CHATTMAN B COOK R	R. L. Polk & Co.
	FISHER LAWRENCE (RUTH) PNTR H	R. L. Polk & Co.
	LANDAKER JOS (VIOLA) CHAUF R	R. L. Polk & Co.
	O NEIL PATK (FLORENCE) PNTR R	R. L. Polk & Co.
	RYMER JAS (GEORGIA) PNTR R	R. L. Polk & Co.
1928	h Louise H	R.L. Polk and Co of California
	Bank Florence Mrs H	R.L. Polk and Co of California
	F rances Mrs H	R.L. Polk and Co of California
	Sherwood Alf H	R.L. Polk and Co of California

924 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	ENGDY	Haines Company, Inc.
2000	ENG D Y	Pacific Bell
1996	ENG D Y	PACIFIC BELL DIRECTORY
1992	ENG D Y	PACIFIC BELL DIRECTORY
1991	i Eng DY	PACIFIC BELL WHITE PAGES
1980	Eng D Y	Pacific Telephone
1970	BOGART STEPHEN A	Pacific Telephone Directory
	DANG DOUGLAS	Pacific Telephone Directory
	ENG D Y	Pacific Telephone Directory
	MAC ARTHUR NOWELL B	Pacific Telephone Directory
	OKAZAKI TOSHIO	Pacific Telephone Directory
1967	ENG 0 Y	R. L. Polk Co.
1962	Eng D Y r	Pacific Telephone
1955	ENG D Y R	The Pacific Telephone & Telegraph Co.
1950	MILLER J S R	The Pacific Telephone & Telegraph Co.
1945	BLAIR HOWARD R	The Pacific Telephone & Telegraph Co.
1943	Hite Henry A Mina ydmn SPCo h	R. L. Polk & Co.
	KRAUSE Frank swchmn r	R. L. Polk & Co.
	SNYDER Frank firemn r	R. L. Polk & Co.
1938	SKUCE MARY MRS R	Pacific Telephone
1933	NIERE MARY CLK R	R. L. Polk & Co.
	SKUCE GEO A JR WITH UNITED AUTOGRAPHIC REGISTER R	R. L. Polk & Co.
	SKUCE MARTIN J WITH UNITED AUTOGRAPHIC REGISTER R	R. L. Polk & Co.
	SKUCE MARY MRS H	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	H Tobias A Ethel H 4th Walter R	R.L. Polk and Co of California R.L. Polk and Co of California
1925	MICHAEL WESLEY R	R. L. Polk & Co. of California

925 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	SPILLNER HENRY J	Pacific Telephone Directory
1955	SPILLNER HENRY J R	The Pacific Telephone & Telegraph Co.
1945	SPILLNER HENRY J R	The Pacific Telephone & Telegraph Co.

926 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
2000	CHEN SHAO LING	Pacific Bell
1996	CHEN SHAO LING	PACIFIC BELL DIRECTORY
1992	LIN HUAYING	PACIFIC BELL DIRECTORY
1991	Liu Chun Ming	PACIFIC BELL WHITE PAGES
1970	GREENE DONALD	Pacific Telephone Directory
1967	SUM SUE	R. L. Polk Co.
1962	Chew Jimmie Jr	Pacific Telephone
1955	GREENE DONALD R	The Pacific Telephone & Telegraph Co.
1950	DOCHERTY RICHARD R	The Pacific Telephone & Telegraph Co.
1945	GUEST MURIEL M R	The Pacific Telephone & Telegraph Co.
1943	Bias Wm B shipydwkr r Guest Mary E wid B G r Guest Muriel M clk r Guest Wm N Estella shipydwkr h	R. L. Polk & Co. R. L. Polk & Co. R. L. Polk & Co. R. L. Polk & Co.
1938	STEVENS JAY Y R	Pacific Telephone
1928	Stapp Chas pumpmn R S Mrs H	R.L. Polk and Co of California R.L. Polk and Co of California

928 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	ZHEN Huan R	Haines Company, Inc.
2000	MAI YUNU	Pacific Bell
1991	Young B K	PACIFIC BELL WHITE PAGES
1986	Chung Deung H	PACIFIC BELL WHITE PAGES
1980	Jowell Bun	Pacific Telephone
1970	CHAN HAROLD C L	Pacific Telephone Directory

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	FONG DAVID	R. L. Polk Co.
1962	Wong Jimmy N W	Pacific Telephone
1938	VALENCIA J MRS R	Pacific Telephone

Madison St

930 Madison St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	RGM AND ASSOCIATES	EDR Digital Archive
	RGM AND ASSOCIATES	EDR Digital Archive

MADISON ST

930 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
1970	CHEW CHARLIE	Pacific Telephone Directory
1967	CHEW CHIN	R. L. Polk Co.
1962	Chew Charlie	Pacific Telephone
1955	JUNG CHARLIE R	The Pacific Telephone & Telegraph Co.
1950	MILNE JAS R	The Pacific Telephone & Telegraph Co.
1943	La Rock Edw J Mary h	R. L. Polk & Co.
	Selby L Jas driver r	R. L. Polk & Co.
	Wright Robt W gunsmith J R Stewart r	R. L. Polk & Co.
1928	Remmelee Richd R	R.L. Polk and Co of California
	Lake Jos A Mary H	R.L. Polk and Co of California
	Achilles Thos R	R.L. Polk and Co of California
	Ethel R	R.L. Polk and Co of California
	ton Lettia restrwkr R	R.L. Polk and Co of California
1925	HOOS A F R	R. L. Polk & Co. of California
	BREWER H W R	R. L. Polk & Co. of California

931 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LAWLER RAYMOND C	Pacific Telephone Directory
1955	DAHLBERG G R	The Pacific Telephone & Telegraph Co.

932 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	GIMA ALFRED S DR	Pacific Telephone Directory

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	DEPARADE W W R	The Pacific Telephone & Telegraph Co.
1945	DEPARADE W W R	The Pacific Telephone & Telegraph Co.
1938	DEPARADE W W R	Pacific Telephone

934 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	TRONOFF CHAS F	Pacific Telephone Directory
1945	HAYES E Q R	The Pacific Telephone & Telegraph Co.
1938	HAYES E Q R	Pacific Telephone

935 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	DOYLE MARY	Pacific Telephone Directory
1955	COONEY R S R	The Pacific Telephone & Telegraph Co.
	GUNNARSON JOHN MRS	The Pacific Telephone & Telegraph Co.
1945	COONEY R S R	The Pacific Telephone & Telegraph Co.
	GUNNARSON JOHN MRS R	The Pacific Telephone & Telegraph Co.

940 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	DEMPSEY S L	Pacific Telephone Directory

941 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	FREEZE C R R	The Pacific Telephone & Telegraph Co.

943 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LE GATE ARLEN A	Pacific Telephone Directory
1945	WRIGHT H EVERETT R	The Pacific Telephone & Telegraph Co.
1938	WRIGHT H EVERETT R	Pacific Telephone

945 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	JOYCE E K	Pacific Telephone Directory
1938	IVERSEN ROLF R	Pacific Telephone

946 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	DURAND HENRY R	Pacific Telephone Directory

FINDINGS

947 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	HOGUE PAUL N	Pacific Telephone Directory
1955	HOGUE PAUL N R	The Pacific Telephone & Telegraph Co.
1945	ROBINSON E B R	The Pacific Telephone & Telegraph Co.
1938	BARRETT T A R	Pacific Telephone

948 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BROWN FREDERIC MARION	Pacific Telephone Directory
1955	BROWN FREDERIC MARION R	The Pacific Telephone & Telegraph Co.
1945	CARMACK PAUL R	The Pacific Telephone & Telegraph Co.

949 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BECKHUSEN THOS E MRS	Pacific Telephone Directory
1955	BECKHUSEN THOS E R	The Pacific Telephone & Telegraph Co.
1945	AULT NORVERTA R	The Pacific Telephone & Telegraph Co.
1938	BRAGMAN J R	Pacific Telephone
1933	BRAGMAN JOS (JOE AND BUD S SERVICE) R ALAMEDALBANY	R. L. Polk & Co.
1928	Kister Donald E chainmn R	R.L. Polk and Co of California

950 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	SENNE HAROLD	Pacific Telephone Directory
1955	SENNE HAROLD R	The Pacific Telephone & Telegraph Co.
1945	FOSTER J B MRS R	The Pacific Telephone & Telegraph Co.
1938	FOSTER J B MRS R	Pacific Telephone

951 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	VILLALOBOS PABLO	Pacific Telephone Directory
1955	WIMS MARTIN E MRS R	The Pacific Telephone & Telegraph Co.
1945	BROWN FREDERIC MARION R	The Pacific Telephone & Telegraph Co.

954 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	DE MARIA JOS	Pacific Telephone Directory
1955	DE MARIA JOS R	The Pacific Telephone & Telegraph Co.

FINDINGS

956 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	MAC GOWAN SYBIL	Pacific Telephone Directory

957 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	ALIMONTI A A R	The Pacific Telephone & Telegraph Co.
1945	CAMPBELL JAMES R	The Pacific Telephone & Telegraph Co.
1938	DENNIS JACK W R	Pacific Telephone
1925	LEHMAN C R R	R. L. Polk & Co. of California

959 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	HASHAY BEATRICE	Pacific Telephone Directory
1955	HASHAY BEATRICE R	The Pacific Telephone & Telegraph Co.

963 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	CRAVOTTO JOS	Pacific Telephone Directory

1000 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Wildwood Hiram N Lucy B H	R.L. Polk and Co of California

Madison St

1009 Madison St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	SOL SOURCE ENERGY SOLUTIONS	EDR Digital Archive
	SOL SOURCE ENERGY SOLUTIONS	EDR Digital Archive

MADISON ST

1009 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	STRIBLING Lawrence	Haines Company, Inc.
2000	2 MANAOIS JOSEPHINE H	Pacific Bell
	9 GUAN GUI LIAN	Pacific Bell
	15 STRIBLING LAWRENCE	Pacific Bell
1996	2 MANAOIS JOSEPHINE H	PACIFIC BELL DIRECTORY
	15 STRIBLING LARRY	PACIFIC BELL DIRECTORY

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1992	2 MANAOIS JOSEPHINE H	PACIFIC BELL DIRECTORY
	4 MARA PROPERTIES	PACIFIC BELL DIRECTORY
	5 BOMBASE JULIANA	PACIFIC BELL DIRECTORY
	6 MANAOIS DANL N	PACIFIC BELL DIRECTORY
	17 OLAIS ED	PACIFIC BELL DIRECTORY
1991	Manaols Danl N	PACIFIC BELL WHITE PAGES
	Manaois Raquel	PACIFIC BELL WHITE PAGES
	Manapul Edmund	PACIFIC BELL WHITE PAGES
	Mara Properties	PACIFIC BELL WHITE PAGES
	Olais Ed	PACIFIC BELL WHITE PAGES
1986	Flares Ruddy	PACIFIC BELL WHITE PAGES
	Gaspar Cecilio	PACIFIC BELL WHITE PAGES
	Hodges Eric	PACIFIC BELL WHITE PAGES
	Manaois Dani N	PACIFIC BELL WHITE PAGES
	Manason Marc J	PACIFIC BELL WHITE PAGES
	Marzan Adelaida	PACIFIC BELL WHITE PAGES
	Olais Ed	PACIFIC BELL WHITE PAGES
	Oland D	PACIFIC BELL WHITE PAGES
	Olander Carole	PACIFIC BELL WHITE PAGES
	1980	Chan Elaine	Pacific Telephone
Flores Ruddy		Pacific Telephone
Goolsby Tony		Pacific Telephone
Manaios Danl H		Pacific Telephone
Manaois Danl N		Pacific Telephone
Olais Ed		Pacific Telephone
1975	ASUNCION DEOGRACAS	Pacific Telephone
1970	CHAN ELAINE	Pacific Telephone Directory
	SANTOS ROMEO	Pacific Telephone Directory
	YEE HONG	Pacific Telephone Directory
1967	APARTMENTS	R. L. Polk Co.
	ROSE SAM	R. L. Polk Co.
	MC GEE CHESTER B	R. L. Polk Co.
	BALCHICK PAUL	R. L. Polk Co.
	VACANT	R. L. Polk Co.
	CHU STANLEY	R. L. Polk Co.
	VACANT	R. L. Polk Co.
	CORDER A T	R. L. Polk Co.
	POPE GENE A	R. L. Polk Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	MUNAR VAL	R. L. Polk Co.
	SAM PAUL	R. L. Polk Co.
1962	Grant Thos L	Pacific Telephone
	Mathis Hollis H	Pacific Telephone
	Polido Fernando	Pacific Telephone
1950	WYNNE R J R	The Pacific Telephone & Telegraph Co.
1945	MANTER LUCY MRS R	The Pacific Telephone & Telegraph Co.
1943	Alford France Lucy welder h	R. L. Polk & Co.
	AULT Chas Dorothy lab r	R. L. Polk & Co.
	Bidwell Loren lab h	R. L. Polk & Co.
	Clarkson Harold W mech r	R. L. Polk & Co.
	Fuller Alvah Mrs r	R. L. Polk & Co.
	Harrigan Lola Mrs waiter r	R. L. Polk & Co.
	Hoggard Thos H Mary mech r	R. L. Polk & Co.
	Holder Geo Helen welder h	R. L. Polk & Co.
	Ledford Homer welder r	R. L. Polk & Co.
	Robinson Essie wid Ernest h	R. L. Polk & Co.
	Stark John A lab r	R. L. Polk & Co.
	Manter Hiram W Lucy h	R. L. Polk & Co.
	Mustain Albt O Gertrude driver r	R. L. Polk & Co.
1938	MANTER LUCY MRS R	Pacific Telephone
1933	BISHOP WM (GOLDIE) MECH H	R. L. Polk & Co.
	BLARE HARRY SLSMN R	R. L. Polk & Co.
	JONES BENJ F CLK R	R. L. Polk & Co.
	KOSS CARL CLK R	R. L. Polk & Co.
	LUCAS ERNEST (RUTH) MECH H	R. L. Polk & Co.
	MANTER HIRAM W (LUCY S) MGR MILO APTS H	R. L. Polk & Co.
	MATHEWSON CARL (BERNICE) CLK H	R. L. Polk & Co.
	MILO APARTMENTS	R. L. Polk & Co.
	PARSLEY BERT CLK R	R. L. Polk & Co.
	ROGERS JAS (FRANCES) H	R. L. Polk & Co.
1928	H Harry H	R.L. Polk and Co of California
	Classen Felix E mach H	R.L. Polk and Co of California
	Classen L Mrs H	R.L. Polk and Co of California
	Albany Thos Susan R	R.L. Polk and Co of California
	Heine Geo A Bertha H	R.L. Polk and Co of California
	Wildwood Lucille F R	R.L. Polk and Co of California
	Milo Apartments	R.L. Polk and Co of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	r Harry H	R.L. Polk and Co of California
	Central Nellie Mrs H	R.L. Polk and Co of California
	Sandholt Chris H	R.L. Polk and Co of California
	B Betty M H	R.L. Polk and Co of California
	10th Frank E formn Alaska Pkrs Assn R	R.L. Polk and Co of California
	av May C H	R.L. Polk and Co of California
	Miles E W stdt H	R.L. Polk and Co of California
	le it Jesse S dlo prsr H	R.L. Polk and Co of California
1925	MILO APARTMENTS	R. L. Polk & Co. of California

1011 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	e WONGWIllam	Haines Company, Inc.
1967	WONG LUN	R. L. Polk Co.
1962	Wong Lun	Pacific Telephone
1943	WAGNER Ida F Mrs h	R. L. Polk & Co.
	MOON Mary wid G A r	R. L. Polk & Co.
1933	WAGGENER IDA F MRS BKPR M E MOON R	R. L. Polk & Co.
	WAGGENER ALONZO (IDA F) CARP H	R. L. Polk & Co.
1928	Dearing Mary E A J Tait & Co R	R.L. Polk and Co of California
1925	WAGGENER A R	R. L. Polk & Co. of California
1920	LAMP MISS LINDA R	R. L. Polk & Co. of California

1013 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	o WANG Shuyuan	Haines Company, Inc.
2000	WANG SHUYUAN	Pacific Bell
1996	LEI WU BIN	PACIFIC BELL DIRECTORY
1992	LEI WU BIN	PACIFIC BELL DIRECTORY
1991	Chow Henry	PACIFIC BELL WHITE PAGES
	Chow Herbert DDS Inc orthdntst	PACIFIC BELL WHITE PAGES
1986	Chow Henry	PACIFIC BELL WHITE PAGES
	CHOW HE RBE RT DDS IN C orthdntst	PACIFIC BELL WHITE PAGES
1980	Chow Henry	Pacific Telephone
1970	CHAN CHIU YIN	Pacific Telephone Directory
1967	TAO WING SOON	R. L. Polk Co.
1962	Molina Tillie	Pacific Telephone
1955	BUCHAN CLAY W R	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Stover Harry W Carrie slsmn h	R. L. Polk & Co.
1938	STOVER H W CO PROTECTIVE CREAM	Pacific Telephone
1933	STOVER HARRY W (CARRIE A) H	R. L. Polk & Co.
1928	Stover Harry W Carrie A rest R H	R.L. Polk and Co of California R.L. Polk and Co of California
1925	L HEUREUX R C R	R. L. Polk & Co. of California

1020 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1920	STOLL JOHN R	R. L. Polk & Co. of California

1024 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	MADISON GARAGE	R. L. Polk & Co. of California

1027 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	GONZALES CANDIDA	Pacific Telephone Directory
1967	CHARLEY JOHNNIE	R. L. Polk Co.
	HAMM LTNNIE MRS	R. L. Polk Co.
	GONZALES CANDIDA MRS	R. L. Polk Co.
1943	Thompson Wm lab r	R. L. Polk & Co.
	NAIL Wm lab r	R. L. Polk & Co.
	Eiris Jas Viola clk h	R. L. Polk & Co.
	Campbell Wm B Sina shipydwkr h	R. L. Polk & Co.
	Bellenir Lillian A wid Wm r	R. L. Polk & Co.
1933	YATES ROY (EDITH) H	R. L. Polk & Co.
1928	& Florence E Mrs H	R.L. Polk and Co of California

619A MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	PING WONG R	The Pacific Telephone & Telegraph Co.

619B MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	PANG WATKIN	Pacific Telephone Directory

955A MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	OBERTO F	Pacific Telephone Directory

FINDINGS

955B MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BIBLE BORIS	Pacific Telephone Directory

708 1/2 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1938	LIM JESSE R	Pacific Telephone

747 1/2 MADISON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	WILLIAMS NELLIE V	Pacific Telephone Directory

OAK

526 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	H	R.L. Polk and Co of California
	Cleveland Edw L Lily toilet sundries	R.L. Polk and Co of California
1925	BOWEN F L R	R. L. Polk & Co. of California

530 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Gum L elk R	R.L. Polk and Co of California

609 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Carwash	PACIFIC BELL WHITE PAGES
1980	BUBBLE MACHINE THE	Pacific Telephone

610 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	T And T Automotive	PACIFIC BELL WHITE PAGES
1986	T And T Automotive	PACIFIC BELL WHITE PAGES
1970	LEE S SEASIDE SERVICE	Pacific Telephone Directory
	U-HAUL COMPANY DEALER	Pacific Telephone Directory
1955	OLIPHANT COMMERCIAL CORP	The Pacific Telephone & Telegraph Co.

618 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	LEE TONG R	The Pacific Telephone & Telegraph Co.
1928	F rancis J Ruth blrmkr H	R.L. Polk and Co of California
	mond Maria L R	R.L. Polk and Co of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	VICKERY Henry M Annie L slsmn H	R.L. Polk and Co of California
	Co Henry C lab R	R.L. Polk and Co of California
	Hiltgen Haskell P Stella lab R	R.L. Polk and Co of California

619 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Lew C	PACIFIC BELL WHITE PAGES
	Lew Bing	PACIFIC BELL WHITE PAGES
	Lew David	PACIFIC BELL WHITE PAGES
	Lew C	PACIFIC BELL WHITE PAGES
	Lew D	PACIFIC BELL WHITE PAGES
	Lew D	PACIFIC BELL WHITE PAGES
	Lew C & D	PACIFIC BELL WHITE PAGES
	Lew Chas	PACIFIC BELL WHITE PAGES
	Lew C H	PACIFIC BELL WHITE PAGES
	Lew C&D	PACIFIC BELL WHITE PAGES
	Lew D D	PACIFIC BELL WHITE PAGES
	Lew D H	PACIFIC BELL WHITE PAGES
1980	Lew Bing	Pacific Telephone
1970	LEW BING	Pacific Telephone Directory
1955	LEW BING R	The Pacific Telephone & Telegraph Co.
1928	H Chas J lab R	R.L. Polk and Co of California
	Francis A driver R	R.L. Polk and Co of California
	Pt Mary wid Robt H	R.L. Polk and Co of California
1925	KAIKAS GEO R	R. L. Polk & Co. of California

620 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	fornia Eug lab rd R	R.L. Polk and Co of California
	fornia Saml dec H	R.L. Polk and Co of California

621 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Laub Arnold	PACIFIC BELL WHITE PAGES
	Lau Yuk Tong	PACIFIC BELL WHITE PAGES
	Lab Arnold Law Offices Of No Charge To Calling Party	PACIFIC BELL WHITE PAGES
1980	Lam M B	Pacific Telephone
1970	LEE ARTHUR	Pacific Telephone Directory
1955	FONG GEO	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Saribala John Carrie carp H	R.L. Polk and Co of California
1925	WARE C A R	R. L. Polk & Co. of California

622 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	LEE WM ON	The Pacific Telephone & Telegraph Co.
	YOUNG GILBERT	The Pacific Telephone & Telegraph Co.
1928	BOYCE Ethel R	R.L. Polk and Co of California
	Arth R Carrie carp H	R.L. Polk and Co of California
	Mignardot Fred Mary firemn H	R.L. Polk and Co of California
1925	MIGNARDOT FRED R	R. L. Polk & Co. of California

625 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	Leung Chau Lan	PACIFIC BELL WHITE PAGES
1980	Leung Chau Lan	Pacific Telephone
1970	MOCK BING	Pacific Telephone Directory
1955	TSUJIMOTO KATSUMI	The Pacific Telephone & Telegraph Co.
1928	0 Henry Mary Indywkr H	R.L. Polk and Co of California
	Anthony Geo driver R	R.L. Polk and Co of California
	Anthony Else Indywkr R	R.L. Polk and Co of California

626 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Quanh Nhi Luong	PACIFIC BELL WHITE PAGES
	Quang Truyen	PACIFIC BELL WHITE PAGES
1986	Nixon Tom	PACIFIC BELL WHITE PAGES
	Nixon Terry	PACIFIC BELL WHITE PAGES
1980	Ferreira F W	Pacific Telephone
1970	FERREIRA F W	Pacific Telephone Directory
1955	FERREIRA F W R	The Pacific Telephone & Telegraph Co.
1928	39th J Patk Mary H	R.L. Polk and Co of California

627 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Chu John	Pacific Telephone
1970	CHIN JIMMIE	Pacific Telephone Directory
1955	TSUJIMOTO GENJUORO MRS	The Pacific Telephone & Telegraph Co.
1928	Jeong Robt Isabel huckster H	R.L. Polk and Co of California
1925	SMOOK ESTA R	R. L. Polk & Co. of California

FINDINGS

628 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Pang Frankie & Teresa Pang Edna	PACIFIC BELL WHITE PAGES PACIFIC BELL WHITE PAGES
1986	Pang Gerald Pang Edna	PACIFIC BELL WHITE PAGES PACIFIC BELL WHITE PAGES
1955	MCCAMPBELL EDNA	The Pacific Telephone & Telegraph Co.
1928	Office Thos Emily lab R 82d Logan P auto mech R Ins Sophia wid Edw H	R.L. Polk and Co of California R.L. Polk and Co of California R.L. Polk and Co of California

631 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Au Richard L D	PACIFIC BELL WHITE PAGES
1980	Au Richard L D	Pacific Telephone
1970	BARBEAU ESTHER MRS SMALL M C	Pacific Telephone Directory Pacific Telephone Directory
1955	BARBEAU ESTHER MRS R	The Pacific Telephone & Telegraph Co.
1928	Barbeau Esther Mrs H	R.L. Polk and Co of California
1925	BARBEAU E R	R. L. Polk & Co. of California

632 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Light Of Buddha Temple	PACIFIC BELL WHITE PAGES
1986	Light P Light Of Buddha Temple	PACIFIC BELL WHITE PAGES PACIFIC BELL WHITE PAGES

704 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	DEVRIESE MAY R	R. L. Polk & Co. of California

708 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Ng Andrew C	Pacific Telephone
1955	LEONG SUN YICK	The Pacific Telephone & Telegraph Co.
1928	R Leong Peter meats	R.L. Polk and Co of California R.L. Polk and Co of California

709 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Tani J Mrs tailo R	R.L. Polk and Co of California

FINDINGS

710 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	WOO ART MING	Pacific Telephone Directory
1955	WOO ART MING R	The Pacific Telephone & Telegraph Co.

714 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Kurosawa Robert	PACIFIC BELL WHITE PAGES
1980	Yee Ching	Pacific Telephone
1970	SHEE LUM	Pacific Telephone Directory
1955	TONG K Y	The Pacific Telephone & Telegraph Co.

720 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	NG FLORENCE	The Pacific Telephone & Telegraph Co.

721 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	CHIN PING	The Pacific Telephone & Telegraph Co.
1925	MILLER MISS BERTHA E R	R. L. Polk & Co. of California

722 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Tsang Louis	Pacific Telephone
1970	TSANG LOUIS	Pacific Telephone Directory
1955	TSANG LOUIS R	The Pacific Telephone & Telegraph Co.

723 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	HING MILTON	The Pacific Telephone & Telegraph Co.
1928	De Mont Albt rnl dr R	R.L. Polk and Co of California

726 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	WONG KUNG SHEE	Pacific Telephone Directory
1955	WONG GEO R	The Pacific Telephone & Telegraph Co.

727 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	LUNG CHAN	The Pacific Telephone & Telegraph Co.

FINDINGS

728 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	Wong Geo	Pacific Telephone
1970	WONG GEO	Pacific Telephone Directory
1955	WONG ETHEL MRS	The Pacific Telephone & Telegraph Co.

730 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Benavatz Wm auto mech R	R.L. Polk and Co of California
	Wandell Lester J musician R	R.L. Polk and Co of California
	Benavatz Walter auto mech R	R.L. Polk and Co of California
	Co Vera Mrs H	R.L. Polk and Co of California
1925	SAWYER MRS E PAGE R	R. L. Polk & Co. of California

802 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	SEGURA E J	The Pacific Telephone & Telegraph Co.
1928	Erie Peter Gina H	R.L. Polk and Co of California
1925	KOBOLINK MRS F J R	R. L. Polk & Co. of California

804 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	WONG FOON B R	The Pacific Telephone & Telegraph Co.
1928	H	R.L. Polk and Co of California
	Spiro J Europy barbe R	R.L. Polk and Co of California
1925	QUINN JOHN F R	R. L. Polk & Co. of California

806 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	YEE SHUCK K ENGR	The Pacific Telephone & Telegraph Co.
1928	Arlington Jacob wood carve R	R.L. Polk and Co of California
	R	R.L. Polk and Co of California
	Arlington John Jennie H	R.L. Polk and Co of California
	r Mildred M ofmce sec Heald College H	R.L. Polk and Co of California
1925	BERG MRS J R	R. L. Polk & Co. of California

808 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Cal Wm E Annie pntr H	R.L. Polk and Co of California
1925	BRADLEY MRS W R	R. L. Polk & Co. of California

FINDINGS

812 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	MARSH E L R	R. L. Polk & Co. of California

816 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LONG B ALAMEDA	Pacific Telephone Directory
1955	WONG HAY YET R	The Pacific Telephone & Telegraph Co.
	WALTZ FRED R ALAMEDA	The Pacific Telephone & Telegraph Co.
	TOM LAURA	The Pacific Telephone & Telegraph Co.
1928	Er Ida H bkpr Union Paper Co R	R.L. Polk and Co of California
	Er Louis Annie H	R.L. Polk and Co of California
1925	ARNOLD HENRY W R	R. L. Polk & Co. of California
	LIEBERMAN L R	R. L. Polk & Co. of California

818 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	LUM CHONG	The Pacific Telephone & Telegraph Co.
1928	Currin Anna Mrs H	R.L. Polk and Co of California

820 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	SIN YORK L R	The Pacific Telephone & Telegraph Co.
1928	av Anna Mrs H	R.L. Polk and Co of California
	Utility Isabelle R	R.L. Polk and Co of California
1925	MCERLANE MISS B R	R. L. Polk & Co. of California

821 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	FOLEY THOS ALAMEDA	Pacific Telephone Directory
1955	GREEN DELLA D ALAMEDA	The Pacific Telephone & Telegraph Co.

824 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LOFSTROM M ALAMEDA	Pacific Telephone Directory
1955	PORTERFIELD HERBERT R ALAMEDA	The Pacific Telephone & Telegraph Co.
1925	MOOSLIN E J R	R. L. Polk & Co. of California

826 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	ASHCROFT WM G R ALAMEDA	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	CHINN GORDON R	The Pacific Telephone & Telegraph Co.
1925	MACKENZIE MRS J C R	R. L. Polk & Co. of California

827 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	GHISELLI J ALAMEDA	Pacific Telephone Directory
1955	GHISELLI J R ALAMEDA	The Pacific Telephone & Telegraph Co.
1925	HARTNETT G F R	R. L. Polk & Co. of California

828 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	DODGE DANL ALAMEDA	Pacific Telephone Directory
1955	PUGH V J R ALAMEDA	The Pacific Telephone & Telegraph Co.
1925	FOERSTER W C R	R. L. Polk & Co. of California

830 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	MULCAHY MILDRED L	The Pacific Telephone & Telegraph Co.
1928	Keister Almond M Charlotte barber R of Margt S K tchr H Hambleton Chas G H 22d Wm B inspr Marchant Cale Mach Co R	R.L. Polk and Co of California R.L. Polk and Co of California R.L. Polk and Co of California R.L. Polk and Co of California
1925	HAMBLETON CHAS G R	R. L. Polk & Co. of California

831 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	MILLETT CHESTER H R ALAMEDA	The Pacific Telephone & Telegraph Co.

832 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	DE LEAU RONALD ALAMEDA	Pacific Telephone Directory
1955	KOETJE JOHN R ALAMEDA	The Pacific Telephone & Telegraph Co.

834 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LOETSCHER A ALAMEDA	Pacific Telephone Directory
1955	LOETSCHER A ALAMEDA	The Pacific Telephone & Telegraph Co.
1928	Llips Bker Siamund H Henrietta mach H	R.L. Polk and Co of California

FINDINGS

835 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	TUTER EARL ALAMEDA	Pacific Telephone Directory
1955	TUTER EARL R ALAMEDA	The Pacific Telephone & Telegraph Co.
1925	REYNOLDS R G R	R. L. Polk & Co. of California

836 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	JONES H M ALAMEDA	Pacific Telephone Directory
1955	ERICKSEN M R ALAMEDA	The Pacific Telephone & Telegraph Co.
1925	ERICKSEN M R	R. L. Polk & Co. of California

838 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BLOWER WM P ALAMEDA	Pacific Telephone Directory
1955	HOCHSCHEID PAULINE M R ALAMEDA	The Pacific Telephone & Telegraph Co.
1925	MCAULEY MISS MARGARET R	R. L. Polk & Co. of California

839 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	STRANG DONALD ALAMEDA	Pacific Telephone Directory
1955	EISEN GEO N R ALAMEDA	The Pacific Telephone & Telegraph Co.
1925	KNOBLOCK A J R	R. L. Polk & Co. of California

840 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BRYAN TOMMY L ALAMEDA	Pacific Telephone Directory
	ORNELAS JERRY J ALAMEDA	Pacific Telephone Directory
1955	ABBAY ROOFING & REMODELING CO ALAMEDA	The Pacific Telephone & Telegraph Co.
	WILLIS W R ALAMEDA	The Pacific Telephone & Telegraph Co.
1925	FRENZ A R	R. L. Polk & Co. of California

842 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	TRULIN NORMAN O MRS ALAMEDA	Pacific Telephone Directory
1955	MONTGOMERY EMMA MRS ALAMEDA	The Pacific Telephone & Telegraph Co.

843 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	QUINN RICHARD E R ALAMEDA	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	PEIRSOL HOWARD J R	R. L. Polk & Co. of California
	FRANKE P R	R. L. Polk & Co. of California
844 OAK		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	GRAEHER CARL M ALAMEDA	The Pacific Telephone & Telegraph Co.
1925	ENGELMAN G R	R. L. Polk & Co. of California
845 OAK		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	REGOLI PAUL ALAMEDA	Pacific Telephone Directory
1955	REGOLI PAUL R ALAMEDA	The Pacific Telephone & Telegraph Co.
1925	REGOLI PAUL R	R. L. Polk & Co. of California
849 OAK		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	MARKS SADIE J ALAMEDA	Pacific Telephone Directory
1955	MARKS SADIE J R ALAMEDA	The Pacific Telephone & Telegraph Co.
850 OAK		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	STINSON W A R ALAMEDA	The Pacific Telephone & Telegraph Co.
851 OAK		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	GAMBLE J M R	R. L. Polk & Co. of California
853 OAK		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	FOLEY JAS ALAMEDA	Pacific Telephone Directory
1955	FOLEY JAS ALAMEDA	The Pacific Telephone & Telegraph Co.
1925	HUNTINGTON O S R	R. L. Polk & Co. of California
857 OAK		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	CHRISTOFFERSEN TED A	Pacific Telephone
1970	VAN CLEVE STUDIO ALAMEDA	Pacific Telephone Directory
	VAN CLEVE KENNETH E ALAMEDA	Pacific Telephone Directory
1955	MOORE HARRY T ALAMEDA	The Pacific Telephone & Telegraph Co.
1925	CRAIG HARRY G R	R. L. Polk & Co. of California

FINDINGS

861 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	GNUTZMAN KEITH L ALAMEDA	Pacific Telephone Directory
1925	ARADA THOS R	R. L. Polk & Co. of California

864 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LARSON AUGUST F ALAMEDA	Pacific Telephone Directory
1955	EKBERG JULIA R ALAMEDA	The Pacific Telephone & Telegraph Co.

865 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	SPERONI S ALAMEDA	Pacific Telephone Directory
1955	SPERONI S R ALAMEDA	The Pacific Telephone & Telegraph Co.
1925	SPERONI S R	R. L. Polk & Co. of California

866 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	WACKER W S ALAMEDA	Pacific Telephone Directory
1955	WACKER W S R ALAMEDA	The Pacific Telephone & Telegraph Co.

867 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	KRAUSE WM F ALAMEDA	Pacific Telephone Directory
1955	CONN JESSIE L ALAMEDA	The Pacific Telephone & Telegraph Co.
1925	BRAMMAN AMELIA R	R. L. Polk & Co. of California

869 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	FOLGER KAARE A ALAMEDA	The Pacific Telephone & Telegraph Co.
	KENDRICK VERNON J ALAMEDA	The Pacific Telephone & Telegraph Co.

871 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	HINDS LAURENCE J R ALAMEDA	The Pacific Telephone & Telegraph Co.
1950	HINDS LAURENCE J R	The Pacific Telephone & Telegraph Co.
1925	HINDS LAURENCE J R	R. L. Polk & Co. of California

872 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	SHORES FRANCIS H ALAMEDA	Pacific Telephone Directory
1955	SHORES FRANCIS H ALAMEDA	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	HINDS RALPH B R	R. L. Polk & Co. of California
873 OAK		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	ROEBKE W R ALAMEDA	The Pacific Telephone & Telegraph Co.
875 OAK		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	NIEC JOS ALAMEDA	Pacific Telephone Directory
	NIEC YOSHIKO ALAMEDA	Pacific Telephone Directory
1955	SUENNEN E R ALAMEDA	The Pacific Telephone & Telegraph Co.
1925	MEARS MRS GRACE R	R. L. Polk & Co. of California
878 OAK		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	GAY ERNEST L ALAMEDA	The Pacific Telephone & Telegraph Co.
881 OAK		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	MELVIN ADRIAN ALAMEDA	The Pacific Telephone & Telegraph Co.
1925	TUGGY MISS AMY R	R. L. Polk & Co. of California
883 OAK		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	ANKER O B ALAMEDA	The Pacific Telephone & Telegraph Co.
887 OAK		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	HARTLEY VIRGINIA K ALAMEDA	Pacific Telephone Directory
1955	HARTLEY HAMMOND ALAMEDA	The Pacific Telephone & Telegraph Co.
	HARTLEY VIRGINIA K ALAMEDA	The Pacific Telephone & Telegraph Co.
891 OAK		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	COUGHLIN LOUISE ALAMEDA	Pacific Telephone Directory
1955	MARX H W ALAMEDA	The Pacific Telephone & Telegraph Co.
895 OAK		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	WARREN OTTO ALAMEDA	Pacific Telephone Directory
1955	TEMPLETON JACK D ALAMEDA	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	CURRIER E R	R. L. Polk & Co. of California
897 OAK		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	SCHWENKE B L MRS ALAMEDA	Pacific Telephone Directory
1955	DONALDSON ROBT K ALAMEDA	The Pacific Telephone & Telegraph Co.
912 OAK		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Cheung Siu Hung	PACIFIC BELL WHITE PAGES
	Cheung Woon Chuen	PACIFIC BELL WHITE PAGES
	Ho Wing M	PACIFIC BELL WHITE PAGES
	Wang Yick Sui	PACIFIC BELL WHITE PAGES
1986	Cheung Siu Hung	PACIFIC BELL WHITE PAGES
	Louie Wilson	PACIFIC BELL WHITE PAGES
	Louie Y	PACIFIC BELL WHITE PAGES
	g Wai Kwong	PACIFIC BELL WHITE PAGES
1980	Kong Mario	Pacific Telephone
	Lee Tai Mui	Pacific Telephone
	Ng Wai Kwong	Pacific Telephone
	Tang Shu Chun	Pacific Telephone
1970	BIVINS SERENA P MRS	Pacific Telephone Directory
	HAYES JAS H	Pacific Telephone Directory
	MAKOWSKI R E	Pacific Telephone Directory
	SHEARER HAROLD W	Pacific Telephone Directory
1955	BULLOCK RAMONA J	The Pacific Telephone & Telegraph Co.
	DOUGHTY T L	The Pacific Telephone & Telegraph Co.
	KIRBY C L MRS ALAMEDA	The Pacific Telephone & Telegraph Co.
	LYON WANEATTA	The Pacific Telephone & Telegraph Co.
	MARION JACK R	The Pacific Telephone & Telegraph Co.
	MCCLENDON ALMA M ALAMEDA	The Pacific Telephone & Telegraph Co.
1928	TURKINGTON AGNES R	The Pacific Telephone & Telegraph Co.
	Haberlin Ruth H	R.L. Polk and Co of California
	Dasso Dante A elk E Martinelli & Co H	R.L. Polk and Co of California
	R	R.L. Polk and Co of California
	P Laud signs	R.L. Polk and Co of California
	Ahoronlon Alf H	R.L. Polk and Co of California
1925	Blue Bird Apartments H	R.L. Polk and Co of California
	BELLING L R	R. L. Polk & Co. of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	HEMPHILL JOHN H R	R. L. Polk & Co. of California
	LINDENBAUM I R	R. L. Polk & Co. of California
	POWELL C R	R. L. Polk & Co. of California
	ROGOWAY MARC R	R. L. Polk & Co. of California
913 OAK		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	RODDICK G F R ALAMEDA	The Pacific Telephone & Telegraph Co.
1925	RODDICK G F R	R. L. Polk & Co. of California
916 OAK		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	DOUGLAS J L REV ALAMEDA	The Pacific Telephone & Telegraph Co.
1925	BIRCHENALL EDWIN J R	R. L. Polk & Co. of California
917 OAK		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	PACOVSKY RAYMOND A ALAMEDA	Pacific Telephone Directory
1955	FRISON PHILIP ALAMEDA	The Pacific Telephone & Telegraph Co.
1925	PETO W T R	R. L. Polk & Co. of California
918 OAK		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Choi Kam H	PACIFIC BELL WHITE PAGES
	Lam Keung	PACIFIC BELL WHITE PAGES
	Wong Seewoon	PACIFIC BELL WHITE PAGES
	Yu Zhen Gin	PACIFIC BELL WHITE PAGES
1986	Choi Kam H	PACIFIC BELL WHITE PAGES
	o Cua Van	PACIFIC BELL WHITE PAGES
	Pang Yiu Chun	PACIFIC BELL WHITE PAGES
	Wen Yu Pei	PACIFIC BELL WHITE PAGES
1980	Choi Kam H	Pacific Telephone
	Li Donald	Pacific Telephone
	Yee Robt S	Pacific Telephone
1970	BALLESTEROS JOSE	Pacific Telephone Directory
	LEE HOON C	Pacific Telephone Directory
	LIM THOS	Pacific Telephone Directory
	LUM CHEE HUNG	Pacific Telephone Directory
	WONG GEO M	Pacific Telephone Directory
1955	BOYER R M	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	DAZZO JENNIE	The Pacific Telephone & Telegraph Co.
	DING EVELYN	The Pacific Telephone & Telegraph Co.
	HOXIE EDW F	The Pacific Telephone & Telegraph Co.
	MCMANUS JOHN F	The Pacific Telephone & Telegraph Co.
1928	H Thos W Grace M slsmn H	R.L. Polk and Co of California
	Union Ira Ivette Hamilton & Nunes H	R.L. Polk and Co of California
	Union Iris nurse H	R.L. Polk and Co of California
	Pier H B H	R.L. Polk and Co of California
	Van Harv Alice mstr mariner H	R.L. Polk and Co of California
	Corp Stanley slsmn PG&ECo R	R.L. Polk and Co of California
	Arthur Apartments	R.L. Polk and Co of California
	Danielson Mayme Mrs H	R.L. Polk and Co of California
1925	HENNINGER MRS D C R	R. L. Polk & Co. of California
	HYDE ROBT F R	R. L. Polk & Co. of California
	MEYER ALFRED E R	R. L. Polk & Co. of California
	TOBIAS MRS M R	R. L. Polk & Co. of California

920 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Chen Ronny	PACIFIC BELL WHITE PAGES
	Jeung Joe H	PACIFIC BELL WHITE PAGES
1986	Chen Arthur Sou	PACIFIC BELL WHITE PAGES
	Chen B	PACIFIC BELL WHITE PAGES
	Siu Albert	PACIFIC BELL WHITE PAGES
	Siu Roberto	PACIFIC BELL WHITE PAGES
	Chan Suen Yuen	Pacific Telephone
1980	Chen Arthur Sou	Pacific Telephone
	Siu Roberto	Pacific Telephone
	Sigua Jacinto	Pacific Telephone
	Crus Bill	Pacific Telephone
	CHEN ARTHUR SOU	Pacific Telephone Directory
1970	CRUS BILL	Pacific Telephone Directory
	FUNG TEN	Pacific Telephone Directory
	LEE SUI BILL	Pacific Telephone Directory
	LEONG KOW MRS	Pacific Telephone Directory
	SARMIENTO NILO	Pacific Telephone Directory
1955	FISHER FRANK R	The Pacific Telephone & Telegraph Co.
	GOMES EVELYN R	The Pacific Telephone & Telegraph Co.
	VALDEZ H DENNIS	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	VALDEZ RAQUEL MRS	The Pacific Telephone & Telegraph Co.
	WOO HENRY R	The Pacific Telephone & Telegraph Co.
1928	lege Eug J brkmn H	R.L. Polk and Co of California
	Covey Agnes H	R.L. Polk and Co of California
	Covy Agnes elk Air Reduction Sales Co R	R.L. Polk and Co of California
	Hedrick Herbt H	R.L. Polk and Co of California
	Hedrick Leo inspr WECO H	R.L. Polk and Co of California
	Roht F Trix H	R.L. Polk and Co of California
	Virginia Robt Cath elk F W Berryman H	R.L. Polk and Co of California
	G Geo C H	R.L. Polk and Co of California
1925	DODD T W R	R. L. Polk & Co. of California
	MURRAY WM H R	R. L. Polk & Co. of California

1000 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Oakland Museum	PACIFIC BELL WHITE PAGES
	Oakland Museum Restaurant	PACIFIC BELL WHITE PAGES
1986	CAPITOL RE CORDS	PACIFIC BELL WHITE PAGES
	Oakland Museum Assn	PACIFIC BELL WHITE PAGES
	Oakland Museum Book & Gift Shop	PACIFIC BELL WHITE PAGES
	Oakland Museum Restaurant	PACIFIC BELL WHITE PAGES
	Oakland Museum The	PACIFIC BELL WHITE PAGES
	Oakland Parking Co	PACIFIC BELL WHITE PAGES
	Museum Classroom	PACIFIC BELL WHITE PAGES
1980	OAKLAND MUSEUM THE	Pacific Telephone
	OAKLAND TOURS PROGRAM PARKS & RECREATION DEPARTMENT	Pacific Telephone
	Oakland Museum Assn	Pacific Telephone
	Oakland Museum Book & Gift Shop	Pacific Telephone
	Museum Classroom	Pacific Telephone
1970	OAKLAND CITY OF	Pacific Telephone Directory
	OAKLAND MUSEUM BOOK STORE	Pacific Telephone Directory

1004 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	WEISS A M ALAMEDA	Pacific Telephone Directory
	VIGNOLO ROSALIE ALAMEDA	Pacific Telephone Directory
1955	KELLBERG E H R ALAMEDA	The Pacific Telephone & Telegraph Co.

FINDINGS

1007 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	No Fred Helen barbe R	R.L. Polk and Co of California
1925	ATLAS CLEANERS	R. L. Polk & Co. of California

1009 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	n Wmn do cln R	R.L. Polk and Co of California

1010 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	LUCAS DOROTHY R ALAMEDA	The Pacific Telephone & Telegraph Co.
1925	VON AHNDEN J H R	R. L. Polk & Co. of California

1011 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	GRIFFITH H P ALAMEDA	Pacific Telephone Directory
1955	MILLER A W R ALAMEDA	The Pacific Telephone & Telegraph Co.
1925	POOLEY W J R	R. L. Polk & Co. of California
	EXHIBIT CORP THE	R. L. Polk & Co. of California

1015 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	SASS MERTEN L R ALAMEDA	The Pacific Telephone & Telegraph Co.
1925	MONOTTI MRS A L R	R. L. Polk & Co. of California

1017 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	DE HAAS H ALAMEDA	The Pacific Telephone & Telegraph Co.
1925	PRIEST MRS R A JR R	R. L. Polk & Co. of California

1018 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	WILLIAMS M C ALAMEDA	Pacific Telephone Directory
1955	BLYTH B W R ALAMEDA	The Pacific Telephone & Telegraph Co.
1928	F ilm Laboratories A W Graff	R.L. Polk and Co of California
1925	DIDIER MRS FLORIDA R	R. L. Polk & Co. of California
	COMMERCIAL FILM LABORATORIES	R. L. Polk & Co. of California

1020 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Alzina Loris R Lillian motorcycles	R.L. Polk and Co of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1925	ALZINA HAP	R. L. Polk & Co. of California
	INDIAN MOTORCYCLE AGENCY	R. L. Polk & Co. of California

1024 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	SELF J B ALAMEDA	Pacific Telephone Directory
1955	SELF J B R ALAMEDA	The Pacific Telephone & Telegraph Co.
1928	Du Boise Win R	R.L. Polk and Co of California
	ENOS Anthony driver R	R.L. Polk and Co of California
	87th Mary Mrs H	R.L. Polk and Co of California
1925	ENOS MISS EDITH R	R. L. Polk & Co. of California
	MAYRISCH L R	R. L. Polk & Co. of California
	SWEATT J LEE R	R. L. Polk & Co. of California

912A OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	SCHILLING WARREN P ALAMEDA	Pacific Telephone Directory

1012A OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	DIXON ADA A ALAMEDA	Pacific Telephone Directory
1955	LANGFORD THOS L ALAMEDA	The Pacific Telephone & Telegraph Co.

861 1/2 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1955	ARADA THOS ALAMEDA	The Pacific Telephone & Telegraph Co.

895 1/2 OAK

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	MC ANENEY L MRS ALAMEDA	Pacific Telephone Directory
1955	SPEAR NOBLE ALAMEDA	The Pacific Telephone & Telegraph Co.

OAK AVE

812 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	av Thos A Geraldine S H	R.L. Polk and Co of California

FINDINGS

816 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	av Henry W Clara L v pres Goard Arnold & Mc Cormick H	R.L. Polk and Co of California
	sh Kath stdt R	R.L. Polk and Co of California

824 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Mooslin Bug J Charlotte H	R.L. Polk and Co of California

826 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Jessie I sten R	R.L. Polk and Co of California
	John C Helen slsmn H	R.L. Polk and Co of California
	Mc Donald C bkpr R	R.L. Polk and Co of California

827 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Yocco Ceo H Viola civ eng County Surveyor H	R.L. Polk and Co of California

831 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Foothill Jas M Levma H	R.L. Polk and Co of California

832 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Crossett Frank Angela D H	R.L. Polk and Co of California

835 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Manila Ralph G Elsa Natl Meat Mkt H	R.L. Polk and Co of California
	Manila Ralph B meat ctr R	R.L. Polk and Co of California

836 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Ericksen Harold carp R	R.L. Polk and Co of California
	ERICK Mathias Hula carp H	R.L. Polk and Co of California

838 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	h Richd M Jr R	R.L. Polk and Co of California
	h Richd M H	R.L. Polk and Co of California

FINDINGS

839 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	H Thos L printer R Knoblock Andw J Belle delicatessen ance J W R	R.L. Polk and Co of California R.L. Polk and Co of California R.L. Polk and Co of California R.L. Polk and Co of California

840 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Frenz Albt C F Frances E mach H	R.L. Polk and Co of California

842 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Sands Erma wid Robt elk Mutual Stores Inc H	R.L. Polk and Co of California

843 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Tremont Paul R R Franke David L elk R Paul jan H	R.L. Polk and Co of California R.L. Polk and Co of California R.L. Polk and Co of California

845 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Regoli Paul Josie tailor H	R.L. Polk and Co of California

849 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	11152 John P Lydia M H	R.L. Polk and Co of California

850 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Kerker Clarence H stdt R av Worden A Clara clk H	R.L. Polk and Co of California R.L. Polk and Co of California

853 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	way Frank W R	R.L. Polk and Co of California

857 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Piedmont Harry G Gladys G prsmn H	R.L. Polk and Co of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Hermanson Herman C autowkr R	R.L. Polk and Co of California

861 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Arada Leslie olk R	R.L. Polk and Co of California
	S T Clifton Eliz Y carp H	R.L. Polk and Co of California
	H Thos Annie contr R	R.L. Polk and Co of California

864 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Ekberg Gustav J Julia rigger H	R.L. Polk and Co of California

865 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Sprone C sten Ala Co Title Ins Co R	R.L. Polk and Co of California
	Speroni Sperone Celia carp H	R.L. Polk and Co of California

867 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Bramman Amelia wid H S H	R.L. Polk and Co of California

871 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Peralta Lawrence J Hilda Hinds Bros H	R.L. Polk and Co of California

872 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Peralta Ralph B Mina carp H	R.L. Polk and Co of California
	Peralta Ralph M bkpr R	R.L. Polk and Co of California

873 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Fernsld Waldemar A Ethel meat ctr R	R.L. Polk and Co of California
	Peralta Minnie S H	R.L. Polk and Co of California

875 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	rr Leo Josephine tailor H	R.L. Polk and Co of California

FINDINGS

876 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Miskell Wm J Delia A cooper H	R.L. Polk and Co of California

881 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	h Mar Jorie sten OPS R	R.L. Polk and Co of California
	Tuggy Amy nurse R	R.L. Polk and Co of California
	Hannah wid Henry H	R.L. Polk and Co of California

912 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Pearl Chas Amelia glazier H	R.L. Polk and Co of California
	way Anugeilne wid 1 B R	R.L. Polk and Co of California
	r Melbourne J slsmn R	R.L. Polk and Co of California
	Francisco Emma paperhngr H	R.L. Polk and Co of California

913 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	N Geo F Elsa elk H	R.L. Polk and Co of California

914 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Montell Nora wid F A H	R.L. Polk and Co of California
	h Leo carrier Ala PO R	R.L. Polk and Co of California
	guna Ernest A mgr Strom Elec Co R	R.L. Polk and Co of California

916 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Birchenall Edwin J Frances E slsmn H	R.L. Polk and Co of California

917 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Pete Wm T Beulah barber H	R.L. Polk and Co of California

1011 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Oak Wm J May H	R.L. Polk and Co of California

1012 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Hayter Eva choc dipper R	R.L. Polk and Co of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Mc Michael John NTellie auto mech H	R.L. Polk and Co of California

1015 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Monotti Therese Mrs H	R.L. Polk and Co of California

1018 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Oak Dorothy R	R.L. Polk and Co of California
	Oak John Sidonce photo engr H	R.L. Polk and Co of California

1024 OAK AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	Maddock Geo P plantmn AOCO R	R.L. Polk and Co of California

OAK CIR

917 OAK CIR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	SMALIWOOD HELEN I R	The Pacific Telephone & Telegraph Co.

OAK CT

619 OAK CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LEW BING R	The Pacific Telephone & Telegraph Co.

721 OAK CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	CHEW ROBT R	The Pacific Telephone & Telegraph Co.

1000 OAK CT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	OAKLAND MUSEUM ASSOCIATION DEVELOPMENT DEPT	Pacific Telephone

OAK PL

566 OAK PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	LUNDQUIST I F MRS R	The Pacific Telephone & Telegraph Co.

FINDINGS

OAK ST

518 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	SING FOSIG HIN R	The Pacific Telephone & Telegraph Co.

520 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	K(EE FRED R	The Pacific Telephone & Telegraph Co.
1945	KEE FRED R	The Pacific Telephone & Telegraph Co.
1943	Kee Fred Q Venus mech h	R. L. Polk & Co.
1938	JOHNSON FRANK L R	Pacific Telephone

526 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	BROWN C B MRS R	The Pacific Telephone & Telegraph Co.
1943	Melvon Eug Virgie lab r	R. L. Polk & Co.
	BROWN Frank Cora driver h	R. L. Polk & Co.
1938	LEE LILY R	Pacific Telephone

Oak St

609 Oak St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	6TH AND OAK ASSOCIATES	EDR Digital Archive
	LUCKY FORTUNE NETWORK INC	EDR Digital Archive
	MEIWAH INTERNATIONAL TRADING	EDR Digital Archive
	6TH AND OAK ASSOCIATES	EDR Digital Archive
	MEIWAH INTERNATIONAL TRADING	EDR Digital Archive
	LUCKY FORTUNE NETWORK INC	EDR Digital Archive

OAK ST

609 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1992	BETTS KEN TOWING	PACIFIC BELL DIRECTORY
1975	BUBBLE MACHINE	Pacific Telephone
1950	LEE JINIIMMY R	The Pacific Telephone & Telegraph Co.
1943	CLARK John Velma lab h	R. L. Polk & Co.
	Baer Wm H Emma h	R. L. Polk & Co.
1938	TAKEUCHI FRANK R	Pacific Telephone

FINDINGS

Oak St

610 Oak St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	BAY AUTO CENTER	EDR Digital Archive
	BAY AUTO CENTER	EDR Digital Archive
2010	BAY AUTO CENTER	EDR Digital Archive
	BAY AUTO CENTER	EDR Digital Archive

OAK ST

610 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	BAYAUTO ZONE	Haines Company, Inc.
2000	BAY AUTO ZONE	Pacific Bell
1967	TIDEWATER SERVICE STATION GAS	R. L. Polk Co.
1950	ALPHA DISTRIBUTING CO LIQRS	The Pacific Telephone & Telegraph Co.

618 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	LEE TONG R	The Pacific Telephone & Telegraph Co.
1945	OTTEWILL GEORGE A R	The Pacific Telephone & Telegraph Co.
1943	Stone Geo R lab r	R. L. Polk & Co.
	Spurr Chas lab r	R. L. Polk & Co.
	Pontious Earl mech r	R. L. Polk & Co.
	Ottewill Geo A Wilhelmina lab h	R. L. Polk & Co.
1938	OTTEWILL GEORGE A R	Pacific Telephone
1933	MOLINE HARRY R CLK H	R. L. Polk & Co.
	GLISMAN HARRY H	R. L. Polk & Co.
	JOHNSON GEO H	R. L. Polk & Co.

619 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	HUANGYue Fan	Haines Company, Inc.
1992	LEW BING	PACIFIC BELL DIRECTORY
1975	LEW BIFNG	Pacific Telephone
1967	LEW BING 0 TE	R. L. Polk Co.
1962	Lew Bing r	Pacific Telephone
1945	QUOCK FRANK R	The Pacific Telephone & Telegraph Co.
1943	Quock Frank Effie meat ctr h	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1938	QUOCK FRANK R	Pacific Telephone
1933	TRIBO JOHN WAITER R	R. L. Polk & Co.
	PUCHI FRED RESTRWKR R	R. L. Polk & Co.
	PUCCI FERDINAND PORTER HOTEL OAKLAND R	R. L. Polk & Co.
	PAYNE FRED R	R. L. Polk & Co.
	HUBER OTTO R	R. L. Polk & Co.
	GUNNERSON FRED CLK R	R. L. Polk & Co.
	BODGE CHRIST H	R. L. Polk & Co.
	SAVIDES SAM G R	R. L. Polk & Co.

620 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1920	KENT THOS E SHIRT FACTORY	R. L. Polk & Co. of California

621 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	o LAU Yuk Mun	Haines Company, Inc.
2000	LAU YUK MUN	Pacific Bell
1996	LAU YUK MUN	PACIFIC BELL DIRECTORY
1975	NG RANDOLPH	Pacific Telephone
1967	VACANT	R. L. Polk Co.
1962	Fong Sou	Pacific Telephone
1950	QUOCK FRANK R	The Pacific Telephone & Telegraph Co.
1945	NG GEORGE R	The Pacific Telephone & Telegraph Co.
1943	Ng Geo Constance gro h	R. L. Polk & Co.
1938	NG GEORGE R	Pacific Telephone
1933	GUMMERSON FRED SLSMN LOUIS LEFCO R	R. L. Polk & Co.

622 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	WONG CHUE R	The Pacific Telephone & Telegraph Co.
1945	ROBEY A R R	The Pacific Telephone & Telegraph Co.
1943	RANSOME Laelia r	R. L. Polk & Co.
	Sneden Owen Hazel lab h	R. L. Polk & Co.
1933	POULSEN FRED CONCRETEWKR H	R. L. Polk & Co.
	MIGNARDOT FRED (MARY) H	R. L. Polk & Co.
	WALSH NEIL H	R. L. Polk & Co.

FINDINGS

624 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	IDE Bruce	Haines Company, Inc.

625 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CHU John	Haines Company, Inc.
1975	LEUNG CHAU LAN	Pacific Telephone
1967	MOCK BING	R. L. Polk Co.
1962	Wong Kwong Wah	Pacific Telephone
1943	Lagrimas Caruso hsmn r	R. L. Polk & Co.
	Dikitanan Julian C h	R. L. Polk & Co.
	Altamirano Dorothy Mrs r	R. L. Polk & Co.
1938	TAVARES ELSIE R	Pacific Telephone
1933	DAVARES ELSIE MRS LNDYWKR R	R. L. Polk & Co.
	TREVES ELSIE R	R. L. Polk & Co.
	MEDEIROS HENRY (MARY) H	R. L. Polk & Co.

626 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	DIEP Ha	Haines Company, Inc.
2000	DIEP HA	Pacific Bell
1992	QUANG TRUYEN	PACIFIC BELL DIRECTORY
1975	FERREIRA F W	Pacific Telephone
1967	FERREIRA F W	R. L. Polk Co.
1962	Ferreira F W r	Pacific Telephone
1950	FERREIRA FW R	The Pacific Telephone & Telegraph Co.
1945	FERREIRA F W R	The Pacific Telephone & Telegraph Co.
1943	Young Lee h	R. L. Polk & Co.
1933	FERREIRA F W (GEORGINA) MILLMN H	R. L. Polk & Co.

627 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	CHIN JIMMIE	Pacific Telephone
1967	VACANT	R. L. Polk Co.
1962	Chin Jimmie	Pacific Telephone
1950	TSUJIMOTO K R	The Pacific Telephone & Telegraph Co.
1945	ORGAZAN P R	The Pacific Telephone & Telegraph Co.
1943	Orgazan Panfilo E Dorothy mech h	R. L. Polk & Co.
1938	MIYAKO UNSOW R	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	MUNAR VALENTINE BARBER	R. L. Polk & Co.
	SALANGO DOMINGO C BARBER R	R. L. Polk & Co.
	ABUAN SANTIAGO BARBER V MUNAR R	R. L. Polk & Co.
1920	SMOOK LOUIS R	R. L. Polk & Co. of California

628 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1992	PIEN BEA CHI	PACIFIC BELL DIRECTORY
1945	WONG WILLIAM L R	The Pacific Telephone & Telegraph Co.
1943	Wong Bing Lena h	R. L. Polk & Co.
1938	WONG WILLIAM L R	Pacific Telephone
1933	ROCHFORD WM LAB R	R. L. Polk & Co.
	ROCHFORD PATK LAB R	R. L. Polk & Co.

631 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	AU Richard L D	Haines Company, Inc.
2000	AU RICHARD L D	Pacific Bell
	YANG JIE MIN	Pacific Bell
1996	AU RICHARD L D	PACIFIC BELL DIRECTORY
1992	AU RICHARD L D	PACIFIC BELL DIRECTORY
1975	BARBEAU ESTIHER MRS	Pacific Telephone
1967	SMALL FREDK F	R. L. Polk Co.
1962	Barbeau Esther Mrs r	Pacific Telephone
1950	BARBCAU ESTLIER MRS R	The Pacific Telephone & Telegraph Co.
1945	BARBEAU ESTHER MRS R	The Pacific Telephone & Telegraph Co.
1943	Barbeau Esther Mrs h	R. L. Polk & Co.
1938	BARBEAU ESTHER MRS R	Pacific Telephone
1933	COTTER MILDRED R	R. L. Polk & Co.
	BARBEAU ESTHER TAILOR R	R. L. Polk & Co.
1920	BARBEAU E R	R. L. Polk & Co. of California

Oak St

632 Oak St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	LIGHT OF BUDDAH TEMPLE INC	EDR Digital Archive
	LIGHT OF BUDDAH TEMPLE INC	EDR Digital Archive
2010	LIGHT OF BUDDAH TEMPLE INC	EDR Digital Archive

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2010	LIGHT OF BUDDAH TEMPLE INC	EDR Digital Archive

OAK ST

632 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	SHIH I Shlh	Haines Company, Inc.

704 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1920	STANLEY MISS RUTH R	R. L. Polk & Co. of California

708 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
2000	CHAN WANDA	Pacific Bell
1975	LINN TIMRWON	Pacific Telephone
1967	VACANT	R. L. Polk Co.
1962	Fong Douglas D	Pacific Telephone
1943	Armada Julio Marion h	R. L. Polk & Co.
1933	ON GEE H	R. L. Polk & Co.
1920	SNIDE MRS L R	R. L. Polk & Co. of California

709 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	DENWITTY DELLA R	The Pacific Telephone & Telegraph Co.
1943	MACKEY Andw M Estella lab r	R. L. Polk & Co.
	Lindsey John B Myrtle lab r	R. L. Polk & Co.
	Denwitty Marcelles Della shipydwkr h	R. L. Polk & Co.
1933	TANI MOTO CLO CLNR	R. L. Polk & Co.

710 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	o CHAN Chul	Haines Company, Inc.
1967	VACANT	R. L. Polk Co.
1962	Woo Art Ming r	Pacific Telephone
1950	WOO ART MING R	The Pacific Telephone & Telegraph Co.
1945	CHUNG CARL R	The Pacific Telephone & Telegraph Co.
1943	Chung Carl Rae clk h	R. L. Polk & Co.
1938	CHUNG CARL R	Pacific Telephone

FINDINGS

714 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	WANG Zhong Zhen	Haines Company, Inc.
	CHIN John	Haines Company, Inc.
2000	WANG ZHONG ZHEN	Pacific Bell
1996	KUROSAWA ROBERT	PACIFIC BELL DIRECTORY
1992	KUROSAWA ROBERT	PACIFIC BELL DIRECTORY
1967	FOO L SHEE MRS	R. L. Polk Co.
1962	Painter Electric	Pacific Telephone
	Lok Bill	Pacific Telephone
1950	ENG HERE S R	The Pacific Telephone & Telegraph Co.
1945	ENG HERE S R	The Pacific Telephone & Telegraph Co.
1943	Ng Lim h	R. L. Polk & Co.
1938	ENG HERC S R	Pacific Telephone
1920	BECKERT G F R	R. L. Polk & Co. of California

720 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CHENJia Chi	Haines Company, Inc.
2000	CHEN JIA CHI	Pacific Bell
1967	VACANT	R. L. Polk Co.
1962	Lowe Jas H	Pacific Telephone
1950	NG IVAN R	The Pacific Telephone & Telegraph Co.
1945	LOWE C R	The Pacific Telephone & Telegraph Co.
1943	Ng Ivan h	R. L. Polk & Co.
	Lowe Chung h	R. L. Polk & Co.

721 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Chin Ping	Pacific Telephone
1945	ENG FLORENCE R	The Pacific Telephone & Telegraph Co.
1943	Check Chiun h	R. L. Polk & Co.

722 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	e JIANGKenny	Haines Company, Inc.
2000	ZHUANG ZHEN J	Pacific Bell
1967	TSANG LOUIS GLI 9303	R. L. Polk Co.
1962	Tsang Louis r	Pacific Telephone
1950	TSANG LOUIS R	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	WONG TONG R	The Pacific Telephone & Telegraph Co.
1943	Tsang Louis h	R. L. Polk & Co.
1938	WONG TONG R	Pacific Telephone
1920	LOCKWOOD E M R	R. L. Polk & Co. of California

723 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Lee Chung H	Pacific Telephone
1950	LEONG JAS H Q R	The Pacific Telephone & Telegraph Co.
1943	Yang Quon h	R. L. Polk & Co.
	Foon Henry Elsie meats r	R. L. Polk & Co.
1938	LIM WILLIAM R	Pacific Telephone

726 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.
1967	WONG KUNG S MRS	R. L. Polk Co.
1962	Wong Kung Shee	Pacific Telephone
1950	WANG GEO R	The Pacific Telephone & Telegraph Co.
1943	Padaveris Arth D Dorothy driver r	R. L. Polk & Co.
	Paduveris Arth D Dorothy pntr h	R. L. Polk & Co.
1920	BERCOVICH E R	R. L. Polk & Co. of California

728 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	WONGGeo	Haines Company, Inc.
1967	WONG GEI	R. L. Polk Co.
1962	Wong Geo	Pacific Telephone
1950	WONG EDW B R	The Pacific Telephone & Telegraph Co.
1945	TANJUATCO A R	The Pacific Telephone & Telegraph Co.
1943	Pagalunan Emiliano h	R. L. Polk & Co.
	Tanjuatco Antonio barber r	R. L. Polk & Co.
1933	WONG SHEE H	R. L. Polk & Co.

730 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	MCKENY GEO (FLORENCE) CLK H	R. L. Polk & Co.

FINDINGS

802 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Owyang Elwood	Pacific Telephone
	Owyang Julia	Pacific Telephone
1943	LEE Oscar R Hattie shoe repr r	R. L. Polk & Co.
	Quong Yuen h	R. L. Polk & Co.
1920	JOSEPH MRS J F R	R. L. Polk & Co. of California

804 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	WONG FEELAT	R. L. Polk Co.
1962	Wong Foon B r	Pacific Telephone
1950	WANG FOON B R	The Pacific Telephone & Telegraph Co.
1945	MEW THOMAS R	The Pacific Telephone & Telegraph Co.
1943	Mew Thos B May shipydwkr h	R. L. Polk & Co.
	Mew May J typist U S Emp Serv r	R. L. Polk & Co.
1938	THOMAS S J R	Pacific Telephone
1933	THOMAS SPIROS (EUROPE) BARBER	R. L. Polk & Co.

806 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	YEF SHUCK	R. L. Polk Co.
1962	Yee Shuck K engnr	Pacific Telephone
1950	YEE SHUCK K ENGR	The Pacific Telephone & Telegraph Co.
1945	YEE SHUCK K R	The Pacific Telephone & Telegraph Co.
1943	Yee Shuck K h	R. L. Polk & Co.
1938	BERG JACOB R	Pacific Telephone
1933	BERG JACOB (JENNIE) WOOD CARVING	R. L. Polk & Co.
	BERG MILDRED SEC WOMEN S CITY CLUB R	R. L. Polk & Co.

808 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Bell Thos L Pearl shipydwkr h	R. L. Polk & Co.

812 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	BROWN W H R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	NEVES A M R	Pacific Telephone
1933	NEVES ANTONE M (DELVENA) MSNGR H ALAMEDA	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1920	NEWMEYER W L R	R. L. Polk & Co. of California

816 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Tom Laura	Pacific Telephone
1950	WANG HAY YET R	The Pacific Telephone & Telegraph Co.
1945	WONG HAY YET R	The Pacific Telephone & Telegraph Co.
1943	TOM Laura sten Pub Sch r	R. L. Polk & Co.
	TOM Fang Fong h	R. L. Polk & Co.
1938	LIEBERMAN L R	Pacific Telephone
	ARNOLD HENRY W R	Pacific Telephone
1933	ARNOLD HENRY W (CLARA) V-PRES GOARD & ARNOLD INC H ALAMEDA	R. L. Polk & Co.
	LIEBERMAN A LOUIS (ANNIE) JUNK	R. L. Polk & Co.
	LIEBERMAN ALBT R	R. L. Polk & Co.
1920	LAWS R G R	R. L. Polk & Co. of California
	LIEBERMAN L R	R. L. Polk & Co. of California

818 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Lum Chong	Pacific Telephone
1945	GOTTSCALK OTTO R	The Pacific Telephone & Telegraph Co.
1943	Chin Yuen h	R. L. Polk & Co.
1933	CURRLIN ANNA K (WID ALBT) H	R. L. Polk & Co.

820 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Sin York L r	Pacific Telephone
1950	SIN YORK I R	The Pacific Telephone & Telegraph Co.
1943	Wong Chew h	R. L. Polk & Co.

821 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	DODGE WM JR R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	DODGE WM JR R	Pacific Telephone

824 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	PORTERFIELD HERBERT R	The Pacific Telephone & Telegraph Co.
	ENG KONEY R	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	BRADSHAW BEATRICE MRS R ALAMEDA	The Pacific Telephone & Telegraph Co.
1943	Chin Gordon h	R. L. Polk & Co.
1938	MARR HENRY R	Pacific Telephone
1933	MARR HENRY (ALICE) H	R. L. Polk & Co.
1920	VALE BALDWIN R	R. L. Polk & Co. of California

826 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	CHINN HELEN	R. L. Polk Co.
1962	Chinn Gordon r	Pacific Telephone
1950	CHINN GORDON R	The Pacific Telephone & Telegraph Co.
1945	CHINN GORDON R	The Pacific Telephone & Telegraph Co.
	ASHCROFT WM G R ALAMEDA	The Pacific Telephone & Telegraph Co.
1943	Chin Alf h	R. L. Polk & Co.
1938	MACKENZIE J C MRS R	Pacific Telephone
1933	MACKENZIE HELEN (WID J C) H ALAMEDA	R. L. Polk & Co.
	MACKENZIE JESSIE STEN R ALAMEDA	R. L. Polk & Co.
	WILKINSON THOS G CLK R ALAMEDA	R. L. Polk & Co.
	MACKENZIE DONALD C BKPR R ALAMEDA	R. L. Polk & Co.
1920	WOLCOTT FLORENCE M R	R. L. Polk & Co. of California
	DIAMOND M E R	R. L. Polk & Co. of California

827 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	GHISELLI J R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	GHISELLI J R	Pacific Telephone
1933	SHORT THOS A (GERALDINE) ENG H ALAMEDA	R. L. Polk & Co.
1920	BEARDSLEY MRS G R R	R. L. Polk & Co. of California

828 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	PUGH V J R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	FOERSTER W C R	Pacific Telephone
1933	FOERSTER WALTER C (MARIETTA) ARTIST H ALAMEDA	R. L. Polk & Co.
1920	RICH C E R	R. L. Polk & Co. of California

FINDINGS

830 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Mulcahy Mildred L	Pacific Telephone
1950	MULCAHY MILDRED L R	The Pacific Telephone & Telegraph Co.
	HAMBLETON CHAS G R	The Pacific Telephone & Telegraph Co.
1945	HAMBLETON CHAS G R	The Pacific Telephone & Telegraph Co.
1943	Stevens Clell Stella mech L R Alzina h	R. L. Polk & Co.
	ROGERS Clair E Sadie shipydwkr h	R. L. Polk & Co.
	HUFFMAN Frank D Gertrude shipydwkr h	R. L. Polk & Co.
	HOWARD Clarence r	R. L. Polk & Co.
	Hambleton Chas G Margt h	R. L. Polk & Co.
	Danielson Lawrence J Mable restr h	R. L. Polk & Co.
	Brown Lawrence W Lela h	R. L. Polk & Co.
1938	HAMBLETON CHAS G R	Pacific Telephone
1933	WEBBER CHAS (MARIE) SLSMN R	R. L. Polk & Co.
	HAMBLETON MARGT S K (WID C G) H	R. L. Polk & Co.
1920	GALINDO MRS J D R	R. L. Polk & Co. of California

831 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	GAMBLE J M R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	GAMBLE J M R	Pacific Telephone
1933	GAMBLE JAS M H ALAMEDA	R. L. Polk & Co.
1920	DONALDSON C E R	R. L. Polk & Co. of California

832 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	CROSSETT FRANK R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	CROSSETT FRANK R	Pacific Telephone
1933	CROSSETT FRANK (ANGELA) (ACME GARAGE) H ALAMEDA	R. L. Polk & Co.

834 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	LOETSCHER A R ALAMEDA	The Pacific Telephone & Telegraph Co.
1933	LIPSKER MARTIN CLK R ALAMEDA	R. L. Polk & Co.
	LIPSKER SIGMUND MACH H ALAMEDA	R. L. Polk & Co.

835 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	WARFIELD G R R ALAMEDA	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1938	REYNOLDS R G R	Pacific Telephone
1933	REYNOLDS ELSA M (WID R G) MEATS ALAMEDA	R. L. Polk & Co.
	REYNOLDS WANDA STEN R ALAMEDA	R. L. Polk & Co.
1920	RISSMAN L J R	R. L. Polk & Co. of California

836 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	ERICKSEN M R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	ERICKSEN M R	Pacific Telephone
1933	TONNINGSON CARL D (MARGT J) INS AGT H ALAMEDA	R. L. Polk & Co.
	ERICKSEN MATHIAS (HELLA) SHIPWRIGHT H ALAMEDA	R. L. Polk & Co.

838 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	HOCHSCHEID PAULINE M R ALAMEDA LA KEHRST 20	The Pacific Telephone & Telegraph Co.
1945	DEAN BARBARA R ALAMEDA	The Pacific Telephone & Telegraph Co.
	FAHLSTROM COLLIN A R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	TONNINGSEN MARGARET MRS R	Pacific Telephone

839 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	HOEFNER GEORGE R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	HULL EOLINE M MRS R	Pacific Telephone
1933	NOBLOCK ANDW J (BELLE) H ALAMEDA	R. L. Polk & Co.
1920	BAENDER C R R	R. L. Polk & Co. of California

840 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	WHITES LLOYD L R ALAMEDA	The Pacific Telephone & Telegraph Co.
	MORIARTY T H R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	MACHIN VIOLET MRS R	Pacific Telephone

842 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	CLEMENTE JOHN W R ALAMEDA	The Pacific Telephone & Telegraph Co.

FINDINGS

843 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	HEMPSON E A R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	HEMPSON E A R	Pacific Telephone
1933	FRANKE PAUL JAN H ALAMEDA	R. L. Polk & Co.
	FRANKE DAVID L SLSMN STANDARD STATIONS INC R ALAMEDA	R. L. Polk & Co.
1920	POWELL J A R	R. L. Polk & Co. of California

844 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	BESoyAN MABEL C MRS R	The Pacific Telephone & Telegraph Co.
1945	BESoyAN MABEL C MRS R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	BESoyAN AMOS R	Pacific Telephone
1933	DOYLE JOHN (VIOLET) H ALAMEDA	R. L. Polk & Co.

845 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	REGOLI PAUL R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	REGOLI PAUL R	Pacific Telephone
1933	REGOLDI PAUL (JOSIE) TAILOR H ALAMEDA	R. L. Polk & Co.
1920	HOLMES H R	R. L. Polk & Co. of California

849 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	GREENE DORIS L R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	GREENE C W R	Pacific Telephone
1920	DURAN F M R	R. L. Polk & Co. of California

850 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	STINSON W A R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	STINSON W A R	Pacific Telephone
1933	STINSON WORDEN A (CLARA) CLK H ALAMEDA	R. L. Polk & Co.

853 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	CREESE JOSEPH R R ALAMEDA	The Pacific Telephone & Telegraph Co.
	CREESE ARNOLD R R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	KESSELL RICHARD W R	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	HUNTINGTON OSCAR S (ANNE) SLSMN H ALAMEDA	R. L. Polk & Co.
	HUNTINGTON FRANK W ELECTN R ALAMEDA	R. L. Polk & Co.
1920	HUNTINGTON O S R	R. L. Polk & Co. of California

857 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	MOORE HARRY T R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	MOORE HARRY T R	Pacific Telephone
1933	CRAIG HARRY G H ALAMEDA	R. L. Polk & Co.

861 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	GARDINER ROBERT F R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	WANHOPE MADELINE MRS R ARADA THOS R	Pacific Telephone Pacific Telephone
1933	ARADA LESLIE L CLK R ALAMEDA NELSON EDW R ALAMEDA ARADA THOS (ANNIE) H ALAMEDA	R. L. Polk & Co. R. L. Polk & Co. R. L. Polk & Co.
1920	ARADA THOS R	R. L. Polk & Co. of California

864 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	EKBERG GUS R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	EKBERG GUS R	Pacific Telephone
1933	EKBERG GUSTAVE SHIP RIGGER H ALAMEDA	R. L. Polk & Co.

865 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	SPERONL S R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	SPERONI S R	Pacific Telephone
1933	SPERONE CHAS LAB R ALAMEDA SPERONE SPERONI CARP H ALAMEDA	R. L. Polk & Co. R. L. Polk & Co.

866 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	HARDY A E R ALAMEDA	The Pacific Telephone & Telegraph Co.
1933	WARNE RICHD H (DORIS) GASMKR H ALAMEDA	R. L. Polk & Co.

FINDINGS

867 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	BRAMMAN AMELIA R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	BRAMMAN AMELIA R	Pacific Telephone
1933	ARADA EDW L CLK R ALAMEDA	R. L. Polk & Co.
	BRAMMAN AMELIA MRS H ALAMEDA	R. L. Polk & Co.

869 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	GEHRING R L MRS R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	NORWOOD C C MRS R	Pacific Telephone

871 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	HINDS LAURENCE J R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	HINDS MURIEL H R	Pacific Telephone
1933	HINDS LAURENCE J (HILDA) CARP H ALAMEDA	R. L. Polk & Co.

872 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	JACOBS ALBERT F R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	MOGLER WM G R	Pacific Telephone
1933	HINDS RALPH B (MINA) CARP H ALAMEDA	R. L. Polk & Co.
	HINDS RALPH M BKPR R ALAMEDA	R. L. Polk & Co.

873 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	ROEBKE W R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	ROEBKE W R	Pacific Telephone
1933	ROEBKE WALDEMAR (ETHEL) MEATCTR H ALAMEDA	R. L. Polk & Co.
	HINDS MINNIE S (WID WM) R ALAMEDA	R. L. Polk & Co.

875 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	SUENNEN E R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	DICKERSON GORDON C R	Pacific Telephone
1933	HAMMER ARNOLD N (MARY) MACH H ALAMEDA	R. L. Polk & Co.

FINDINGS

876 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	CAREY GAYLE RN R ALAMEDA	The Pacific Telephone & Telegraph Co.

878 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	TURNER RICHARD R ALAMEDA	The Pacific Telephone & Telegraph Co.

881 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	FITZPATRICK JOHN H JR R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	TUGGY AMY MISS R	Pacific Telephone
1933	CALDER MARJORIE STEN OKLD PUB SCH R ALAMEDA	R. L. Polk & Co.

883 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	MURPHY WILMA MRS R ALAMEDA LA KEHRST 2118	The Pacific Telephone & Telegraph Co.
1945	HOOVER ALICE MRS R ALAMEDA	The Pacific Telephone & Telegraph Co.
1933	TUGGY HANNAH (WID HENRY) H ALAMEDA	R. L. Polk & Co.
	TUGGY AMY NURSE R ALAMEDA	R. L. Polk & Co.

887 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	RICHARDSON HORACE M R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	HORMAN JOSEPH S R	Pacific Telephone
1933	HARMON JOS (ANNIE) CLK H ALAMEDA	R. L. Polk & Co.

888 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	EGGMAN EUGENE R ALAMEDA	The Pacific Telephone & Telegraph Co.
1933	GRONER FRED MACH H ALAMEDA	R. L. Polk & Co.

891 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	CAWLEY IRENE A R ALAMEDA	The Pacific Telephone & Telegraph Co.
1933	HORN WALTER J (ALICE G) WHSMN H ALAMEDA	R. L. Polk & Co.

FINDINGS

895 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	PRIDY E U R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	DUNN A B R	Pacific Telephone
1933	SCHMIDT ROBT MUSICIAN H ALAMEDA	R. L. Polk & Co.
1920	DECKER GEO E R	R. L. Polk & Co. of California

897 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	REES MORINIUS H ALAMEDA	R. L. Polk & Co.
	FERGUSON GERALD R ALAMEDA	R. L. Polk & Co.

900 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	St George Orthodox Church Serbian	R. L. Polk & Co.
1933	SERBIAN ORTHODOX CHURCH	R. L. Polk & Co.

902 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Serbian Orthodox Church	R. L. Polk & Co.

909 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	HERYFORD WM D (MARY) CLK H ALAMEDA	R. L. Polk & Co.

912 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CHEUNGWoon	Haines Company, Inc.
	Chuen	Haines Company, Inc.
	UUUNU	Haines Company, Inc.
	PAN Shao Lan	Haines Company, Inc.
2000	3 LIU ZHAO T	Pacific Bell
	4 CHEUNG WOON CHUEN	Pacific Bell
1996	4 CHEUNG WOON CHUEN	PACIFIC BELL DIRECTORY
1992	1 HO WING M	PACIFIC BELL DIRECTORY
	3 WONG YICK SUI	PACIFIC BELL DIRECTORY
	4 CHEUNG WOON CHUEN	PACIFIC BELL DIRECTORY
1975	FANG MACK	Pacific Telephone
	LAS HING SUM	Pacific Telephone
1967	SHEARER HAROLD W	R. L. Polk Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	TUPKINGTON AGNES A MRS	R. L. Polk Co.
	BIVINS SERENA P MRS	R. L. Polk Co.
	HAYES JAMES H	R. L. Polk Co.
	DEAS WM F	R. L. Polk Co.
	LABRADOR ESTANISLAO	R. L. Polk Co.
	APARTMENTS	R. L. Polk Co.
1962	Bivins Serena P Mrs	Pacific Telephone
	Doughty T L	Pacific Telephone
	Hayes Jas H	Pacific Telephone
	Marion Jack r	Pacific Telephone
	Turkington Agnes r	Pacific Telephone
1950	HERNDON PATRICIA R R	The Pacific Telephone & Telegraph Co.
	BRAWCLY C L MRS R	The Pacific Telephone & Telegraph Co.
	BUCK DONALD J R	The Pacific Telephone & Telegraph Co.
	DOXIE C W MRS R	The Pacific Telephone & Telegraph Co.
	MARION JACK R	The Pacific Telephone & Telegraph Co.
	TURKINGTON AGNES R	The Pacific Telephone & Telegraph Co.
1945	KOVELL ED R ALAMEDA	The Pacific Telephone & Telegraph Co.
	SHOCKLEY LILLIAN R	The Pacific Telephone & Telegraph Co.
	TURKINGTON AGNES R	The Pacific Telephone & Telegraph Co.
	WALLACE HUGH C R	The Pacific Telephone & Telegraph Co.
1943	Aronson Alf R Ethel linemn h	R. L. Polk & Co.
	Cox John B Betty shipydwkr r	R. L. Polk & Co.
	Makowski Mabel r	R. L. Polk & Co.
	MURPHY Rae Mrs h	R. L. Polk & Co.
	Shockley Gary G Lillian M USA h	R. L. Polk & Co.
	Stromer Betty M wid M H r	R. L. Polk & Co.
	Stromer Stanley A Lila clk h	R. L. Polk & Co.
	Turkington Agnes h	R. L. Polk & Co.
	Wallace Hugh C h	R. L. Polk & Co.
1938	GNIADEK FRANK R	Pacific Telephone
	POWELL C R	Pacific Telephone
	TURKINGTON AGNES R	Pacific Telephone
1933	CHANDLER INCREASE H R ALAMEDA	R. L. Polk & Co.
	DENNING EARL E (LILLIAN) CLK H	R. L. Polk & Co.
	DOOLEY GEORGIA J (WID W J) H	R. L. Polk & Co.
	FISTER HARVEY M SLSMN R	R. L. Polk & Co.
	KISTERER HALLIE NURSE R	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	KISTNER GERALD R (JENNIE) SLSMN H	R. L. Polk & Co.
	OLSON LALAH C H	R. L. Polk & Co.
	PACHECO GUS M (RUTH) CARP H	R. L. Polk & Co.
	POWELL CHAS (AMELIA) GLAZIER H ALAMEDA	R. L. Polk & Co.
	POWELL EARL R ALAMEDA	R. L. Polk & Co.
	POWELL MELBOURNE J (MILDRED) SLSMN R ALAMEDA	R. L. Polk & Co.
	THOMPSON ANGELINE (WID J E) R ALAMEDA	R. L. Polk & Co.
1920	POWELL C R	R. L. Polk & Co. of California
	LEWKOWITZ L R	R. L. Polk & Co. of California

913 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	RODDICK G F R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	RODDICK G F R	Pacific Telephone
1933	RODDICK GEO F (ELSA) CLK H ALAMEDA	R. L. Polk & Co.

914 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	KENNEY LEO A R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	KENNEY E A R	Pacific Telephone
1933	KENNEY ERNEST A (PARK ELECTRIC CO) R ALAMEDA	R. L. Polk & Co.
	KENNEY LEO A CARRIER ALA PO R ALAMEDA	R. L. Polk & Co.
	KENNEY NORA (WID FRANK) H ALAMEDA	R. L. Polk & Co.

916 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	BROWN VIRGIL E R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	JUSTIN EUGENE V R	Pacific Telephone
1933	BIRCHENALL WM E CLK R ALAMEDA	R. L. Polk & Co.
	BIRCHENALL EDWIN J (FRANCES E) CLK H ALAMEDA	R. L. Polk & Co.

917 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	PRICE J LLOYD R ALAMEDA	The Pacific Telephone & Telegraph Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1938	PETO W T R	Pacific Telephone
1933	PETO WM T (BEULAH D) BARBER ALAMEDA	R. L. Polk & Co.
	OLD IRECE CLK R ALAMEDA	R. L. Polk & Co.

918 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	APARTMENTS	Haines Company, Inc.
	CHENHod Yan	Haines Company, Inc.
	HU Chu	Haines Company, Inc.
	HUANGZhnraao Xa	Haines Company, Inc.
	SETOWe Lue	Haines Company, Inc.
	SITU Bing Wen	Haines Company, Inc.
2000	1 ZHUAN XIAO HUANG	Pacific Bell
	4 SETO WE LUE	Pacific Bell
	5 LI ZHUO MING	Pacific Bell
1996	4 SETO WE LUE	PACIFIC BELL DIRECTORY
1992	3 YU ZHEN GIN	PACIFIC BELL DIRECTORY
	4 SETO WE LUE	PACIFIC BELL DIRECTORY
	6 WONG WAI YU	PACIFIC BELL DIRECTORY
1967	APARTMENTS	R. L. Polk Co.
	I VACANT	R. L. Polk Co.
	LIM THOS	R. L. Polk Co.
	YEE BING W	R. L. Polk Co.
	MORALES NARBONETA	R. L. Polk Co.
	CHIN GILBERT W	R. L. Polk Co.
	LUM CHEE HUNG	R. L. Polk Co.
	VACANT 7 THRU	R. L. Polk Co.
1962	Hoxie Edw F	Pacific Telephone
	Lim Thos	Pacific Telephone
1950	BELIL DOROTHY M R	The Pacific Telephone & Telegraph Co.
	CORISIA VIRGIL R	The Pacific Telephone & Telegraph Co.
	HIOXIE EDW F R	The Pacific Telephone & Telegraph Co.
	SABATONI BEN R	The Pacific Telephone & Telegraph Co.
1945	HOXIE EDW F R	The Pacific Telephone & Telegraph Co.
	LATENDORF ELIZABETH L R	The Pacific Telephone & Telegraph Co.
	RICHARDSON HAROLD R	The Pacific Telephone & Telegraph Co.
1943	Amrel John W Olive shipydwkr h	R. L. Polk & Co.
	Brown Ralph J Vogeeng rigger h	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Hanson John A Lee police h	R. L. Polk & Co.
	Hoxie Edw F Ruth slsmn h	R. L. Polk & Co.
	Loving Herbt M Mamie eng h	R. L. Polk & Co.
	Richardson Harold mgr Twin Oaks Apts h	R. L. Polk & Co.
	Twin Oaks Apartments	R. L. Polk & Co.
1938	CRIST E R	Pacific Telephone
	HAYWARD ALBERT R	Pacific Telephone
1933	ARTHUR APARTMENTS	R. L. Polk & Co.
	VICTOR DARRELL S (VIRGINIA L) SLSMN H	R. L. Polk & Co.
	VICTOR P S (VIRGINIA) SLSMN COCHRAN & CELLI R	R. L. Polk & Co.
	WIDMAYER GEO W (MARGT) PLMBR H	R. L. Polk & Co.
	WIDMAYER MARGT CLK R	R. L. Polk & Co.
	WIDMAYER NORMA R	R. L. Polk & Co.
1920	ARTHUR APARTMENTS	R. L. Polk & Co. of California
	HATHAWAY W H R	R. L. Polk & Co. of California
	HIGBEE MRS MAE R	R. L. Polk & Co. of California

Oak St

920 Oak St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2010	WIN EXPRESS LLC	EDR Digital Archive
	WIN EXPRESS LLC	EDR Digital Archive

OAK ST

920 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	8 PAN RUI HONG	Pacific Bell
	11 LI HE ZHAO	Pacific Bell
	12 LIU TIAN BIN	Pacific Bell
1996	12 LIU TIAN BIN	PACIFIC BELL DIRECTORY
	8 PAN RUI HONG	PACIFIC BELL DIRECTORY
1992	8 CHEN RONNY	PACIFIC BELL DIRECTORY
	10 JEUNG JOE H	PACIFIC BELL DIRECTORY
1975	CHEN ARTHUR SOU	Pacific Telephone
	KWONG WING K	Pacific Telephone
	LEE SUI BILL	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1967	APARTMENTS	R. L. Polk Co.
	I VACANT 1 THRU	R. L. Polk Co.
	CPUS BILL	R. L. Polk Co.
	CHEN A S	R. L. Polk Co.
	NGIM KIM WAH	R. L. Polk Co.
	LEONG KOW MRS	R. L. Polk Co.
	CHAN A LEVNG S	R. L. Polk Co.
1962	Chen Arthur Sou	Pacific Telephone
	Crus Bill	Pacific Telephone
	Gomes Evelyn r	Pacific Telephone
	Ho Cheun Leung	Pacific Telephone
	Rosario Fred	Pacific Telephone
	Young Wellman	Pacific Telephone
1950	GOMES EVELYN R	The Pacific Telephone & Telegraph Co.
	GREENWOOD CURT R	The Pacific Telephone & Telegraph Co.
	LATENDORF DOROTHY L R	The Pacific Telephone & Telegraph Co.
	SCHROEDER MARGARET R	The Pacific Telephone & Telegraph Co.
1945	GOMES EVELYN R	The Pacific Telephone & Telegraph Co.
	HADDEN ALEX R	The Pacific Telephone & Telegraph Co.
1943	Arquilla Donald Evelyn mech h	R. L. Polk & Co.
	Ehrhart H Jack Mary shipydwkr h	R. L. Polk & Co.
	GOMES Merlynn clk r	R. L. Polk & Co.
	Hadden Alex B Elsie shipydwkr h	R. L. Polk & Co.
	HERRON Robt E Jessie mech h	R. L. Polk & Co.
	Imel Lawrence E Violet blrmkr h	R. L. Polk & Co.
	Rood Douglas E shipydwkr r	R. L. Polk & Co.
	SNOW Wm W Lizzie gdnr Okld Park Dept h	R. L. Polk & Co.
1938	GEARHART ELLA M R	Pacific Telephone
	GRUBER BERT R	Pacific Telephone
1933	AVERY WM J (MARGT) CARP H	R. L. Polk & Co.
	JESSEN ADOLPH J (ARCHANGEL) RADIO MECH H	R. L. Polk & Co.
	PISANI ALFD LAB R	R. L. Polk & Co.
	PISANI JENNIE (WID JOS) H	R. L. Polk & Co.

928 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	UUTarn Bin	Haines Company, Inc.
	LIU Yu	Haines Company, Inc.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	MIAO Qing	Haines Company, Inc.
	CHEN Chao Juan	Haines Company, Inc.

Oak St

963 Oak St

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2010	AMERICAN EMPEROR INC	EDR Digital Archive
	AMERICAN EMPEROR INC	EDR Digital Archive

OAK ST

963 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1920	TUPPER MRS L B R	R. L. Polk & Co. of California

1000 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	STORE	Haines Company, Inc.
	OAKLD CTY MSM	Haines Company, Inc.
	TOURS	Haines Company, Inc.
	OAKLD CTYMSM	Haines Company, Inc.
	OAKLD MUSEUM OF CALIFORNIA	Haines Company, Inc.
	OAKLD CTY MSM	Haines Company, Inc.
	OAKLO CTY MOM	Haines Company, Inc.
	SCRTY	Haines Company, Inc.
	BUILDING	Haines Company, Inc.
	BAY AREA PARKING	Haines Company, Inc.
	COMPANY	Haines Company, Inc.
	COLLECTORS	Haines Company, Inc.
	RENTAL GALLERY	Haines Company, Inc.
	OAKLD CEY MSM	Haines Company, Inc.
	OAKLD CTY MSM	Haines Company, Inc.
	ACCTG	Haines Company, Inc.
	OAKLDOCTY MOM	Haines Company, Inc.
	OAKLDCTYMOM	Haines Company, Inc.
	COLLECTORS	Haines Company, Inc.
	GLLRY	Haines Company, Inc.
	OAKLD CTY MSM	Haines Company, Inc.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	OAKUL CTY MSM	Haines Company, Inc.
	OAKLD CTY MSM	Haines Company, Inc.
	OAKLD CTY MSM	Haines Company, Inc.
	HEARING IMPAIRED	Haines Company, Inc.
	OAKLD CTYMSM	Haines Company, Inc.
	HISTORY SECTION	Haines Company, Inc.
	OAKLD CTY MSM	Haines Company, Inc.
	COMMNCTNS	Haines Company, Inc.
	OAKLDCTYMSM	Haines Company, Inc.
	OAKLD CTY MSM	Haines Company, Inc.
2000	BAY AREA PARKING COMPANY	Pacific Bell
1996	BAY AREA PARKING COMPANY	PACIFIC BELL DIRECTORY
	OAKLAND MUSEUM OF CALIFORNIA STORE	PACIFIC BELL DIRECTORY
1992	WEST COAST PARKING ASSOCIATES	PACIFIC BELL DIRECTORY
1991	West Coast Parking Associates	PACIFIC BELL WHITE PAGES
1975	OAKLAND MUSEUM ASSN	Pacific Telephone
	OAKLAND MUSEUM BOOK STORE	Pacific Telephone
	OAKLAND MUSEUM TOURS	Pacific Telephone
	OBSERVATORY	Pacific Telephone
1967	OAKLAND MUSEUM	R. L. Polk Co.

1001 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	Garage	R. L. Polk & Co.

1007 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1920	MCGOWN J S R	R. L. Polk & Co. of California

1009 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1933	HANNI LOUIS TAILOR	R. L. Polk & Co.

1010 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	LUCAS DOROTHY R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	LUCAS M R	Pacific Telephone
1933	LUCAS DOROTHY R ALAMEDA	R. L. Polk & Co.
	LUCAS MARGT (WID CHAS) H ALAMEDA	R. L. Polk & Co.

FINDINGS

1011 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	MILLER A W R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	POOLEY W J R	Pacific Telephone
1933	POOLEY WM J (FLORENCE) H ALAMEDA	R. L. Polk & Co.
1920	POOLEY W J R	R. L. Polk & Co. of California

1015 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1938	MANCHESTER D S R	Pacific Telephone
1933	EKSTROM CHESTER (ANN) CHAUF H ALAMEDA	R. L. Polk & Co.
1920	MONOTTI MRS A L R	R. L. Polk & Co. of California

1017 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	KLAUFMAN REGINA MRS R	The Pacific Telephone & Telegraph Co.
1945	KAUFMAN REGINA MRS R ALAMEDA	The Pacific Telephone & Telegraph Co.
1920	PRIEST MRS R A JR R	R. L. Polk & Co. of California

1018 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	BLYTH B W R ALAMEDA	The Pacific Telephone & Telegraph Co.
1938	HINTZ JOHN H R	Pacific Telephone
1933	HINTZ JOHN H (SIDONIE) ENGR H ALAMEDA	R. L. Polk & Co.
	HINTZ DOROTHY CLK R ALAMEDA	R. L. Polk & Co.
	HINTZ ADOLPH H APPR ENGR R ALAMEDA	R. L. Polk & Co.
1920	DIDIER MRS FLORIDA R	R. L. Polk & Co. of California

1020 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	STARK L D LEWSTARK S FURNITURE FACTORY	The Pacific Telephone & Telegraph Co.
	LEWSTARK S FURNITURE FACTORY	The Pacific Telephone & Telegraph Co.
1943	Naylor Wm W Milla office	R. L. Polk & Co.
1938	WENGER E C CO RADIO SUPPLIES	Pacific Telephone
1933	WENGER BRILL CO (E C WENGER W D BRILL) RADIO SUPPLIES	R. L. Polk & Co.

FINDINGS

1021 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1943	FERGUSON Stanley G Lucille supvr MW&Co h	R. L. Polk & Co.

1024 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	SELF J B R ALAMEDA	The Pacific Telephone & Telegraph Co.
1943	Tye Chas Isabel C restr h	R. L. Polk & Co.
	Puyper Margt A h	R. L. Polk & Co.
	Fitzgerald Thos A Agnes shtmtlwkr h	R. L. Polk & Co.
	Attell Jack Ethel h	R. L. Polk & Co.
1938	SELF J B R	Pacific Telephone
	LIPPI G MISS R	Pacific Telephone
1933	HOYT HAZEL MRS R	R. L. Polk & Co.
	GURNETT A J H ALAMEDA	R. L. Polk & Co.
	GURNETT KATH STEN R ALAMEDA	R. L. Polk & Co.
	ENOS MARY MRS H	R. L. Polk & Co.
	ENOS HAZEL MRS WAITER R	R. L. Polk & Co.

861 1/2 OAK ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1945	ARADA THOS R ALAMEDA	The Pacific Telephone & Telegraph Co.

S 6 ST

125 S 6 ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	DREISBACH EXPORT PACKING CO INC L	Pacific Telephone

S 6TH ST

12 S 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	ALDRIDGE G C	R. L. Polk & Co.

S 9TH ST

152 S 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	ton G H	R.L. Polk and Co of California

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	La John fctywkr R	R.L. Polk and Co of California

SA0 8TH

95 SA0 8TH

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	SUILLIVAN A R	The Pacific Telephone & Telegraph Co.

W 6TH ST

22 W 6TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	PRESTOLINE CORP OF AMER COPYHOLDERS NEW YORK NY	Pacific Telephone Directory

W 9TH ST

117 W 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	ALAN WOOD STEEL CO LOSANGELES	Pacific Telephone Directory

130 W 9TH ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	CHAMBERLAIN LOY AIA REYNOLDS CHAMBERLAIN & RUANO	Pacific Telephone

FINDINGS

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
0100 9TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
0180 9 CSNTER	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
019 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
022 8TH AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
036 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
066 8TH VIA HARRIET	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
071 8 B	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
098 6TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
1 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
10 8 BTH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
10 8 CURTIS	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
10 8LL RUSSET OAKLND	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
10 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1920
100 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
100 7TH AVENUE TE MPLBAR	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
112 6TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
112 7 HOPKI NS	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
112 7 KEY	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
112 7TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
112 8 BURKHART AV SRI LRO	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
112 9TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
113 10TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1926, 1925, 1920
113 10th St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
113 10th St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
113 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
113 7TH AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
113 7TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1938, 1933, 1932, 1926, 1925, 1920
113 8 DESI TINRI CT FRRMT ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
113 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
113 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1926, 1925, 1920
113 9TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
114 6 LOCHARD ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
12 8 FRANCISCO ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
12 8 RICHMND ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
12 8 VALDEZ PI FILT 657	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
12 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
12 ATLONS310 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
12 S 6TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
120 6TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
120 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
120 7TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
121 10TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1933, 1932, 1928, 1926, 1920
121 6 OUTMNT OR WELNST CREET ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
121 6TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1932, 1928, 1926, 1925, 1920
121 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
121 7TH ST	2014, 2010, 2002, 1993, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1928, 1926, 1925, 1920
121 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
121 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
121 9 STH A	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
125 7TH AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
125 7TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1926, 1925, 1920
125 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1928, 1926, 1925
125 S 6 ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
126 6TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
126 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
126 7TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1938, 1932, 1928, 1926
126 E 6TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
127 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1926, 1925, 1920
127 8TL	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
128 10TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1940, 1932, 1926
128 6TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
128 7TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1920
129 10TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926
620 MADISON CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
620 MADISON ST	2014, 2010, 2002, 2000, 1993, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1946, 1940, 1932, 1928, 1926, 1920
620 OAK	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1926, 1925, 1920

FINDINGS

Address Researched

Address Not Identified in Research Source

620 OAK ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925
621 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
621 JACKSON ST	2014, 2010, 2002, 1996, 1993, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1940, 1933, 1932, 1928, 1926, 1925, 1920
621 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1926, 1925, 1920
621 MADISON CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
621 MADISON ST	2014, 2010, 2002, 1993, 1991, 1986, 1984, 1982, 1979, 1976, 1975, 1973, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1928, 1926, 1920
621 Madison St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
621 Madison St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
621 OAK	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1982, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1926, 1920
621 OAK ST	2014, 2010, 2002, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1940, 1932, 1928, 1926, 1925, 1920
622 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
622 MADISON CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
622 MADISON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1943, 1940, 1933, 1932, 1928, 1926, 1925, 1920
622 OAK	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1926, 1920
622 OAK ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1940, 1938, 1932, 1928, 1926, 1925, 1920
623 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1926, 1925, 1920
623 JACKSON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1940, 1938, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
624 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
624 JACKSON ST	2014, 2010, 2002, 1993, 1986, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1932, 1928, 1926, 1925
624 MADISON ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1946, 1940, 1932, 1928, 1926, 1925, 1920
624 OAK ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
625 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1926, 1920
625 JACKSON CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
625 JACKSON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1928, 1926, 1925, 1920
625 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
625 MADISON LN	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
625 MADISON ST	2014, 2010, 2002, 1993, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1946, 1940, 1938, 1933, 1932, 1928, 1926, 1920
625 Madison St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
625 Madison St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
625 OAK	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1982, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1926, 1925, 1920
625 OAK ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1940, 1932, 1928, 1926, 1925, 1920
626 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
626 MADISON CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
626 MADISON ST	2014, 2010, 2002, 2000, 1996, 1993, 1986, 1984, 1982, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
626 OAK	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1926, 1925, 1920
626 OAK ST	2014, 2010, 2002, 1996, 1993, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1940, 1938, 1932, 1928, 1926, 1925, 1920
627 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1926, 1925, 1920
627 JACKSON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
627 MADISON CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
627 MADISON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1940, 1938, 1932, 1928, 1926, 1925, 1920
627 OAK	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1926, 1920
627 OAK ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1940, 1932, 1928, 1926, 1925
628 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1926, 1920
628 JACKSON ST	2014, 2010, 2002, 1996, 1993, 1984, 1982, 1979, 1976, 1973, 1970, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1940, 1933, 1932, 1928, 1926, 1925
628 MADISON CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
628 MADISON ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1940, 1938, 1932, 1928, 1926, 1920
628 OAK	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1926, 1925, 1920
628 OAK ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1940, 1932, 1928, 1926, 1925, 1920
629 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1926, 1925, 1920
629 JACKSON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
629 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
66 7TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1932, 1926, 1925, 1920
66 9 MOKELUMNESW EETWOOD	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
66 9TH AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
67 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1932, 1926
68 7 HUNTINGTON WYTVMNR	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
68 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
68 7TH ST	2014, 2010, 2002, 1993, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1938, 1933, 1932, 1926, 1925, 1920
68 8 WILLIAMS	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
69 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
69 7TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1926
69 9TH AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
7 8 FOLGERL	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
7 8 KEY ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
7 8 PALOMR AV SUNNYVALE ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
7 8 WARRNGTN AV RDWD COUNT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
7 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
7 8TH AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
7 8TH ST	2014, 2010, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1932, 1928, 1926, 1920
7 8UAO65 ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
7 ELLINASNODANA2317 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
7 GR1216 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
70 6TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1940, 1938, 1933, 1932, 1926, 1920
70 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
70 7TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1926, 1920
70 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1926
70 8TH T	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
70 9 ELM	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
70 BPOECOLORED1219 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
700 MADISON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1946, 1940, 1932, 1928, 1926, 1920
701 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1920
701 JACKSON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
701 JACKSON ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1979, 1976, 1973, 1970, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1940, 1932, 1928, 1926, 1925
701 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
701 MADISON LN	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
709 OAK ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1940, 1938, 1932, 1928, 1926, 1925, 1920
71 7 KEY ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
71 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
71 8TH AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
710 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
710 JACKSON ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
710 MADISON CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
710 MADISON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1940, 1933, 1932, 1928, 1926, 1925
710 OAK	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
710 OAK ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1940, 1933, 1932, 1928, 1926, 1925, 1920
711 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1920
711 JACKSON ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1940, 1932, 1928, 1926, 1925
711 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
711 MADISON CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
711 MADISON LN	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
711 MADISON ST	2014, 2010, 2002, 1993, 1984, 1982, 1979, 1976, 1975, 1973, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1933, 1932, 1928, 1926, 1925, 1920
712 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
712 JACKSON ST	2014, 2010, 2002, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
712 Jackson St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
712 Jackson St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
712 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
712 MADISON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1960, 1959, 1956, 1954, 1951, 1946, 1945, 1940, 1933, 1932, 1928, 1926, 1925, 1920
713 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
713 JACKSON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
713 JACKSON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1940, 1933, 1932, 1928, 1926, 1925
713 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
713 MADISON CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
714 JACKSON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
714 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
714 MADISON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1960, 1959, 1956, 1954, 1951, 1946, 1940, 1932, 1926, 1920
714 OAK	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
714 OAK ST	2014, 2010, 2002, 1993, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1940, 1933, 1932, 1928, 1926, 1925
715 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1920
715 JACKSON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1940, 1932, 1928, 1926, 1925

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
719 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
719 MADISON CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
719 MADISON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1932, 1928, 1926, 1925, 1920
72 6 HIGH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
72 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
72 7TH ST	2014, 2010, 2002, 2000, 1993, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1928, 1926, 1920
72 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1926, 1925, 1920
72 9TH AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
720 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
720 JACKSON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
720 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
720 MADISON CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
720 MADISON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1943, 1940, 1933, 1932, 1928, 1926, 1925, 1920
129 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
129 7TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1926, 1920
129 9 VIL MRITIMIAII	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
13 8 FOUNTN ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
132 9TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
132 9TH ST	2014, 2010, 2002, 1993, 1984, 1982, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1932, 1928, 1926
132 9th St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
132 9th St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
133 7TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
133 E 7TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
134 10TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1940, 1932, 1926
134 7TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1932, 1926, 1925, 1920
135 7 LIBRTY ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
135 8 FERNSIDE BI ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
135 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
135 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1928, 1926
135 9TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
135 E 7TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
137 E 9TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
138 10TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1991, 1984, 1982, 1979, 1976, 1975, 1973, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1926, 1920
138 9TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
138 9TH ST	2014, 2010, 2002, 1993, 1984, 1982, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1932, 1926

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
142 9TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
142 9TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1979, 1976, 1973, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1928, 1926, 1925, 1920
143 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
143 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1932, 1928, 1926, 1925, 1920
144 9TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
144 9TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1991, 1984, 1982, 1980, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1926
145 10TH ST	2014, 2010, 2002, 1993, 1992, 1991, 1984, 1982, 1980, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1938, 1933, 1932, 1926
146 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
147 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
147 8 WYMAN AVST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
148 10TH ST	2014, 2010, 2002, 1993, 1984, 1982, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1926
148 9TH AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1926, 1925, 1920
148 9TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1984, 1982, 1979, 1976, 1975, 1973, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1928, 1926, 1925, 1920
148 9TH T	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
149 7 NORTORN ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
149 9TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
15 8 CARLSN ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
15 8 CRANHROOK	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
15 8 HENRY BRKI ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
15 8 SAN LORENZ8	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
15 8 W BROADMNOOR BI	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
15 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
15 8TH PLZ	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
15 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1932, 1926, 1925, 1920
150 6 EDGEMR ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
150 6TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
150 8 E 14TH SL	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
150 8 LIBERTY	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
150 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
150 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1926, 1925, 1920
151 10TH ST	2014, 2010, 2002, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1926, 1920
151 6TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1932, 1928, 1926, 1925, 1920
151 9TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1932, 1926
152 10TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
152 6TH PARK AIMNDA ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
155 7 DAN R	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
155 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
155 8TH ST	2014, 2010, 2002, 1993, 1984, 1982, 1979, 1976, 1973, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1920
155 9TH AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
155A 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1932, 1928, 1926, 1925, 1920
155B 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1933, 1932, 1928, 1926, 1925, 1920
156 8 JUNIPR ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
156 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1932, 1928, 1926, 1925
156 9TH AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
156 9TH SF	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
157 7 PASEO LARGAVSTA	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
157 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
157 8TH ST	2014, 2010, 2002, 1993, 1991, 1984, 1982, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1928, 1926, 1920
157 9TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1932, 1928, 1926, 1925, 1920
158 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1933, 1932, 1928, 1926, 1925, 1920
158 9TH VIA ALAMITS SLZ	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
159 10TH ST	2014, 2010, 2006, 2002, 1993, 1991, 1986, 1984, 1982, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1943, 1940, 1932, 1928, 1926, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
160 9TH STH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
160 9TH T	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
161 10TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
161 6TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
161 7 OXFORD ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
161 8TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1991, 1984, 1982, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
161 9 S 5 VIA ANDETA	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
161 9TH VIA PM FALE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
162 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
162 7TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1928, 1926, 1925, 1920
162 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
162 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1926, 1920
162 9TL	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
163 10TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1991, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1926, 1920
163 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
163 7TH ST	2014, 2010, 2006, 2002, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
163 8TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1933, 1932, 1926

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
167 7TH ST	2014, 2010, 2002, 1993, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
167 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
167 8TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1932, 1928, 1926, 1925, 1920
167 9TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
167 9TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1928, 1926, 1925, 1920
168 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1928, 1926, 1925, 1920
168 9TH VIA VENTANAT SLZ	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
169 10TH ST	2014, 2010, 2006, 2002, 1993, 1984, 1982, 1979, 1976, 1973, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1933, 1932, 1926, 1925, 1920
169 10th St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
169 10th St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
169 6TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1943, 1940, 1933, 1932, 1928, 1926, 1925
169 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
169 8TH ST	2014, 2010, 2002, 1993, 1984, 1982, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1932, 1928, 1926, 1925, 1920
169 8TI	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
169A 10TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
17 8 S OMOU NN B	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
17 8IS LZ	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

Address Researched

Address Not Identified in Research Source

17 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
17 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1920
170 10TH ST	2014, 2010, 2002, 1993, 1984, 1982, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1926
170 6TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1982, 1979, 1976, 1975, 1973, 1967, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1928, 1926, 1920
170 6th St	2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
170 6th St	2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
170 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
170 7TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1943, 1940, 1938, 1932, 1928, 1926, 1925, 1920
170 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
170 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1928, 1926
170 9 GANLEY ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
170 9TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
171 10TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1932, 1926, 1920
171 7 ARCH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
171 7 ARCHN	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
171 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
171 7TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1938, 1933, 1932, 1928, 1926, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
171 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
171 8TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1928, 1926
171 8th St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
171 8th St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
171 9TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
172 8T AV A	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
172 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
172 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1932, 1928, 1926
173 10TH ST	2014, 2010, 2002, 1993, 1984, 1982, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
173 6 EVELETH AV SLT ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
173 6TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1928, 1926, 1925, 1920
173 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
173 7TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1932, 1928, 1926, 1925, 1920
173 7TH VIA EL CRRITO	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
173 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1928, 1926, 1925, 1920
173A 10TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
174 6TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
174 7TH VIA MELLNA	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
174 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
174 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1926
174 9TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
174 9TH ST	2014, 2010, 2002, 1993, 1992, 1984, 1982, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1933, 1932, 1926, 1925, 1920
175 10TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
175 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
175 7TH ST	2014, 2010, 2002, 2000, 1993, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1926, 1925, 1920
175 8TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
175 9 WICKMAN PI	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
176 10TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
176 6TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1967, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
944 JACKSON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
945 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
945 JACKSON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
945 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
945 MADISON CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
99 81ST AVSW NETWOVL	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
99 9TH AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
993 JACKSON ST	2014, 2010, 2006, 2002, 1993, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
9A 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
9B 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
9D 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
176 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
176 7TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1926, 1925, 1920
176 7TH VIA TOLEDO	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
176 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1928, 1926, 1920
177 10TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
177 6TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
177 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
177 7TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
177 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
177 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1928, 1926, 1925
177 9TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1932, 1928, 1926

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
178 10TH ST	2014, 2010, 2002, 1996, 1993, 1984, 1982, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1928, 1926
178 10th St	2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
178 10th St	2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
178 6TH ST	2014, 2010, 2002, 1993, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1940, 1933, 1932, 1928, 1926, 1920
178 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
178 7TH ST	2014, 2010, 2002, 1993, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1933, 1932, 1926, 1925, 1920
178 7th St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
178 7th St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
178 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
178 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1926
178 9TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
178 9TH ST	2014, 2010, 2002, 1993, 1984, 1982, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1926
179 10TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1932, 1928, 1926, 1925, 1920
179 9TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
179 9TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1938, 1932, 1928, 1926, 1925
17B 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
18 6 YOSEMLTE RD BRI ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
18 8TH AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
18 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1938, 1932, 1926, 1925, 1920
180 6TH ST	2014, 2010, 2002, 1993, 1991, 1984, 1982, 1979, 1976, 1975, 1973, 1967, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1932, 1928, 1926, 1920
180 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
180 7TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
180 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1933, 1932, 1928, 1926, 1925
180 8TH TI	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
180 9TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
181 10TH ST	2014, 2010, 2002, 1993, 1986, 1984, 1982, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1932, 1926, 1920
181 10th St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
181 10th St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
181 6TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1940, 1933, 1932, 1928, 1926, 1925, 1920
181 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
181 7TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1938, 1932, 1926, 1925, 1920
181 9 FRANCLAC	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
181 9TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
181 9TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1938, 1932, 1928, 1926, 1925
182 10TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
182 6TH ST	2014, 2010, 2002, 1993, 1984, 1982, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
182 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
182 7TH ST	2014, 2010, 2002, 1993, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1932, 1928, 1926, 1925, 1920
182 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
182 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1928, 1926, 1925
182 9 PURANT AVENUE TR LNIDAD	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
182 9TH ST	2014, 2010, 2002, 1993, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
182A 6TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
182B 6TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
183 10TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1933, 1932, 1928, 1926
183 9TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
183 9TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1928, 1926
184 1/2 9TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
184 10TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1982, 1979, 1976, 1973, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1943, 1940, 1938, 1933, 1932, 1926
184 10th St	2014, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
184 10th St	2014, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
184 7 MI IMR	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
184 9 ARLINGLTON 81	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
184 9 CEDAR BROOK	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
184 9TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
184 9TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1926
185 10TH ST	2014, 2010, 2002, 1993, 1984, 1982, 1979, 1976, 1973, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1938, 1932, 1926
185 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
185 7TH ST	2014, 2010, 2002, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1932, 1926, 1925, 1920
185A 10TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
186 6TH ST	2014, 2010, 2002, 1993, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1967, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1926, 1925, 1920
186 6th St	2014, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
186 6th St	2014, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
186 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
186 7TH ST	2014, 2010, 2002, 1993, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1928, 1926, 1920
186 7th St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
186 7th St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
186 9TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
186 9TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
187 10TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1984, 1982, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1933, 1932, 1926, 1920
187 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
187 7TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
187 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1926, 1925, 1920
188 10TH ST	2014, 2010, 2006, 2002, 1993, 1991, 1986, 1984, 1982, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
188 9 CALIFORNIA	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
188 9TH ST	2014, 2010, 2002, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
189 10TH ST	2014, 2010, 2002, 1993, 1984, 1982, 1980, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
189 10th St	2014, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
189 10th St	2014, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
189 9 JACSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
19 8 WOOLSY ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
19 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1932, 1928, 1926
19 8TH VIA SARTIA	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
190 10TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925
190 10th St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
190 10th St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
190 6TH ST	2014, 2010, 2002, 2000, 1993, 1992, 1991, 1984, 1982, 1979, 1976, 1973, 1967, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1926, 1920
190 9TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
191 9 MANCHSTR RD SL	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
191 9TH AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1932, 1928, 1926, 1925, 1920
191 9TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1938, 1932, 1926, 1920
191 9TH TE MPLBAR	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
191 9TH TW	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
192 10TH ST	2014, 2010, 2006, 2002, 2000, 1993, 1992, 1991, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1928, 1926, 1925, 1920
192 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
192 7TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
192 9TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1933, 1932, 1928, 1926, 1925
194 6TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1928, 1926, 1925, 1920
194 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
194 7TH ST	2014, 2010, 2002, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1926, 1920
194 8TH BROOK	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
195 10TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
196 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
196 7TH ST	2014, 2010, 2002, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1928, 1926
196 8 WILLIAMS ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
197 9TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
27 BPOE1219 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
28 6 BAYVW OR ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
28 8RLSTT BI ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
28 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
28 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
29 8 ACTON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
29 8 CASTRO VALLEY BI	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
29 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1932, 1928, 1926, 1925, 1920
3 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1920
30 6 PINE VALLEY RD SAN ORMN ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
30 8 FIELD ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
30 8 KTLTY	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
30 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
30 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1928, 1926, 1925, 1920
31 8 COLUTMBLANLR ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
31 8 SCIPLSTRAINO DR FPIVT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
31 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1928, 1926, 1925

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
32 6 ELLIS ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
32 8 COOLIDGE AVKE HOG	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
32 8 LAKE PLLLSBURY DR PMT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
32 8 WARWICK	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
32 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
32 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1943, 1940, 1933, 1932, 1928, 1926, 1925, 1920
33 8 ATHOL AVTW INOAKS	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
33 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1928, 1926, 1920
34 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
34 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1932, 1928, 1926, 1920
35 8B LANCERO PNMT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
35 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
36 6 ARCADIAN DR CASTRO VALLEY ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
36 6 LYON AV 53 ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
36 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
36 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1933, 1932, 1928, 1926, 1925, 1920
37 8 HARRISN ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
40 8TH GL ENCORT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
40 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1932, 1928, 1926, 1920
40 9 WESTCHESTER	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
40 9TH AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
41 8 MC CERMCK ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
41 8TH PARK BI	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
41 9 CAPISTRANO DRTR INIRLAD	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
41 9ALLUWAY LACIER ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
42 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1926, 1920
42 9 ALDER AV PIT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
42 9 STEVNSN BI	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
43 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
43 8th Street	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
44 6 VIEW P! ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
44 6 VIEW PIL ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
44 6M SM BIILL ALNR449 ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
44 8 PHELPS	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
44 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1940, 1932, 1928, 1926, 1925
46 8 LAWTON PI	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
46 8ATN AN	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
46 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1926, 1925
46 9 OLAA LR IFLT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
48 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1938, 1933, 1932, 1928, 1926, 1920
49 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1932, 1926
50 6TH ST	2014, 2010, 2006, 2002, 1993, 1991, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
50 6th St	2014, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
50 6th St	2014, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
50 8 ERNRSN	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
50 9 HUTTON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
51 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
51 8TH ST	2014, 2010, 2002, 1993, 1992, 1991, 1984, 1982, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1926
51 8th St	2014, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
51 8th St	2014, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
518 OAK ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
52 9TH ST	2014, 2010, 2002, 1996, 1993, 1984, 1982, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
520 OAK ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1940, 1933, 1932, 1928, 1926, 1925, 1920
526 OAK	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1926, 1920
526 OAK ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1940, 1933, 1932, 1928, 1926, 1925, 1920
53 7TH ST	2014, 2010, 2002, 2000, 1993, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1933, 1932, 1926, 1920
530 OAK	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1926, 1925, 1920
53B 7TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
55 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
55 7TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
55 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
55 8TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1926
56 9 PLASEN NAVRRO N ISE ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
56 9 WILKIE PI	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
566 OAK PL	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
57 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
57 7TH ST	2014, 2010, 2002, 1993, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1940, 1933, 1932, 1926, 1920
58 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
611 MADISON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
612 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
612 JACKSON ST	2014, 2010, 2002, 2000, 1996, 1993, 1984, 1982, 1979, 1976, 1973, 1970, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1940, 1933, 1932, 1928, 1926, 1925, 1920
613 JACKSON ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1973, 1970, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
613 Madison St	2014, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
613 Madison St	2014, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
614 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1920
614 JACKSON CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
614 JACKSON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
614 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
614 MADISON ST	2014, 2010, 2002, 1993, 1984, 1982, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1943, 1940, 1933, 1932, 1928, 1926, 1920
614 Madison St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
614 Madison St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
615 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
615 JACKSON ST	2014, 2010, 2002, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1979, 1976, 1973, 1970, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
615 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
615 MADISON ST	2014, 2010, 2002, 2000, 1993, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1946, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
619 JACKSON ST	2014, 2010, 2002, 1993, 1992, 1991, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1940, 1938, 1933, 1932, 1928, 1926, 1925
619 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
619 MADISON CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
619 MADISON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1932, 1928, 1926, 1925, 1920
619 OAK	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1926, 1920
619 OAK CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
619 OAK ST	2014, 2010, 2002, 2000, 1996, 1993, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1940, 1932, 1928, 1926, 1925, 1920
619A MADISON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
619B MADISON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
62 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
62 9 FAIRWY	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
62 9 WESTOVRR ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
620 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
720 OAK	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
720 OAK ST	2014, 2010, 2002, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
721 MADISON CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
721 MADISON ST	2014, 2010, 2002, 1993, 1984, 1982, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1940, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
729 MADISON ST	2014, 2010, 2002, 2000, 1996, 1993, 1984, 1982, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1946, 1940, 1932, 1928, 1926, 1925
73 7 MAC ARTHUR BI ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
73 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
73 8TH AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
73 8TH ST	2014, 2010, 2002, 1996, 1993, 1991, 1984, 1982, 1980, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
73 8th St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
73 8th St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
730 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
730 OAK	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1926, 1920
730 OAK ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1932, 1928, 1926, 1925, 1920
731 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
731 JACKSON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1926, 1925, 1920
731 JACKSON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
731 MADISON CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
731 MADISON ST	2014, 2010, 2002, 1993, 1991, 1986, 1984, 1982, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1946, 1945, 1943, 1940, 1932, 1928, 1926, 1925, 1920
732 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
732 MADISON CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
739 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
739 JACKSON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
739 JACKSON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
739 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
739 MADISON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
74 6TH VIA JULIA ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
74 7LEWELLING BI SNLDRO	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
74 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
74 7TH AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1932, 1928, 1926, 1925, 1920
74 7TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1933, 1932, 1926
74 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1940, 1933, 1932, 1928, 1926, 1925
740 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
741 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
741 JACKSON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
741 JACKSON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1943, 1940, 1933, 1932, 1928, 1926, 1925, 1920
742 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
742 JACKSON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
749 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
749 MADISON CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
749 MADISON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1943, 1940, 1933, 1932, 1928, 1926, 1925, 1920
75 9 BUCKEYE PI	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
75 9TH AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
750 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
750 JACKSON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
76 6 AMADOR VALLEY BI ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
76 6 HOLLY ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
76 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
76 7TH H	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
76 7TH ST	2014, 2010, 2002, 1993, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1938, 1932, 1926, 1920
76 8IBSN LDRO	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
76 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
76 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1938, 1932, 1926, 1920
77 7TH ST	2014, 2010, 2002, 2000, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
77 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

Address Researched

Address Not Identified in Research Source

77 8TH AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
77 8TH ST	2014, 2010, 2002, 1993, 1984, 1982, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
77 8th St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
77 8th St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
77 9 WSUNSET BI L	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
771 JACKSON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
775 JACKSON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
78 8 MAC ARTHR BI ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
78 9TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
780 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
79 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
79 7TH ST	2014, 2010, 2002, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1933, 1932, 1926, 1925, 1920
79 8TH AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
7C 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
7D 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
8 8 ESTABRK ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
8 8 EUCLID AV SNI DTRO	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
8 8 FARGO AVENUE ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
8 8 GOODNG EDR ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
8 8 PAINTING ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
8 8 R 2444 HILGARD AV8AS	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
8 8 VERMONT ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
8 8B OALONDA	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
8 8LO	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
8 8TH AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
8 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1976, 1975, 1973, 1970, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
80 8TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
80 9TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
80 9TH ST	2014, 2010, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1938, 1932, 1926
800 JACKSON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
801 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
801 JACKSON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
801 JACKSON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1943, 1940, 1933, 1932, 1928, 1926, 1925, 1920
801 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
805 JACKSON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1943, 1940, 1933, 1932, 1928, 1926, 1925, 1920
805 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1926, 1925, 1920
805 MADISON CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
805 MADISON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1960, 1959, 1956, 1954, 1951, 1946, 1940, 1932, 1926
806 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1926, 1920
806 JACKSON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
806 JACKSON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1940, 1933, 1932, 1928, 1926, 1925
806 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
806 MADISON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1943, 1940, 1933, 1932, 1928, 1926, 1920
806 OAK	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1926, 1920
806 OAK ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1940, 1932, 1928, 1926, 1925, 1920
807 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1926, 1920
807 JACKSON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
807 JACKSON CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
807 JACKSON ST	2014, 2010, 2002, 1993, 1984, 1982, 1979, 1976, 1973, 1970, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1940, 1932, 1928, 1926, 1925
807 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
807 MADISON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

FINDINGS

Address Researched

Address Not Identified in Research Source

918 MADISON CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
918 MADISON ST	2014, 2010, 2002, 1993, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1940, 1932, 1926, 1925
918 OAK	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1926, 1920
918 OAK ST	2014, 2010, 2002, 1993, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1965, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1940, 1932, 1928, 1926, 1925
919 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
919 JACKSON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
919 MADISON AVE	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1926, 1925, 1920
919 MADISON CT	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
919 MADISON ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1943, 1940, 1932, 1928, 1926, 1925, 1920
92 7TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1984, 1982, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
92 7TH ST	2014, 2010, 2002, 1993, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1928, 1926, 1925, 1920
92 7th St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
92 7th St	2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
92 8TH	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
92 8TH I	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
92 8TH ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1940, 1932, 1926
92 9 HOLLY ST	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920
920 JACKSON	2014, 2010, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1967, 1965, 1962, 1960, 1959, 1956, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched

800 Madison Street

Address Not Identified in Research Source

2006, 2002, 1993, 1984, 1982, 1979, 1976, 1973, 1965, 1960, 1959, 1956, 1954, 1951, 1946, 1940, 1932, 1928, 1926, 1925, 1920

APPENDIX H
RESUMES OF ENVIRONMENTAL PROFESSIONALS

DRAFT

WENDY KWONG

STAFF SCIENTIST

ENVIRONMENTAL ENGINEERING

Ms. Kwong's experience includes projects involving groundwater monitoring, hazardous soil remediation, site mitigation, soil management, dust mitigation, and vapor mitigation systems throughout the San Francisco Bay Area. She has worked on various environmental projects, which require lengthy commitments. She has completed Phase I Environmental Assessments (ESAs) and Vapor Mitigation System projects, and has completed data analyses on projects related to indoor air, vapor gas sampling, soil sampling, groundwater sampling, and dust monitoring. She manages field investigations, including but not limited to, soil excavation oversight, soil sampling, groundwater sampling, vapor mitigation system installation, and dust monitoring. Wendy assists with proposals and cost estimates for waste characterization and field investigations.

Ms. Kwong is currently working on a variety of projects both in the office and field. She manages and analyzes large amounts of data for projects like Hunters Point Naval Shipyard and Golden State Warriors. She is working on Phase I ESAs, various environmental investigations, and soil management oversight in the field.

SELECTED PROJECTS

- Hunters Point Naval Shipyard, Data Analysis, Feasibility Assessments, San Francisco, CA
- Alameda Point Naval Base, Environmental Investigations, Alameda, CA
- 801 Brannan, Dust Monitoring Plan and Vapor Mitigation System, San Francisco, CA
- 1460 El Camino Real, Indoor Air Monitoring, Menlo Park, CA
- Texas Instruments, Indoor Air Monitoring, South Bay, CA
- 1 Henry Adams Street, Vapor Mitigation System, San Francisco, CA
- Transbay Block 8, Site Mitigation Plan Oversight, San Francisco, CA
- Block 40, Site Mitigation Plan and Vapor Mitigation System, San Francisco, CA
- Golden State Warriors, Dust Monitoring Plan and Asbestos Dust Monitoring Plan, San Francisco, CA
- 2500 El Camino Real (Stanford Affordable), Vapor Mitigation System, Palo Alto, CA
- Oceanwide, Site Mitigation Plan Oversight, San Francisco, CA
- 377 2nd Street, Soil Management Oversight, Oakland, CA
- 1500 San Pablo Avenue, Phase I ESA and Soil Management Plan, Berkeley, CA
- 1395 22nd Street, Dust Monitoring Plan, Asbestos Dust Monitoring Plan, Site Management Plan Oversight, San Francisco, CA
- Parcel O, Phase I Update, Dust Monitoring Plan, San Francisco, CA
- Bascom, Methane Mitigation System Repairs. Campbell, CA
- 1068 Mission Street, Phase I ESA, San Francisco, CA



EDUCATION

B.Sc., Environmental Systems, concentration in Environmental Chemistry
University of California, San Diego

CERTIFICATIONS

40-Hour Hazardous Waste Operations and Emergency Response (HAZWOPER)

First Aid/ CPR Certified

Land Science Technologies Geo -Seal Certified Inspector

CETCO Certified Inspector

SOFTWARE TRAINING

Microsoft Office Suite
Bluebeam Revu

DORINDA SHIPMAN, PG, CHG, ENV SP

PRINCIPAL/VICE PRESIDENT

ENVIRONMENTAL ENGINEERING & PROGRAM MANAGEMENT

Ms. Shipman has 30 years of experience as a senior manager and hydrogeologist. Her previous experience managing US Navy base cleanup work has been augmented by directing environmental work at five large military base Superfund site conversions underway in the Bay Area: Hunters Point Shipyard, the Presidio of San Francisco, Treasure Island, Mare Island, and Alameda Naval Air Station. Her expertise encompasses integrating environmental cleanup and mitigation with design and construction for real estate property transfer and redevelopment. Ms. Shipman is adept at using site and regulatory knowledge to develop a strategy that addresses contamination issues and resolves environmental challenges while balancing land use regulations, property constraints, and client requirements. She leads soil and groundwater investigation and cleanup, soil gas and vapor intrusion risk assessments, water supply assessment, and dewatering evaluations; provides litigation support; and directs groundwater-flow and fate and transport modeling. She works successfully with the California Department of Toxic Substances Control, Regional Water Quality Control Boards, US Environmental Protection Agency Region 9, and numerous county regulators.



EDUCATION

M.S., Geology
(Hydrogeology Option)
Wright State University

B.S., Geology (cum laude)
Ohio University

PROFESSIONAL REGISTRATION

Professional Geologist
(PG) in CA, NY

Certified Hydrogeologist in
CA

Certified Environmental
Manager in NV

Environmental
Sustainability Professional
(ENV SP)

AFFILIATIONS

National Groundwater
Association
Groundwater Resources
Association of California

Center for Creative Land
Recycling (CCLR),
Advisory Board member

SELECTED PROJECTS

Arenas, Stadiums and Event Centers

- Chase Center (Golden State Warriors Arena), Mission Bay (Blocks 29-32), San Francisco, CA
- Avaya Stadium, San Jose Earthquakes, San Jose, CA - 2015 EPA Region 9 Phoenix Award Winner
- Proposed Farmer's Field Stadium Expansion, Los Angeles, CA
- L.A. Live Way Parking Structure, Los Angeles, CA
- Los Angeles Convention Center Expansion, Los Angeles, CA
- Stockton Event Center, Remedial Investigation/Feasibility Study, Remedial Action Plan, Phase II Environmental Site Assessments & Soil and Groundwater Remediation, Stockton, CA - 2008 EPA Region 9 Phoenix Award Winner

Large-Scale Urban Development

- City and County of San Francisco Hunters Point Shipyard Transfer and Redevelopment, San Francisco, CA
- Treasure Island Development Authority, Environmental Review of Navy Remediation, San Francisco, CA
- Mission Bay Redevelopment, San Francisco, CA
 - Chase Center (Golden State Warriors Arena), Mission Bay (Blocks 29-32), San Francisco, CA
 - One Mission Bay, San Francisco, CA
 - University of California – San Francisco (UCSF), Mission Bay Life Science Building Blocks, 41-43 Parcel 1

LANGAN

DORINDA SHIPMAN, PG, CHG, ENV SP

- J. David Gladstone Institutes Blocks, 41-43 Parcel 2
- UCSF Sandler Neurosciences Center, Block 19A
- Multi-family Residential Buildings at Block N1
- Pier 70 Brownfield Investigation and Remedial and Risk Management Planning, Port of San Francisco, CA
- Reuse of National Historical Landmark Building, Presidio National Park, San Francisco, CA
- Presidio of San Francisco on behalf of the Presidio Trust (Federal Agency), As-Needed Environmental and Groundwater Monitoring Services for Base Closure and Redevelopment, CA
- The Presidio Commissary/Post Exchange, San Francisco, CA
- Treasure Island on behalf of the Treasure Island Development Authority, Monitoring Navy Remediation, San Francisco, CA
- Sunnyvale Downtown Redevelopment, Sunnyvale, CA

Public Agency Contracts

- The Presidio Trust, Environmental Cleanup and Groundwater Monitoring, Presidio of San Francisco. CA
- City and County of San Francisco, As-Needed Environmental and Infrastructure Support Services, CA
- City of Huntington Beach, On-Call Peer Review and Environmental Consulting Services of Work Plans, Environmental Site Assessments and Remediation Documents, CA
- City of Lodi, Groundwater and Water Supply Management Services, CA
- City of Lodi, Groundwater Modeling and Data Management, CA
- City of San Pablo, Brownfield Grant Phase I and II Environmental Site Assessments (ESAs) for Hazardous Material and Petroleum Sites, CA
- County of Los Angeles Department of Public Works, Del Valle Fire Training Facility, Castaic, CA
- Pier 70 Brownfield Investigation and Remedial and Risk Management Planning, Port of San Francisco, CA
- San Francisco Municipal Transportation Agency (SFMTA), Groundwater Modeling for Downtown San Francisco Basin, San Francisco, CA

Retail/Commercial Projects

- (*Confidential - TCL Chinese Theatre) Historic Theatre, Phase I and Hazardous Material Environmental Site Assessment, Hollywood, CA
- (*Confidential – Millennium) Commercial Development, Environmental Due Diligence Support, Hollywood, CA
- (*Confidential - Future Fashion Outlets of Los Angeles) Proposed Commercial Shopping Center, Environmental Assessment on Former Landfill, for Los Angeles County, CA
- (*Confidential – 1617/1621 Gower) Commercial Development, Phase I and Limited Phase II Environmental Site Assessment and Waste Oil UST investigation, Los Angeles, CA
- Dollar/Thrifty Rental Car Facility, Inglewood, CA
- Budget Rent-A-Truck, Los Angeles, CA

Residential Projects

- 1548 Maple Street, CLRRRA Site Assessment and Response Plan Redwood City, CA
- Waters Park Drive, Residential Development, Environmental Due Diligence and Phase I and II Environmental Site Assessments, San Mateo, CA
- Residential Development, Environmental Due Diligence and Phase I Environmental Site Assessment, Laguna Niguel, CA
- (*Confidential – Three Forbes) Environmental Services for Residential Development, Laguna Niguel, CA
- (*Confidential - Camden Three Flags) Environmental Due Diligence for Residential Development, Laguna Niguel, CA

Industrial/Warehouse/Landfill Projects

- Aerospace Facility, Phase I Environmental Site Assessment, Tempe, AZ
- Former Industrial Production Services Facility, Environmental Assessment for Potential Redevelopment, La Verne, CA
- Industrial Facility Characterization, Risk Evaluation and Regulatory Compliance, La Verne, CA
- Food Manufacturing and Distribution Facility, Post-UST Removal Engineering Services, Buena Park, CA
- Schlage Manufacturing Facility Closure, Characterization and Cleanup Planning, San Francisco, CA
- Sears Warehouse Facility, Environmental Assessment, Los Angeles, CA
- Texas Instruments Inc., Groundwater Extraction System Optimization, Santa Clara, CA
- Texas Instruments Inc., Remediation, Soil Vapor and Indoor Air Sampling, Santa Clara and Palo Alto, CA
- Texas Instruments Inc., Water Reuse Following Groundwater Extraction and Treatment, Santa Clara, CA
- Texas Instruments Inc., Risk Management Plan for Superfund Property Transfer, Santa Clara, CA
- Texas Instruments Inc. Superfund Operable Unit, Santa Clara, CA
- 915 DeGuigne, Evaluation of Superfund Site for Potential Redevelopment, Sunnyvale, CA
- City Place Santa Clara Landfill Post-Closure Development, Santa Clara, CA

Military Bases

- Environmental Cleanup and Groundwater Monitoring, Presidio of San Francisco, CA
- Aerospace Facility Phase I Environmental Site Assessment, Tempe, AZ
- Remedial Investigation Feasibility Study Martin Marietta/HAZWRAP, Air Force Base, Mississippi
- RCRA Facility Investigation Workplans for the U.S. Navy, Guam
- Landfill and Dip Tank Remedial Investigation/Risk Assessment for US Navy, Guam
- Alameda Naval Air Station Superfund Site, Site A Redevelopment for Alameda Point Partners, Alameda, CA
- Mare Island Shipyard, Superfund Site, Fuel Pipeline, Petroleum and PCB Site Remediation, Vallejo, CA

Oil/Petroleum Projects

- (*Confidential – Asphalt Refinery) Environmental Due Diligence, Oxnard, CA

DORINDA SHIPMAN, PG, CHG, ENV SP

- (*Confidential - Bandini) Oil and Gas Tank Farm, Well, and Pipeline Demolition Support, , CA
- (*Confidential - Elk Hills) Oil and Gas Facility Environmental Investigations, Bakersfield, CA
- Mare Island Shipyard, Remediation of PCB and Petroleum Sites, Vallejo, CA
- Chevron Real Estate Management Company, Site and Risk Assessments, Richmond, CA

Expert Witness/Litigation Support

- Various Confidential Litigation projects - Due diligence support, document review, expert witness services and allocation of responsibility evaluation, California
- Housing Authority of the City of Los Angeles (HACLA) Cost Recovery To Fund Mixed-Use Project, Los Angeles, CA
- Confidential Municipal Well Field Contamination At Groundwater Basin, CA
- Contra Costa County, Landfill Litigation Support, CA
- Manufactured Gas Plant, Litigation Support, Oahu, Hawaii
- Remedial Investigation/Risk Assessment Pearl Harbor Naval Shipyard, Oahu, Hawaii for US Navy
- Pier 70 Redevelopment, San Francisco, CA
- Hunters Point Naval Shipyard, San Francisco, CA
- RCRA Facility Investigations Apra Harbor Naval Complex for US Navy, Guam

Misc Projects

- Delta Wetlands, Groundwater-Level Monitoring and Seepage Study, Central Valley Delta, CA
- Residential Water Supply Groundwater Sampling, Livermore, CA

SELECTED PRESENTATIONS

2016 "The Remediation, Redevelopment, and Revitalization of Treasure Island," Battelle Tenth International Conference on Remediation of Chlorinated and Recalcitrant Compounds (with Chris Glenn)

2014 "Sustainable Engineering - Water Reuse Following Groundwater Extraction and Treatment," 9th International Conference on Remediation of Chlorinated and Recalcitrant Compounds (with Christina Rain, Christopher Glenn, and Joshua Graber)

2011 "Municipal Risk Management of Early Transfer Parcels for Redevelopment and Reuse at Hunters Point Shipyard" Battelle International Symposium on Bioremediation and Sustainable Environmental Technologies (with Amy Brownell and Sigrida Reinis)

2008 "A Biobarrier Case Study Using Non-Emulsified Vegetable Oil", 6th Annual International Conference on Oxidation & Reduction Technology for In-Situ Treatment of Soil and Groundwater (with Philip G. Smith, Chris Glenn and Richard Banks)

DORINDA SHIPMAN, PG, CHG, ENV SP

2000 "Dewatering Evaluation for High-Rise Tower Construction," The Professional Geologist (with Philip G. Smith)

1996 "Characterization and Remediation of a Fuel Oil Plume," Proceedings of the Non-Aqueous Phase Liquids (NAPLs) in Subsurface Environment (with Stacey R. Leake)

Attachment D2

Phase II Environmental Site Assessment

**DRAFT PHASE II ENVIRONMENTAL SITE
ASSESSMENT
Lake Merritt Bay Area Rapid Transit Station
Oakland, California**

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PHASE II ENVIRONMENTAL SITE ASSESSMENT
Lake Merritt BART
Oakland, California

1.0 INTRODUCTION

This Phase II Environmental Site Assessment (ESA) was prepared for Strada Investment Group (Strada) for the proposed transit oriented development (TOD) located at the Lake Merritt BART station in Oakland, California (site). The approximately 2.75-acre site consists of two blocks in a mixed-use area of Oakland that includes asphalt parking lots and a commercial office building. Block 1 is the Lake Merritt BART parking lot and is bound by 9th Street to the northeast, Oak Street to the northwest, 8th Street to the southwest, and Fallon Street to the southeast (Figure 1). Block 2 contains a commercial office building and associated parking lot and is diagonally opposite to Block 1 and is bound by 8th Street to the northeast, Madison Street to the northwest, 7th Street to the southwest, and Oak Street to the southeast (Figure 1). The site is identified by the following Assessor's Parcel Numbers (APNs): 1-691-1 and 1-171-2. It is our understanding that current development plans for the site include construction of four multi-story, steel framed residential and commercial buildings.

2.0 PROJECT DESCRIPTION

The proposed development includes the demolition and removal of the existing parking lot and commercial building, and the construction of four multi-story residential and commercial buildings. The Building A for market rate residential in Block 1 will include over 350 residential housing units, as well as common living spaces and other amenities, and two commercial spaces. The Building B developed for senior housing will be a seven-story construction with over 80 residential housing units. There will be a food court market between these two buildings in Block 1. In Block 2, there will be a 19-story office building with below grade parking (Building C) and a seven-story affordable family housing (Building D). We have assumed the excavation depth is between five and seven feet for foundation elements.

3.0 SITE HISTORY

Based on the review of historical records (Draft Phase I ESA¹, ACEH CUPA file, EDR Radius Report Sanborn Fire Insurance Maps and Aerial Photographs) requested from Environmental Data Resources, Inc. (EDR), Langan prepared the following Site History chronology. As early as 1952, a gas station with an address of 43 8th Street was located within the footprint of the Block 1 (Figure 2). In the Block 2, historical fuel oil underground storage tank (UST) was installed in 1982 (Figure 2), and a leak was detected by the BART District and recorded on 27 May 1989 with the State Water Resources Control Board.

A ground penetrating radar (GPR) survey was conducted at both potential and former UST locations on 17 August 2019. Results of the survey identified an anomaly at the historical gas station area on Block 1 extending from west to east at approximately two feet below the ground surface.

Several historical cleaner properties were also identified in close proximity to the site, including one facility at 148 9th Street listed on the EDR Historical Cleaners list and another at 709 Oak Street.

4.0 FIELD INVESTIGATION

Langan performed a Phase II ESA to evaluate the environmental quality of the soil, soil vapor, and groundwater that may be encountered during construction. In addition, soil and groundwater samples were analyzed to assess potential contamination due to the presence of leaking underground storage tanks (LUSTs) and historical dry cleaners. Groundwater and soil vapor samples were analyzed to assess potential vapor intrusion concerns.

4.1 Mobilization Activities

Prior to initiating field activities, Langan obtained BART's permit to enter and provided information from BART to obtain Alameda County Public Works Agency boring permits.

In addition, Underground Service Alert North 811 (USA North) was notified and a private utility locator was employed to confirm the boring locations were free of underground

¹ Draft Phase I Environmental Site Assessment, Lake Merritt BART Development dated 17 May 2019

utilities prior to intrusive activities. Under Soil boring and temporary soil vapor well permits were obtained from Alameda County Public Work Agency (ACPWA),

4.2 Soil Sampling

PeneCore Drilling a C-57 licensed drilling company located in Woodland, California performed the drilling activities. The soil was visually logged by Langan in general accordance with the Unified Soil Classification System (USCS), working under the supervision of a California licensed professional geologist. The locations and depths of the soil borings were selected based on the proposed building footprint to provide roughly equal lateral and vertical coverage (where accessible), to characterize soil that will most likely be graded and excavated during future proposed development as shown on Figure 2.

Soil samples were collected from each boring by a hydraulically driven direct push drill rig advancing a continuous four-foot long Macro-core tooling with an acetate sleeve to the following depths: approximately 10 feet (EB-6, EB-7, and EB-4), 15 feet (EB-3), 20 feet (EB-1 and EB-2), and 30 feet (EB-5 and EB-8). Soil samples from EB-1 and EB-2 were collected at approximately 0.5, 5, 10, 15, and 20 feet bgs and logged continuously until the terminus of the boring. In addition, soil samples from EB-3, EB-4, EB-5, EB-6, EB-7, and EB-8 were collected at approximately 0.5 and 5 feet bgs. Approximately six-inch sample lengths were cut from the liners and ends were covered with Teflon, sealed with plastic end caps, labeled, and stored in an ice-cooled chest for delivery to McCampbell Analytical, Inc. (McCampbell), a California Department of Health Services certified analytical laboratory in Pittsburg, California. All samples were delivered under chain-of-custody procedures. Boring logs from this investigation are presented in Appendix A as Figures A-1 and A-2. The soil encountered was classified in accordance with the soil classification chart on Figure A-3.

4.3 Groundwater Sampling

EB-1, EB-3, EB-5, and EB-8 were advanced to depths of 15 to 30 feet for the collection of grab groundwater samples and four samples (EBGW-1, EBGW-3, EBGW-5, and EBGW-8) were collected. To facilitate the collection of the groundwater sample, temporary groundwater wells with prepacked well screens were driven into the water table which was encountered at approximately 7.5 to 15 feet bgs at EB-3, 10 feet bgs at EB-1, and 20 feet bgs at EB-5 and EB-8. The grab groundwater samples were collected directly into

laboratory-supplied sample containers using a peristaltic pump. Samples were appropriately labeled and stored in an ice-cooled chest until delivery to McCampbell.

4.4 Soil Vapor Sampling

Temporary soil vapor probes were installed at eight boring locations to depths of five feet bgs. One sample was collected from each probe (EBSV-1, EBSV-2, EBSV-3, EBSV-4, EBSV-5, EBSV-6, EBSB-7, and EBSV-8), and a duplicate sample (DUP-1) was collected from a random soil vapor probe. The soil vapor probes were installed and sampling was conducted in general accordance with procedures established by the Department of Toxic Substance Control (DTSC) *Advisory for Active Soil Gas Investigations* dated July 2015. The soil vapor sample was collected by advancing 1.75-inch diameter steel rods equipped with a retractable sampling tip advanced to a depth of approximately five feet bgs using a truck-mounted hydraulically driven direct push drill rig. Disposable 1/4-inch diameter Teflon tubing was connected from the surface to the sampling tip. A sand filter pack was placed around the sampling tip to facilitate soil vapor collection. Hydrated bentonite chips were placed above the filter pack to the ground surface to seal the annular space.

After waiting two hours, three well volumes of soil vapor were purged using a one-liter summa canister connected to the Teflon tubing. Helium was used as a tracer gas around the sampling assembly above the borehole during sampling as a quality assurance/quality control (QA/QC) measure to confirm the sample integrity. The soil vapor sample was collected in a one-liter laboratory supplied summa canister and sealed before delivery to K-Prime Analytical (K-prime) a California Department of Health Services certified analytical laboratory in Santa Rosa, California.

Upon completion of the drilling and sampling, the boreholes were backfilled with neat cement grout under the supervision of the ACPWD grout inspector.

5.0 SUBSURFACE CONDITIONS

Results of Langan's *Preliminary Geotechnical Investigation* (Langan 2020), our March 2020 environmental borings and borings by others indicate the blocks are underlain by up to 5 feet of fill consisting of sand with variable silt and clay content. The fill could be thicker at Block 1 where the cut-and-cover BART tunnel was constructed.

At Block 1, the fill is underlain by about 11 to 17 feet of Merritt sand over the Alameda formation. The Merritt sand consists of thin interbedded layers of medium dense to very dense clayey sand and sand with silt. The Alameda formation consists of very stiff to hard clay with variable sand content. Layers of dense to very dense sand were encountered within the Alameda formation between depths of 23 and 41 feet bgs, with thicknesses between about 1 foot and 12 feet.

At Block 2, the fill is underlain by about 13 to 21 feet of medium dense to very dense Merritt sand over stiff to hard clay of the Alameda formation. Layers of dense to very dense sand, ranging in thickness from between 1 to 10 feet, were encountered within the Alameda formation between depths of 24½ and 70 feet bgs.

Groundwater was found between approximately 7.45 and 20 feet bgs at the time of drilling EB-1, EB-3, EB-5 and EB-8. Groundwater was not present within the top 20 feet drilled at EB-2. We anticipate the groundwater level is affected by local variations in subsurface conditions and seasonal variations in rainfall. The nearest surface water bodies are the San Francisco Bay and Lake Merritt, approximately 0.5 miles south and northeast respectively of the Site. Groundwater flow is anticipated to be to the southeast in the direction of the channel flowing from Lake Merritt to the Oakland Inner Harbor.

6.0 SAMPLE SELECTION AND ANALYTICAL TESTING

The Phase II ESA sampling and analytical testing was chosen to evaluate potential vapor intrusion concerns, and soil profiling scenarios generally accepted by landfills.

6.1 Soil Testing

The soil chemical analytical schedule was chosen to assess potential health risk management protocols needed during construction and development and to satisfy waste profiling scenarios generally accepted by landfills. Certain soil samples were analyzed for some or all of the following.

- Total petroleum hydrocarbons (TPH) as gasoline (TPHg), TPH as diesel (TPHd), and TPH as motor oil (TPHmo) by EPA Method 8015B;
- Volatile organic compounds (VOCs) by EPA Method 8260B;
- Semi-volatile organic compounds (SVOCs) by EPA Method 8270C;

- Organochlorine pesticides (OCPs) by EPA Method 8081A;
- Polychlorinated biphenyls (PCBs) by EPA Method 8082;
- Polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270;
- California Assessment Manual (CAM) 17 metals by EPA Method 6020; and
- Leaking Underground Fuel Tank (LUFT) 5 metals by EPA Method 6020.

Soil samples with metal concentrations metal greater than 10 times the soluble threshold limit concentration (STLC) were also analyzed for soluble metals using the California waste extraction test (WET) method. Any total threshold limit concentration (TTLC) concentration exceeding 20 times the STLC value, or if the STLC value after analysis with the WET method exceeded the State of California hazardous waste criteria the sample was submitted for analysis by the Federal toxicity characteristic leaching potential (TCLP). These analyses were necessary to assess if metal concentrations in soil exceed State and/or Federal hazardous waste criteria.

6.2 Groundwater Testing

Groundwater was sampled and analyzed to evaluate potential vapor intrusion concerns. The grab groundwater sample was analyzed for the following:

- TPHg, TPHd, and TPHmo by EPA Method 8015M;
- VOCs by EPA Method 8260B;
- SVOCs by EPA Method 8270C; and
- Total CAM 17 metals by EPA Method E200.8.6.3 Soil Vapor Testing

Soil vapor samples were collected to evaluate the potential for unacceptable vapor intrusion human health risks and were analyzed for the following:

- VOCs by EPA Method TO-15;
- Carbon dioxide by ASTM D-1946;
- Methane by EPA Method 18;
- Helium by ASTM D-1946; and
- Oxygen by ASTM D-1946.

7.0 LABORATORY TEST RESULTS AND EVALUATION

The laboratory analytical results are discussed below and summarized on Tables 1 through 5. Copies of the certified laboratory analytical reports are presented in Appendix B.

7.1 Soil Analytical Results

Soil analytical results for parameters other than metals are summarized in Table 1. TPHg was detected in one sample (EB-7-0.5) at a concentration of 2.2 milligram per kilogram (mg/kg). TPHd was detected in six samples (EB-1-0.5, EB-2-0.5, EB-5-0.5, EB-6-0.5, EB-7-0.5, and EB-8-0.5) at concentrations ranging from 150 mg/kg to 400 mg/kg. The 400 mg/kg concentration in sample EB-1-0.5 exceeds the soil residential environmental screening level (ESL) (cancer) of 260 mg/kg. TPHmo was detected in eight samples (EB-1-0.5, EB-2-0.5, EB-3-0.5, EB-4-0.5, EB-5-0.5, EB-6-0.5, EB-7-0.5, and EB-8-0.5) at concentrations ranging from 6.4 to 5,700 mg/kg.

Four SVOCs were detected benzo(a)pyrene (B(a)P), bis (2-ethylhexyl) phthalate, di-n-butyl phthalate, and phenol above the laboratory reporting limits but below the residential and commercial soil ESLs at concentrations ranging from 0.0052 mg/kg to 0.043 mg/kg. No other SVOCs were detected above laboratory reporting limits in the samples analyzed.

No VOCs were detected above laboratory reporting limits in any of the soil samples analyzed.

One PCB (Aroclor 1254) was detected in one soil sample, EB-1-0.5, above the laboratory reporting limit as well as the residential and commercial soil ESLs at a concentration of 28 mg/kg. No other PCBs were detected above laboratory reporting limits in any of the samples analyzed.

Three OCPs, dichlorodiphenyltrichloroethane (DDT), dieldrin, and endrin, were detected above the laboratory reporting limit at a concentration of 1.6 mg/kg, 1.4 mg/kg, and 0.23 mg/kg, respectively in one soil sample, EB-1-0.5. The concentration of dieldrin at 1.4 mg/kg exceeded the residential and commercial soil ESLs of 0.037 and 0.16 mg/kg respectively. No other OCPs were detected above laboratory reporting limits in any of the samples analyzed.

The metal analytical results are summarized in Table 2. Total arsenic was detected at or above the laboratory reporting limits in all 15 samples analyzed at concentrations ranging

from 0.94 mg/kg to 4.5 mg/kg (Table 2). Of the 15 detections, 13 of the detections fell within the background metal concentrations of Bay Area soils² of 1.2-31 mg/kg. The other two detections, EB-6-0.5 and EB-8-0.5, exceeded the residential and commercial soil ESLs (cancer) of 0.067 mg/kg and 0.31 mg/kg respectively but fell below the background metal concentrations. Additionally, EB-8-0.5, exceeded the soil construction worker ESL of 0.98 mg/kg.

Arsenic was not detected at concentrations above 50 mg/kg (10 times the STLC) in any of the soil samples analyzed; therefore, analysis to determine soluble arsenic levels was not necessary.

Total barium was detected at or above the laboratory reporting limits in all 15 samples analyzed at concentrations ranging from 24 mg/kg to 150 mg/kg (Table 2). All 15 detections did not exceed soil residential or commercial ESLs. Barium was not detected at concentrations above 1,000 mg/kg (10 times the STLC) in any of the soil samples analyzed; therefore, analysis to determine soluble barium levels was not necessary.

Total chromium was detected at or above the laboratory reporting limits in each of the 22 samples analyzed at concentrations ranging from 18 mg/kg to 85 mg/kg (Table 2). Total chromium was detected in 14 samples (EB-1-5, EB-1-10, EB-1-15, EB-2-0.5, EB-2-5, EB-2-10, EB-2-15, EB-2-20, EB-3-5, EB-4-5, EB-5-5, EB-6-5, EB-7-5, EB-8-5) at a concentration above 50 mg/kg (10 times the STLC) but below 2,500 mg/kg (TTLC). These total chromium concentrations, including those that were greater than 10 times the STLC, were within normal background ranges found in the Bay Area² and did not exceed soil residential or commercial ESLs. These soil samples were subsequently analyzed to determine soluble chromium levels using the WET method. Soluble chromium was detected in sample EB-1-10 at 0.11 mg/L, EB-1-15 at 0.12 mg/L, EB-2-0.5 at 0.14 mg/L, EB-2-5 at 0.20 mg/L, EB-2-10 at 0.16 mg/L, EB-2-15 at 0.12 mg/L, EB-3-5 at 0.14 mg/L, EB-6-5 at 0.11 mg/L, EB-7-5 at 0.15 mg/L, and EB-8-5 at 0.11 mg/L. Soluble chromium was non-detect for samples EB-1-2.0, EB-2-20, EB-4-5, and EB-5-5. All soluble chromium detections were below the Class I non-Resource Conservation and Recovery Act (RCRA) State of California hazardous waste criteria of 5 mg/L (Table 2).

² Environmental Resources Management. *Feasibility Study, Hookston Station, Pleasant Hill, California. Appendix A, Table A-2, "Comparison of Background Concentrations of Metals in Bay Area Soils,"* dated July 2006.

Total cobalt was detected at or above the laboratory reporting limits in 15 samples analyzed at concentrations ranging from 4.4 mg/kg to 19 mg/kg (Table 2). Cobalt detections did not exceed soil residential or commercial ESLs nor were they detected at concentrations above 800 mg/kg (10 times the STLC) in any of the soil samples analyzed; therefore, analysis to determine soluble cobalt levels was not necessary.

Total lead was detected at or above the laboratory reporting limits in each of the 22 samples analyzed at concentrations ranging from 1.9 mg/kg to 11 mg/kg (Table 2). Lead was not detected at concentrations above the soil residential or commercial ESLs. In addition, concentrations were not detected above 50 mg/kg (10 times the STLC) in any of the soil samples analyzed; therefore, analysis of STLC and TCLP lead to determine soluble lead levels was not necessary.

Total zinc was detected at or above the laboratory reporting limits in each of the 22 samples analyzed at concentrations ranging from 22 mg/kg to 95 mg/kg (Table 2). Zinc was not detected at concentrations above the soil residential or commercial ESLs. In addition, concentration were not detected above 2,500 mg/kg (10 times the STLC) in any of the soil samples analyzed; therefore, analysis of STLC and TCLP zinc to determine soluble zinc levels was not necessary.

Antimony, silver, and thallium were not detected above or at the laboratory reporting limit in the samples that it was analyzed for. The remaining metal concentrations were within normal background ranges found in the Bay Area² and did not exceed the soil residential and commercial ESLs.

7.2 Groundwater Analytical Results

The groundwater analytical results for organic compounds are summarized in Table 3. TPHd was detected in three of the three samples (EBGW-1, EBGW-5, EBGW-8) at concentrations of 130 µg/L, 1,100 µg/L, and 830 µg/L respectively. TPHmo was detected in three samples (EBGW-1, EBGW-5, EBGW-8) at concentrations of 730 µg/L, 18,000 µg/L, and 15,000 µg/L respectively. TPHg was not detected in any samples. Tetrachloroethene (PCE) was detected in groundwater samples EBGW-1 and EBGW-3 at concentrations of 7.9 µg/L and 52 µg/L respectively, which exceed the residential and commercial groundwater vapor intrusion (GW-VI) ESL of 0.64 µg/L and 2.80 µg/L respectively. TCE was detected in one groundwater sample EBGW-3 at a concentration of 4.4 µg/L, which exceeds the residential VI ESL of 1.2 µg/L. Acetone and chloroform

were detected in groundwater sample EBGW-8 at concentrations of 18 µg/L and 0.54 µg/L respectively, which do not exceed the residential or commercial GW-VI ESLs. No other VOCs were detected above laboratory reporting limits in any of the samples analyzed. Six SVOCs were detected including anthracene, bis (2-ethylhexyl) phthalate, di-n-butyl phthalate, diethyl phthalate, dimethyl phthalate, and phenol were detected above the laboratory reporting limits at concentrations ranging from 0.022 µg/L to 4.5 µg/L. No other SVOCs were detected above laboratory reporting limits in the samples analyzed.

The metal analytical results are summarized in Table 4. Total arsenic was detected at or above the laboratory reporting limits in three samples analyzed at concentrations ranging from 100 µg/L to 540 µg/L (Table 2).

Total barium was detected at or above the laboratory reporting limits in all four samples analyzed at concentrations ranging from 3,100 µg/L to 10,000 µg/L (Table 4).

Total chromium was detected at or above the laboratory reporting limits in all four samples analyzed at concentrations ranging from 420 µg/L to 2,500 µg/L (Table 4).

Total cobalt was detected at or above the laboratory reporting limits in all four samples analyzed at concentrations ranging from 63 µg/L to 1,900 µg/L (Table 4).

Total copper was detected at or above the laboratory reporting limits in all four samples analyzed at concentrations ranging from 59 µg/L to 810 µg/L (Table 4).

Total lead was detected at or above the laboratory reporting limits in each of all four samples analyzed at concentrations ranging from 120 µg/L to 720 µg/L (Table 4).

Total mercury was detected at or above the laboratory reporting limits in one sample analyzed (EBGW-8) at a concentration of 3.6 µg/L (Table 4).

Total molybdenum was detected at or above the laboratory reporting limits in two samples (EBGW-1 and EBGW-5) analyzed at concentrations of 180 µg/L and 220 µg/L (Table 4).

Total nickel was detected at or above the laboratory reporting limits in all four samples analyzed at concentrations ranging from 320 µg/L to 2,900 µg/L (Table 4).

Total selenium was detected at or above the laboratory reporting limits in one sample analyzed (EBGW-8) at a concentration of 100 µg/L (Table 4).

Total vanadium was detected at or above the laboratory reporting limits in all four samples analyzed at concentrations ranging from 230 µg/L to 2,000 µg/L (Table 4).

Total zinc was detected at or above the laboratory reporting limits in all four samples analyzed at concentrations ranging from 330 µg/L to 1,800 µg/L (Table 4).

Antimony, beryllium, cadmium, silver, and thallium were not detected above or at the laboratory reporting limit in the four samples.

The elevated concentrations of metals are likely a result of high sediment content in the groundwater grab samples. The metal concentrations were detected below wastewater discharge criteria for East Bay Mud³ Municipal Utility District (EBMUD).

7.3 Soil Vapor Analytical Results

Soil vapor analytical results are presented in Table 5. Four VOCs associated with petroleum hydrocarbons were detected above their respective laboratory reporting limits; including, benzene, ethylbenzene, p/m-xylene, and PCE. Benzene was detected in soil vapor samples EBSV-1, EBSV-3, DUP-1, and EBSV-4 at the concentrations of 38.3 micrograms per cubic meter (µg/m³), 17.1 µg/m³, 9.65 µg/m³ and 22.8 µg/m³ respectively, which exceed the residential VI ESL of 3.2 µg/m³. Ethylbenzene was detected in soil vapor samples EBSV-2, EBSV-4, EBSV-5, EBSV-6, EBSV-7, and EBSV-8 at the concentrations of 838 µg/m³, 355 µg/m³, 393 µg/m³, 928 µg/m³, 4,410 µg/m³ and 4,490 µg/m³ respectively, which exceed the residential VI Soil Gas (SG ESL) ESL of 37 µg/m³. Xylenes (m/p) were detected in soil vapor samples EBSV-2, EBSV-6, EBSV-7, and EBSV-8 at the concentrations of 4,620 µg/m³, 4,610 µg/m³, 20,700 µg/m³ and 20,000 µg/m³, which exceed the residential SG ESL of 3,500 µg/m³.

PCE, a VOC associated with historical dry cleaner operations and industrial operations was detected in soil vapor samples EBSV-1, EBSV-2, EBSV-3 and DUP-1 at 18.9 µg/m³,

³ East Bay Municipal Utility District. *Wastewater control ordinance & discharge limits*. <https://www.ebmud.com/wastewater/collection-treatment/wastewater-control-ordinance-discharge-limits#>, 4 January 2020

1,320 $\mu\text{g}/\text{m}^3$, 45.7 $\mu\text{g}/\text{m}^3$, and 88.8 $\mu\text{g}/\text{m}^3$, respectively, which exceed the residential VI ESL of 15 $\mu\text{g}/\text{m}^3$. The remaining VOCs detected in soil vapor were below their respective SG ESLs.

Helium was used as a tracer gas around the sampling assembly and borehole during sampling as a QA/QC measure to confirm the sample integrity. Helium was not detected above the laboratory reporting limit in the eight primary and one duplicate soil vapor samples analyzed. Oxygen was analyzed to assess the possibility of petroleum vapor intrusion bio-attenuation in the shallow soil zone. Oxygen was detected above the laboratory reporting limit in the soil vapor samples analyzed at 10.5 to 21.7 percent by volume (%V). Methane was analyzed to assess potential explosive concerns and vapor intrusion. In soil vapor samples EBSV-5 and EBSV-6 methane was detected below laboratory reporting limits. For the remainder of the soil vapor samples, methane was detected below a concentration of 0.01%V with the exception of EBSV-1 where methane was detected at a concentration of 0.017%V. All methane concentrations were detected below the indoor air methane screening level of 0.5%V.

8.0 INDOOR AIR RISK EVALUATION

The groundwater analytical results for VOCs detected in samples collected from Block 2 (i.e., PCE and TCE) were compared to the groundwater vapor intrusion (GW-VI) ESLs based on commercial land use to identify Compounds of Potential Concern (COPCs). The GW-VI ESLs adopt a target incremental lifetime cancer risk (ILCR) of 1E-06, or 1 in 1,000,000, to calculate risk-based screening levels for individual carcinogens. For non-carcinogenic compounds, the GW-VI SLs are based on a hazard quotient (HQ) of 1. PCE and TCE were not detected above the associated screening level; consequently, there are no groundwater COPCs that are carried forward for further assessment (Table 2).

The groundwater TCE concentrations in samples collected from Block 2 were also compared to the RWQCB groundwater trigger level for commercial land use (20 $\mu\text{g}/\text{L}$) to determine if they represent a short-term exposure concern. The TCE detections in groundwater were all below the trigger level, indicating that acute exposure is not anticipated based on the current commercial use of Block 2.

The soil gas sample results for locations proximal to the building located at Block 2 (EBSV-2 and EBSV-3) were compared to the SG ESLs for commercial land use to identify indoor

air COPCs. The RWQCB uses a generic attenuation factor (AF) to back-calculate a health-protective soil gas concentration from a risk-based indoor air concentration. The SG ESLs adopt an empirical soil gas-to-indoor-air attenuation factor of 0.03 to perform the calculation; this value is conservative because it represents the 95th percentile value in the United States Environmental Protection Agency (EPA) vapor intrusion database. Benzene, ethylbenzene, total xylenes, and PCE were detected above the associated commercial SG ESLs (Table 5).

The EPA endorses an upper-bound cancer risk management value of 1E-04 for exposure to multiple carcinogens. This value represents an incremental increase of 1 in 10,000 in the chance of developing cancer over the course of a lifetime. For evaluating the noncarcinogenic hazards for multiple constituents, the HQs are summed to produce a hazard index (HI). If the site-specific exposure level exceeds the effects-based threshold (i.e., the HI exceeds a value greater than 1), there may be vapor intrusion concern for potential chronic, non-carcinogenic effects.

The ratio of the maximum measured concentration to the associated SG ESL was calculated for each COPC and used to estimate potential risk and hazard using the following equation at each location:

$$Risk\ or\ Hazard = \frac{C_{SG}}{SG\ ESL}$$

Where:

C_{SG} = Concentration in soil gas ($\mu\text{g}/\text{m}^3$)

For carcinogens, the ratio must be multiplied by 1E-06 to provide an estimate of risk probability. The resulting ILCR and HI estimates for the vapor intrusion pathway, based on the maximum detected constituent concentrations and the SG ESLs, are presented below:

Location EBSV-2			Location EBSV-3		
	ILCR	HQ		ILCR	HQ
Ethylbenzene	5.2E-06	0.006	Benzene	1.2E-06	0.04
Total Xylenes	--	0.3	PCE	1.3E-06	0.02
PCE	2.0E-05	0.2	Total	2.5E-06	0.06
Total	2.5E-05	0.5			

The risk characterization that was completed using the SG ESLs presented above represents the worst case exposure scenario for commercial building occupants. Carcinogenic compounds ethylbenzene, benzene, and PCE individually produce an ILCR within the EPA's acceptable risk range at locations EBSV-2 and EBSV-3. The cumulative (i.e., total) cancer risk is also within the acceptable risk range for EBSV-2 and EBSV-3 at $2.5E-05$ and $2.5E-06$, respectively. The individual hazard quotients for each COPC is below the noncancer threshold of 1. The total hazard index is also below the threshold level of 1 for EBSV-2 and EBSV-3 at 0.5 and 0.6, respectively, indicating that chronic noncancer health effects are not anticipated to occur.

9.0 CONCLUSIONS AND PRELIMINARY RECOMMENDATIONS

The results from Langan's March 2020 Phase II ESA indicated that the site is underlain by a layer of fill material with little to no elevated concentrations of heavy metals. No metal concentrations in soil exceeded State of California Class I non-RCRA hazardous waste criteria. The fill material will likely be characterized as Class II non-hazardous waste. Subsurface material has not been sampled beneath the existing building. Where explored, the native material beneath the fill layer does not contain hazardous levels of contaminants and may likely be disposed of as non-hazardous material or potentially unrestricted material but final soil acceptance is dependent on the receiving landfill or facility's acceptance criteria.

Groundwater was encountered at approximately 7.5 to 20 bgs at the site. If dewatering and discharge of groundwater is required for construction a permit should be obtained from the EBMUD.

The groundwater analytical results indicate that VOC compound PCE was detected at concentrations exceeding the respective residential and commercial ESLs (cancer) for vapor intrusion in two of the four samples analyzed and TCE was detected at a concentration exceeding the respective residential ESL (cancer) in one of the four samples analyzed. TCE was not detected in the soil vapor samples. The soil vapor analytical results indicate that VOC compounds benzene, ethylbenzene, m/p-xylenes and PCE were detected at concentrations exceeding their respective GW-VI ESLs. Most of these VOC compounds were not detected in soil samples collected from the site. Thus, the contamination is more likely associated with an off-site source and is likely associated with elevated PCE in soil attributed to PCE in groundwater, specifically by Block 2. With this information, Langan reviewed available information on GeoTracker and EnviroStor to assess the potential sources of groundwater and soil vapor concentrations found during Phase II ESA. A list of potential offsite sources as well as the Sites names and Geotracker or EnviroStor links are provided in Table 6 below. Per the Plan for Implementation of Low-Threat Underground

Storage Tank Case Closure Policy and Additional Program Improvements (Plan), State Water Board Resolution No. 2012-0062, Langan evaluated the potential for petroleum related VOCs in soil vapor to naturally biodegrade beneath the site. Generally, petroleum related VOCs biodegrade rapidly under aerobic conditions, and if biodegradation is complete it produces only water and carbon dioxide. No significant concentrations (greater than 100 mg/kg) of TPHg were detected in the shallow fill zone (less than six feet bgs). Significant concentrations (greater than 100 mg/kg) of TPHd were detected in the shallow fill zone (less than six feet) at EB-1-0.5, EB-2-0.5, and EB-5-0 through EB-8-0.5 at concentrations ranging from 150 mg/kg to 400 mg/kg. The concentration of TPHd at EB-1-0.5 exceeded the residential ESL of 260 mg/kg at 400 mg/kg. In addition, oxygen was detected up to 21.7 %V at five feet bgs, which suggests a bioattenuation zone is present beneath the site.

Given the concentration of oxygen and vertical separation distance, there is a potential for petroleum related VOCs (ethylbenzene and xylenes) to biodegrade beneath the Site. The chlorinated solvents PCE and TCE (detected above the residential SG ESLs) do not have the propensity to naturally biodegrade in aerobic environments.

Per the proposed development plan, four buildings will be developed within the site, Building A, Building B, Building C, and Building D. Building A is proposed for residential, and there are exceedances of ethylbenzene and xylenes at EB-7 and EB-8 within the footprint of the proposed Building A. Building B is proposed for similar use, and the concentrations of ethylbenzene and xylenes also exceed the residential ESLs. Building D is also proposed for residential, specifically for affordable housing, and there are exceedance of benzene and PCE beneath and within the footprint. Building C, is the only building proposed for commercial use, and significant concentrations of benzene, ethylbenzene and PCE were detected at EB-1 and/or EB-2. As a result, Langan recommends additional soil vapor sampling to further evaluate potential vapor intrusion.

10.0 LIMITATIONS

Descriptions of specific field activities and historical events are based on our observations and on information provided by others. The opinions and information presented in this report apply to site conditions and the information that was available at the time the work was performed and do not apply to changes of which we are not aware or have not had the opportunity to evaluate. Langan makes no guarantees or warranties with respect to the accuracy or completeness of this information.

REFERENCES

Environmental Resources Management. *Feasibility Study, Hookston Station, Pleasant Hill, California. Appendix A, Table A-2, "Comparison of Background Concentrations of Metals in Bay Area Soils,"* dated July 2006.

Langan Engineering and Environmental Services, Inc., Draft Phase I Environmental Site Assessment, Lake Merritt BART Development, Oakland, California, dated 17 May 2019. Langan Engineering and Environmental Services, Inc., Preliminary Geotechnical Report, Lake Merritt BART Development, Oakland, California, dated January 2020.

San Francisco Bay Regional Water Quality Control Board, *Environmental Screening Levels* dated 24 January 2019.

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TABLES

**Table 1
Soil Analytical Results - Non-Metals
Lake Merritt BART
Oakland, California**

Sample ID	Sample Depth (feet)	Date Sampled	TPHg	TPHd	MDL	TPHmo	VOCs	SVOCs																		PCBs		OCPs					
								Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	1,1-Biphenyl	Bis (2-ethylhexyl) Phthalate	Butylbenzyl Phthalate	Chrysene	Dibenzo (a,h) anthracene	Di-n-butyl Phthalate	Fluoranthene	Indeno (1,2,3-cd) pyrene	Phenanthrene	Phenol	Pyrene	All other SVOCs	Aroclor 1254	All other PCBs	DDT	Dieldrin	Endrin	All other OCPs
(mg/kg)																																	
EB-1-0.5	0.5	03/07/20	< 1.0	400		2,700	ND					< 0.0025				< 0.0050				< 0.0050				< 0.0050		ND	28	ND	1.6	1.4	0.23	ND	
EB-1-5	5.0	03/07/20	< 1.0	< 1.0		< 5.0	ND					< 0.0025				< 0.0050				< 0.0050				< 0.0050		ND	--	--	--	--	--	--	
EB-1-10	10.0	03/07/20	< 1.0	< 1.0		< 5.0	ND	< 0.0013	< 0.0013	< 0.0013	< 0.0050	< 0.0025	0.0011J	0.0027	< 0.0013	0.0023J	0.0054	< 0.0025	0.0012J	< 0.0025	< 0.0050	0.0012J	0.0016J	< 0.0050	0.068	< 0.0014	ND	--	--	--	--	--	
EB-1-15	15.0	03/07/20	< 1.0	< 1.0		< 5.0	ND	< 0.0013	< 0.0013	< 0.0013	< 0.0050	< 0.0025	< 0.0013	< 0.0025	< 0.0013	0.0023J	0.015	0.024J	< 0.0025	< 0.0025	0.0053	< 0.0013	< 0.0025	0.00072J	0.011	< 0.0014	ND	--	--	--	--	--	
EB-1-20	20.0	03/07/20	< 1.0	< 1.0		< 5.0	ND	< 0.0013	< 0.0013	< 0.0013	< 0.0050	< 0.0025	< 0.0013	< 0.0025	< 0.0013	< 0.0013	0.014	< 0.025	< 0.0025	< 0.0025	0.0052	< 0.0013	< 0.0025	< 0.0050	0.031	< 0.0014	ND	--	--	--	--	--	
EB-2-0.5	0.5	03/07/20	< 1.0	150		2,500	ND					< 0.0025				< 0.0050				< 0.0050				< 0.0050		ND	--	--	--	--	--	--	
EB-2-5	5.0	03/07/20	< 1.0	< 1.0		< 5.0	ND					< 0.0025				< 0.0050				< 0.0050				< 0.0050		ND	--	--	--	--	--	--	
EB-2-10	10.0	03/07/20	< 1.0	< 1.0		< 5.0	ND	< 0.0013	< 0.0013	< 0.0013	< 0.0050	< 0.0025	0.0011J	1.0027	< 0.0013	0.0023J	0.016	< 0.0025	0.0012J	< 0.0025	0.0060	0.0012J	0.0016J	< 0.0050	0.022	< 0.0014	ND	--	--	--	--	--	
EB-2-15	15.0	03/07/20	< 1.0	< 1.0		< 5.0	ND	< 0.0013	< 0.0013	< 0.0013	< 0.0050	< 0.0025	< 0.0013	< 0.0025	< 0.0013	0.0023J	0.0098	0.024J	< 0.0025	< 0.0025	< 0.0050	< 0.0013	< 0.0025	0.00072J	< 0.0050	< 0.0014	ND	--	--	--	--	--	
EB-2-20	20.0	03/07/20	< 1.0	< 1.0		< 5.0	ND	< 0.0013	< 0.0013	< 0.0013	< 0.0050	< 0.0025	< 0.0013	< 0.0025	< 0.0013	< 0.0013	0.012	< 0.025	< 0.0025	< 0.0025	0.0050	< 0.0013	< 0.0025	< 0.0050	0.041	< 0.0014	ND	--	--	--	--	--	
EB-3-0.5	0.5	03/07/20	< 1.0	< 100		1,500	ND	0.0017J	0.0014J	0.0028	0.015	0.011	0.0084	0.011	0.0046	< 0.026	< 0.0050	< 0.050	2.011	0.0043J	< 0.0050	0.016	0.0082	0.015	< 0.012	2.018	ND	< 25	ND	< 0.50	< 0.50	< 0.50	ND
EB-3-5	5.0	03/07/20	< 1.0	< 1.0		< 5.0	ND	< 0.0013	< 0.0013	< 0.0013	< 0.0050	< 0.0025	< 0.0013	< 0.0025	< 0.0013	< 0.039	0.0085	< 0.025	< 0.0025	< 0.0025	< 0.0050			0.0078	< 0.0014	ND	--	--	--	--	--	--	
EB-4-0.5	0.5	03/07/20	< 1.0	< 100		1,300	ND					< 0.0025				< 0.0050				< 0.0050				< 0.0050		ND	--	--	--	--	--	--	
EB-4-5	5.0	03/07/20	< 1.0	< 1.0		< 5.0	ND					< 0.0025				< 0.0050				< 0.0050				< 0.0050		ND	--	--	--	--	--	--	
EB-5-0.5	0.5	03/07/20	< 1.0	220		4,500	ND	< 0.0013	< 0.0013	< 0.0013	< 0.0050	< 0.0025				< 0.0050				< 0.0050				< 0.0050		ND	< 5.0	ND	< 0.10	< 0.10	< 0.10	ND	
EB-5-5	5.0	03/07/20	< 1.0	< 1.0		< 5.0	ND	0.0017J	0.0014J	0.0028	0.015	0.0061	0.0084	0.011	0.0046	< 0.052	0.011	< 0.050	3.011	0.0043J	0.0054	0.016	0.0082	0.015	0.0096	3.018	ND	--	--	--	--	--	--
EB-6-0.5	0.5	03/07/20	< 1.0	230		5,000	ND					< 0.0025				< 0.0050				< 0.0050				< 0.0050		ND	--	--	--	--	--	--	
EB-6-5	5.0	03/07/20	< 1.0	< 1.0		6.4	ND					< 0.0025				< 0.0050				< 0.0050				< 0.0050		ND	--	--	--	--	--	--	
EB-7-0.5	0.5	03/07/20	2.2	250		5,700	ND					< 0.0025				< 0.0050				< 0.0050				< 0.0050		ND	--	--	--	--	--	--	
EB-7-5	5.0	03/07/20	< 1.0	< 1.0		< 5.0	ND					< 0.0025				< 0.0050				< 0.0050				< 0.0050		ND	--	--	--	--	--	--	
EB-8-0.5	0.5	03/07/20	< 1.0	200		5,300	ND					< 0.0025				< 0.0050				< 0.0050				< 0.0050		ND	< 5.0	ND	< 0.10	< 0.10	< 0.10	ND	
EB-8-5	5.0	03/07/20	< 1.0	< 1.0		< 5.0	ND	< 0.0013	< 0.0013	< 0.0013	< 0.0050	< 0.0025	< 0.0013	< 0.0025	< 0.0013	< 0.091	0.011	< 0.025	< 0.0025	< 0.0025	< 0.0050	< 0.0013	< 0.0025	< 0.0050	< 0.0050	< 0.0014	ND	--	--	--	--	--	
Tier 1 ESL			100	260		1,600	Various	16	13	2.8	0.16	0.11	0.16	2.5	1.6	0.65	0.8		3.8	0.016	NA	60	0.16	11	0.16	85	Various	0.23	Various	1.9	0.037	21	Various
Direct Exposure Human Health Risk Levels	Residential		430	260		12,000	Various	3,600	NA	18,000	0.16	0.11	0.16	NA	1.6	64	39		15	0.016	NA	2,400	0.16	NA	23,000	1,800	Various	0.23	Various	1.9	0.037	21	Various
	Commercial/Industrial		2,000	1,200		180,000	Various	45,000	NA	230,000	2.9	2.1	2.9	NA	290	270	160		260	0.29	NA	30,000	2.9	NA	350,000	23,000	Various	0.94	Various	8.5	0.16	290	Various

Notes:
 TPHg - Total Petroleum Hydrocarbons as Gasoline, EPA Method 8015M
 TPHd - Total Petroleum Hydrocarbons as Diesel, EPA Method 8015M
 TPHmo - Total Petroleum Hydrocarbons as Motor Oil, EPA Method 8015M
 VOCs - Volatile Organic Compounds, EPA Method 8260B
 SVOCs - Semi-volatile Organic Compounds, EPA Method 8270C
 PCBs - Polychlorinated Biphenyls, EPA Method 8082
 OCPs - Organochlorine Pesticides, EPA Method 8081A
 Asbestos by California Air Resource Board (CARB) 435 Method
 DDT - Dichlorodiphenyltrichloroethane
 mg/kg - milligrams per kilograms
 S.U. - Standard pH units
 < 1.0 - Analyte was not detected at or above the laboratory reporting limit
 ND - Not detected at or above the laboratory reporting limit
 J - Result is less than the reporting limit/method limit but greater than the method detection limit. The reported concentration is an estimated value.
 A - The reported value is determined using a "single point" calibration by gas chromatography with electron capture detector as allowed by the method.
 -- Not Analyzed
Bold - Analyte concentration exceeds Residential Direct Exposure Human Health Risk Levels ESL
 Residential Environmental Screening Levels (ESLs), San Francisco Bay Regional Water Quality Control Board (RWQCB), Soil Summary, Direct Exposure Human Health Risk Levels, (Table S-1). January 2019

Table 2
Soil Analytical Results - Metals
Lake Merritt BART
Oakland, California

Sample ID	Depth (feet)	Date Sampled	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	STLC Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
			(mg/kg)										(mg/kg)							
EB-1-0.5	0.5	03/07/20	--	--	--	--	< 0.25	48		--	--	10	--	--	68	--	--	--	--	63
EB-1-5	5.0	03/07/20	--	--	--	--	< 0.25	50	ND	--	--	2.2	--	--	45	--	--	--	--	25
EB-1-10	10.0	03/07/20	--	--	--	--	< 0.25	64	0.11	--	--	2.2	--	--	49	--	--	--	--	27
EB-1-15	15.0	03/07/20	--	--	--	--	< 0.25	55	0.12	--	--	1.9	--	--	42	--	--	--	--	22
EB-1-20	20.0	03/07/20	--	--	--	--	0.30	29	ND	--	--	3.2	--	--	43	--	--	--	--	26
EB-2-0.5	0.5	03/07/20	< 0.50	<u>2.9</u>	110	< 0.50	< 0.25	57	0.14	11.0	31	8.9	0.13	0.66	80	0.78	< 0.50	< 0.50	40	58
EB-2-5	5.0	03/07/20	< 0.50	<u>3.0</u>	50	< 0.50	< 0.25	67	0.2	8.3	7.4	2.5	< 0.050	0.95	55	0.58	< 0.50	< 0.50	48	28
EB-2-10	10.0	03/07/20	< 0.50	<u>2.0</u>	44	< 0.50	< 0.25	56	0.16	6.6	5.5	2.0	< 0.050	0.72	41	< 0.50	< 0.50	< 0.50	41	24
EB-2-15	15.0	03/07/20	< 0.50	<u>1.8</u>	72	0.50	< 0.25	63	0.12	11	14	4.8	0.055	< 0.50	58	0.68	< 0.50	< 0.50	37	37
EB-2-20	20.0	03/07/20	< 0.50	<u>2.1</u>	150	0.62	< 0.25	65	0.1	11	26	8.4	< 0.050	< 0.50	72	0.98	< 0.50	< 0.50	62	70
EB-3-0.5	0.5	03/07/20	< 0.50	<u>3.4</u>	72	< 0.50	< 0.25	40	0.14	9.0	27	7.8	0.24	1.8	65	0.62	< 0.50	< 0.50	39	43
EB-3-5	5.0	03/07/20	< 0.50	<u>1.6</u>	47	< 0.50	< 0.25	54	0.14	5.9	5.5	2.1	< 0.050	< 0.50	41	< 0.50	< 0.50	< 0.50	35	25
EB-4-0.5	0.5	03/07/20	< 0.50	<u>2.6</u>	77	< 0.50	< 0.25	42	0.18	8.7	20	8.0	0.10	1.3	66	0.55	< 0.50	< 0.50	33	68
EB-4-5	5.0	03/07/20	< 0.50	<u>2.4</u>	61	< 0.50	< 0.25	71	ND	7.8	8.1	2.6	< 0.050	< 0.50	53	0.79	< 0.50	< 0.50	41	29
EB-5-0.5	0.5	03/07/20	--	--	--	--	< 0.25	18	ND	--	--	9.5	--	--	18	--	--	--	--	52
EB-5-5	5.0	03/07/20	--	--	--	--	< 0.25	55	ND	--	--	5.7	--	--	41	--	--	--	--	29
EB-6-0.5	0.5	03/07/20	< 0.50	<u>1.2</u>	35	< 0.50	< 0.25	19	ND	11	50	5.6	< 0.050	0.59	20	< 0.50	< 0.50	< 0.50	74	95
EB-6-5	5.0	03/07/20	< 0.50	<u>2.9</u>	63	< 0.50	< 0.25	63	0.11	6.4	7.5	11	< 0.050	< 0.50	43	< 0.50	< 0.50	< 0.50	39	34
EB-7-0.5	0.5	03/07/20	< 0.50	<u>1.1</u>	62	< 0.50	< 0.25	19	ND	7.5	41	6.5	< 0.050	< 0.50	16	0.52	< 0.50	< 0.50	69	36
EB-7-5	5.0	03/07/20	< 0.50	<u>3.9</u>	59	< 0.50	< 0.25	85	0.15	4.4	6.7	2.7	0.083	< 0.50	50	0.70	< 0.50	< 0.50	48	30
EB-8-0.5	0.5	03/07/20	< 0.50	<u>0.94</u>	24	< 0.50	< 0.25	18	ND	9.4	93	3.4	0.077	< 0.50	18	0.78	< 0.50	< 0.50	55	36
EB-8-5	5.0	03/07/20	< 0.50	<u>4.5</u>	57	< 0.50	< 0.25	73	0.11	19	11	3.9	0.10	< 0.50	42	0.89	< 0.50	< 0.50	52	28
Tier 1 ESL			11	0.067	390	42	5	120,000		23	180	32	13	6.9	86	2.4	25	0.78	18	340
Direct Exposure Human Health Risk Levels	Residential		11	0.067	15,000	150	16	120,000		23	3,100	80	13	390	820	390	390	0.78	390	23,000
	Commercial/Industrial		160	0.31	220,000	2,200	230	1,800,000		350	47,000	320	190	5,800	11,000	5,800	5,800	12	5,800	350,000
	Construction Worker Exposure Levels		50	0.98	3,000	42	27	120,000		28	14,000	160	44	1,800	86	1,700	1,800	3.5	470	110,000
Background Metal Concentrations¹			1.5-7.1	1.2-31	41-411	0.29-1.1	0.27-3.3	10-142		6.5-25.5	5.4-100	4.8-65	0.07-0.6	0.33-11.4	16-144	< 0.25-7	0.2-2.2	< 0.25-42.5	22-90	33-282

Notes:

mg/kg - milligrams per kilograms

mg/L - milligrams per Liter

< 0.5 - Analyte was not detected at or above the laboratory reporting limit

-- Not analyzed or not established

TTL - California Total Threshold Limit Concentration

STLC - California Soluble Threshold Limit Concentration

TCLP - Federal Toxicity Characteristic Leaching Potential Analysis

¹ Environmental Resources Management. Feasibility Study, Hookston Station, Pleasant Hill, California. Appendix A, Table A-2, "Comparison of Background Concentrations of Metals in Bay Area Soils," July 2006.

Italics - Analyte concentration exceeds Tiel 1 ESLs (Cancer Risk)

Underline - Analyte concentration exceeds Construction Worker Exposure Levels

Residential Environmental Screening Levels (ESLs), San Francisco Bay Regional Water Quality Control Board (RWQCB), Soil Summary, Direct Exposure Human Health Risk Levels, (Table S-1). January 2019

Table 3
Groundwater Analytical Results - Non-Metals
Lake Merritt BART
Oakland, California

Sample ID	Sample Date	TPHg	TPHd	TPHmo	Acetone	Chloroform	PCE	Toluene	TCE	All other VOCs	SVOCs						
											Anthracene	Bis (2-ethylhexyl) Phthalate	Di-n-butyl Phthalate	Diethyl Phthalate	Dimethyl Phthalate	Phenol	All other SVOCs
(µg/L)																	
EBGW-1	03/07/20	< 50	130	730	< 10	< 0.50	7.9		< 0.50	< 0.20 - < 10	0.022	< 0.13	0.73	1.6	0.20	0.079	< 0.0066 - < 6.6
DUP-1	03/07/20	< 50	63	450	< 10	< 0.50	11		0.64	< 0.20 - < 10	< 0.020	0.27	2.0	0.58	0.066	< 0.039	< 0.0099 - < 9.9
EBGW-3	03/07/20	< 50	< 50	< 250	< 50	< 2.5	52		4.4	< 1.0 - < 50	< 0.056	< 0.56	4.5	2	0.25	0.12	< 0.028 - < 28
EBGW-5	03/07/20	< 50	1100	18,000	< 10	< 0.50	< 0.50		< 0.50	< 0.20 - < 10	< 0.0097	< 0.097	1.4	0.43	0.026	< 0.0019	< 0.0048 - < 4.8
EBGW-8	03/07/20	< 50	830	15,000	18	0.54	< 0.50		< 0.50	< 0.20 - < 10	< 0.010	< 0.10	0.67	0.13	< 0.020	< 0.020	< 0.0051 - < 5.1
Residential ESLs ¹	Cancer Risk	--	--	--	--	0.81	0.64	--	1.2	Various	--	--	--	--	--	--	Various
	Non-Cancer Hazard	--	--	--	23,000,000	680	58	1,200	5.2	Various	--	--	--	--	--	--	Various
Commercial ESLs ²	Cancer Risk	--	--	--	--	3.6	2.80	--	7.5	Various	--	--	--	--	--	--	Various
	Non-Cancer Hazard	--	--	--	97,000,000	2,900	240	1,200	22	Various	--	--	--	--	--	--	Various

Notes:

µg/L - micrograms per liter

TPHg - Total Petroleum Hydrocarbons as Gasoline, EPA Method 8015M

TPHd - Total Petroleum Hydrocarbons as Diesel Range, EPA Method 8015M

TPHmo - Total Petroleum Hydrocarbons as Motor Oil, EPA Method 8015M

VOC - Volatile Organics Compounds, EPA 8260B

SVOC - Semi-volatile Organics Compounds, EPA Method 8270C

PCBs - Polychlorinated Biphenyls, EPA Method 8082

OCPs - Organochlorine Pesticides, EPA Method 8081A

PCE - tetrachloroethene

TCE - trichloroethene

COD - Chemical Oxygen Demand

F - Sample was filtered upon arrival to the lab

Bold - Analyte concentration exceeds Residential Direct Exposure Human Health Risk Levels ESL

¹ Residential Environmental Screening Levels (ESLs), San Francisco Bay Regional Water Quality Control Board (RWQCB), Groundwater Summary, Groundwater Vapor Intrusion Human Health Risk Levels, (Table GW-3). January 2019

ND - Analyte was not detected above the laboratory reporting limit

**Table 4
Groundwater Analytical Results - Metals
Lake Merritt BART
Oakland, California**

Sample ID	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Colbalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	
		(µg/L)																	
		Total Metals (>1% Sediment Content)																	
EBGW-1	03/07/20	< 25	130	3,100	< 25	< 25	2,500	420	410	180	< 2.5	180	2,300	< 25	< 25	< 25	1,600	1,300	
DUP-1	03/07/20	< 25	74	1,800	< 25	< 25	1,400	270	230	93	< 2.5	110	1,300	< 25	< 25	< 25	830	1,200	
EBGW-3	03/07/20	< 25	< 25	590	< 25	< 25	420	63	59	<25	< 2.5	55	320	< 25	< 25	< 25	230	330	
EBGW-5	03/07/20	< 25	100	3,700	< 25	< 25	850	260	400	120	< 2.5	220	940	< 25	< 25	< 25	630	610	
EBGW-8	03/07/20	< 25	540	10,000	< 25	< 25	1,700	1900	810	720	3.6	59	2,900	100	< 25	< 25	2,000	1,800	
Tier 1 ESL		6	10	1000	2.7	0.25	50	3	3.1	2.5	0.025	100	8.2	0.5	0.19	2.0	19	81	
Direct Exposure Human Health Risk Levels	MCL Priority	6	10	1000	4	5	50	6	1000	15	2.0	100	100	50	100	2.0	--	5000	
	Human Health	1	0.004	2000	1	0.04	--	6	300	0.2	0.061	100	12	30	94	0.1	50	6000	

Notes:
µg/L - micrograms per liter
< 0.5 - Analyte was not detected above the laboratory reporting limit

DRAFT

**Table 5
Soil Vapor Analytical Results
Lake Merritt BART
Oakland, California**

Sample ID	Date Sampled	Sample Depth (feet)	Chlorobenzene	Chloromethane	Benzene	Ethyl benzene	Toluene	p/m-Xylene	o-Xylene	Xylenes (m+p+o)	PCE	TCE	1,3,5-TMB	All other VOCs	Carbon Dioxide	Methane	Oxygen (O ₂)	Helium (He)
			µg/m ³											%V				
EBSV-1	2/28/2020	5.0	< 4.60	3.82	38.3	12.0	25.5	48.7	11.6	60.3	18.9	ND	< 4.92	ND	0.233	0.0173	19.2	< 0.150
EBSV-2	2/28/2020	5.0	< 11.5	< 5.16	< 7.99	838	14.7	3,710	908	4,620	1,320	ND	< 12.3	ND	2.47	0.00175	18.3	< 0.100
EBSV-3	2/28/2020	5.0	< 4.60	< 2.07	17.1	< 4.34	15.9	< 8.68	4.34	< 13.0	45.7	ND	< 4.92	ND	4.55	0.00914	13.2	< 0.100
DUP-1	2/28/2020	5.0	< 4.60	< 2.07	9.65	10.2	8.67	46.4	11.3	57.7	88.8	ND	< 4.92	ND	5.66	0.00316	10.5	< 0.100
EBSV-4	2/28/2020	5.0	< 18.4	< 8.26	22.8	355	18.8	1,350	274	1,630	< 27.1	ND	< 19.7	ND	0.565	0.0141	21.7	< 0.200
EBSV-5	2/28/2020	5.0	< 9.21	< 4.13	< 6.39	393	10.1	1,580	341	1,920	< 13.6	ND	9.98	ND	1.99	< 0.0010	20.7	< 0.100
EBSV-6	2/28/2020	5.0	29.6	< 8.26	< 12.8	928	15.3	3,800	814	4,610	< 27.1	ND	< 19.7	ND	2.90	< 0.0010	17.8	< 0.100
EBSV-7	2/28/2020	5.0	< 92.1	< 41.3	< 63.9	4,410	< 75.4	17,200	3,490	20,700	< 136	ND	< 98.3	ND	6.97	0.00132	19.9	< 0.100
EBSV-8	2/28/2020	5.0	< 46.0	< 20.7	< 31.9	4,490	65.1	16,800	3,260	20,000	< 67.8	ND	< 49.2	ND	3.39	0.00163	14.7	< 0.100
Residential ESLs ¹	Cancer Risk	--	--	--	3.2	37	--	--	--	--	15	16	--	Various	--	--	--	--
	Non-Cancer Risk	1,700	3,100	100	35,000	10,000	--	--	--	3,500	1,400	70	--	Various	--	--	--	--
Commercial ESLs ²	Cancer Risk	--	--	--	14	160	--	--	--	--	67	100	--	Various	--	--	--	--
	Non-Cancer Risk	7,300	13,000	440	150,000	44,000	--	--	--	15,000	5,800	290	--	Various	--	--	--	--

Indoor Air Screening Level for Methane³

0.5

Notes:

µg/m³ - micrograms per cubic meter

VOC - Volatile Organics Compounds, Method TO-15

PCE - Tetrachloroethene

1,3,5-TMB - 1,3,5-Trimethylbenzene

%-V - Percent volume

< 0.100 - Analyte was not detected above the laboratory reporting limit.

-- Not analyzed or not established

¹Residential Environmental Screening Levels (ESLs), San Francisco Bay Regional Water Quality Control Board (RWQCB), Vapor Summary, Subslab/Soil Gas Vapor Intrusion: Human Health Risk Levels, Residential (Table SG-1). January 2019

²Commercial Environmental Screening Levels (ESLs), San Francisco Bay Regional Water Quality Control Board (RWQCB), Vapor Summary, Subslab/Soil Gas Vapor Intrusion: Human Health Risk Levels, Commercial (Table SG-1). January 2019

³ 10% of Lower Explosive Limit

Bold - Analyte concentration exceeds Residential Vapor Intrusion ESL (Cancer Risk)

ND - Analyte was not detected above the laboratory reporting limit

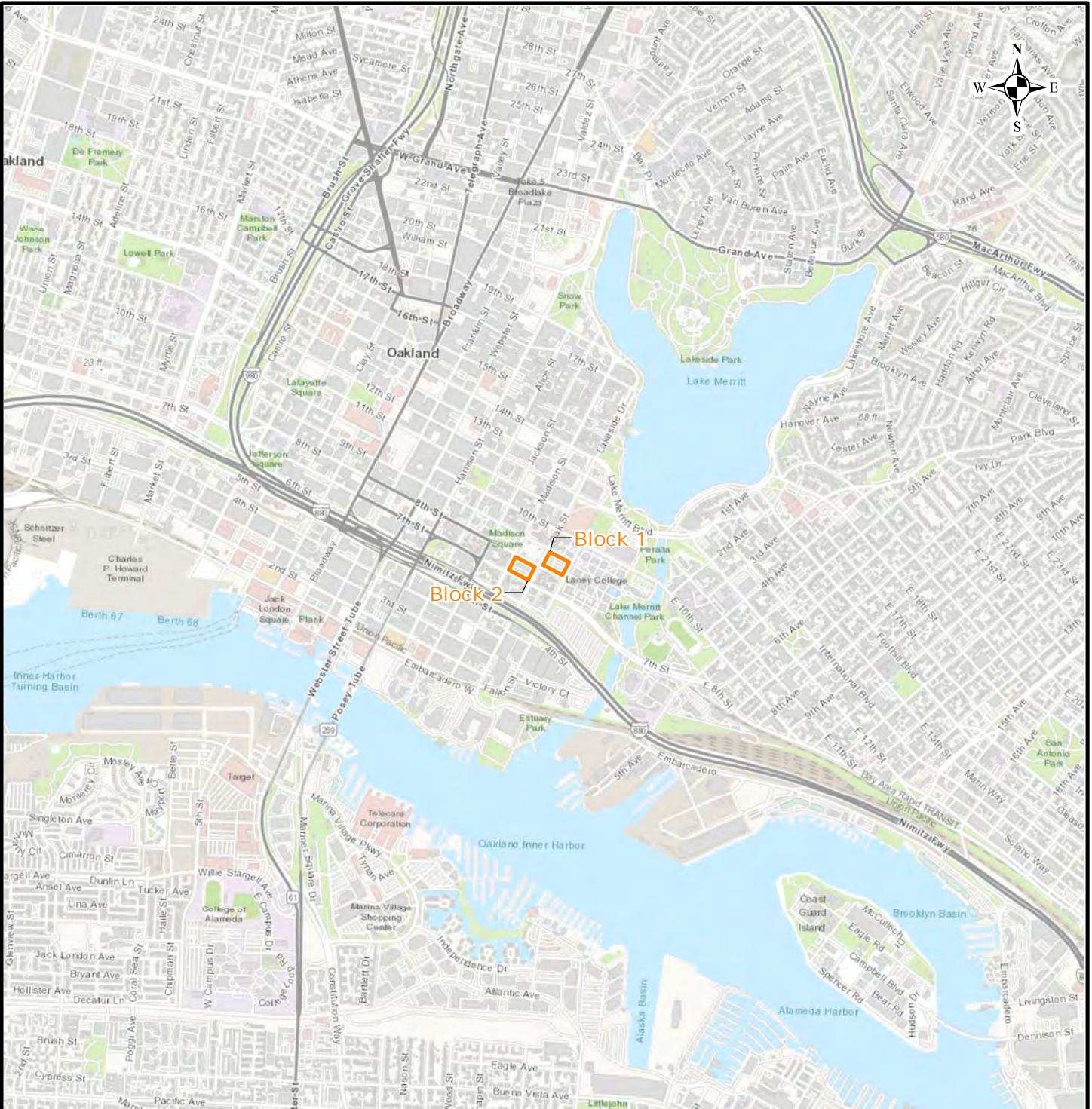
**Table 6
Potential Off-Site Sources
Lake Merritt BART
Oakland, California**

Risk Level (0 = unknown; 1=low, 3=high)	Site	Case Type	Case Status	Address	Proximity to Site (closest to furthest)	Regulatory Agency	Contaminants of Concern	Media Affected	GeoTracker Link	Groundwater flow direction	Block(s) Affected	Notes
0	TANI MOTO	Dry Cleaner	NA	709 Oak Street, Oakland, CA	Adjacent (100 ft. east of Site)							
0	NO D LAY	Dry Cleaner	NA	148 9th Street, Oakland, CA	Adjacent (500 ft. northwest of Site)							
0	JOHNSON F E	Dry Cleaner	NA	1007 Oak Street, Oakland, CA	Adjacent (540 ft. north of Site)							
0	WEBB S	Dry Cleaner	NA	151 10th Street, Oakland, CA	640 ft. northwest of Site							
0	STAR CLEANERS	Dry Cleaner	NA	163 10th Street, Oakland, CA	650 ft. northwest of Site							
2	Oakland Auto Parts	LUST	Open - Remediation as of 7/14/2014	706 Harrison, Oakland, CA	1,100 ft. northwest of Site	Alameda County LOP (Lead) and SF Bay RWQCB	Benzene, TPHg	Groundwater	https://geotracker.waterboards.ca.gov/profile_report?global_id=T0600100985	Southwest (away from Site)	potentially Block 2	
2	Chan's Service Station/Shell	LUST	Open - Remediation as of 7/14/2014	726 Harrison, Oakland, CA	1,130 ft. northwest of Site	Alameda County LOP (Lead) and SF Bay RWQCB	TPHg	Groundwater	https://geotracker.waterboards.ca.gov/profile_report?global_id=T0600102122	South-Southwest (away from Site)	potentially Block 2	
2	Unocal #0752	LUST	Open - Remediation as of 7/15/2014	800 Harrison, Oakland, CA	1,175 ft. northwest of Site	Alameda County LOP (Lead) and SF Bay RWQCB	Benzene, TPHg	Groundwater	https://geotracker.waterboards.ca.gov/profile_report?global_id=T0600101486	Southwest (away from Site)	potentially Block 2	
3	One Hour Dry Cleaner	Cleanup Program	Open - Site Assessment as of 1/31/2019	190 14th Street, Oakland, CA	1650 ft. north of Site	Alameda County LOP (Lead) and SF Bay RWQCB	PCE and TCE	Groundwater, Soil, Soil Vapor	https://geotracker.waterboards.ca.gov/profile_report?global_id=T10000011603	Southeast (towards Site)	predominantly Block 1 but potentially Block 2	
1	301 12th Street Development	Voluntary Cleanup Program	Active Remediation as of 5/24/2016	310 12th Street, Oakland, CA	1,776 ft. north-northwest of Site	DTSC (Lead)	Lead, Petroleum, Toxaphene, VOCs (Benzene, PCE, TCE, vinyl chloride)	Indoor Air, Groundwater, Soil, Soil Vapor	https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=60002362	North-Northeast (away from Site)	None	
3	Bender Property	LUST	Open - Site Assessment as of 12/3/2019	350 12th Street, Oakland, CA	1,990 ft. north-northwest of Site	Alameda County LOP (Lead)	Benzene, TPHd, TPHg, PCE	Groundwater, Soil, Soil Vapor	https://geotracker.waterboards.ca.gov/profile_report?global_id=T10000011336	South-Southeast of Site (towards Site)	Block 1 and Block 2	

**Table 6
Potential Off-Site Sources
Lake Merritt BART
Oakland, California**

Risk Level (0 = unknown; 1=low, 3=high)	Site	Case Type	Case Status	Address	Proximity to Site (closest to furthest)	Regulatory Agency	Contaminants of Concern	Media Affected	GeoTracker Link	Groundwater flow direction	Block(s) Affected	Notes
2	Lim Property Gas Station	LUST Cleanup Site	Open - Verification Monitoring as of 4/30/2015	250 8th Street, Oakland, CA	2100 feet west-northwest of Site	Alameda County LOP (Lead) and SF Bay RWQCB	Benzene, TPDD, TPHg, benzene, ethylbenzene, MTBE.TBA, methane, xylene, etc.	Groundwater	https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100535	Southwest (away from Site)	potentially Block 2	
1	Salvation Army	LUST Cleanup Site	Open - Site Assessment as of 12/9/2011	601 Webster Street, Oakland, CA	2300 feet west-northwest of Site	Alameda County LOP (Lead) and SF Bay RWQCB	TPHg, TPHd, MTBE/TBA, Benzene, Ethylbenzene, PCE, PCE, xylenes, etc.	Groundwater, Soil	https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000003428	South-Southwest (away from Site)	potentially Block 2	
0	IDEAL Cleaners	Voluntary Cleanup Program	Open - Active as of 5/22/2019	322 14th Street, Oakland, CA	2,600 ft. northwest of Site	SF Bay RWQCB (Lead) and Alameda County	None Specified	Unknown	https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000013025	Unknown	Unknown	Soil/soil vapor data collected 10/21/19 and groundwater data collected 2/19/20. Wait for updates?
0	Seabreeze Yacht Center	Cleanup Program	Open - Remediation as of 3/1/2003	280 Sixth Avenue, Oakland, CA	3,500 feet southeast of Site	DTSC (lead) and SF RWQCB	TPH(g,d,mo)	Groundwater, Soil, Soil Vapor	https://geotracker.waterboards.ca.gov/profile_report?global_id=SL18328748	North (slightly towards Site)	Block 1	

FIGURES

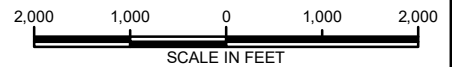



Legend

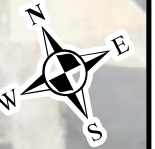
 Site Boundary

Notes:

1. Topographic basemap is provided through Langan's Esri ArcGIS software licensing and ArcGIS online © 2018 National Geographic Society, i-cubed.
2. All features shown are approximate.



 501 14TH Street, 3rd Floor Oakland, CA 94612-1420 T: 510.874.7000 F: 510.874.7001 www.langan.com	Project	Drawing Title	Project No. 750650002	Figure
	LAKE MERRITT BART OAKLAND	SITE LOCATION MAP	Date 4/20/2020 Scale 1" = 2,000' Drawn By OG	1
ALAMEDA COUNTY CALIFORNIA				



Legend

- Proposed location for soil, groundwater, and soil gas sampling, February and March 2020
- Fuel Oil Dispenser and Vents
- Fuel Oil and Vent Pipes
- Underground Storage Tank
- ConVault 4000 Gallon Aboveground Storage Tank (AST) Observed During May 2019 Site Reconnaissance
- Historical Gas Station
- Site Boundary

Notes:
 1. Aerial imagery provided by Near Map, aerial flown on 2/16/2020.
 2. Former features and tanks digitized from Sanborn maps, dated 1952 and 1989.
 3. All features shown are approximate.



LANGAN

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Langan Engineering & Environmental Services, Inc.
 Langan Engineering, Environmental, Surveying and
 Landscape Architecture, D.P.C.
 Langan International LLC
 Collectively known as Langan

Project

LAKE MERRITT BART
 OAKLAND

ALAMEDA COUNTY CALIFORNIA

Drawing Title

SITE PLAN

Project No.
750650003

Date
4/20/2020

Scale
1" = 75'

Drawn By
OG

Figure

2

APPENDIX A
BORING LOGS

PROJECT:

LAKE MERRITT - BART
OakLAND, California

Log of Boring EB-1

PAGE 1 OF 2

Boring location: See Site Plan, Figure 2

Logged by: OX/NM
Drilled By: Penecore

Date started: 3/7/20

Date finished: 3/7/20

Drilling method: Direct Push

Hammer weight/drop:

Hammer type: N/A

Sampler: Continuous core

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (Inches)			
1					0.0		SILTY SAND (SM) brown, very dense, dry, medium to fine, 75% sand, 25% fines
2					0.0		
3				57/60	0.0		
4					0.0		
5					0.0		yellow-brown, dense, dry
6					0.0		
7					0.0		
8				60/60	0.0	SM	
9					0.0		
10					0.0	▽	red-brown, medium dense, moist
11					0.0		
12				40/60	0.0		
13					0.0		
14					0.0		
15					0.0		olive-gray, medium dense, wet
16				45/60	0.0		

TEST ENVIRONMENTAL INCHES 750650003 LAKE MERRITT BART.GPJ T&R.GDT 3/12/20



Project No.: 750650003\

Figure: A-1a

PROJECT:

LAKE MERRITT - BART
OakLAND, California

Log of Boring EB-1

PAGE 2 OF 2

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (Inches)			
17					0.1		
18				45/60	0.1	SM	
19					0.0		
20					0.1		
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							

DRAFT

TEST ENVIRONMENTAL INCHES 750650003 LAKE MERRITT BART.GPJ T&R.GDT. 3/12/20

Boring terminated at a depth of 20 feet below ground surface.
Boring backfilled with cement grout.
Groundwater encountered at a depth of 9.91 feet.



Project No.:
750650003\

Figure:
A-1b

PROJECT:

LAKE MERRITT - BART
OakLAND, California

Log of Boring EB-2

PAGE 1 OF 2

Boring location: See Site Plan, Figure 2

Logged by: OX/NM
Drilled By: Penecore

Date started: 3/7/20

Date finished: 3/7/20

Drilling method: Direct Push

Hammer weight/drop:

Hammer type: N/A

Sampler: Continuous core

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (Inches)			
1					0.1	SM	SILTY SAND (SM) red-brown, dry medium dense, medium to fines, 80% sand, 20% fines
2					0.1		
3			44/ 60		0.1		
4					0.1		
5					0.1		
6					0.1		
7					0.1		
8			50/ 60		0.1		
9					0.1		
10					0.1		
11			31/ 30		0.1		
12					0.1		
13					0.1	MH	SILTY CLAY (MH) yellow-brown and red strings, very stiff, dry, 90% fines, 10% sand
14			36/ 30		0.1		
15					0.1		
16			54/ 60		0.1		

DRAFT

TEST ENVIRONMENTAL INCHES 750650003 LAKE MERRITT BART.GPJ T&R.GDT. 3/12/20



Project No.: 750650003\

Figure: A-2a

PROJECT:

LAKE MERRITT - BART
OakLAND, California

Log of Boring EB-2

PAGE 2 OF 2

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (Inches)			
17					0.1		
18				54/ 60	0.1	MH	
19					0.1		
20					0.1		
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							

DRAFT

TEST ENVIRONMENTAL INCHES 750650003 LAKE MERRITT BART.GPJ T&R.GDT. 3/12/20

Boring terminated at a depth of 20 feet below ground surface.
Boring backfilled with cement grout.
Groundwater not encountered at time of drilling.



Project No.:
750650003\

Figure:
A-2b

PROJECT:

LAKE MERRITT - BART
OakLAND, California

Log of Boring EB-3

PAGE 1 OF 1

Boring location: See Site Plan, Figure 2

Logged by: OX/NM
Drilled By: Penecore

Date started: 3/7/20

Date finished: 3/7/20

Drilling method: Direct Push

Hammer weight/drop:

Hammer type: N/A

Sampler: Continuous core

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (Inches)			
1					0.1		<p>SILTY SANDS (SM) brown to light brown, medium dense, dry, medium to fines, 70% sand, 30% fines</p> <p style="text-align: center; font-size: 48px; opacity: 0.3; transform: rotate(-30deg);">DRAFT</p> <p style="text-align: center;">SM ▽</p> <p>moist, gray-brown</p> <p>dry</p>
					0.1		
2					0.1		
			43/ 60		0.1		
3					0.1		
4					0.1		
5					0.1		
6					0.1		
7					0.1		
			46/ 60		0.1		
8					0.1		
9					0.1		
10					0.1		
11					0.1		
12					0.1		
			60/ 60		0.1		
13					0.1		
14					0.1		
15					0.1		

TEST ENVIRONMENTAL INCHES 750650003 LAKE MERRITT BART.GPJ T&R.GDT 3/12/20

Boring terminated at a depth of 15 feet below ground surface.
Boring backfilled with cement grout.
Groundwater encountered at a depth of 7.45 feet.



Project No.: 750650003\

Figure: A-3

PROJECT:

LAKE MERRITT - BART
OakLAND, California

Log of Boring EB-4

PAGE 1 OF 1

Boring location: See Site Plan, Figure 2

Logged by: OX/NM
Drilled By: Penecore

Date started: 3/7/20

Date finished: 3/7/20

Drilling method: Direct Push

Hammer weight/drop:

Hammer type: N/A

Sampler: Continuous core

DEPTH (feet)	SAMPLES					LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (Inches)	OMV (ppm)		
1					0.1		SILTY SAND (SM) brown, medium dense, dry, medium to fines, 75% sand, 25% fines
2					0.1		
3				16/ 60	0.1		
4					0.1		
5					0.1	SM	
6					0.1		
7					0.1		
8				29/ 60	0.1		
9					0.1		
10					0.1		
11							
12							
13							
14							
15							
16							

DRAFT

TEST ENVIRONMENTAL INCHES 750650003 LAKE MERRITT BART.GPJ T&R.GDT 3/12/20

Boring terminated at a depth of 10 feet below ground surface.
Boring backfilled with cement grout.
Groundwater not encountered at time of drilling.



Project No.: 750650003\

Figure: A-4

PROJECT:

LAKE MERRITT - BART
OakLAND, California

Log of Boring EB-5

PAGE 1 OF 2

Boring location: See Site Plan, Figure 2

Logged by: OX/NM
Drilled By: Penecore

Date started: 3/7/20

Date finished: 3/7/20

Drilling method: Direct Push

Hammer weight/drop:

Hammer type: N/A

Sampler: Continuous core

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (Inches)			
1					0.1	GW	Well Graded (GW) gray to black, very loose, dry fine to coarse-grained, 80% gravel, 15% sand, 5% fines
2					0.1	SM	SILTY SAND (SM) dark brown, medium dense, dry, medium to fine, 80% sand, 5% gravel, 10% fines
3				47/ 60	0.1		
4					0.1	CL	SANDY CLAY (CL) yellow-brown, stiff, dry, 70% fines, 30% sand
5					0.1		
6					0.1		
7					0.1	CL	
8				60/ 60	0.1		
9					0.1	CL	
10					0.1		
11				32/ 30	0.1		
12					0.1	CL	
13					0.1		
14				27/ 30	0.1	CL	
15					0.1		
16				60/ 60	0.1	CL	

TEST ENVIRONMENTAL INCHES 750650003 LAKE MERRITT BART.GPJ T&R.GDT. 3/12/20

DRAFT



Project No.: 750650003\

Figure: A-5a

PROJECT:

LAKE MERRITT - BART
OakLAND, California

Log of Boring EB-5

PAGE 2 OF 2

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (Inches)			
17					0.1	CL	
18				60/60	0.1	SM	SILTY SAND (SM) yellow-brown, medium dense, moist, medium to fine, 70% sands, 30% fines
19					0.1		
20					0.1		SILTY CLAY (CL) gray-brown with yellow, stiff, dry, 90% fines 10% sands clay becomes moist
21					0.1		
22				60/60	0.1	CL	
23					0.1		
24					0.1		
25					0.1		
26				34/30	0.1	SW	GRAVELY SAND (SW) red-brown, loose, moist, 70% sand, 25% gravel, 5% fines
27					0.2		
28					0.1		
29				29/30	0.1	SW	sand becomes wet
30					0.2		
31							
32							

TEST ENVIRONMENTAL INCHES 750650003 LAKE MERRITT BART.GPJ T&R.GDT 3/12/20

Boring terminated at a depth of 30 feet below ground surface.
Boring backfilled with cement grout.
Groundwater encountered at a depth of 18.6 feet.

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Project No.:
750650003\

Figure:
A-5b

PROJECT:

LAKE MERRITT - BART
OakLAND, California

Log of Boring EB-6

PAGE 1 OF 1

Boring location: See Site Plan, Figure 2

Logged by: OX/NM
Drilled By: Penecore

Date started: 3/7/20

Date finished: 3/7/20

Drilling method: Direct Push

Hammer weight/drop:

Hammer type: N/A

Sampler: Continuous core

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (Inches)			
1					0.1	GW	Well Graded (GW) gray to black, very loose, dry, fine- to coarse-grained, 80% gravel, 15% sand, 5% fines
2					0.1		SILTY SAND (SM) dark brown, medium dense, dry, medium to fine, 75% sand, 5% gravel, 20% fines
3				48/ 60	0.1		
4					0.1		
5					0.1	SM	yellow-brown, sand percentage increases with depth
6					0.1		
7					0.1		
8				48/ 60	0.1		
9					0.1		
10					0.1		
11							
12							
13							
14							
15							
16							

TEST ENVIRONMENTAL INCHES 750650003 LAKE MERRITT BART.GPJ T&R.GDT. 3/12/20

Boring terminated at a depth of 10 feet below ground surface.
Boring backfilled with cement grout.
Groundwater not encountered at time of drilling.



Project No.: 750650003\

Figure: A-6

PROJECT:

LAKE MERRITT - BART
OakLAND, California

Log of Boring EB-7

PAGE 1 OF 1

Boring location: See Site Plan, Figure 2

Logged by: OX/NM
Drilled By: Penecore

Date started: 3/7/20

Date finished: 3/7/20

Drilling method: Direct Push

Hammer weight/drop:

Hammer type: N/A

Sampler: Continuous core

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (Inches)			
1					0.1	GW	Well Graded (GW) gray to black, very loose, dry, fine to coarse graded, 80% gravel, 15% sand, 5% fines
2					0.1	SM	SILTY SAND (SM) yellow-brown to dark brown, medium dense, dry, medium to coarse, 80% sand, 20% fines
3				52/60	0.1		
4					0.1	CL	SANDY CLAY (CL) yellow-brown, stiff, dry, 70% fines, 30% sand yellow
5					0.1		
6					0.1	CL	
7				60/60	0.1		
8					0.1		
9					0.1		
10					0.1		

TEST ENVIRONMENTAL INCHES 750650003 LAKE MERRITT BART.GPJ T&R.GDT 3/12/20

Boring terminated at a depth of 10 feet below ground surface.
Boring backfilled with cement grout.
Groundwater not encountered at time of drilling.



Project No.: 750650003\

Figure: A-7

PROJECT:

LAKE MERRITT - BART
OakLAND, California

Log of Boring EB-8

PAGE 1 OF 2

Boring location: See Site Plan, Figure 2

Logged by: OX/NM
Drilled By: Penecore

Date started: 3/7/20

Date finished: 3/7/20

Drilling method: Direct Push

Hammer weight/drop:

Hammer type: N/A

Sampler: Continuous core

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (Inches)			
1					0.0	GW	Well Graded GRAVELS (GW) gray to black, very loose, dry, fine to coarse-grained, 80% gravel, 15% sands, 5% fines
2					0.0	MH	SILTY CLAY (MH) brownish to orange with streaks of black, soft, medium dense, dry, 95% fines, 5% gravels
3				36/ 60	0.1		
4					0.1	GW	GRAVELY SANDS (GW) tan, loose, dry, 60% gravels, 30% sands, 10% fines
5					0.1	CL	SANDY CLAY (CL) yellow-brown, very stiff, dry, 70% fines, 30% sands
6					0.1		
7					0.1	CL	
8				48/ 60	0.1		
9					0.1	CL	
10					0.1		
11					0.1	CL	
12				48/ 60	0.1		
13					0.1	CL	
14					0.1		
15					0.1	CL	
16				39/ 60	0.1		

TEST ENVIRONMENTAL INCHES 750650003 LAKE MERRITT BART.GPJ T&R.GDT 3/12/20

DRAFT

LANGAN

Project No.: 750650003\

Figure: A-8a

PROJECT:

LAKE MERRITT - BART
OakLAND, California

Log of Boring EB-8

PAGE 2 OF 2

TEST ENVIRONMENTAL INCHES 750650003 LAKE MERRITT BART GP.J T&R.GDT 3/12/20

DEPTH (feet)	SAMPLES				OVM (ppm)	LITHOLOGY	MATERIAL DESCRIPTION
	Sample Number	Sample	Blow Count	Recovery (Inches)			
17					0.1	CL	
18				39/60	0.1	MH	SILTY CLAYS (MH) yellow-brown, dry, medium stiff, 80% fines, 20% sand
19					0.1		
20					0.1		CLAY (CH) gray-brown, orange and black, very stiff, dry, 95% clay, 5% sand
21					0.0		
22				52/60	0.0	CH	
23					0.0		
24					0.0		Poorly Graded SAND (SP) orange-brown, medium dense, moist, medium- to fine-grained sands, 85% sand, 10% gravel, 5% fines
25					0.0	SP	
26					0.0	SW	Well Graded SAND (SW) red to yellow, very loose, wet, fine- to coarse-grained, 90% sand, 5% gravel, 5% fines
27					0.0		
28				53/60	0.0	MH	SILTY CLAY with some SAND (MH) olive-gray, orange throughout, high plasticity, medium stiff, dry, 90% fines, 10% sand
29					0.0		
30					0.0		
31							
32							

Boring terminated at a depth of 30 feet below ground surface.
Boring backfilled with cement grout.
Groundwater encountered at a depth of 19.31 feet.

LANGAN

Project No.:
750650003\

Figure:
A-8b

UNIFIED SOIL CLASSIFICATION SYSTEM

Major Divisions		Symbols	Typical Names
Coarse-Grained Soils <small>(more than half of soil > no. 200 sieve size)</small>	Gravels <small>(More than half of coarse fraction > no. 4 sieve size)</small>	GW	Well-graded gravels or gravel-sand mixtures, little or no fines
		GP	Poorly-graded gravels or gravel-sand mixtures, little or no fines
		GM	Silty gravels, gravel-sand-silt mixtures
		GC	Clayey gravels, gravel-sand-clay mixtures
	Sands <small>(More than half of coarse fraction < no. 4 sieve size)</small>	SW	Well-graded sands or gravelly sands, little or no fines
		SP	Poorly-graded sands or gravelly sands, little or no fines
		SM	Silty sands, sand-silt mixtures
		SC	Clayey sands, sand-clay mixtures
Fine-Grained Soils <small>(more than half of soil < no. 200 sieve size)</small>	Silts and Clays <small>LL = < 50</small>	ML	Inorganic silts and clayey silts of low plasticity, sandy silts, gravelly silts
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, lean clays
		OL	Organic silts and organic silt-clays of low plasticity
	Silts and Clays <small>LL = > 50</small>	MH	Inorganic silts of high plasticity
		CH	Inorganic clays of high plasticity, fat clays
		OH	Organic silts and clays of high plasticity
Highly Organic Soils		PT	Peat and other highly organic soils

SAMPLE DESIGNATIONS/SYMBOLS

GRAIN SIZE CHART		
Classification	Range of Grain Sizes	
	U.S. Standard Sieve Size	Grain Size in Millimeters
Boulders	Above 12"	Above 305
Cobbles	12" to 3"	305 to 76.2
Gravel coarse fine	3" to No. 4 3" to 3/4" 3/4" to No. 4	76.2 to 4.76 76.2 to 19.1 19.1 to 4.76
Sand coarse medium fine	No. 4 to No. 200 No. 4 to No. 10 No. 10 to No. 40 No. 40 to No. 200	4.76 to 0.075 4.76 to 2.00 2.00 to 0.420 0.420 to 0.075
Silt and Clay	Below No. 200	Below 0.075

- Sample taken with Sprague & Henwood split-barrel sampler with a 3.0-inch outside diameter and a 2.43-inch inside diameter. Darkened area indicates soil recovered
- Classification sample taken with Standard Penetration Test sampler
- Undisturbed sample taken with thin-walled tube
- Disturbed sample
- Sampling attempted with no recovery
- Core sample
- Analytical laboratory sample
- Sample taken with Direct Push or Drive sampler
- Sonic

- Unstabilized groundwater level
- Stabilized groundwater level

SAMPLER TYPE

- C Core barrel
- CA California split-barrel sampler with 2.5-inch outside diameter and a 1.93-inch inside diameter
- D&M Dames & Moore piston sampler using 2.5-inch outside diameter, thin-walled tube
- O Osterberg piston sampler using 3.0-inch outside diameter, thin-walled Shelby tube
- PT Pitcher tube sampler using 3.0-inch outside diameter, thin-walled Shelby tube
- S&H Sprague & Henwood split-barrel sampler with a 3.0-inch outside diameter and a 2.43-inch inside diameter
- SPT Standard Penetration Test (SPT) split-barrel sampler with a 2.0-inch outside diameter and a 1.5-inch inside diameter
- ST Shelby Tube (3.0-inch outside diameter, thin-walled tube) advanced with hydraulic pressure

LANGAN
 Langan Engineering, Environmental, Surveying,
 Landscape Architecture and Geology, D.P.C.
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 Oakland, CA 94612
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Project
LAKE MERRITT BART
 OAKLAND
 ALAMEDA COUNTY CALIFORNIA

Drawing Title
SOIL CLASSIFICATION CHART

Project No.
750650003
 Date
03/10/20
 Drawn By
AG
 Checked By
AM

Figure
A-9

APPENDIX B

CERTIFIED ANALYTICAL LABORATORY REPORTS

K PRIME, Inc.

CONSULTING ANALYTICAL CHEMISTS

3621 Westwind Blvd.
Santa Rosa CA 95403
Phone: 707 527 7574
FAX: 707 527 7879

TRANSMITTAL

DATE: 3/18/2020

TO: MR. ARTHUR MACHADO
LANGAN ENGINEERING & ENVIRONMENTAL SERVICES, INC.
135 MAIN STREET, SUITE 1500
SAN FRANCISCO, CA 94105

ACCT: 4841
PROJ: 750650003

Phone: 415-955-5242
Email: amachado@langan.com

CC: MS. DUSTYNE SUTHERLAND
Email: dsutherland@langan.com

FROM: Richard A. Kagel, Ph.D. *RAK*
Laboratory Director *by AB*
3/18/20

SUBJECT: LABORATORY RESULTS FOR YOUR PROJECT 750650003

Enclosed please find K Prime's laboratory reports for the following samples:

SAMPLE ID	TYPE	DATE	TIME	KPI LAB #
EBSV-1	AIR	02/29/20	2:15	194214
EBSV-2	AIR	02/29/20	1:27	194215
EBSV-3	AIR	02/29/20	14:50	194216
EBSV-4	AIR	02/29/20	3:02	194217
EBSV-5	AIR	02/29/20	14:08	194218
EBSV-6	AIR	02/29/20	13:46	194219
EBSV-7	AIR	02/29/20	10:59	194220
EBSV-8	AIR	02/29/20	11:38	194221
DUP-1	AIR	02/29/20	00:00	194222

The above listed sample group was received on 03/02/20 and tested as requested on the chain of custody document.

Please call me if you have any questions or need further information.
Thank you for this opportunity to be of service.

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 4841
CLIENT PROJECT: 750650003


METHOD: VOCS IN AIR
REFERENCE: EPA METHOD TO 15 (GC-MS-SCAN)

SAMPLE ID: EBSV-1
LAB NO: 194214
SAMPLE TYPE: AIR
DATE SAMPLED: 2/29/2020
TIME SAMPLED: 02:15
BATCH ID: 031120A1
DATE ANALYZED: 3/17/2020

COMPOUND NAME	CAS NO.	PPB (V/V)		µg/cu. m	
		RL	SAMPLE CONC	RL	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	1.00	ND	4.95	ND
CHLOROMETHANE	74-87-3	1.00	1.85	2.07	3.82
DICHLOROTETRAFLUROETHANE	76-14-2	1.00	ND	6.99	ND
VINYL CHLORIDE	75-01-4	1.00	ND	2.58	ND
BROMOMETHANE	74-83-9	1.00	ND	3.88	ND
CHLOROETHANE	75-00-3	1.00	ND	2.64	ND
TRICHLOROFLUOROMETHANE	75-69-4	1.00	ND	5.62	ND
1,1-DICHLOROETHENE	75-35-4	1.00	ND	3.97	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	1.00	ND	7.66	ND
METHYLENE CHLORIDE	75-09-2	1.00	ND	3.47	ND
TRANS-1,2-DICHLOROETHENE	156-80-5	1.00	ND	3.96	ND
1,1-DICHLOROETHANE	75-34-3	1.00	ND	4.05	ND
CIS-1,2-DICHLOROETHENE	156-59-2	1.00	ND	3.97	ND
CHLOROFORM	67-68-3	1.00	ND	4.88	ND
1,1,1-TRICHLOROETHANE	71-55-6	1.00	ND	5.46	ND
1,2-DICHLOROETHANE	107-06-2	1.00	ND	4.05	ND
BENZENE	71-43-2	1.00	12.0	3.19	38.3
CARBON TETRACHLORIDE	56-23-5	1.00	ND	6.29	ND
1,2-DICHLOROPROPANE	78-87-5	1.00	ND	4.62	ND
TRICHLOROETHENE	79-01-6	1.00	ND	5.37	ND
CIS-1,3-DICHLOROPROPENE	10061-01-5	1.00	ND	4.54	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	1.00	ND	4.54	ND
TOLUENE	108-88-3	1.00	6.76	3.77	25.5
1,1,2-TRICHLOROETHANE	79-00-5	1.00	ND	5.46	ND
1,2-DIBROMOETHANE	106-93-4	1.00	ND	7.68	ND
TETRACHLOROETHENE	127-18-4	1.00	2.78	6.78	18.9
CHLOROENZENE	108-90-7	1.00	ND	4.60	ND
ETHYLBENZENE	100-41-4	1.00	2.77	4.34	12.0
XYLENE (M+P)	179801-29-1	2.00	11.2	8.68	48.7
STYRENE	100-42-5	1.00	ND	4.26	ND
XYLENE (O)	95-47-6	1.00	2.87	4.34	11.6
1,1,2,2-TETRACHLOROETHANE	79-34-5	1.00	ND	6.87	ND
1,3,5-TRIMETHYLBENZENE	108-67-8	1.00	ND	4.92	ND
1,2,4-TRIMETHYLBENZENE	95-83-6	1.00	ND	4.92	ND
1,3-DICHLOROBENZENE	541-73-1	1.00	ND	6.01	ND
1,4-DICHLOROBENZENE	106-46-7	1.00	ND	6.01	ND
1,2-DICHLOROBENZENE	95-50-1	1.00	ND	6.01	ND
1,2,4-TRICHLOROBENZENE	120-82-1	1.00	ND	7.42	ND
NAPHTHALENE	81-20-3	1.00	ND	5.24	ND
HEXACHLOROBUTADIENE	87-68-3	1.00	ND	10.7	ND
XYLENE (M+P+O)	1330-20-7	3.00	13.9	13.0	60.3

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
 RL - REPORTING LIMIT
 NA - NOT APPLICABLE OR AVAILABLE
 µg/cu. m VALUES ARE CALCULATED FROM PPB RESULTS USING NORMAL TEMPERATURE AND PRESSURE (NPT).

APPROVED BY: 
 DATE: 3/17/20

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 4841
CLIENT PROJECT: 750650003


METHOD: VOCS IN AIR
REFERENCE: EPA METHOD TO 15 (GC-MS-SCAN)

SAMPLE ID: EBSV-2
LAB NO: 194215
SAMPLE TYPE: AIR
DATE SAMPLED: 2/29/2020
TIME SAMPLED: 01:27
BATCH ID: 031120A1
DATE ANALYZED: 3/17/2020

COMPOUND NAME	CAS NO.	PPB (V/V)		µg/cu. m	
		RL	SAMPLE CONC	RL	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	2.50	ND	12.4	ND
CHLOROMETHANE	74-87-3	2.50	ND	5.16	ND
DICHLOROTETRAFLUROETHANE	76-14-2	2.50	ND	17.5	ND
VINYL CHLORIDE	75-01-4	2.50	ND	6.39	ND
BROMOMETHANE	74-83-9	2.50	ND	9.71	ND
CHLOROETHANE	75-00-3	2.50	ND	6.60	ND
TRICHLOROFLUOROMETHANE	75-69-4	2.50	ND	14.0	ND
1,1-DICHLOROETHENE	75-35-4	2.50	ND	9.91	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	2.50	ND	19.2	ND
METHYLENE CHLORIDE	75-09-2	2.50	ND	8.68	ND
TRANS-1,2-DICHLOROETHENE	156-60-5	2.50	ND	9.91	ND
1,1-DICHLOROETHANE	75-34-3	2.50	ND	10.1	ND
CIS-1,2-DICHLOROETHENE	156-59-2	2.50	ND	9.91	ND
CHLOROFORM	67-66-3	2.50	ND	12.2	ND
1,1,1-TRICHLOROETHANE	71-55-6	2.50	ND	13.6	ND
1,2-DICHLOROETHANE	107-06-2	2.50	ND	10.1	ND
BENZENE	71-43-2	2.50	ND	7.99	ND
CARBON TETRACHLORIDE	56-23-5	2.50	ND	15.7	ND
1,2-DICHLOROPROPANE	78-87-5	2.50	ND	11.6	ND
TRICHLOROETHENE	79-01-6	2.50	ND	13.4	ND
CIS-1,3-DICHLOROPROPENE	10061-01-5	2.50	ND	11.3	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	2.50	ND	11.3	ND
TOLUENE	108-88-3	2.50	3.89	9.42	14.7
1,1,2-TRICHLOROETHANE	79-00-5	2.50	ND	13.6	ND
1,2-DIBROMOETHANE	106-93-4	2.50	ND	19.2	ND
TETRACHLOROETHENE	127-18-4	2.50	195	17.0	1320
CHLOROBENZENE	108-90-7	2.50	ND	11.5	ND
ETHYLBENZENE	100-41-4	2.50	193	10.9	838
XYLENE (M+P)	179601-23-1	5.00	855	21.7	3710
STYRENE	100-42-5	2.50	ND	10.6	ND
XYLENE (O)	95-47-6	2.50	209	10.9	908
1,1,2,2-TETRACHLOROETHANE	79-34-5	2.50	ND	17.2	ND
1,3,5-TRIMETHYLBENZENE	108-67-8	2.50	ND	12.3	ND
1,2,4-TRIMETHYLBENZENE	95-68-6	2.50	ND	12.3	ND
1,3-DICHLOROBENZENE	541-73-1	2.50	ND	15.0	ND
1,4-DICHLOROBENZENE	106-46-7	2.50	ND	15.0	ND
1,2-DICHLOROBENZENE	95-50-1	2.50	ND	15.0	ND
1,2,4-TRICHLOROBENZENE	120-82-1	2.50	ND	18.6	ND
NAPHTHALENE	91-20-3	2.50	ND	13.1	ND
HEXACHLOROBUTADIENE	87-68-3	2.50	ND	26.7	ND
XYLENE (M+P+O)	1330-20-7	7.50	1060	32.6	4620

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
 RL - REPORTING LIMIT
 NA - NOT APPLICABLE OR AVAILABLE
 µg/cu. m VALUES ARE CALCULATED FROM PPB RESULTS USING NORMAL TEMPERATURE AND PRESSURE (NPT).

APPROVED BY: 
 DATE: 3/17/20

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 4841
CLIENT PROJECT: 750650003

METHOD: VOCS IN AIR
REFERENCE: EPA METHOD TO 15 (GC-MS-SCAN)

SAMPLE ID: EBSV-3
LAB NO: 194216
SAMPLE TYPE: AIR
DATE SAMPLED: 2/29/2020
TIME SAMPLED: 14:50
BATCH ID: 031120A1
DATE ANALYZED: 3/17/2020

COMPOUND NAME	CAS NO.	PPB (V/V)		µg/cu. m	
		RL	SAMPLE CONC	RL	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	1.00	ND	4.95	ND
CHLOROMETHANE	74-87-3	1.00	ND	2.07	ND
DICHLOROTETRAFLUOROETHANE	76-14-2	1.00	ND	6.99	ND
VINYL CHLORIDE	75-01-4	1.00	ND	2.56	ND
BROMOMETHANE	74-83-9	1.00	ND	3.88	ND
CHLOROETHANE	75-00-3	1.00	ND	2.64	ND
TRICHLOROFLUOROMETHANE	75-69-4	1.00	ND	5.62	ND
1,1-DICHLOROETHENE	75-35-4	1.00	ND	3.97	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	1.00	ND	7.66	ND
METHYLENE CHLORIDE	75-09-2	1.00	ND	3.47	ND
TRANS-1,2-DICHLOROETHENE	156-80-5	1.00	ND	3.96	ND
1,1-DICHLOROETHANE	75-34-3	1.00	ND	4.05	ND
CIS-1,2-DICHLOROETHENE	156-59-2	1.00	ND	3.97	ND
CHLOROFORM	67-66-3	1.00	ND	4.88	ND
1,1,1-TRICHLOROETHANE	71-55-6	1.00	ND	5.46	ND
1,2-DICHLOROETHANE	107-06-2	1.00	ND	4.05	ND
BENZENE	71-43-2	1.00	5.35	3.19	17.1
CARBON TETRACHLORIDE	56-23-5	1.00	ND	6.29	ND
1,2-DICHLOROPROPANE	78-87-5	1.00	ND	4.62	ND
TRICHLOROETHENE	79-01-6	1.00	ND	5.37	ND
CIS-1,3-DICHLOROPROPENE	10061-01-5	1.00	ND	4.54	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	1.00	ND	4.54	ND
TOLUENE	108-88-3	1.00	4.23	3.77	15.9
1,1,2-TRICHLOROETHANE	79-00-5	1.00	ND	5.46	ND
1,2-DIBROMOETHANE	106-93-4	1.00	ND	7.68	ND
TETRACHLOROETHENE	127-18-4	1.00	6.73	6.78	45.7
CHLOROBENZENE	108-90-7	1.00	ND	4.60	ND
ETHYLBENZENE	100-41-4	1.00	ND	4.34	ND
XYLENE (M+P)	179801-23-1	2.00	ND	8.68	ND
STYRENE	100-42-5	1.00	ND	4.26	ND
XYLENE (O)	95-47-6	1.00	ND	4.34	ND
1,1,2,2-TETRACHLOROETHANE	79-34-5	1.00	ND	6.87	ND
1,3,5-TRIMETHYLBENZENE	108-67-8	1.00	ND	4.92	ND
1,2,4-TRIMETHYLBENZENE	95-63-6	1.00	ND	4.92	ND
1,3-DICHLOROBENZENE	541-73-1	1.00	ND	6.01	ND
1,4-DICHLOROBENZENE	106-46-7	1.00	ND	6.01	ND
1,2-DICHLOROBENZENE	95-50-1	1.00	ND	6.01	ND
1,2,4-TRICHLOROBENZENE	120-82-1	1.00	ND	7.42	ND
NAPHTHALENE	91-20-3	1.00	ND	5.24	ND
HEXACHLOROBUTADIENE	87-68-3	1.00	ND	10.7	ND
XYLENE (M+P+O)	1330-20-7	3.00	ND	13.0	ND

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

RL - REPORTING LIMIT

NA - NOT APPLICABLE OR AVAILABLE

µg/cu. m VALUES ARE CALCULATED FROM PPB RESULTS USING NORMAL TEMPERATURE AND PRESSURE (NPT).

APPROVED BY: _____

DATE: 3/17/20

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 4841
CLIENT PROJECT: 750650003

METHOD: VOCS IN AIR
REFERENCE: EPA METHOD TO 15 (GC-MS-SCAN)

SAMPLE ID: EBSV-4
LAB NO: 194217
SAMPLE TYPE: AIR
DATE SAMPLED: 2/29/2020
TIME SAMPLED: 03:02
BATCH ID: 031120A1
DATE ANALYZED: 3/16/2020

COMPOUND NAME	CAS NO.	PPB (V/V)		µg/cu. m	
		RL	SAMPLE CONC	RL	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	4.00	ND	19.8	ND
CHLOROMETHANE	74-87-3	4.00	ND	8.26	ND
DICHLOROTETRAFLUROETHANE	78-14-2	4.00	ND	28.0	ND
VINYL CHLORIDE	75-01-4	4.00	ND	10.2	ND
BROMOMETHANE	74-83-9	4.00	ND	15.5	ND
CHLOROETHANE	75-00-3	4.00	ND	10.6	ND
TRICHLOROFLUOROMETHANE	75-69-4	4.00	ND	22.5	ND
1,1-DICHLOROETHENE	75-35-4	4.00	ND	15.9	ND
TRICHLOROTRIFLUOROETHANE	78-13-1	4.00	ND	30.7	ND
METHYLENE CHLORIDE	75-09-2	4.00	ND	13.9	ND
TRANS-1,2-DICHLOROETHENE	156-60-5	4.00	ND	15.9	ND
1,1-DICHLOROETHANE	75-34-3	4.00	ND	16.2	ND
CIS-1,2-DICHLOROETHENE	156-59-2	4.00	ND	15.9	ND
CHLOROFORM	67-66-3	4.00	ND	19.5	ND
1,1,1-TRICHLOROETHANE	71-55-6	4.00	ND	21.8	ND
1,2-DICHLOROETHANE	107-06-2	4.00	ND	16.2	ND
BENZENE	71-43-2	4.00	7.13	12.8	22.8
CARBON TETRACHLORIDE	56-23-5	4.00	ND	25.2	ND
1,2-DICHLOROPROPANE	78-87-5	4.00	ND	16.5	ND
TRICHLOROETHENE	79-01-6	4.00	ND	21.5	ND
CIS-1,3-DICHLOROPROPENE	10061-01-5	4.00	ND	18.2	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	4.00	ND	18.2	ND
TOLUENE	108-88-3	4.00	5.00	15.1	18.8
1,1,2-TRICHLOROETHANE	79-00-5	4.00	ND	21.8	ND
1,2-DIBROMOETHANE	106-93-4	4.00	ND	30.7	ND
TETRACHLOROETHENE	127-18-4	4.00	ND	27.1	ND
CHLOROBENZENE	108-90-7	4.00	ND	18.4	ND
ETHYLBENZENE	100-41-4	4.00	81.9	17.4	355
XYLENE (M+P)	179601-23-1	6.00	311	34.7	1350
STYRENE	100-42-5	4.00	ND	17.0	ND
XYLENE (O)	95-47-6	4.00	63.2	17.4	274
1,1,2,2-TETRACHLOROETHANE	79-34-5	4.00	ND	27.5	ND
1,3,5-TRIMETHYLBENZENE	108-67-8	4.00	ND	19.7	ND
1,2,4-TRIMETHYLBENZENE	95-63-6	4.00	ND	19.7	ND
1,3-DICHLOROBENZENE	541-73-1	4.00	ND	24.1	ND
1,4-DICHLOROBENZENE	106-46-7	4.00	ND	24.1	ND
1,2-DICHLOROBENZENE	95-50-1	4.00	ND	24.1	ND
1,2,4-TRICHLOROBENZENE	120-82-1	4.00	ND	29.7	ND
NAPHTHALENE	81-20-3	4.00	ND	21.0	ND
HEXACHLOROBUTADIENE	87-68-3	4.00	ND	42.7	ND
XYLENE (M+P+O)	1330-20-7	12.0	375	52.1	1630

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

RL - REPORTING LIMIT

NA - NOT APPLICABLE OR AVAILABLE

µg/cu. m VALUES ARE CALCULATED FROM PPB RESULTS USING NORMAL TEMPERATURE AND PRESSURE (NPT).

APPROVED BY:

DATE:

[Signature]
3/17/20

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 4841
CLIENT PROJECT: 750650003

METHOD: VOCS IN AIR
REFERENCE: EPA METHOD TO 15 (GC-MS-SCAN)

SAMPLE ID: EBSV-5
LAB NO: 194218
SAMPLE TYPE: AIR
DATE SAMPLED: 2/29/2020
TIME SAMPLED: 14:08
BATCH ID: 031120A1
DATE ANALYZED: 3/16/2020

COMPOUND NAME	CAS NO.	PPB (V/V)		µg/cu. m	
		RL	SAMPLE CONC	RL	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	2.00	ND	9.89	ND
CHLOROMETHANE	74-87-3	2.00	ND	4.13	ND
DICHLOROTETRAFLUROETHANE	76-14-2	2.00	ND	14.0	ND
VINYL CHLORIDE	75-01-4	2.00	ND	5.11	ND
BROMOMETHANE	74-83-9	2.00	ND	7.77	ND
CHLOROETHANE	75-00-3	2.00	ND	5.28	ND
TRICHLOROFLUOROMETHANE	75-69-4	2.00	ND	11.2	ND
1,1-DICHLOROETHENE	75-35-4	2.00	ND	7.93	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	2.00	ND	15.3	ND
METHYLENE CHLORIDE	75-09-2	2.00	ND	6.95	ND
TRANS-1,2-DICHLOROETHENE	156-60-5	2.00	ND	7.93	ND
1,1-DICHLOROETHANE	75-34-3	2.00	ND	8.10	ND
CIS-1,2-DICHLOROETHENE	156-59-2	2.00	ND	7.93	ND
CHLOROFORM	67-66-3	2.00	ND	9.77	ND
1,1,1-TRICHLOROETHANE	71-55-6	2.00	ND	10.9	ND
1,2-DICHLOROETHANE	107-06-2	2.00	ND	8.09	ND
BENZENE	71-43-2	2.00	ND	6.39	ND
CARBON TETRACHLORIDE	58-23-5	2.00	ND	12.6	ND
1,2-DICHLOROPROPANE	78-87-5	2.00	ND	9.24	ND
TRICHLOROETHENE	79-01-6	2.00	ND	10.7	ND
CIS-1,3-DICHLOROPROPENE	10061-01-5	2.00	ND	9.08	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	2.00	ND	9.08	ND
TOLUENE	108-88-3	2.00	2.67	7.54	10.1
1,1,2-TRICHLOROETHANE	79-00-5	2.00	ND	10.9	ND
1,2-DIBROMOETHANE	106-93-4	2.00	ND	15.4	ND
TETRACHLOROETHENE	127-18-4	2.00	ND	13.6	ND
CHLOROBENZENE	108-90-7	2.00	ND	9.21	ND
ETHYLBENZENE	100-41-4	2.00	90.5	8.68	393
XYLENE (M+P)	179601-23-1	4.00	364	17.4	1580
STYRENE	100-42-5	2.00	ND	8.52	ND
XYLENE (O)	95-47-6	2.00	78.6	8.68	341
1,1,2,2-TETRACHLOROETHANE	79-34-5	2.00	ND	13.7	ND
1,3,5-TRIMETHYLBENZENE	108-67-8	2.00	2.03	9.83	9.98
1,2,4-TRIMETHYLBENZENE	95-83-6	2.00	ND	9.83	ND
1,3-DICHLOROBENZENE	541-73-1	2.00	ND	12.0	ND
1,4-DICHLOROBENZENE	106-46-7	2.00	ND	12.0	ND
1,2-DICHLOROBENZENE	95-50-1	2.00	ND	12.0	ND
1,2,4-TRICHLOROBENZENE	120-82-1	2.00	ND	14.8	ND
NAPHTHALENE	91-20-3	2.00	ND	10.5	ND
HEXACHLOROBUTADIENE	87-68-3	2.00	ND	21.3	ND
XYLENE (M+P+O)	1330-20-7	6.00	443	26.1	1920

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

RL - REPORTING LIMIT

NA - NOT APPLICABLE OR AVAILABLE

µg/cu. m VALUES ARE CALCULATED FROM PPB RESULTS USING NORMAL TEMPERATURE AND PRESSURE (NPT).

APPROVED BY: _____

DATE: 3/7/20

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 4841
CLIENT PROJECT: 750650003


METHOD: VOCS IN AIR
REFERENCE: EPA METHOD TO 15 (GC-MS-SCAN)

SAMPLE ID: EBSV-6
LAB NO: 194219
SAMPLE TYPE: AIR
DATE SAMPLED: 2/29/2020
TIME SAMPLED: 13:46
BATCH ID: 031120A1
DATE ANALYZED: 3/16/2020

COMPOUND NAME	CAS NO.	PPB (V/V)		µg/cu. m	
		RL	SAMPLE CONC	RL	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	4.00	ND	19.8	ND
CHLOROMETHANE	74-87-3	4.00	ND	8.26	ND
DICHLOROTETRAFLUROETHANE	76-14-2	4.00	ND	28.0	ND
VINYL CHLORIDE	75-01-4	4.00	ND	10.2	ND
BROMOMETHANE	74-83-9	4.00	ND	15.5	ND
CHLOROETHANE	75-00-3	4.00	ND	10.6	ND
TRICHLOROFLUOROMETHANE	75-69-4	4.00	ND	22.5	ND
1,1-DICHLOROETHENE	75-35-4	4.00	ND	15.9	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	4.00	ND	30.7	ND
METHYLENE CHLORIDE	75-09-2	4.00	ND	13.9	ND
TRANS-1,2-DICHLOROETHENE	156-60-5	4.00	ND	15.9	ND
1,1-DICHLOROETHANE	75-34-3	4.00	ND	16.2	ND
CIS-1,2-DICHLOROETHENE	156-59-2	4.00	ND	15.9	ND
CHLOROFORM	67-68-3	4.00	ND	19.5	ND
1,1,1-TRICHLOROETHANE	71-55-6	4.00	ND	21.8	ND
1,2-DICHLOROETHANE	107-08-2	4.00	ND	18.2	ND
BENZENE	71-43-2	4.00	ND	12.8	ND
CARBON TETRACHLORIDE	56-23-5	4.00	ND	25.2	ND
1,2-DICHLOROPROPANE	78-87-5	4.00	ND	18.5	ND
TRICHLOROETHENE	79-01-6	4.00	ND	21.5	ND
CIS-1,3-DICHLOROPROPENE	10061-01-5	4.00	ND	18.2	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	4.00	ND	18.2	ND
TOLUENE	108-88-3	4.00	4.05	15.1	15.3
1,1,2-TRICHLOROETHANE	79-00-5	4.00	ND	21.8	ND
1,2-DIBROMOETHANE	106-93-4	4.00	ND	30.7	ND
TETRACHLOROETHENE	127-18-4	4.00	ND	27.1	ND
CHLOROBENZENE	108-90-7	4.00	6.44	18.4	29.6
ETHYLBENZENE	100-41-4	4.00	214	17.4	928
XYLENE (M+P)	179601-29-1	8.00	875	34.7	3800
STYRENE	100-42-5	4.00	ND	17.0	ND
XYLENE (O)	95-47-6	4.00	187	17.4	814
1,1,2,2-TETRACHLOROETHANE	79-34-6	4.00	ND	27.5	ND
1,3,5-TRIMETHYLBENZENE	108-67-8	4.00	ND	19.7	ND
1,2,4-TRIMETHYLBENZENE	95-63-6	4.00	ND	19.7	ND
1,3-DICHLOROBENZENE	541-73-1	4.00	ND	24.1	ND
1,4-DICHLOROBENZENE	106-46-7	4.00	ND	24.1	ND
1,2-DICHLOROBENZENE	95-50-1	4.00	ND	24.1	ND
1,2,4-TRICHLOROBENZENE	120-82-1	4.00	ND	29.7	ND
NAPHTHALENE	91-20-3	4.00	ND	21.0	ND
HEXACHLOROBUTADIENE	87-68-3	4.00	ND	42.7	ND
XYLENE (M+P+O)	1330-20-7	12.0	1060	52.1	4610

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
 RL - REPORTING LIMIT
 NA - NOT APPLICABLE OR AVAILABLE
 µg/cu. m VALUES ARE CALCULATED FROM PPB RESULTS USING NORMAL TEMPERATURE AND PRESSURE (NPT).

APPROVED BY: 
 DATE: 3/7/20

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 4841
CLIENT PROJECT: 750650003

METHOD: VOCS IN AIR
REFERENCE: EPA METHOD TO 15 (GC-MS-SCAN)

SAMPLE ID: EBSV-7
LAB NO: 194220
SAMPLE TYPE: AIR
DATE SAMPLED: 2/29/2020
TIME SAMPLED: 10:59
BATCH ID: 031120A1
DATE ANALYZED: 3/17/2020

COMPOUND NAME	CAS NO.	PPB (V/V)		µg/cu. m	
		RL	SAMPLE CONC	RL	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	20.0	ND	98.9	ND
CHLOROMETHANE	74-87-3	20.0	ND	41.3	ND
DICHLOROTETRAFLUROETHANE	76-14-2	20.0	ND	140	ND
VINYL CHLORIDE	75-01-4	20.0	ND	51.1	ND
BROMOMETHANE	74-83-9	20.0	ND	77.7	ND
CHLOROETHANE	75-00-3	20.0	ND	52.8	ND
TRICHLOROFLUOROMETHANE	75-69-4	20.0	ND	112	ND
1,1-DICHLOROETHENE	75-35-4	20.0	ND	79.3	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	20.0	ND	153	ND
METHYLENE CHLORIDE	75-09-2	20.0	ND	69.5	ND
TRANS-1,2-DICHLOROETHENE	156-60-5	20.0	ND	79.3	ND
1,1-DICHLOROETHANE	75-34-3	20.0	ND	81.0	ND
CIS-1,2-DICHLOROETHENE	156-59-2	20.0	ND	79.3	ND
CHLOROFORM	67-66-3	20.0	ND	97.7	ND
1,1,1-TRICHLOROETHANE	71-55-6	20.0	ND	109	ND
1,2-DICHLOROETHANE	107-06-2	20.0	ND	80.9	ND
BENZENE	71-43-2	20.0	ND	63.9	ND
CARBON TETRACHLORIDE	56-23-5	20.0	ND	126	ND
1,2-DICHLOROPROPANE	78-87-5	20.0	ND	92.4	ND
TRICHLOROETHENE	79-01-6	20.0	ND	107	ND
CIS-1,3-DICHLOROPROPENE	10061-01-5	20.0	ND	90.8	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	20.0	ND	90.8	ND
TOLUENE	108-88-3	20.0	ND	75.4	ND
1,1,2-TRICHLOROETHANE	79-00-5	20.0	ND	109	ND
1,2-DIBROMOETHANE	106-93-4	20.0	ND	154	ND
TETRACHLOROETHENE	127-18-4	20.0	ND	136	ND
CHLOROBENZENE	108-90-7	20.0	ND	92.1	ND
ETHYLBENZENE	100-41-4	20.0	1010	86.8	4410
XYLENE (M+P)	179601-29-1	40.0	3960	174	17200
STYRENE	100-42-5	20.0	ND	85.2	ND
XYLENE (O)	95-47-6	20.0	804	86.8	3490
1,1,2,2-TETRACHLOROETHANE	79-34-5	20.0	ND	137	ND
1,3,5-TRIMETHYLBENZENE	108-67-8	20.0	ND	98.3	ND
1,2,4-TRIMETHYLBENZENE	95-63-6	20.0	ND	98.3	ND
1,3-DICHLOROBENZENE	541-73-1	20.0	ND	120	ND
1,4-DICHLOROBENZENE	106-46-7	20.0	ND	120	ND
1,2-DICHLOROBENZENE	95-50-1	20.0	ND	120	ND
1,2,4-TRICHLOROBENZENE	120-82-1	20.0	ND	148	ND
NAPHTHALENE	91-20-3	20.0	ND	105	ND
HEXACHLOROBUTADIENE	87-68-3	20.0	ND	213	ND
XYLENE (M+P+O)	1330-20-7	60.0	4760	261	20700

NOTES:

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RL - REPORTING LIMIT

NA - NOT APPLICABLE OR AVAILABLE

µg/cu. m VALUES ARE CALCULATED FROM PPB RESULTS USING NORMAL TEMPERATURE AND PRESSURE (NPT).

APPROVED BY: _____

DATE: 3/17/20

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 4841
CLIENT PROJECT: 750650003

METHOD: VOCS IN AIR
REFERENCE: EPA METHOD TO 15 (GC-MS-SCAN)

SAMPLE ID: EBSV-8
LAB NO: 194221
SAMPLE TYPE: AIR
DATE SAMPLED: 2/29/2020
TIME SAMPLED: 11:38
BATCH ID: 031120A1
DATE ANALYZED: 3/17/2020

COMPOUND NAME	CAS NO.	PPB (V/V)		µg/cu. m	
		RL	SAMPLE CONC	RL	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	10.0	ND	49.5	ND
CHLOROMETHANE	74-87-3	10.0	ND	20.7	ND
DICHLOROTETRAFLUROETHANE	76-14-2	10.0	ND	69.9	ND
VINYL CHLORIDE	75-01-4	10.0	ND	25.6	ND
BROMOMETHANE	74-83-9	10.0	ND	38.8	ND
CHLOROETHANE	75-00-3	10.0	ND	26.4	ND
TRICHLOROFLUOROMETHANE	75-69-4	10.0	ND	56.2	ND
1,1-DICHLOROETHENE	75-35-4	10.0	ND	39.7	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	10.0	ND	76.8	ND
METHYLENE CHLORIDE	75-09-2	10.0	ND	34.7	ND
TRANS-1,2-DICHLOROETHENE	156-80-5	10.0	ND	39.6	ND
1,1-DICHLOROETHANE	75-34-3	10.0	ND	40.5	ND
CIS-1,2-DICHLOROETHENE	156-59-2	10.0	ND	39.7	ND
CHLOROFORM	67-66-3	10.0	ND	48.8	ND
1,1,1-TRICHLOROETHANE	71-55-6	10.0	ND	54.6	ND
1,2-DICHLOROETHANE	107-06-2	10.0	ND	40.5	ND
BENZENE	71-43-2	10.0	ND	31.9	ND
CARBON TETRACHLORIDE	56-23-5	10.0	ND	62.9	ND
1,2-DICHLOROPROPANE	78-87-5	10.0	ND	46.2	ND
TRICHLOROETHENE	79-01-6	10.0	ND	53.7	ND
CIS-1,3-DICHLOROPROPENE	10061-01-5	10.0	ND	45.4	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	10.0	ND	45.4	ND
TOLUENE	108-88-3	10.0	17.3	37.7	65.1
1,1,2-TRICHLOROETHANE	79-00-5	10.0	ND	54.6	ND
1,2-DIBROMOETHANE	106-93-4	10.0	ND	76.8	ND
TETRACHLOROETHENE	127-18-4	10.0	ND	67.8	ND
CHLOROBENZENE	108-90-7	10.0	ND	46.0	ND
ETHYLBENZENE	100-41-4	10.0	1030	43.4	4490
XYLENE (M+P)	179601-23-1	20.0	3860	86.8	16800
STYRENE	100-42-5	10.0	ND	42.6	ND
XYLENE (O)	95-47-6	10.0	750	43.4	3260
1,1,2,2-TETRACHLOROETHANE	79-34-5	10.0	ND	68.7	ND
1,3,5-TRIMETHYLBENZENE	108-67-8	10.0	ND	49.2	ND
1,2,4-TRIMETHYLBENZENE	95-63-6	10.0	ND	49.2	ND
1,3-DICHLOROBENZENE	541-73-1	10.0	ND	60.1	ND
1,4-DICHLOROBENZENE	106-46-7	10.0	ND	60.1	ND
1,2-DICHLOROBENZENE	95-50-1	10.0	ND	60.1	ND
1,2,4-TRICHLOROBENZENE	120-82-1	10.0	ND	74.2	ND
NAPHTHALENE	91-20-3	10.0	ND	52.4	ND
HEXACHLOROBUTADIENE	87-68-3	10.0	ND	107	ND
XYLENE (M+P+O)	1330-20-7	30.0	4610	130	20000

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
 RL - REPORTING LIMIT
 NA - NOT APPLICABLE OR AVAILABLE
 µg/cu. m VALUES ARE CALCULATED FROM PPB RESULTS USING NORMAL TEMPERATURE AND PRESSURE (NPT).

APPROVED BY: 
 DATE: 3/17/20

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 4841
CLIENT PROJECT: 750650003

METHOD: VOCS IN AIR
REFERENCE: EPA METHOD TO 15 (GC-MS-SCAN)

SAMPLE ID: DUP-1
LAB NO: 194222
SAMPLE TYPE: AIR
DATE SAMPLED: 2/29/2020
TIME SAMPLED: 00:00
BATCH ID: 031120A1
DATE ANALYZED: 3/17/2020

COMPOUND NAME	CAS NO.	PPB (V/V)		µg/cu. m	
		RL	SAMPLE CONC	RL	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	1.00	ND	4.95	ND
CHLOROMETHANE	74-87-3	1.00	ND	2.07	ND
DICHLOROTETRAFLUOROETHANE	76-14-2	1.00	ND	6.99	ND
VINYL CHLORIDE	75-01-4	1.00	ND	2.58	ND
BROMOMETHANE	74-83-9	1.00	ND	3.88	ND
CHLOROETHANE	75-00-3	1.00	ND	2.64	ND
TRICHLOROFLUOROMETHANE	75-89-4	1.00	ND	5.62	ND
1,1-DICHLOROETHENE	75-35-4	1.00	ND	3.97	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	1.00	ND	7.66	ND
METHYLENE CHLORIDE	75-09-2	1.00	ND	3.47	ND
TRANS-1,2-DICHLOROETHENE	156-60-5	1.00	ND	3.96	ND
1,1-DICHLOROETHANE	75-34-3	1.00	ND	4.05	ND
CIS-1,2-DICHLOROETHENE	156-59-2	1.00	ND	3.97	ND
CHLOROFORM	67-66-3	1.00	ND	4.88	ND
1,1,1-TRICHLOROETHANE	71-55-6	1.00	ND	5.46	ND
1,2-DICHLOROETHANE	107-06-2	1.00	ND	4.65	ND
BENZENE	71-43-2	1.00	3.02	3.19	9.65
CARBON TETRACHLORIDE	56-23-5	1.00	ND	6.29	ND
1,2-DICHLOROPROPANE	78-87-5	1.00	ND	4.62	ND
TRICHLOROETHENE	79-01-6	1.00	ND	5.37	ND
CIS-1,3-DICHLOROPROPENE	10061-01-5	1.00	ND	4.54	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	1.00	ND	4.54	ND
TOLUENE	108-88-3	1.00	2.30	3.77	8.67
1,1,2-TRICHLOROETHANE	79-00-5	1.00	ND	5.46	ND
1,2-DIBROMOETHANE	106-93-4	1.00	ND	7.68	ND
TETRACHLOROETHENE	127-18-4	1.00	13.1	6.78	88.8
CHLOROBENZENE	108-90-7	1.00	ND	4.60	ND
ETHYLBENZENE	100-41-4	1.00	2.36	4.34	10.2
XYLENE (M+P)	179601-23-1	2.00	10.7	8.68	46.4
STYRENE	100-42-5	1.00	ND	4.26	ND
XYLENE (O)	95-47-6	1.00	2.61	4.34	11.3
1,1,2,2-TETRACHLOROETHANE	79-34-5	1.00	ND	6.87	ND
1,3,5-TRIMETHYLBENZENE	108-67-8	1.00	ND	4.92	ND
1,2,4-TRIMETHYLBENZENE	95-53-6	1.00	ND	4.92	ND
1,3-DICHLOROBENZENE	541-73-1	1.00	ND	6.01	ND
1,4-DICHLOROBENZENE	106-46-7	1.00	ND	6.01	ND
1,2-DICHLOROBENZENE	95-50-1	1.00	ND	6.01	ND
1,2,4-TRICHLOROBENZENE	120-82-1	1.00	ND	7.42	ND
NAPHTHALENE	81-20-3	1.00	ND	5.24	ND
HEXACHLOROBUTADIENE	87-68-3	1.00	ND	10.7	ND
XYLENE (M+P+O)	1330-20-7	3.00	13.3	13.0	57.7

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

RL - REPORTING LIMIT

NA - NOT APPLICABLE OR AVAILABLE

µg/cu. m VALUES ARE CALCULATED FROM PPB RESULTS USING NORMAL TEMPERATURE AND PRESSURE (NPT).

APPROVED BY: _____

DATE: 3/17/20

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 4841
CLIENT PROJECT: 750650003

METHOD: CARBON DIOXIDE
REFERENCE: ASTM D 1946


SAMPLE TYPE: AIR
UNITS: %-V

SAMPLE ID	LAB NO.	DATE SAMPLED	TIME SAMPLED	BATCH NO	DATE ANALYZED	MRL	SAMPLE CONC
EBSV-1	194214	02/29/2020	02:15	031020A3	03/10/2020	0.150	0.233
EBSV-2	194215	02/29/2020	01:27	031020A3	03/10/2020	0.100	2.47
EBSV-3	194216	02/29/2020	14:50	031020A3	03/10/2020	0.100	4.55
EBSV-4	194217	02/29/2020	03:02	031020A3	03/10/2020	0.200	0.565
EBSV-5	194218	02/29/2020	14:08	031020A3	03/10/2020	0.100	1.99
EBSV-6	194219	02/29/2020	13:46	031020A3	03/10/2020	0.100	2.90
EBSV-7	194220	02/29/2020	10:59	031020A3	03/10/2020	0.100	6.97
EBSV-8	194221	02/29/2020	11:38	031020A3	03/10/2020	0.100	3.39
DUP-1	194222	02/29/2020	00:00	031020A3	03/10/2020	0.100	5.66

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED METHOD REPORTING LIMIT
NA - NOT APPLICABLE OR AVAILABLE
MRL - METHOD REPORTING LIMIT

DRAFT

APPROVED BY: 
DATE: 3/11/20

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 4841
CLIENT PROJECT: 750650003

METHOD: METHANE
REFERENCE: EPA METHOD 18

SAMPLE TYPE: AIR
UNITS: PPMV

SAMPLE ID	LAB NO.	DATE SAMPLED	TIME SAMPLED	BATCH ID	DATE ANALYZED	MRL	SAMPLE CONC
EBSV-1	194214	02/29/2020	02:15	022820A1	03/09/2020	15.0	173
EBSV-2	194215	02/29/2020	01:27	022820A1	03/09/2020	10.0	17.5
EBSV-3	194216	02/29/2020	14:50	022820A1	03/09/2020	10.0	91.4
EBSV-4	194217	02/29/2020	03:02	022820A1	03/09/2020	20.0	141
EBSV-5	194218	02/29/2020	14:08	022820A1	03/09/2020	10.0	ND
EBSV-6	194219	02/29/2020	13:46	022820A1	03/09/2020	10.0	ND
EBSV-7	194220	02/29/2020	10:59	022820A1	03/09/2020	10.0	13.2
EBSV-8	194221	02/29/2020	11:38	022820A1	03/09/2020	10.0	16.3
DUP-1	194222	02/29/2020	00:00	022820A1	03/09/2020	10.0	31.6

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED METHOD REPORTING LIMIT
 NA - NOT APPLICABLE OR AVAILABLE
 MRL - METHOD REPORTING LIMIT

DRAFT

APPROVED BY: *af*
DATE: 3/10/20

K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 4841
CLIENT PROJECT: 750650003

METHOD: OXYGEN
REFERENCE: ASTM D 1946

SAMPLE TYPE: AIR
UNITS: %-V

SAMPLE ID	LAB NO.	DATE SAMPLED	TIME SAMPLED	BATCH NO	DATE ANALYZED	MRL	SAMPLE CONC
EBSV-1	194214	02/29/2020	02:15	022620A2	03/11/2020	1.50	19.2
EBSV-2	194215	02/29/2020	01:27	022620A2	03/10/2020	1.00	18.3
EBSV-3	194216	02/29/2020	14:50	022620A2	03/10/2020	1.00	13.2
EBSV-4	194217	02/29/2020	03:02	022620A2	03/11/2020	2.00	21.7
EBSV-5	194218	02/29/2020	14:08	022620A2	03/10/2020	1.00	20.7
EBSV-6	194219	02/29/2020	13:46	022620A2	03/10/2020	1.00	17.8
EBSV-7	194220	02/29/2020	10:59	022620A2	03/10/2020	1.00	19.9
EBSV-8	194221	02/29/2020	11:38	022620A2	03/10/2020	1.00	14.7
DUP-1	194222	02/29/2020	00:00	022620A2	03/10/2020	1.00	10.5

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED METHOD REPORTING LIMIT
NA - NOT APPLICABLE OR AVAILABLE
MRL - METHOD REPORTING LIMIT

DRAFT

APPROVED BY: _____
DATE: 3/12/20



K PRIME, INC.
LABORATORY REPORT

K PRIME PROJECT: 4841
CLIENT PROJECT: 750650003

METHOD: HELIUM
REFERENCE: ASTM D 1946

SAMPLE TYPE: AIR
UNITS: %-V

SAMPLE ID	LAB NO	BATCH NO	DATE SAMPLED	TIME SAMPLED	DATE ANALYZED	MRL	SAMPLE CONC
EBSV-1	194214	030620A2	02/29/2020	02:15	03/09/2020	0.150	ND
EBSV-2	194215	030620A2	02/29/2020	01:27	03/09/2020	0.100	ND
EBSV-3	194216	030620A2	02/29/2020	14:50	03/09/2020	0.100	ND
EBSV-4	194217	030620A2	02/29/2020	03:02	03/09/2020	0.200	ND
EBSV-5	194218	030620A2	02/29/2020	14:08	03/09/2020	0.100	ND
EBSV-6	194219	030620A2	02/29/2020	13:46	03/09/2020	0.100	ND
EBSV-7	194220	030620A2	02/29/2020	10:59	03/09/2020	0.100	ND
EBSV-8	194221	030620A2	02/29/2020	11:38	03/09/2020	0.100	ND
DUP-1	194222	030620A2	02/29/2020	00:00	03/09/2020	0.100	ND

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED METHOD REPORTING LIMIT
 NA - NOT APPLICABLE OR AVAILABLE
 MRL - METHOD REPORTING LIMIT

DRAFT

APPROVED BY:
 DATE: 3/9/20

K PRIME, INC.
LABORATORY METHOD BLANK REPORT

METHOD BLANK ID: B031120A1
SAMPLE TYPE: AIR

METHOD: VOCS IN AIR
REFERENCE: EPA METHOD TO 15 (GC-MS-SCAN)

BATCH ID: 031120A1
DATE ANALYZED: 3/11/2020

COMPOUND NAME	CAS NO.	PPB (V/V)		µg/cu. m	
		RL	SAMPLE CONC	RL	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	0.500	ND	2.47	ND
CHLOROMETHANE	74-87-3	0.500	ND	1.03	ND
DICHLOROTETRAFLUOROETHANE	76-14-2	0.500	ND	3.50	ND
VINYL CHLORIDE	75-01-4	0.500	ND	1.28	ND
BROMOMETHANE	74-83-9	0.500	ND	1.94	ND
CHLOROETHANE	75-00-3	0.500	ND	1.32	ND
TRICHLOROFLUOROMETHANE	75-69-4	0.500	ND	2.81	ND
1,1-DICHLOROETHENE	75-35-4	0.500	ND	1.98	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	0.500	ND	3.83	ND
METHYLENE CHLORIDE	75-09-2	0.500	ND	1.74	ND
TRANS-1,2-DICHLOROETHENE	156-60-5	0.500	ND	1.98	ND
1,1-DICHLOROETHANE	75-34-3	0.500	ND	2.02	ND
CIS-1,2-DICHLOROETHENE	156-59-2	0.500	ND	1.98	ND
CHLOROFORM	67-66-3	0.500	ND	2.44	ND
1,1,1-TRICHLOROETHANE	71-55-6	0.500	ND	2.73	ND
1,2-DICHLOROETHANE	107-06-2	0.500	ND	2.02	ND
BENZENE	71-43-2	0.500	ND	1.60	ND
CARBON TETRACHLORIDE	56-23-5	0.500	ND	3.16	ND
1,2-DICHLOROPROPANE	78-87-5	0.500	ND	2.31	ND
TRICHLOROETHENE	79-01-6	0.500	ND	2.69	ND
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.500	ND	2.27	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.500	ND	2.27	ND
TOLUENE	108-88-3	0.500	ND	1.88	ND
1,1,2-TRICHLOROETHANE	79-00-5	0.500	ND	2.73	ND
1,2-DIBROMOETHANE	106-93-4	0.500	ND	3.84	ND
TETRACHLOROETHENE	127-18-4	0.500	ND	3.39	ND
CHLOROBENZENE	108-90-7	0.500	ND	2.30	ND
ETHYLBENZENE	100-41-4	0.500	ND	2.17	ND
XYLENE (M+P)	179601-23-1	1.00	ND	4.34	ND
STYRENE	100-42-5	0.500	ND	2.13	ND
XYLENE (O)	95-47-6	0.500	ND	2.17	ND
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.500	ND	3.43	ND
1,3,5-TRIMETHYLBENZENE	108-67-8	0.500	ND	2.46	ND
1,2,4-TRIMETHYLBENZENE	95-63-6	0.500	ND	2.46	ND
1,3-DICHLOROBENZENE	541-73-1	0.500	ND	3.01	ND
1,4-DICHLOROBENZENE	106-46-7	0.500	ND	3.01	ND
1,2-DICHLOROBENZENE	95-50-1	0.500	ND	3.01	ND
1,2,4-TRICHLOROBENZENE	120-82-1	0.500	ND	3.71	ND
NAPHTHALENE	91-20-3	0.500	ND	2.62	ND
HEXACHLOROBUTADIENE	87-68-3	0.500	ND	5.33	ND
XYLENE (M+P+O)	1330-20-7	1.50	ND	6.51	ND

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

MRL - METHOD REPORTING LIMIT

NA - NOT APPLICABLE OR AVAILABLE

µg/cu. m VALUES ARE CALCULATED FROM PPB RESULTS USING NORMAL TEMPERATURE AND PRESSURE (NPT).

K PRIME, INC.
LABORATORY QUALITY CONTROL REPORT

LAB CONTROL ID: L031120A1
LAB CONTROL DUPLICATE ID: D031120A1

SAMPLE TYPE: AIR
BATCH ID: 031120A1
DATE ANALYZED: 3/11/2020

METHOD: VOCs IN AIR
REFERENCE: EPA METHOD TO 15 (GC-MS-SCAN)

COMPOUND NAME	SPIKE ADDED (PPB)	REPORTING LIMIT (PPB)	SAMPLE CONC (PPB)	SPIKE CONC (PPB)	SPIKE REC (%)	REC LIMITS (%)
1,1-DICHLOROETHENE	10.0	0.500	ND	8.66	87	60 - 140
BENZENE	10.0	0.500	ND	7.62	76	60 - 140
TRICHLOROETHENE	10.0	0.500	ND	10.3	103	60 - 140
TOLUENE	10.0	0.500	ND	8.60	86	60 - 140
TETRACHLOROETHENE	10.0	0.500	ND	11.2	112	60 - 140

COMPOUND NAME	SPIKE ADDED (PPB)	SPIKE DUP CONC (PPB)	SPIKE DUP REC (%)	RPD (%)	QC LIMITS RPD (%)	REC LIMITS (%)
1,1-DICHLOROETHENE	10.0	9.07	91	2.4	25	60 - 140
BENZENE	10.0	7.76	78	1.1	25	60 - 140
TRICHLOROETHENE	10.0	10.2	102	0.3	25	60 - 140
TOLUENE	10.0	8.57	86	0.2	25	60 - 140
TETRACHLOROETHENE	10.0	11.1	111	0.3	25	60 - 140

NOTES:

NA - NOT APPLICABLE OR AVAILABLE
 ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

K PRIME, INC.
LABORATORY BATCH QC REPORT

SAMPLE ID: B031020A3
SPIKE ID: L031020A3
DUPLICATE ID: D031020A3
BATCH NO: 031020A3
DATE ANALYZED: 03/10/2020

METHOD: CARBON DIOXIDE
REFERENCE: ASTM D 1946

SAMPLE TYPE: AIR
UNITS: %-V

METHOD BLANK

COMPOUND NAME	REPORTING LIMIT	SAMPLE RESULT
CARBON DIOXIDE	0.100	ND

ACCURACY (MATRIX SPIKE)

COMPOUND NAME	SPIKE ADDED	SAMPLE RESULT	SPIKE RESULT	RECOVERY (%)	LIMITS (%)
CARBON DIOXIDE	1.00	ND	0.960	96	70-130

PRECISION (SPIKE DUPLICATE)

COMPOUND NAME	REPORTING LIMIT	SPIKE RESULT	DUPLICATE RESULT	RPD (%)	LIMITS (%)
CARBON DIOXIDE	0.100	0.960	0.952	0.8	±20

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
NA - NOT AVAILABLE OR APPLICABLE

K PRIME, INC.
LABORATORY QC REPORT

METHOD BLANK ID: B022820A1
LAB CONTROL SAMPLE ID: L022820A1
LAB CONTROL DUPLICATE ID: D022820A1
BATCH ID: 022820A1

METHOD: METHANE
REFERENCE: EPA METHOD 18

SAMPLE TYPE: AIR
UNITS: PPM -V/V

METHOD BLANK

COMPOUND NAME	REPORTING LIMIT	SAMPLE CONC
METHANE	10.0	ND

ACCURACY (LAB CONTROL SAMPLE)

COMPOUND NAME	EXPECTED CONC	MEASURED CONC	PERCENT RECOVERY	LIMITS (PERCENT)
METHANE	1000	1030	103	60-140

PRECISION (LAB CONTROL DUPLICATE)

COMPOUND NAME	SAMPLE RESULT	DUPLICATE RESULT	RPD (PERCENT)	LIMITS (PERCENT)
METHANE	1030	1030	0.0	±30

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED METHOD REPORTING LIMIT
NA - NOT APPLICABLE OR AVAILABLE

K PRIME, INC.
LABORATORY BATCH QC REPORT

SAMPLE ID: B022620A2
SPIKE ID: L022620A2
DUPLICATE ID: D022620A2
BATCH NO: 022620A2
DATE ANALYZED: 02/26/2020

METHOD: OXYGEN
REFERENCE: ASTM D 1946

SAMPLE TYPE: AIR
UNITS: %-V

METHOD BLANK

COMPOUND NAME	REPORTING LIMIT	SAMPLE RESULT
OXYGEN	0.500	ND

ACCURACY (MATRIX SPIKE)

COMPOUND NAME	SPIKE ADDED	SAMPLE RESULT	SPIKE RESULT	RECOVERY (%)	LIMITS (%)
OXYGEN	10.0	ND	10.8	108	85-115

PRECISION (SPIKE DUPLICATE)

COMPOUND NAME	REPORTING LIMIT	SPIKE RESULT	DUPLICATE RESULT	RPD (%)	LIMITS (%)
OXYGEN	0.500	10.8	10.9	1.3	±20

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
NA - NOT AVAILABLE OR APPLICABLE

K PRIME, INC.
LABORATORY BATCH QC REPORT

SAMPLE ID: B030620A2
SPIKE ID: L030620A2
DUPLICATE ID: D030620A2
BATCH NO: 030620A2
DATE ANALYZED: 03/06/2020

METHOD: HELIUM
REFERENCE: ASTM D 1946

SAMPLE TYPE: AIR
UNITS: %-V

METHOD BLANK

COMPOUND NAME	REPORTING LIMIT	SAMPLE RESULT
HELIUM	0.100	ND

ACCURACY (MATRIX SPIKE)

COMPOUND NAME	SPIKE ADDED	SAMPLE RESULT	SPIKE RESULT	RECOVERY (%)	LIMITS (%)
HELIUM	10.0	ND	9.93	99	70-130

PRECISION (SPIKE DUPLICATE)

COMPOUND NAME	REPORTING LIMIT	SPIKE RESULT	DUPLICATE RESULT	RPD (%)	LIMITS (%)
HELIUM	0.100	9.93	9.82	1.1	±20

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT
NA - NOT AVAILABLE OR APPLICABLE



SUMMA CANISTER CHAIN OF CUSTODY

K Prime, Inc. Laboratory
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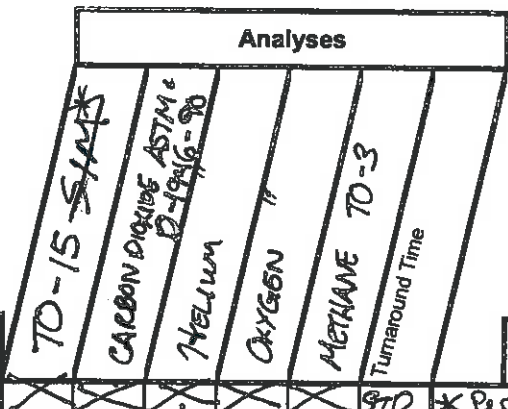
K PRIME INC.

EDF Log Code: _____

Global ID _____

Client Company: LANGAN
 Contact: ARTHUR MACHADO
 Phone: 915.955.5242
 Email: AMACHADO@LANGAN.COM
 Client Project ID: 750C50003
 CC OSUTHERLAND@LANGAN.COM

KPI Project Number
4841



	KPI LAB NO.	SAMPLE I.D. (Location)	Collection:		Canister I.D.	Controller I.D.	Pressure:						Notes
			Date	Time			Initial	Final					
1	194214	ERSV-1	2/29/20	2:15	S-129	659	-26	-13					
2	194215	ERSV-2		1:27	S-742	689	-30	-2					* Per Arthur Machado via phone on 2/6/20
3	194216	ERSV-3		14:50	S-747	699	-30	-6					
4	194217	ERSV-4		3:02	S-737	746	-30	-20					
5	194218	ERSV-5		14:08	S-213	768	-30	-3					
6	194219	ERSV-6		13:46	S-521	756	-29	-2					
7	194220	ERSV-7		10:59	S-713	664	-30	-5					
8	194221	ERSV-8		11:38	S-236	801	-28	-3					
9	194222	DUP-1		09:00			-30	-6					
10													
11													
12													
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14													
15													
16													
17													
18													
19													
20													

Relinquished by: (Signature) [Signature] Date: 3/2/20 Time: 11:57
 Received by: (Signature) [Signature]
 Relinquished by: (Signature) [Signature] Date: 3/2/20 Time: 1315
 Received by: (Signature) [Signature]
 Relinquished by: (Signature) _____ Date: _____ Time: _____
 Received by: (Signature) _____



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 2003414 A

Report Created for: Langan

135 Main St, Suite 1500
San Francisco, CA 94105

Project Contact: Arthur Machado

Project P.O.:

Project: 750650003; Lake Merritt Bart

Project Received: 03/09/2020

Analytical Report reviewed & approved for release on 03/25/2020 by:

Yen Cao

Project Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: Langan
Project: 750650003; Lake Merritt Bart
WorkOrder: 2003414 A

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
CPT	Consumer Product Testing not NELAP Accredited
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
LQL	Lowest Quantitation Level
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
TZA	TimeZone Net Adjustment for sample collected outside of MAI's UTC.
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/21/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: CA Title 22
Analytical Method: SW6020
Unit: mg/L

Metals (STLC)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-5	2003414-002A	Soil	03/07/2020 12:17	ICP-MS2 032SMPL.D	195997

Analytes	Result	RL	DF	Date Analyzed
Chromium	ND	0.10	1	03/23/2020 14:18

Analyst(s): ND

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-10	2003414-003A	Soil	03/07/2020 12:21	ICP-MS4 153SMPL.d	195997

Analytes	Result	RL	DF	Date Analyzed
Chromium	0.11	0.10	1	03/23/2020 14:12

Analyst(s): ND

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-15	2003414-004A	Soil	03/07/2020 12:25	ICP-MS4 154SMPL.d	195997

Analytes	Result	RL	DF	Date Analyzed
Chromium	0.12	0.10	1	03/23/2020 14:16

Analyst(s): ND

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-20	2003414-005A	Soil	03/07/2020 12:29	ICP-MS4 160SMPL.d	195997

Analytes	Result	RL	DF	Date Analyzed
Chromium	ND	0.10	1	03/23/2020 14:39

Analyst(s): ND

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/21/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: CA Title 22
Analytical Method: SW6020
Unit: mg/L

Metals (STLC)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-0.5	2003414-006A	Soil	03/07/2020 13:10	ICP-MS4 161SMPL.d	195997

Analytes	Result	RL	DF	Date Analyzed
Chromium	0.14	0.10	1	03/23/2020 14:43

Analyst(s): ND

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-5	2003414-007A	Soil	03/07/2020 13:00	ICP-MS4 162SMPL.d	195997

Analytes	Result	RL	DF	Date Analyzed
Chromium	0.20	0.10	1	03/23/2020 14:47

Analyst(s): ND

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-10	2003414-008A	Soil	03/07/2020 13:20	ICP-MS4 163SMPL.d	195997

Analytes	Result	RL	DF	Date Analyzed
Chromium	0.16	0.10	1	03/23/2020 14:51

Analyst(s): ND

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-15	2003414-009A	Soil	03/07/2020 13:25	ICP-MS4 164SMPL.d	195997

Analytes	Result	RL	DF	Date Analyzed
Chromium	0.12	0.10	1	03/23/2020 14:55

Analyst(s): ND

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/21/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: CA Title 22
Analytical Method: SW6020
Unit: mg/L

Metals (STLC)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-20	2003414-010A	Soil	03/07/2020 13:28	ICP-MS4 165SMPL.d	195997

Analytes	Result	RL	DF	Date Analyzed
Chromium	ND	0.10	1	03/23/2020 14:58

Analyst(s): ND

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-3-0.5	2003414-011A	Soil	03/07/2020 13:34	ICP-MS4 166SMPL.d	195997

Analytes	Result	RL	DF	Date Analyzed
Chromium	0.14	0.10	1	03/23/2020 15:02

Analyst(s): ND

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-3-5	2003414-012A	Soil	03/07/2020 13:37	ICP-MS4 167SMPL.d	195997

Analytes	Result	RL	DF	Date Analyzed
Chromium	0.14	0.10	1	03/23/2020 15:06

Analyst(s): ND

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-4-0.5	2003414-013A	Soil	03/07/2020 13:45	ICP-MS4 168SMPL.d	195997

Analytes	Result	RL	DF	Date Analyzed
Chromium	0.18	0.10	1	03/23/2020 15:10

Analyst(s): ND

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/21/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: CA Title 22
Analytical Method: SW6020
Unit: mg/L

Metals (STLC)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-4-5	2003414-014A	Soil	03/07/2020 13:50	ICP-MS4 172SMPL.d	195997

Analytes	Result	RL	DF	Date Analyzed
Chromium	ND	0.10	1	03/23/2020 15:25

Analyst(s): ND

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-5-0.5	2003414-015A	Soil	03/07/2020 10:10	ICP-MS4 173SMPL.d	195997

Analytes	Result	RL	DF	Date Analyzed
Chromium	ND	0.10	1	03/23/2020 15:29

Analyst(s): ND

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-5-5	2003414-016A	Soil	03/07/2020 10:20	ICP-MS4 174SMPL.d	195997

Analytes	Result	RL	DF	Date Analyzed
Chromium	ND	0.10	1	03/23/2020 15:33

Analyst(s): ND

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-6-0.5	2003414-017A	Soil	03/07/2020 10:00	ICP-MS4 175SMPL.d	195997

Analytes	Result	RL	DF	Date Analyzed
Chromium	ND	0.10	1	03/23/2020 15:37

Analyst(s): ND

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/21/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: CA Title 22
Analytical Method: SW6020
Unit: mg/L

Metals (STLC)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-6-5	2003414-018A	Soil	03/07/2020 10:07	ICP-MS4 176SMPL.d	195997

Analytes	Result	RL	DF	Date Analyzed
Chromium	0.11	0.10	1	03/23/2020 15:41

Analyst(s): ND

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-7-0.5	2003414-019A	Soil	03/07/2020 09:45	ICP-MS4 177SMPL.d	195997

Analytes	Result	RL	DF	Date Analyzed
Chromium	ND	0.10	1	03/23/2020 15:44

Analyst(s): ND

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-7-5	2003414-020A	Soil	03/07/2020 09:50	ICP-MS4 178SMPL.d	195997

Analytes	Result	RL	DF	Date Analyzed
Chromium	0.15	0.10	1	03/23/2020 15:48

Analyst(s): ND

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-8-0.5	2003414-021A	Soil	03/07/2020 08:44	ICP-MS4 179SMPL.d	195997

Analytes	Result	RL	DF	Date Analyzed
Chromium	ND	0.10	1	03/23/2020 15:52

Analyst(s): ND

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/21/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: CA Title 22
Analytical Method: SW6020
Unit: mg/L

Metals (STLC)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-8-5	2003414-022A	Soil	03/07/2020 08:51	ICP-MS4 180SMPL.d	195998

Analytes	Result	RL	DF	Date Analyzed
Chromium	0.11	0.10	1	03/23/2020 15:56

Analyst(s): ND

DRAFT



Quality Control Report

Client: Langan
Date Prepared: 03/21/2020
Date Analyzed: 03/23/2020
Instrument: ICP-MS2
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195997
Extraction Method: CA Title 22
Analytical Method: SW6020
Unit: mg/L
Sample ID: MB/LCS/LCSD-195997
 2003414-002AMS/MSD

QC Summary Report for Metals (STLC)

Analyte	MB Result	MDL	RL			
Chromium	ND	0.100	0.100	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Chromium	9.77	9.40	10	98	94	75-125	3.82	20

Analyte	MS DF	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Chromium	1	9.21	9.94	10	ND	92	99	75-125	7.63	20

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Chromium	ND<0.500	ND	-	-

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.

(Cont.)



Quality Control Report

Client: Langan	WorkOrder: 2003414
Date Prepared: 03/21/2020	BatchID: 195998
Date Analyzed: 03/23/2020	Extraction Method: CA Title 22
Instrument: ICP-MS2	Analytical Method: SW6020
Matrix: Soil	Unit: mg/L
Project: 750650003; Lake Merritt Bart	Sample ID: MB/LCS/LCSD-195998

QC Summary Report for Metals (STLC)

Analyte	MB Result	MDL	RL
Chromium	ND	0.100	0.100

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Chromium	9.99	9.64	10	100	96	75-125	3.53	20

DRAFT



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 2003414 **A** ClientCode: TWRF

WaterTrax WriteOn EDF

Excel EQulS Email HardCopy ThirdParty J-flag

Detection Summary Dry-Weight

Report to:

Arthur Machado
Langan
135 Main St, Suite 1500
San Francisco, CA 94105
(415) 955-5244 FAX: (415) 955-9041

Email: amachado@langan.com
cc/3rd Party: Dsutherland@langan.com;
PO:
Project: 750650003; Lake Merritt Bart

Bill to:

Accounts Payable
Langan
135 Main St, Suite 1500
San Francisco, CA 94105
Langan_InvoiceCapture@concurolutio

Requested TAT: 5 days;

Date Received: 03/09/2020

Date Logged: 03/09/2020

Date Add-On: 03/18/2020

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
2003414-002	EB-1-5	Soil	3/7/2020 12:17	<input type="checkbox"/>	A												
2003414-003	EB-1-10	Soil	3/7/2020 12:21	<input type="checkbox"/>	A												
2003414-004	EB-1-15	Soil	3/7/2020 12:25	<input type="checkbox"/>	A												
2003414-005	EB-1-20	Soil	3/7/2020 12:29	<input type="checkbox"/>	A												
2003414-006	EB-2-0.5	Soil	3/7/2020 13:10	<input type="checkbox"/>	A												
2003414-007	EB-2-5	Soil	3/7/2020 13:00	<input type="checkbox"/>	A												
2003414-008	EB-2-10	Soil	3/7/2020 13:20	<input type="checkbox"/>	A												
2003414-009	EB-2-15	Soil	3/7/2020 13:25	<input type="checkbox"/>	A												
2003414-010	EB-2-20	Soil	3/7/2020 13:28	<input type="checkbox"/>	A												
2003414-011	EB-3-0.5	Soil	3/7/2020 13:34	<input type="checkbox"/>	A												
2003414-012	EB-3-5	Soil	3/7/2020 13:37	<input type="checkbox"/>	A												
2003414-013	EB-4-0.5	Soil	3/7/2020 13:45	<input type="checkbox"/>	A												
2003414-014	EB-4-5	Soil	3/7/2020 13:50	<input type="checkbox"/>	A												
2003414-015	EB-5-0.5	Soil	3/7/2020 10:10	<input type="checkbox"/>	A												
2003414-016	EB-5-5	Soil	3/7/2020 10:20	<input type="checkbox"/>	A												

Test Legend:

1	CRMS_STLC_S	2		3		4	
5		6		7		8	
9		10		11		12	

Prepared by: Kena Ponce

Add-On Prepared By: Lilly Ortiz

Comments: STLC Cr added STAT 3/18/20

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

WaterTrax WriteOn EDF

CHAIN-OF-CUSTODY RECORD

WorkOrder: 2003414 **A** ClientCode: TWRF

Excel EQulS Email HardCopy ThirdParty J-flag
 Detection Summary Dry-Weight

Report to:

Arthur Machado
Langan
135 Main St, Suite 1500
San Francisco, CA 94105
(415) 955-5244 FAX: (415) 955-9041

Email: amachado@langan.com
cc/3rd Party: Dsutherland@langan.com;
PO:
Project: 750650003; Lake Merritt Bart

Bill to:

Accounts Payable
Langan
135 Main St, Suite 1500
San Francisco, CA 94105
Langan_InvoiceCapture@concursoft.com

Requested TAT: 5 days;

Date Received: 03/09/2020

Date Logged: 03/09/2020

Date Add-On: 03/18/2020

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
2003414-017	EB-6-0.5	Soil	3/7/2020 10:00	<input type="checkbox"/>	A												
2003414-018	EB-6-5	Soil	3/7/2020 10:07	<input type="checkbox"/>	A												
2003414-019	EB-7-0.5	Soil	3/7/2020 09:45	<input type="checkbox"/>	A												
2003414-020	EB-7-5	Soil	3/7/2020 09:50	<input type="checkbox"/>	A												
2003414-021	EB-8-0.5	Soil	3/7/2020 08:44	<input type="checkbox"/>	A												
2003414-022	EB-8-5	Soil	3/7/2020 08:51	<input type="checkbox"/>	A												

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Test Legend:

1	CRMS_STLC_S	2		3		4	
5		6		7		8	
9		10		11		12	

Prepared by: Kena Ponce

Add-On Prepared By: Lilly Ortiz

Comments: STLC Cr added STAT 3/18/20

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: LANGAN
Client Contact: Arthur Machado
Contact's Email amachado@langan.com

Project: 750650003; Lake Merritt Bart
Comments: STLC Cr added STAT 3/18/20

Work Order: 2003414
QC Level: LEVEL 2
Date Logged: 3/9/2020
Date Add-On: 3/18/2020

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
2003414-002A	EB-1-5	Soil	SW6020 (Chromium) (STLC)	1	Acetate Liner	3/7/2020 12:17	5 days*		<input type="checkbox"/>	
2003414-003A	EB-1-10	Soil	SW6020 (Chromium) (STLC)	1	Acetate Liner	3/7/2020 12:21	5 days*		<input type="checkbox"/>	
2003414-004A	EB-1-15	Soil	SW6020 (Chromium) (STLC)	1	Acetate Liner	3/7/2020 12:25	5 days*		<input type="checkbox"/>	
2003414-005A	EB-1-20	Soil	SW6020 (Chromium) (STLC)	1	Acetate Liner	3/7/2020 12:29	5 days*		<input type="checkbox"/>	
2003414-006A	EB-2-0.5	Soil	SW6020 (Chromium) (STLC)	1	Acetate Liner	3/7/2020 13:10	5 days*		<input type="checkbox"/>	
2003414-007A	EB-2-5	Soil	SW6020 (Chromium) (STLC)	1	Acetate Liner	3/7/2020 13:00	5 days*		<input type="checkbox"/>	
2003414-008A	EB-2-10	Soil	SW6020 (Chromium) (STLC)	1	Acetate Liner	3/7/2020 13:20	5 days*		<input type="checkbox"/>	
2003414-009A	EB-2-15	Soil	SW6020 (Chromium) (STLC)	1	Acetate Liner	3/7/2020 13:25	5 days*		<input type="checkbox"/>	
2003414-010A	EB-2-20	Soil	SW6020 (Chromium) (STLC)	1	Acetate Liner	3/7/2020 13:28	5 days*		<input type="checkbox"/>	
2003414-011A	EB-3-0.5	Soil	SW6020 (Chromium) (STLC)	1	Acetate Liner	3/7/2020 13:34	5 days*		<input type="checkbox"/>	
2003414-012A	EB-3-5	Soil	SW6020 (Chromium) (STLC)	1	Acetate Liner	3/7/2020 13:37	5 days*		<input type="checkbox"/>	
2003414-013A	EB-4-0.5	Soil	SW6020 (Chromium) (STLC)	1	Acetate Liner	3/7/2020 13:45	5 days*		<input type="checkbox"/>	
2003414-014A	EB-4-5	Soil	SW6020 (Chromium) (STLC)	1	Stainless Steel tube 2"x6"	3/7/2020 13:50	5 days*		<input type="checkbox"/>	
2003414-015A	EB-5-0.5	Soil	SW6020 (Chromium) (STLC)	1	Acetate Liner	3/7/2020 10:10	5 days*		<input type="checkbox"/>	
2003414-016A	EB-5-5	Soil	SW6020 (Chromium) (STLC)	1	Stainless Steel tube 2"x6"	3/7/2020 10:20	5 days*		<input type="checkbox"/>	
2003414-017A	EB-6-0.5	Soil	SW6020 (Chromium) (STLC)	1	Acetate Liner	3/7/2020 10:00	5 days*		<input type="checkbox"/>	
2003414-018A	EB-6-5	Soil	SW6020 (Chromium) (STLC)	1	Acetate Liner	3/7/2020 10:07	5 days*		<input type="checkbox"/>	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.



WORK ORDER SUMMARY

Client Name: LANGAN
Client Contact: Arthur Machado
Contact's Email amachado@langan.com


Project: 750650003; Lake Merritt Bart
Comments: STLC Cr added STAT 3/18/20

Work Order: 2003414
QC Level: LEVEL 2
Date Logged: 3/9/2020
Date Add-On: 3/18/2020

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
2003414-019A	EB-7-0.5	Soil	SW6020 (Chromium) (STLC)	1	Acetate Liner	3/7/2020 9:45	5 days*		<input type="checkbox"/>	
2003414-020A	EB-7-5	Soil	SW6020 (Chromium) (STLC)	1	Acetate Liner	3/7/2020 9:50	5 days*		<input type="checkbox"/>	
2003414-021A	EB-8-0.5	Soil	SW6020 (Chromium) (STLC)	1	Stainless Steel tube 2"x6"	3/7/2020 8:44	5 days*		<input type="checkbox"/>	
2003414-022A	EB-8-5	Soil	SW6020 (Chromium) (STLC)	1	Stainless Steel tube 2"x6"	3/7/2020 8:51	5 days*		<input type="checkbox"/>	

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NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).
- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

	McCAMPBELL ANALYTICAL, INC.		CHAIN OF CUSTODY RECORD				
	1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701		Turn Around Time: 1 Day Rush	2 Day Rush	3 Day Rush	STD <input checked="" type="checkbox"/>	Quote #
	Telephone: (877) 252-9262 / Fax: (925) 252-9269		J-Flag / MDL	ESL	Cleanup Approved	Dry Weight	Bottle Order #
	www.mccampbell.com main@mccampbell.com		Delivery Format: PDF <input checked="" type="checkbox"/>	GeoTracker EDF	EDD	Write On (DW)	Detect Summary


Report To: <u>ARTHUR MACHADO</u>	Bill To: <u>ARTHUR MACHADO/LANGAN</u>	Analysis Requested	
Company: <u>LANGAN</u>			
Address: <u>135 MAIN ST. STE. 1500</u>			
Email: <u>AMACHADO@LANGAN.COM</u> Tele: <u>415.955.5242</u>			
Project Name: <u>LAKE MERRITT BART</u> Project #: <u>750650003</u>			
Project Location: <u>OAKLAND</u> PO # <u> </u>			
Sampler Signature: <u>[Signature]</u>			

SAMPLE ID Location / Field Point	Sampling		#Containers	Matrix	Preservative	Multi Range as Gas, Diesel, and Motor Oil (8021/8015)	BTEX & TPH as Gas (8021/8015) MTBE	TPH as Diesel (8015) + Motor Oil Without Silica Gel	TPH as Diesel (8015) + Motor Oil With Silica Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/608 / 8081 (CI Pesticides)	EPA 608 / 8082 PCB's ; Aroclors only	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAS)	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)*	Baylands Requirements	Lab to filter sample for dissolved metals analysis	LUFT 5 METALS	STLC	
	Date	Time																						
EB-1-0.5	3/7/20	1205	1	SOIL	ICE	X							X	X	X								X	
EB-1-5		1217																					X	
EB-1-10		1221														X	X						X	
EB-1-15		1225														X	X						X	
EB-1-20		1229														X	X						X	
EB-2-0.5		1310																X					X	
EB-2-5		1300																					X	
EB-2-10		1326														X	X						X	
EB-2-15		1325														X	X						X	
EB-2-20	▽	1328	▽	▽	▽	▽									▽	X	X	▽					X	

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.						Comments / Instructions <u>PLEASE CC</u> <u>DSUTHERLAND@LANGAN.COM</u>	
Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.							
Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time		
<u>[Signature]</u>	3/9/20	1215	<u>[Signature]</u>	3/9/20	1215		
	3/9/20	1345	<u>[Signature]</u>	3/9/20	1345		

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other
 Preservative Code: 1=4°C 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=ZnOAc/NaOH 7=None
 Temp 0.5 °C Initials

 McCAMPBELL ANALYTICAL, INC. 1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701 Telephone: (877) 252-9262 / Fax: (925) 252-9269 www.mccampbell.com main@mccampbell.com						CHAIN OF CUSTODY RECORD																
Report To: _____						Turn Around Time: 1 Day Rush <input type="checkbox"/> 2 Day Rush <input type="checkbox"/> 3 Day Rush <input type="checkbox"/> STD <input checked="" type="checkbox"/> Quote # _____						J-Flag / MDL _____ ESL _____ Cleanup Approved <input type="checkbox"/> Dry Weight <input type="checkbox"/> Bottle Order # _____										
Company: _____						Delivery Format: PDF <input checked="" type="checkbox"/> GeoTracker EDF <input type="checkbox"/> EDD <input type="checkbox"/> Write On (DW) <input type="checkbox"/> Detect Summary <input type="checkbox"/>						Analysis Requested										
Address: SEE PAGE 1						Multi Range as Gas, Diesel, and Motor Oil (8021/8015)						BTEX & TPH as Gas (8021/ 8015) MTBE										
Email: _____						TPH as Diesel (8015) + Motor Oil Without Silica Gel						TPH as Diesel (8015) + Motor Oil With Silica Gel										
Project Name: _____						Total Oil & Grease (1664 / 9071) Without Silica Gel						Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel										
Project Location: _____						Total Petroleum Hydrocarbons (418.1) With Silica Gel						EPA 505/608 / 8081 (CI Pesticides)										
Sampler Signature: _____						EPA 608 / 8082 PCB's : Aroclors only						EPA 524.2 / 624 / 8260 (VOCs)										
SAMPLE ID		Sampling		#Containers	Matrix	Preservative	EPA 525.2 / 625 / 8270 (SVOCs)		EPA 8270 SIM / 8310 (PAHs / PNAs)		CAM 17 Metals (200.8 / 6020)*		Metals (200.8 / 6020)*		Baylands Requirements		Lab to filter sample for dissolved metals analysis		LUFT 5 METALS			
Location / Field Point		Date	Time				EPA 524.2 / 624 / 8260 (VOCs)		EPA 525.2 / 625 / 8270 (SVOCs)		EPA 8270 SIM / 8310 (PAHs / PNAs)		CAM 17 Metals (200.8 / 6020)*		Metals (200.8 / 6020)*		Baylands Requirements		Lab to filter sample for dissolved metals analysis		LUFT 5 METALS	
EB-3-0.5		3/7/20	1334	1	SOIL	ICE	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
EB-3-5			1337																			
EB-4-0.5			1345																			
EB-4-5			1350																			
EB-5-0.5			1010					X	X											X		
EB-5-5			1020							X	X										X	
EB-6-0.5			1000									X									X	
EB-6-5			1007																		X	
EB-7-0.5			0945																		X	
EB-7-5			0950																		X	
MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.																						
* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.																						
Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.																						
Relinquished By / Company Name						Date		Time		Received By / Company Name						Date		Time		Comments / Instructions		
<i>[Signature]</i>						3/9/20		1215		<i>[Signature]</i>						3/9/20		1215				
IAD						3/9/20		1345		<i>[Signature]</i>						3/9/20		1345				

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other
 Preservative Code: 1=4°C 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=ZnOAc/NaOH 7=None Temp _____ °C Initials _____



McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701
 Telephone: (877) 252-9262 / Fax: (925) 252-9269
 www.mcccampbell.com main@mcccampbell.com

CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush		2 Day Rush		3 Day Rush		STD <input checked="" type="checkbox"/>	Quote # _____
J-Flag / MDL _____	ESL _____	Cleanup Approved _____		Dry Weight _____	Bottle Order # _____		
Delivery Format: PDF <input checked="" type="checkbox"/>		GeoTracker EDF _____		EDD _____	Write On (DW) _____		Detect Summary _____

Report To: _____ Bill To: _____

Company: _____
 Address: **SEE PAGE 1**
 Email: _____ Tele: _____
 Project Name: _____ Project #: _____
 Project Location: _____ PO #: _____
 Sampler Signature: _____

Analysis Requested

SAMPLE ID Location / Field Point	Sampling		#Containers	Matrix	Preservative	Multi Range as Gas, Diesel, and Motor Oil (8021/8015)	BTEX & TPH as Gas (8021/ 8015) MTBE	TPH as Diesel (8015) + Motor Oil Without Silica Gel	TPH as Diesel (8015) + Motor Oil With Silica Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/ 608 / 8081 (CI Pesticides)	EPA 608 / 8082 PCB's ; Aroclors only	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)*	Bylands Requirements	Lab to filter sample for dissolved metals analysis	SPECIAL	
	Date	Time																				X	X
EB - 8 - 0.5	3/7/20	0844	1	SOIL	ICE	<input checked="" type="checkbox"/>							<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
EB - 8 - 5	↓	0851	↓	↓	↓	<input checked="" type="checkbox"/>									↓	X	X	↓				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
	3/9/20	1215		3/9/20	1215
LAP	3/9/20	1345		3/9/20	1245

Comments / Instructions

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other
 Preservative Code: 1=4°C 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=ZnOAc/NaOH 7=None

Temp _____ °C Initials _____



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 2003413

Report Created for: Langan

135 Main St, Suite 1500
San Francisco, CA 94105

Project Contact: Arthur Machado

Project P.O.:

Project: 750650003; Lake Merritt Bart

Project Received: 03/09/2020

Analytical Report reviewed & approved for release on 03/16/2020 by:

Angela Rydelius
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: Langan
Project: 750650003; Lake Merritt Bart
WorkOrder: 2003413

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
CPT	Consumer Product Testing not NELAP Accredited
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
LQL	Lowest Quantitation Level
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
TZA	TimeZone Net Adjustment for sample collected outside of MAI's UTC.
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



Glossary of Terms & Qualifier Definitions

Client: Langan
Project: 750650003; Lake Merritt Bart
WorkOrder: 2003413

Analytical Qualifiers

J Result is less than the RL/ML but greater than the MDL. The reported concentration is an estimated value.
a19 Reporting limit near, but not identical to our standard reporting limit due to variable sample volume
b1 Aqueous sample that contains greater than ~1 vol. % sediment
b8 Sample diluted prior to digestion due to high sediment content.
e2 Diesel range compounds are significant; no recognizable pattern
e7 Oil range compounds are significant
e8 Pattern resembles kerosene/kerosene range/jet fuel range

Quality Control Qualifiers

F2 LCS/LCSD recovery and/or RPD/RSD is out of acceptance criteria.

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/12/2020-03/14/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-1	2003413-001B	Water	03/07/2020 14:47	GC16 03122013.D	195562

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	03/12/2020 13:32
tert-Amyl methyl ether (TAME)	ND	0.50	1	03/12/2020 13:32
Benzene	ND	0.50	1	03/12/2020 13:32
Bromobenzene	ND	0.50	1	03/12/2020 13:32
Bromochloromethane	ND	0.50	1	03/12/2020 13:32
Bromodichloromethane	ND	0.50	1	03/12/2020 13:32
Bromoform	ND	0.50	1	03/12/2020 13:32
Bromomethane	ND	0.50	1	03/12/2020 13:32
2-Butanone (MEK)	ND	5.0	1	03/12/2020 13:32
t-Butyl alcohol (TBA)	ND	5.0	1	03/12/2020 13:32
n-Butyl benzene	ND	0.50	1	03/12/2020 13:32
sec-Butyl benzene	ND	0.50	1	03/12/2020 13:32
tert-Butyl benzene	ND	0.50	1	03/12/2020 13:32
Carbon Disulfide	ND	0.50	1	03/12/2020 13:32
Carbon Tetrachloride	ND	0.50	1	03/12/2020 13:32
Chlorobenzene	ND	0.50	1	03/12/2020 13:32
Chloroethane	ND	0.50	1	03/12/2020 13:32
Chloroform	ND	0.50	1	03/12/2020 13:32
Chloromethane	ND	0.50	1	03/12/2020 13:32
2-Chlorotoluene	ND	0.50	1	03/12/2020 13:32
4-Chlorotoluene	ND	0.50	1	03/12/2020 13:32
Dibromochloromethane	ND	0.50	1	03/12/2020 13:32
1,2-Dibromo-3-chloropropane	ND	0.20	1	03/12/2020 13:32
1,2-Dibromoethane (EDB)	ND	0.50	1	03/12/2020 13:32
Dibromomethane	ND	0.50	1	03/12/2020 13:32
1,2-Dichlorobenzene	ND	0.50	1	03/12/2020 13:32
1,3-Dichlorobenzene	ND	0.50	1	03/12/2020 13:32
1,4-Dichlorobenzene	ND	0.50	1	03/12/2020 13:32
Dichlorodifluoromethane	ND	0.50	1	03/12/2020 13:32
1,1-Dichloroethane	ND	0.50	1	03/12/2020 13:32
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	03/12/2020 13:32
1,1-Dichloroethene	ND	0.50	1	03/12/2020 13:32
cis-1,2-Dichloroethene	ND	0.50	1	03/12/2020 13:32
trans-1,2-Dichloroethene	ND	0.50	1	03/12/2020 13:32
1,2-Dichloropropane	ND	0.50	1	03/12/2020 13:32
1,3-Dichloropropane	ND	0.50	1	03/12/2020 13:32
2,2-Dichloropropane	ND	0.50	1	03/12/2020 13:32

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/12/2020-03/14/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-1	2003413-001B	Water	03/07/2020 14:47	GC16 03122013.D	195562

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	03/12/2020 13:32
cis-1,3-Dichloropropene	ND	0.50	1	03/12/2020 13:32
trans-1,3-Dichloropropene	ND	0.50	1	03/12/2020 13:32
Diisopropyl ether (DIPE)	ND	0.50	1	03/12/2020 13:32
Ethylbenzene	ND	0.50	1	03/12/2020 13:32
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	03/12/2020 13:32
Freon 113	ND	0.50	1	03/12/2020 13:32
Hexachlorobutadiene	ND	0.50	1	03/12/2020 13:32
Hexachloroethane	ND	0.50	1	03/12/2020 13:32
2-Hexanone	ND	1.0	1	03/12/2020 13:32
Isopropylbenzene	ND	0.50	1	03/12/2020 13:32
4-Isopropyl toluene	ND	0.50	1	03/12/2020 13:32
Methyl-t-butyl ether (MTBE)	ND	0.50	1	03/12/2020 13:32
Methylene chloride	ND	2.0	1	03/12/2020 13:32
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	03/12/2020 13:32
Naphthalene	ND	1.0	1	03/12/2020 13:32
n-Propyl benzene	ND	0.50	1	03/12/2020 13:32
Styrene	ND	2.0	1	03/12/2020 13:32
1,1,1,2-Tetrachloroethane	ND	0.50	1	03/12/2020 13:32
1,1,2,2-Tetrachloroethane	ND	0.50	1	03/12/2020 13:32
Tetrachloroethene	7.9	0.50	1	03/12/2020 13:32
Toluene	ND	0.50	1	03/12/2020 13:32
1,2,3-Trichlorobenzene	ND	0.50	1	03/12/2020 13:32
1,2,4-Trichlorobenzene	ND	0.50	1	03/12/2020 13:32
1,1,1-Trichloroethane	ND	0.50	1	03/12/2020 13:32
1,1,2-Trichloroethane	ND	0.50	1	03/12/2020 13:32
Trichloroethene	ND	0.50	1	03/12/2020 13:32
Trichlorofluoromethane	ND	0.50	1	03/12/2020 13:32
1,2,3-Trichloropropane	ND	0.50	1	03/12/2020 13:32
1,2,4-Trimethylbenzene	ND	0.50	1	03/12/2020 13:32
1,3,5-Trimethylbenzene	ND	0.50	1	03/12/2020 13:32
Vinyl Chloride	ND	0.50	1	03/12/2020 13:32
m,p-Xylene	ND	0.50	1	03/12/2020 13:32
o-Xylene	ND	0.50	1	03/12/2020 13:32
Xylenes, Total	ND	0.50	1	03/12/2020 13:32

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/12/2020-03/14/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-1	2003413-001B	Water	03/07/2020 14:47	GC16 03122013.D	195562

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	108	78-112		03/12/2020 13:32
Toluene-d8	106	82-109		03/12/2020 13:32
4-BFB	93	63-121		03/12/2020 13:32

Analyst(s): HK

Analytical Comments: b1

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/12/2020-03/14/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-3	2003413-002B	Water	03/07/2020 15:20	GC10 03132026.D	195562

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	50	5	03/14/2020 00:32
tert-Amyl methyl ether (TAME)	ND	2.5	5	03/14/2020 00:32
Benzene	ND	2.5	5	03/14/2020 00:32
Bromobenzene	ND	2.5	5	03/14/2020 00:32
Bromochloromethane	ND	2.5	5	03/14/2020 00:32
Bromodichloromethane	ND	2.5	5	03/14/2020 00:32
Bromoform	ND	2.5	5	03/14/2020 00:32
Bromomethane	ND	2.5	5	03/14/2020 00:32
2-Butanone (MEK)	ND	25	5	03/14/2020 00:32
t-Butyl alcohol (TBA)	ND	25	5	03/14/2020 00:32
n-Butyl benzene	ND	2.5	5	03/14/2020 00:32
sec-Butyl benzene	ND	2.5	5	03/14/2020 00:32
tert-Butyl benzene	ND	2.5	5	03/14/2020 00:32
Carbon Disulfide	ND	2.5	5	03/14/2020 00:32
Carbon Tetrachloride	ND	2.5	5	03/14/2020 00:32
Chlorobenzene	ND	2.5	5	03/14/2020 00:32
Chloroethane	ND	2.5	5	03/14/2020 00:32
Chloroform	ND	2.5	5	03/14/2020 00:32
Chloromethane	ND	2.5	5	03/14/2020 00:32
2-Chlorotoluene	ND	2.5	5	03/14/2020 00:32
4-Chlorotoluene	ND	2.5	5	03/14/2020 00:32
Dibromochloromethane	ND	2.5	5	03/14/2020 00:32
1,2-Dibromo-3-chloropropane	ND	1.0	5	03/14/2020 00:32
1,2-Dibromoethane (EDB)	ND	2.5	5	03/14/2020 00:32
Dibromomethane	ND	2.5	5	03/14/2020 00:32
1,2-Dichlorobenzene	ND	2.5	5	03/14/2020 00:32
1,3-Dichlorobenzene	ND	2.5	5	03/14/2020 00:32
1,4-Dichlorobenzene	ND	2.5	5	03/14/2020 00:32
Dichlorodifluoromethane	ND	2.5	5	03/14/2020 00:32
1,1-Dichloroethane	ND	2.5	5	03/14/2020 00:32
1,2-Dichloroethane (1,2-DCA)	ND	2.5	5	03/14/2020 00:32
1,1-Dichloroethene	ND	2.5	5	03/14/2020 00:32
cis-1,2-Dichloroethene	ND	2.5	5	03/14/2020 00:32
trans-1,2-Dichloroethene	ND	2.5	5	03/14/2020 00:32
1,2-Dichloropropane	ND	2.5	5	03/14/2020 00:32
1,3-Dichloropropane	ND	2.5	5	03/14/2020 00:32
2,2-Dichloropropane	ND	2.5	5	03/14/2020 00:32

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/12/2020-03/14/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-3	2003413-002B	Water	03/07/2020 15:20	GC10 03132026.D	195562

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	2.5	5	03/14/2020 00:32
cis-1,3-Dichloropropene	ND	2.5	5	03/14/2020 00:32
trans-1,3-Dichloropropene	ND	2.5	5	03/14/2020 00:32
Diisopropyl ether (DIPE)	ND	2.5	5	03/14/2020 00:32
Ethylbenzene	ND	2.5	5	03/14/2020 00:32
Ethyl tert-butyl ether (ETBE)	ND	2.5	5	03/14/2020 00:32
Freon 113	ND	2.5	5	03/14/2020 00:32
Hexachlorobutadiene	ND	2.5	5	03/14/2020 00:32
Hexachloroethane	ND	2.5	5	03/14/2020 00:32
2-Hexanone	ND	5.0	5	03/14/2020 00:32
Isopropylbenzene	ND	2.5	5	03/14/2020 00:32
4-Isopropyl toluene	ND	2.5	5	03/14/2020 00:32
Methyl-t-butyl ether (MTBE)	ND	2.5	5	03/14/2020 00:32
Methylene chloride	ND	10	5	03/14/2020 00:32
4-Methyl-2-pentanone (MIBK)	ND	2.5	5	03/14/2020 00:32
Naphthalene	ND	5.0	5	03/14/2020 00:32
n-Propyl benzene	ND	2.5	5	03/14/2020 00:32
Styrene	ND	10	5	03/14/2020 00:32
1,1,1,2-Tetrachloroethane	ND	2.5	5	03/14/2020 00:32
1,1,2,2-Tetrachloroethane	ND	2.5	5	03/14/2020 00:32
Tetrachloroethene	52	2.5	5	03/14/2020 00:32
Toluene	ND	2.5	5	03/14/2020 00:32
1,2,3-Trichlorobenzene	ND	2.5	5	03/14/2020 00:32
1,2,4-Trichlorobenzene	ND	2.5	5	03/14/2020 00:32
1,1,1-Trichloroethane	ND	2.5	5	03/14/2020 00:32
1,1,2-Trichloroethane	ND	2.5	5	03/14/2020 00:32
Trichloroethene	4.4	2.5	5	03/14/2020 00:32
Trichlorofluoromethane	ND	2.5	5	03/14/2020 00:32
1,2,3-Trichloropropane	ND	2.5	5	03/14/2020 00:32
1,2,4-Trimethylbenzene	ND	2.5	5	03/14/2020 00:32
1,3,5-Trimethylbenzene	ND	2.5	5	03/14/2020 00:32
Vinyl Chloride	ND	2.5	5	03/14/2020 00:32
m,p-Xylene	ND	2.5	5	03/14/2020 00:32
o-Xylene	ND	2.5	5	03/14/2020 00:32
Xylenes, Total	ND	2.5	5	03/14/2020 00:32

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/12/2020-03/14/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-3	2003413-002B	Water	03/07/2020 15:20	GC10 03132026.D	195562

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	92	78-112		03/14/2020 00:32
Toluene-d8	98	82-109		03/14/2020 00:32
4-BFB	97	63-121		03/14/2020 00:32

Analyst(s): TK

Analytical Comments: b1

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/12/2020-03/14/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-5	2003413-003B	Water	03/07/2020 14:25	GC16 03122009.D	195562

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	03/12/2020 10:51
tert-Amyl methyl ether (TAME)	ND	0.50	1	03/12/2020 10:51
Benzene	ND	0.50	1	03/12/2020 10:51
Bromobenzene	ND	0.50	1	03/12/2020 10:51
Bromochloromethane	ND	0.50	1	03/12/2020 10:51
Bromodichloromethane	ND	0.50	1	03/12/2020 10:51
Bromoform	ND	0.50	1	03/12/2020 10:51
Bromomethane	ND	0.50	1	03/12/2020 10:51
2-Butanone (MEK)	ND	5.0	1	03/12/2020 10:51
t-Butyl alcohol (TBA)	ND	5.0	1	03/12/2020 10:51
n-Butyl benzene	ND	0.50	1	03/12/2020 10:51
sec-Butyl benzene	ND	0.50	1	03/12/2020 10:51
tert-Butyl benzene	ND	0.50	1	03/12/2020 10:51
Carbon Disulfide	ND	0.50	1	03/12/2020 10:51
Carbon Tetrachloride	ND	0.50	1	03/12/2020 10:51
Chlorobenzene	ND	0.50	1	03/12/2020 10:51
Chloroethane	ND	0.50	1	03/12/2020 10:51
Chloroform	ND	0.50	1	03/12/2020 10:51
Chloromethane	ND	0.50	1	03/12/2020 10:51
2-Chlorotoluene	ND	0.50	1	03/12/2020 10:51
4-Chlorotoluene	ND	0.50	1	03/12/2020 10:51
Dibromochloromethane	ND	0.50	1	03/12/2020 10:51
1,2-Dibromo-3-chloropropane	ND	0.20	1	03/12/2020 10:51
1,2-Dibromoethane (EDB)	ND	0.50	1	03/12/2020 10:51
Dibromomethane	ND	0.50	1	03/12/2020 10:51
1,2-Dichlorobenzene	ND	0.50	1	03/12/2020 10:51
1,3-Dichlorobenzene	ND	0.50	1	03/12/2020 10:51
1,4-Dichlorobenzene	ND	0.50	1	03/12/2020 10:51
Dichlorodifluoromethane	ND	0.50	1	03/12/2020 10:51
1,1-Dichloroethane	ND	0.50	1	03/12/2020 10:51
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	03/12/2020 10:51
1,1-Dichloroethene	ND	0.50	1	03/12/2020 10:51
cis-1,2-Dichloroethene	ND	0.50	1	03/12/2020 10:51
trans-1,2-Dichloroethene	ND	0.50	1	03/12/2020 10:51
1,2-Dichloropropane	ND	0.50	1	03/12/2020 10:51
1,3-Dichloropropane	ND	0.50	1	03/12/2020 10:51
2,2-Dichloropropane	ND	0.50	1	03/12/2020 10:51

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/12/2020-03/14/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-5	2003413-003B	Water	03/07/2020 14:25	GC16 03122009.D	195562

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	03/12/2020 10:51
cis-1,3-Dichloropropene	ND	0.50	1	03/12/2020 10:51
trans-1,3-Dichloropropene	ND	0.50	1	03/12/2020 10:51
Diisopropyl ether (DIPE)	ND	0.50	1	03/12/2020 10:51
Ethylbenzene	ND	0.50	1	03/12/2020 10:51
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	03/12/2020 10:51
Freon 113	ND	0.50	1	03/12/2020 10:51
Hexachlorobutadiene	ND	0.50	1	03/12/2020 10:51
Hexachloroethane	ND	0.50	1	03/12/2020 10:51
2-Hexanone	ND	1.0	1	03/12/2020 10:51
Isopropylbenzene	ND	0.50	1	03/12/2020 10:51
4-Isopropyl toluene	ND	0.50	1	03/12/2020 10:51
Methyl-t-butyl ether (MTBE)	ND	0.50	1	03/12/2020 10:51
Methylene chloride	ND	2.0	1	03/12/2020 10:51
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	03/12/2020 10:51
Naphthalene	ND	1.0	1	03/12/2020 10:51
n-Propyl benzene	ND	0.50	1	03/12/2020 10:51
Styrene	ND	2.0	1	03/12/2020 10:51
1,1,1,2-Tetrachloroethane	ND	0.50	1	03/12/2020 10:51
1,1,2,2-Tetrachloroethane	ND	0.50	1	03/12/2020 10:51
Tetrachloroethene	ND	0.50	1	03/12/2020 10:51
Toluene	ND	0.50	1	03/12/2020 10:51
1,2,3-Trichlorobenzene	ND	0.50	1	03/12/2020 10:51
1,2,4-Trichlorobenzene	ND	0.50	1	03/12/2020 10:51
1,1,1-Trichloroethane	ND	0.50	1	03/12/2020 10:51
1,1,2-Trichloroethane	ND	0.50	1	03/12/2020 10:51
Trichloroethene	ND	0.50	1	03/12/2020 10:51
Trichlorofluoromethane	ND	0.50	1	03/12/2020 10:51
1,2,3-Trichloropropane	ND	0.50	1	03/12/2020 10:51
1,2,4-Trimethylbenzene	ND	0.50	1	03/12/2020 10:51
1,3,5-Trimethylbenzene	ND	0.50	1	03/12/2020 10:51
Vinyl Chloride	ND	0.50	1	03/12/2020 10:51
m,p-Xylene	ND	0.50	1	03/12/2020 10:51
o-Xylene	ND	0.50	1	03/12/2020 10:51
Xylenes, Total	ND	0.50	1	03/12/2020 10:51

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/12/2020-03/14/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-5	2003413-003B	Water	03/07/2020 14:25	GC16 03122009.D	195562

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	104	78-112		03/12/2020 10:51
Toluene-d8	106	82-109		03/12/2020 10:51
4-BFB	94	63-121		03/12/2020 10:51

Analyst(s): HK

Analytical Comments: b1

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/12/2020-03/14/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-8	2003413-004B	Water	03/07/2020 14:07	GC16 03122010.D	195562

Analytes	Result	RL	DF	Date Analyzed
Acetone	18	10	1	03/12/2020 11:32
tert-Amyl methyl ether (TAME)	ND	0.50	1	03/12/2020 11:32
Benzene	ND	0.50	1	03/12/2020 11:32
Bromobenzene	ND	0.50	1	03/12/2020 11:32
Bromochloromethane	ND	0.50	1	03/12/2020 11:32
Bromodichloromethane	ND	0.50	1	03/12/2020 11:32
Bromoform	ND	0.50	1	03/12/2020 11:32
Bromomethane	ND	0.50	1	03/12/2020 11:32
2-Butanone (MEK)	ND	5.0	1	03/12/2020 11:32
t-Butyl alcohol (TBA)	ND	5.0	1	03/12/2020 11:32
n-Butyl benzene	ND	0.50	1	03/12/2020 11:32
sec-Butyl benzene	ND	0.50	1	03/12/2020 11:32
tert-Butyl benzene	ND	0.50	1	03/12/2020 11:32
Carbon Disulfide	ND	0.50	1	03/12/2020 11:32
Carbon Tetrachloride	ND	0.50	1	03/12/2020 11:32
Chlorobenzene	ND	0.50	1	03/12/2020 11:32
Chloroethane	ND	0.50	1	03/12/2020 11:32
Chloroform	0.54	0.50	1	03/12/2020 11:32
Chloromethane	ND	0.50	1	03/12/2020 11:32
2-Chlorotoluene	ND	0.50	1	03/12/2020 11:32
4-Chlorotoluene	ND	0.50	1	03/12/2020 11:32
Dibromochloromethane	ND	0.50	1	03/12/2020 11:32
1,2-Dibromo-3-chloropropane	ND	0.20	1	03/12/2020 11:32
1,2-Dibromoethane (EDB)	ND	0.50	1	03/12/2020 11:32
Dibromomethane	ND	0.50	1	03/12/2020 11:32
1,2-Dichlorobenzene	ND	0.50	1	03/12/2020 11:32
1,3-Dichlorobenzene	ND	0.50	1	03/12/2020 11:32
1,4-Dichlorobenzene	ND	0.50	1	03/12/2020 11:32
Dichlorodifluoromethane	ND	0.50	1	03/12/2020 11:32
1,1-Dichloroethane	ND	0.50	1	03/12/2020 11:32
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	03/12/2020 11:32
1,1-Dichloroethene	ND	0.50	1	03/12/2020 11:32
cis-1,2-Dichloroethene	ND	0.50	1	03/12/2020 11:32
trans-1,2-Dichloroethene	ND	0.50	1	03/12/2020 11:32
1,2-Dichloropropane	ND	0.50	1	03/12/2020 11:32
1,3-Dichloropropane	ND	0.50	1	03/12/2020 11:32
2,2-Dichloropropane	ND	0.50	1	03/12/2020 11:32

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/12/2020-03/14/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-8	2003413-004B	Water	03/07/2020 14:07	GC16 03122010.D	195562

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	03/12/2020 11:32
cis-1,3-Dichloropropene	ND	0.50	1	03/12/2020 11:32
trans-1,3-Dichloropropene	ND	0.50	1	03/12/2020 11:32
Diisopropyl ether (DIPE)	ND	0.50	1	03/12/2020 11:32
Ethylbenzene	ND	0.50	1	03/12/2020 11:32
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	03/12/2020 11:32
Freon 113	ND	0.50	1	03/12/2020 11:32
Hexachlorobutadiene	ND	0.50	1	03/12/2020 11:32
Hexachloroethane	ND	0.50	1	03/12/2020 11:32
2-Hexanone	ND	1.0	1	03/12/2020 11:32
Isopropylbenzene	ND	0.50	1	03/12/2020 11:32
4-Isopropyl toluene	ND	0.50	1	03/12/2020 11:32
Methyl-t-butyl ether (MTBE)	ND	0.50	1	03/12/2020 11:32
Methylene chloride	ND	2.0	1	03/12/2020 11:32
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	03/12/2020 11:32
Naphthalene	ND	1.0	1	03/12/2020 11:32
n-Propyl benzene	ND	0.50	1	03/12/2020 11:32
Styrene	ND	2.0	1	03/12/2020 11:32
1,1,1,2-Tetrachloroethane	ND	0.50	1	03/12/2020 11:32
1,1,2,2-Tetrachloroethane	ND	0.50	1	03/12/2020 11:32
Tetrachloroethene	ND	0.50	1	03/12/2020 11:32
Toluene	ND	0.50	1	03/12/2020 11:32
1,2,3-Trichlorobenzene	ND	0.50	1	03/12/2020 11:32
1,2,4-Trichlorobenzene	ND	0.50	1	03/12/2020 11:32
1,1,1-Trichloroethane	ND	0.50	1	03/12/2020 11:32
1,1,2-Trichloroethane	ND	0.50	1	03/12/2020 11:32
Trichloroethene	ND	0.50	1	03/12/2020 11:32
Trichlorofluoromethane	ND	0.50	1	03/12/2020 11:32
1,2,3-Trichloropropane	ND	0.50	1	03/12/2020 11:32
1,2,4-Trimethylbenzene	ND	0.50	1	03/12/2020 11:32
1,3,5-Trimethylbenzene	ND	0.50	1	03/12/2020 11:32
Vinyl Chloride	ND	0.50	1	03/12/2020 11:32
m,p-Xylene	ND	0.50	1	03/12/2020 11:32
o-Xylene	ND	0.50	1	03/12/2020 11:32
Xylenes, Total	ND	0.50	1	03/12/2020 11:32

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/12/2020-03/14/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-8	2003413-004B	Water	03/07/2020 14:07	GC16 03122010.D	195562

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	104	78-112		03/12/2020 11:32
Toluene-d8	107	82-109		03/12/2020 11:32
4-BFB	94	63-121		03/12/2020 11:32

Analyst(s): HK

Analytical Comments: b1

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/12/2020-03/14/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DUP-1	2003413-005B	Water	03/07/2020	GC16 03122012.D	195562

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	03/12/2020 12:52
tert-Amyl methyl ether (TAME)	ND	0.50	1	03/12/2020 12:52
Benzene	ND	0.50	1	03/12/2020 12:52
Bromobenzene	ND	0.50	1	03/12/2020 12:52
Bromochloromethane	ND	0.50	1	03/12/2020 12:52
Bromodichloromethane	ND	0.50	1	03/12/2020 12:52
Bromoform	ND	0.50	1	03/12/2020 12:52
Bromomethane	ND	0.50	1	03/12/2020 12:52
2-Butanone (MEK)	ND	5.0	1	03/12/2020 12:52
t-Butyl alcohol (TBA)	ND	5.0	1	03/12/2020 12:52
n-Butyl benzene	ND	0.50	1	03/12/2020 12:52
sec-Butyl benzene	ND	0.50	1	03/12/2020 12:52
tert-Butyl benzene	ND	0.50	1	03/12/2020 12:52
Carbon Disulfide	ND	0.50	1	03/12/2020 12:52
Carbon Tetrachloride	ND	0.50	1	03/12/2020 12:52
Chlorobenzene	ND	0.50	1	03/12/2020 12:52
Chloroethane	ND	0.50	1	03/12/2020 12:52
Chloroform	ND	0.50	1	03/12/2020 12:52
Chloromethane	ND	0.50	1	03/12/2020 12:52
2-Chlorotoluene	ND	0.50	1	03/12/2020 12:52
4-Chlorotoluene	ND	0.50	1	03/12/2020 12:52
Dibromochloromethane	ND	0.50	1	03/12/2020 12:52
1,2-Dibromo-3-chloropropane	ND	0.20	1	03/12/2020 12:52
1,2-Dibromoethane (EDB)	ND	0.50	1	03/12/2020 12:52
Dibromomethane	ND	0.50	1	03/12/2020 12:52
1,2-Dichlorobenzene	ND	0.50	1	03/12/2020 12:52
1,3-Dichlorobenzene	ND	0.50	1	03/12/2020 12:52
1,4-Dichlorobenzene	ND	0.50	1	03/12/2020 12:52
Dichlorodifluoromethane	ND	0.50	1	03/12/2020 12:52
1,1-Dichloroethane	ND	0.50	1	03/12/2020 12:52
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	03/12/2020 12:52
1,1-Dichloroethene	ND	0.50	1	03/12/2020 12:52
cis-1,2-Dichloroethene	ND	0.50	1	03/12/2020 12:52
trans-1,2-Dichloroethene	ND	0.50	1	03/12/2020 12:52
1,2-Dichloropropane	ND	0.50	1	03/12/2020 12:52
1,3-Dichloropropane	ND	0.50	1	03/12/2020 12:52
2,2-Dichloropropane	ND	0.50	1	03/12/2020 12:52

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/12/2020-03/14/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DUP-1	2003413-005B	Water	03/07/2020	GC16 03122012.D	195562

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	03/12/2020 12:52
cis-1,3-Dichloropropene	ND	0.50	1	03/12/2020 12:52
trans-1,3-Dichloropropene	ND	0.50	1	03/12/2020 12:52
Diisopropyl ether (DIPE)	ND	0.50	1	03/12/2020 12:52
Ethylbenzene	ND	0.50	1	03/12/2020 12:52
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	03/12/2020 12:52
Freon 113	ND	0.50	1	03/12/2020 12:52
Hexachlorobutadiene	ND	0.50	1	03/12/2020 12:52
Hexachloroethane	ND	0.50	1	03/12/2020 12:52
2-Hexanone	ND	1.0	1	03/12/2020 12:52
Isopropylbenzene	ND	0.50	1	03/12/2020 12:52
4-Isopropyl toluene	ND	0.50	1	03/12/2020 12:52
Methyl-t-butyl ether (MTBE)	ND	0.50	1	03/12/2020 12:52
Methylene chloride	ND	2.0	1	03/12/2020 12:52
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	03/12/2020 12:52
Naphthalene	ND	1.0	1	03/12/2020 12:52
n-Propyl benzene	ND	0.50	1	03/12/2020 12:52
Styrene	ND	2.0	1	03/12/2020 12:52
1,1,1,2-Tetrachloroethane	ND	0.50	1	03/12/2020 12:52
1,1,2,2-Tetrachloroethane	ND	0.50	1	03/12/2020 12:52
Tetrachloroethene	11	0.50	1	03/12/2020 12:52
Toluene	ND	0.50	1	03/12/2020 12:52
1,2,3-Trichlorobenzene	ND	0.50	1	03/12/2020 12:52
1,2,4-Trichlorobenzene	ND	0.50	1	03/12/2020 12:52
1,1,1-Trichloroethane	ND	0.50	1	03/12/2020 12:52
1,1,2-Trichloroethane	ND	0.50	1	03/12/2020 12:52
Trichloroethene	0.64	0.50	1	03/12/2020 12:52
Trichlorofluoromethane	ND	0.50	1	03/12/2020 12:52
1,2,3-Trichloropropane	ND	0.50	1	03/12/2020 12:52
1,2,4-Trimethylbenzene	ND	0.50	1	03/12/2020 12:52
1,3,5-Trimethylbenzene	ND	0.50	1	03/12/2020 12:52
Vinyl Chloride	ND	0.50	1	03/12/2020 12:52
m,p-Xylene	ND	0.50	1	03/12/2020 12:52
o-Xylene	ND	0.50	1	03/12/2020 12:52
Xylenes, Total	ND	0.50	1	03/12/2020 12:52

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/12/2020-03/14/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DUP-1	2003413-005B	Water	03/07/2020	GC16 03122012.D	195562

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	107	78-112		03/12/2020 12:52
Toluene-d8	106	82-109		03/12/2020 12:52
4-BFB	93	63-121		03/12/2020 12:52

Analyst(s): HK

Analytical Comments: b1

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: E625
Analytical Method: SW8270C
Unit: µg/L

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-1	2003413-001C	Water	03/07/2020 14:47	GC17 03112023.D	195327
Analytes	Result	RL	DF	Date Analyzed	
Acenaphthene	ND	0.013	1	03/11/2020 18:33	
Acenaphthylene	ND	0.013	1	03/11/2020 18:33	
Acetochlor	ND	2.6	1	03/11/2020 18:33	
Anthracene	0.022	0.013	1	03/11/2020 18:33	
Benzydine	ND	6.6	1	03/11/2020 18:33	
Benzo (a) anthracene	ND	0.026	1	03/11/2020 18:33	
Benzo (a) pyrene	ND	0.013	1	03/11/2020 18:33	
Benzo (b) fluoranthene	ND	0.033	1	03/11/2020 18:33	
Benzo (g,h,i) perylene	ND	0.026	1	03/11/2020 18:33	
Benzo (k) fluoranthene	ND	0.013	1	03/11/2020 18:33	
Benzoic Acid	ND	6.6	1	03/11/2020 18:33	
Benzyl Alcohol	ND	6.6	1	03/11/2020 18:33	
1,1-Biphenyl	ND	0.066	1	03/11/2020 18:33	
Bis (2-chloroethoxy) Methane	ND	1.3	1	03/11/2020 18:33	
Bis (2-chloroethyl) Ether	ND	0.0066	1	03/11/2020 18:33	
Bis (2-chloroisopropyl) Ether	ND	0.013	1	03/11/2020 18:33	
Bis (2-ethylhexyl) Adipate	ND	3.9	1	03/11/2020 18:33	
Bis (2-ethylhexyl) Phthalate	ND	0.13	1	03/11/2020 18:33	
4-Bromophenyl Phenyl Ether	ND	1.3	1	03/11/2020 18:33	
Butylbenzyl Phthalate	ND	0.066	1	03/11/2020 18:33	
4-Chloroaniline	ND	0.026	1	03/11/2020 18:33	
4-Chloro-3-methylphenol	ND	1.3	1	03/11/2020 18:33	
2-Chloronaphthalene	ND	1.3	1	03/11/2020 18:33	
2-Chlorophenol	ND	0.026	1	03/11/2020 18:33	
4-Chlorophenyl Phenyl Ether	ND	1.3	1	03/11/2020 18:33	
Chrysene	ND	0.013	1	03/11/2020 18:33	
Dibenzo (a,h) anthracene	ND	0.013	1	03/11/2020 18:33	
Dibenzofuran	ND	1.3	1	03/11/2020 18:33	
Di-n-butyl Phthalate	0.73	0.026	1	03/11/2020 18:33	
1,2-Dichlorobenzene	ND	2.6	1	03/11/2020 18:33	
1,3-Dichlorobenzene	ND	2.6	1	03/11/2020 18:33	
1,4-Dichlorobenzene	ND	2.6	1	03/11/2020 18:33	
3,3-Dichlorobenzidine	ND	0.026	1	03/11/2020 18:33	
2,4-Dichlorophenol	ND	0.033	1	03/11/2020 18:33	
Diethyl Phthalate	1.6	0.026	1	03/11/2020 18:33	
2,4-Dimethylphenol	ND	1.3	1	03/11/2020 18:33	
Dimethyl Phthalate	0.20	0.026	1	03/11/2020 18:33	

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: E625
Analytical Method: SW8270C
Unit: µg/L

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-1	2003413-001C	Water	03/07/2020 14:47	GC17 03112023.D	195327

Analytes	Result	RL	DF	Date Analyzed
4,6-Dinitro-2-methylphenol	ND	6.6	1	03/11/2020 18:33
2,4-Dinitrophenol	ND	0.66	1	03/11/2020 18:33
2,4-Dinitrotoluene	ND	0.033	1	03/11/2020 18:33
2,6-Dichlorophenol	ND	0.066	1	03/11/2020 18:33
2,6-Dinitrotoluene	ND	0.013	1	03/11/2020 18:33
Di-n-octyl Phthalate	ND	0.16	1	03/11/2020 18:33
1,2-Diphenylhydrazine	ND	1.3	1	03/11/2020 18:33
Fluoranthene	ND	0.013	1	03/11/2020 18:33
Fluorene	ND	0.013	1	03/11/2020 18:33
Hexachlorobenzene	ND	0.0066	1	03/11/2020 18:33
Hexachlorobutadiene	ND	0.013	1	03/11/2020 18:33
Hexachlorocyclopentadiene	ND	6.6	1	03/11/2020 18:33
Hexachloroethane	ND	0.013	1	03/11/2020 18:33
Indeno (1,2,3-cd) pyrene	ND	0.026	1	03/11/2020 18:33
Isophorone	ND	1.3	1	03/11/2020 18:33
2-Methylnaphthalene	ND	0.013	1	03/11/2020 18:33
2-Methylphenol (o-Cresol)	ND	1.3	1	03/11/2020 18:33
3 & 4-Methylphenol (m,p-Cresol)	ND	1.3	1	03/11/2020 18:33
Naphthalene	ND	0.013	1	03/11/2020 18:33
2-Nitroaniline	ND	6.6	1	03/11/2020 18:33
3-Nitroaniline	ND	6.6	1	03/11/2020 18:33
4-Nitroaniline	ND	6.6	1	03/11/2020 18:33
Nitrobenzene	ND	1.3	1	03/11/2020 18:33
2-Nitrophenol	ND	6.6	1	03/11/2020 18:33
4-Nitrophenol	ND	6.6	1	03/11/2020 18:33
N-Nitrosodiphenylamine	ND	1.3	1	03/11/2020 18:33
N-Nitrosodi-n-propylamine	ND	1.3	1	03/11/2020 18:33
Pentachlorophenol	ND	0.33	1	03/11/2020 18:33
Phenanthrene	ND	0.026	1	03/11/2020 18:33
Phenol	0.079	0.026	1	03/11/2020 18:33
Pyrene	ND	0.026	1	03/11/2020 18:33
Pyridine	ND	1.3	1	03/11/2020 18:33
1,2,4-Trichlorobenzene	ND	1.3	1	03/11/2020 18:33
2,4,5-Trichlorophenol	ND	0.066	1	03/11/2020 18:33
2,4,6-Trichlorophenol	ND	0.066	1	03/11/2020 18:33
1-Methylnaphthalene	ND	0.013	1	03/11/2020 18:33

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: E625
Analytical Method: SW8270C
Unit: µg/L

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-1	2003413-001C	Water	03/07/2020 14:47	GC17 03112023.D	195327

Analytes	Result	RL	DF	Date Analyzed
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Surrogates	REC (%)	Limits	
2-Fluorophenol	10	1-92	03/11/2020 18:33
Phenol-d5	12	5-104	03/11/2020 18:33
Nitrobenzene-d5	37	4-143	03/11/2020 18:33
2-Fluorobiphenyl	39	9-134	03/11/2020 18:33
2,4,6-Tribromophenol	9	1-159	03/11/2020 18:33
4-Terphenyl-d14	33	5-150	03/11/2020 18:33

Analyst(s): REB

Analytical Comments: a19,b1

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: E625
Analytical Method: SW8270C
Unit: µg/L

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-3	2003413-002C	Water	03/07/2020 15:20	GC21 03132021.D	195327

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.056	5	03/13/2020 17:33
Acenaphthylene	ND	0.056	5	03/13/2020 17:33
Acetochlor	ND	11	5	03/13/2020 17:33
Anthracene	ND	0.056	5	03/13/2020 17:33
Benzidine	ND	28	5	03/13/2020 17:33
Benzo (a) anthracene	ND	0.11	5	03/13/2020 17:33
Benzo (a) pyrene	ND	0.056	5	03/13/2020 17:33
Benzo (b) fluoranthene	ND	0.14	5	03/13/2020 17:33
Benzo (g,h,i) perylene	ND	0.11	5	03/13/2020 17:33
Benzo (k) fluoranthene	ND	0.056	5	03/13/2020 17:33
Benzoic Acid	ND	28	5	03/13/2020 17:33
Benzyl Alcohol	ND	28	5	03/13/2020 17:33
1,1-Biphenyl	ND	0.28	5	03/13/2020 17:33
Bis (2-chloroethoxy) Methane	ND	5.6	5	03/13/2020 17:33
Bis (2-chloroethyl) Ether	ND	0.028	5	03/13/2020 17:33
Bis (2-chloroisopropyl) Ether	ND	0.056	5	03/13/2020 17:33
Bis (2-ethylhexyl) Adipate	ND	17	5	03/13/2020 17:33
Bis (2-ethylhexyl) Phthalate	ND	0.56	5	03/13/2020 17:33
4-Bromophenyl Phenyl Ether	ND	5.6	5	03/13/2020 17:33
Butylbenzyl Phthalate	ND	0.28	5	03/13/2020 17:33
4-Chloroaniline	ND	0.11	5	03/13/2020 17:33
4-Chloro-3-methylphenol	ND	5.6	5	03/13/2020 17:33
2-Chloronaphthalene	ND	5.6	5	03/13/2020 17:33
2-Chlorophenol	ND	0.11	5	03/13/2020 17:33
4-Chlorophenyl Phenyl Ether	ND	5.6	5	03/13/2020 17:33
Chrysene	ND	0.056	5	03/13/2020 17:33
Dibenzo (a,h) anthracene	ND	0.056	5	03/13/2020 17:33
Dibenzofuran	ND	5.6	5	03/13/2020 17:33
Di-n-butyl Phthalate	4.5	0.11	5	03/13/2020 17:33
1,2-Dichlorobenzene	ND	11	5	03/13/2020 17:33
1,3-Dichlorobenzene	ND	11	5	03/13/2020 17:33
1,4-Dichlorobenzene	ND	11	5	03/13/2020 17:33
3,3-Dichlorobenzidine	ND	0.11	5	03/13/2020 17:33
2,4-Dichlorophenol	ND	0.14	5	03/13/2020 17:33
Diethyl Phthalate	2.0	0.11	5	03/13/2020 17:33
2,4-Dimethylphenol	ND	5.6	5	03/13/2020 17:33
Dimethyl Phthalate	0.25	0.11	5	03/13/2020 17:33

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: E625
Analytical Method: SW8270C
Unit: µg/L

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-3	2003413-002C	Water	03/07/2020 15:20	GC21 03132021.D	195327

Analytes	Result	RL	DF	Date Analyzed
4,6-Dinitro-2-methylphenol	ND	28	5	03/13/2020 17:33
2,4-Dinitrophenol	ND	2.8	5	03/13/2020 17:33
2,4-Dinitrotoluene	ND	0.14	5	03/13/2020 17:33
2,6-Dichlorophenol	ND	0.28	5	03/13/2020 17:33
2,6-Dinitrotoluene	ND	0.056	5	03/13/2020 17:33
Di-n-octyl Phthalate	ND	0.70	5	03/13/2020 17:33
1,2-Diphenylhydrazine	ND	5.6	5	03/13/2020 17:33
Fluoranthene	ND	0.056	5	03/13/2020 17:33
Fluorene	ND	0.056	5	03/13/2020 17:33
Hexachlorobenzene	ND	0.028	5	03/13/2020 17:33
Hexachlorobutadiene	ND	0.056	5	03/13/2020 17:33
Hexachlorocyclopentadiene	ND	28	5	03/13/2020 17:33
Hexachloroethane	ND	0.056	5	03/13/2020 17:33
Indeno (1,2,3-cd) pyrene	ND	0.11	5	03/13/2020 17:33
Isophorone	ND	5.6	5	03/13/2020 17:33
2-Methylnaphthalene	ND	0.056	5	03/13/2020 17:33
2-Methylphenol (o-Cresol)	ND	5.6	5	03/13/2020 17:33
3 & 4-Methylphenol (m,p-Cresol)	ND	5.6	5	03/13/2020 17:33
Naphthalene	ND	0.056	5	03/13/2020 17:33
2-Nitroaniline	ND	28	5	03/13/2020 17:33
3-Nitroaniline	ND	28	5	03/13/2020 17:33
4-Nitroaniline	ND	28	5	03/13/2020 17:33
Nitrobenzene	ND	5.6	5	03/13/2020 17:33
2-Nitrophenol	ND	28	5	03/13/2020 17:33
4-Nitrophenol	ND	28	5	03/13/2020 17:33
N-Nitrosodiphenylamine	ND	5.6	5	03/13/2020 17:33
N-Nitrosodi-n-propylamine	ND	5.6	5	03/13/2020 17:33
Pentachlorophenol	ND	1.4	5	03/13/2020 17:33
Phenanthrene	ND	0.11	5	03/13/2020 17:33
Phenol	0.12	0.11	5	03/13/2020 17:33
Pyrene	ND	0.11	5	03/13/2020 17:33
Pyridine	ND	5.6	5	03/13/2020 17:33
1,2,4-Trichlorobenzene	ND	5.6	5	03/13/2020 17:33
2,4,5-Trichlorophenol	ND	0.28	5	03/13/2020 17:33
2,4,6-Trichlorophenol	ND	0.28	5	03/13/2020 17:33
1-Methylnaphthalene	ND	0.056	5	03/13/2020 17:33

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: E625
Analytical Method: SW8270C
Unit: µg/L

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-3	2003413-002C	Water	03/07/2020 15:20	GC21 03132021.D	195327

Analytes	Result	RL	DF	Date Analyzed
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Surrogates	REC (%)	Limits	
2-Fluorophenol	27	1-92	03/13/2020 17:33
Phenol-d5	16	5-104	03/13/2020 17:33
Nitrobenzene-d5	84	4-143	03/13/2020 17:33
2-Fluorobiphenyl	90	9-134	03/13/2020 17:33
2,4,6-Tribromophenol	61	1-159	03/13/2020 17:33
4-Terphenyl-d14	69	5-150	03/13/2020 17:33

Analyst(s): REB

Analytical Comments: a19,b1

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: E625
Analytical Method: SW8270C
Unit: µg/L

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-5	2003413-003C	Water	03/07/2020 14:25	GC17 03112025.D	195327

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.0097	1	03/11/2020 19:29
Acenaphthylene	ND	0.0097	1	03/11/2020 19:29
Acetochlor	ND	1.9	1	03/11/2020 19:29
Anthracene	ND	0.0097	1	03/11/2020 19:29
Benzidine	ND	4.8	1	03/11/2020 19:29
Benzo (a) anthracene	ND	0.019	1	03/11/2020 19:29
Benzo (a) pyrene	ND	0.0097	1	03/11/2020 19:29
Benzo (b) fluoranthene	ND	0.024	1	03/11/2020 19:29
Benzo (g,h,i) perylene	ND	0.019	1	03/11/2020 19:29
Benzo (k) fluoranthene	ND	0.0097	1	03/11/2020 19:29
Benzoic Acid	ND	4.8	1	03/11/2020 19:29
Benzyl Alcohol	ND	4.8	1	03/11/2020 19:29
1,1-Biphenyl	ND	0.048	1	03/11/2020 19:29
Bis (2-chloroethoxy) Methane	ND	0.97	1	03/11/2020 19:29
Bis (2-chloroethyl) Ether	ND	0.0048	1	03/11/2020 19:29
Bis (2-chloroisopropyl) Ether	ND	0.0097	1	03/11/2020 19:29
Bis (2-ethylhexyl) Adipate	ND	2.9	1	03/11/2020 19:29
Bis (2-ethylhexyl) Phthalate	ND	0.097	1	03/11/2020 19:29
4-Bromophenyl Phenyl Ether	ND	0.97	1	03/11/2020 19:29
Butylbenzyl Phthalate	ND	0.048	1	03/11/2020 19:29
4-Chloroaniline	ND	0.019	1	03/11/2020 19:29
4-Chloro-3-methylphenol	ND	0.97	1	03/11/2020 19:29
2-Chloronaphthalene	ND	0.97	1	03/11/2020 19:29
2-Chlorophenol	ND	0.019	1	03/11/2020 19:29
4-Chlorophenyl Phenyl Ether	ND	0.97	1	03/11/2020 19:29
Chrysene	ND	0.0097	1	03/11/2020 19:29
Dibenzo (a,h) anthracene	ND	0.0097	1	03/11/2020 19:29
Dibenzofuran	ND	0.97	1	03/11/2020 19:29
Di-n-butyl Phthalate	1.4	0.019	1	03/11/2020 19:29
1,2-Dichlorobenzene	ND	1.9	1	03/11/2020 19:29
1,3-Dichlorobenzene	ND	1.9	1	03/11/2020 19:29
1,4-Dichlorobenzene	ND	1.9	1	03/11/2020 19:29
3,3-Dichlorobenzidine	ND	0.019	1	03/11/2020 19:29
2,4-Dichlorophenol	ND	0.024	1	03/11/2020 19:29
Diethyl Phthalate	0.43	0.019	1	03/11/2020 19:29
2,4-Dimethylphenol	ND	0.97	1	03/11/2020 19:29
Dimethyl Phthalate	0.026	0.019	1	03/11/2020 19:29

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: E625
Analytical Method: SW8270C
Unit: µg/L

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-5	2003413-003C	Water	03/07/2020 14:25	GC17 03112025.D	195327

Analytes	Result	RL	DF	Date Analyzed
4,6-Dinitro-2-methylphenol	ND	4.8	1	03/11/2020 19:29
2,4-Dinitrophenol	ND	0.48	1	03/11/2020 19:29
2,4-Dinitrotoluene	ND	0.024	1	03/11/2020 19:29
2,6-Dichlorophenol	ND	0.048	1	03/11/2020 19:29
2,6-Dinitrotoluene	ND	0.0097	1	03/11/2020 19:29
Di-n-octyl Phthalate	ND	0.12	1	03/11/2020 19:29
1,2-Diphenylhydrazine	ND	0.97	1	03/11/2020 19:29
Fluoranthene	ND	0.0097	1	03/11/2020 19:29
Fluorene	ND	0.0097	1	03/11/2020 19:29
Hexachlorobenzene	ND	0.0048	1	03/11/2020 19:29
Hexachlorobutadiene	ND	0.0097	1	03/11/2020 19:29
Hexachlorocyclopentadiene	ND	4.8	1	03/11/2020 19:29
Hexachloroethane	ND	0.0097	1	03/11/2020 19:29
Indeno (1,2,3-cd) pyrene	ND	0.019	1	03/11/2020 19:29
Isophorone	ND	0.97	1	03/11/2020 19:29
2-Methylnaphthalene	ND	0.0097	1	03/11/2020 19:29
2-Methylphenol (o-Cresol)	ND	0.97	1	03/11/2020 19:29
3 & 4-Methylphenol (m,p-Cresol)	ND	0.97	1	03/11/2020 19:29
Naphthalene	ND	0.0097	1	03/11/2020 19:29
2-Nitroaniline	ND	4.8	1	03/11/2020 19:29
3-Nitroaniline	ND	4.8	1	03/11/2020 19:29
4-Nitroaniline	ND	4.8	1	03/11/2020 19:29
Nitrobenzene	ND	0.97	1	03/11/2020 19:29
2-Nitrophenol	ND	4.8	1	03/11/2020 19:29
4-Nitrophenol	ND	4.8	1	03/11/2020 19:29
N-Nitrosodiphenylamine	ND	0.97	1	03/11/2020 19:29
N-Nitrosodi-n-propylamine	ND	0.97	1	03/11/2020 19:29
Pentachlorophenol	ND	0.24	1	03/11/2020 19:29
Phenanthrene	ND	0.019	1	03/11/2020 19:29
Phenol	ND	0.019	1	03/11/2020 19:29
Pyrene	ND	0.019	1	03/11/2020 19:29
Pyridine	ND	0.97	1	03/11/2020 19:29
1,2,4-Trichlorobenzene	ND	0.97	1	03/11/2020 19:29
2,4,5-Trichlorophenol	ND	0.048	1	03/11/2020 19:29
2,4,6-Trichlorophenol	ND	0.048	1	03/11/2020 19:29
1-Methylnaphthalene	ND	0.0097	1	03/11/2020 19:29

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: E625
Analytical Method: SW8270C
Unit: µg/L

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-5	2003413-003C	Water	03/07/2020 14:25	GC17 03112025.D	195327

Analytes	Result	RL	DF	Date Analyzed
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Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorophenol	12	1-92	03/11/2020 19:29
Phenol-d5	14	5-104	03/11/2020 19:29
Nitrobenzene-d5	64	4-143	03/11/2020 19:29
2-Fluorobiphenyl	65	9-134	03/11/2020 19:29
2,4,6-Tribromophenol	45	1-159	03/11/2020 19:29
4-Terphenyl-d14	66	5-150	03/11/2020 19:29

Analyst(s): REB

Analytical Comments: b1

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: E625
Analytical Method: SW8270C
Unit: µg/L

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-8	2003413-004C	Water	03/07/2020 14:07	GC17 03112026.D	195327

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.010	1	03/11/2020 19:56
Acenaphthylene	ND	0.010	1	03/11/2020 19:56
Acetochlor	ND	2.0	1	03/11/2020 19:56
Anthracene	ND	0.010	1	03/11/2020 19:56
Benzidine	ND	5.1	1	03/11/2020 19:56
Benzo (a) anthracene	ND	0.020	1	03/11/2020 19:56
Benzo (a) pyrene	ND	0.010	1	03/11/2020 19:56
Benzo (b) fluoranthene	ND	0.026	1	03/11/2020 19:56
Benzo (g,h,i) perylene	ND	0.020	1	03/11/2020 19:56
Benzo (k) fluoranthene	ND	0.010	1	03/11/2020 19:56
Benzoic Acid	ND	5.1	1	03/11/2020 19:56
Benzyl Alcohol	ND	5.1	1	03/11/2020 19:56
1,1-Biphenyl	ND	0.051	1	03/11/2020 19:56
Bis (2-chloroethoxy) Methane	ND	1.0	1	03/11/2020 19:56
Bis (2-chloroethyl) Ether	ND	0.0051	1	03/11/2020 19:56
Bis (2-chloroisopropyl) Ether	ND	0.010	1	03/11/2020 19:56
Bis (2-ethylhexyl) Adipate	ND	3.1	1	03/11/2020 19:56
Bis (2-ethylhexyl) Phthalate	ND	0.10	1	03/11/2020 19:56
4-Bromophenyl Phenyl Ether	ND	1.0	1	03/11/2020 19:56
Butylbenzyl Phthalate	ND	0.051	1	03/11/2020 19:56
4-Chloroaniline	ND	0.020	1	03/11/2020 19:56
4-Chloro-3-methylphenol	ND	1.0	1	03/11/2020 19:56
2-Chloronaphthalene	ND	1.0	1	03/11/2020 19:56
2-Chlorophenol	ND	0.020	1	03/11/2020 19:56
4-Chlorophenyl Phenyl Ether	ND	1.0	1	03/11/2020 19:56
Chrysene	ND	0.010	1	03/11/2020 19:56
Dibenzo (a,h) anthracene	ND	0.010	1	03/11/2020 19:56
Dibenzofuran	ND	1.0	1	03/11/2020 19:56
Di-n-butyl Phthalate	0.67	0.020	1	03/11/2020 19:56
1,2-Dichlorobenzene	ND	2.0	1	03/11/2020 19:56
1,3-Dichlorobenzene	ND	2.0	1	03/11/2020 19:56
1,4-Dichlorobenzene	ND	2.0	1	03/11/2020 19:56
3,3-Dichlorobenzidine	ND	0.020	1	03/11/2020 19:56
2,4-Dichlorophenol	ND	0.026	1	03/11/2020 19:56
Diethyl Phthalate	0.13	0.020	1	03/11/2020 19:56
2,4-Dimethylphenol	ND	1.0	1	03/11/2020 19:56
Dimethyl Phthalate	ND	0.020	1	03/11/2020 19:56

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: E625
Analytical Method: SW8270C
Unit: µg/L

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-8	2003413-004C	Water	03/07/2020 14:07	GC17 03112026.D	195327

Analytes	Result	RL	DF	Date Analyzed
4,6-Dinitro-2-methylphenol	ND	5.1	1	03/11/2020 19:56
2,4-Dinitrophenol	ND	0.51	1	03/11/2020 19:56
2,4-Dinitrotoluene	ND	0.026	1	03/11/2020 19:56
2,6-Dichlorophenol	ND	0.051	1	03/11/2020 19:56
2,6-Dinitrotoluene	ND	0.010	1	03/11/2020 19:56
Di-n-octyl Phthalate	ND	0.13	1	03/11/2020 19:56
1,2-Diphenylhydrazine	ND	1.0	1	03/11/2020 19:56
Fluoranthene	ND	0.010	1	03/11/2020 19:56
Fluorene	ND	0.010	1	03/11/2020 19:56
Hexachlorobenzene	ND	0.0051	1	03/11/2020 19:56
Hexachlorobutadiene	ND	0.010	1	03/11/2020 19:56
Hexachlorocyclopentadiene	ND	5.1	1	03/11/2020 19:56
Hexachloroethane	ND	0.010	1	03/11/2020 19:56
Indeno (1,2,3-cd) pyrene	ND	0.020	1	03/11/2020 19:56
Isophorone	ND	1.0	1	03/11/2020 19:56
2-Methylnaphthalene	ND	0.010	1	03/11/2020 19:56
2-Methylphenol (o-Cresol)	ND	1.0	1	03/11/2020 19:56
3 & 4-Methylphenol (m,p-Cresol)	ND	1.0	1	03/11/2020 19:56
Naphthalene	ND	0.010	1	03/11/2020 19:56
2-Nitroaniline	ND	5.1	1	03/11/2020 19:56
3-Nitroaniline	ND	5.1	1	03/11/2020 19:56
4-Nitroaniline	ND	5.1	1	03/11/2020 19:56
Nitrobenzene	ND	1.0	1	03/11/2020 19:56
2-Nitrophenol	ND	5.1	1	03/11/2020 19:56
4-Nitrophenol	ND	5.1	1	03/11/2020 19:56
N-Nitrosodiphenylamine	ND	1.0	1	03/11/2020 19:56
N-Nitrosodi-n-propylamine	ND	1.0	1	03/11/2020 19:56
Pentachlorophenol	ND	0.26	1	03/11/2020 19:56
Phenanthrene	ND	0.020	1	03/11/2020 19:56
Phenol	ND	0.020	1	03/11/2020 19:56
Pyrene	ND	0.020	1	03/11/2020 19:56
Pyridine	ND	1.0	1	03/11/2020 19:56
1,2,4-Trichlorobenzene	ND	1.0	1	03/11/2020 19:56
2,4,5-Trichlorophenol	ND	0.051	1	03/11/2020 19:56
2,4,6-Trichlorophenol	ND	0.051	1	03/11/2020 19:56
1-Methylnaphthalene	ND	0.010	1	03/11/2020 19:56

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: E625
Analytical Method: SW8270C
Unit: µg/L

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-8	2003413-004C	Water	03/07/2020 14:07	GC17 03112026.D	195327

Analytes	Result	RL	DF	Date Analyzed
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Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorophenol	17	1-92	03/11/2020 19:56
Phenol-d5	16	5-104	03/11/2020 19:56
Nitrobenzene-d5	52	4-143	03/11/2020 19:56
2-Fluorobiphenyl	59	9-134	03/11/2020 19:56
2,4,6-Tribromophenol	58	1-159	03/11/2020 19:56
4-Terphenyl-d14	66	5-150	03/11/2020 19:56

Analyst(s): REB

Analytical Comments: b1

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: E625
Analytical Method: SW8270C
Unit: µg/L

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DUP-1	2003413-005C	Water	03/07/2020	GC17 03112027.D	195327
Analytes	Result	RL	DF	Date Analyzed	
Acenaphthene	ND	0.020	2	03/11/2020 20:24	
Acenaphthylene	ND	0.020	2	03/11/2020 20:24	
Acetochlor	ND	3.9	2	03/11/2020 20:24	
Anthracene	ND	0.020	2	03/11/2020 20:24	
Benzidine	ND	9.9	2	03/11/2020 20:24	
Benzo (a) anthracene	ND	0.039	2	03/11/2020 20:24	
Benzo (a) pyrene	ND	0.020	2	03/11/2020 20:24	
Benzo (b) fluoranthene	ND	0.049	2	03/11/2020 20:24	
Benzo (g,h,i) perylene	ND	0.039	2	03/11/2020 20:24	
Benzo (k) fluoranthene	ND	0.020	2	03/11/2020 20:24	
Benzoic Acid	ND	9.9	2	03/11/2020 20:24	
Benzyl Alcohol	ND	9.9	2	03/11/2020 20:24	
1,1-Biphenyl	ND	0.099	2	03/11/2020 20:24	
Bis (2-chloroethoxy) Methane	ND	2.0	2	03/11/2020 20:24	
Bis (2-chloroethyl) Ether	ND	0.0099	2	03/11/2020 20:24	
Bis (2-chloroisopropyl) Ether	ND	0.020	2	03/11/2020 20:24	
Bis (2-ethylhexyl) Adipate	ND	5.9	2	03/11/2020 20:24	
Bis (2-ethylhexyl) Phthalate	0.27	0.20	2	03/11/2020 20:24	
4-Bromophenyl Phenyl Ether	ND	2.0	2	03/11/2020 20:24	
Butylbenzyl Phthalate	ND	0.099	2	03/11/2020 20:24	
4-Chloroaniline	ND	0.039	2	03/11/2020 20:24	
4-Chloro-3-methylphenol	ND	2.0	2	03/11/2020 20:24	
2-Chloronaphthalene	ND	2.0	2	03/11/2020 20:24	
2-Chlorophenol	ND	0.039	2	03/11/2020 20:24	
4-Chlorophenyl Phenyl Ether	ND	2.0	2	03/11/2020 20:24	
Chrysene	ND	0.020	2	03/11/2020 20:24	
Dibenzo (a,h) anthracene	ND	0.020	2	03/11/2020 20:24	
Dibenzofuran	ND	2.0	2	03/11/2020 20:24	
Di-n-butyl Phthalate	2.0	0.039	2	03/11/2020 20:24	
1,2-Dichlorobenzene	ND	3.9	2	03/11/2020 20:24	
1,3-Dichlorobenzene	ND	3.9	2	03/11/2020 20:24	
1,4-Dichlorobenzene	ND	3.9	2	03/11/2020 20:24	
3,3-Dichlorobenzidine	ND	0.039	2	03/11/2020 20:24	
2,4-Dichlorophenol	ND	0.049	2	03/11/2020 20:24	
Diethyl Phthalate	0.58	0.039	2	03/11/2020 20:24	
2,4-Dimethylphenol	ND	2.0	2	03/11/2020 20:24	
Dimethyl Phthalate	0.066	0.039	2	03/11/2020 20:24	

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: E625
Analytical Method: SW8270C
Unit: µg/L

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DUP-1	2003413-005C	Water	03/07/2020	GC17 03112027.D	195327

Analytes	Result	RL	DF	Date Analyzed
4,6-Dinitro-2-methylphenol	ND	9.9	2	03/11/2020 20:24
2,4-Dinitrophenol	ND	0.99	2	03/11/2020 20:24
2,4-Dinitrotoluene	ND	0.049	2	03/11/2020 20:24
2,6-Dichlorophenol	ND	0.099	2	03/11/2020 20:24
2,6-Dinitrotoluene	ND	0.020	2	03/11/2020 20:24
Di-n-octyl Phthalate	ND	0.25	2	03/11/2020 20:24
1,2-Diphenylhydrazine	ND	2.0	2	03/11/2020 20:24
Fluoranthene	ND	0.020	2	03/11/2020 20:24
Fluorene	ND	0.020	2	03/11/2020 20:24
Hexachlorobenzene	ND	0.0099	2	03/11/2020 20:24
Hexachlorobutadiene	ND	0.020	2	03/11/2020 20:24
Hexachlorocyclopentadiene	ND	9.9	2	03/11/2020 20:24
Hexachloroethane	ND	0.020	2	03/11/2020 20:24
Indeno (1,2,3-cd) pyrene	ND	0.039	2	03/11/2020 20:24
Isophorone	ND	2.0	2	03/11/2020 20:24
2-Methylnaphthalene	ND	0.020	2	03/11/2020 20:24
2-Methylphenol (o-Cresol)	ND	2.0	2	03/11/2020 20:24
3 & 4-Methylphenol (m,p-Cresol)	ND	2.0	2	03/11/2020 20:24
Naphthalene	ND	0.020	2	03/11/2020 20:24
2-Nitroaniline	ND	9.9	2	03/11/2020 20:24
3-Nitroaniline	ND	9.9	2	03/11/2020 20:24
4-Nitroaniline	ND	9.9	2	03/11/2020 20:24
Nitrobenzene	ND	2.0	2	03/11/2020 20:24
2-Nitrophenol	ND	9.9	2	03/11/2020 20:24
4-Nitrophenol	ND	9.9	2	03/11/2020 20:24
N-Nitrosodiphenylamine	ND	2.0	2	03/11/2020 20:24
N-Nitrosodi-n-propylamine	ND	2.0	2	03/11/2020 20:24
Pentachlorophenol	ND	0.49	2	03/11/2020 20:24
Phenanthrene	ND	0.039	2	03/11/2020 20:24
Phenol	ND	0.039	2	03/11/2020 20:24
Pyrene	ND	0.039	2	03/11/2020 20:24
Pyridine	ND	2.0	2	03/11/2020 20:24
1,2,4-Trichlorobenzene	ND	2.0	2	03/11/2020 20:24
2,4,5-Trichlorophenol	ND	0.099	2	03/11/2020 20:24
2,4,6-Trichlorophenol	ND	0.099	2	03/11/2020 20:24
1-Methylnaphthalene	ND	0.020	2	03/11/2020 20:24

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: E625
Analytical Method: SW8270C
Unit: µg/L

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DUP-1	2003413-005C	Water	03/07/2020	GC17 03112027.D	195327

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorophenol	22	1-92		03/11/2020 20:24
Phenol-d5	23	5-104		03/11/2020 20:24
Nitrobenzene-d5	67	4-143		03/11/2020 20:24
2-Fluorobiphenyl	71	9-134		03/11/2020 20:24
2,4,6-Tribromophenol	55	1-159		03/11/2020 20:24
4-Terphenyl-d14	66	5-150		03/11/2020 20:24

Analyst(s): REB

Analytical Comments: b1

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L

Metals (>1% Sediment Content)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-1	2003413-001D	Water	03/07/2020 14:47	ICP-MS4 123SMPL.d	195284

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	25	1	03/10/2020 10:23
Arsenic	130	25	1	03/10/2020 10:23
Barium	3100	250	1	03/10/2020 10:23
Beryllium	ND	25	1	03/10/2020 10:23
Cadmium	ND	25	1	03/10/2020 10:23
Chromium	2500	25	1	03/10/2020 10:23
Cobalt	420	25	1	03/10/2020 10:23
Copper	410	25	1	03/10/2020 10:23
Lead	180	25	1	03/10/2020 10:23
Mercury	ND	2.5	1	03/10/2020 10:23
Molybdenum	180	25	1	03/10/2020 10:23
Nickel	2300	25	1	03/10/2020 10:23
Selenium	ND	25	1	03/10/2020 10:23
Silver	ND	25	1	03/10/2020 10:23
Thallium	ND	25	1	03/10/2020 10:23
Vanadium	1600	25	1	03/10/2020 10:23
Zinc	1300	250	1	03/10/2020 10:23

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	105	70-130	03/10/2020 10:23

Analyst(s): ND

Analytical Comments: b8,b1



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L

Metals (>1% Sediment Content)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-3	2003413-002D	Water	03/07/2020 15:20	ICP-MS4 124SMPL.d	195284

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	25	1	03/10/2020 10:27
Arsenic	ND	25	1	03/10/2020 10:27
Barium	590	250	1	03/10/2020 10:27
Beryllium	ND	25	1	03/10/2020 10:27
Cadmium	ND	25	1	03/10/2020 10:27
Chromium	420	25	1	03/10/2020 10:27
Cobalt	63	25	1	03/10/2020 10:27
Copper	59	25	1	03/10/2020 10:27
Lead	ND	25	1	03/10/2020 10:27
Mercury	ND	25	1	03/10/2020 10:27
Molybdenum	55	25	1	03/10/2020 10:27
Nickel	320	25	1	03/10/2020 10:27
Selenium	ND	25	1	03/10/2020 10:27
Silver	ND	25	1	03/10/2020 10:27
Thallium	ND	25	1	03/10/2020 10:27
Vanadium	230	25	1	03/10/2020 10:27
Zinc	330	250	1	03/10/2020 10:27

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	104	70-130	03/10/2020 10:27

Analyst(s): ND

Analytical Comments: b8,b1



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L

Metals (>1% Sediment Content)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-5	2003413-003D	Water	03/07/2020 14:25	ICP-MS4 125SMPL.d	195284

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	25	1	03/10/2020 10:31
Arsenic	100	25	1	03/10/2020 10:31
Barium	3700	250	1	03/10/2020 10:31
Beryllium	ND	25	1	03/10/2020 10:31
Cadmium	ND	25	1	03/10/2020 10:31
Chromium	850	25	1	03/10/2020 10:31
Cobalt	260	25	1	03/10/2020 10:31
Copper	400	25	1	03/10/2020 10:31
Lead	120	25	1	03/10/2020 10:31
Mercury	ND	2.5	1	03/10/2020 10:31
Molybdenum	220	25	1	03/10/2020 10:31
Nickel	940	25	1	03/10/2020 10:31
Selenium	ND	25	1	03/10/2020 10:31
Silver	ND	25	1	03/10/2020 10:31
Thallium	ND	25	1	03/10/2020 10:31
Vanadium	630	25	1	03/10/2020 10:31
Zinc	610	250	1	03/10/2020 10:31

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	104	70-130	03/10/2020 10:31

Analyst(s): ND

Analytical Comments: b8,b1



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L

Metals (>1% Sediment Content)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-8	2003413-004D	Water	03/07/2020 14:07	ICP-MS4 126SMPL.d	195284

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	25	1	03/10/2020 10:35
Arsenic	540	25	1	03/10/2020 10:35
Barium	10,000	250	1	03/10/2020 10:35
Beryllium	ND	25	1	03/10/2020 10:35
Cadmium	ND	25	1	03/10/2020 10:35
Chromium	1700	25	1	03/10/2020 10:35
Cobalt	1900	25	1	03/10/2020 10:35
Copper	810	25	1	03/10/2020 10:35
Lead	720	25	1	03/10/2020 10:35
Mercury	3.6	2.5	1	03/10/2020 10:35
Molybdenum	59	25	1	03/10/2020 10:35
Nickel	2900	25	1	03/10/2020 10:35
Selenium	100	25	1	03/10/2020 10:35
Silver	ND	25	1	03/10/2020 10:35
Thallium	ND	25	1	03/10/2020 10:35
Vanadium	2000	25	1	03/10/2020 10:35
Zinc	1800	250	1	03/10/2020 10:35

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	106	70-130	03/10/2020 10:35

Analyst(s): ND

Analytical Comments: b8,b1



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L

Metals (>1% Sediment Content)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DUP-1	2003413-005D	Water	03/07/2020	ICP-MS4 180SMPL.d	195284

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	25	1	03/10/2020 14:13
Arsenic	74	25	1	03/10/2020 14:13
Barium	1800	250	1	03/10/2020 14:13
Beryllium	ND	25	1	03/10/2020 14:13
Cadmium	ND	25	1	03/10/2020 14:13
Chromium	1400	25	1	03/10/2020 14:13
Cobalt	270	25	1	03/10/2020 14:13
Copper	230	25	1	03/10/2020 14:13
Lead	93	25	1	03/10/2020 14:13
Mercury	ND	2.5	1	03/10/2020 14:13
Molybdenum	110	25	1	03/10/2020 14:13
Nickel	1300	25	1	03/10/2020 14:13
Selenium	ND	25	1	03/10/2020 14:13
Silver	ND	25	1	03/10/2020 14:13
Thallium	ND	25	1	03/10/2020 14:13
Vanadium	830	25	1	03/10/2020 14:13
Zinc	1200	250	1	03/10/2020 14:13

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	106	70-130	03/10/2020 14:13

Analyst(s): MIG

Analytical Comments: b8,b1



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/11/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-1	2003413-001A	Water	03/07/2020 14:47	GC3 03112014.D	195399

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	03/11/2020 18:55
MTBE	---	1.0	1	03/11/2020 18:55
Benzene	---	0.50	1	03/11/2020 18:55
Toluene	---	0.50	1	03/11/2020 18:55
Ethylbenzene	---	0.50	1	03/11/2020 18:55
m,p-Xylene	---	1.0	1	03/11/2020 18:55
o-Xylene	---	0.50	1	03/11/2020 18:55
Xylenes	---	0.50	1	03/11/2020 18:55

Surrogates	REC (%)	Limits	Date Analyzed
aaa-TFT	91	76-115	03/11/2020 18:55

Analyst(s): IA Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-3	2003413-002A	Water	03/07/2020 15:20	GC3 03102038.D	195398

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	03/11/2020 07:45
MTBE	---	1.0	1	03/11/2020 07:45
Benzene	---	0.50	1	03/11/2020 07:45
Toluene	---	0.50	1	03/11/2020 07:45
Ethylbenzene	---	0.50	1	03/11/2020 07:45
m,p-Xylene	---	1.0	1	03/11/2020 07:45
o-Xylene	---	0.50	1	03/11/2020 07:45
Xylenes	---	0.50	1	03/11/2020 07:45

Surrogates	REC (%)	Limits	Date Analyzed
aaa-TFT	110	76-115	03/11/2020 07:45

Analyst(s): IA Analytical Comments: b1

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/11/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-5	2003413-003A	Water	03/07/2020 14:25	GC3 03102039.D	195398

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	03/11/2020 08:15
MTBE	---	1.0	1	03/11/2020 08:15
Benzene	---	0.50	1	03/11/2020 08:15
Toluene	---	0.50	1	03/11/2020 08:15
Ethylbenzene	---	0.50	1	03/11/2020 08:15
m,p-Xylene	---	1.0	1	03/11/2020 08:15
o-Xylene	---	0.50	1	03/11/2020 08:15
Xylenes	---	0.50	1	03/11/2020 08:15

Surrogates	REC (%)	Limits	Date Analyzed
aaa-TFT	93	76-115	03/11/2020 08:15

Analyst(s): IA Analytical Comments: b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-8	2003413-004A	Water	03/07/2020 14:07	GC3 03112015.D	195398

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	03/11/2020 19:26
MTBE	---	1.0	1	03/11/2020 19:26
Benzene	---	0.50	1	03/11/2020 19:26
Toluene	---	0.50	1	03/11/2020 19:26
Ethylbenzene	---	0.50	1	03/11/2020 19:26
m,p-Xylene	---	1.0	1	03/11/2020 19:26
o-Xylene	---	0.50	1	03/11/2020 19:26
Xylenes	---	0.50	1	03/11/2020 19:26

Surrogates	REC (%)	Limits	Date Analyzed
aaa-TFT	87	76-115	03/11/2020 19:26

Analyst(s): IA Analytical Comments: b1



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/11/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DUP-1	2003413-005A	Water	03/07/2020	GC7 03102035.D	195398

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	50	1	03/11/2020 05:52
MTBE	---	1.0	1	03/11/2020 05:52
Benzene	---	0.50	1	03/11/2020 05:52
Toluene	---	0.50	1	03/11/2020 05:52
Ethylbenzene	---	0.50	1	03/11/2020 05:52
m,p-Xylene	---	1.0	1	03/11/2020 05:52
o-Xylene	---	0.50	1	03/11/2020 05:52
Xylenes	---	0.50	1	03/11/2020 05:52

Surrogates	REC (%)	Limits	Date Analyzed
aaa-TFT	99	76-115	03/11/2020 05:52

Analyst(s): IA **Analytical Comments:** b1

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: SW3510C
Analytical Method: SW8015B
Unit: µg/L

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-1	2003413-001A	Water	03/07/2020 14:47	GC39B 03102021.D	195314

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	130	50	1	03/10/2020 16:35
TPH-Motor Oil (C18-C36)	730	250	1	03/10/2020 16:35

Surrogates	REC (%)	Limits	Date Analyzed
C9	108	70-130	03/10/2020 16:35

Analyst(s): JIS **Analytical Comments:** e7,e2,e8,b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-3	2003413-002A	Water	03/07/2020 15:20	GC11B 03102031.D	195314

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	50	1	03/10/2020 19:56
TPH-Motor Oil (C18-C36)	ND	250	1	03/10/2020 19:56

Surrogates	REC (%)	Limits	Date Analyzed
C9	106	70-130	03/10/2020 19:56

Analyst(s): JIS **Analytical Comments:** b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-5	2003413-003A	Water	03/07/2020 14:25	GC39B 03102027.D	195314

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	1100	100	2	03/10/2020 18:34
TPH-Motor Oil (C18-C36)	18,000	500	2	03/10/2020 18:34

Surrogates	REC (%)	Limits	Date Analyzed
C9	96	70-130	03/10/2020 18:34

Analyst(s): JIS **Analytical Comments:** e7,e2,e8,b1

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
Extraction Method: SW3510C
Analytical Method: SW8015B
Unit: µg/L

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EBGW-8	2003413-004A	Water	03/07/2020 14:07	GC39B 03102033.D	195314

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	830	100	1	03/10/2020 20:32
TPH-Motor Oil (C18-C36)	15,000	500	1	03/10/2020 20:32

Surrogates	REC (%)	Limits	Date Analyzed
C9	110	70-130	03/10/2020 20:32

Analyst(s): JIS **Analytical Comments:** e7,e2,e8,b1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
DUP-1	2003413-005A	Water	03/07/2020	GC9a 03112028.D	195314

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	63	50	1	03/11/2020 22:18
TPH-Motor Oil (C18-C36)	450	250	1	03/11/2020 22:18

Surrogates	REC (%)	Limits	Date Analyzed
C9	91	70-130	03/11/2020 22:18

Analyst(s): JIS **Analytical Comments:** e7,e2,b1



Quality Control Report

Client: Langan
Date Prepared: 03/12/2020
Date Analyzed: 03/12/2020
Instrument: GC16
Matrix: Water
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
BatchID: 195562
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS/LCSD-195562

QC Summary Report for SW8260B

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Acetone	ND	5.90	10.0	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.220	0.500	-	-	-
Benzene	ND	0.0510	0.500	-	-	-
Bromobenzene	ND	0.0600	0.500	-	-	-
Bromochloromethane	ND	0.0900	0.500	-	-	-
Bromodichloromethane	ND	0.200	0.500	-	-	-
Bromoform	ND	0.0660	0.500	-	-	-
Bromomethane	ND	0.160	0.500	-	-	-
2-Butanone (MEK)	ND	2.00	5.00	-	-	-
t-Butyl alcohol (TBA)	ND	1.70	5.00	-	-	-
n-Butyl benzene	ND	0.0840	0.500	-	-	-
sec-Butyl benzene	ND	0.0600	0.500	-	-	-
tert-Butyl benzene	ND	0.0500	0.500	-	-	-
Carbon Disulfide	ND	0.280	0.500	-	-	-
Carbon Tetrachloride	ND	0.0690	0.500	-	-	-
Chlorobenzene	ND	0.0500	0.500	-	-	-
Chloroethane	ND	0.310	0.500	-	-	-
Chloroform	ND	0.0640	0.500	-	-	-
Chloromethane	ND	0.130	0.500	-	-	-
2-Chlorotoluene	ND	0.0700	0.500	-	-	-
4-Chlorotoluene	ND	0.0700	0.500	-	-	-
Dibromochloromethane	ND	0.0800	0.500	-	-	-
1,2-Dibromo-3-chloropropane	ND	0.120	0.200	-	-	-
1,2-Dibromoethane (EDB)	ND	0.120	0.500	-	-	-
Dibromomethane	ND	0.0800	0.500	-	-	-
1,2-Dichlorobenzene	ND	0.0800	0.500	-	-	-
1,3-Dichlorobenzene	ND	0.0710	0.500	-	-	-
1,4-Dichlorobenzene	ND	0.0720	0.500	-	-	-
Dichlorodifluoromethane	ND	0.0630	0.500	-	-	-
1,1-Dichloroethane	ND	0.0600	0.500	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.0900	0.500	-	-	-
1,1-Dichloroethene	ND	0.0860	0.500	-	-	-
cis-1,2-Dichloroethene	ND	0.0500	0.500	-	-	-
trans-1,2-Dichloroethene	ND	0.0600	0.500	-	-	-
1,2-Dichloropropane	ND	0.0550	0.500	-	-	-
1,3-Dichloropropane	ND	0.100	0.500	-	-	-
2,2-Dichloropropane	ND	0.100	0.500	-	-	-
1,1-Dichloropropene	ND	0.0600	0.500	-	-	-

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Quality Control Report

Client: Langan
Date Prepared: 03/12/2020
Date Analyzed: 03/12/2020
Instrument: GC16
Matrix: Water
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
BatchID: 195562
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS/LCSD-195562

QC Summary Report for SW8260B

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
cis-1,3-Dichloropropene	ND	0.0900	0.500	-	-	-
trans-1,3-Dichloropropene	ND	0.0700	0.500	-	-	-
Diisopropyl ether (DIPE)	ND	0.0700	0.500	-	-	-
Ethylbenzene	ND	0.0500	0.500	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0700	0.500	-	-	-
Freon 113	ND	0.0660	0.500	-	-	-
Hexachlorobutadiene	ND	0.0850	0.500	-	-	-
Hexachloroethane	ND	0.0600	0.500	-	-	-
2-Hexanone	ND	0.410	1.00	-	-	-
Isopropylbenzene	ND	0.0700	0.500	-	-	-
4-Isopropyl toluene	ND	0.0500	0.500	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.100	0.500	-	-	-
Methylene chloride	ND	1.20	2.00	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	0.240	0.500	-	-	-
Naphthalene	ND	0.450	1.00	-	-	-
n-Propyl benzene	ND	0.0600	0.500	-	-	-
Styrene	ND	0.590	2.00	-	-	-
1,1,1,2-Tetrachloroethane	ND	0.0700	0.500	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.110	0.500	-	-	-
Tetrachloroethene	ND	0.0820	0.500	-	-	-
Toluene	ND	0.250	0.500	-	-	-
1,2,3-Trichlorobenzene	ND	0.250	0.500	-	-	-
1,2,4-Trichlorobenzene	ND	0.0860	0.500	-	-	-
1,1,1-Trichloroethane	ND	0.0500	0.500	-	-	-
1,1,2-Trichloroethane	ND	0.180	0.500	-	-	-
Trichloroethene	ND	0.0600	0.500	-	-	-
Trichlorofluoromethane	ND	0.0470	0.500	-	-	-
1,2,3-Trichloropropane	ND	0.140	0.500	-	-	-
1,2,4-Trimethylbenzene	ND	0.0650	0.500	-	-	-
1,3,5-Trimethylbenzene	ND	0.0700	0.500	-	-	-
Vinyl Chloride	ND	0.0700	0.500	-	-	-
m,p-Xylene	ND	0.110	0.500	-	-	-
o-Xylene	ND	0.0600	0.500	-	-	-

(Cont.)



Quality Control Report

Client: Langan	WorkOrder: 2003413
Date Prepared: 03/12/2020	BatchID: 195562
Date Analyzed: 03/12/2020	Extraction Method: SW5030B
Instrument: GC16	Analytical Method: SW8260B
Matrix: Water	Unit: µg/L
Project: 750650003; Lake Merritt Bart	Sample ID: MB/LCS/LCSD-195562

QC Summary Report for SW8260B

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Surrogate Recovery						
Dibromofluoromethane	25.8			25	103	76-110
Toluene-d8	27.0			25	108	84-111
4-BFB	2.29			2.5	92	64-121

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Quality Control Report

Client: Langan
Date Prepared: 03/12/2020
Date Analyzed: 03/12/2020
Instrument: GC16
Matrix: Water
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
BatchID: 195562
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS/LCSD-195562

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acetone	38.1	37.4	40	95	94	32-138	1.82	20
tert-Amyl methyl ether (TAME)	3.89	3.81	4	97	95	62-119	1.99	20
Benzene	3.99	3.86	4	100	97	71-126	3.15	20
Bromobenzene	4.35	4.14	4	109	103	66-117	5.00	20
Bromochloromethane	4.43	4.48	4	111	112	67-124	1.25	20
Bromodichloromethane	3.66	3.56	4	92	89	63-119	2.95	20
Bromoform	4.37	4.06	4	109	102	46-117	7.33	20
Bromomethane	5.40	5.00	4	135	125	32-171	7.70	20
2-Butanone (MEK)	14.2	14.0	16	89	87	48-136	1.44	20
t-Butyl alcohol (TBA)	13.9	12.9	16	87	81	40-131	7.06	20
n-Butyl benzene	4.23	3.92	4	106	98	75-125	7.43	20
sec-Butyl benzene	4.12	3.90	4	103	98	72-120	5.57	20
tert-Butyl benzene	4.00	3.80	4	100	95	63-118	5.14	20
Carbon Disulfide	4.04	4.03	4	101	101	64-126	0.337	20
Carbon Tetrachloride	3.93	3.82	4	98	95	67-122	2.85	20
Chlorobenzene	4.19	4.02	4	105	101	71-117	4.06	20
Chloroethane	5.00	5.30	4	125	133	53-136	5.95	20
Chloroform	3.94	3.85	4	98	96	67-126	2.33	20
Chloromethane	4.62	4.01	4	115	100	42-148	14.1	20
2-Chlorotoluene	4.18	4.01	4	104	100	70-117	4.06	20
4-Chlorotoluene	4.23	4.02	4	106	100	67-117	5.13	20
Dibromochloromethane	3.98	3.85	4	99	96	52-120	3.14	20
1,2-Dibromo-3-chloropropane	2.26	2.07	2	113	104	38-128	8.65	20
1,2-Dibromoethane (EDB)	2.13	2.09	2	107	105	58-117	1.76	20
Dibromomethane	4.22	4.14	4	105	104	66-120	1.85	20
1,2-Dichlorobenzene	4.60	4.34	4	115	108	71-117	5.85	20
1,3-Dichlorobenzene	4.17	4.00	4	104	100	74-116	4.11	20
1,4-Dichlorobenzene	4.26	4.02	4	107	101	71-115	5.71	20
Dichlorodifluoromethane	4.36	3.98	4	109	100	29-145	9.07	20
1,1-Dichloroethane	3.79	3.69	4	95	92	68-128	2.68	20
1,2-Dichloroethane (1,2-DCA)	4.13	4.05	4	103	101	61-123	1.94	20
1,1-Dichloroethene	4.13	4.06	4	103	102	65-126	1.65	20
cis-1,2-Dichloroethene	4.14	4.04	4	104	101	71-122	2.54	20
trans-1,2-Dichloroethene	4.15	4.02	4	104	100	70-126	3.33	20
1,2-Dichloropropane	3.56	3.44	4	89	86	67-124	3.29	20
1,3-Dichloropropane	3.73	3.60	4	93	90	65-120	3.60	20
2,2-Dichloropropane	4.00	3.85	4	100	96	71-127	3.83	20
1,1-Dichloropropene	3.83	3.69	4	96	92	69-122	3.93	20

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 03/12/2020
Date Analyzed: 03/12/2020
Instrument: GC16
Matrix: Water
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
BatchID: 195562
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS/LCSD-195562

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	3.62	3.52	4	90	88	63-119	2.73	20
trans-1,3-Dichloropropene	3.60	3.49	4	90	87	63-116	3.09	20
Diisopropyl ether (DIPE)	3.07	3.01	4	77	75	64-128	1.97	20
Ethylbenzene	4.07	3.87	4	102	97	69-120	5.04	20
Ethyl tert-butyl ether (ETBE)	3.51	3.44	4	88	86	63-120	2.09	20
Freon 113	4.07	3.97	4	102	99	67-126	2.41	20
Hexachlorobutadiene	4.99	4.58	4	125	114	50-140	8.51	20
Hexachloroethane	3.83	3.59	4	96	90	52-122	6.33	20
2-Hexanone	3.04	3.20	4	76	80	39-121	5.26	20
Isopropylbenzene	3.97	3.74	4	99	94	69-120	5.87	20
4-Isopropyl toluene	4.13	3.87	4	103	97	72-122	6.32	20
Methyl-t-butyl ether (MTBE)	3.90	3.85	4	97	96	60-121	1.16	20
Methylene chloride	3.87	3.72	4	97	93	40-148	3.89	20
4-Methyl-2-pentanone (MIBK)	2.94	3.12	4	74	78	48-115	6.08	20
Naphthalene	4.97	4.45	4	124	111	62-124	11.0	20
n-Propyl benzene	4.22	3.97	4	106	99	70-118	6.04	20
Styrene	4.08	3.82	4	102	96	57-118	6.64	20
1,1,1,2-Tetrachloroethane	4.01	3.87	4	100	97	63-117	3.42	20
1,1,2,2-Tetrachloroethane	3.84	3.72	4	96	93	60-116	3.07	20
Tetrachloroethene	4.57	4.40	4	114	110	60-131	4.00	20
Toluene	3.96	3.79	4	99	95	67-115	4.32	20
1,2,3-Trichlorobenzene	4.84	4.36	4	121	109	60-128	10.5	20
1,2,4-Trichlorobenzene	5.10	4.61	4	128	115	61-133	10.2	20
1,1,1-Trichloroethane	3.83	3.71	4	96	93	67-124	3.17	20
1,1,2-Trichloroethane	3.81	3.69	4	95	92	62-117	2.98	20
Trichloroethene	4.31	4.13	4	108	103	69-120	4.25	20
Trichlorofluoromethane	4.14	4.04	4	103	101	60-134	2.50	20
1,2,3-Trichloropropane	2.00	1.92	2	100	96	56-120	3.77	20
1,2,4-Trimethylbenzene	3.80	3.62	4	95	90	67-124	4.77	20
1,3,5-Trimethylbenzene	3.86	3.71	4	97	93	69-122	4.06	20
Vinyl Chloride	2.52	2.33	2	126	117	52-145	7.76	20
m,p-Xylene	8.32	7.82	8	104	98	67-119	6.18	20
o-Xylene	3.95	3.79	4	99	95	68-120	4.05	20

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 03/12/2020
Date Analyzed: 03/12/2020
Instrument: GC16
Matrix: Water
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
BatchID: 195562
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS/LCSD-195562

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Surrogate Recovery								
Dibromofluoromethane	26.1	26.9	25	104	108	76-110	3.03	20
Toluene-d8	26.4	26.4	25	106	106	84-111	0.0967	20
4-BFB	2.29	2.28	2.5	92	91	64-121	0.286	20

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Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/10/2020
Instrument: GC21
Matrix: Water
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
BatchID: 195327
Extraction Method: E625
Analytical Method: SW8270C
Unit: µg/L
Sample ID: MB/LCS/LCSD-195327

QC Summary Report for SW8270C

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
1,1-Biphenyl	ND	0.0120	0.0500	-	-	-
1,2,4-Trichlorobenzene	ND	0.0890	1.00	-	-	-
1,2-Dichlorobenzene	ND	1.10	2.00	-	-	-
1,2-Diphenylhydrazine	ND	0.400	1.00	-	-	-
1,3-Dichlorobenzene	ND	1.20	2.00	-	-	-
1,4-Dichlorobenzene	ND	1.00	2.00	-	-	-
1-Methylnaphthalene	ND	0.00520	0.0100	-	-	-
2,4,5-Trichlorophenol	ND	0.00610	0.0500	-	-	-
2,4,6-Trichlorophenol	ND	0.00490	0.0500	-	-	-
2,4-Dichlorophenol	ND	0.00190	0.0250	-	-	-
2,4-Dimethylphenol	ND	0.810	1.00	-	-	-
2,4-Dinitrophenol	ND	0.150	0.500	-	-	-
2,4-Dinitrotoluene	ND	0.00660	0.0250	-	-	-
2,6-Dichlorophenol	ND	0.0330	0.0500	-	-	-
2,6-Dinitrotoluene	ND	0.00530	0.0100	-	-	-
2-Chloronaphthalene	ND	0.570	1.00	-	-	-
2-Chlorophenol	ND	0.00860	0.0200	-	-	-
2-Methylnaphthalene	ND	0.00530	0.0100	-	-	-
2-Methylphenol (o-Cresol)	ND	0.530	1.00	-	-	-
2-Nitroaniline	ND	1.80	5.00	-	-	-
2-Nitrophenol	ND	2.40	5.00	-	-	-
3 & 4-Methylphenol (m,p-Cresol)	ND	0.410	1.00	-	-	-
3,3-Dichlorobenzidine	ND	0.00810	0.0200	-	-	-
3-Nitroaniline	ND	3.10	5.00	-	-	-
4,6-Dinitro-2-methylphenol	ND	1.80	5.00	-	-	-
4-Bromophenyl Phenyl Ether	ND	0.450	1.00	-	-	-
4-Chloro-3-methylphenol	ND	0.550	1.00	-	-	-
4-Chloroaniline	ND	0.00510	0.0200	-	-	-
4-Chlorophenyl Phenyl Ether	ND	0.480	1.00	-	-	-
4-Nitroaniline	ND	2.70	5.00	-	-	-
4-Nitrophenol	ND	1.10	5.00	-	-	-
Acenaphthene	ND	0.00510	0.0100	-	-	-
Acenaphthylene	ND	0.00500	0.0100	-	-	-
Acetochlor	ND	0.490	2.00	-	-	-
Anthracene	ND	0.00430	0.0100	-	-	-
Benzidine	ND	0.550	5.00	-	-	-
Benzo (a) anthracene	ND	0.0190	0.0200	-	-	-
Benzo (a) pyrene	ND	0.00640	0.0100	-	-	-

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/10/2020
Instrument: GC21
Matrix: Water
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
BatchID: 195327
Extraction Method: E625
Analytical Method: SW8270C
Unit: µg/L
Sample ID: MB/LCS/LCSD-195327

QC Summary Report for SW8270C

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Benzo (b) fluoranthene	0.00561,J	0.00470	0.0250	-	-	-
Benzo (g,h,i) perylene	ND	0.00710	0.0200	-	-	-
Benzo (k) fluoranthene	ND	0.00630	0.0100	-	-	-
Benzoic Acid	ND	2.70	5.00	-	-	-
Benzyl Alcohol	ND	2.90	5.00	-	-	-
Bis (2-chloroethoxy) Methane	ND	0.840	1.00	-	-	-
Bis (2-chloroethyl) Ether	ND	0.00210	0.00500	-	-	-
Bis (2-chloroisopropyl) Ether	ND	0.00890	0.0100	-	-	-
Bis (2-ethylhexyl) Adipate	ND	0.390	3.00	-	-	-
Bis (2-ethylhexyl) Phthalate	ND	0.0520	0.100	-	-	-
Butylbenzyl Phthalate	ND	0.0280	0.0500	-	-	-
Chrysene	ND	0.00930	0.0100	-	-	-
Dibenzo (a,h) anthracene	ND	0.00940	0.0100	-	-	-
Dibenzofuran	ND	0.370	1.00	-	-	-
Diethyl Phthalate	ND	0.0150	0.0200	-	-	-
Dimethyl Phthalate	ND	0.0110	0.0200	-	-	-
Di-n-butyl Phthalate	ND	0.0120	0.0200	-	-	-
Di-n-octyl Phthalate	ND	0.0200	0.120	-	-	-
Fluoranthene	ND	0.00680	0.0100	-	-	-
Fluorene	ND	0.00640	0.0100	-	-	-
Hexachlorobenzene	ND	0.00430	0.00500	-	-	-
Hexachlorobutadiene	ND	0.00350	0.0100	-	-	-
Hexachlorocyclopentadiene	ND	0.480	5.00	-	-	-
Hexachloroethane	ND	0.00680	0.0100	-	-	-
Indeno (1,2,3-cd) pyrene	ND	0.00650	0.0200	-	-	-
Isophorone	ND	0.660	1.00	-	-	-
Naphthalene	ND	0.00480	0.0100	-	-	-
Nitrobenzene	ND	0.950	1.00	-	-	-
N-Nitrosodimethylamine	ND	2.80	5.00	-	-	-
N-Nitrosodi-n-propylamine	ND	0.650	1.00	-	-	-
N-Nitrosodiphenylamine	ND	0.410	1.00	-	-	-
Pentachlorophenol	ND	0.0550	0.250	-	-	-
Phenanthrene	ND	0.00550	0.0200	-	-	-
Phenol	ND	0.00880	0.0200	-	-	-
Pyrene	ND	0.00570	0.0200	-	-	-
Pyridine	ND	0.490	1.00	-	-	-

(Cont.)



Quality Control Report

Client: Langan	WorkOrder: 2003413
Date Prepared: 03/09/2020	BatchID: 195327
Date Analyzed: 03/10/2020	Extraction Method: E625
Instrument: GC21	Analytical Method: SW8270C
Matrix: Water	Unit: µg/L
Project: 750650003; Lake Merritt Bart	Sample ID: MB/LCS/LCSD-195327

QC Summary Report for SW8270C

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Surrogate Recovery						
2-Fluorophenol	4.96			5	99	36-131
Phenol-d5	4.64			5	93	43-149
Nitrobenzene-d5	4.57			5	91	39-150
2-Fluorobiphenyl	4.54			5	91	43-133
2,4,6-Tribromophenol	4.59			5	92	42-147
4-Terphenyl-d14	2.79			5	56	44-124

DRAFT



Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/10/2020
Instrument: GC21
Matrix: Water
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
BatchID: 195327
Extraction Method: E625
Analytical Method: SW8270C
Unit: µg/L
Sample ID: MB/LCS/LCSD-195327

QC Summary Report for SW8270C

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
1,1-Biphenyl	0.444	0.442	0.50	89	88	54-111	0.452	25
1,2,4-Trichlorobenzene	9.88	9.77	10	99	98	54-112	1.12	25
1,2-Dichlorobenzene	7.98	7.84	10	80	78	43-125	1.70	25
1,2-Diphenylhydrazine	10.2	10.1	10	102	101	53-110	0.355	25
1,3-Dichlorobenzene	7.72	7.71	10	77	77	55-108	0.152	25
1,4-Dichlorobenzene	8.41	8.40	10	84	84	52-108	0.0833	25
1-Methylnaphthalene	0.439	0.439	0.50	88	88	55-123	0.0154	25
2,4,5-Trichlorophenol	0.490	0.502	0.50	98	100	52-119	2.48	25
2,4,6-Trichlorophenol	0.489	0.495	0.50	98	99	53-115	1.14	25
2,4-Dichlorophenol	0.503	0.508	0.50	101	102	56-121	1.04	25
2,4-Dimethylphenol	9.40	9.40	10	94	94	47-112	0.0883	25
2,4-Dinitrophenol	10.7	11.4	10	107	114	29-114	6.38	25
2,4-Dinitrotoluene	0.560	0.571	0.50	112	114	59-128	1.96	25
2,6-Dichlorophenol	0.499	0.499	0.50	100	100	57-117	0.123	25
2,6-Dinitrotoluene	0.487	0.504	0.50	97	101	56-118	3.33	25
2-Chloronaphthalene	9.56	9.46	10	96	95	54-109	1.04	25
2-Chlorophenol	0.415	0.430	0.50	83	86	51-117	3.50	25
2-Methylnaphthalene	0.426	0.422	0.50	85	85	51-132	0.708	25
2-Methylphenol (o-Cresol)	10.4	10.4	10	104	104	47-127	0.325	25
2-Nitroaniline	52.1	52.4	50	104	105	56-126	0.559	25
2-Nitrophenol	51.2	51.8	50	102	104	60-119	1.13	25
3 & 4-Methylphenol (m,p-Cresol)	9.32	9.36	10	93	94	51-126	0.521	25
3,3-Dichlorobenzidine	0.513	0.538	0.50	103	108	52-118	4.73	25
3-Nitroaniline	51.9	51.9	50	104	104	57-124	0.101	25
4,6-Dinitro-2-methylphenol	50.8	51.6	50	102	103	33-117	1.63	25
4-Bromophenyl Phenyl Ether	9.90	10.0	10	99	100	53-108	1.17	25
4-Chloro-3-methylphenol	9.66	9.98	10	97	100	60-126	3.26	25
4-Chloroaniline	0.489	0.486	0.50	98	97	57-121	0.598	25
4-Chlorophenyl Phenyl Ether	9.66	9.67	10	97	97	59-108	0.0259	25
4-Nitroaniline	54.6	53.8	50	109	108	58-130	1.46	25
4-Nitrophenol	49.2	49.3	50	98	99	34-143	0.142	25
Acenaphthene	0.509	0.510	0.50	102	102	55-112	0.308	25
Acenaphthylene	0.388	0.392	0.50	78	78	53-109	0.903	25
Acetochlor	10.1	10.1	10	101	101	52-119	0.156	25
Anthracene	0.604	0.611	0.50	121,F2	122,F2	57-112	1.24	25
Benzidine	40.1	40.4	50	80	81	33-87	0.653	25
Benzo (a) anthracene	0.427	0.436	0.50	85	87	54-103	2.06	25
Benzo (a) pyrene	0.472	0.488	0.50	94	98	50-116	3.36	25

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/10/2020
Instrument: GC21
Matrix: Water
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
BatchID: 195327
Extraction Method: E625
Analytical Method: SW8270C
Unit: µg/L
Sample ID: MB/LCS/LCSD-195327

QC Summary Report for SW8270C

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Benzo (b) fluoranthene	0.392	0.411	0.50	78	82	49-111	4.80	25
Benzo (g,h,i) perylene	0.518	0.533	0.50	104	107,F2	48-106	2.78	25
Benzo (k) fluoranthene	0.464	0.463	0.50	93	93	52-111	0.0821	25
Benzoic Acid	47.6	49.2	50	95	98	48-139	3.29	25
Benzyl Alcohol	48.6	48.0	50	97	96	38-130	1.04	25
Bis (2-chloroethoxy) Methane	9.68	9.54	10	97	95	52-120	1.41	25
Bis (2-chloroethyl) Ether	0.356	0.352	0.50	71	70	37-142	1.19	25
Bis (2-chloroisopropyl) Ether	0.404	0.390	0.50	81	78	40-140	3.42	25
Bis (2-ethylhexyl) Adipate	8.84	9.10	10	88	91	49-109	2.86	25
Bis (2-ethylhexyl) Phthalate	0.462	0.488	0.50	92	98	39-136	5.47	25
Butylbenzyl Phthalate	0.435	0.459	0.50	87	92	48-124	5.25	25
Chrysene	0.457	0.464	0.50	91	93	53-104	1.61	25
Dibenzo (a,h) anthracene	0.500	0.490	0.50	100	98	51-112	2.03	25
Dibenzofuran	9.30	9.11	10	93	91	57-108	2.00	25
Diethyl Phthalate	0.513	0.516	0.50	103	103	56-122	0.547	25
Dimethyl Phthalate	0.472	0.472	0.50	95	94	49-121	0.175	25
Di-n-butyl Phthalate	0.444	0.457	0.50	89	91	52-121	2.90	25
Di-n-octyl Phthalate	0.477	0.503	0.50	95	101	36-152	5.21	25
Fluoranthene	0.482	0.492	0.50	96	98	56-117	2.01	25
Fluorene	0.504	0.502	0.50	101	100	58-119	0.509	25
Hexachlorobenzene	0.445	0.443	0.50	89	89	51-107	0.290	25
Hexachlorobutadiene	0.418	0.412	0.50	84	82	54-109	1.42	25
Hexachlorocyclopentadiene	44.9	43.4	50	90	87	26-107	3.30	25
Hexachloroethane	0.363	0.364	0.50	73	73	52-109	0.158	25
Indeno (1,2,3-cd) pyrene	0.483	0.493	0.50	97	99	50-107	1.96	25
Isophorone	10.7	10.6	10	107	106	58-120	1.17	25
Naphthalene	0.389	0.386	0.50	78	77	49-116	0.624	25
Nitrobenzene	9.30	9.59	10	93	96	52-119	3.13	25
N-Nitrosodi-n-propylamine	8.92	8.78	10	89	88	55-122	1.62	25
N-Nitrosodiphenylamine	9.91	9.90	10	99	99	56-106	0.108	25
Pentachlorophenol	2.22	2.29	2.5	89	91	45-119	2.83	25
Phenanthrene	0.480	0.483	0.50	96	97	56-108	0.599	25
Phenol	1.87	1.88	2	94	94	50-118	0.507	25
Pyrene	0.478	0.486	0.50	96	97	49-104	1.68	25
Pyridine	7.44	7.18	10	74	72	36-96	3.55	25

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/10/2020
Instrument: GC21
Matrix: Water
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
BatchID: 195327
Extraction Method: E625
Analytical Method: SW8270C
Unit: µg/L
Sample ID: MB/LCS/LCSD-195327

QC Summary Report for SW8270C

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Surrogate Recovery								
2-Fluorophenol	4.27	4.39	5	85	88	36-131	2.71	25
Phenol-d5	4.59	4.66	5	92	93	43-149	1.61	25
Nitrobenzene-d5	4.88	5.13	5	98	103	39-150	5.02	25
2-Fluorobiphenyl	4.74	4.77	5	95	95	43-133	0.622	25
2,4,6-Tribromophenol	5.23	5.31	5	105	106	42-147	1.44	25
4-Terphenyl-d14	3.27	3.30	5	65	66	44-124	0.779	25

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Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/09/2020
Instrument: ICP-MS2
Matrix: Water
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
BatchID: 195284
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L
Sample ID: MB/LCS/LCSD-195284

QC Report for Metals (>1% Sediment Content)

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Antimony	ND	1.00	2.50	-	-	-
Arsenic	ND	0.790	2.50	-	-	-
Barium	ND	1.90	25.0	-	-	-
Beryllium	ND	0.350	2.50	-	-	-
Cadmium	ND	0.360	2.50	-	-	-
Chromium	ND	1.00	2.50	-	-	-
Cobalt	ND	0.220	2.50	-	-	-
Copper	ND	2.30	2.50	-	-	-
Lead	ND	1.00	2.50	-	-	-
Mercury	ND	0.100	0.250	-	-	-
Molybdenum	ND	0.750	2.50	-	-	-
Nickel	ND	0.840	2.50	-	-	-
Selenium	ND	1.10	2.50	-	-	-
Silver	ND	0.260	2.50	-	-	-
Thallium	ND	0.210	2.50	-	-	-
Vanadium	ND	1.10	2.50	-	-	-
Zinc	ND	19.0	25.0	-	-	-
Surrogate Recovery						
Terbium	2360			2500	94	70-130



Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/09/2020
Instrument: ICP-MS2
Matrix: Water
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
BatchID: 195284
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L
Sample ID: MB/LCS/LCSD-195284

QC Report for Metals (>1% Sediment Content)

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Antimony	248	254	250	99	102	85-115	2.39	20
Arsenic	235	236	250	94	94	85-115	0.106	20
Barium	2450	2470	2500	98	99	85-115	0.771	20
Beryllium	218	219	250	87	88	85-115	0.366	20
Cadmium	241	247	250	97	99	85-115	2.11	20
Chromium	244	246	250	98	98	85-115	0.796	20
Cobalt	240	244	250	96	98	85-115	1.74	20
Copper	235	239	250	94	96	85-115	1.77	20
Lead	243	244	250	97	98	85-115	0.555	20
Mercury	5.81	5.96	6.25	93	95	85-115	2.63	20
Molybdenum	239	243	250	96	97	85-115	1.72	20
Nickel	235	238	250	94	95	85-115	1.46	20
Selenium	240	241	250	96	97	85-115	0.436	20
Silver	222	223	250	89	89	85-115	0.584	20
Thallium	247	250	250	99	100	85-115	1.11	20
Vanadium	243	245	250	97	98	85-115	0.777	20
Zinc	2340	2370	2500	93	95	85-115	1.57	20
Surrogate Recovery								
Terbium	2430	2480	2500	97	99	70-130	2.32	20



Quality Control Report

Client: Langan
Date Prepared: 03/10/2020
Date Analyzed: 03/10/2020
Instrument: GC3
Matrix: Water
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
BatchID: 195398
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L
Sample ID: MB/LCS/LCSD-195398

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
TPH(g) (C6-C12)	ND	20.0	50.0	-	-	-
MTBE	ND	0.530	1.00	-	-	-
Benzene	ND	0.200	0.500	-	-	-
Toluene	ND	0.190	0.500	-	-	-
Ethylbenzene	ND	0.230	0.500	-	-	-
m,p-Xylene	ND	0.400	1.00	-	-	-
o-Xylene	ND	0.130	0.500	-	-	-
Surrogate Recovery						
aaa-TFT	8.85			10	88	74-117

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH(btex)	59.4	63.9	60	99	106	78-116	7.17	20
MTBE	9.42	10.2	10	94	101	72-122	7.48	20
Benzene	10.0	10.3	10	100	103	81-123	2.37	20
Toluene	10.3	10.7	10	103	107	83-129	3.71	20
Ethylbenzene	10.2	10.5	10	102	105	88-126	3.22	20
m,p-Xylene	20.4	21.1	20	102	105	80-120	3.23	20
o-Xylene	9.88	10.1	10	99	101	80-120	2.23	20
Surrogate Recovery								
aaa-TFT	8.79	8.91	10	88	89	74-117	1.35	20

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 03/11/2020
Date Analyzed: 03/11/2020
Instrument: GC3
Matrix: Water
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
BatchID: 195399
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L
Sample ID: MB/LCS/LCSD-195399
 2003413-001AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
TPH(g) (C6-C12)	ND	20.0	50.0	-	-	-
MTBE	ND	0.530	1.00	-	-	-
Benzene	ND	0.200	0.500	-	-	-
Toluene	ND	0.190	0.500	-	-	-
Ethylbenzene	ND	0.230	0.500	-	-	-
m,p-Xylene	ND	0.400	1.00	-	-	-
o-Xylene	ND	0.130	0.500	-	-	-
Surrogate Recovery						
aaa-TFT	8.92			10	89	74-117

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Quality Control Report

Client: Langan
Date Prepared: 03/11/2020
Date Analyzed: 03/11/2020
Instrument: GC3
Matrix: Water
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
BatchID: 195399
Extraction Method: SW5030B
Analytical Method: SW8021B/8015Bm
Unit: µg/L
Sample ID: MB/LCS/LCSD-195399
 2003413-001AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH(btex)	58.3	57.9	60	97	96	78-116	0.721	20
MTBE	9.36	9.22	10	94	92	72-122	1.58	20
Benzene	9.90	9.58	10	99	96	81-123	3.28	20
Toluene	10.2	9.88	10	102	99	83-129	2.79	20
Ethylbenzene	9.93	9.74	10	99	97	88-126	1.92	20
m,p-Xylene	20.0	19.6	20	100	98	80-120	1.53	20
o-Xylene	9.61	9.48	10	96	95	80-120	1.45	20
Surrogate Recovery								
aaa-TFT	8.77	8.76	10	88	88	74-117	0.139	20

Analyte	MS DF	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	1	57.8	63.6	60	ND	96	106	63-133	9.66	20
MTBE	1	9.58	11.1	10	ND	96	111	69-122	14.7	20
Benzene	1	9.61	9.66	10	ND	94	94	84-125	0.518	20
Toluene	1	9.82	10.3	10	ND	98	103	87-131	4.51	20
Ethylbenzene	1	9.65	9.89	10	ND	97	99	92-126	2.40	20
m,p-Xylene	1	19.2	19.9	20	ND	96	99	80-120	3.25	20
o-Xylene	1	9.29	9.55	10	ND	93	96	80-120	2.75	20
Surrogate Recovery										
aaa-TFT	1	8.67	9.02	10		87	90	76-115	3.94	20



Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/10/2020 - 03/11/2020
Instrument: GC31B, GC6B
Matrix: Water
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003413
BatchID: 195314
Extraction Method: SW3510C
Analytical Method: SW8015B
Unit: µg/L
Sample ID: MB/LCS/LCSD-195314

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
TPH-Diesel (C10-C23)	ND	29.0	50.0	-	-	-
TPH-Motor Oil (C18-C36)	ND	130	250	-	-	-
Surrogate Recovery						
C9	664			625	106	70-130

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	1020	1010	1000	102	101	70-130	0.899	20
Surrogate Recovery								
C9	601	590	625	96	94	70-130	1.84	20

DRAFT



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 2003413

ClientCode: TWRP

WaterTrax WriteOn EDF

Excel EQUIS Email HardCopy ThirdParty J-flag

Detection Summary Dry-Weight

Report to:

Arthur Machado
Langan
135 Main St, Suite 1500
San Francisco, CA 94105
(415) 955-9040 FAX: (415) 955-9041

Email: amachado@langan.com
cc/3rd Party: Dsutherland@langan.com;
PO:
Project: 750650003; Lake Merritt Bart

Bill to:

Accounts Payable
Langan
135 Main St, Suite 1500
San Francisco, CA 94105
Langan_InvoiceCapture@concursoft.com

Requested TAT: 5 days;

Date Received: 03/09/2020

Date Logged: 03/09/2020

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
2003413-001	EBGW-1	Water	3/7/2020 14:47	<input type="checkbox"/>	B	C	D	A	A	A						
2003413-002	EBGW-3	Water	3/7/2020 15:20	<input type="checkbox"/>	B	C	D	A	A	A						
2003413-003	EBGW-5	Water	3/7/2020 14:25	<input type="checkbox"/>	B	C	D	A	A	A						
2003413-004	EBGW-8	Water	3/7/2020 14:07	<input type="checkbox"/>	B	C	D	A	A	A						
2003413-005	DUP-1	Water	3/7/2020 00:00	<input type="checkbox"/>	B	C	D	A	A	A						

DRAFT

Test Legend:

1	8260B_W
5	PRDisposal Fee
9	

2	8270_SCSM_W
6	TPH(DMO)_W
10	

3	CAM17MS_TTLC_Sed
7	
11	

4	G-MBTEX_W
8	
12	

Prepared by: Kena Ponce

The following SampIDs: 001A, 002A, 003A, 004A, 005A contain testgroup Multi Range_W.

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: LANGAN
Client Contact: Arthur Machado
Contact's Email: amachado@langan.com

Project: 750650003; Lake Merritt Bart

Work Order: 2003413
QC Level: LEVEL 2
Date Logged: 3/9/2020

Comments:

WaterTrax WriteOn EDF Excel EQUIS Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
2003413-001A	EBGW-1	Water	Multi-Range TPH	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	3/7/2020 14:47	5 days	2%+	<input type="checkbox"/>	
2003413-001B	EBGW-1	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	3/7/2020 14:47	5 days	2%+	<input type="checkbox"/>	
2003413-001C	EBGW-1	Water	SW8270C (SVOCs)	1	1LA Narrow Mouth, Unpres	<input type="checkbox"/>	3/7/2020 14:47	5 days	2%+	<input type="checkbox"/>	
2003413-001D	EBGW-1	Water	E200.8 (CAM 17)	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	3/7/2020 14:47	5 days	2%+	<input type="checkbox"/>	
2003413-002A	EBGW-3	Water	Multi-Range TPH	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	3/7/2020 15:20	5 days	2%+	<input type="checkbox"/>	
2003413-002B	EBGW-3	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	3/7/2020 15:20	5 days	2%+	<input type="checkbox"/>	
2003413-002C	EBGW-3	Water	SW8270C (SVOCs)	1	1LA Narrow Mouth, Unpres	<input type="checkbox"/>	3/7/2020 15:20	5 days	2%+	<input type="checkbox"/>	
2003413-002D	EBGW-3	Water	E200.8 (CAM 17)	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	3/7/2020 15:20	5 days	2%+	<input type="checkbox"/>	
2003413-003A	EBGW-5	Water	Multi-Range TPH	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	3/7/2020 14:25	5 days	2%+	<input type="checkbox"/>	
2003413-003B	EBGW-5	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	3/7/2020 14:25	5 days	2%+	<input type="checkbox"/>	
2003413-003C	EBGW-5	Water	SW8270C (SVOCs)	1	1LA Narrow Mouth, Unpres	<input type="checkbox"/>	3/7/2020 14:25	5 days	2%+	<input type="checkbox"/>	
2003413-003D	EBGW-5	Water	E200.8 (CAM 17)	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	3/7/2020 14:25	5 days	2%+	<input type="checkbox"/>	
2003413-004A	EBGW-8	Water	Multi-Range TPH	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	3/7/2020 14:07	5 days	5%+	<input type="checkbox"/>	
2003413-004B	EBGW-8	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	3/7/2020 14:07	5 days	5%+	<input type="checkbox"/>	
2003413-004C	EBGW-8	Water	SW8270C (SVOCs)	1	1LA Narrow Mouth, Unpres	<input type="checkbox"/>	3/7/2020 14:07	5 days	5%+	<input type="checkbox"/>	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.



WORK ORDER SUMMARY

Client Name: LANGAN
Client Contact: Arthur Machado
Contact's Email: amachado@langan.com

Project: 750650003; Lake Merritt Bart

Work Order: 2003413
QC Level: LEVEL 2
Date Logged: 3/9/2020

Comments:

WaterTrax WriteOn EDF Excel EQUS Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
2003413-004D	EBGW-8	Water	E200.8 (CAM 17)	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	3/7/2020 14:07	5 days	5%+	<input type="checkbox"/>	
2003413-005A	DUP-1	Water	Multi-Range TPH	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	3/7/2020	5 days	2%+	<input type="checkbox"/>	
2003413-005B	DUP-1	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	3/7/2020	5 days	2%+	<input type="checkbox"/>	
2003413-005C	DUP-1	Water	SW8270C (SVOCs)	1	1LA Narrow Mouth, Unpres	<input type="checkbox"/>	3/7/2020	5 days	2%+	<input type="checkbox"/>	
2003413-005D	DUP-1	Water	E200.8 (CAM 17)	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	3/7/2020	5 days	2%+	<input type="checkbox"/>	

DRAFT

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).
- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

McCAMPBELL ANALYTICAL, INC.
 1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701
 Telephone: (877) 252-9262 / Fax: (925) 252-9269
 www.mccampbell.com main@mccampbell.com

CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush 2 Day Rush 3 Day Rush STD Quote # _____
 J-Flag / MDL _____ ESL _____ Cleanup Approved Dry Weight _____ Bottle Order # _____
 Delivery Format: PDF GeoTracker EDF _____ EDD _____ Write On (DW) _____ Detect Summary _____

Report To: ARTHUR MACHADO Bill To: ARTHUR MACHADO/LANGAN
 Company: LANGAN
 Address: 135 MAIN ST., STE 1500
 Email: AMACHADO@LANGAN.COM Tele: 415.955.5242
 Project Name: LAKE MERRITT BART Project #: 750650003
 Project Location: OAKLAND PO # 4
 Sampler Signature: [Signature]

SAMPLE ID Location / Field Point	Sampling		#Containers	Matrix	Preservative	Analysis Requested																			
	Date	Time				Multi Range as Gas (8021/8015) Oil (8021/8015)	BTEX & TPH as Gas (8021/8015) MTBE	TPH as Diesel (8015) + Motor Oil Without Silica Gel	TPH as Diesel (8015) + Motor Oil With Silica Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/ 608 / 8081 (CI Pesticides)	EPA 608 / 8082 PCB's ; Aroclors only	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAS)	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)*	Baylands Requirements	Lab to filter sample for dissolved metals analysis	LUFT 5 METALS	LUFT 5 METALS		
EBGW-1	3/7/20	1447	8	WATER	SEE BOTTLE	<input checked="" type="checkbox"/>											<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
EBGW-3	↓	1520	↓	↓	↓																				
EBGW-5	↓	1425	↓	↓	↓																				
EBGW-8	↓	1407	↓	↓	↓																				
DUP-1	↓	0000	↓	↓	↓												<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.
 Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
<u>[Signature]</u> LAP	3/9/20	1215	<u>[Signature]</u> LAP	3/9/20	1215
	3/9/20	1345	<u>[Signature]</u> LAP	3/9/20	1345

Comments / Instructions
PLEASE CC
DOUTHERLAND@LANGAN.COM

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other
 Preservative Code: 1=4°C 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=ZnOAc/NaOH 7=None
 Temp 0.5 °C Initials _____



Sample Receipt Checklist

Client Name: **Langan**
Project: **750650003; Lake Merritt Bart**

Date and Time Received: **3/9/2020 13:45**

Date Logged: **3/9/2020**

Received by: **Kena Ponce**

Logged by: **Kena Ponce**

WorkOrder No: **2003413** Matrix: Water

Carrier: Lorenzo Perez (MAI Courier)

Chain of Custody (COC) Information

- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Sample IDs noted by Client on COC? Yes No
- Date and Time of collection noted by Client on COC? Yes No
- Sampler's name noted on COC? Yes No
- COC agrees with Quote? Yes No NA

Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes No NA
- Shipping container/cooler in good condition? Yes No
- Samples in proper containers/bottles? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes No NA
- Samples Received on Ice? Yes No

(Ice Type: WET ICE)

- Sample/Temp Blank temperature Temp: 0.5°C NA
- Water - VOA vials have zero headspace / no bubbles? Yes No NA
- Sample labels checked for correct preservation? Yes No
- pH acceptable upon receipt (Metal: <2; Nitrate 353.2/4500NO3: <2; 522: <4; 218.7: >8)? Yes No NA

UCMR Samples:

pH tested and acceptable upon receipt (200.8: ≤2; 525.3: ≤4; 530: ≤7; 541: <3; 544: <6.5 & 7.5)? Yes No NA

Free Chlorine tested and acceptable upon receipt (<0.1mg/L)? Yes No NA

Comments:



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 2003414

Report Created for: Langan

135 Main St, Suite 1500
San Francisco, CA 94105

Project Contact: Arthur Machado

Project P.O.:

Project: 750650003; Lake Merritt Bart

Project Received: 03/09/2020

Analytical Report reviewed & approved for release on 03/16/2020 by:



Yen Cao

Project Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: Langan
Project: 750650003; Lake Merritt Bart
WorkOrder: 2003414

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
CPT	Consumer Product Testing not NELAP Accredited
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
LQL	Lowest Quantitation Level
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
TZA	TimeZone Net Adjustment for sample collected outside of MAI's UTC.
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



Glossary of Terms & Qualifier Definitions

Client: Langan
Project: 750650003; Lake Merritt Bart
WorkOrder: 2003414

Analytical Qualifiers

A	The reported value is determined using a "single point" calibration by GC-ECD as allowed by the method.
B	Analyte detected in the associated Method Blank and in the sample
J	Result is less than the RL/ML but greater than the MDL. The reported concentration is an estimated value.
S	Spike recovery outside accepted recovery limits
a3	Sample diluted due to high organic content.
c1	Surrogate recovery outside of the control limits due to the dilution of the sample.
c2	Surrogate recovery outside of the control limits due to matrix interference.
c12	Surrogate recovery outside of the control limits
d7	Strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
e2	Diesel range compounds are significant; no recognizable pattern
e7	Oil range compounds are significant
e8	Pattern resembles kerosene/kerosene range/jet fuel range
j1	See attached narrative

Quality Control Qualifiers

F2	LCS/LCSD recovery and/or RPD/RSD is out of acceptance criteria.
F3	The surrogate standard recovery and/or RPD is outside of acceptance limits.
F7	LCS/LCSD recovery for this compound is above acceptance limits but the sample analytes were not detected; therefore, the data is reportable.
F10	MS/MSD outside control limits. Physical or chemical interferences exist due to sample matrix.



Case Narrative

Client: Langan
Project: 750650003; Lake Merritt Bart

Work Order: 2003414
March 16, 2020

jl:

Samples 2003414-016A, -018A, -020A, -022A, -004A, -005A, -007A, -008A, -009A, -010A, -012A, -014A were analyzed on an instrument sequence with a passing closing CCV that was analyzed outside of the method specified 12 hour time window due to tower error that stopped the sequence prior to its completion. Results are estimated.

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8081A/8082
Unit: mg/kg

Organochlorine Pesticides + PCBs

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-0.5	2003414-001A	Soil	03/07/2020 12:05	GC40 03112050.d	195317

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Aldrin	ND		0.20	200	03/11/2020 21:18
a-BHC	ND		0.20	200	03/11/2020 21:18
b-BHC	ND		0.20	200	03/11/2020 21:18
d-BHC	ND		0.20	200	03/11/2020 21:18
g-BHC	ND		0.20	200	03/11/2020 21:18
Chlordane (Technical)	ND		5.0	200	03/11/2020 21:18
a-Chlordane	ND		0.20	200	03/11/2020 21:18
g-Chlordane	ND		0.20	200	03/11/2020 21:18
p,p-DDD	ND		0.20	200	03/11/2020 21:18
p,p-DDE	ND		0.20	200	03/11/2020 21:18
p,p-DDT	1.6		0.20	200	03/11/2020 21:18
Dieldrin	1.4		0.20	200	03/11/2020 21:18
Endosulfan I	ND		0.20	200	03/11/2020 21:18
Endosulfan II	ND		0.20	200	03/11/2020 21:18
Endosulfan sulfate	ND		0.20	200	03/11/2020 21:18
Endrin	ND		0.20	200	03/11/2020 21:18
Endrin aldehyde	0.23		0.20	200	03/11/2020 21:18
Endrin ketone	ND		0.20	200	03/11/2020 21:18
Heptachlor	ND		0.20	200	03/11/2020 21:18
Heptachlor epoxide	ND		0.20	200	03/11/2020 21:18
Hexachlorobenzene	ND		2.0	200	03/11/2020 21:18
Hexachlorocyclopentadiene	ND		4.0	200	03/11/2020 21:18
Methoxychlor	ND		0.20	200	03/11/2020 21:18
Toxaphene	ND		10	200	03/11/2020 21:18
Aroclor1016	ND		10	200	03/11/2020 21:18
Aroclor1221	ND		10	200	03/11/2020 21:18
Aroclor1232	ND		10	200	03/11/2020 21:18
Aroclor1242	ND		10	200	03/11/2020 21:18
Aroclor1248	ND		10	200	03/11/2020 21:18
Aroclor1254	28	A	10	200	03/11/2020 21:18
Aroclor1260	ND		10	200	03/11/2020 21:18
PCBs, total	28		10	200	03/11/2020 21:18

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Decachlorobiphenyl	190	S	69-143	03/11/2020 21:18

Analyst(s): CN

Analytical Comments: a3,c1

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8081A/8082
Unit: mg/kg

Organochlorine Pesticides + PCBs

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-3-0.5	2003414-011A	Soil	03/07/2020 13:34	GC40 03112051.d	195317

Analytes	Result	RL	DF	Date Analyzed
Aldrin	ND	0.50	500	03/11/2020 21:33
a-BHC	ND	0.50	500	03/11/2020 21:33
b-BHC	ND	0.50	500	03/11/2020 21:33
d-BHC	ND	0.50	500	03/11/2020 21:33
g-BHC	ND	0.50	500	03/11/2020 21:33
Chlordane (Technical)	ND	12	500	03/11/2020 21:33
a-Chlordane	ND	0.50	500	03/11/2020 21:33
g-Chlordane	ND	0.50	500	03/11/2020 21:33
p,p-DDD	ND	0.50	500	03/11/2020 21:33
p,p-DDE	ND	0.50	500	03/11/2020 21:33
p,p-DDT	ND	0.50	500	03/11/2020 21:33
Dieldrin	ND	0.50	500	03/11/2020 21:33
Endosulfan I	ND	0.50	500	03/11/2020 21:33
Endosulfan II	ND	0.50	500	03/11/2020 21:33
Endosulfan sulfate	ND	0.50	500	03/11/2020 21:33
Endrin	ND	0.50	500	03/11/2020 21:33
Endrin aldehyde	ND	0.50	500	03/11/2020 21:33
Endrin ketone	ND	0.50	500	03/11/2020 21:33
Heptachlor	ND	0.50	500	03/11/2020 21:33
Heptachlor epoxide	ND	0.50	500	03/11/2020 21:33
Hexachlorobenzene	ND	5.0	500	03/11/2020 21:33
Hexachlorocyclopentadiene	ND	10	500	03/11/2020 21:33
Methoxychlor	ND	0.50	500	03/11/2020 21:33
Toxaphene	ND	25	500	03/11/2020 21:33
Aroclor1016	ND	25	500	03/11/2020 21:33
Aroclor1221	ND	25	500	03/11/2020 21:33
Aroclor1232	ND	25	500	03/11/2020 21:33
Aroclor1242	ND	25	500	03/11/2020 21:33
Aroclor1248	ND	25	500	03/11/2020 21:33
Aroclor1254	ND	25	500	03/11/2020 21:33
Aroclor1260	ND	25	500	03/11/2020 21:33
PCBs, total	ND	25	500	03/11/2020 21:33

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Decachlorobiphenyl	353	S	69-143	03/11/2020 21:33

Analyst(s): CN

Analytical Comments: a3,c1

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8081A/8082
Unit: mg/kg

Organochlorine Pesticides + PCBs

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-5-0.5	2003414-015A	Soil	03/07/2020 10:10	GC40 03112052.d	195317

Analytes	Result	RL	DF	Date Analyzed
Aldrin	ND	0.10	100	03/11/2020 21:48
a-BHC	ND	0.10	100	03/11/2020 21:48
b-BHC	ND	0.10	100	03/11/2020 21:48
d-BHC	ND	0.10	100	03/11/2020 21:48
g-BHC	ND	0.10	100	03/11/2020 21:48
Chlordane (Technical)	ND	2.5	100	03/11/2020 21:48
a-Chlordane	ND	0.10	100	03/11/2020 21:48
g-Chlordane	ND	0.10	100	03/11/2020 21:48
p,p-DDD	ND	0.10	100	03/11/2020 21:48
p,p-DDE	ND	0.10	100	03/11/2020 21:48
p,p-DDT	ND	0.10	100	03/11/2020 21:48
Dieldrin	ND	0.10	100	03/11/2020 21:48
Endosulfan I	ND	0.10	100	03/11/2020 21:48
Endosulfan II	ND	0.10	100	03/11/2020 21:48
Endosulfan sulfate	ND	0.10	100	03/11/2020 21:48
Endrin	ND	0.10	100	03/11/2020 21:48
Endrin aldehyde	ND	0.10	100	03/11/2020 21:48
Endrin ketone	ND	0.10	100	03/11/2020 21:48
Heptachlor	ND	0.10	100	03/11/2020 21:48
Heptachlor epoxide	ND	0.10	100	03/11/2020 21:48
Hexachlorobenzene	ND	1.0	100	03/11/2020 21:48
Hexachlorocyclopentadiene	ND	2.0	100	03/11/2020 21:48
Methoxychlor	ND	0.10	100	03/11/2020 21:48
Toxaphene	ND	5.0	100	03/11/2020 21:48
Aroclor1016	ND	5.0	100	03/11/2020 21:48
Aroclor1221	ND	5.0	100	03/11/2020 21:48
Aroclor1232	ND	5.0	100	03/11/2020 21:48
Aroclor1242	ND	5.0	100	03/11/2020 21:48
Aroclor1248	ND	5.0	100	03/11/2020 21:48
Aroclor1254	ND	5.0	100	03/11/2020 21:48
Aroclor1260	ND	5.0	100	03/11/2020 21:48
PCBs, total	ND	5.0	100	03/11/2020 21:48

Surrogates	REC (%)	Limits	Date Analyzed
Decachlorobiphenyl	84	69-143	03/11/2020 21:48

Analyst(s): CN

Analytical Comments: a3

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8081A/8082
Unit: mg/kg

Organochlorine Pesticides + PCBs

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-8-0.5	2003414-021A	Soil	03/07/2020 08:44	GC40 03112072.d	195317

Analytes	Result	RL	DF	Date Analyzed
Aldrin	ND	0.10	100	03/12/2020 02:49
a-BHC	ND	0.10	100	03/12/2020 02:49
b-BHC	ND	0.10	100	03/12/2020 02:49
d-BHC	ND	0.10	100	03/12/2020 02:49
g-BHC	ND	0.10	100	03/12/2020 02:49
Chlordane (Technical)	ND	2.5	100	03/12/2020 02:49
a-Chlordane	ND	0.10	100	03/12/2020 02:49
g-Chlordane	ND	0.10	100	03/12/2020 02:49
p,p-DDD	ND	0.10	100	03/12/2020 02:49
p,p-DDE	ND	0.10	100	03/12/2020 02:49
p,p-DDT	ND	0.10	100	03/12/2020 02:49
Dieldrin	ND	0.10	100	03/12/2020 02:49
Endosulfan I	ND	0.10	100	03/12/2020 02:49
Endosulfan II	ND	0.10	100	03/12/2020 02:49
Endosulfan sulfate	ND	0.10	100	03/12/2020 02:49
Endrin	ND	0.10	100	03/12/2020 02:49
Endrin aldehyde	ND	0.10	100	03/12/2020 02:49
Endrin ketone	ND	0.10	100	03/12/2020 02:49
Heptachlor	ND	0.10	100	03/12/2020 02:49
Heptachlor epoxide	ND	0.10	100	03/12/2020 02:49
Hexachlorobenzene	ND	1.0	100	03/12/2020 02:49
Hexachlorocyclopentadiene	ND	2.0	100	03/12/2020 02:49
Methoxychlor	ND	0.10	100	03/12/2020 02:49
Toxaphene	ND	5.0	100	03/12/2020 02:49
Aroclor1016	ND	5.0	100	03/12/2020 02:49
Aroclor1221	ND	5.0	100	03/12/2020 02:49
Aroclor1232	ND	5.0	100	03/12/2020 02:49
Aroclor1242	ND	5.0	100	03/12/2020 02:49
Aroclor1248	ND	5.0	100	03/12/2020 02:49
Aroclor1254	ND	5.0	100	03/12/2020 02:49
Aroclor1260	ND	5.0	100	03/12/2020 02:49
PCBs, total	ND	5.0	100	03/12/2020 02:49

Surrogates	REC (%)	Limits	Date Analyzed
Decachlorobiphenyl	118	69-143	03/12/2020 02:49

Analyst(s): CN

Analytical Comments: a3



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-0.5	2003414-001A	Soil	03/07/2020 12:05	GC38 03142017.D	195296

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/14/2020 22:32
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/14/2020 22:32
Benzene	ND	0.0050	1	03/14/2020 22:32
Bromobenzene	ND	0.0050	1	03/14/2020 22:32
Bromochloromethane	ND	0.0050	1	03/14/2020 22:32
Bromodichloromethane	ND	0.0050	1	03/14/2020 22:32
Bromoform	ND	0.0050	1	03/14/2020 22:32
Bromomethane	ND	0.0050	1	03/14/2020 22:32
2-Butanone (MEK)	ND	0.050	1	03/14/2020 22:32
t-Butyl alcohol (TBA)	ND	0.050	1	03/14/2020 22:32
n-Butyl benzene	ND	0.0050	1	03/14/2020 22:32
sec-Butyl benzene	ND	0.0050	1	03/14/2020 22:32
tert-Butyl benzene	ND	0.0050	1	03/14/2020 22:32
Carbon Disulfide	ND	0.0050	1	03/14/2020 22:32
Carbon Tetrachloride	ND	0.0050	1	03/14/2020 22:32
Chlorobenzene	ND	0.0050	1	03/14/2020 22:32
Chloroethane	ND	0.0050	1	03/14/2020 22:32
Chloroform	ND	0.0050	1	03/14/2020 22:32
Chloromethane	ND	0.0050	1	03/14/2020 22:32
2-Chlorotoluene	ND	0.0050	1	03/14/2020 22:32
4-Chlorotoluene	ND	0.0050	1	03/14/2020 22:32
Dibromochloromethane	ND	0.0050	1	03/14/2020 22:32
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/14/2020 22:32
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/14/2020 22:32
Dibromomethane	ND	0.0050	1	03/14/2020 22:32
1,2-Dichlorobenzene	ND	0.0050	1	03/14/2020 22:32
1,3-Dichlorobenzene	ND	0.0050	1	03/14/2020 22:32
1,4-Dichlorobenzene	ND	0.0050	1	03/14/2020 22:32
Dichlorodifluoromethane	ND	0.0050	1	03/14/2020 22:32
1,1-Dichloroethane	ND	0.0050	1	03/14/2020 22:32
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/14/2020 22:32
1,1-Dichloroethene	ND	0.0050	1	03/14/2020 22:32
cis-1,2-Dichloroethene	ND	0.0050	1	03/14/2020 22:32
trans-1,2-Dichloroethene	ND	0.0050	1	03/14/2020 22:32
1,2-Dichloropropane	ND	0.0050	1	03/14/2020 22:32
1,3-Dichloropropane	ND	0.0050	1	03/14/2020 22:32
2,2-Dichloropropane	ND	0.0050	1	03/14/2020 22:32

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-0.5	2003414-001A	Soil	03/07/2020 12:05	GC38 03142017.D	195296

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/14/2020 22:32
cis-1,3-Dichloropropene	ND	0.0050	1	03/14/2020 22:32
trans-1,3-Dichloropropene	ND	0.0050	1	03/14/2020 22:32
Diisopropyl ether (DIPE)	ND	0.0050	1	03/14/2020 22:32
Ethylbenzene	ND	0.0050	1	03/14/2020 22:32
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/14/2020 22:32
Freon 113	ND	0.0050	1	03/14/2020 22:32
Hexachlorobutadiene	ND	0.0050	1	03/14/2020 22:32
Hexachloroethane	ND	0.0050	1	03/14/2020 22:32
2-Hexanone	ND	0.0050	1	03/14/2020 22:32
Isopropylbenzene	ND	0.0050	1	03/14/2020 22:32
4-Isopropyl toluene	ND	0.0050	1	03/14/2020 22:32
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/14/2020 22:32
Methylene chloride	ND	0.020	1	03/14/2020 22:32
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/14/2020 22:32
Naphthalene	ND	0.0050	1	03/14/2020 22:32
n-Propyl benzene	ND	0.0050	1	03/14/2020 22:32
Styrene	ND	0.0050	1	03/14/2020 22:32
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/14/2020 22:32
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/14/2020 22:32
Tetrachloroethene	ND	0.0050	1	03/14/2020 22:32
Toluene	ND	0.0050	1	03/14/2020 22:32
1,2,3-Trichlorobenzene	ND	0.0050	1	03/14/2020 22:32
1,2,4-Trichlorobenzene	ND	0.0050	1	03/14/2020 22:32
1,1,1-Trichloroethane	ND	0.0050	1	03/14/2020 22:32
1,1,2-Trichloroethane	ND	0.0050	1	03/14/2020 22:32
Trichloroethene	ND	0.0050	1	03/14/2020 22:32
Trichlorofluoromethane	ND	0.0050	1	03/14/2020 22:32
1,2,3-Trichloropropane	ND	0.0050	1	03/14/2020 22:32
1,2,4-Trimethylbenzene	ND	0.0050	1	03/14/2020 22:32
1,3,5-Trimethylbenzene	ND	0.0050	1	03/14/2020 22:32
Vinyl Chloride	ND	0.0050	1	03/14/2020 22:32
m,p-Xylene	ND	0.0050	1	03/14/2020 22:32
o-Xylene	ND	0.0050	1	03/14/2020 22:32
Xylenes, Total	ND	0.0050	1	03/14/2020 22:32

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-0.5	2003414-001A	Soil	03/07/2020 12:05	GC38 03142017.D	195296

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	
Dibromofluoromethane	101		66-116	03/14/2020 22:32
Toluene-d8	112	S	86-110	03/14/2020 22:32
4-BFB	100		71-114	03/14/2020 22:32
Benzene-d6	75		62-122	03/14/2020 22:32
Ethylbenzene-d10	83		69-130	03/14/2020 22:32
1,2-DCB-d4	62		55-108	03/14/2020 22:32

Analyst(s): TK

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-5	2003414-002A	Soil	03/07/2020 12:17	GC38 03142018.D	195296

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/14/2020 23:09
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/14/2020 23:09
Benzene	ND	0.0050	1	03/14/2020 23:09
Bromobenzene	ND	0.0050	1	03/14/2020 23:09
Bromochloromethane	ND	0.0050	1	03/14/2020 23:09
Bromodichloromethane	ND	0.0050	1	03/14/2020 23:09
Bromoform	ND	0.0050	1	03/14/2020 23:09
Bromomethane	ND	0.0050	1	03/14/2020 23:09
2-Butanone (MEK)	ND	0.050	1	03/14/2020 23:09
t-Butyl alcohol (TBA)	ND	0.050	1	03/14/2020 23:09
n-Butyl benzene	ND	0.0050	1	03/14/2020 23:09
sec-Butyl benzene	ND	0.0050	1	03/14/2020 23:09
tert-Butyl benzene	ND	0.0050	1	03/14/2020 23:09
Carbon Disulfide	ND	0.0050	1	03/14/2020 23:09
Carbon Tetrachloride	ND	0.0050	1	03/14/2020 23:09
Chlorobenzene	ND	0.0050	1	03/14/2020 23:09
Chloroethane	ND	0.0050	1	03/14/2020 23:09
Chloroform	ND	0.0050	1	03/14/2020 23:09
Chloromethane	ND	0.0050	1	03/14/2020 23:09
2-Chlorotoluene	ND	0.0050	1	03/14/2020 23:09
4-Chlorotoluene	ND	0.0050	1	03/14/2020 23:09
Dibromochloromethane	ND	0.0050	1	03/14/2020 23:09
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/14/2020 23:09
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/14/2020 23:09
Dibromomethane	ND	0.0050	1	03/14/2020 23:09
1,2-Dichlorobenzene	ND	0.0050	1	03/14/2020 23:09
1,3-Dichlorobenzene	ND	0.0050	1	03/14/2020 23:09
1,4-Dichlorobenzene	ND	0.0050	1	03/14/2020 23:09
Dichlorodifluoromethane	ND	0.0050	1	03/14/2020 23:09
1,1-Dichloroethane	ND	0.0050	1	03/14/2020 23:09
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/14/2020 23:09
1,1-Dichloroethene	ND	0.0050	1	03/14/2020 23:09
cis-1,2-Dichloroethene	ND	0.0050	1	03/14/2020 23:09
trans-1,2-Dichloroethene	ND	0.0050	1	03/14/2020 23:09
1,2-Dichloropropane	ND	0.0050	1	03/14/2020 23:09
1,3-Dichloropropane	ND	0.0050	1	03/14/2020 23:09
2,2-Dichloropropane	ND	0.0050	1	03/14/2020 23:09

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-5	2003414-002A	Soil	03/07/2020 12:17	GC38 03142018.D	195296

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/14/2020 23:09
cis-1,3-Dichloropropene	ND	0.0050	1	03/14/2020 23:09
trans-1,3-Dichloropropene	ND	0.0050	1	03/14/2020 23:09
Diisopropyl ether (DIPE)	ND	0.0050	1	03/14/2020 23:09
Ethylbenzene	ND	0.0050	1	03/14/2020 23:09
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/14/2020 23:09
Freon 113	ND	0.0050	1	03/14/2020 23:09
Hexachlorobutadiene	ND	0.0050	1	03/14/2020 23:09
Hexachloroethane	ND	0.0050	1	03/14/2020 23:09
2-Hexanone	ND	0.0050	1	03/14/2020 23:09
Isopropylbenzene	ND	0.0050	1	03/14/2020 23:09
4-Isopropyl toluene	ND	0.0050	1	03/14/2020 23:09
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/14/2020 23:09
Methylene chloride	ND	0.020	1	03/14/2020 23:09
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/14/2020 23:09
Naphthalene	ND	0.0050	1	03/14/2020 23:09
n-Propyl benzene	ND	0.0050	1	03/14/2020 23:09
Styrene	ND	0.0050	1	03/14/2020 23:09
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/14/2020 23:09
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/14/2020 23:09
Tetrachloroethene	ND	0.0050	1	03/14/2020 23:09
Toluene	ND	0.0050	1	03/14/2020 23:09
1,2,3-Trichlorobenzene	ND	0.0050	1	03/14/2020 23:09
1,2,4-Trichlorobenzene	ND	0.0050	1	03/14/2020 23:09
1,1,1-Trichloroethane	ND	0.0050	1	03/14/2020 23:09
1,1,2-Trichloroethane	ND	0.0050	1	03/14/2020 23:09
Trichloroethene	ND	0.0050	1	03/14/2020 23:09
Trichlorofluoromethane	ND	0.0050	1	03/14/2020 23:09
1,2,3-Trichloropropane	ND	0.0050	1	03/14/2020 23:09
1,2,4-Trimethylbenzene	ND	0.0050	1	03/14/2020 23:09
1,3,5-Trimethylbenzene	ND	0.0050	1	03/14/2020 23:09
Vinyl Chloride	ND	0.0050	1	03/14/2020 23:09
m,p-Xylene	ND	0.0050	1	03/14/2020 23:09
o-Xylene	ND	0.0050	1	03/14/2020 23:09
Xylenes, Total	ND	0.0050	1	03/14/2020 23:09

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-5	2003414-002A	Soil	03/07/2020 12:17	GC38 03142018.D	195296

Analytes	Result	RL	DF	Date Analyzed
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Surrogates	REC (%)	Limits	Date Analyzed
Dibromofluoromethane	94	66-116	03/14/2020 23:09
Toluene-d8	109	86-110	03/14/2020 23:09
4-BFB	97	71-114	03/14/2020 23:09
Benzene-d6	71	62-122	03/14/2020 23:09
Ethylbenzene-d10	92	69-130	03/14/2020 23:09
1,2-DCB-d4	70	55-108	03/14/2020 23:09

Analyst(s): TK

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-10	2003414-003A	Soil	03/07/2020 12:21	GC38 03142015.D	195296

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/14/2020 21:17
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/14/2020 21:17
Benzene	ND	0.0050	1	03/14/2020 21:17
Bromobenzene	ND	0.0050	1	03/14/2020 21:17
Bromochloromethane	ND	0.0050	1	03/14/2020 21:17
Bromodichloromethane	ND	0.0050	1	03/14/2020 21:17
Bromoform	ND	0.0050	1	03/14/2020 21:17
Bromomethane	ND	0.0050	1	03/14/2020 21:17
2-Butanone (MEK)	ND	0.050	1	03/14/2020 21:17
t-Butyl alcohol (TBA)	ND	0.050	1	03/14/2020 21:17
n-Butyl benzene	ND	0.0050	1	03/14/2020 21:17
sec-Butyl benzene	ND	0.0050	1	03/14/2020 21:17
tert-Butyl benzene	ND	0.0050	1	03/14/2020 21:17
Carbon Disulfide	ND	0.0050	1	03/14/2020 21:17
Carbon Tetrachloride	ND	0.0050	1	03/14/2020 21:17
Chlorobenzene	ND	0.0050	1	03/14/2020 21:17
Chloroethane	ND	0.0050	1	03/14/2020 21:17
Chloroform	ND	0.0050	1	03/14/2020 21:17
Chloromethane	ND	0.0050	1	03/14/2020 21:17
2-Chlorotoluene	ND	0.0050	1	03/14/2020 21:17
4-Chlorotoluene	ND	0.0050	1	03/14/2020 21:17
Dibromochloromethane	ND	0.0050	1	03/14/2020 21:17
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/14/2020 21:17
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/14/2020 21:17
Dibromomethane	ND	0.0050	1	03/14/2020 21:17
1,2-Dichlorobenzene	ND	0.0050	1	03/14/2020 21:17
1,3-Dichlorobenzene	ND	0.0050	1	03/14/2020 21:17
1,4-Dichlorobenzene	ND	0.0050	1	03/14/2020 21:17
Dichlorodifluoromethane	ND	0.0050	1	03/14/2020 21:17
1,1-Dichloroethane	ND	0.0050	1	03/14/2020 21:17
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/14/2020 21:17
1,1-Dichloroethene	ND	0.0050	1	03/14/2020 21:17
cis-1,2-Dichloroethene	ND	0.0050	1	03/14/2020 21:17
trans-1,2-Dichloroethene	ND	0.0050	1	03/14/2020 21:17
1,2-Dichloropropane	ND	0.0050	1	03/14/2020 21:17
1,3-Dichloropropane	ND	0.0050	1	03/14/2020 21:17
2,2-Dichloropropane	ND	0.0050	1	03/14/2020 21:17

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-10	2003414-003A	Soil	03/07/2020 12:21	GC38 03142015.D	195296

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/14/2020 21:17
cis-1,3-Dichloropropene	ND	0.0050	1	03/14/2020 21:17
trans-1,3-Dichloropropene	ND	0.0050	1	03/14/2020 21:17
Diisopropyl ether (DIPE)	ND	0.0050	1	03/14/2020 21:17
Ethylbenzene	ND	0.0050	1	03/14/2020 21:17
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/14/2020 21:17
Freon 113	ND	0.0050	1	03/14/2020 21:17
Hexachlorobutadiene	ND	0.0050	1	03/14/2020 21:17
Hexachloroethane	ND	0.0050	1	03/14/2020 21:17
2-Hexanone	ND	0.0050	1	03/14/2020 21:17
Isopropylbenzene	ND	0.0050	1	03/14/2020 21:17
4-Isopropyl toluene	ND	0.0050	1	03/14/2020 21:17
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/14/2020 21:17
Methylene chloride	ND	0.020	1	03/14/2020 21:17
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/14/2020 21:17
Naphthalene	ND	0.0050	1	03/14/2020 21:17
n-Propyl benzene	ND	0.0050	1	03/14/2020 21:17
Styrene	ND	0.0050	1	03/14/2020 21:17
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/14/2020 21:17
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/14/2020 21:17
Tetrachloroethene	ND	0.0050	1	03/14/2020 21:17
Toluene	ND	0.0050	1	03/14/2020 21:17
1,2,3-Trichlorobenzene	ND	0.0050	1	03/14/2020 21:17
1,2,4-Trichlorobenzene	ND	0.0050	1	03/14/2020 21:17
1,1,1-Trichloroethane	ND	0.0050	1	03/14/2020 21:17
1,1,2-Trichloroethane	ND	0.0050	1	03/14/2020 21:17
Trichloroethene	ND	0.0050	1	03/14/2020 21:17
Trichlorofluoromethane	ND	0.0050	1	03/14/2020 21:17
1,2,3-Trichloropropane	ND	0.0050	1	03/14/2020 21:17
1,2,4-Trimethylbenzene	ND	0.0050	1	03/14/2020 21:17
1,3,5-Trimethylbenzene	ND	0.0050	1	03/14/2020 21:17
Vinyl Chloride	ND	0.0050	1	03/14/2020 21:17
m,p-Xylene	ND	0.0050	1	03/14/2020 21:17
o-Xylene	ND	0.0050	1	03/14/2020 21:17
Xylenes, Total	ND	0.0050	1	03/14/2020 21:17

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-10	2003414-003A	Soil	03/07/2020 12:21	GC38 03142015.D	195296

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	103	66-116		03/14/2020 21:17
Toluene-d8	108	86-110		03/14/2020 21:17
4-BFB	95	71-114		03/14/2020 21:17
Benzene-d6	74	62-122		03/14/2020 21:17
Ethylbenzene-d10	87	69-130		03/14/2020 21:17
1,2-DCB-d4	66	55-108		03/14/2020 21:17

Analyst(s): TK

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-15	2003414-004A	Soil	03/07/2020 12:25	GC38 03142016.D	195296

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/14/2020 21:54
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/14/2020 21:54
Benzene	ND	0.0050	1	03/14/2020 21:54
Bromobenzene	ND	0.0050	1	03/14/2020 21:54
Bromochloromethane	ND	0.0050	1	03/14/2020 21:54
Bromodichloromethane	ND	0.0050	1	03/14/2020 21:54
Bromoform	ND	0.0050	1	03/14/2020 21:54
Bromomethane	ND	0.0050	1	03/14/2020 21:54
2-Butanone (MEK)	ND	0.050	1	03/14/2020 21:54
t-Butyl alcohol (TBA)	ND	0.050	1	03/14/2020 21:54
n-Butyl benzene	ND	0.0050	1	03/14/2020 21:54
sec-Butyl benzene	ND	0.0050	1	03/14/2020 21:54
tert-Butyl benzene	ND	0.0050	1	03/14/2020 21:54
Carbon Disulfide	ND	0.0050	1	03/14/2020 21:54
Carbon Tetrachloride	ND	0.0050	1	03/14/2020 21:54
Chlorobenzene	ND	0.0050	1	03/14/2020 21:54
Chloroethane	ND	0.0050	1	03/14/2020 21:54
Chloroform	ND	0.0050	1	03/14/2020 21:54
Chloromethane	ND	0.0050	1	03/14/2020 21:54
2-Chlorotoluene	ND	0.0050	1	03/14/2020 21:54
4-Chlorotoluene	ND	0.0050	1	03/14/2020 21:54
Dibromochloromethane	ND	0.0050	1	03/14/2020 21:54
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/14/2020 21:54
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/14/2020 21:54
Dibromomethane	ND	0.0050	1	03/14/2020 21:54
1,2-Dichlorobenzene	ND	0.0050	1	03/14/2020 21:54
1,3-Dichlorobenzene	ND	0.0050	1	03/14/2020 21:54
1,4-Dichlorobenzene	ND	0.0050	1	03/14/2020 21:54
Dichlorodifluoromethane	ND	0.0050	1	03/14/2020 21:54
1,1-Dichloroethane	ND	0.0050	1	03/14/2020 21:54
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/14/2020 21:54
1,1-Dichloroethene	ND	0.0050	1	03/14/2020 21:54
cis-1,2-Dichloroethene	ND	0.0050	1	03/14/2020 21:54
trans-1,2-Dichloroethene	ND	0.0050	1	03/14/2020 21:54
1,2-Dichloropropane	ND	0.0050	1	03/14/2020 21:54
1,3-Dichloropropane	ND	0.0050	1	03/14/2020 21:54
2,2-Dichloropropane	ND	0.0050	1	03/14/2020 21:54

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-15	2003414-004A	Soil	03/07/2020 12:25	GC38 03142016.D	195296

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/14/2020 21:54
cis-1,3-Dichloropropene	ND	0.0050	1	03/14/2020 21:54
trans-1,3-Dichloropropene	ND	0.0050	1	03/14/2020 21:54
Diisopropyl ether (DIPE)	ND	0.0050	1	03/14/2020 21:54
Ethylbenzene	ND	0.0050	1	03/14/2020 21:54
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/14/2020 21:54
Freon 113	ND	0.0050	1	03/14/2020 21:54
Hexachlorobutadiene	ND	0.0050	1	03/14/2020 21:54
Hexachloroethane	ND	0.0050	1	03/14/2020 21:54
2-Hexanone	ND	0.0050	1	03/14/2020 21:54
Isopropylbenzene	ND	0.0050	1	03/14/2020 21:54
4-Isopropyl toluene	ND	0.0050	1	03/14/2020 21:54
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/14/2020 21:54
Methylene chloride	ND	0.020	1	03/14/2020 21:54
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/14/2020 21:54
Naphthalene	ND	0.0050	1	03/14/2020 21:54
n-Propyl benzene	ND	0.0050	1	03/14/2020 21:54
Styrene	ND	0.0050	1	03/14/2020 21:54
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/14/2020 21:54
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/14/2020 21:54
Tetrachloroethene	ND	0.0050	1	03/14/2020 21:54
Toluene	ND	0.0050	1	03/14/2020 21:54
1,2,3-Trichlorobenzene	ND	0.0050	1	03/14/2020 21:54
1,2,4-Trichlorobenzene	ND	0.0050	1	03/14/2020 21:54
1,1,1-Trichloroethane	ND	0.0050	1	03/14/2020 21:54
1,1,2-Trichloroethane	ND	0.0050	1	03/14/2020 21:54
Trichloroethene	ND	0.0050	1	03/14/2020 21:54
Trichlorofluoromethane	ND	0.0050	1	03/14/2020 21:54
1,2,3-Trichloropropane	ND	0.0050	1	03/14/2020 21:54
1,2,4-Trimethylbenzene	ND	0.0050	1	03/14/2020 21:54
1,3,5-Trimethylbenzene	ND	0.0050	1	03/14/2020 21:54
Vinyl Chloride	ND	0.0050	1	03/14/2020 21:54
m,p-Xylene	ND	0.0050	1	03/14/2020 21:54
o-Xylene	ND	0.0050	1	03/14/2020 21:54
Xylenes, Total	ND	0.0050	1	03/14/2020 21:54

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-15	2003414-004A	Soil	03/07/2020 12:25	GC38 03142016.D	195296

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
Dibromofluoromethane	103	66-116		03/14/2020 21:54
Toluene-d8	108	86-110		03/14/2020 21:54
4-BFB	95	71-114		03/14/2020 21:54
Benzene-d6	74	62-122		03/14/2020 21:54
Ethylbenzene-d10	86	69-130		03/14/2020 21:54
1,2-DCB-d4	66	55-108		03/14/2020 21:54

Analyst(s): TK

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-20	2003414-005A	Soil	03/07/2020 12:29	GC16 03142010.D	195296

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/14/2020 19:41
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/14/2020 19:41
Benzene	ND	0.0050	1	03/14/2020 19:41
Bromobenzene	ND	0.0050	1	03/14/2020 19:41
Bromochloromethane	ND	0.0050	1	03/14/2020 19:41
Bromodichloromethane	ND	0.0050	1	03/14/2020 19:41
Bromoform	ND	0.0050	1	03/14/2020 19:41
Bromomethane	ND	0.0050	1	03/14/2020 19:41
2-Butanone (MEK)	ND	0.050	1	03/14/2020 19:41
t-Butyl alcohol (TBA)	ND	0.050	1	03/14/2020 19:41
n-Butyl benzene	ND	0.0050	1	03/14/2020 19:41
sec-Butyl benzene	ND	0.0050	1	03/14/2020 19:41
tert-Butyl benzene	ND	0.0050	1	03/14/2020 19:41
Carbon Disulfide	ND	0.0050	1	03/14/2020 19:41
Carbon Tetrachloride	ND	0.0050	1	03/14/2020 19:41
Chlorobenzene	ND	0.0050	1	03/14/2020 19:41
Chloroethane	ND	0.0050	1	03/14/2020 19:41
Chloroform	ND	0.0050	1	03/14/2020 19:41
Chloromethane	ND	0.0050	1	03/14/2020 19:41
2-Chlorotoluene	ND	0.0050	1	03/14/2020 19:41
4-Chlorotoluene	ND	0.0050	1	03/14/2020 19:41
Dibromochloromethane	ND	0.0050	1	03/14/2020 19:41
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/14/2020 19:41
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/14/2020 19:41
Dibromomethane	ND	0.0050	1	03/14/2020 19:41
1,2-Dichlorobenzene	ND	0.0050	1	03/14/2020 19:41
1,3-Dichlorobenzene	ND	0.0050	1	03/14/2020 19:41
1,4-Dichlorobenzene	ND	0.0050	1	03/14/2020 19:41
Dichlorodifluoromethane	ND	0.0050	1	03/14/2020 19:41
1,1-Dichloroethane	ND	0.0050	1	03/14/2020 19:41
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/14/2020 19:41
1,1-Dichloroethene	ND	0.0050	1	03/14/2020 19:41
cis-1,2-Dichloroethene	ND	0.0050	1	03/14/2020 19:41
trans-1,2-Dichloroethene	ND	0.0050	1	03/14/2020 19:41
1,2-Dichloropropane	ND	0.0050	1	03/14/2020 19:41
1,3-Dichloropropane	ND	0.0050	1	03/14/2020 19:41
2,2-Dichloropropane	ND	0.0050	1	03/14/2020 19:41

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-20	2003414-005A	Soil	03/07/2020 12:29	GC16 03142010.D	195296

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/14/2020 19:41
cis-1,3-Dichloropropene	ND	0.0050	1	03/14/2020 19:41
trans-1,3-Dichloropropene	ND	0.0050	1	03/14/2020 19:41
Diisopropyl ether (DIPE)	ND	0.0050	1	03/14/2020 19:41
Ethylbenzene	ND	0.0050	1	03/14/2020 19:41
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/14/2020 19:41
Freon 113	ND	0.0050	1	03/14/2020 19:41
Hexachlorobutadiene	ND	0.0050	1	03/14/2020 19:41
Hexachloroethane	ND	0.0050	1	03/14/2020 19:41
2-Hexanone	ND	0.0050	1	03/14/2020 19:41
Isopropylbenzene	ND	0.0050	1	03/14/2020 19:41
4-Isopropyl toluene	ND	0.0050	1	03/14/2020 19:41
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/14/2020 19:41
Methylene chloride	ND	0.020	1	03/14/2020 19:41
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/14/2020 19:41
Naphthalene	ND	0.0050	1	03/14/2020 19:41
n-Propyl benzene	ND	0.0050	1	03/14/2020 19:41
Styrene	ND	0.0050	1	03/14/2020 19:41
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/14/2020 19:41
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/14/2020 19:41
Tetrachloroethene	ND	0.0050	1	03/14/2020 19:41
Toluene	ND	0.0050	1	03/14/2020 19:41
1,2,3-Trichlorobenzene	ND	0.0050	1	03/14/2020 19:41
1,2,4-Trichlorobenzene	ND	0.0050	1	03/14/2020 19:41
1,1,1-Trichloroethane	ND	0.0050	1	03/14/2020 19:41
1,1,2-Trichloroethane	ND	0.0050	1	03/14/2020 19:41
Trichloroethene	ND	0.0050	1	03/14/2020 19:41
Trichlorofluoromethane	ND	0.0050	1	03/14/2020 19:41
1,2,3-Trichloropropane	ND	0.0050	1	03/14/2020 19:41
1,2,4-Trimethylbenzene	ND	0.0050	1	03/14/2020 19:41
1,3,5-Trimethylbenzene	ND	0.0050	1	03/14/2020 19:41
Vinyl Chloride	ND	0.0050	1	03/14/2020 19:41
m,p-Xylene	ND	0.0050	1	03/14/2020 19:41
o-Xylene	ND	0.0050	1	03/14/2020 19:41
Xylenes, Total	ND	0.0050	1	03/14/2020 19:41

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-20	2003414-005A	Soil	03/07/2020 12:29	GC16 03142010.D	195296

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	
Dibromofluoromethane	107		66-116	03/14/2020 19:41
Toluene-d8	120	S	86-110	03/14/2020 19:41
4-BFB	92		71-114	03/14/2020 19:41
Benzene-d6	80		62-122	03/14/2020 19:41
Ethylbenzene-d10	105		69-130	03/14/2020 19:41
1,2-DCB-d4	74		55-108	03/14/2020 19:41

Analyst(s): TK

Analytical Comments: c12

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-0.5	2003414-006A	Soil	03/07/2020 13:10	GC16 03142011.D	195296

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/14/2020 20:20
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/14/2020 20:20
Benzene	ND	0.0050	1	03/14/2020 20:20
Bromobenzene	ND	0.0050	1	03/14/2020 20:20
Bromochloromethane	ND	0.0050	1	03/14/2020 20:20
Bromodichloromethane	ND	0.0050	1	03/14/2020 20:20
Bromoform	ND	0.0050	1	03/14/2020 20:20
Bromomethane	ND	0.0050	1	03/14/2020 20:20
2-Butanone (MEK)	ND	0.050	1	03/14/2020 20:20
t-Butyl alcohol (TBA)	ND	0.050	1	03/14/2020 20:20
n-Butyl benzene	ND	0.0050	1	03/14/2020 20:20
sec-Butyl benzene	ND	0.0050	1	03/14/2020 20:20
tert-Butyl benzene	ND	0.0050	1	03/14/2020 20:20
Carbon Disulfide	ND	0.0050	1	03/14/2020 20:20
Carbon Tetrachloride	ND	0.0050	1	03/14/2020 20:20
Chlorobenzene	ND	0.0050	1	03/14/2020 20:20
Chloroethane	ND	0.0050	1	03/14/2020 20:20
Chloroform	ND	0.0050	1	03/14/2020 20:20
Chloromethane	ND	0.0050	1	03/14/2020 20:20
2-Chlorotoluene	ND	0.0050	1	03/14/2020 20:20
4-Chlorotoluene	ND	0.0050	1	03/14/2020 20:20
Dibromochloromethane	ND	0.0050	1	03/14/2020 20:20
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/14/2020 20:20
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/14/2020 20:20
Dibromomethane	ND	0.0050	1	03/14/2020 20:20
1,2-Dichlorobenzene	ND	0.0050	1	03/14/2020 20:20
1,3-Dichlorobenzene	ND	0.0050	1	03/14/2020 20:20
1,4-Dichlorobenzene	ND	0.0050	1	03/14/2020 20:20
Dichlorodifluoromethane	ND	0.0050	1	03/14/2020 20:20
1,1-Dichloroethane	ND	0.0050	1	03/14/2020 20:20
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/14/2020 20:20
1,1-Dichloroethene	ND	0.0050	1	03/14/2020 20:20
cis-1,2-Dichloroethene	ND	0.0050	1	03/14/2020 20:20
trans-1,2-Dichloroethene	ND	0.0050	1	03/14/2020 20:20
1,2-Dichloropropane	ND	0.0050	1	03/14/2020 20:20
1,3-Dichloropropane	ND	0.0050	1	03/14/2020 20:20
2,2-Dichloropropane	ND	0.0050	1	03/14/2020 20:20

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-0.5	2003414-006A	Soil	03/07/2020 13:10	GC16 03142011.D	195296

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/14/2020 20:20
cis-1,3-Dichloropropene	ND	0.0050	1	03/14/2020 20:20
trans-1,3-Dichloropropene	ND	0.0050	1	03/14/2020 20:20
Diisopropyl ether (DIPE)	ND	0.0050	1	03/14/2020 20:20
Ethylbenzene	ND	0.0050	1	03/14/2020 20:20
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/14/2020 20:20
Freon 113	ND	0.0050	1	03/14/2020 20:20
Hexachlorobutadiene	ND	0.0050	1	03/14/2020 20:20
Hexachloroethane	ND	0.0050	1	03/14/2020 20:20
2-Hexanone	ND	0.0050	1	03/14/2020 20:20
Isopropylbenzene	ND	0.0050	1	03/14/2020 20:20
4-Isopropyl toluene	ND	0.0050	1	03/14/2020 20:20
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/14/2020 20:20
Methylene chloride	ND	0.020	1	03/14/2020 20:20
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/14/2020 20:20
Naphthalene	ND	0.0050	1	03/14/2020 20:20
n-Propyl benzene	ND	0.0050	1	03/14/2020 20:20
Styrene	ND	0.0050	1	03/14/2020 20:20
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/14/2020 20:20
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/14/2020 20:20
Tetrachloroethene	ND	0.0050	1	03/14/2020 20:20
Toluene	ND	0.0050	1	03/14/2020 20:20
1,2,3-Trichlorobenzene	ND	0.0050	1	03/14/2020 20:20
1,2,4-Trichlorobenzene	ND	0.0050	1	03/14/2020 20:20
1,1,1-Trichloroethane	ND	0.0050	1	03/14/2020 20:20
1,1,2-Trichloroethane	ND	0.0050	1	03/14/2020 20:20
Trichloroethene	ND	0.0050	1	03/14/2020 20:20
Trichlorofluoromethane	ND	0.0050	1	03/14/2020 20:20
1,2,3-Trichloropropane	ND	0.0050	1	03/14/2020 20:20
1,2,4-Trimethylbenzene	ND	0.0050	1	03/14/2020 20:20
1,3,5-Trimethylbenzene	ND	0.0050	1	03/14/2020 20:20
Vinyl Chloride	ND	0.0050	1	03/14/2020 20:20
m,p-Xylene	ND	0.0050	1	03/14/2020 20:20
o-Xylene	ND	0.0050	1	03/14/2020 20:20
Xylenes, Total	ND	0.0050	1	03/14/2020 20:20

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-0.5	2003414-006A	Soil	03/07/2020 13:10	GC16 03142011.D	195296

Analytes	Result	RL	DF	Date Analyzed
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Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Dibromofluoromethane	104		66-116	03/14/2020 20:20
Toluene-d8	119	S	86-110	03/14/2020 20:20
4-BFB	96		71-114	03/14/2020 20:20
Benzene-d6	75		62-122	03/14/2020 20:20
Ethylbenzene-d10	94		69-130	03/14/2020 20:20
1,2-DCB-d4	68		55-108	03/14/2020 20:20

Analyst(s): TK

Analytical Comments: c12

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-5	2003414-007A	Soil	03/07/2020 13:00	GC16 03142012.D	195296

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/14/2020 20:59
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/14/2020 20:59
Benzene	ND	0.0050	1	03/14/2020 20:59
Bromobenzene	ND	0.0050	1	03/14/2020 20:59
Bromochloromethane	ND	0.0050	1	03/14/2020 20:59
Bromodichloromethane	ND	0.0050	1	03/14/2020 20:59
Bromoform	ND	0.0050	1	03/14/2020 20:59
Bromomethane	ND	0.0050	1	03/14/2020 20:59
2-Butanone (MEK)	ND	0.050	1	03/14/2020 20:59
t-Butyl alcohol (TBA)	ND	0.050	1	03/14/2020 20:59
n-Butyl benzene	ND	0.0050	1	03/14/2020 20:59
sec-Butyl benzene	ND	0.0050	1	03/14/2020 20:59
tert-Butyl benzene	ND	0.0050	1	03/14/2020 20:59
Carbon Disulfide	ND	0.0050	1	03/14/2020 20:59
Carbon Tetrachloride	ND	0.0050	1	03/14/2020 20:59
Chlorobenzene	ND	0.0050	1	03/14/2020 20:59
Chloroethane	ND	0.0050	1	03/14/2020 20:59
Chloroform	ND	0.0050	1	03/14/2020 20:59
Chloromethane	ND	0.0050	1	03/14/2020 20:59
2-Chlorotoluene	ND	0.0050	1	03/14/2020 20:59
4-Chlorotoluene	ND	0.0050	1	03/14/2020 20:59
Dibromochloromethane	ND	0.0050	1	03/14/2020 20:59
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/14/2020 20:59
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/14/2020 20:59
Dibromomethane	ND	0.0050	1	03/14/2020 20:59
1,2-Dichlorobenzene	ND	0.0050	1	03/14/2020 20:59
1,3-Dichlorobenzene	ND	0.0050	1	03/14/2020 20:59
1,4-Dichlorobenzene	ND	0.0050	1	03/14/2020 20:59
Dichlorodifluoromethane	ND	0.0050	1	03/14/2020 20:59
1,1-Dichloroethane	ND	0.0050	1	03/14/2020 20:59
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/14/2020 20:59
1,1-Dichloroethene	ND	0.0050	1	03/14/2020 20:59
cis-1,2-Dichloroethene	ND	0.0050	1	03/14/2020 20:59
trans-1,2-Dichloroethene	ND	0.0050	1	03/14/2020 20:59
1,2-Dichloropropane	ND	0.0050	1	03/14/2020 20:59
1,3-Dichloropropane	ND	0.0050	1	03/14/2020 20:59
2,2-Dichloropropane	ND	0.0050	1	03/14/2020 20:59

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-5	2003414-007A	Soil	03/07/2020 13:00	GC16 03142012.D	195296

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/14/2020 20:59
cis-1,3-Dichloropropene	ND	0.0050	1	03/14/2020 20:59
trans-1,3-Dichloropropene	ND	0.0050	1	03/14/2020 20:59
Diisopropyl ether (DIPE)	ND	0.0050	1	03/14/2020 20:59
Ethylbenzene	ND	0.0050	1	03/14/2020 20:59
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/14/2020 20:59
Freon 113	ND	0.0050	1	03/14/2020 20:59
Hexachlorobutadiene	ND	0.0050	1	03/14/2020 20:59
Hexachloroethane	ND	0.0050	1	03/14/2020 20:59
2-Hexanone	ND	0.0050	1	03/14/2020 20:59
Isopropylbenzene	ND	0.0050	1	03/14/2020 20:59
4-Isopropyl toluene	ND	0.0050	1	03/14/2020 20:59
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/14/2020 20:59
Methylene chloride	ND	0.020	1	03/14/2020 20:59
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/14/2020 20:59
Naphthalene	ND	0.0050	1	03/14/2020 20:59
n-Propyl benzene	ND	0.0050	1	03/14/2020 20:59
Styrene	ND	0.0050	1	03/14/2020 20:59
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/14/2020 20:59
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/14/2020 20:59
Tetrachloroethene	ND	0.0050	1	03/14/2020 20:59
Toluene	ND	0.0050	1	03/14/2020 20:59
1,2,3-Trichlorobenzene	ND	0.0050	1	03/14/2020 20:59
1,2,4-Trichlorobenzene	ND	0.0050	1	03/14/2020 20:59
1,1,1-Trichloroethane	ND	0.0050	1	03/14/2020 20:59
1,1,2-Trichloroethane	ND	0.0050	1	03/14/2020 20:59
Trichloroethene	ND	0.0050	1	03/14/2020 20:59
Trichlorofluoromethane	ND	0.0050	1	03/14/2020 20:59
1,2,3-Trichloropropane	ND	0.0050	1	03/14/2020 20:59
1,2,4-Trimethylbenzene	ND	0.0050	1	03/14/2020 20:59
1,3,5-Trimethylbenzene	ND	0.0050	1	03/14/2020 20:59
Vinyl Chloride	ND	0.0050	1	03/14/2020 20:59
m,p-Xylene	ND	0.0050	1	03/14/2020 20:59
o-Xylene	ND	0.0050	1	03/14/2020 20:59
Xylenes, Total	ND	0.0050	1	03/14/2020 20:59

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-5	2003414-007A	Soil	03/07/2020 13:00	GC16 03142012.D	195296

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	
Dibromofluoromethane	105		66-116	03/14/2020 20:59
Toluene-d8	118	S	86-110	03/14/2020 20:59
4-BFB	94		71-114	03/14/2020 20:59
Benzene-d6	75		62-122	03/14/2020 20:59
Ethylbenzene-d10	97		69-130	03/14/2020 20:59
1,2-DCB-d4	69		55-108	03/14/2020 20:59

Analyst(s): TK

Analytical Comments: c12

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-10	2003414-008A	Soil	03/07/2020 13:20	GC16 03142013.D	195296

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/14/2020 21:39
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/14/2020 21:39
Benzene	ND	0.0050	1	03/14/2020 21:39
Bromobenzene	ND	0.0050	1	03/14/2020 21:39
Bromochloromethane	ND	0.0050	1	03/14/2020 21:39
Bromodichloromethane	ND	0.0050	1	03/14/2020 21:39
Bromoform	ND	0.0050	1	03/14/2020 21:39
Bromomethane	ND	0.0050	1	03/14/2020 21:39
2-Butanone (MEK)	ND	0.050	1	03/14/2020 21:39
t-Butyl alcohol (TBA)	ND	0.050	1	03/14/2020 21:39
n-Butyl benzene	ND	0.0050	1	03/14/2020 21:39
sec-Butyl benzene	ND	0.0050	1	03/14/2020 21:39
tert-Butyl benzene	ND	0.0050	1	03/14/2020 21:39
Carbon Disulfide	ND	0.0050	1	03/14/2020 21:39
Carbon Tetrachloride	ND	0.0050	1	03/14/2020 21:39
Chlorobenzene	ND	0.0050	1	03/14/2020 21:39
Chloroethane	ND	0.0050	1	03/14/2020 21:39
Chloroform	ND	0.0050	1	03/14/2020 21:39
Chloromethane	ND	0.0050	1	03/14/2020 21:39
2-Chlorotoluene	ND	0.0050	1	03/14/2020 21:39
4-Chlorotoluene	ND	0.0050	1	03/14/2020 21:39
Dibromochloromethane	ND	0.0050	1	03/14/2020 21:39
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/14/2020 21:39
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/14/2020 21:39
Dibromomethane	ND	0.0050	1	03/14/2020 21:39
1,2-Dichlorobenzene	ND	0.0050	1	03/14/2020 21:39
1,3-Dichlorobenzene	ND	0.0050	1	03/14/2020 21:39
1,4-Dichlorobenzene	ND	0.0050	1	03/14/2020 21:39
Dichlorodifluoromethane	ND	0.0050	1	03/14/2020 21:39
1,1-Dichloroethane	ND	0.0050	1	03/14/2020 21:39
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/14/2020 21:39
1,1-Dichloroethene	ND	0.0050	1	03/14/2020 21:39
cis-1,2-Dichloroethene	ND	0.0050	1	03/14/2020 21:39
trans-1,2-Dichloroethene	ND	0.0050	1	03/14/2020 21:39
1,2-Dichloropropane	ND	0.0050	1	03/14/2020 21:39
1,3-Dichloropropane	ND	0.0050	1	03/14/2020 21:39
2,2-Dichloropropane	ND	0.0050	1	03/14/2020 21:39

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-10	2003414-008A	Soil	03/07/2020 13:20	GC16 03142013.D	195296

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/14/2020 21:39
cis-1,3-Dichloropropene	ND	0.0050	1	03/14/2020 21:39
trans-1,3-Dichloropropene	ND	0.0050	1	03/14/2020 21:39
Diisopropyl ether (DIPE)	ND	0.0050	1	03/14/2020 21:39
Ethylbenzene	ND	0.0050	1	03/14/2020 21:39
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/14/2020 21:39
Freon 113	ND	0.0050	1	03/14/2020 21:39
Hexachlorobutadiene	ND	0.0050	1	03/14/2020 21:39
Hexachloroethane	ND	0.0050	1	03/14/2020 21:39
2-Hexanone	ND	0.0050	1	03/14/2020 21:39
Isopropylbenzene	ND	0.0050	1	03/14/2020 21:39
4-Isopropyl toluene	ND	0.0050	1	03/14/2020 21:39
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/14/2020 21:39
Methylene chloride	ND	0.020	1	03/14/2020 21:39
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/14/2020 21:39
Naphthalene	ND	0.0050	1	03/14/2020 21:39
n-Propyl benzene	ND	0.0050	1	03/14/2020 21:39
Styrene	ND	0.0050	1	03/14/2020 21:39
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/14/2020 21:39
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/14/2020 21:39
Tetrachloroethene	ND	0.0050	1	03/14/2020 21:39
Toluene	ND	0.0050	1	03/14/2020 21:39
1,2,3-Trichlorobenzene	ND	0.0050	1	03/14/2020 21:39
1,2,4-Trichlorobenzene	ND	0.0050	1	03/14/2020 21:39
1,1,1-Trichloroethane	ND	0.0050	1	03/14/2020 21:39
1,1,2-Trichloroethane	ND	0.0050	1	03/14/2020 21:39
Trichloroethene	ND	0.0050	1	03/14/2020 21:39
Trichlorofluoromethane	ND	0.0050	1	03/14/2020 21:39
1,2,3-Trichloropropane	ND	0.0050	1	03/14/2020 21:39
1,2,4-Trimethylbenzene	ND	0.0050	1	03/14/2020 21:39
1,3,5-Trimethylbenzene	ND	0.0050	1	03/14/2020 21:39
Vinyl Chloride	ND	0.0050	1	03/14/2020 21:39
m,p-Xylene	ND	0.0050	1	03/14/2020 21:39
o-Xylene	ND	0.0050	1	03/14/2020 21:39
Xylenes, Total	ND	0.0050	1	03/14/2020 21:39

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-10	2003414-008A	Soil	03/07/2020 13:20	GC16 03142013.D	195296

Analytes	Result	RL	DF	Date Analyzed
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Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Dibromofluoromethane	107		66-116	03/14/2020 21:39
Toluene-d8	116	S	86-110	03/14/2020 21:39
4-BFB	92		71-114	03/14/2020 21:39
Benzene-d6	70		62-122	03/14/2020 21:39
Ethylbenzene-d10	86		69-130	03/14/2020 21:39
1,2-DCB-d4	66		55-108	03/14/2020 21:39

Analyst(s): TK

Analytical Comments: c12

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-15	2003414-009A	Soil	03/07/2020 13:25	GC16 03142014.D	195296

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/14/2020 22:18
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/14/2020 22:18
Benzene	ND	0.0050	1	03/14/2020 22:18
Bromobenzene	ND	0.0050	1	03/14/2020 22:18
Bromochloromethane	ND	0.0050	1	03/14/2020 22:18
Bromodichloromethane	ND	0.0050	1	03/14/2020 22:18
Bromoform	ND	0.0050	1	03/14/2020 22:18
Bromomethane	ND	0.0050	1	03/14/2020 22:18
2-Butanone (MEK)	ND	0.050	1	03/14/2020 22:18
t-Butyl alcohol (TBA)	ND	0.050	1	03/14/2020 22:18
n-Butyl benzene	ND	0.0050	1	03/14/2020 22:18
sec-Butyl benzene	ND	0.0050	1	03/14/2020 22:18
tert-Butyl benzene	ND	0.0050	1	03/14/2020 22:18
Carbon Disulfide	ND	0.0050	1	03/14/2020 22:18
Carbon Tetrachloride	ND	0.0050	1	03/14/2020 22:18
Chlorobenzene	ND	0.0050	1	03/14/2020 22:18
Chloroethane	ND	0.0050	1	03/14/2020 22:18
Chloroform	ND	0.0050	1	03/14/2020 22:18
Chloromethane	ND	0.0050	1	03/14/2020 22:18
2-Chlorotoluene	ND	0.0050	1	03/14/2020 22:18
4-Chlorotoluene	ND	0.0050	1	03/14/2020 22:18
Dibromochloromethane	ND	0.0050	1	03/14/2020 22:18
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/14/2020 22:18
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/14/2020 22:18
Dibromomethane	ND	0.0050	1	03/14/2020 22:18
1,2-Dichlorobenzene	ND	0.0050	1	03/14/2020 22:18
1,3-Dichlorobenzene	ND	0.0050	1	03/14/2020 22:18
1,4-Dichlorobenzene	ND	0.0050	1	03/14/2020 22:18
Dichlorodifluoromethane	ND	0.0050	1	03/14/2020 22:18
1,1-Dichloroethane	ND	0.0050	1	03/14/2020 22:18
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/14/2020 22:18
1,1-Dichloroethene	ND	0.0050	1	03/14/2020 22:18
cis-1,2-Dichloroethene	ND	0.0050	1	03/14/2020 22:18
trans-1,2-Dichloroethene	ND	0.0050	1	03/14/2020 22:18
1,2-Dichloropropane	ND	0.0050	1	03/14/2020 22:18
1,3-Dichloropropane	ND	0.0050	1	03/14/2020 22:18
2,2-Dichloropropane	ND	0.0050	1	03/14/2020 22:18

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-15	2003414-009A	Soil	03/07/2020 13:25	GC16 03142014.D	195296

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/14/2020 22:18
cis-1,3-Dichloropropene	ND	0.0050	1	03/14/2020 22:18
trans-1,3-Dichloropropene	ND	0.0050	1	03/14/2020 22:18
Diisopropyl ether (DIPE)	ND	0.0050	1	03/14/2020 22:18
Ethylbenzene	ND	0.0050	1	03/14/2020 22:18
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/14/2020 22:18
Freon 113	ND	0.0050	1	03/14/2020 22:18
Hexachlorobutadiene	ND	0.0050	1	03/14/2020 22:18
Hexachloroethane	ND	0.0050	1	03/14/2020 22:18
2-Hexanone	ND	0.0050	1	03/14/2020 22:18
Isopropylbenzene	ND	0.0050	1	03/14/2020 22:18
4-Isopropyl toluene	ND	0.0050	1	03/14/2020 22:18
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/14/2020 22:18
Methylene chloride	ND	0.020	1	03/14/2020 22:18
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/14/2020 22:18
Naphthalene	ND	0.0050	1	03/14/2020 22:18
n-Propyl benzene	ND	0.0050	1	03/14/2020 22:18
Styrene	ND	0.0050	1	03/14/2020 22:18
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/14/2020 22:18
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/14/2020 22:18
Tetrachloroethene	ND	0.0050	1	03/14/2020 22:18
Toluene	ND	0.0050	1	03/14/2020 22:18
1,2,3-Trichlorobenzene	ND	0.0050	1	03/14/2020 22:18
1,2,4-Trichlorobenzene	ND	0.0050	1	03/14/2020 22:18
1,1,1-Trichloroethane	ND	0.0050	1	03/14/2020 22:18
1,1,2-Trichloroethane	ND	0.0050	1	03/14/2020 22:18
Trichloroethene	ND	0.0050	1	03/14/2020 22:18
Trichlorofluoromethane	ND	0.0050	1	03/14/2020 22:18
1,2,3-Trichloropropane	ND	0.0050	1	03/14/2020 22:18
1,2,4-Trimethylbenzene	ND	0.0050	1	03/14/2020 22:18
1,3,5-Trimethylbenzene	ND	0.0050	1	03/14/2020 22:18
Vinyl Chloride	ND	0.0050	1	03/14/2020 22:18
m,p-Xylene	ND	0.0050	1	03/14/2020 22:18
o-Xylene	ND	0.0050	1	03/14/2020 22:18
Xylenes, Total	ND	0.0050	1	03/14/2020 22:18

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-15	2003414-009A	Soil	03/07/2020 13:25	GC16 03142014.D	195296

Analytes	Result	RL	DF	Date Analyzed
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Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Dibromofluoromethane	105		66-116	03/14/2020 22:18
Toluene-d8	119	S	86-110	03/14/2020 22:18
4-BFB	94		71-114	03/14/2020 22:18
Benzene-d6	81		62-122	03/14/2020 22:18
Ethylbenzene-d10	107		69-130	03/14/2020 22:18
1,2-DCB-d4	76		55-108	03/14/2020 22:18

Analyst(s): TK

Analytical Comments: c12

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-20	2003414-010A	Soil	03/07/2020 13:28	GC16 03142015.D	195296

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/14/2020 22:57
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/14/2020 22:57
Benzene	ND	0.0050	1	03/14/2020 22:57
Bromobenzene	ND	0.0050	1	03/14/2020 22:57
Bromochloromethane	ND	0.0050	1	03/14/2020 22:57
Bromodichloromethane	ND	0.0050	1	03/14/2020 22:57
Bromoform	ND	0.0050	1	03/14/2020 22:57
Bromomethane	ND	0.0050	1	03/14/2020 22:57
2-Butanone (MEK)	ND	0.050	1	03/14/2020 22:57
t-Butyl alcohol (TBA)	ND	0.050	1	03/14/2020 22:57
n-Butyl benzene	ND	0.0050	1	03/14/2020 22:57
sec-Butyl benzene	ND	0.0050	1	03/14/2020 22:57
tert-Butyl benzene	ND	0.0050	1	03/14/2020 22:57
Carbon Disulfide	ND	0.0050	1	03/14/2020 22:57
Carbon Tetrachloride	ND	0.0050	1	03/14/2020 22:57
Chlorobenzene	ND	0.0050	1	03/14/2020 22:57
Chloroethane	ND	0.0050	1	03/14/2020 22:57
Chloroform	ND	0.0050	1	03/14/2020 22:57
Chloromethane	ND	0.0050	1	03/14/2020 22:57
2-Chlorotoluene	ND	0.0050	1	03/14/2020 22:57
4-Chlorotoluene	ND	0.0050	1	03/14/2020 22:57
Dibromochloromethane	ND	0.0050	1	03/14/2020 22:57
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/14/2020 22:57
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/14/2020 22:57
Dibromomethane	ND	0.0050	1	03/14/2020 22:57
1,2-Dichlorobenzene	ND	0.0050	1	03/14/2020 22:57
1,3-Dichlorobenzene	ND	0.0050	1	03/14/2020 22:57
1,4-Dichlorobenzene	ND	0.0050	1	03/14/2020 22:57
Dichlorodifluoromethane	ND	0.0050	1	03/14/2020 22:57
1,1-Dichloroethane	ND	0.0050	1	03/14/2020 22:57
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/14/2020 22:57
1,1-Dichloroethene	ND	0.0050	1	03/14/2020 22:57
cis-1,2-Dichloroethene	ND	0.0050	1	03/14/2020 22:57
trans-1,2-Dichloroethene	ND	0.0050	1	03/14/2020 22:57
1,2-Dichloropropane	ND	0.0050	1	03/14/2020 22:57
1,3-Dichloropropane	ND	0.0050	1	03/14/2020 22:57
2,2-Dichloropropane	ND	0.0050	1	03/14/2020 22:57

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-20	2003414-010A	Soil	03/07/2020 13:28	GC16 03142015.D	195296

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/14/2020 22:57
cis-1,3-Dichloropropene	ND	0.0050	1	03/14/2020 22:57
trans-1,3-Dichloropropene	ND	0.0050	1	03/14/2020 22:57
Diisopropyl ether (DIPE)	ND	0.0050	1	03/14/2020 22:57
Ethylbenzene	ND	0.0050	1	03/14/2020 22:57
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/14/2020 22:57
Freon 113	ND	0.0050	1	03/14/2020 22:57
Hexachlorobutadiene	ND	0.0050	1	03/14/2020 22:57
Hexachloroethane	ND	0.0050	1	03/14/2020 22:57
2-Hexanone	ND	0.0050	1	03/14/2020 22:57
Isopropylbenzene	ND	0.0050	1	03/14/2020 22:57
4-Isopropyl toluene	ND	0.0050	1	03/14/2020 22:57
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/14/2020 22:57
Methylene chloride	ND	0.020	1	03/14/2020 22:57
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/14/2020 22:57
Naphthalene	ND	0.0050	1	03/14/2020 22:57
n-Propyl benzene	ND	0.0050	1	03/14/2020 22:57
Styrene	ND	0.0050	1	03/14/2020 22:57
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/14/2020 22:57
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/14/2020 22:57
Tetrachloroethene	ND	0.0050	1	03/14/2020 22:57
Toluene	ND	0.0050	1	03/14/2020 22:57
1,2,3-Trichlorobenzene	ND	0.0050	1	03/14/2020 22:57
1,2,4-Trichlorobenzene	ND	0.0050	1	03/14/2020 22:57
1,1,1-Trichloroethane	ND	0.0050	1	03/14/2020 22:57
1,1,2-Trichloroethane	ND	0.0050	1	03/14/2020 22:57
Trichloroethene	ND	0.0050	1	03/14/2020 22:57
Trichlorofluoromethane	ND	0.0050	1	03/14/2020 22:57
1,2,3-Trichloropropane	ND	0.0050	1	03/14/2020 22:57
1,2,4-Trimethylbenzene	ND	0.0050	1	03/14/2020 22:57
1,3,5-Trimethylbenzene	ND	0.0050	1	03/14/2020 22:57
Vinyl Chloride	ND	0.0050	1	03/14/2020 22:57
m,p-Xylene	ND	0.0050	1	03/14/2020 22:57
o-Xylene	ND	0.0050	1	03/14/2020 22:57
Xylenes, Total	ND	0.0050	1	03/14/2020 22:57

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-20	2003414-010A	Soil	03/07/2020 13:28	GC16 03142015.D	195296

Analytes	Result	RL	DF	Date Analyzed
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Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Dibromofluoromethane	106		66-116	03/14/2020 22:57
Toluene-d8	116	S	86-110	03/14/2020 22:57
4-BFB	92		71-114	03/14/2020 22:57
Benzene-d6	70		62-122	03/14/2020 22:57
Ethylbenzene-d10	89		69-130	03/14/2020 22:57
1,2-DCB-d4	69		55-108	03/14/2020 22:57

Analyst(s): TK

Analytical Comments: c12

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-3-0.5	2003414-011A	Soil	03/07/2020 13:34	GC16 03142016.D	195296

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/14/2020 23:37
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/14/2020 23:37
Benzene	ND	0.0050	1	03/14/2020 23:37
Bromobenzene	ND	0.0050	1	03/14/2020 23:37
Bromochloromethane	ND	0.0050	1	03/14/2020 23:37
Bromodichloromethane	ND	0.0050	1	03/14/2020 23:37
Bromoform	ND	0.0050	1	03/14/2020 23:37
Bromomethane	ND	0.0050	1	03/14/2020 23:37
2-Butanone (MEK)	ND	0.050	1	03/14/2020 23:37
t-Butyl alcohol (TBA)	ND	0.050	1	03/14/2020 23:37
n-Butyl benzene	ND	0.0050	1	03/14/2020 23:37
sec-Butyl benzene	ND	0.0050	1	03/14/2020 23:37
tert-Butyl benzene	ND	0.0050	1	03/14/2020 23:37
Carbon Disulfide	ND	0.0050	1	03/14/2020 23:37
Carbon Tetrachloride	ND	0.0050	1	03/14/2020 23:37
Chlorobenzene	ND	0.0050	1	03/14/2020 23:37
Chloroethane	ND	0.0050	1	03/14/2020 23:37
Chloroform	ND	0.0050	1	03/14/2020 23:37
Chloromethane	ND	0.0050	1	03/14/2020 23:37
2-Chlorotoluene	ND	0.0050	1	03/14/2020 23:37
4-Chlorotoluene	ND	0.0050	1	03/14/2020 23:37
Dibromochloromethane	ND	0.0050	1	03/14/2020 23:37
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/14/2020 23:37
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/14/2020 23:37
Dibromomethane	ND	0.0050	1	03/14/2020 23:37
1,2-Dichlorobenzene	ND	0.0050	1	03/14/2020 23:37
1,3-Dichlorobenzene	ND	0.0050	1	03/14/2020 23:37
1,4-Dichlorobenzene	ND	0.0050	1	03/14/2020 23:37
Dichlorodifluoromethane	ND	0.0050	1	03/14/2020 23:37
1,1-Dichloroethane	ND	0.0050	1	03/14/2020 23:37
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/14/2020 23:37
1,1-Dichloroethene	ND	0.0050	1	03/14/2020 23:37
cis-1,2-Dichloroethene	ND	0.0050	1	03/14/2020 23:37
trans-1,2-Dichloroethene	ND	0.0050	1	03/14/2020 23:37
1,2-Dichloropropane	ND	0.0050	1	03/14/2020 23:37
1,3-Dichloropropane	ND	0.0050	1	03/14/2020 23:37
2,2-Dichloropropane	ND	0.0050	1	03/14/2020 23:37

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-3-0.5	2003414-011A	Soil	03/07/2020 13:34	GC16 03142016.D	195296

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/14/2020 23:37
cis-1,3-Dichloropropene	ND	0.0050	1	03/14/2020 23:37
trans-1,3-Dichloropropene	ND	0.0050	1	03/14/2020 23:37
Diisopropyl ether (DIPE)	ND	0.0050	1	03/14/2020 23:37
Ethylbenzene	ND	0.0050	1	03/14/2020 23:37
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/14/2020 23:37
Freon 113	ND	0.0050	1	03/14/2020 23:37
Hexachlorobutadiene	ND	0.0050	1	03/14/2020 23:37
Hexachloroethane	ND	0.0050	1	03/14/2020 23:37
2-Hexanone	ND	0.0050	1	03/14/2020 23:37
Isopropylbenzene	ND	0.0050	1	03/14/2020 23:37
4-Isopropyl toluene	ND	0.0050	1	03/14/2020 23:37
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/14/2020 23:37
Methylene chloride	ND	0.020	1	03/14/2020 23:37
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/14/2020 23:37
Naphthalene	ND	0.0050	1	03/14/2020 23:37
n-Propyl benzene	ND	0.0050	1	03/14/2020 23:37
Styrene	ND	0.0050	1	03/14/2020 23:37
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/14/2020 23:37
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/14/2020 23:37
Tetrachloroethene	ND	0.0050	1	03/14/2020 23:37
Toluene	ND	0.0050	1	03/14/2020 23:37
1,2,3-Trichlorobenzene	ND	0.0050	1	03/14/2020 23:37
1,2,4-Trichlorobenzene	ND	0.0050	1	03/14/2020 23:37
1,1,1-Trichloroethane	ND	0.0050	1	03/14/2020 23:37
1,1,2-Trichloroethane	ND	0.0050	1	03/14/2020 23:37
Trichloroethene	ND	0.0050	1	03/14/2020 23:37
Trichlorofluoromethane	ND	0.0050	1	03/14/2020 23:37
1,2,3-Trichloropropane	ND	0.0050	1	03/14/2020 23:37
1,2,4-Trimethylbenzene	ND	0.0050	1	03/14/2020 23:37
1,3,5-Trimethylbenzene	ND	0.0050	1	03/14/2020 23:37
Vinyl Chloride	ND	0.0050	1	03/14/2020 23:37
m,p-Xylene	ND	0.0050	1	03/14/2020 23:37
o-Xylene	ND	0.0050	1	03/14/2020 23:37
Xylenes, Total	ND	0.0050	1	03/14/2020 23:37

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-3-0.5	2003414-011A	Soil	03/07/2020 13:34	GC16 03142016.D	195296

Analytes	Result	RL	DF	Date Analyzed
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Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Dibromofluoromethane	104		66-116	03/14/2020 23:37
Toluene-d8	121	S	86-110	03/14/2020 23:37
4-BFB	96		71-114	03/14/2020 23:37
Benzene-d6	75		62-122	03/14/2020 23:37
Ethylbenzene-d10	89		69-130	03/14/2020 23:37
1,2-DCB-d4	66		55-108	03/14/2020 23:37

Analyst(s): TK

Analytical Comments: c12

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-3-5	2003414-012A	Soil	03/07/2020 13:37	GC16 03142017.D	195296

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/15/2020 00:17
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/15/2020 00:17
Benzene	ND	0.0050	1	03/15/2020 00:17
Bromobenzene	ND	0.0050	1	03/15/2020 00:17
Bromochloromethane	ND	0.0050	1	03/15/2020 00:17
Bromodichloromethane	ND	0.0050	1	03/15/2020 00:17
Bromoform	ND	0.0050	1	03/15/2020 00:17
Bromomethane	ND	0.0050	1	03/15/2020 00:17
2-Butanone (MEK)	ND	0.050	1	03/15/2020 00:17
t-Butyl alcohol (TBA)	ND	0.050	1	03/15/2020 00:17
n-Butyl benzene	ND	0.0050	1	03/15/2020 00:17
sec-Butyl benzene	ND	0.0050	1	03/15/2020 00:17
tert-Butyl benzene	ND	0.0050	1	03/15/2020 00:17
Carbon Disulfide	ND	0.0050	1	03/15/2020 00:17
Carbon Tetrachloride	ND	0.0050	1	03/15/2020 00:17
Chlorobenzene	ND	0.0050	1	03/15/2020 00:17
Chloroethane	ND	0.0050	1	03/15/2020 00:17
Chloroform	ND	0.0050	1	03/15/2020 00:17
Chloromethane	ND	0.0050	1	03/15/2020 00:17
2-Chlorotoluene	ND	0.0050	1	03/15/2020 00:17
4-Chlorotoluene	ND	0.0050	1	03/15/2020 00:17
Dibromochloromethane	ND	0.0050	1	03/15/2020 00:17
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/15/2020 00:17
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/15/2020 00:17
Dibromomethane	ND	0.0050	1	03/15/2020 00:17
1,2-Dichlorobenzene	ND	0.0050	1	03/15/2020 00:17
1,3-Dichlorobenzene	ND	0.0050	1	03/15/2020 00:17
1,4-Dichlorobenzene	ND	0.0050	1	03/15/2020 00:17
Dichlorodifluoromethane	ND	0.0050	1	03/15/2020 00:17
1,1-Dichloroethane	ND	0.0050	1	03/15/2020 00:17
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/15/2020 00:17
1,1-Dichloroethene	ND	0.0050	1	03/15/2020 00:17
cis-1,2-Dichloroethene	ND	0.0050	1	03/15/2020 00:17
trans-1,2-Dichloroethene	ND	0.0050	1	03/15/2020 00:17
1,2-Dichloropropane	ND	0.0050	1	03/15/2020 00:17
1,3-Dichloropropane	ND	0.0050	1	03/15/2020 00:17
2,2-Dichloropropane	ND	0.0050	1	03/15/2020 00:17

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-3-5	2003414-012A	Soil	03/07/2020 13:37	GC16 03142017.D	195296

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/15/2020 00:17
cis-1,3-Dichloropropene	ND	0.0050	1	03/15/2020 00:17
trans-1,3-Dichloropropene	ND	0.0050	1	03/15/2020 00:17
Diisopropyl ether (DIPE)	ND	0.0050	1	03/15/2020 00:17
Ethylbenzene	ND	0.0050	1	03/15/2020 00:17
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/15/2020 00:17
Freon 113	ND	0.0050	1	03/15/2020 00:17
Hexachlorobutadiene	ND	0.0050	1	03/15/2020 00:17
Hexachloroethane	ND	0.0050	1	03/15/2020 00:17
2-Hexanone	ND	0.0050	1	03/15/2020 00:17
Isopropylbenzene	ND	0.0050	1	03/15/2020 00:17
4-Isopropyl toluene	ND	0.0050	1	03/15/2020 00:17
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/15/2020 00:17
Methylene chloride	ND	0.020	1	03/15/2020 00:17
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/15/2020 00:17
Naphthalene	ND	0.0050	1	03/15/2020 00:17
n-Propyl benzene	ND	0.0050	1	03/15/2020 00:17
Styrene	ND	0.0050	1	03/15/2020 00:17
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/15/2020 00:17
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/15/2020 00:17
Tetrachloroethene	ND	0.0050	1	03/15/2020 00:17
Toluene	ND	0.0050	1	03/15/2020 00:17
1,2,3-Trichlorobenzene	ND	0.0050	1	03/15/2020 00:17
1,2,4-Trichlorobenzene	ND	0.0050	1	03/15/2020 00:17
1,1,1-Trichloroethane	ND	0.0050	1	03/15/2020 00:17
1,1,2-Trichloroethane	ND	0.0050	1	03/15/2020 00:17
Trichloroethene	ND	0.0050	1	03/15/2020 00:17
Trichlorofluoromethane	ND	0.0050	1	03/15/2020 00:17
1,2,3-Trichloropropane	ND	0.0050	1	03/15/2020 00:17
1,2,4-Trimethylbenzene	ND	0.0050	1	03/15/2020 00:17
1,3,5-Trimethylbenzene	ND	0.0050	1	03/15/2020 00:17
Vinyl Chloride	ND	0.0050	1	03/15/2020 00:17
m,p-Xylene	ND	0.0050	1	03/15/2020 00:17
o-Xylene	ND	0.0050	1	03/15/2020 00:17
Xylenes, Total	ND	0.0050	1	03/15/2020 00:17

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-3-5	2003414-012A	Soil	03/07/2020 13:37	GC16 03142017.D	195296

Analytes	Result	RL	DF	Date Analyzed
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Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Dibromofluoromethane	102		66-116	03/15/2020 00:17
Toluene-d8	118	S	86-110	03/15/2020 00:17
4-BFB	96		71-114	03/15/2020 00:17
Benzene-d6	77		62-122	03/15/2020 00:17
Ethylbenzene-d10	102		69-130	03/15/2020 00:17
1,2-DCB-d4	74		55-108	03/15/2020 00:17

Analyst(s): TK

Analytical Comments: c12

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-4-0.5	2003414-013A	Soil	03/07/2020 13:45	GC16 03142018.D	195296

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/15/2020 00:56
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/15/2020 00:56
Benzene	ND	0.0050	1	03/15/2020 00:56
Bromobenzene	ND	0.0050	1	03/15/2020 00:56
Bromochloromethane	ND	0.0050	1	03/15/2020 00:56
Bromodichloromethane	ND	0.0050	1	03/15/2020 00:56
Bromoform	ND	0.0050	1	03/15/2020 00:56
Bromomethane	ND	0.0050	1	03/15/2020 00:56
2-Butanone (MEK)	ND	0.050	1	03/15/2020 00:56
t-Butyl alcohol (TBA)	ND	0.050	1	03/15/2020 00:56
n-Butyl benzene	ND	0.0050	1	03/15/2020 00:56
sec-Butyl benzene	ND	0.0050	1	03/15/2020 00:56
tert-Butyl benzene	ND	0.0050	1	03/15/2020 00:56
Carbon Disulfide	ND	0.0050	1	03/15/2020 00:56
Carbon Tetrachloride	ND	0.0050	1	03/15/2020 00:56
Chlorobenzene	ND	0.0050	1	03/15/2020 00:56
Chloroethane	ND	0.0050	1	03/15/2020 00:56
Chloroform	ND	0.0050	1	03/15/2020 00:56
Chloromethane	ND	0.0050	1	03/15/2020 00:56
2-Chlorotoluene	ND	0.0050	1	03/15/2020 00:56
4-Chlorotoluene	ND	0.0050	1	03/15/2020 00:56
Dibromochloromethane	ND	0.0050	1	03/15/2020 00:56
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/15/2020 00:56
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/15/2020 00:56
Dibromomethane	ND	0.0050	1	03/15/2020 00:56
1,2-Dichlorobenzene	ND	0.0050	1	03/15/2020 00:56
1,3-Dichlorobenzene	ND	0.0050	1	03/15/2020 00:56
1,4-Dichlorobenzene	ND	0.0050	1	03/15/2020 00:56
Dichlorodifluoromethane	ND	0.0050	1	03/15/2020 00:56
1,1-Dichloroethane	ND	0.0050	1	03/15/2020 00:56
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/15/2020 00:56
1,1-Dichloroethene	ND	0.0050	1	03/15/2020 00:56
cis-1,2-Dichloroethene	ND	0.0050	1	03/15/2020 00:56
trans-1,2-Dichloroethene	ND	0.0050	1	03/15/2020 00:56
1,2-Dichloropropane	ND	0.0050	1	03/15/2020 00:56
1,3-Dichloropropane	ND	0.0050	1	03/15/2020 00:56
2,2-Dichloropropane	ND	0.0050	1	03/15/2020 00:56

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-4-0.5	2003414-013A	Soil	03/07/2020 13:45	GC16 03142018.D	195296

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/15/2020 00:56
cis-1,3-Dichloropropene	ND	0.0050	1	03/15/2020 00:56
trans-1,3-Dichloropropene	ND	0.0050	1	03/15/2020 00:56
Diisopropyl ether (DIPE)	ND	0.0050	1	03/15/2020 00:56
Ethylbenzene	ND	0.0050	1	03/15/2020 00:56
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/15/2020 00:56
Freon 113	ND	0.0050	1	03/15/2020 00:56
Hexachlorobutadiene	ND	0.0050	1	03/15/2020 00:56
Hexachloroethane	ND	0.0050	1	03/15/2020 00:56
2-Hexanone	ND	0.0050	1	03/15/2020 00:56
Isopropylbenzene	ND	0.0050	1	03/15/2020 00:56
4-Isopropyl toluene	ND	0.0050	1	03/15/2020 00:56
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/15/2020 00:56
Methylene chloride	ND	0.020	1	03/15/2020 00:56
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/15/2020 00:56
Naphthalene	ND	0.0050	1	03/15/2020 00:56
n-Propyl benzene	ND	0.0050	1	03/15/2020 00:56
Styrene	ND	0.0050	1	03/15/2020 00:56
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/15/2020 00:56
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/15/2020 00:56
Tetrachloroethene	ND	0.0050	1	03/15/2020 00:56
Toluene	ND	0.0050	1	03/15/2020 00:56
1,2,3-Trichlorobenzene	ND	0.0050	1	03/15/2020 00:56
1,2,4-Trichlorobenzene	ND	0.0050	1	03/15/2020 00:56
1,1,1-Trichloroethane	ND	0.0050	1	03/15/2020 00:56
1,1,2-Trichloroethane	ND	0.0050	1	03/15/2020 00:56
Trichloroethene	ND	0.0050	1	03/15/2020 00:56
Trichlorofluoromethane	ND	0.0050	1	03/15/2020 00:56
1,2,3-Trichloropropane	ND	0.0050	1	03/15/2020 00:56
1,2,4-Trimethylbenzene	ND	0.0050	1	03/15/2020 00:56
1,3,5-Trimethylbenzene	ND	0.0050	1	03/15/2020 00:56
Vinyl Chloride	ND	0.0050	1	03/15/2020 00:56
m,p-Xylene	ND	0.0050	1	03/15/2020 00:56
o-Xylene	ND	0.0050	1	03/15/2020 00:56
Xylenes, Total	ND	0.0050	1	03/15/2020 00:56

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-4-0.5	2003414-013A	Soil	03/07/2020 13:45	GC16 03142018.D	195296

Analytes	Result	RL	DF	Date Analyzed
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Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Dibromofluoromethane	101		66-116	03/15/2020 00:56
Toluene-d8	120	S	86-110	03/15/2020 00:56
4-BFB	95		71-114	03/15/2020 00:56
Benzene-d6	77		62-122	03/15/2020 00:56
Ethylbenzene-d10	95		69-130	03/15/2020 00:56
1,2-DCB-d4	71		55-108	03/15/2020 00:56

Analyst(s): TK

Analytical Comments: c12

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-4-5	2003414-014A	Soil	03/07/2020 13:50	GC16 03152004.D	195296

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/15/2020 15:16
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/15/2020 15:16
Benzene	ND	0.0050	1	03/15/2020 15:16
Bromobenzene	ND	0.0050	1	03/15/2020 15:16
Bromochloromethane	ND	0.0050	1	03/15/2020 15:16
Bromodichloromethane	ND	0.0050	1	03/15/2020 15:16
Bromoform	ND	0.0050	1	03/15/2020 15:16
Bromomethane	ND	0.0050	1	03/15/2020 15:16
2-Butanone (MEK)	ND	0.050	1	03/15/2020 15:16
t-Butyl alcohol (TBA)	ND	0.050	1	03/15/2020 15:16
n-Butyl benzene	ND	0.0050	1	03/15/2020 15:16
sec-Butyl benzene	ND	0.0050	1	03/15/2020 15:16
tert-Butyl benzene	ND	0.0050	1	03/15/2020 15:16
Carbon Disulfide	ND	0.0050	1	03/15/2020 15:16
Carbon Tetrachloride	ND	0.0050	1	03/15/2020 15:16
Chlorobenzene	ND	0.0050	1	03/15/2020 15:16
Chloroethane	ND	0.0050	1	03/15/2020 15:16
Chloroform	ND	0.0050	1	03/15/2020 15:16
Chloromethane	ND	0.0050	1	03/15/2020 15:16
2-Chlorotoluene	ND	0.0050	1	03/15/2020 15:16
4-Chlorotoluene	ND	0.0050	1	03/15/2020 15:16
Dibromochloromethane	ND	0.0050	1	03/15/2020 15:16
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/15/2020 15:16
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/15/2020 15:16
Dibromomethane	ND	0.0050	1	03/15/2020 15:16
1,2-Dichlorobenzene	ND	0.0050	1	03/15/2020 15:16
1,3-Dichlorobenzene	ND	0.0050	1	03/15/2020 15:16
1,4-Dichlorobenzene	ND	0.0050	1	03/15/2020 15:16
Dichlorodifluoromethane	ND	0.0050	1	03/15/2020 15:16
1,1-Dichloroethane	ND	0.0050	1	03/15/2020 15:16
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/15/2020 15:16
1,1-Dichloroethene	ND	0.0050	1	03/15/2020 15:16
cis-1,2-Dichloroethene	ND	0.0050	1	03/15/2020 15:16
trans-1,2-Dichloroethene	ND	0.0050	1	03/15/2020 15:16
1,2-Dichloropropane	ND	0.0050	1	03/15/2020 15:16
1,3-Dichloropropane	ND	0.0050	1	03/15/2020 15:16
2,2-Dichloropropane	ND	0.0050	1	03/15/2020 15:16

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-4-5	2003414-014A	Soil	03/07/2020 13:50	GC16 03152004.D	195296

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/15/2020 15:16
cis-1,3-Dichloropropene	ND	0.0050	1	03/15/2020 15:16
trans-1,3-Dichloropropene	ND	0.0050	1	03/15/2020 15:16
Diisopropyl ether (DIPE)	ND	0.0050	1	03/15/2020 15:16
Ethylbenzene	ND	0.0050	1	03/15/2020 15:16
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/15/2020 15:16
Freon 113	ND	0.0050	1	03/15/2020 15:16
Hexachlorobutadiene	ND	0.0050	1	03/15/2020 15:16
Hexachloroethane	ND	0.0050	1	03/15/2020 15:16
2-Hexanone	ND	0.0050	1	03/15/2020 15:16
Isopropylbenzene	ND	0.0050	1	03/15/2020 15:16
4-Isopropyl toluene	ND	0.0050	1	03/15/2020 15:16
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/15/2020 15:16
Methylene chloride	ND	0.020	1	03/15/2020 15:16
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/15/2020 15:16
Naphthalene	ND	0.0050	1	03/15/2020 15:16
n-Propyl benzene	ND	0.0050	1	03/15/2020 15:16
Styrene	ND	0.0050	1	03/15/2020 15:16
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/15/2020 15:16
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/15/2020 15:16
Tetrachloroethene	ND	0.0050	1	03/15/2020 15:16
Toluene	ND	0.0050	1	03/15/2020 15:16
1,2,3-Trichlorobenzene	ND	0.0050	1	03/15/2020 15:16
1,2,4-Trichlorobenzene	ND	0.0050	1	03/15/2020 15:16
1,1,1-Trichloroethane	ND	0.0050	1	03/15/2020 15:16
1,1,2-Trichloroethane	ND	0.0050	1	03/15/2020 15:16
Trichloroethene	ND	0.0050	1	03/15/2020 15:16
Trichlorofluoromethane	ND	0.0050	1	03/15/2020 15:16
1,2,3-Trichloropropane	ND	0.0050	1	03/15/2020 15:16
1,2,4-Trimethylbenzene	ND	0.0050	1	03/15/2020 15:16
1,3,5-Trimethylbenzene	ND	0.0050	1	03/15/2020 15:16
Vinyl Chloride	ND	0.0050	1	03/15/2020 15:16
m,p-Xylene	ND	0.0050	1	03/15/2020 15:16
o-Xylene	ND	0.0050	1	03/15/2020 15:16
Xylenes, Total	ND	0.0050	1	03/15/2020 15:16

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-4-5	2003414-014A	Soil	03/07/2020 13:50	GC16 03152004.D	195296

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	
Dibromofluoromethane	124	S	66-116	03/15/2020 15:16
Toluene-d8	109		86-110	03/15/2020 15:16
4-BFB	103		71-114	03/15/2020 15:16
Benzene-d6	110		62-122	03/15/2020 15:16
Ethylbenzene-d10	123		69-130	03/15/2020 15:16
1,2-DCB-d4	83		55-108	03/15/2020 15:16

Analyst(s): KF

Analytical Comments: c12

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-5-0.5	2003414-015A	Soil	03/07/2020 10:10	GC16 03152005.D	195296

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/15/2020 15:56
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/15/2020 15:56
Benzene	ND	0.0050	1	03/15/2020 15:56
Bromobenzene	ND	0.0050	1	03/15/2020 15:56
Bromochloromethane	ND	0.0050	1	03/15/2020 15:56
Bromodichloromethane	ND	0.0050	1	03/15/2020 15:56
Bromoform	ND	0.0050	1	03/15/2020 15:56
Bromomethane	ND	0.0050	1	03/15/2020 15:56
2-Butanone (MEK)	ND	0.050	1	03/15/2020 15:56
t-Butyl alcohol (TBA)	ND	0.050	1	03/15/2020 15:56
n-Butyl benzene	ND	0.0050	1	03/15/2020 15:56
sec-Butyl benzene	ND	0.0050	1	03/15/2020 15:56
tert-Butyl benzene	ND	0.0050	1	03/15/2020 15:56
Carbon Disulfide	ND	0.0050	1	03/15/2020 15:56
Carbon Tetrachloride	ND	0.0050	1	03/15/2020 15:56
Chlorobenzene	ND	0.0050	1	03/15/2020 15:56
Chloroethane	ND	0.0050	1	03/15/2020 15:56
Chloroform	ND	0.0050	1	03/15/2020 15:56
Chloromethane	ND	0.0050	1	03/15/2020 15:56
2-Chlorotoluene	ND	0.0050	1	03/15/2020 15:56
4-Chlorotoluene	ND	0.0050	1	03/15/2020 15:56
Dibromochloromethane	ND	0.0050	1	03/15/2020 15:56
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/15/2020 15:56
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/15/2020 15:56
Dibromomethane	ND	0.0050	1	03/15/2020 15:56
1,2-Dichlorobenzene	ND	0.0050	1	03/15/2020 15:56
1,3-Dichlorobenzene	ND	0.0050	1	03/15/2020 15:56
1,4-Dichlorobenzene	ND	0.0050	1	03/15/2020 15:56
Dichlorodifluoromethane	ND	0.0050	1	03/15/2020 15:56
1,1-Dichloroethane	ND	0.0050	1	03/15/2020 15:56
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/15/2020 15:56
1,1-Dichloroethene	ND	0.0050	1	03/15/2020 15:56
cis-1,2-Dichloroethene	ND	0.0050	1	03/15/2020 15:56
trans-1,2-Dichloroethene	ND	0.0050	1	03/15/2020 15:56
1,2-Dichloropropane	ND	0.0050	1	03/15/2020 15:56
1,3-Dichloropropane	ND	0.0050	1	03/15/2020 15:56
2,2-Dichloropropane	ND	0.0050	1	03/15/2020 15:56

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-5-0.5	2003414-015A	Soil	03/07/2020 10:10	GC16 03152005.D	195296

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/15/2020 15:56
cis-1,3-Dichloropropene	ND	0.0050	1	03/15/2020 15:56
trans-1,3-Dichloropropene	ND	0.0050	1	03/15/2020 15:56
Diisopropyl ether (DIPE)	ND	0.0050	1	03/15/2020 15:56
Ethylbenzene	ND	0.0050	1	03/15/2020 15:56
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/15/2020 15:56
Freon 113	ND	0.0050	1	03/15/2020 15:56
Hexachlorobutadiene	ND	0.0050	1	03/15/2020 15:56
Hexachloroethane	ND	0.0050	1	03/15/2020 15:56
2-Hexanone	ND	0.0050	1	03/15/2020 15:56
Isopropylbenzene	ND	0.0050	1	03/15/2020 15:56
4-Isopropyl toluene	ND	0.0050	1	03/15/2020 15:56
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/15/2020 15:56
Methylene chloride	ND	0.020	1	03/15/2020 15:56
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/15/2020 15:56
Naphthalene	ND	0.0050	1	03/15/2020 15:56
n-Propyl benzene	ND	0.0050	1	03/15/2020 15:56
Styrene	ND	0.0050	1	03/15/2020 15:56
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/15/2020 15:56
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/15/2020 15:56
Tetrachloroethene	ND	0.0050	1	03/15/2020 15:56
Toluene	ND	0.0050	1	03/15/2020 15:56
1,2,3-Trichlorobenzene	ND	0.0050	1	03/15/2020 15:56
1,2,4-Trichlorobenzene	ND	0.0050	1	03/15/2020 15:56
1,1,1-Trichloroethane	ND	0.0050	1	03/15/2020 15:56
1,1,2-Trichloroethane	ND	0.0050	1	03/15/2020 15:56
Trichloroethene	ND	0.0050	1	03/15/2020 15:56
Trichlorofluoromethane	ND	0.0050	1	03/15/2020 15:56
1,2,3-Trichloropropane	ND	0.0050	1	03/15/2020 15:56
1,2,4-Trimethylbenzene	ND	0.0050	1	03/15/2020 15:56
1,3,5-Trimethylbenzene	ND	0.0050	1	03/15/2020 15:56
Vinyl Chloride	ND	0.0050	1	03/15/2020 15:56
m,p-Xylene	ND	0.0050	1	03/15/2020 15:56
o-Xylene	ND	0.0050	1	03/15/2020 15:56
Xylenes, Total	ND	0.0050	1	03/15/2020 15:56

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-5-0.5	2003414-015A	Soil	03/07/2020 10:10	GC16 03152005.D	195296

Analytes	Result	RL	DF	Date Analyzed
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Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Dibromofluoromethane	126	S	66-116	03/15/2020 15:56
Toluene-d8	109		86-110	03/15/2020 15:56
4-BFB	101		71-114	03/15/2020 15:56
Benzene-d6	100		62-122	03/15/2020 15:56
Ethylbenzene-d10	94		69-130	03/15/2020 15:56
1,2-DCB-d4	68		55-108	03/15/2020 15:56

Analyst(s): KF

Analytical Comments: c12

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-5-5	2003414-016A	Soil	03/07/2020 10:20	GC16 03152006.D	195296

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/15/2020 16:36
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/15/2020 16:36
Benzene	ND	0.0050	1	03/15/2020 16:36
Bromobenzene	ND	0.0050	1	03/15/2020 16:36
Bromochloromethane	ND	0.0050	1	03/15/2020 16:36
Bromodichloromethane	ND	0.0050	1	03/15/2020 16:36
Bromoform	ND	0.0050	1	03/15/2020 16:36
Bromomethane	ND	0.0050	1	03/15/2020 16:36
2-Butanone (MEK)	ND	0.050	1	03/15/2020 16:36
t-Butyl alcohol (TBA)	ND	0.050	1	03/15/2020 16:36
n-Butyl benzene	ND	0.0050	1	03/15/2020 16:36
sec-Butyl benzene	ND	0.0050	1	03/15/2020 16:36
tert-Butyl benzene	ND	0.0050	1	03/15/2020 16:36
Carbon Disulfide	ND	0.0050	1	03/15/2020 16:36
Carbon Tetrachloride	ND	0.0050	1	03/15/2020 16:36
Chlorobenzene	ND	0.0050	1	03/15/2020 16:36
Chloroethane	ND	0.0050	1	03/15/2020 16:36
Chloroform	ND	0.0050	1	03/15/2020 16:36
Chloromethane	ND	0.0050	1	03/15/2020 16:36
2-Chlorotoluene	ND	0.0050	1	03/15/2020 16:36
4-Chlorotoluene	ND	0.0050	1	03/15/2020 16:36
Dibromochloromethane	ND	0.0050	1	03/15/2020 16:36
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/15/2020 16:36
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/15/2020 16:36
Dibromomethane	ND	0.0050	1	03/15/2020 16:36
1,2-Dichlorobenzene	ND	0.0050	1	03/15/2020 16:36
1,3-Dichlorobenzene	ND	0.0050	1	03/15/2020 16:36
1,4-Dichlorobenzene	ND	0.0050	1	03/15/2020 16:36
Dichlorodifluoromethane	ND	0.0050	1	03/15/2020 16:36
1,1-Dichloroethane	ND	0.0050	1	03/15/2020 16:36
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/15/2020 16:36
1,1-Dichloroethene	ND	0.0050	1	03/15/2020 16:36
cis-1,2-Dichloroethene	ND	0.0050	1	03/15/2020 16:36
trans-1,2-Dichloroethene	ND	0.0050	1	03/15/2020 16:36
1,2-Dichloropropane	ND	0.0050	1	03/15/2020 16:36
1,3-Dichloropropane	ND	0.0050	1	03/15/2020 16:36
2,2-Dichloropropane	ND	0.0050	1	03/15/2020 16:36

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-5-5	2003414-016A	Soil	03/07/2020 10:20	GC16 03152006.D	195296

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/15/2020 16:36
cis-1,3-Dichloropropene	ND	0.0050	1	03/15/2020 16:36
trans-1,3-Dichloropropene	ND	0.0050	1	03/15/2020 16:36
Diisopropyl ether (DIPE)	ND	0.0050	1	03/15/2020 16:36
Ethylbenzene	ND	0.0050	1	03/15/2020 16:36
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/15/2020 16:36
Freon 113	ND	0.0050	1	03/15/2020 16:36
Hexachlorobutadiene	ND	0.0050	1	03/15/2020 16:36
Hexachloroethane	ND	0.0050	1	03/15/2020 16:36
2-Hexanone	ND	0.0050	1	03/15/2020 16:36
Isopropylbenzene	ND	0.0050	1	03/15/2020 16:36
4-Isopropyl toluene	ND	0.0050	1	03/15/2020 16:36
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/15/2020 16:36
Methylene chloride	ND	0.020	1	03/15/2020 16:36
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/15/2020 16:36
Naphthalene	ND	0.0050	1	03/15/2020 16:36
n-Propyl benzene	ND	0.0050	1	03/15/2020 16:36
Styrene	ND	0.0050	1	03/15/2020 16:36
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/15/2020 16:36
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/15/2020 16:36
Tetrachloroethene	ND	0.0050	1	03/15/2020 16:36
Toluene	ND	0.0050	1	03/15/2020 16:36
1,2,3-Trichlorobenzene	ND	0.0050	1	03/15/2020 16:36
1,2,4-Trichlorobenzene	ND	0.0050	1	03/15/2020 16:36
1,1,1-Trichloroethane	ND	0.0050	1	03/15/2020 16:36
1,1,2-Trichloroethane	ND	0.0050	1	03/15/2020 16:36
Trichloroethene	ND	0.0050	1	03/15/2020 16:36
Trichlorofluoromethane	ND	0.0050	1	03/15/2020 16:36
1,2,3-Trichloropropane	ND	0.0050	1	03/15/2020 16:36
1,2,4-Trimethylbenzene	ND	0.0050	1	03/15/2020 16:36
1,3,5-Trimethylbenzene	ND	0.0050	1	03/15/2020 16:36
Vinyl Chloride	ND	0.0050	1	03/15/2020 16:36
m,p-Xylene	ND	0.0050	1	03/15/2020 16:36
o-Xylene	ND	0.0050	1	03/15/2020 16:36
Xylenes, Total	ND	0.0050	1	03/15/2020 16:36

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-5-5	2003414-016A	Soil	03/07/2020 10:20	GC16 03152006.D	195296

Analytes	Result	RL	DF	Date Analyzed
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Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Dibromofluoromethane	126	S	66-116	03/15/2020 16:36
Toluene-d8	105		86-110	03/15/2020 16:36
4-BFB	106		71-114	03/15/2020 16:36
Benzene-d6	107		62-122	03/15/2020 16:36
Ethylbenzene-d10	115		69-130	03/15/2020 16:36
1,2-DCB-d4	77		55-108	03/15/2020 16:36

Analyst(s): KF

Analytical Comments: c12

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-6-0.5	2003414-017A	Soil	03/07/2020 10:00	GC16 03152007.D	195296

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/15/2020 17:15
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/15/2020 17:15
Benzene	ND	0.0050	1	03/15/2020 17:15
Bromobenzene	ND	0.0050	1	03/15/2020 17:15
Bromochloromethane	ND	0.0050	1	03/15/2020 17:15
Bromodichloromethane	ND	0.0050	1	03/15/2020 17:15
Bromoform	ND	0.0050	1	03/15/2020 17:15
Bromomethane	ND	0.0050	1	03/15/2020 17:15
2-Butanone (MEK)	ND	0.050	1	03/15/2020 17:15
t-Butyl alcohol (TBA)	ND	0.050	1	03/15/2020 17:15
n-Butyl benzene	ND	0.0050	1	03/15/2020 17:15
sec-Butyl benzene	ND	0.0050	1	03/15/2020 17:15
tert-Butyl benzene	ND	0.0050	1	03/15/2020 17:15
Carbon Disulfide	ND	0.0050	1	03/15/2020 17:15
Carbon Tetrachloride	ND	0.0050	1	03/15/2020 17:15
Chlorobenzene	ND	0.0050	1	03/15/2020 17:15
Chloroethane	ND	0.0050	1	03/15/2020 17:15
Chloroform	ND	0.0050	1	03/15/2020 17:15
Chloromethane	ND	0.0050	1	03/15/2020 17:15
2-Chlorotoluene	ND	0.0050	1	03/15/2020 17:15
4-Chlorotoluene	ND	0.0050	1	03/15/2020 17:15
Dibromochloromethane	ND	0.0050	1	03/15/2020 17:15
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/15/2020 17:15
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/15/2020 17:15
Dibromomethane	ND	0.0050	1	03/15/2020 17:15
1,2-Dichlorobenzene	ND	0.0050	1	03/15/2020 17:15
1,3-Dichlorobenzene	ND	0.0050	1	03/15/2020 17:15
1,4-Dichlorobenzene	ND	0.0050	1	03/15/2020 17:15
Dichlorodifluoromethane	ND	0.0050	1	03/15/2020 17:15
1,1-Dichloroethane	ND	0.0050	1	03/15/2020 17:15
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/15/2020 17:15
1,1-Dichloroethene	ND	0.0050	1	03/15/2020 17:15
cis-1,2-Dichloroethene	ND	0.0050	1	03/15/2020 17:15
trans-1,2-Dichloroethene	ND	0.0050	1	03/15/2020 17:15
1,2-Dichloropropane	ND	0.0050	1	03/15/2020 17:15
1,3-Dichloropropane	ND	0.0050	1	03/15/2020 17:15
2,2-Dichloropropane	ND	0.0050	1	03/15/2020 17:15

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-6-0.5	2003414-017A	Soil	03/07/2020 10:00	GC16 03152007.D	195296

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/15/2020 17:15
cis-1,3-Dichloropropene	ND	0.0050	1	03/15/2020 17:15
trans-1,3-Dichloropropene	ND	0.0050	1	03/15/2020 17:15
Diisopropyl ether (DIPE)	ND	0.0050	1	03/15/2020 17:15
Ethylbenzene	ND	0.0050	1	03/15/2020 17:15
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/15/2020 17:15
Freon 113	ND	0.0050	1	03/15/2020 17:15
Hexachlorobutadiene	ND	0.0050	1	03/15/2020 17:15
Hexachloroethane	ND	0.0050	1	03/15/2020 17:15
2-Hexanone	ND	0.0050	1	03/15/2020 17:15
Isopropylbenzene	ND	0.0050	1	03/15/2020 17:15
4-Isopropyl toluene	ND	0.0050	1	03/15/2020 17:15
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/15/2020 17:15
Methylene chloride	ND	0.020	1	03/15/2020 17:15
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/15/2020 17:15
Naphthalene	ND	0.0050	1	03/15/2020 17:15
n-Propyl benzene	ND	0.0050	1	03/15/2020 17:15
Styrene	ND	0.0050	1	03/15/2020 17:15
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/15/2020 17:15
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/15/2020 17:15
Tetrachloroethene	ND	0.0050	1	03/15/2020 17:15
Toluene	ND	0.0050	1	03/15/2020 17:15
1,2,3-Trichlorobenzene	ND	0.0050	1	03/15/2020 17:15
1,2,4-Trichlorobenzene	ND	0.0050	1	03/15/2020 17:15
1,1,1-Trichloroethane	ND	0.0050	1	03/15/2020 17:15
1,1,2-Trichloroethane	ND	0.0050	1	03/15/2020 17:15
Trichloroethene	ND	0.0050	1	03/15/2020 17:15
Trichlorofluoromethane	ND	0.0050	1	03/15/2020 17:15
1,2,3-Trichloropropane	ND	0.0050	1	03/15/2020 17:15
1,2,4-Trimethylbenzene	ND	0.0050	1	03/15/2020 17:15
1,3,5-Trimethylbenzene	ND	0.0050	1	03/15/2020 17:15
Vinyl Chloride	ND	0.0050	1	03/15/2020 17:15
m,p-Xylene	ND	0.0050	1	03/15/2020 17:15
o-Xylene	ND	0.0050	1	03/15/2020 17:15
Xylenes, Total	ND	0.0050	1	03/15/2020 17:15

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-6-0.5	2003414-017A	Soil	03/07/2020 10:00	GC16 03152007.D	195296

Analytes	Result	RL	DF	Date Analyzed
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Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Dibromofluoromethane	127	S	66-116	03/15/2020 17:15
Toluene-d8	105		86-110	03/15/2020 17:15
4-BFB	107		71-114	03/15/2020 17:15
Benzene-d6	108		62-122	03/15/2020 17:15
Ethylbenzene-d10	103		69-130	03/15/2020 17:15
1,2-DCB-d4	72		55-108	03/15/2020 17:15

Analyst(s): KF

Analytical Comments: c12

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-6-5	2003414-018A	Soil	03/07/2020 10:07	GC10 03102010.D	195325

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/10/2020 12:42
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/10/2020 12:42
Benzene	ND	0.0050	1	03/10/2020 12:42
Bromobenzene	ND	0.0050	1	03/10/2020 12:42
Bromochloromethane	ND	0.0050	1	03/10/2020 12:42
Bromodichloromethane	ND	0.0050	1	03/10/2020 12:42
Bromoform	ND	0.0050	1	03/10/2020 12:42
Bromomethane	ND	0.0050	1	03/10/2020 12:42
2-Butanone (MEK)	ND	0.050	1	03/10/2020 12:42
t-Butyl alcohol (TBA)	ND	0.050	1	03/10/2020 12:42
n-Butyl benzene	ND	0.0050	1	03/10/2020 12:42
sec-Butyl benzene	ND	0.0050	1	03/10/2020 12:42
tert-Butyl benzene	ND	0.0050	1	03/10/2020 12:42
Carbon Disulfide	ND	0.0050	1	03/10/2020 12:42
Carbon Tetrachloride	ND	0.0050	1	03/10/2020 12:42
Chlorobenzene	ND	0.0050	1	03/10/2020 12:42
Chloroethane	ND	0.0050	1	03/10/2020 12:42
Chloroform	ND	0.0050	1	03/10/2020 12:42
Chloromethane	ND	0.0050	1	03/10/2020 12:42
2-Chlorotoluene	ND	0.0050	1	03/10/2020 12:42
4-Chlorotoluene	ND	0.0050	1	03/10/2020 12:42
Dibromochloromethane	ND	0.0050	1	03/10/2020 12:42
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/10/2020 12:42
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/10/2020 12:42
Dibromomethane	ND	0.0050	1	03/10/2020 12:42
1,2-Dichlorobenzene	ND	0.0050	1	03/10/2020 12:42
1,3-Dichlorobenzene	ND	0.0050	1	03/10/2020 12:42
1,4-Dichlorobenzene	ND	0.0050	1	03/10/2020 12:42
Dichlorodifluoromethane	ND	0.0050	1	03/10/2020 12:42
1,1-Dichloroethane	ND	0.0050	1	03/10/2020 12:42
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/10/2020 12:42
1,1-Dichloroethene	ND	0.0050	1	03/10/2020 12:42
cis-1,2-Dichloroethene	ND	0.0050	1	03/10/2020 12:42
trans-1,2-Dichloroethene	ND	0.0050	1	03/10/2020 12:42
1,2-Dichloropropane	ND	0.0050	1	03/10/2020 12:42
1,3-Dichloropropane	ND	0.0050	1	03/10/2020 12:42
2,2-Dichloropropane	ND	0.0050	1	03/10/2020 12:42

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-6-5	2003414-018A	Soil	03/07/2020 10:07	GC10 03102010.D	195325

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/10/2020 12:42
cis-1,3-Dichloropropene	ND	0.0050	1	03/10/2020 12:42
trans-1,3-Dichloropropene	ND	0.0050	1	03/10/2020 12:42
Diisopropyl ether (DIPE)	ND	0.0050	1	03/10/2020 12:42
Ethylbenzene	ND	0.0050	1	03/10/2020 12:42
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/10/2020 12:42
Freon 113	ND	0.0050	1	03/10/2020 12:42
Hexachlorobutadiene	ND	0.0050	1	03/10/2020 12:42
Hexachloroethane	ND	0.0050	1	03/10/2020 12:42
2-Hexanone	ND	0.0050	1	03/10/2020 12:42
Isopropylbenzene	ND	0.0050	1	03/10/2020 12:42
4-Isopropyl toluene	ND	0.0050	1	03/10/2020 12:42
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/10/2020 12:42
Methylene chloride	ND	0.020	1	03/10/2020 12:42
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/10/2020 12:42
Naphthalene	ND	0.0050	1	03/10/2020 12:42
n-Propyl benzene	ND	0.0050	1	03/10/2020 12:42
Styrene	ND	0.0050	1	03/10/2020 12:42
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/10/2020 12:42
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/10/2020 12:42
Tetrachloroethene	ND	0.0050	1	03/10/2020 12:42
Toluene	ND	0.0050	1	03/10/2020 12:42
1,2,3-Trichlorobenzene	ND	0.0050	1	03/10/2020 12:42
1,2,4-Trichlorobenzene	ND	0.0050	1	03/10/2020 12:42
1,1,1-Trichloroethane	ND	0.0050	1	03/10/2020 12:42
1,1,2-Trichloroethane	ND	0.0050	1	03/10/2020 12:42
Trichloroethene	ND	0.0050	1	03/10/2020 12:42
Trichlorofluoromethane	ND	0.0050	1	03/10/2020 12:42
1,2,3-Trichloropropane	ND	0.0050	1	03/10/2020 12:42
1,2,4-Trimethylbenzene	ND	0.0050	1	03/10/2020 12:42
1,3,5-Trimethylbenzene	ND	0.0050	1	03/10/2020 12:42
Vinyl Chloride	ND	0.0050	1	03/10/2020 12:42
m,p-Xylene	ND	0.0050	1	03/10/2020 12:42
o-Xylene	ND	0.0050	1	03/10/2020 12:42
Xylenes, Total	ND	0.0050	1	03/10/2020 12:42

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-6-5	2003414-018A	Soil	03/07/2020 10:07	GC10 03102010.D	195325

Analytes	Result	RL	DF	Date Analyzed
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Surrogates	REC (%)	Limits	Date Analyzed
Dibromofluoromethane	88	66-116	03/10/2020 12:42
Toluene-d8	106	86-110	03/10/2020 12:42
4-BFB	98	71-114	03/10/2020 12:42
Benzene-d6	74	62-122	03/10/2020 12:42
Ethylbenzene-d10	88	69-130	03/10/2020 12:42
1,2-DCB-d4	72	55-108	03/10/2020 12:42

Analyst(s): KF

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-7-0.5	2003414-019A	Soil	03/07/2020 09:45	GC16 03152008.D	195325

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/15/2020 17:55
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/15/2020 17:55
Benzene	ND	0.0050	1	03/15/2020 17:55
Bromobenzene	ND	0.0050	1	03/15/2020 17:55
Bromochloromethane	ND	0.0050	1	03/15/2020 17:55
Bromodichloromethane	ND	0.0050	1	03/15/2020 17:55
Bromoform	ND	0.0050	1	03/15/2020 17:55
Bromomethane	ND	0.0050	1	03/15/2020 17:55
2-Butanone (MEK)	ND	0.050	1	03/15/2020 17:55
t-Butyl alcohol (TBA)	ND	0.050	1	03/15/2020 17:55
n-Butyl benzene	ND	0.0050	1	03/15/2020 17:55
sec-Butyl benzene	ND	0.0050	1	03/15/2020 17:55
tert-Butyl benzene	ND	0.0050	1	03/15/2020 17:55
Carbon Disulfide	ND	0.0050	1	03/15/2020 17:55
Carbon Tetrachloride	ND	0.0050	1	03/15/2020 17:55
Chlorobenzene	ND	0.0050	1	03/15/2020 17:55
Chloroethane	ND	0.0050	1	03/15/2020 17:55
Chloroform	ND	0.0050	1	03/15/2020 17:55
Chloromethane	ND	0.0050	1	03/15/2020 17:55
2-Chlorotoluene	ND	0.0050	1	03/15/2020 17:55
4-Chlorotoluene	ND	0.0050	1	03/15/2020 17:55
Dibromochloromethane	ND	0.0050	1	03/15/2020 17:55
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/15/2020 17:55
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/15/2020 17:55
Dibromomethane	ND	0.0050	1	03/15/2020 17:55
1,2-Dichlorobenzene	ND	0.0050	1	03/15/2020 17:55
1,3-Dichlorobenzene	ND	0.0050	1	03/15/2020 17:55
1,4-Dichlorobenzene	ND	0.0050	1	03/15/2020 17:55
Dichlorodifluoromethane	ND	0.0050	1	03/15/2020 17:55
1,1-Dichloroethane	ND	0.0050	1	03/15/2020 17:55
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/15/2020 17:55
1,1-Dichloroethene	ND	0.0050	1	03/15/2020 17:55
cis-1,2-Dichloroethene	ND	0.0050	1	03/15/2020 17:55
trans-1,2-Dichloroethene	ND	0.0050	1	03/15/2020 17:55
1,2-Dichloropropane	ND	0.0050	1	03/15/2020 17:55
1,3-Dichloropropane	ND	0.0050	1	03/15/2020 17:55
2,2-Dichloropropane	ND	0.0050	1	03/15/2020 17:55

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-7-0.5	2003414-019A	Soil	03/07/2020 09:45	GC16 03152008.D	195325

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/15/2020 17:55
cis-1,3-Dichloropropene	ND	0.0050	1	03/15/2020 17:55
trans-1,3-Dichloropropene	ND	0.0050	1	03/15/2020 17:55
Diisopropyl ether (DIPE)	ND	0.0050	1	03/15/2020 17:55
Ethylbenzene	ND	0.0050	1	03/15/2020 17:55
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/15/2020 17:55
Freon 113	ND	0.0050	1	03/15/2020 17:55
Hexachlorobutadiene	ND	0.0050	1	03/15/2020 17:55
Hexachloroethane	ND	0.0050	1	03/15/2020 17:55
2-Hexanone	ND	0.0050	1	03/15/2020 17:55
Isopropylbenzene	ND	0.0050	1	03/15/2020 17:55
4-Isopropyl toluene	ND	0.0050	1	03/15/2020 17:55
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/15/2020 17:55
Methylene chloride	ND	0.020	1	03/15/2020 17:55
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/15/2020 17:55
Naphthalene	ND	0.0050	1	03/15/2020 17:55
n-Propyl benzene	ND	0.0050	1	03/15/2020 17:55
Styrene	ND	0.0050	1	03/15/2020 17:55
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/15/2020 17:55
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/15/2020 17:55
Tetrachloroethene	ND	0.0050	1	03/15/2020 17:55
Toluene	ND	0.0050	1	03/15/2020 17:55
1,2,3-Trichlorobenzene	ND	0.0050	1	03/15/2020 17:55
1,2,4-Trichlorobenzene	ND	0.0050	1	03/15/2020 17:55
1,1,1-Trichloroethane	ND	0.0050	1	03/15/2020 17:55
1,1,2-Trichloroethane	ND	0.0050	1	03/15/2020 17:55
Trichloroethene	ND	0.0050	1	03/15/2020 17:55
Trichlorofluoromethane	ND	0.0050	1	03/15/2020 17:55
1,2,3-Trichloropropane	ND	0.0050	1	03/15/2020 17:55
1,2,4-Trimethylbenzene	ND	0.0050	1	03/15/2020 17:55
1,3,5-Trimethylbenzene	ND	0.0050	1	03/15/2020 17:55
Vinyl Chloride	ND	0.0050	1	03/15/2020 17:55
m,p-Xylene	ND	0.0050	1	03/15/2020 17:55
o-Xylene	ND	0.0050	1	03/15/2020 17:55
Xylenes, Total	ND	0.0050	1	03/15/2020 17:55

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-7-0.5	2003414-019A	Soil	03/07/2020 09:45	GC16 03152008.D	195325

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	
Dibromofluoromethane	126	S	66-116	03/15/2020 17:55
Toluene-d8	107		86-110	03/15/2020 17:55
4-BFB	108		71-114	03/15/2020 17:55
Benzene-d6	102		62-122	03/15/2020 17:55
Ethylbenzene-d10	99		69-130	03/15/2020 17:55
1,2-DCB-d4	69		55-108	03/15/2020 17:55

Analyst(s): KF

Analytical Comments: c12

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-7-5	2003414-020A	Soil	03/07/2020 09:50	GC16 03152009.D	195325

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/15/2020 18:35
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/15/2020 18:35
Benzene	ND	0.0050	1	03/15/2020 18:35
Bromobenzene	ND	0.0050	1	03/15/2020 18:35
Bromochloromethane	ND	0.0050	1	03/15/2020 18:35
Bromodichloromethane	ND	0.0050	1	03/15/2020 18:35
Bromoform	ND	0.0050	1	03/15/2020 18:35
Bromomethane	ND	0.0050	1	03/15/2020 18:35
2-Butanone (MEK)	ND	0.050	1	03/15/2020 18:35
t-Butyl alcohol (TBA)	ND	0.050	1	03/15/2020 18:35
n-Butyl benzene	ND	0.0050	1	03/15/2020 18:35
sec-Butyl benzene	ND	0.0050	1	03/15/2020 18:35
tert-Butyl benzene	ND	0.0050	1	03/15/2020 18:35
Carbon Disulfide	ND	0.0050	1	03/15/2020 18:35
Carbon Tetrachloride	ND	0.0050	1	03/15/2020 18:35
Chlorobenzene	ND	0.0050	1	03/15/2020 18:35
Chloroethane	ND	0.0050	1	03/15/2020 18:35
Chloroform	ND	0.0050	1	03/15/2020 18:35
Chloromethane	ND	0.0050	1	03/15/2020 18:35
2-Chlorotoluene	ND	0.0050	1	03/15/2020 18:35
4-Chlorotoluene	ND	0.0050	1	03/15/2020 18:35
Dibromochloromethane	ND	0.0050	1	03/15/2020 18:35
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/15/2020 18:35
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/15/2020 18:35
Dibromomethane	ND	0.0050	1	03/15/2020 18:35
1,2-Dichlorobenzene	ND	0.0050	1	03/15/2020 18:35
1,3-Dichlorobenzene	ND	0.0050	1	03/15/2020 18:35
1,4-Dichlorobenzene	ND	0.0050	1	03/15/2020 18:35
Dichlorodifluoromethane	ND	0.0050	1	03/15/2020 18:35
1,1-Dichloroethane	ND	0.0050	1	03/15/2020 18:35
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/15/2020 18:35
1,1-Dichloroethene	ND	0.0050	1	03/15/2020 18:35
cis-1,2-Dichloroethene	ND	0.0050	1	03/15/2020 18:35
trans-1,2-Dichloroethene	ND	0.0050	1	03/15/2020 18:35
1,2-Dichloropropane	ND	0.0050	1	03/15/2020 18:35
1,3-Dichloropropane	ND	0.0050	1	03/15/2020 18:35
2,2-Dichloropropane	ND	0.0050	1	03/15/2020 18:35

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-7-5	2003414-020A	Soil	03/07/2020 09:50	GC16 03152009.D	195325

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/15/2020 18:35
cis-1,3-Dichloropropene	ND	0.0050	1	03/15/2020 18:35
trans-1,3-Dichloropropene	ND	0.0050	1	03/15/2020 18:35
Diisopropyl ether (DIPE)	ND	0.0050	1	03/15/2020 18:35
Ethylbenzene	ND	0.0050	1	03/15/2020 18:35
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/15/2020 18:35
Freon 113	ND	0.0050	1	03/15/2020 18:35
Hexachlorobutadiene	ND	0.0050	1	03/15/2020 18:35
Hexachloroethane	ND	0.0050	1	03/15/2020 18:35
2-Hexanone	ND	0.0050	1	03/15/2020 18:35
Isopropylbenzene	ND	0.0050	1	03/15/2020 18:35
4-Isopropyl toluene	ND	0.0050	1	03/15/2020 18:35
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/15/2020 18:35
Methylene chloride	ND	0.020	1	03/15/2020 18:35
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/15/2020 18:35
Naphthalene	ND	0.0050	1	03/15/2020 18:35
n-Propyl benzene	ND	0.0050	1	03/15/2020 18:35
Styrene	ND	0.0050	1	03/15/2020 18:35
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/15/2020 18:35
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/15/2020 18:35
Tetrachloroethene	ND	0.0050	1	03/15/2020 18:35
Toluene	ND	0.0050	1	03/15/2020 18:35
1,2,3-Trichlorobenzene	ND	0.0050	1	03/15/2020 18:35
1,2,4-Trichlorobenzene	ND	0.0050	1	03/15/2020 18:35
1,1,1-Trichloroethane	ND	0.0050	1	03/15/2020 18:35
1,1,2-Trichloroethane	ND	0.0050	1	03/15/2020 18:35
Trichloroethene	ND	0.0050	1	03/15/2020 18:35
Trichlorofluoromethane	ND	0.0050	1	03/15/2020 18:35
1,2,3-Trichloropropane	ND	0.0050	1	03/15/2020 18:35
1,2,4-Trimethylbenzene	ND	0.0050	1	03/15/2020 18:35
1,3,5-Trimethylbenzene	ND	0.0050	1	03/15/2020 18:35
Vinyl Chloride	ND	0.0050	1	03/15/2020 18:35
m,p-Xylene	ND	0.0050	1	03/15/2020 18:35
o-Xylene	ND	0.0050	1	03/15/2020 18:35
Xylenes, Total	ND	0.0050	1	03/15/2020 18:35

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-7-5	2003414-020A	Soil	03/07/2020 09:50	GC16 03152009.D	195325

Analytes	Result	RL	DF	Date Analyzed
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Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Dibromofluoromethane	127	S	66-116	03/15/2020 18:35
Toluene-d8	106		86-110	03/15/2020 18:35
4-BFB	107		71-114	03/15/2020 18:35
Benzene-d6	107		62-122	03/15/2020 18:35
Ethylbenzene-d10	115		69-130	03/15/2020 18:35
1,2-DCB-d4	78		55-108	03/15/2020 18:35

Analyst(s): KF

Analytical Comments: c12

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-8-0.5	2003414-021A	Soil	03/07/2020 08:44	GC16 03152010.D	195325

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/15/2020 19:14
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/15/2020 19:14
Benzene	ND	0.0050	1	03/15/2020 19:14
Bromobenzene	ND	0.0050	1	03/15/2020 19:14
Bromochloromethane	ND	0.0050	1	03/15/2020 19:14
Bromodichloromethane	ND	0.0050	1	03/15/2020 19:14
Bromoform	ND	0.0050	1	03/15/2020 19:14
Bromomethane	ND	0.0050	1	03/15/2020 19:14
2-Butanone (MEK)	ND	0.050	1	03/15/2020 19:14
t-Butyl alcohol (TBA)	ND	0.050	1	03/15/2020 19:14
n-Butyl benzene	ND	0.0050	1	03/15/2020 19:14
sec-Butyl benzene	ND	0.0050	1	03/15/2020 19:14
tert-Butyl benzene	ND	0.0050	1	03/15/2020 19:14
Carbon Disulfide	ND	0.0050	1	03/15/2020 19:14
Carbon Tetrachloride	ND	0.0050	1	03/15/2020 19:14
Chlorobenzene	ND	0.0050	1	03/15/2020 19:14
Chloroethane	ND	0.0050	1	03/15/2020 19:14
Chloroform	ND	0.0050	1	03/15/2020 19:14
Chloromethane	ND	0.0050	1	03/15/2020 19:14
2-Chlorotoluene	ND	0.0050	1	03/15/2020 19:14
4-Chlorotoluene	ND	0.0050	1	03/15/2020 19:14
Dibromochloromethane	ND	0.0050	1	03/15/2020 19:14
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/15/2020 19:14
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/15/2020 19:14
Dibromomethane	ND	0.0050	1	03/15/2020 19:14
1,2-Dichlorobenzene	ND	0.0050	1	03/15/2020 19:14
1,3-Dichlorobenzene	ND	0.0050	1	03/15/2020 19:14
1,4-Dichlorobenzene	ND	0.0050	1	03/15/2020 19:14
Dichlorodifluoromethane	ND	0.0050	1	03/15/2020 19:14
1,1-Dichloroethane	ND	0.0050	1	03/15/2020 19:14
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/15/2020 19:14
1,1-Dichloroethene	ND	0.0050	1	03/15/2020 19:14
cis-1,2-Dichloroethene	ND	0.0050	1	03/15/2020 19:14
trans-1,2-Dichloroethene	ND	0.0050	1	03/15/2020 19:14
1,2-Dichloropropane	ND	0.0050	1	03/15/2020 19:14
1,3-Dichloropropane	ND	0.0050	1	03/15/2020 19:14
2,2-Dichloropropane	ND	0.0050	1	03/15/2020 19:14

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-8-0.5	2003414-021A	Soil	03/07/2020 08:44	GC16 03152010.D	195325

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/15/2020 19:14
cis-1,3-Dichloropropene	ND	0.0050	1	03/15/2020 19:14
trans-1,3-Dichloropropene	ND	0.0050	1	03/15/2020 19:14
Diisopropyl ether (DIPE)	ND	0.0050	1	03/15/2020 19:14
Ethylbenzene	ND	0.0050	1	03/15/2020 19:14
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/15/2020 19:14
Freon 113	ND	0.0050	1	03/15/2020 19:14
Hexachlorobutadiene	ND	0.0050	1	03/15/2020 19:14
Hexachloroethane	ND	0.0050	1	03/15/2020 19:14
2-Hexanone	ND	0.0050	1	03/15/2020 19:14
Isopropylbenzene	ND	0.0050	1	03/15/2020 19:14
4-Isopropyl toluene	ND	0.0050	1	03/15/2020 19:14
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/15/2020 19:14
Methylene chloride	ND	0.020	1	03/15/2020 19:14
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/15/2020 19:14
Naphthalene	ND	0.0050	1	03/15/2020 19:14
n-Propyl benzene	ND	0.0050	1	03/15/2020 19:14
Styrene	ND	0.0050	1	03/15/2020 19:14
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/15/2020 19:14
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/15/2020 19:14
Tetrachloroethene	ND	0.0050	1	03/15/2020 19:14
Toluene	ND	0.0050	1	03/15/2020 19:14
1,2,3-Trichlorobenzene	ND	0.0050	1	03/15/2020 19:14
1,2,4-Trichlorobenzene	ND	0.0050	1	03/15/2020 19:14
1,1,1-Trichloroethane	ND	0.0050	1	03/15/2020 19:14
1,1,2-Trichloroethane	ND	0.0050	1	03/15/2020 19:14
Trichloroethene	ND	0.0050	1	03/15/2020 19:14
Trichlorofluoromethane	ND	0.0050	1	03/15/2020 19:14
1,2,3-Trichloropropane	ND	0.0050	1	03/15/2020 19:14
1,2,4-Trimethylbenzene	ND	0.0050	1	03/15/2020 19:14
1,3,5-Trimethylbenzene	ND	0.0050	1	03/15/2020 19:14
Vinyl Chloride	ND	0.0050	1	03/15/2020 19:14
m,p-Xylene	ND	0.0050	1	03/15/2020 19:14
o-Xylene	ND	0.0050	1	03/15/2020 19:14
Xylenes, Total	ND	0.0050	1	03/15/2020 19:14

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-8-0.5	2003414-021A	Soil	03/07/2020 08:44	GC16 03152010.D	195325

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	
Dibromofluoromethane	124	S	66-116	03/15/2020 19:14
Toluene-d8	108		86-110	03/15/2020 19:14
4-BFB	108		71-114	03/15/2020 19:14
Benzene-d6	103		62-122	03/15/2020 19:14
Ethylbenzene-d10	105		69-130	03/15/2020 19:14
1,2-DCB-d4	72		55-108	03/15/2020 19:14

Analyst(s): KF

Analytical Comments: c12

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-8-5	2003414-022A	Soil	03/07/2020 08:51	GC16 03152011.D	195325

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.10	1	03/15/2020 19:53
tert-Amyl methyl ether (TAME)	ND	0.0050	1	03/15/2020 19:53
Benzene	ND	0.0050	1	03/15/2020 19:53
Bromobenzene	ND	0.0050	1	03/15/2020 19:53
Bromochloromethane	ND	0.0050	1	03/15/2020 19:53
Bromodichloromethane	ND	0.0050	1	03/15/2020 19:53
Bromoform	ND	0.0050	1	03/15/2020 19:53
Bromomethane	ND	0.0050	1	03/15/2020 19:53
2-Butanone (MEK)	ND	0.050	1	03/15/2020 19:53
t-Butyl alcohol (TBA)	ND	0.050	1	03/15/2020 19:53
n-Butyl benzene	ND	0.0050	1	03/15/2020 19:53
sec-Butyl benzene	ND	0.0050	1	03/15/2020 19:53
tert-Butyl benzene	ND	0.0050	1	03/15/2020 19:53
Carbon Disulfide	ND	0.0050	1	03/15/2020 19:53
Carbon Tetrachloride	ND	0.0050	1	03/15/2020 19:53
Chlorobenzene	ND	0.0050	1	03/15/2020 19:53
Chloroethane	ND	0.0050	1	03/15/2020 19:53
Chloroform	ND	0.0050	1	03/15/2020 19:53
Chloromethane	ND	0.0050	1	03/15/2020 19:53
2-Chlorotoluene	ND	0.0050	1	03/15/2020 19:53
4-Chlorotoluene	ND	0.0050	1	03/15/2020 19:53
Dibromochloromethane	ND	0.0050	1	03/15/2020 19:53
1,2-Dibromo-3-chloropropane	ND	0.0050	1	03/15/2020 19:53
1,2-Dibromoethane (EDB)	ND	0.0040	1	03/15/2020 19:53
Dibromomethane	ND	0.0050	1	03/15/2020 19:53
1,2-Dichlorobenzene	ND	0.0050	1	03/15/2020 19:53
1,3-Dichlorobenzene	ND	0.0050	1	03/15/2020 19:53
1,4-Dichlorobenzene	ND	0.0050	1	03/15/2020 19:53
Dichlorodifluoromethane	ND	0.0050	1	03/15/2020 19:53
1,1-Dichloroethane	ND	0.0050	1	03/15/2020 19:53
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1	03/15/2020 19:53
1,1-Dichloroethene	ND	0.0050	1	03/15/2020 19:53
cis-1,2-Dichloroethene	ND	0.0050	1	03/15/2020 19:53
trans-1,2-Dichloroethene	ND	0.0050	1	03/15/2020 19:53
1,2-Dichloropropane	ND	0.0050	1	03/15/2020 19:53
1,3-Dichloropropane	ND	0.0050	1	03/15/2020 19:53
2,2-Dichloropropane	ND	0.0050	1	03/15/2020 19:53

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-8-5	2003414-022A	Soil	03/07/2020 08:51	GC16 03152011.D	195325

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0050	1	03/15/2020 19:53
cis-1,3-Dichloropropene	ND	0.0050	1	03/15/2020 19:53
trans-1,3-Dichloropropene	ND	0.0050	1	03/15/2020 19:53
Diisopropyl ether (DIPE)	ND	0.0050	1	03/15/2020 19:53
Ethylbenzene	ND	0.0050	1	03/15/2020 19:53
Ethyl tert-butyl ether (ETBE)	ND	0.0050	1	03/15/2020 19:53
Freon 113	ND	0.0050	1	03/15/2020 19:53
Hexachlorobutadiene	ND	0.0050	1	03/15/2020 19:53
Hexachloroethane	ND	0.0050	1	03/15/2020 19:53
2-Hexanone	ND	0.0050	1	03/15/2020 19:53
Isopropylbenzene	ND	0.0050	1	03/15/2020 19:53
4-Isopropyl toluene	ND	0.0050	1	03/15/2020 19:53
Methyl-t-butyl ether (MTBE)	ND	0.0050	1	03/15/2020 19:53
Methylene chloride	ND	0.020	1	03/15/2020 19:53
4-Methyl-2-pentanone (MIBK)	ND	0.0050	1	03/15/2020 19:53
Naphthalene	ND	0.0050	1	03/15/2020 19:53
n-Propyl benzene	ND	0.0050	1	03/15/2020 19:53
Styrene	ND	0.0050	1	03/15/2020 19:53
1,1,1,2-Tetrachloroethane	ND	0.0050	1	03/15/2020 19:53
1,1,2,2-Tetrachloroethane	ND	0.0050	1	03/15/2020 19:53
Tetrachloroethene	ND	0.0050	1	03/15/2020 19:53
Toluene	ND	0.0050	1	03/15/2020 19:53
1,2,3-Trichlorobenzene	ND	0.0050	1	03/15/2020 19:53
1,2,4-Trichlorobenzene	ND	0.0050	1	03/15/2020 19:53
1,1,1-Trichloroethane	ND	0.0050	1	03/15/2020 19:53
1,1,2-Trichloroethane	ND	0.0050	1	03/15/2020 19:53
Trichloroethene	ND	0.0050	1	03/15/2020 19:53
Trichlorofluoromethane	ND	0.0050	1	03/15/2020 19:53
1,2,3-Trichloropropane	ND	0.0050	1	03/15/2020 19:53
1,2,4-Trimethylbenzene	ND	0.0050	1	03/15/2020 19:53
1,3,5-Trimethylbenzene	ND	0.0050	1	03/15/2020 19:53
Vinyl Chloride	ND	0.0050	1	03/15/2020 19:53
m,p-Xylene	ND	0.0050	1	03/15/2020 19:53
o-Xylene	ND	0.0050	1	03/15/2020 19:53
Xylenes, Total	ND	0.0050	1	03/15/2020 19:53

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-8-5	2003414-022A	Soil	03/07/2020 08:51	GC16 03152011.D	195325

Analytes	Result	RL	DF	Date Analyzed
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Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Dibromofluoromethane	138	S	66-116	03/15/2020 19:53
Toluene-d8	106		86-110	03/15/2020 19:53
4-BFB	103		71-114	03/15/2020 19:53
Benzene-d6	116		62-122	03/15/2020 19:53
Ethylbenzene-d10	117		69-130	03/15/2020 19:53
1,2-DCB-d4	79		55-108	03/15/2020 19:53

Analyst(s): KF

Analytical Comments: c12

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-10	2003414-003A	Soil	03/07/2020 12:21	GC17 03112012.D	195301

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.0013	1	03/11/2020 13:26
Acenaphthylene	ND	0.0013	1	03/11/2020 13:26
Acetochlor	ND	0.25	1	03/11/2020 13:26
Anthracene	ND	0.0013	1	03/11/2020 13:26
Benzidine	ND	1.2	1	03/11/2020 13:26
Benzo (a) anthracene	ND	0.0050	1	03/11/2020 13:26
Benzo (a) pyrene	ND	0.0025	1	03/11/2020 13:26
Benzo (b) fluoranthene	ND	0.0063	1	03/11/2020 13:26
Benzo (g,h,i) perylene	ND	0.0025	1	03/11/2020 13:26
Benzo (k) fluoranthene	ND	0.0013	1	03/11/2020 13:26
Benzyl Alcohol	ND	1.2	1	03/11/2020 13:26
1,1-Biphenyl	ND	0.013	1	03/11/2020 13:26
Bis (2-chloroethoxy) Methane	ND	0.25	1	03/11/2020 13:26
Bis (2-chloroethyl) Ether	ND	0.0025	1	03/11/2020 13:26
Bis (2-chloroisopropyl) Ether	ND	0.0025	1	03/11/2020 13:26
Bis (2-ethylhexyl) Adipate	ND	0.50	1	03/11/2020 13:26
Bis (2-ethylhexyl) Phthalate	0.0054	0.0050	1	03/11/2020 13:26
4-Bromophenyl Phenyl Ether	ND	0.25	1	03/11/2020 13:26
Butylbenzyl Phthalate	ND	0.025	1	03/11/2020 13:26
4-Chloroaniline	ND	0.0025	1	03/11/2020 13:26
4-Chloro-3-methylphenol	ND	0.25	1	03/11/2020 13:26
2-Chloronaphthalene	ND	0.25	1	03/11/2020 13:26
2-Chlorophenol	ND	0.0050	1	03/11/2020 13:26
4-Chlorophenyl Phenyl Ether	ND	0.25	1	03/11/2020 13:26
Chrysene	ND	0.0025	1	03/11/2020 13:26
Dibenzo (a,h) anthracene	ND	0.0025	1	03/11/2020 13:26
Dibenzofuran	ND	0.25	1	03/11/2020 13:26
Di-n-butyl Phthalate	ND	0.0050	1	03/11/2020 13:26
1,2-Dichlorobenzene	ND	0.25	1	03/11/2020 13:26
1,3-Dichlorobenzene	ND	0.25	1	03/11/2020 13:26
1,4-Dichlorobenzene	ND	0.25	1	03/11/2020 13:26
3,3-Dichlorobenzidine	ND	0.0025	1	03/11/2020 13:26
2,4-Dichlorophenol	ND	0.013	1	03/11/2020 13:26
Diethyl Phthalate	ND	0.0050	1	03/11/2020 13:26
2,4-Dimethylphenol	ND	0.25	1	03/11/2020 13:26
Dimethyl Phthalate	ND	0.0025	1	03/11/2020 13:26
4,6-Dinitro-2-methylphenol	ND	1.2	1	03/11/2020 13:26

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-10	2003414-003A	Soil	03/07/2020 12:21	GC17 03112012.D	195301

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrophenol	ND	0.13	1	03/11/2020 13:26
2,4-Dinitrotoluene	ND	0.0063	1	03/11/2020 13:26
2,6-Dinitrotoluene	ND	0.0025	1	03/11/2020 13:26
Di-n-octyl Phthalate	ND	0.0050	1	03/11/2020 13:26
1,2-Diphenylhydrazine	ND	0.25	1	03/11/2020 13:26
Fluoranthene	ND	0.0013	1	03/11/2020 13:26
Fluorene	ND	0.0025	1	03/11/2020 13:26
Hexachlorobenzene	ND	0.0013	1	03/11/2020 13:26
Hexachlorobutadiene	ND	0.0025	1	03/11/2020 13:26
Hexachlorocyclopentadiene	ND	2.0	1	03/11/2020 13:26
Hexachloroethane	ND	0.0025	1	03/11/2020 13:26
Indeno (1,2,3-cd) pyrene	ND	0.0025	1	03/11/2020 13:26
Isophorone	ND	0.25	1	03/11/2020 13:26
1-Methylnaphthalene	ND	0.0013	1	03/11/2020 13:26
2-Methylnaphthalene	ND	0.0025	1	03/11/2020 13:26
2-Methylphenol (o-Cresol)	ND	0.50	1	03/11/2020 13:26
3 & 4-Methylphenol (m,p-Cresol)	ND	0.25	1	03/11/2020 13:26
Naphthalene	ND	0.0013	1	03/11/2020 13:26
2-Nitroaniline	ND	1.2	1	03/11/2020 13:26
3-Nitroaniline	ND	1.2	1	03/11/2020 13:26
4-Nitroaniline	ND	1.2	1	03/11/2020 13:26
Nitrobenzene	ND	0.25	1	03/11/2020 13:26
2-Nitrophenol	ND	1.2	1	03/11/2020 13:26
4-Nitrophenol	ND	1.2	1	03/11/2020 13:26
N-Nitrosodiphenylamine	ND	0.25	1	03/11/2020 13:26
N-Nitrosodi-n-propylamine	ND	0.25	1	03/11/2020 13:26
Pentachlorophenol	ND	0.031	1	03/11/2020 13:26
Phenanthrene	ND	0.0050	1	03/11/2020 13:26
Phenol	0.068	0.0050	1	03/11/2020 13:26
Pyrene	ND	0.0025	1	03/11/2020 13:26
Pyridine	ND	0.25	1	03/11/2020 13:26
1,2,4-Trichlorobenzene	ND	0.25	1	03/11/2020 13:26
2,4,5-Trichlorophenol	ND	0.0025	1	03/11/2020 13:26
2,4,6-Trichlorophenol	ND	0.013	1	03/11/2020 13:26

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-10	2003414-003A	Soil	03/07/2020 12:21	GC17 03112012.D	195301

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorophenol	92	60-130		03/11/2020 13:26
Phenol-d5	93	50-130		03/11/2020 13:26
Nitrobenzene-d5	81	60-130		03/11/2020 13:26
2-Fluorobiphenyl	78	60-130		03/11/2020 13:26
2,4,6-Tribromophenol	52	50-130		03/11/2020 13:26
4-Terphenyl-d14	73	50-130		03/11/2020 13:26

Analyst(s): REB

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-15	2003414-004A	Soil	03/07/2020 12:25	GC21 03102034.D	195301

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.0013	1	03/10/2020 23:53
Acenaphthylene	ND	0.0013	1	03/10/2020 23:53
Acetochlor	ND	0.25	1	03/10/2020 23:53
Anthracene	ND	0.0013	1	03/10/2020 23:53
Benzidine	ND	1.2	1	03/10/2020 23:53
Benzo (a) anthracene	ND	0.0050	1	03/10/2020 23:53
Benzo (a) pyrene	ND	0.0025	1	03/10/2020 23:53
Benzo (b) fluoranthene	ND	0.0063	1	03/10/2020 23:53
Benzo (g,h,i) perylene	ND	0.0025	1	03/10/2020 23:53
Benzo (k) fluoranthene	ND	0.0013	1	03/10/2020 23:53
Benzyl Alcohol	ND	1.2	1	03/10/2020 23:53
1,1-Biphenyl	ND	0.013	1	03/10/2020 23:53
Bis (2-chloroethoxy) Methane	ND	0.25	1	03/10/2020 23:53
Bis (2-chloroethyl) Ether	ND	0.0025	1	03/10/2020 23:53
Bis (2-chloroisopropyl) Ether	ND	0.0025	1	03/10/2020 23:53
Bis (2-ethylhexyl) Adipate	ND	0.50	1	03/10/2020 23:53
Bis (2-ethylhexyl) Phthalate	0.015	0.0050	1	03/10/2020 23:53
4-Bromophenyl Phenyl Ether	ND	0.25	1	03/10/2020 23:53
Butylbenzyl Phthalate	ND	0.025	1	03/10/2020 23:53
4-Chloroaniline	ND	0.0025	1	03/10/2020 23:53
4-Chloro-3-methylphenol	ND	0.25	1	03/10/2020 23:53
2-Chloronaphthalene	ND	0.25	1	03/10/2020 23:53
2-Chlorophenol	ND	0.0050	1	03/10/2020 23:53
4-Chlorophenyl Phenyl Ether	ND	0.25	1	03/10/2020 23:53
Chrysene	ND	0.0025	1	03/10/2020 23:53
Dibenzo (a,h) anthracene	ND	0.0025	1	03/10/2020 23:53
Dibenzofuran	ND	0.25	1	03/10/2020 23:53
Di-n-butyl Phthalate	0.0053	0.0050	1	03/10/2020 23:53
1,2-Dichlorobenzene	ND	0.25	1	03/10/2020 23:53
1,3-Dichlorobenzene	ND	0.25	1	03/10/2020 23:53
1,4-Dichlorobenzene	ND	0.25	1	03/10/2020 23:53
3,3-Dichlorobenzidine	ND	0.0025	1	03/10/2020 23:53
2,4-Dichlorophenol	ND	0.013	1	03/10/2020 23:53
Diethyl Phthalate	ND	0.0050	1	03/10/2020 23:53
2,4-Dimethylphenol	ND	0.25	1	03/10/2020 23:53
Dimethyl Phthalate	ND	0.0025	1	03/10/2020 23:53
4,6-Dinitro-2-methylphenol	ND	1.2	1	03/10/2020 23:53

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-15	2003414-004A	Soil	03/07/2020 12:25	GC21 03102034.D	195301

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrophenol	ND	0.13	1	03/10/2020 23:53
2,4-Dinitrotoluene	ND	0.0063	1	03/10/2020 23:53
2,6-Dinitrotoluene	ND	0.0025	1	03/10/2020 23:53
Di-n-octyl Phthalate	ND	0.0050	1	03/10/2020 23:53
1,2-Diphenylhydrazine	ND	0.25	1	03/10/2020 23:53
Fluoranthene	ND	0.0013	1	03/10/2020 23:53
Fluorene	ND	0.0025	1	03/10/2020 23:53
Hexachlorobenzene	ND	0.0013	1	03/10/2020 23:53
Hexachlorobutadiene	ND	0.0025	1	03/10/2020 23:53
Hexachlorocyclopentadiene	ND	2.0	1	03/10/2020 23:53
Hexachloroethane	ND	0.0025	1	03/10/2020 23:53
Indeno (1,2,3-cd) pyrene	ND	0.0025	1	03/10/2020 23:53
Isophorone	ND	0.25	1	03/10/2020 23:53
1-Methylnaphthalene	ND	0.0013	1	03/10/2020 23:53
2-Methylnaphthalene	ND	0.0025	1	03/10/2020 23:53
2-Methylphenol (o-Cresol)	ND	0.50	1	03/10/2020 23:53
3 & 4-Methylphenol (m,p-Cresol)	ND	0.25	1	03/10/2020 23:53
Naphthalene	ND	0.0013	1	03/10/2020 23:53
2-Nitroaniline	ND	1.2	1	03/10/2020 23:53
3-Nitroaniline	ND	1.2	1	03/10/2020 23:53
4-Nitroaniline	ND	1.2	1	03/10/2020 23:53
Nitrobenzene	ND	0.25	1	03/10/2020 23:53
2-Nitrophenol	ND	1.2	1	03/10/2020 23:53
4-Nitrophenol	ND	1.2	1	03/10/2020 23:53
N-Nitrosodiphenylamine	ND	0.25	1	03/10/2020 23:53
N-Nitrosodi-n-propylamine	ND	0.25	1	03/10/2020 23:53
Pentachlorophenol	ND	0.031	1	03/10/2020 23:53
Phenanthrene	ND	0.0050	1	03/10/2020 23:53
Phenol	0.011	0.0050	1	03/10/2020 23:53
Pyrene	ND	0.0025	1	03/10/2020 23:53
Pyridine	ND	0.25	1	03/10/2020 23:53
1,2,4-Trichlorobenzene	ND	0.25	1	03/10/2020 23:53
2,4,5-Trichlorophenol	ND	0.0025	1	03/10/2020 23:53
2,4,6-Trichlorophenol	ND	0.013	1	03/10/2020 23:53

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-15	2003414-004A	Soil	03/07/2020 12:25	GC21 03102034.D	195301

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	
2-Fluorophenol	106		60-130	03/10/2020 23:53
Phenol-d5	93		50-130	03/10/2020 23:53
Nitrobenzene-d5	80		60-130	03/10/2020 23:53
2-Fluorobiphenyl	78		60-130	03/10/2020 23:53
2,4,6-Tribromophenol	28	S	50-130	03/10/2020 23:53
4-Terphenyl-d14	67		50-130	03/10/2020 23:53

Analyst(s): REB

Analytical Comments: c2

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-20	2003414-005A	Soil	03/07/2020 12:29	GC21 03102035.D	195301

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.0013	1	03/11/2020 00:20
Acenaphthylene	ND	0.0013	1	03/11/2020 00:20
Acetochlor	ND	0.25	1	03/11/2020 00:20
Anthracene	ND	0.0013	1	03/11/2020 00:20
Benzidine	ND	1.2	1	03/11/2020 00:20
Benzo (a) anthracene	ND	0.0050	1	03/11/2020 00:20
Benzo (a) pyrene	ND	0.0025	1	03/11/2020 00:20
Benzo (b) fluoranthene	ND	0.0063	1	03/11/2020 00:20
Benzo (g,h,i) perylene	ND	0.0025	1	03/11/2020 00:20
Benzo (k) fluoranthene	ND	0.0013	1	03/11/2020 00:20
Benzyl Alcohol	ND	1.2	1	03/11/2020 00:20
1,1-Biphenyl	ND	0.013	1	03/11/2020 00:20
Bis (2-chloroethoxy) Methane	ND	0.25	1	03/11/2020 00:20
Bis (2-chloroethyl) Ether	ND	0.0025	1	03/11/2020 00:20
Bis (2-chloroisopropyl) Ether	ND	0.0025	1	03/11/2020 00:20
Bis (2-ethylhexyl) Adipate	ND	0.50	1	03/11/2020 00:20
Bis (2-ethylhexyl) Phthalate	0.014	0.0050	1	03/11/2020 00:20
4-Bromophenyl Phenyl Ether	ND	0.25	1	03/11/2020 00:20
Butylbenzyl Phthalate	ND	0.025	1	03/11/2020 00:20
4-Chloroaniline	ND	0.0025	1	03/11/2020 00:20
4-Chloro-3-methylphenol	ND	0.25	1	03/11/2020 00:20
2-Chloronaphthalene	ND	0.25	1	03/11/2020 00:20
2-Chlorophenol	ND	0.0050	1	03/11/2020 00:20
4-Chlorophenyl Phenyl Ether	ND	0.25	1	03/11/2020 00:20
Chrysene	ND	0.0025	1	03/11/2020 00:20
Dibenzo (a,h) anthracene	ND	0.0025	1	03/11/2020 00:20
Dibenzofuran	ND	0.25	1	03/11/2020 00:20
Di-n-butyl Phthalate	0.0052	0.0050	1	03/11/2020 00:20
1,2-Dichlorobenzene	ND	0.25	1	03/11/2020 00:20
1,3-Dichlorobenzene	ND	0.25	1	03/11/2020 00:20
1,4-Dichlorobenzene	ND	0.25	1	03/11/2020 00:20
3,3-Dichlorobenzidine	ND	0.0025	1	03/11/2020 00:20
2,4-Dichlorophenol	ND	0.013	1	03/11/2020 00:20
Diethyl Phthalate	ND	0.0050	1	03/11/2020 00:20
2,4-Dimethylphenol	ND	0.25	1	03/11/2020 00:20
Dimethyl Phthalate	ND	0.0025	1	03/11/2020 00:20
4,6-Dinitro-2-methylphenol	ND	1.2	1	03/11/2020 00:20

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-20	2003414-005A	Soil	03/07/2020 12:29	GC21 03102035.D	195301

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrophenol	ND	0.13	1	03/11/2020 00:20
2,4-Dinitrotoluene	ND	0.0063	1	03/11/2020 00:20
2,6-Dinitrotoluene	ND	0.0025	1	03/11/2020 00:20
Di-n-octyl Phthalate	ND	0.0050	1	03/11/2020 00:20
1,2-Diphenylhydrazine	ND	0.25	1	03/11/2020 00:20
Fluoranthene	ND	0.0013	1	03/11/2020 00:20
Fluorene	ND	0.0025	1	03/11/2020 00:20
Hexachlorobenzene	ND	0.0013	1	03/11/2020 00:20
Hexachlorobutadiene	ND	0.0025	1	03/11/2020 00:20
Hexachlorocyclopentadiene	ND	2.0	1	03/11/2020 00:20
Hexachloroethane	ND	0.0025	1	03/11/2020 00:20
Indeno (1,2,3-cd) pyrene	ND	0.0025	1	03/11/2020 00:20
Isophorone	ND	0.25	1	03/11/2020 00:20
1-Methylnaphthalene	ND	0.0013	1	03/11/2020 00:20
2-Methylnaphthalene	ND	0.0025	1	03/11/2020 00:20
2-Methylphenol (o-Cresol)	ND	0.50	1	03/11/2020 00:20
3 & 4-Methylphenol (m,p-Cresol)	ND	0.25	1	03/11/2020 00:20
Naphthalene	ND	0.0013	1	03/11/2020 00:20
2-Nitroaniline	ND	1.2	1	03/11/2020 00:20
3-Nitroaniline	ND	1.2	1	03/11/2020 00:20
4-Nitroaniline	ND	1.2	1	03/11/2020 00:20
Nitrobenzene	ND	0.25	1	03/11/2020 00:20
2-Nitrophenol	ND	1.2	1	03/11/2020 00:20
4-Nitrophenol	ND	1.2	1	03/11/2020 00:20
N-Nitrosodiphenylamine	ND	0.25	1	03/11/2020 00:20
N-Nitrosodi-n-propylamine	ND	0.25	1	03/11/2020 00:20
Pentachlorophenol	ND	0.031	1	03/11/2020 00:20
Phenanthrene	ND	0.0050	1	03/11/2020 00:20
Phenol	0.031	0.0050	1	03/11/2020 00:20
Pyrene	ND	0.0025	1	03/11/2020 00:20
Pyridine	ND	0.25	1	03/11/2020 00:20
1,2,4-Trichlorobenzene	ND	0.25	1	03/11/2020 00:20
2,4,5-Trichlorophenol	ND	0.0025	1	03/11/2020 00:20
2,4,6-Trichlorophenol	ND	0.013	1	03/11/2020 00:20

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-20	2003414-005A	Soil	03/07/2020 12:29	GC21 03102035.D	195301

Analytes	Result	RL	DF	Date Analyzed
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Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
2-Fluorophenol	102		60-130	03/11/2020 00:20
Phenol-d5	91		50-130	03/11/2020 00:20
Nitrobenzene-d5	81		60-130	03/11/2020 00:20
2-Fluorobiphenyl	77		60-130	03/11/2020 00:20
2,4,6-Tribromophenol	40	S	50-130	03/11/2020 00:20
4-Terphenyl-d14	64		50-130	03/11/2020 00:20

Analyst(s): REB

Analytical Comments: c2

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-10	2003414-008A	Soil	03/07/2020 13:20	GC21 03102036.D	195301

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.0013	1	03/11/2020 00:48
Acenaphthylene	ND	0.0013	1	03/11/2020 00:48
Acetochlor	ND	0.25	1	03/11/2020 00:48
Anthracene	ND	0.0013	1	03/11/2020 00:48
Benzidine	ND	1.2	1	03/11/2020 00:48
Benzo (a) anthracene	ND	0.0050	1	03/11/2020 00:48
Benzo (a) pyrene	ND	0.0025	1	03/11/2020 00:48
Benzo (b) fluoranthene	ND	0.0063	1	03/11/2020 00:48
Benzo (g,h,i) perylene	ND	0.0025	1	03/11/2020 00:48
Benzo (k) fluoranthene	ND	0.0013	1	03/11/2020 00:48
Benzyl Alcohol	ND	1.2	1	03/11/2020 00:48
1,1-Biphenyl	ND	0.013	1	03/11/2020 00:48
Bis (2-chloroethoxy) Methane	ND	0.25	1	03/11/2020 00:48
Bis (2-chloroethyl) Ether	ND	0.0025	1	03/11/2020 00:48
Bis (2-chloroisopropyl) Ether	ND	0.0025	1	03/11/2020 00:48
Bis (2-ethylhexyl) Adipate	ND	0.50	1	03/11/2020 00:48
Bis (2-ethylhexyl) Phthalate	0.016	0.0050	1	03/11/2020 00:48
4-Bromophenyl Phenyl Ether	ND	0.25	1	03/11/2020 00:48
Butylbenzyl Phthalate	ND	0.025	1	03/11/2020 00:48
4-Chloroaniline	ND	0.0025	1	03/11/2020 00:48
4-Chloro-3-methylphenol	ND	0.25	1	03/11/2020 00:48
2-Chloronaphthalene	ND	0.25	1	03/11/2020 00:48
2-Chlorophenol	ND	0.0050	1	03/11/2020 00:48
4-Chlorophenyl Phenyl Ether	ND	0.25	1	03/11/2020 00:48
Chrysene	ND	0.0025	1	03/11/2020 00:48
Dibenzo (a,h) anthracene	ND	0.0025	1	03/11/2020 00:48
Dibenzofuran	ND	0.25	1	03/11/2020 00:48
Di-n-butyl Phthalate	0.0060	0.0050	1	03/11/2020 00:48
1,2-Dichlorobenzene	ND	0.25	1	03/11/2020 00:48
1,3-Dichlorobenzene	ND	0.25	1	03/11/2020 00:48
1,4-Dichlorobenzene	ND	0.25	1	03/11/2020 00:48
3,3-Dichlorobenzidine	ND	0.0025	1	03/11/2020 00:48
2,4-Dichlorophenol	ND	0.013	1	03/11/2020 00:48
Diethyl Phthalate	ND	0.0050	1	03/11/2020 00:48
2,4-Dimethylphenol	ND	0.25	1	03/11/2020 00:48
Dimethyl Phthalate	ND	0.0025	1	03/11/2020 00:48
4,6-Dinitro-2-methylphenol	ND	1.2	1	03/11/2020 00:48

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-10	2003414-008A	Soil	03/07/2020 13:20	GC21 03102036.D	195301

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrophenol	ND	0.13	1	03/11/2020 00:48
2,4-Dinitrotoluene	ND	0.0063	1	03/11/2020 00:48
2,6-Dinitrotoluene	ND	0.0025	1	03/11/2020 00:48
Di-n-octyl Phthalate	ND	0.0050	1	03/11/2020 00:48
1,2-Diphenylhydrazine	ND	0.25	1	03/11/2020 00:48
Fluoranthene	ND	0.0013	1	03/11/2020 00:48
Fluorene	ND	0.0025	1	03/11/2020 00:48
Hexachlorobenzene	ND	0.0013	1	03/11/2020 00:48
Hexachlorobutadiene	ND	0.0025	1	03/11/2020 00:48
Hexachlorocyclopentadiene	ND	2.0	1	03/11/2020 00:48
Hexachloroethane	ND	0.0025	1	03/11/2020 00:48
Indeno (1,2,3-cd) pyrene	ND	0.0025	1	03/11/2020 00:48
Isophorone	ND	0.25	1	03/11/2020 00:48
1-Methylnaphthalene	ND	0.0013	1	03/11/2020 00:48
2-Methylnaphthalene	ND	0.0025	1	03/11/2020 00:48
2-Methylphenol (o-Cresol)	ND	0.50	1	03/11/2020 00:48
3 & 4-Methylphenol (m,p-Cresol)	ND	0.25	1	03/11/2020 00:48
Naphthalene	ND	0.0013	1	03/11/2020 00:48
2-Nitroaniline	ND	1.2	1	03/11/2020 00:48
3-Nitroaniline	ND	1.2	1	03/11/2020 00:48
4-Nitroaniline	ND	1.2	1	03/11/2020 00:48
Nitrobenzene	ND	0.25	1	03/11/2020 00:48
2-Nitrophenol	ND	1.2	1	03/11/2020 00:48
4-Nitrophenol	ND	1.2	1	03/11/2020 00:48
N-Nitrosodiphenylamine	ND	0.25	1	03/11/2020 00:48
N-Nitrosodi-n-propylamine	ND	0.25	1	03/11/2020 00:48
Pentachlorophenol	ND	0.031	1	03/11/2020 00:48
Phenanthrene	ND	0.0050	1	03/11/2020 00:48
Phenol	0.022	0.0050	1	03/11/2020 00:48
Pyrene	ND	0.0025	1	03/11/2020 00:48
Pyridine	ND	0.25	1	03/11/2020 00:48
1,2,4-Trichlorobenzene	ND	0.25	1	03/11/2020 00:48
2,4,5-Trichlorophenol	ND	0.0025	1	03/11/2020 00:48
2,4,6-Trichlorophenol	ND	0.013	1	03/11/2020 00:48

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-10	2003414-008A	Soil	03/07/2020 13:20	GC21 03102036.D	195301

Analytes	Result	RL	DF	Date Analyzed
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Surrogates	REC (%)	Qualifiers	Limits	
2-Fluorophenol	95		60-130	03/11/2020 00:48
Phenol-d5	84		50-130	03/11/2020 00:48
Nitrobenzene-d5	72		60-130	03/11/2020 00:48
2-Fluorobiphenyl	74		60-130	03/11/2020 00:48
2,4,6-Tribromophenol	28	S	50-130	03/11/2020 00:48
4-Terphenyl-d14	60		50-130	03/11/2020 00:48

Analyst(s): REB

Analytical Comments: c2

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-15	2003414-009A	Soil	03/07/2020 13:25	GC21 03102037.D	195301

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.0013	1	03/11/2020 01:15
Acenaphthylene	ND	0.0013	1	03/11/2020 01:15
Acetochlor	ND	0.25	1	03/11/2020 01:15
Anthracene	ND	0.0013	1	03/11/2020 01:15
Benzidine	ND	1.2	1	03/11/2020 01:15
Benzo (a) anthracene	ND	0.0050	1	03/11/2020 01:15
Benzo (a) pyrene	ND	0.0025	1	03/11/2020 01:15
Benzo (b) fluoranthene	ND	0.0063	1	03/11/2020 01:15
Benzo (g,h,i) perylene	ND	0.0025	1	03/11/2020 01:15
Benzo (k) fluoranthene	ND	0.0013	1	03/11/2020 01:15
Benzyl Alcohol	ND	1.2	1	03/11/2020 01:15
1,1-Biphenyl	ND	0.013	1	03/11/2020 01:15
Bis (2-chloroethoxy) Methane	ND	0.25	1	03/11/2020 01:15
Bis (2-chloroethyl) Ether	ND	0.0025	1	03/11/2020 01:15
Bis (2-chloroisopropyl) Ether	ND	0.0025	1	03/11/2020 01:15
Bis (2-ethylhexyl) Adipate	ND	0.50	1	03/11/2020 01:15
Bis (2-ethylhexyl) Phthalate	0.0098	0.0050	1	03/11/2020 01:15
4-Bromophenyl Phenyl Ether	ND	0.25	1	03/11/2020 01:15
Butylbenzyl Phthalate	ND	0.025	1	03/11/2020 01:15
4-Chloroaniline	ND	0.0025	1	03/11/2020 01:15
4-Chloro-3-methylphenol	ND	0.25	1	03/11/2020 01:15
2-Chloronaphthalene	ND	0.25	1	03/11/2020 01:15
2-Chlorophenol	ND	0.0050	1	03/11/2020 01:15
4-Chlorophenyl Phenyl Ether	ND	0.25	1	03/11/2020 01:15
Chrysene	ND	0.0025	1	03/11/2020 01:15
Dibenzo (a,h) anthracene	ND	0.0025	1	03/11/2020 01:15
Dibenzofuran	ND	0.25	1	03/11/2020 01:15
Di-n-butyl Phthalate	ND	0.0050	1	03/11/2020 01:15
1,2-Dichlorobenzene	ND	0.25	1	03/11/2020 01:15
1,3-Dichlorobenzene	ND	0.25	1	03/11/2020 01:15
1,4-Dichlorobenzene	ND	0.25	1	03/11/2020 01:15
3,3-Dichlorobenzidine	ND	0.0025	1	03/11/2020 01:15
2,4-Dichlorophenol	ND	0.013	1	03/11/2020 01:15
Diethyl Phthalate	ND	0.0050	1	03/11/2020 01:15
2,4-Dimethylphenol	ND	0.25	1	03/11/2020 01:15
Dimethyl Phthalate	ND	0.0025	1	03/11/2020 01:15
4,6-Dinitro-2-methylphenol	ND	1.2	1	03/11/2020 01:15

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-15	2003414-009A	Soil	03/07/2020 13:25	GC21 03102037.D	195301

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrophenol	ND	0.13	1	03/11/2020 01:15
2,4-Dinitrotoluene	ND	0.0063	1	03/11/2020 01:15
2,6-Dinitrotoluene	ND	0.0025	1	03/11/2020 01:15
Di-n-octyl Phthalate	ND	0.0050	1	03/11/2020 01:15
1,2-Diphenylhydrazine	ND	0.25	1	03/11/2020 01:15
Fluoranthene	ND	0.0013	1	03/11/2020 01:15
Fluorene	ND	0.0025	1	03/11/2020 01:15
Hexachlorobenzene	ND	0.0013	1	03/11/2020 01:15
Hexachlorobutadiene	ND	0.0025	1	03/11/2020 01:15
Hexachlorocyclopentadiene	ND	2.0	1	03/11/2020 01:15
Hexachloroethane	ND	0.0025	1	03/11/2020 01:15
Indeno (1,2,3-cd) pyrene	ND	0.0025	1	03/11/2020 01:15
Isophorone	ND	0.25	1	03/11/2020 01:15
1-Methylnaphthalene	ND	0.0013	1	03/11/2020 01:15
2-Methylnaphthalene	ND	0.0025	1	03/11/2020 01:15
2-Methylphenol (o-Cresol)	ND	0.50	1	03/11/2020 01:15
3 & 4-Methylphenol (m,p-Cresol)	ND	0.25	1	03/11/2020 01:15
Naphthalene	ND	0.0013	1	03/11/2020 01:15
2-Nitroaniline	ND	1.2	1	03/11/2020 01:15
3-Nitroaniline	ND	1.2	1	03/11/2020 01:15
4-Nitroaniline	ND	1.2	1	03/11/2020 01:15
Nitrobenzene	ND	0.25	1	03/11/2020 01:15
2-Nitrophenol	ND	1.2	1	03/11/2020 01:15
4-Nitrophenol	ND	1.2	1	03/11/2020 01:15
N-Nitrosodiphenylamine	ND	0.25	1	03/11/2020 01:15
N-Nitrosodi-n-propylamine	ND	0.25	1	03/11/2020 01:15
Pentachlorophenol	ND	0.031	1	03/11/2020 01:15
Phenanthrene	ND	0.0050	1	03/11/2020 01:15
Phenol	ND	0.0050	1	03/11/2020 01:15
Pyrene	ND	0.0025	1	03/11/2020 01:15
Pyridine	ND	0.25	1	03/11/2020 01:15
1,2,4-Trichlorobenzene	ND	0.25	1	03/11/2020 01:15
2,4,5-Trichlorophenol	ND	0.0025	1	03/11/2020 01:15
2,4,6-Trichlorophenol	ND	0.013	1	03/11/2020 01:15

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-15	2003414-009A	Soil	03/07/2020 13:25	GC21 03102037.D	195301

Analytes	Result	RL	DF	Date Analyzed
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Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
2-Fluorophenol	98		60-130	03/11/2020 01:15
Phenol-d5	86		50-130	03/11/2020 01:15
Nitrobenzene-d5	76		60-130	03/11/2020 01:15
2-Fluorobiphenyl	77		60-130	03/11/2020 01:15
2,4,6-Tribromophenol	46	S	50-130	03/11/2020 01:15
4-Terphenyl-d14	63		50-130	03/11/2020 01:15

Analyst(s): REB

Analytical Comments: c2

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-20	2003414-010A	Soil	03/07/2020 13:28	GC21 03102038.D	195301

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.0013	1	03/11/2020 01:42
Acenaphthylene	ND	0.0013	1	03/11/2020 01:42
Acetochlor	ND	0.25	1	03/11/2020 01:42
Anthracene	ND	0.0013	1	03/11/2020 01:42
Benzidine	ND	1.2	1	03/11/2020 01:42
Benzo (a) anthracene	ND	0.0050	1	03/11/2020 01:42
Benzo (a) pyrene	ND	0.0025	1	03/11/2020 01:42
Benzo (b) fluoranthene	ND	0.0063	1	03/11/2020 01:42
Benzo (g,h,i) perylene	ND	0.0025	1	03/11/2020 01:42
Benzo (k) fluoranthene	ND	0.0013	1	03/11/2020 01:42
Benzyl Alcohol	ND	1.2	1	03/11/2020 01:42
1,1-Biphenyl	ND	0.013	1	03/11/2020 01:42
Bis (2-chloroethoxy) Methane	ND	0.25	1	03/11/2020 01:42
Bis (2-chloroethyl) Ether	ND	0.0025	1	03/11/2020 01:42
Bis (2-chloroisopropyl) Ether	ND	0.0025	1	03/11/2020 01:42
Bis (2-ethylhexyl) Adipate	ND	0.50	1	03/11/2020 01:42
Bis (2-ethylhexyl) Phthalate	0.012	0.0050	1	03/11/2020 01:42
4-Bromophenyl Phenyl Ether	ND	0.25	1	03/11/2020 01:42
Butylbenzyl Phthalate	ND	0.025	1	03/11/2020 01:42
4-Chloroaniline	ND	0.0025	1	03/11/2020 01:42
4-Chloro-3-methylphenol	ND	0.25	1	03/11/2020 01:42
2-Chloronaphthalene	ND	0.25	1	03/11/2020 01:42
2-Chlorophenol	ND	0.0050	1	03/11/2020 01:42
4-Chlorophenyl Phenyl Ether	ND	0.25	1	03/11/2020 01:42
Chrysene	ND	0.0025	1	03/11/2020 01:42
Dibenzo (a,h) anthracene	ND	0.0025	1	03/11/2020 01:42
Dibenzofuran	ND	0.25	1	03/11/2020 01:42
Di-n-butyl Phthalate	0.0050	0.0050	1	03/11/2020 01:42
1,2-Dichlorobenzene	ND	0.25	1	03/11/2020 01:42
1,3-Dichlorobenzene	ND	0.25	1	03/11/2020 01:42
1,4-Dichlorobenzene	ND	0.25	1	03/11/2020 01:42
3,3-Dichlorobenzidine	ND	0.0025	1	03/11/2020 01:42
2,4-Dichlorophenol	ND	0.013	1	03/11/2020 01:42
Diethyl Phthalate	ND	0.0050	1	03/11/2020 01:42
2,4-Dimethylphenol	ND	0.25	1	03/11/2020 01:42
Dimethyl Phthalate	ND	0.0025	1	03/11/2020 01:42
4,6-Dinitro-2-methylphenol	ND	1.2	1	03/11/2020 01:42

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-20	2003414-010A	Soil	03/07/2020 13:28	GC21 03102038.D	195301

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrophenol	ND	0.13	1	03/11/2020 01:42
2,4-Dinitrotoluene	ND	0.0063	1	03/11/2020 01:42
2,6-Dinitrotoluene	ND	0.0025	1	03/11/2020 01:42
Di-n-octyl Phthalate	ND	0.0050	1	03/11/2020 01:42
1,2-Diphenylhydrazine	ND	0.25	1	03/11/2020 01:42
Fluoranthene	ND	0.0013	1	03/11/2020 01:42
Fluorene	ND	0.0025	1	03/11/2020 01:42
Hexachlorobenzene	ND	0.0013	1	03/11/2020 01:42
Hexachlorobutadiene	ND	0.0025	1	03/11/2020 01:42
Hexachlorocyclopentadiene	ND	2.0	1	03/11/2020 01:42
Hexachloroethane	ND	0.0025	1	03/11/2020 01:42
Indeno (1,2,3-cd) pyrene	ND	0.0025	1	03/11/2020 01:42
Isophorone	ND	0.25	1	03/11/2020 01:42
1-Methylnaphthalene	ND	0.0013	1	03/11/2020 01:42
2-Methylnaphthalene	ND	0.0025	1	03/11/2020 01:42
2-Methylphenol (o-Cresol)	ND	0.50	1	03/11/2020 01:42
3 & 4-Methylphenol (m,p-Cresol)	ND	0.25	1	03/11/2020 01:42
Naphthalene	ND	0.0013	1	03/11/2020 01:42
2-Nitroaniline	ND	1.2	1	03/11/2020 01:42
3-Nitroaniline	ND	1.2	1	03/11/2020 01:42
4-Nitroaniline	ND	1.2	1	03/11/2020 01:42
Nitrobenzene	ND	0.25	1	03/11/2020 01:42
2-Nitrophenol	ND	1.2	1	03/11/2020 01:42
4-Nitrophenol	ND	1.2	1	03/11/2020 01:42
N-Nitrosodiphenylamine	ND	0.25	1	03/11/2020 01:42
N-Nitrosodi-n-propylamine	ND	0.25	1	03/11/2020 01:42
Pentachlorophenol	ND	0.031	1	03/11/2020 01:42
Phenanthrene	ND	0.0050	1	03/11/2020 01:42
Phenol	0.041	0.0050	1	03/11/2020 01:42
Pyrene	ND	0.0025	1	03/11/2020 01:42
Pyridine	ND	0.25	1	03/11/2020 01:42
1,2,4-Trichlorobenzene	ND	0.25	1	03/11/2020 01:42
2,4,5-Trichlorophenol	ND	0.0025	1	03/11/2020 01:42
2,4,6-Trichlorophenol	ND	0.013	1	03/11/2020 01:42

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-20	2003414-010A	Soil	03/07/2020 13:28	GC21 03102038.D	195301

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	
2-Fluorophenol	100		60-130	03/11/2020 01:42
Phenol-d5	89		50-130	03/11/2020 01:42
Nitrobenzene-d5	76		60-130	03/11/2020 01:42
2-Fluorobiphenyl	76		60-130	03/11/2020 01:42
2,4,6-Tribromophenol	38	S	50-130	03/11/2020 01:42
4-Terphenyl-d14	63		50-130	03/11/2020 01:42

Analyst(s): REB

Analytical Comments: c2

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-3-5	2003414-012A	Soil	03/07/2020 13:37	GC21 03102039.D	195301

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.0013	1	03/11/2020 02:08
Acenaphthylene	ND	0.0013	1	03/11/2020 02:08
Acetochlor	ND	0.25	1	03/11/2020 02:08
Anthracene	ND	0.0013	1	03/11/2020 02:08
Benzidine	ND	1.2	1	03/11/2020 02:08
Benzo (a) anthracene	ND	0.0050	1	03/11/2020 02:08
Benzo (a) pyrene	ND	0.0025	1	03/11/2020 02:08
Benzo (b) fluoranthene	ND	0.0063	1	03/11/2020 02:08
Benzo (g,h,i) perylene	ND	0.0025	1	03/11/2020 02:08
Benzo (k) fluoranthene	ND	0.0013	1	03/11/2020 02:08
Benzyl Alcohol	ND	1.2	1	03/11/2020 02:08
1,1-Biphenyl	ND	0.013	1	03/11/2020 02:08
Bis (2-chloroethoxy) Methane	ND	0.25	1	03/11/2020 02:08
Bis (2-chloroethyl) Ether	ND	0.0025	1	03/11/2020 02:08
Bis (2-chloroisopropyl) Ether	ND	0.0025	1	03/11/2020 02:08
Bis (2-ethylhexyl) Adipate	ND	0.50	1	03/11/2020 02:08
Bis (2-ethylhexyl) Phthalate	0.0085	0.0050	1	03/11/2020 02:08
4-Bromophenyl Phenyl Ether	ND	0.25	1	03/11/2020 02:08
Butylbenzyl Phthalate	ND	0.025	1	03/11/2020 02:08
4-Chloroaniline	ND	0.0025	1	03/11/2020 02:08
4-Chloro-3-methylphenol	ND	0.25	1	03/11/2020 02:08
2-Chloronaphthalene	ND	0.25	1	03/11/2020 02:08
2-Chlorophenol	ND	0.0050	1	03/11/2020 02:08
4-Chlorophenyl Phenyl Ether	ND	0.25	1	03/11/2020 02:08
Chrysene	ND	0.0025	1	03/11/2020 02:08
Dibenzo (a,h) anthracene	ND	0.0025	1	03/11/2020 02:08
Dibenzofuran	ND	0.25	1	03/11/2020 02:08
Di-n-butyl Phthalate	ND	0.0050	1	03/11/2020 02:08
1,2-Dichlorobenzene	ND	0.25	1	03/11/2020 02:08
1,3-Dichlorobenzene	ND	0.25	1	03/11/2020 02:08
1,4-Dichlorobenzene	ND	0.25	1	03/11/2020 02:08
3,3-Dichlorobenzidine	ND	0.0025	1	03/11/2020 02:08
2,4-Dichlorophenol	ND	0.013	1	03/11/2020 02:08
Diethyl Phthalate	ND	0.0050	1	03/11/2020 02:08
2,4-Dimethylphenol	ND	0.25	1	03/11/2020 02:08
Dimethyl Phthalate	ND	0.0025	1	03/11/2020 02:08
4,6-Dinitro-2-methylphenol	ND	1.2	1	03/11/2020 02:08

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-3-5	2003414-012A	Soil	03/07/2020 13:37	GC21 03102039.D	195301

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrophenol	ND	0.13	1	03/11/2020 02:08
2,4-Dinitrotoluene	ND	0.0063	1	03/11/2020 02:08
2,6-Dinitrotoluene	ND	0.0025	1	03/11/2020 02:08
Di-n-octyl Phthalate	ND	0.0050	1	03/11/2020 02:08
1,2-Diphenylhydrazine	ND	0.25	1	03/11/2020 02:08
Fluoranthene	ND	0.0013	1	03/11/2020 02:08
Fluorene	ND	0.0025	1	03/11/2020 02:08
Hexachlorobenzene	ND	0.0013	1	03/11/2020 02:08
Hexachlorobutadiene	ND	0.0025	1	03/11/2020 02:08
Hexachlorocyclopentadiene	ND	2.0	1	03/11/2020 02:08
Hexachloroethane	ND	0.0025	1	03/11/2020 02:08
Indeno (1,2,3-cd) pyrene	ND	0.0025	1	03/11/2020 02:08
Isophorone	ND	0.25	1	03/11/2020 02:08
1-Methylnaphthalene	ND	0.0013	1	03/11/2020 02:08
2-Methylnaphthalene	ND	0.0025	1	03/11/2020 02:08
2-Methylphenol (o-Cresol)	ND	0.50	1	03/11/2020 02:08
3 & 4-Methylphenol (m,p-Cresol)	ND	0.25	1	03/11/2020 02:08
Naphthalene	ND	0.0013	1	03/11/2020 02:08
2-Nitroaniline	ND	1.2	1	03/11/2020 02:08
3-Nitroaniline	ND	1.2	1	03/11/2020 02:08
4-Nitroaniline	ND	1.2	1	03/11/2020 02:08
Nitrobenzene	ND	0.25	1	03/11/2020 02:08
2-Nitrophenol	ND	1.2	1	03/11/2020 02:08
4-Nitrophenol	ND	1.2	1	03/11/2020 02:08
N-Nitrosodiphenylamine	ND	0.25	1	03/11/2020 02:08
N-Nitrosodi-n-propylamine	ND	0.25	1	03/11/2020 02:08
Pentachlorophenol	ND	0.031	1	03/11/2020 02:08
Phenanthrene	ND	0.0050	1	03/11/2020 02:08
Phenol	0.0078	0.0050	1	03/11/2020 02:08
Pyrene	ND	0.0025	1	03/11/2020 02:08
Pyridine	ND	0.25	1	03/11/2020 02:08
1,2,4-Trichlorobenzene	ND	0.25	1	03/11/2020 02:08
2,4,5-Trichlorophenol	ND	0.0025	1	03/11/2020 02:08
2,4,6-Trichlorophenol	ND	0.013	1	03/11/2020 02:08

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-3-5	2003414-012A	Soil	03/07/2020 13:37	GC21 03102039.D	195301

Analytes	Result	RL	DF	Date Analyzed
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Surrogates	REC (%)	Qualifiers	Limits	
2-Fluorophenol	99		60-130	03/11/2020 02:08
Phenol-d5	85		50-130	03/11/2020 02:08
Nitrobenzene-d5	73		60-130	03/11/2020 02:08
2-Fluorobiphenyl	72		60-130	03/11/2020 02:08
2,4,6-Tribromophenol	35	S	50-130	03/11/2020 02:08
4-Terphenyl-d14	61		50-130	03/11/2020 02:08

Analyst(s): REB

Analytical Comments: c2

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-5-5	2003414-016A	Soil	03/07/2020 10:20	GC21 03102040.D	195301

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.0013	1	03/11/2020 02:35
Acenaphthylene	ND	0.0013	1	03/11/2020 02:35
Acetochlor	ND	0.25	1	03/11/2020 02:35
Anthracene	ND	0.0013	1	03/11/2020 02:35
Benzidine	ND	1.2	1	03/11/2020 02:35
Benzo (a) anthracene	ND	0.0050	1	03/11/2020 02:35
Benzo (a) pyrene	0.0061	0.0025	1	03/11/2020 02:35
Benzo (b) fluoranthene	ND	0.0063	1	03/11/2020 02:35
Benzo (g,h,i) perylene	ND	0.0025	1	03/11/2020 02:35
Benzo (k) fluoranthene	ND	0.0013	1	03/11/2020 02:35
Benzyl Alcohol	ND	1.2	1	03/11/2020 02:35
1,1-Biphenyl	ND	0.013	1	03/11/2020 02:35
Bis (2-chloroethoxy) Methane	ND	0.25	1	03/11/2020 02:35
Bis (2-chloroethyl) Ether	ND	0.0025	1	03/11/2020 02:35
Bis (2-chloroisopropyl) Ether	ND	0.0025	1	03/11/2020 02:35
Bis (2-ethylhexyl) Adipate	ND	0.50	1	03/11/2020 02:35
Bis (2-ethylhexyl) Phthalate	0.011	0.0050	1	03/11/2020 02:35
4-Bromophenyl Phenyl Ether	ND	0.25	1	03/11/2020 02:35
Butylbenzyl Phthalate	ND	0.025	1	03/11/2020 02:35
4-Chloroaniline	ND	0.0025	1	03/11/2020 02:35
4-Chloro-3-methylphenol	ND	0.25	1	03/11/2020 02:35
2-Chloronaphthalene	ND	0.25	1	03/11/2020 02:35
2-Chlorophenol	ND	0.0050	1	03/11/2020 02:35
4-Chlorophenyl Phenyl Ether	ND	0.25	1	03/11/2020 02:35
Chrysene	ND	0.0025	1	03/11/2020 02:35
Dibenzo (a,h) anthracene	ND	0.0025	1	03/11/2020 02:35
Dibenzofuran	ND	0.25	1	03/11/2020 02:35
Di-n-butyl Phthalate	0.0054	0.0050	1	03/11/2020 02:35
1,2-Dichlorobenzene	ND	0.25	1	03/11/2020 02:35
1,3-Dichlorobenzene	ND	0.25	1	03/11/2020 02:35
1,4-Dichlorobenzene	ND	0.25	1	03/11/2020 02:35
3,3-Dichlorobenzidine	ND	0.0025	1	03/11/2020 02:35
2,4-Dichlorophenol	ND	0.013	1	03/11/2020 02:35
Diethyl Phthalate	ND	0.0050	1	03/11/2020 02:35
2,4-Dimethylphenol	ND	0.25	1	03/11/2020 02:35
Dimethyl Phthalate	ND	0.0025	1	03/11/2020 02:35
4,6-Dinitro-2-methylphenol	ND	1.2	1	03/11/2020 02:35

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-5-5	2003414-016A	Soil	03/07/2020 10:20	GC21 03102040.D	195301

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrophenol	ND	0.13	1	03/11/2020 02:35
2,4-Dinitrotoluene	ND	0.0063	1	03/11/2020 02:35
2,6-Dinitrotoluene	ND	0.0025	1	03/11/2020 02:35
Di-n-octyl Phthalate	ND	0.0050	1	03/11/2020 02:35
1,2-Diphenylhydrazine	ND	0.25	1	03/11/2020 02:35
Fluoranthene	ND	0.0013	1	03/11/2020 02:35
Fluorene	ND	0.0025	1	03/11/2020 02:35
Hexachlorobenzene	ND	0.0013	1	03/11/2020 02:35
Hexachlorobutadiene	ND	0.0025	1	03/11/2020 02:35
Hexachlorocyclopentadiene	ND	2.0	1	03/11/2020 02:35
Hexachloroethane	ND	0.0025	1	03/11/2020 02:35
Indeno (1,2,3-cd) pyrene	ND	0.0025	1	03/11/2020 02:35
Isophorone	ND	0.25	1	03/11/2020 02:35
1-Methylnaphthalene	ND	0.0013	1	03/11/2020 02:35
2-Methylnaphthalene	ND	0.0025	1	03/11/2020 02:35
2-Methylphenol (o-Cresol)	ND	0.50	1	03/11/2020 02:35
3 & 4-Methylphenol (m,p-Cresol)	ND	0.25	1	03/11/2020 02:35
Naphthalene	ND	0.0013	1	03/11/2020 02:35
2-Nitroaniline	ND	1.2	1	03/11/2020 02:35
3-Nitroaniline	ND	1.2	1	03/11/2020 02:35
4-Nitroaniline	ND	1.2	1	03/11/2020 02:35
Nitrobenzene	ND	0.25	1	03/11/2020 02:35
2-Nitrophenol	ND	1.2	1	03/11/2020 02:35
4-Nitrophenol	ND	1.2	1	03/11/2020 02:35
N-Nitrosodiphenylamine	ND	0.25	1	03/11/2020 02:35
N-Nitrosodi-n-propylamine	ND	0.25	1	03/11/2020 02:35
Pentachlorophenol	ND	0.031	1	03/11/2020 02:35
Phenanthrene	ND	0.0050	1	03/11/2020 02:35
Phenol	0.0096	0.0050	1	03/11/2020 02:35
Pyrene	ND	0.0025	1	03/11/2020 02:35
Pyridine	ND	0.25	1	03/11/2020 02:35
1,2,4-Trichlorobenzene	ND	0.25	1	03/11/2020 02:35
2,4,5-Trichlorophenol	ND	0.0025	1	03/11/2020 02:35
2,4,6-Trichlorophenol	ND	0.013	1	03/11/2020 02:35

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-5-5	2003414-016A	Soil	03/07/2020 10:20	GC21 03102040.D	195301

Analytes	Result	RL	DF	Date Analyzed
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Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
2-Fluorophenol	93		60-130	03/11/2020 02:35
Phenol-d5	84		50-130	03/11/2020 02:35
Nitrobenzene-d5	72		60-130	03/11/2020 02:35
2-Fluorobiphenyl	72		60-130	03/11/2020 02:35
2,4,6-Tribromophenol	30	S	50-130	03/11/2020 02:35
4-Terphenyl-d14	63		50-130	03/11/2020 02:35

Analyst(s): REB

Analytical Comments: c2

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-8-5	2003414-022A	Soil	03/07/2020 08:51	GC21 03102041.D	195301

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.0013	1	03/11/2020 03:02
Acenaphthylene	ND	0.0013	1	03/11/2020 03:02
Acetochlor	ND	0.25	1	03/11/2020 03:02
Anthracene	ND	0.0013	1	03/11/2020 03:02
Benzidine	ND	1.2	1	03/11/2020 03:02
Benzo (a) anthracene	ND	0.0050	1	03/11/2020 03:02
Benzo (a) pyrene	ND	0.0025	1	03/11/2020 03:02
Benzo (b) fluoranthene	ND	0.0063	1	03/11/2020 03:02
Benzo (g,h,i) perylene	ND	0.0025	1	03/11/2020 03:02
Benzo (k) fluoranthene	ND	0.0013	1	03/11/2020 03:02
Benzyl Alcohol	ND	1.2	1	03/11/2020 03:02
1,1-Biphenyl	ND	0.013	1	03/11/2020 03:02
Bis (2-chloroethoxy) Methane	ND	0.25	1	03/11/2020 03:02
Bis (2-chloroethyl) Ether	ND	0.0025	1	03/11/2020 03:02
Bis (2-chloroisopropyl) Ether	ND	0.0025	1	03/11/2020 03:02
Bis (2-ethylhexyl) Adipate	ND	0.50	1	03/11/2020 03:02
Bis (2-ethylhexyl) Phthalate	0.011	0.0050	1	03/11/2020 03:02
4-Bromophenyl Phenyl Ether	ND	0.25	1	03/11/2020 03:02
Butylbenzyl Phthalate	ND	0.025	1	03/11/2020 03:02
4-Chloroaniline	ND	0.0025	1	03/11/2020 03:02
4-Chloro-3-methylphenol	ND	0.25	1	03/11/2020 03:02
2-Chloronaphthalene	ND	0.25	1	03/11/2020 03:02
2-Chlorophenol	ND	0.0050	1	03/11/2020 03:02
4-Chlorophenyl Phenyl Ether	ND	0.25	1	03/11/2020 03:02
Chrysene	ND	0.0025	1	03/11/2020 03:02
Dibenzo (a,h) anthracene	ND	0.0025	1	03/11/2020 03:02
Dibenzofuran	ND	0.25	1	03/11/2020 03:02
Di-n-butyl Phthalate	ND	0.0050	1	03/11/2020 03:02
1,2-Dichlorobenzene	ND	0.25	1	03/11/2020 03:02
1,3-Dichlorobenzene	ND	0.25	1	03/11/2020 03:02
1,4-Dichlorobenzene	ND	0.25	1	03/11/2020 03:02
3,3-Dichlorobenzidine	ND	0.0025	1	03/11/2020 03:02
2,4-Dichlorophenol	ND	0.013	1	03/11/2020 03:02
Diethyl Phthalate	ND	0.0050	1	03/11/2020 03:02
2,4-Dimethylphenol	ND	0.25	1	03/11/2020 03:02
Dimethyl Phthalate	ND	0.0025	1	03/11/2020 03:02
4,6-Dinitro-2-methylphenol	ND	1.2	1	03/11/2020 03:02

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Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-8-5	2003414-022A	Soil	03/07/2020 08:51	GC21 03102041.D	195301

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrophenol	ND	0.13	1	03/11/2020 03:02
2,4-Dinitrotoluene	ND	0.0063	1	03/11/2020 03:02
2,6-Dinitrotoluene	ND	0.0025	1	03/11/2020 03:02
Di-n-octyl Phthalate	ND	0.0050	1	03/11/2020 03:02
1,2-Diphenylhydrazine	ND	0.25	1	03/11/2020 03:02
Fluoranthene	ND	0.0013	1	03/11/2020 03:02
Fluorene	ND	0.0025	1	03/11/2020 03:02
Hexachlorobenzene	ND	0.0013	1	03/11/2020 03:02
Hexachlorobutadiene	ND	0.0025	1	03/11/2020 03:02
Hexachlorocyclopentadiene	ND	2.0	1	03/11/2020 03:02
Hexachloroethane	ND	0.0025	1	03/11/2020 03:02
Indeno (1,2,3-cd) pyrene	ND	0.0025	1	03/11/2020 03:02
Isophorone	ND	0.25	1	03/11/2020 03:02
1-Methylnaphthalene	ND	0.0013	1	03/11/2020 03:02
2-Methylnaphthalene	ND	0.0025	1	03/11/2020 03:02
2-Methylphenol (o-Cresol)	ND	0.50	1	03/11/2020 03:02
3 & 4-Methylphenol (m,p-Cresol)	ND	0.25	1	03/11/2020 03:02
Naphthalene	ND	0.0013	1	03/11/2020 03:02
2-Nitroaniline	ND	1.2	1	03/11/2020 03:02
3-Nitroaniline	ND	1.2	1	03/11/2020 03:02
4-Nitroaniline	ND	1.2	1	03/11/2020 03:02
Nitrobenzene	ND	0.25	1	03/11/2020 03:02
2-Nitrophenol	ND	1.2	1	03/11/2020 03:02
4-Nitrophenol	ND	1.2	1	03/11/2020 03:02
N-Nitrosodiphenylamine	ND	0.25	1	03/11/2020 03:02
N-Nitrosodi-n-propylamine	ND	0.25	1	03/11/2020 03:02
Pentachlorophenol	ND	0.031	1	03/11/2020 03:02
Phenanthrene	ND	0.0050	1	03/11/2020 03:02
Phenol	ND	0.0050	1	03/11/2020 03:02
Pyrene	ND	0.0025	1	03/11/2020 03:02
Pyridine	ND	0.25	1	03/11/2020 03:02
1,2,4-Trichlorobenzene	ND	0.25	1	03/11/2020 03:02
2,4,5-Trichlorophenol	ND	0.0025	1	03/11/2020 03:02
2,4,6-Trichlorophenol	ND	0.013	1	03/11/2020 03:02

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-8-5	2003414-022A	Soil	03/07/2020 08:51	GC21 03102041.D	195301

Analytes	Result	RL	DF	Date Analyzed
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Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
2-Fluorophenol	96		60-130	03/11/2020 03:02
Phenol-d5	85		50-130	03/11/2020 03:02
Nitrobenzene-d5	71		60-130	03/11/2020 03:02
2-Fluorobiphenyl	71		60-130	03/11/2020 03:02
2,4,6-Tribromophenol	39	S	50-130	03/11/2020 03:02
4-Terphenyl-d14	61		50-130	03/11/2020 03:02

Analyst(s): REB

Analytical Comments: c2

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-0.5	2003414-006A	Soil	03/07/2020 13:10	ICP-MS4 355SMPL.d	195323

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Antimony	ND		0.50	1	03/11/2020 01:27
Arsenic	2.9		0.50	1	03/11/2020 01:27
Barium	110		5.0	1	03/11/2020 01:27
Beryllium	ND		0.50	1	03/11/2020 01:27
Cadmium	ND		0.25	1	03/11/2020 01:27
Chromium	57		0.50	1	03/11/2020 01:27
Cobalt	11		0.50	1	03/11/2020 01:27
Copper	31		0.50	1	03/11/2020 01:27
Lead	8.9		0.50	1	03/11/2020 01:27
Mercury	0.13	B	0.050	1	03/11/2020 01:27
Molybdenum	0.66		0.50	1	03/11/2020 01:27
Nickel	80		0.50	1	03/11/2020 01:27
Selenium	0.78		0.50	1	03/11/2020 01:27
Silver	ND		0.50	1	03/11/2020 01:27
Thallium	ND		0.50	1	03/11/2020 01:27
Vanadium	40		0.50	1	03/11/2020 01:27
Zinc	58		5.0	1	03/11/2020 01:27

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	100	70-130	03/11/2020 01:27

Analyst(s): ND



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-5	2003414-007A	Soil	03/07/2020 13:00	ICP-MS4 356SMPL.d	195323

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	03/11/2020 01:31
Arsenic	3.0	0.50	1	03/11/2020 01:31
Barium	50	5.0	1	03/11/2020 01:31
Beryllium	ND	0.50	1	03/11/2020 01:31
Cadmium	ND	0.25	1	03/11/2020 01:31
Chromium	67	0.50	1	03/11/2020 01:31
Cobalt	8.3	0.50	1	03/11/2020 01:31
Copper	7.4	0.50	1	03/11/2020 01:31
Lead	2.5	0.50	1	03/11/2020 01:31
Mercury	ND	0.050	1	03/11/2020 01:31
Molybdenum	0.95	0.50	1	03/11/2020 01:31
Nickel	55	0.50	1	03/11/2020 01:31
Selenium	0.58	0.50	1	03/11/2020 01:31
Silver	ND	0.50	1	03/11/2020 01:31
Thallium	ND	0.50	1	03/11/2020 01:31
Vanadium	48	0.50	1	03/11/2020 01:31
Zinc	28	5.0	1	03/11/2020 01:31

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	93	70-130	03/11/2020 01:31

Analyst(s): ND



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-10	2003414-008A	Soil	03/07/2020 13:20	ICP-MS4 357SMPL.d	195323

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	03/11/2020 01:35
Arsenic	2.0	0.50	1	03/11/2020 01:35
Barium	44	5.0	1	03/11/2020 01:35
Beryllium	ND	0.50	1	03/11/2020 01:35
Cadmium	ND	0.25	1	03/11/2020 01:35
Chromium	56	0.50	1	03/11/2020 01:35
Cobalt	6.6	0.50	1	03/11/2020 01:35
Copper	5.5	0.50	1	03/11/2020 01:35
Lead	2.0	0.50	1	03/11/2020 01:35
Mercury	ND	0.050	1	03/11/2020 01:35
Molybdenum	0.72	0.50	1	03/11/2020 01:35
Nickel	41	0.50	1	03/11/2020 01:35
Selenium	ND	0.50	1	03/11/2020 01:35
Silver	ND	0.50	1	03/11/2020 01:35
Thallium	ND	0.50	1	03/11/2020 01:35
Vanadium	41	0.50	1	03/11/2020 01:35
Zinc	24	5.0	1	03/11/2020 01:35

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	101	70-130	03/11/2020 01:35

Analyst(s): ND



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-15	2003414-009A	Soil	03/07/2020 13:25	ICP-MS4 358SMPL.d	195323

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Antimony	ND		0.50	1	03/11/2020 01:39
Arsenic	1.8		0.50	1	03/11/2020 01:39
Barium	72		5.0	1	03/11/2020 01:39
Beryllium	0.50		0.50	1	03/11/2020 01:39
Cadmium	ND		0.25	1	03/11/2020 01:39
Chromium	63		0.50	1	03/11/2020 01:39
Cobalt	11		0.50	1	03/11/2020 01:39
Copper	14		0.50	1	03/11/2020 01:39
Lead	4.8		0.50	1	03/11/2020 01:39
Mercury	0.055	B	0.050	1	03/11/2020 01:39
Molybdenum	ND		0.50	1	03/11/2020 01:39
Nickel	58		0.50	1	03/11/2020 01:39
Selenium	0.68		0.50	1	03/11/2020 01:39
Silver	ND		0.50	1	03/11/2020 01:39
Thallium	ND		0.50	1	03/11/2020 01:39
Vanadium	37		0.50	1	03/11/2020 01:39
Zinc	37		5.0	1	03/11/2020 01:39

Surrogates	REC (%)	Limits	
Terbium	92	70-130	03/11/2020 01:39

Analyst(s): ND



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-20	2003414-010A	Soil	03/07/2020 13:28	ICP-MS4 362SMPL.d	195323

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	03/11/2020 01:54
Arsenic	2.1	0.50	1	03/11/2020 01:54
Barium	150	5.0	1	03/11/2020 01:54
Beryllium	0.62	0.50	1	03/11/2020 01:54
Cadmium	ND	0.25	1	03/11/2020 01:54
Chromium	65	0.50	1	03/11/2020 01:54
Cobalt	11	0.50	1	03/11/2020 01:54
Copper	26	0.50	1	03/11/2020 01:54
Lead	8.4	0.50	1	03/11/2020 01:54
Mercury	ND	0.050	1	03/11/2020 01:54
Molybdenum	ND	0.50	1	03/11/2020 01:54
Nickel	72	0.50	1	03/11/2020 01:54
Selenium	0.98	0.50	1	03/11/2020 01:54
Silver	ND	0.50	1	03/11/2020 01:54
Thallium	ND	0.50	1	03/11/2020 01:54
Vanadium	62	0.50	1	03/11/2020 01:54
Zinc	70	5.0	1	03/11/2020 01:54

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	100	70-130	03/11/2020 01:54

Analyst(s): ND



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-3-0.5	2003414-011A	Soil	03/07/2020 13:34	ICP-MS4 363SMPL.d	195323

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Antimony	ND		0.50	1	03/11/2020 01:58
Arsenic	3.4		0.50	1	03/11/2020 01:58
Barium	72		5.0	1	03/11/2020 01:58
Beryllium	ND		0.50	1	03/11/2020 01:58
Cadmium	ND		0.25	1	03/11/2020 01:58
Chromium	40		0.50	1	03/11/2020 01:58
Cobalt	9.0		0.50	1	03/11/2020 01:58
Copper	27		0.50	1	03/11/2020 01:58
Lead	7.8		0.50	1	03/11/2020 01:58
Mercury	0.24	B	0.050	1	03/11/2020 01:58
Molybdenum	1.8		0.50	1	03/11/2020 01:58
Nickel	65		0.50	1	03/11/2020 01:58
Selenium	0.62		0.50	1	03/11/2020 01:58
Silver	ND		0.50	1	03/11/2020 01:58
Thallium	ND		0.50	1	03/11/2020 01:58
Vanadium	39		0.50	1	03/11/2020 01:58
Zinc	43		5.0	1	03/11/2020 01:58

Surrogates	REC (%)	Limits	
Terbium	97	70-130	03/11/2020 01:58

Analyst(s): ND



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-3-5	2003414-012A	Soil	03/07/2020 13:37	ICP-MS4 364SMPL.d	195323

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	03/11/2020 02:02
Arsenic	1.6	0.50	1	03/11/2020 02:02
Barium	47	5.0	1	03/11/2020 02:02
Beryllium	ND	0.50	1	03/11/2020 02:02
Cadmium	ND	0.25	1	03/11/2020 02:02
Chromium	54	0.50	1	03/11/2020 02:02
Cobalt	5.9	0.50	1	03/11/2020 02:02
Copper	5.5	0.50	1	03/11/2020 02:02
Lead	2.1	0.50	1	03/11/2020 02:02
Mercury	ND	0.050	1	03/11/2020 02:02
Molybdenum	ND	0.50	1	03/11/2020 02:02
Nickel	41	0.50	1	03/11/2020 02:02
Selenium	ND	0.50	1	03/11/2020 02:02
Silver	ND	0.50	1	03/11/2020 02:02
Thallium	ND	0.50	1	03/11/2020 02:02
Vanadium	35	0.50	1	03/11/2020 02:02
Zinc	25	5.0	1	03/11/2020 02:02

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	102	70-130	03/11/2020 02:02

Analyst(s): ND



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-4-0.5	2003414-013A	Soil	03/07/2020 13:45	ICP-MS4 365SMPL.d	195323

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Antimony	ND		0.50	1	03/11/2020 02:06
Arsenic	2.6		0.50	1	03/11/2020 02:06
Barium	77		5.0	1	03/11/2020 02:06
Beryllium	ND		0.50	1	03/11/2020 02:06
Cadmium	ND		0.25	1	03/11/2020 02:06
Chromium	42		0.50	1	03/11/2020 02:06
Cobalt	8.7		0.50	1	03/11/2020 02:06
Copper	20		0.50	1	03/11/2020 02:06
Lead	8.0		0.50	1	03/11/2020 02:06
Mercury	0.10	B	0.050	1	03/11/2020 02:06
Molybdenum	1.3		0.50	1	03/11/2020 02:06
Nickel	66		0.50	1	03/11/2020 02:06
Selenium	0.55		0.50	1	03/11/2020 02:06
Silver	ND		0.50	1	03/11/2020 02:06
Thallium	ND		0.50	1	03/11/2020 02:06
Vanadium	33		0.50	1	03/11/2020 02:06
Zinc	68		5.0	1	03/11/2020 02:06

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	104	70-130	03/11/2020 02:06

Analyst(s): ND



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-4-5	2003414-014A	Soil	03/07/2020 13:50	ICP-MS4 366SMPL.d	195323

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	03/11/2020 02:09
Arsenic	2.4	0.50	1	03/11/2020 02:09
Barium	61	5.0	1	03/11/2020 02:09
Beryllium	ND	0.50	1	03/11/2020 02:09
Cadmium	ND	0.25	1	03/11/2020 02:09
Chromium	71	0.50	1	03/11/2020 02:09
Cobalt	7.8	0.50	1	03/11/2020 02:09
Copper	8.1	0.50	1	03/11/2020 02:09
Lead	2.6	0.50	1	03/11/2020 02:09
Mercury	ND	0.050	1	03/11/2020 02:09
Molybdenum	ND	0.50	1	03/11/2020 02:09
Nickel	53	0.50	1	03/11/2020 02:09
Selenium	0.79	0.50	1	03/11/2020 02:09
Silver	ND	0.50	1	03/11/2020 02:09
Thallium	ND	0.50	1	03/11/2020 02:09
Vanadium	41	0.50	1	03/11/2020 02:09
Zinc	29	5.0	1	03/11/2020 02:09

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	104	70-130	03/11/2020 02:09

Analyst(s): ND



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-6-0.5	2003414-017A	Soil	03/07/2020 10:00	ICP-MS2 075SMPLD	195329

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	03/11/2020 03:22
Arsenic	1.2	0.50	1	03/11/2020 03:22
Barium	35	5.0	1	03/11/2020 03:22
Beryllium	ND	0.50	1	03/11/2020 03:22
Cadmium	ND	0.25	1	03/11/2020 03:22
Chromium	19	0.50	1	03/11/2020 03:22
Cobalt	11	0.50	1	03/11/2020 03:22
Copper	50	0.50	1	03/11/2020 03:22
Lead	5.6	0.50	1	03/11/2020 03:22
Mercury	ND	0.050	1	03/11/2020 03:22
Molybdenum	0.59	0.50	1	03/11/2020 03:22
Nickel	20	0.50	1	03/11/2020 03:22
Selenium	ND	0.50	1	03/11/2020 03:22
Silver	ND	0.50	1	03/11/2020 03:22
Thallium	ND	0.50	1	03/11/2020 03:22
Vanadium	74	0.50	1	03/11/2020 03:22
Zinc	95	5.0	1	03/11/2020 03:22

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	111	70-130	03/11/2020 03:22

Analyst(s): DB



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-6-5	2003414-018A	Soil	03/07/2020 10:07	ICP-MS2 065SMPLD	195329

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	03/11/2020 02:21
Arsenic	2.9	0.50	1	03/11/2020 02:21
Barium	63	5.0	1	03/11/2020 02:21
Beryllium	ND	0.50	1	03/11/2020 02:21
Cadmium	ND	0.25	1	03/11/2020 02:21
Chromium	63	0.50	1	03/11/2020 02:21
Cobalt	6.4	0.50	1	03/11/2020 02:21
Copper	7.5	0.50	1	03/11/2020 02:21
Lead	11	0.50	1	03/11/2020 02:21
Mercury	ND	0.050	1	03/11/2020 02:21
Molybdenum	ND	0.50	1	03/11/2020 02:21
Nickel	43	0.50	1	03/11/2020 02:21
Selenium	ND	0.50	1	03/11/2020 02:21
Silver	ND	0.50	1	03/11/2020 02:21
Thallium	ND	0.50	1	03/11/2020 02:21
Vanadium	39	0.50	1	03/11/2020 02:21
Zinc	34	5.0	1	03/11/2020 02:21

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	92	70-130	03/11/2020 02:21

Analyst(s): DB



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-7-0.5	2003414-019A	Soil	03/07/2020 09:45	ICP-MS2 062SMPL.D	195329

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	03/11/2020 02:03
Arsenic	1.1	0.50	1	03/11/2020 02:03
Barium	62	5.0	1	03/11/2020 02:03
Beryllium	ND	0.50	1	03/11/2020 02:03
Cadmium	ND	0.25	1	03/11/2020 02:03
Chromium	19	0.50	1	03/11/2020 02:03
Cobalt	7.5	0.50	1	03/11/2020 02:03
Copper	41	0.50	1	03/11/2020 02:03
Lead	6.5	0.50	1	03/11/2020 02:03
Mercury	ND	0.050	1	03/11/2020 02:03
Molybdenum	ND	0.50	1	03/11/2020 02:03
Nickel	16	0.50	1	03/11/2020 02:03
Selenium	0.52	0.50	1	03/11/2020 02:03
Silver	ND	0.50	1	03/11/2020 02:03
Thallium	ND	0.50	1	03/11/2020 02:03
Vanadium	69	0.50	1	03/11/2020 02:03
Zinc	36	5.0	1	03/11/2020 02:03

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	97	70-130	03/11/2020 02:03

Analyst(s): DB



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-7-5	2003414-020A	Soil	03/07/2020 09:50	ICP-MS4 189SMPL.d	195329

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Antimony	ND		0.50	1	03/10/2020 14:48
Arsenic	3.9		0.50	1	03/10/2020 14:48
Barium	59		5.0	1	03/10/2020 14:48
Beryllium	ND		0.50	1	03/10/2020 14:48
Cadmium	ND		0.25	1	03/10/2020 14:48
Chromium	85		0.50	1	03/10/2020 14:48
Cobalt	4.4		0.50	1	03/10/2020 14:48
Copper	6.7		0.50	1	03/10/2020 14:48
Lead	2.7		0.50	1	03/10/2020 14:48
Mercury	0.083	B	0.050	1	03/10/2020 14:48
Molybdenum	ND		0.50	1	03/10/2020 14:48
Nickel	50		0.50	1	03/10/2020 14:48
Selenium	0.70		0.50	1	03/10/2020 14:48
Silver	ND		0.50	1	03/10/2020 14:48
Thallium	ND		0.50	1	03/10/2020 14:48
Vanadium	48		0.50	1	03/10/2020 14:48
Zinc	30		5.0	1	03/10/2020 14:48

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	105	70-130	03/10/2020 14:48

Analyst(s): ND



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-8-0.5	2003414-021A	Soil	03/07/2020 08:44	ICP-MS4 190SMPL.d	195329

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Antimony	ND		0.50	1	03/10/2020 14:52
Arsenic	0.94		0.50	1	03/10/2020 14:52
Barium	24		5.0	1	03/10/2020 14:52
Beryllium	ND		0.50	1	03/10/2020 14:52
Cadmium	ND		0.25	1	03/10/2020 14:52
Chromium	18		0.50	1	03/10/2020 14:52
Cobalt	9.4		0.50	1	03/10/2020 14:52
Copper	93		0.50	1	03/10/2020 14:52
Lead	3.4		0.50	1	03/10/2020 14:52
Mercury	0.077	B	0.050	1	03/10/2020 14:52
Molybdenum	ND		0.50	1	03/10/2020 14:52
Nickel	18		0.50	1	03/10/2020 14:52
Selenium	0.78		0.50	1	03/10/2020 14:52
Silver	ND		0.50	1	03/10/2020 14:52
Thallium	ND		0.50	1	03/10/2020 14:52
Vanadium	55		0.50	1	03/10/2020 14:52
Zinc	36		5.0	1	03/10/2020 14:52

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	102	70-130	03/10/2020 14:52

Analyst(s): ND



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-8-5	2003414-022A	Soil	03/07/2020 08:51	ICP-MS4 191SMPL.d	195329

Analytes	Result	Qualifiers	RL	DF	Date Analyzed
Antimony	ND		0.50	1	03/10/2020 14:55
Arsenic	4.5		0.50	1	03/10/2020 14:55
Barium	57		5.0	1	03/10/2020 14:55
Beryllium	ND		0.50	1	03/10/2020 14:55
Cadmium	ND		0.25	1	03/10/2020 14:55
Chromium	73		0.50	1	03/10/2020 14:55
Cobalt	19		0.50	1	03/10/2020 14:55
Copper	11		0.50	1	03/10/2020 14:55
Lead	3.9		0.50	1	03/10/2020 14:55
Mercury	0.10	B	0.050	1	03/10/2020 14:55
Molybdenum	ND		0.50	1	03/10/2020 14:55
Nickel	42		0.50	1	03/10/2020 14:55
Selenium	0.89		0.50	1	03/10/2020 14:55
Silver	ND		0.50	1	03/10/2020 14:55
Thallium	ND		0.50	1	03/10/2020 14:55
Vanadium	52		0.50	1	03/10/2020 14:55
Zinc	28		5.0	1	03/10/2020 14:55

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	106	70-130	03/10/2020 14:55

Analyst(s): ND



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5035
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-0.5	2003414-001A	Soil	03/07/2020 12:05	GC19 03112012.D	195295

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/11/2020 19:47
MTBE	---	0.050	1	03/11/2020 19:47
Benzene	---	0.0050	1	03/11/2020 19:47
Toluene	---	0.0050	1	03/11/2020 19:47
Ethylbenzene	---	0.0050	1	03/11/2020 19:47
m,p-Xylene	---	0.010	1	03/11/2020 19:47
o-Xylene	---	0.0050	1	03/11/2020 19:47
Xylenes	---	0.0050	1	03/11/2020 19:47

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	98	62-126	03/11/2020 19:47

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-5	2003414-002A	Soil	03/07/2020 12:17	GC7 03102007.D	195295

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/10/2020 15:44
MTBE	---	0.050	1	03/10/2020 15:44
Benzene	---	0.0050	1	03/10/2020 15:44
Toluene	---	0.0050	1	03/10/2020 15:44
Ethylbenzene	---	0.0050	1	03/10/2020 15:44
m,p-Xylene	---	0.010	1	03/10/2020 15:44
o-Xylene	---	0.0050	1	03/10/2020 15:44
Xylenes	---	0.0050	1	03/10/2020 15:44

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	91	62-126	03/10/2020 15:44

Analyst(s): IA

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5035
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-10	2003414-003A	Soil	03/07/2020 12:21	GC19 03102025.D	195369

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/11/2020 02:46
MTBE	---	0.050	1	03/11/2020 02:46
Benzene	---	0.0050	1	03/11/2020 02:46
Toluene	---	0.0050	1	03/11/2020 02:46
Ethylbenzene	---	0.0050	1	03/11/2020 02:46
m,p-Xylene	---	0.010	1	03/11/2020 02:46
o-Xylene	---	0.0050	1	03/11/2020 02:46
Xylenes	---	0.0050	1	03/11/2020 02:46

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	92	62-126	03/11/2020 02:46

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-15	2003414-004A	Soil	03/07/2020 12:25	GC7 03092040.D	195295

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/10/2020 05:05
MTBE	---	0.050	1	03/10/2020 05:05
Benzene	---	0.0050	1	03/10/2020 05:05
Toluene	---	0.0050	1	03/10/2020 05:05
Ethylbenzene	---	0.0050	1	03/10/2020 05:05
m,p-Xylene	---	0.010	1	03/10/2020 05:05
o-Xylene	---	0.0050	1	03/10/2020 05:05
Xylenes	---	0.0050	1	03/10/2020 05:05

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	93	62-126	03/10/2020 05:05

Analyst(s): IA

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5035
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-20	2003414-005A	Soil	03/07/2020 12:29	GC7 03092041.D	195295

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/10/2020 05:35
MTBE	---	0.050	1	03/10/2020 05:35
Benzene	---	0.0050	1	03/10/2020 05:35
Toluene	---	0.0050	1	03/10/2020 05:35
Ethylbenzene	---	0.0050	1	03/10/2020 05:35
m,p-Xylene	---	0.010	1	03/10/2020 05:35
o-Xylene	---	0.0050	1	03/10/2020 05:35
Xylenes	---	0.0050	1	03/10/2020 05:35

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	91	62-126	03/10/2020 05:35

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-0.5	2003414-006A	Soil	03/07/2020 13:10	GC7 03122010.D	195295

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/12/2020 16:41
MTBE	---	0.050	1	03/12/2020 16:41
Benzene	---	0.0050	1	03/12/2020 16:41
Toluene	---	0.0050	1	03/12/2020 16:41
Ethylbenzene	---	0.0050	1	03/12/2020 16:41
m,p-Xylene	---	0.010	1	03/12/2020 16:41
o-Xylene	---	0.0050	1	03/12/2020 16:41
Xylenes	---	0.0050	1	03/12/2020 16:41

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	91	62-126	03/12/2020 16:41

Analyst(s): IA

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5035
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-5	2003414-007A	Soil	03/07/2020 13:00	GC19 03092031.D	195295

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/10/2020 01:16
MTBE	---	0.050	1	03/10/2020 01:16
Benzene	---	0.0050	1	03/10/2020 01:16
Toluene	---	0.0050	1	03/10/2020 01:16
Ethylbenzene	---	0.0050	1	03/10/2020 01:16
m,p-Xylene	---	0.010	1	03/10/2020 01:16
o-Xylene	---	0.0050	1	03/10/2020 01:16
Xylenes	---	0.0050	1	03/10/2020 01:16

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	101	62-126	03/10/2020 01:16

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-10	2003414-008A	Soil	03/07/2020 13:20	GC7 03102009.D	195295

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/10/2020 16:45
MTBE	---	0.050	1	03/10/2020 16:45
Benzene	---	0.0050	1	03/10/2020 16:45
Toluene	---	0.0050	1	03/10/2020 16:45
Ethylbenzene	---	0.0050	1	03/10/2020 16:45
m,p-Xylene	---	0.010	1	03/10/2020 16:45
o-Xylene	---	0.0050	1	03/10/2020 16:45
Xylenes	---	0.0050	1	03/10/2020 16:45

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	85	62-126	03/10/2020 16:45

Analyst(s): IA

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5035
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-15	2003414-009A	Soil	03/07/2020 13:25	GC19 03092032.D	195295

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/10/2020 01:46
MTBE	---	0.050	1	03/10/2020 01:46
Benzene	---	0.0050	1	03/10/2020 01:46
Toluene	---	0.0050	1	03/10/2020 01:46
Ethylbenzene	---	0.0050	1	03/10/2020 01:46
m,p-Xylene	---	0.010	1	03/10/2020 01:46
o-Xylene	---	0.0050	1	03/10/2020 01:46
Xylenes	---	0.0050	1	03/10/2020 01:46

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	98	62-126	03/10/2020 01:46

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-20	2003414-010A	Soil	03/07/2020 13:28	GC19 03092040.D	195295

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/10/2020 05:42
MTBE	---	0.050	1	03/10/2020 05:42
Benzene	---	0.0050	1	03/10/2020 05:42
Toluene	---	0.0050	1	03/10/2020 05:42
Ethylbenzene	---	0.0050	1	03/10/2020 05:42
m,p-Xylene	---	0.010	1	03/10/2020 05:42
o-Xylene	---	0.0050	1	03/10/2020 05:42
Xylenes	---	0.0050	1	03/10/2020 05:42

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	89	62-126	03/10/2020 05:42

Analyst(s): IA

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5035
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-3-0.5	2003414-011A	Soil	03/07/2020 13:34	GC7 03122012.D	195295

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/12/2020 17:43
MTBE	---	0.050	1	03/12/2020 17:43
Benzene	---	0.0050	1	03/12/2020 17:43
Toluene	---	0.0050	1	03/12/2020 17:43
Ethylbenzene	---	0.0050	1	03/12/2020 17:43
m,p-Xylene	---	0.010	1	03/12/2020 17:43
o-Xylene	---	0.0050	1	03/12/2020 17:43
Xylenes	---	0.0050	1	03/12/2020 17:43

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	92	62-126	03/12/2020 17:43

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-3-5	2003414-012A	Soil	03/07/2020 13:37	GC7 03102012.D	195295

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/10/2020 18:17
MTBE	---	0.050	1	03/10/2020 18:17
Benzene	---	0.0050	1	03/10/2020 18:17
Toluene	---	0.0050	1	03/10/2020 18:17
Ethylbenzene	---	0.0050	1	03/10/2020 18:17
m,p-Xylene	---	0.010	1	03/10/2020 18:17
o-Xylene	---	0.0050	1	03/10/2020 18:17
Xylenes	---	0.0050	1	03/10/2020 18:17

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	88	62-126	03/10/2020 18:17

Analyst(s): IA

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5035
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-4-0.5	2003414-013A	Soil	03/07/2020 13:45	GC7 03122013.D	195295

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/12/2020 18:14
MTBE	---	0.050	1	03/12/2020 18:14
Benzene	---	0.0050	1	03/12/2020 18:14
Toluene	---	0.0050	1	03/12/2020 18:14
Ethylbenzene	---	0.0050	1	03/12/2020 18:14
m,p-Xylene	---	0.010	1	03/12/2020 18:14
o-Xylene	---	0.0050	1	03/12/2020 18:14
Xylenes	---	0.0050	1	03/12/2020 18:14

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	93	62-126	03/12/2020 18:14

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-4-5	2003414-014A	Soil	03/07/2020 13:50	GC7 03102013.D	195295

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/10/2020 18:48
MTBE	---	0.050	1	03/10/2020 18:48
Benzene	---	0.0050	1	03/10/2020 18:48
Toluene	---	0.0050	1	03/10/2020 18:48
Ethylbenzene	---	0.0050	1	03/10/2020 18:48
m,p-Xylene	---	0.010	1	03/10/2020 18:48
o-Xylene	---	0.0050	1	03/10/2020 18:48
Xylenes	---	0.0050	1	03/10/2020 18:48

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	89	62-126	03/10/2020 18:48

Analyst(s): IA

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5035
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-5-0.5	2003414-015A	Soil	03/07/2020 10:10	GC7 03112006.D	195328

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/11/2020 14:26
MTBE	---	0.050	1	03/11/2020 14:26
Benzene	---	0.0050	1	03/11/2020 14:26
Toluene	---	0.0050	1	03/11/2020 14:26
Ethylbenzene	---	0.0050	1	03/11/2020 14:26
m,p-Xylene	---	0.010	1	03/11/2020 14:26
o-Xylene	---	0.0050	1	03/11/2020 14:26
Xylenes	---	0.0050	1	03/11/2020 14:26

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	98	62-126	03/11/2020 14:26

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-5-5	2003414-016A	Soil	03/07/2020 10:20	GC7 03102022.D	195328

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/10/2020 23:22
MTBE	---	0.050	1	03/10/2020 23:22
Benzene	---	0.0050	1	03/10/2020 23:22
Toluene	---	0.0050	1	03/10/2020 23:22
Ethylbenzene	---	0.0050	1	03/10/2020 23:22
m,p-Xylene	---	0.010	1	03/10/2020 23:22
o-Xylene	---	0.0050	1	03/10/2020 23:22
Xylenes	---	0.0050	1	03/10/2020 23:22

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	90	62-126	03/10/2020 23:22

Analyst(s): IA

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5035
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-6-0.5	2003414-017A	Soil	03/07/2020 10:00	GC7 03122022.D	195328

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/12/2020 22:49
MTBE	---	0.050	1	03/12/2020 22:49
Benzene	---	0.0050	1	03/12/2020 22:49
Toluene	---	0.0050	1	03/12/2020 22:49
Ethylbenzene	---	0.0050	1	03/12/2020 22:49
m,p-Xylene	---	0.010	1	03/12/2020 22:49
o-Xylene	---	0.0050	1	03/12/2020 22:49
Xylenes	---	0.0050	1	03/12/2020 22:49

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	99	62-126	03/12/2020 22:49

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-6-5	2003414-018A	Soil	03/07/2020 10:07	GC7 03122039.D	195328

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/13/2020 07:23
MTBE	---	0.050	1	03/13/2020 07:23
Benzene	---	0.0050	1	03/13/2020 07:23
Toluene	---	0.0050	1	03/13/2020 07:23
Ethylbenzene	---	0.0050	1	03/13/2020 07:23
m,p-Xylene	---	0.010	1	03/13/2020 07:23
o-Xylene	---	0.0050	1	03/13/2020 07:23
Xylenes	---	0.0050	1	03/13/2020 07:23

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	87	62-126	03/13/2020 07:23

Analyst(s): IA

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5035
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-7-0.5	2003414-019A	Soil	03/07/2020 09:45	GC7 03122023.D	195328

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	2.2	1.0	1	03/12/2020 23:19
MTBE	---	0.050	1	03/12/2020 23:19
Benzene	---	0.0050	1	03/12/2020 23:19
Toluene	---	0.0050	1	03/12/2020 23:19
Ethylbenzene	---	0.0050	1	03/12/2020 23:19
m,p-Xylene	---	0.010	1	03/12/2020 23:19
o-Xylene	---	0.0050	1	03/12/2020 23:19
Xylenes	---	0.0050	1	03/12/2020 23:19

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	97	62-126	03/12/2020 23:19

Analyst(s): IA Analytical Comments: d7

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-7-5	2003414-020A	Soil	03/07/2020 09:50	GC7 03102029.D	195328

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/11/2020 02:52
MTBE	---	0.050	1	03/11/2020 02:52
Benzene	---	0.0050	1	03/11/2020 02:52
Toluene	---	0.0050	1	03/11/2020 02:52
Ethylbenzene	---	0.0050	1	03/11/2020 02:52
m,p-Xylene	---	0.010	1	03/11/2020 02:52
o-Xylene	---	0.0050	1	03/11/2020 02:52
Xylenes	---	0.0050	1	03/11/2020 02:52

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	89	62-126	03/11/2020 02:52

Analyst(s): IA

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW5035
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-8-0.5	2003414-021A	Soil	03/07/2020 08:44	GC7 03122024.D	195328

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/12/2020 23:50
MTBE	---	0.050	1	03/12/2020 23:50
Benzene	---	0.0050	1	03/12/2020 23:50
Toluene	---	0.0050	1	03/12/2020 23:50
Ethylbenzene	---	0.0050	1	03/12/2020 23:50
m,p-Xylene	---	0.010	1	03/12/2020 23:50
o-Xylene	---	0.0050	1	03/12/2020 23:50
Xylenes	---	0.0050	1	03/12/2020 23:50

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	95	62-126	03/12/2020 23:50

Analyst(s): IA

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-8-5	2003414-022A	Soil	03/07/2020 08:51	GC7 03102031.D	195328

Analytes	Result	RL	DF	Date Analyzed
TPH(g) (C6-C12)	ND	1.0	1	03/11/2020 03:52
MTBE	---	0.050	1	03/11/2020 03:52
Benzene	---	0.0050	1	03/11/2020 03:52
Toluene	---	0.0050	1	03/11/2020 03:52
Ethylbenzene	---	0.0050	1	03/11/2020 03:52
m,p-Xylene	---	0.010	1	03/11/2020 03:52
o-Xylene	---	0.0050	1	03/11/2020 03:52
Xylenes	---	0.0050	1	03/11/2020 03:52

Surrogates	REC (%)	Limits	Date Analyzed
2-Fluorotoluene	90	62-126	03/11/2020 03:52

Analyst(s): IA



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

LUFT 5 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-0.5	2003414-001A	Soil	03/07/2020 12:05	ICP-MS4 350SMPL.d	195323

Analytes	Result	RL	DF	Date Analyzed
Cadmium	ND	0.25	1	03/11/2020 01:08
Chromium	48	0.50	1	03/11/2020 01:08
Lead	10	0.50	1	03/11/2020 01:08
Nickel	68	0.50	1	03/11/2020 01:08
Zinc	63	5.0	1	03/11/2020 01:08

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	97	70-130	03/11/2020 01:08

Analyst(s): ND

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-5	2003414-002A	Soil	03/07/2020 12:17	ICP-MS4 351SMPL.d	195323

Analytes	Result	RL	DF	Date Analyzed
Cadmium	ND	0.25	1	03/11/2020 01:12
Chromium	50	0.50	1	03/11/2020 01:12
Lead	2.2	0.50	1	03/11/2020 01:12
Nickel	45	0.50	1	03/11/2020 01:12
Zinc	25	5.0	1	03/11/2020 01:12

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	98	70-130	03/11/2020 01:12

Analyst(s): ND

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

LUFT 5 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-10	2003414-003A	Soil	03/07/2020 12:21	ICP-MS4 352SMPL.d	195323

Analytes	Result	RL	DF	Date Analyzed
Cadmium	ND	0.25	1	03/11/2020 01:15
Chromium	64	0.50	1	03/11/2020 01:15
Lead	2.2	0.50	1	03/11/2020 01:15
Nickel	49	0.50	1	03/11/2020 01:15
Zinc	27	5.0	1	03/11/2020 01:15

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	105	70-130	03/11/2020 01:15

Analyst(s): ND

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-15	2003414-004A	Soil	03/07/2020 12:25	ICP-MS4 353SMPL.d	195323

Analytes	Result	RL	DF	Date Analyzed
Cadmium	ND	0.25	1	03/11/2020 01:19
Chromium	55	0.50	1	03/11/2020 01:19
Lead	1.9	0.50	1	03/11/2020 01:19
Nickel	42	0.50	1	03/11/2020 01:19
Zinc	22	5.0	1	03/11/2020 01:19

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	104	70-130	03/11/2020 01:19

Analyst(s): ND



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

LUFT 5 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-20	2003414-005A	Soil	03/07/2020 12:29	ICP-MS4 354SMPL.d	195323

Analytes	Result	RL	DF	Date Analyzed
Cadmium	0.30	0.25	1	03/11/2020 01:23
Chromium	29	0.50	1	03/11/2020 01:23
Lead	3.2	0.50	1	03/11/2020 01:23
Nickel	43	0.50	1	03/11/2020 01:23
Zinc	26	5.0	1	03/11/2020 01:23

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	98	70-130	03/11/2020 01:23

Analyst(s): ND

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-5-0.5	2003414-015A	Soil	03/07/2020 10:10	ICP-MS4 159SMPL.d	195329

Analytes	Result	RL	DF	Date Analyzed
Cadmium	ND	0.25	1	03/10/2020 12:46
Chromium	18	0.50	1	03/10/2020 12:46
Lead	9.5	0.50	1	03/10/2020 12:46
Nickel	18	0.50	1	03/10/2020 12:46
Zinc	52	5.0	1	03/10/2020 12:46

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	113	70-130	03/10/2020 12:46

Analyst(s): MIG



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020-03/10/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/Kg

LUFT 5 Metals

Client ID	Lab ID	Matrix	Date Collected		Instrument	Batch ID
EB-5-5	2003414-016A	Soil	03/07/2020 10:20		ICP-MS4 188SMPL.d	195329
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Date Analyzed</u>
Cadmium	ND		0.25	1		03/10/2020 14:44
Chromium	55		0.50	1		03/10/2020 14:44
Lead	5.7		0.50	1		03/10/2020 14:44
Nickel	41		0.50	1		03/10/2020 14:44
Zinc	29		5.0	1		03/10/2020 14:44
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>			
Terbium	106		70-130			03/10/2020 14:44
Analyst(s):	ND					

DRAFT



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-0.5	2003414-001A	Soil	03/07/2020 12:05	GC39B 03112023.D	195290
<u>Analytes</u>					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	400		200	200	03/11/2020 20:58
TPH-Motor Oil (C18-C36)	2700		1000	200	03/11/2020 20:58
<u>Surrogates</u>					
	<u>REC (%)</u>		<u>Limits</u>		
C26	112		70-130		03/11/2020 20:58
<u>Analyst(s):</u> JIS			<u>Analytical Comments:</u> e7,e2,e8		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-5	2003414-002A	Soil	03/07/2020 12:17	GC11A 03102032.D	195290
<u>Analytes</u>					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	03/10/2020 19:56
TPH-Motor Oil (C18-C36)	ND		5.0	1	03/10/2020 19:56
<u>Surrogates</u>					
	<u>REC (%)</u>		<u>Limits</u>		
C9	79		70-130		03/10/2020 19:56
<u>Analyst(s):</u> JIS					

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-10	2003414-003A	Soil	03/07/2020 12:21	GC11A 03102034.D	195290
<u>Analytes</u>					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	03/10/2020 20:35
TPH-Motor Oil (C18-C36)	ND		5.0	1	03/10/2020 20:35
<u>Surrogates</u>					
	<u>REC (%)</u>		<u>Limits</u>		
C9	83		70-130		03/10/2020 20:35
<u>Analyst(s):</u> JIS					

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-15	2003414-004A	Soil	03/07/2020 12:25	GC31A 03102010.D	195290

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	03/10/2020 11:56
TPH-Motor Oil (C18-C36)	ND	5.0	1	03/10/2020 11:56

Surrogates	REC (%)	Limits	Date Analyzed
C9	112	70-130	03/10/2020 11:56

Analyst(s): JIS **Analytical Comments:** j1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-1-20	2003414-005A	Soil	03/07/2020 12:29	GC31A 03102012.D	195290

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	03/10/2020 12:35
TPH-Motor Oil (C18-C36)	ND	5.0	1	03/10/2020 12:35

Surrogates	REC (%)	Limits	Date Analyzed
C9	112	70-130	03/10/2020 12:35

Analyst(s): JIS **Analytical Comments:** j1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-0.5	2003414-006A	Soil	03/07/2020 13:10	GC39B 03102045.D	195290

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	150	100	100	03/11/2020 00:26
TPH-Motor Oil (C18-C36)	2500	500	100	03/11/2020 00:26

Surrogates	REC (%)	Limits	Date Analyzed
C9	99	70-130	03/11/2020 00:26

Analyst(s): JIS **Analytical Comments:** e7,e2

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-5	2003414-007A	Soil	03/07/2020 13:00	GC31A 03102014.D	195290

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	03/10/2020 13:14
TPH-Motor Oil (C18-C36)	ND	5.0	1	03/10/2020 13:14

Surrogates	REC (%)	Limits	Date Analyzed
C9	113	70-130	03/10/2020 13:14

Analyst(s): JIS **Analytical Comments:** j1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-10	2003414-008A	Soil	03/07/2020 13:20	GC31A 03102018.D	195290

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	03/10/2020 14:33
TPH-Motor Oil (C18-C36)	ND	5.0	1	03/10/2020 14:33

Surrogates	REC (%)	Limits	Date Analyzed
C9	113	70-130	03/10/2020 14:33

Analyst(s): JIS **Analytical Comments:** j1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-15	2003414-009A	Soil	03/07/2020 13:25	GC31A 03102020.D	195290

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	03/10/2020 15:12
TPH-Motor Oil (C18-C36)	ND	5.0	1	03/10/2020 15:12

Surrogates	REC (%)	Limits	Date Analyzed
C9	113	70-130	03/10/2020 15:12

Analyst(s): JIS **Analytical Comments:** j1

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-2-20	2003414-010A	Soil	03/07/2020 13:28	GC31A 03102022.D	195290

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	03/10/2020 15:52
TPH-Motor Oil (C18-C36)	ND	5.0	1	03/10/2020 15:52

Surrogates	REC (%)	Limits	Date Analyzed
C9	113	70-130	03/10/2020 15:52

Analyst(s): JIS **Analytical Comments:** j1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-3-0.5	2003414-011A	Soil	03/07/2020 13:34	GC39A 03102052.D	195290

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	100	100	03/11/2020 02:23
TPH-Motor Oil (C18-C36)	1500	500	100	03/11/2020 02:23

Surrogates	REC (%)	Limits	Date Analyzed
C26	84	70-130	03/11/2020 02:23

Analyst(s): JIS **Analytical Comments:** e7,a3

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-3-5	2003414-012A	Soil	03/07/2020 13:37	GC31A 03102026.D	195290

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	03/10/2020 17:11
TPH-Motor Oil (C18-C36)	ND	5.0	1	03/10/2020 17:11

Surrogates	REC (%)	Limits	Date Analyzed
C9	113	70-130	03/10/2020 17:11

Analyst(s): JIS **Analytical Comments:** j1

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-4-0.5	2003414-013A	Soil	03/07/2020 13:45	GC39A 03102060.D	195290

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	100	100	03/11/2020 04:59
TPH-Motor Oil (C18-C36)	1300	500	100	03/11/2020 04:59

Surrogates	REC (%)	Limits	Date Analyzed
C26	84	70-130	03/11/2020 04:59

Analyst(s): JIS **Analytical Comments:** e7,a3

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-4-5	2003414-014A	Soil	03/07/2020 13:50	GC31A 03102030.D	195326

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	03/10/2020 18:30
TPH-Motor Oil (C18-C36)	ND	5.0	1	03/10/2020 18:30

Surrogates	REC (%)	Limits	Date Analyzed
C9	113	70-130	03/10/2020 18:30

Analyst(s): JIS **Analytical Comments:** j1

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-5-0.5	2003414-015A	Soil	03/07/2020 10:10	GC39B 03102051.D	195326

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	220	50	50	03/11/2020 02:23
TPH-Motor Oil (C18-C36)	4500	250	50	03/11/2020 02:23

Surrogates	REC (%)	Limits	Date Analyzed
C9	102	70-130	03/11/2020 02:23

Analyst(s): JIS **Analytical Comments:** e7,e2,e8

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-5-5	2003414-016A	Soil	03/07/2020 10:20	GC31B 03102009.D	195326
<u>Analytes</u>					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	03/10/2020 11:56
TPH-Motor Oil (C18-C36)	ND		5.0	1	03/10/2020 11:56
<u>Surrogates</u>					
	<u>REC (%)</u>		<u>Limits</u>		
C9	110		70-130		03/10/2020 11:56
<u>Analyst(s):</u> JIS			<u>Analytical Comments:</u> j1		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-6-0.5	2003414-017A	Soil	03/07/2020 10:00	GC39B 03102057.D	195326
<u>Analytes</u>					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	230		50	50	03/11/2020 04:20
TPH-Motor Oil (C18-C36)	5000		250	50	03/11/2020 04:20
<u>Surrogates</u>					
	<u>REC (%)</u>		<u>Limits</u>		
C9	106		70-130		03/11/2020 04:20
<u>Analyst(s):</u> JIS			<u>Analytical Comments:</u> e7,e2		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-6-5	2003414-018A	Soil	03/07/2020 10:07	GC31B 03102011.D	195326
<u>Analytes</u>					
	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	03/10/2020 12:35
TPH-Motor Oil (C18-C36)	6.4		5.0	1	03/10/2020 12:35
<u>Surrogates</u>					
	<u>REC (%)</u>		<u>Limits</u>		
C9	109		70-130		03/10/2020 12:35
<u>Analyst(s):</u> JIS			<u>Analytical Comments:</u> e7,j1		

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-7-0.5	2003414-019A	Soil	03/07/2020 09:45	GC39B 03102065.D	195326
<u>Analytes</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)		250	100	100	03/11/2020 06:57
TPH-Motor Oil (C18-C36)		5700	500	100	03/11/2020 06:57
<u>Surrogates</u>		<u>REC (%)</u>	<u>Limits</u>		
C9		99	70-130		03/11/2020 06:57
<u>Analyst(s):</u> JIS		<u>Analytical Comments:</u> e7,e2			

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-7-5	2003414-020A	Soil	03/07/2020 09:50	GC31B 03102013.D	195326
<u>Analytes</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)		ND	1.0	1	03/10/2020 13:14
TPH-Motor Oil (C18-C36)		ND	5.0	1	03/10/2020 13:14
<u>Surrogates</u>		<u>REC (%)</u>	<u>Limits</u>		
C9		111	70-130		03/10/2020 13:14
<u>Analyst(s):</u> JIS		<u>Analytical Comments:</u> j1			

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-8-0.5	2003414-021A	Soil	03/07/2020 08:44	GC39A 03102066.D	195326
<u>Analytes</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)		200	50	50	03/11/2020 06:57
TPH-Motor Oil (C18-C36)		5300	250	50	03/11/2020 06:57
<u>Surrogates</u>		<u>REC (%)</u>	<u>Limits</u>		
C26		85	70-130		03/11/2020 06:57
<u>Analyst(s):</u> JIS		<u>Analytical Comments:</u> e7,e2			

(Cont.)



Analytical Report

Client: Langan
Date Received: 03/09/2020 13:45
Date Prepared: 03/09/2020
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
EB-8-5	2003414-022A	Soil	03/07/2020 08:51	GC31B 03102017.D	195326

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	03/10/2020 14:33
TPH-Motor Oil (C18-C36)	ND	5.0	1	03/10/2020 14:33

Surrogates	REC (%)	Limits	Date Analyzed
C9	110	70-130	03/10/2020 14:33

Analyst(s): JIS **Analytical Comments:** j1

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Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/09/2020 - 03/10/2020
Instrument: GC40
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195317
Extraction Method: SW3550B
Analytical Method: SW8081A/8082
Unit: mg/kg
Sample ID: MB/LCS/LCSD-195317

QC Summary Report for SW8081A/8082

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Aldrin	ND	0.000270	0.00100	-	-	-
a-BHC	ND	0.000100	0.00100	-	-	-
b-BHC	ND	0.000250	0.00100	-	-	-
d-BHC	ND	0.000370	0.00100	-	-	-
g-BHC	ND	0.0000970	0.00100	-	-	-
Chlordane (Technical)	ND	0.0160	0.0250	-	-	-
a-Chlordane	ND	0.000470	0.00100	-	-	-
g-Chlordane	ND	0.000210	0.00100	-	-	-
p,p-DDD	ND	0.000140	0.00100	-	-	-
p,p-DDE	ND	0.000320	0.00100	-	-	-
p,p-DDT	ND	0.000430	0.00100	-	-	-
Dieldrin	ND	0.000330	0.00100	-	-	-
Endosulfan I	ND	0.000650	0.00100	-	-	-
Endosulfan II	ND	0.000200	0.00100	-	-	-
Endosulfan sulfate	ND	0.000630	0.00100	-	-	-
Endrin	ND	0.000420	0.00100	-	-	-
Endrin aldehyde	ND	0.000200	0.00100	-	-	-
Endrin ketone	ND	0.000130	0.00100	-	-	-
Heptachlor	ND	0.000210	0.00100	-	-	-
Heptachlor epoxide	ND	0.000200	0.00100	-	-	-
Hexachlorobenzene	ND	0.000270	0.0100	-	-	-
Hexachlorocyclopentadiene	ND	0.000400	0.0200	-	-	-
Methoxychlor	ND	0.000890	0.00100	-	-	-
Toxaphene	ND	0.0350	0.0500	-	-	-
Aroclor1016	ND	0.00510	0.0500	-	-	-
Aroclor1221	ND	0.0110	0.0500	-	-	-
Aroclor1232	ND	0.00630	0.0500	-	-	-
Aroclor1242	ND	0.00670	0.0500	-	-	-
Aroclor1248	ND	0.00400	0.0500	-	-	-
Aroclor1254	ND	0.00680	0.0500	-	-	-
Aroclor1260	ND	0.00610	0.0500	-	-	-
Surrogate Recovery						
Decachlorobiphenyl	0.0516			0.05	103	75-136

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Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/09/2020 - 03/10/2020
Instrument: GC40
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195317
Extraction Method: SW3550B
Analytical Method: SW8081A/8082
Unit: mg/kg
Sample ID: MB/LCS/LCSD-195317

QC Summary Report for SW8081A/8082

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Aldrin	0.0557	0.0563	0.050	111	113	92-133	1.06	20
a-BHC	0.0557	0.0562	0.050	111	112	96-140	1.01	20
b-BHC	0.0582	0.0587	0.050	116	117	77-137	0.917	20
d-BHC	0.0595	0.0608	0.050	119	122	89-145	2.30	20
g-BHC	0.0518	0.0523	0.050	104	105	92-134	1.03	20
a-Chlordane	0.0521	0.0529	0.050	104	106	72-134	1.57	20
g-Chlordane	0.0572	0.0580	0.050	114	116	86-132	1.50	20
p,p-DDD	0.0558	0.0564	0.050	111	113	35-140	1.14	20
p,p-DDE	0.0570	0.0578	0.050	114	116	83-138	1.37	20
p,p-DDT	0.0539	0.0554	0.050	108	111	70-137	2.82	20
Dieldrin	0.0570	0.0580	0.050	114	116	99-141	1.70	20
Endosulfan I	0.0526	0.0534	0.050	105	107	93-121	1.43	20
Endosulfan II	0.0551	0.0561	0.050	110	112	74-125	1.89	20
Endosulfan sulfate	0.0539	0.0549	0.050	108	110	66-138	1.89	20
Endrin	0.0542	0.0543	0.050	108	109	92-137	0.285	20
Endrin aldehyde	0.0554	0.0564	0.050	111	113	77-135	1.84	20
Endrin ketone	0.0506	0.0512	0.050	101	102	72-126	1.18	20
Heptachlor	0.0569	0.0576	0.050	114	115	89-136	1.35	20
Heptachlor epoxide	0.0527	0.0534	0.050	105	107	85-121	1.36	20
Hexachlorobenzene	0.0487	0.0490	0.050	97	98	87-127	0.546	20
Hexachlorocyclopentadiene	0.0434	0.0455	0.050	87	91	41-145	4.75	20
Methoxychlor	0.0487	0.0495	0.050	97	99	82-142	1.73	20
Aroclor1016	0.163	0.161	0.15	108	108	90-125	0.865	20
Aroclor1260	0.172	0.172	0.15	115	115	77-122	0.288	20
Surrogate Recovery								
Decachlorobiphenyl	0.0489	0.0496	0.050	98	99	75-136	1.41	20



Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/09/2020 - 03/13/2020
Instrument: GC10, GC16
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195296
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS/LCSD-195296

QC Summary Report for SW8260B

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Acetone	ND	0.0390	0.100	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.00100	0.00500	-	-	-
Benzene	ND	0.00160	0.00500	-	-	-
Bromobenzene	ND	0.00300	0.00500	-	-	-
Bromochloromethane	ND	0.00150	0.00500	-	-	-
Bromodichloromethane	ND	0.00120	0.00500	-	-	-
Bromoform	ND	0.00120	0.00500	-	-	-
Bromomethane	ND	0.00200	0.00500	-	-	-
2-Butanone (MEK)	ND	0.0210	0.0500	-	-	-
t-Butyl alcohol (TBA)	ND	0.00530	0.0500	-	-	-
n-Butyl benzene	ND	0.00350	0.00500	-	-	-
sec-Butyl benzene	ND	0.00340	0.00500	-	-	-
tert-Butyl benzene	ND	0.00290	0.00500	-	-	-
Carbon Disulfide	ND	0.00360	0.00500	-	-	-
Carbon Tetrachloride	ND	0.00170	0.00500	-	-	-
Chlorobenzene	ND	0.00180	0.00500	-	-	-
Chloroethane	ND	0.00160	0.00500	-	-	-
Chloroform	ND	0.00160	0.00500	-	-	-
Chloromethane	ND	0.00170	0.00500	-	-	-
2-Chlorotoluene	ND	0.00220	0.00500	-	-	-
4-Chlorotoluene	ND	0.00240	0.00500	-	-	-
Dibromochloromethane	ND	0.00110	0.00500	-	-	-
1,2-Dibromo-3-chloropropane	ND	0.00370	0.00500	-	-	-
1,2-Dibromoethane (EDB)	ND	0.00130	0.00400	-	-	-
Dibromomethane	ND	0.00140	0.00500	-	-	-
1,2-Dichlorobenzene	ND	0.00320	0.00500	-	-	-
1,3-Dichlorobenzene	ND	0.00180	0.00500	-	-	-
1,4-Dichlorobenzene	ND	0.00180	0.00500	-	-	-
Dichlorodifluoromethane	ND	0.00110	0.00500	-	-	-
1,1-Dichloroethane	ND	0.00170	0.00500	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.00140	0.00400	-	-	-
1,1-Dichloroethene	ND	0.00170	0.00500	-	-	-
cis-1,2-Dichloroethene	ND	0.00150	0.00500	-	-	-
trans-1,2-Dichloroethene	ND	0.00160	0.00500	-	-	-
1,2-Dichloropropane	ND	0.00140	0.00500	-	-	-
1,3-Dichloropropane	ND	0.00160	0.00500	-	-	-
2,2-Dichloropropane	ND	0.00130	0.00500	-	-	-
1,1-Dichloropropene	ND	0.00180	0.00500	-	-	-

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Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/09/2020 - 03/13/2020
Instrument: GC10, GC16
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195296
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS/LCSD-195296

QC Summary Report for SW8260B

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
cis-1,3-Dichloropropene	ND	0.00150	0.00500	-	-	-
trans-1,3-Dichloropropene	ND	0.00140	0.00500	-	-	-
Diisopropyl ether (DIPE)	ND	0.00140	0.00500	-	-	-
Ethylbenzene	ND	0.00250	0.00500	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.00130	0.00500	-	-	-
Freon 113	ND	0.00160	0.00500	-	-	-
Hexachlorobutadiene	ND	0.00500	0.00500	-	-	-
Hexachloroethane	ND	0.00250	0.00500	-	-	-
2-Hexanone	ND	0.00220	0.00500	-	-	-
Isopropylbenzene	ND	0.00320	0.00500	-	-	-
4-Isopropyl toluene	ND	0.00320	0.00500	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.00130	0.00500	-	-	-
Methylene chloride	ND	0.0100	0.0200	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	0.000800	0.00500	-	-	-
Naphthalene	ND	0.00440	0.00500	-	-	-
n-Propyl benzene	ND	0.00290	0.00500	-	-	-
Styrene	ND	0.00300	0.00500	-	-	-
1,1,1,2-Tetrachloroethane	ND	0.00160	0.00500	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.00130	0.00500	-	-	-
Tetrachloroethene	ND	0.00230	0.00500	-	-	-
Toluene	ND	0.00240	0.00500	-	-	-
1,2,3-Trichlorobenzene	ND	0.00300	0.00500	-	-	-
1,2,4-Trichlorobenzene	ND	0.00290	0.00500	-	-	-
1,1,1-Trichloroethane	ND	0.00180	0.00500	-	-	-
1,1,2-Trichloroethane	ND	0.00190	0.00500	-	-	-
Trichloroethene	ND	0.00170	0.00500	-	-	-
Trichlorofluoromethane	ND	0.00160	0.00500	-	-	-
1,2,3-Trichloropropane	ND	0.00190	0.00500	-	-	-
1,2,4-Trimethylbenzene	ND	0.00280	0.00500	-	-	-
1,3,5-Trimethylbenzene	ND	0.00260	0.00500	-	-	-
Vinyl Chloride	ND	0.00150	0.00500	-	-	-
m,p-Xylene	ND	0.00400	0.00500	-	-	-
o-Xylene	ND	0.00180	0.00500	-	-	-

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Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/09/2020 - 03/13/2020
Instrument: GC10, GC16
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195296
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS/LCSD-195296

QC Summary Report for SW8260B

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Surrogate Recovery						
Dibromofluoromethane	0.131			0.125	105	66-112
Toluene-d8	0.153			0.125	122,F3	92-109
4-BFB	0.0122			0.0125	98	72-112
Benzene-d6	0.0938			0.1	94	81-126
Ethylbenzene-d10	0.130			0.1	131	92-138
1,2-DCB-d4	0.0848			0.1	85	68-108

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Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/09/2020 - 03/13/2020
Instrument: GC10, GC16
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195296
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS/LCSD-195296

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acetone	0.234	0.225	0.20	117	113	59-127	3.91	20
tert-Amyl methyl ether (TAME)	0.0163	0.0163	0.020	82	82	54-98	0.0294	20
Benzene	0.0190	0.0183	0.020	95	91	71-115	3.82	20
Bromobenzene	0.0215	0.0196	0.020	108	98	69-120	9.33	20
Bromochloromethane	0.0202	0.0197	0.020	101	99	63-117	2.62	20
Bromodichloromethane	0.0164	0.0159	0.020	82	80	61-109	2.74	20
Bromoform	0.0171	0.0161	0.020	85	80	46-87	6.05	20
Bromomethane	0.0207	0.0194	0.020	104	97	22-195	6.62	20
2-Butanone (MEK)	0.0675	0.0675	0.080	84	84	53-124	0.00785	20
t-Butyl alcohol (TBA)	0.0794	0.0672	0.080	99	84	29-142	16.7	20
n-Butyl benzene	0.0297	0.0273	0.020	148	137	102-169	8.32	20
sec-Butyl benzene	0.0311	0.0285	0.020	156	143	100-166	8.80	20
tert-Butyl benzene	0.0276	0.0259	0.020	138	130	91-153	6.19	20
Carbon Disulfide	0.0191	0.0185	0.020	95	92	60-125	3.09	20
Carbon Tetrachloride	0.0199	0.0192	0.020	100	96	69-124	3.82	20
Chlorobenzene	0.0202	0.0188	0.020	101	94	73-116	7.22	20
Chloroethane	0.0209	0.0200	0.020	105	100	47-140	4.80	20
Chloroform	0.0194	0.0185	0.020	97	93	69-118	4.67	20
Chloromethane	0.0173	0.0171	0.020	87	85	30-132	1.42	20
2-Chlorotoluene	0.0235	0.0225	0.020	117	113	75-147	4.11	20
4-Chlorotoluene	0.0237	0.0220	0.020	118	110	75-137	7.29	20
Dibromochloromethane	0.0182	0.0171	0.020	91	86	57-105	5.98	20
1,2-Dibromo-3-chloropropane	0.00985	0.00906	0.010	99	91	36-103	8.42	20
1,2-Dibromoethane (EDB)	0.0104	0.00972	0.010	104,F7	97	66-101	7.15	20
Dibromomethane	0.0182	0.0178	0.020	91	89	61-103	2.33	20
1,2-Dichlorobenzene	0.0170	0.0160	0.020	85	80	59-104	5.85	20
1,3-Dichlorobenzene	0.0206	0.0197	0.020	103	98	70-133	4.63	20
1,4-Dichlorobenzene	0.0207	0.0193	0.020	104	97	68-123	6.84	20
Dichlorodifluoromethane	0.00650	0.00619	0.020	33	31	13-107	5.00	20
1,1-Dichloroethane	0.0192	0.0182	0.020	96	91	69-118	5.35	20
1,2-Dichloroethane (1,2-DCA)	0.0202	0.0193	0.020	101	97	59-112	4.32	20
1,1-Dichloroethene	0.0199	0.0189	0.020	99	95	69-126	4.96	20
cis-1,2-Dichloroethene	0.0198	0.0191	0.020	99	95	69-116	3.69	20
trans-1,2-Dichloroethene	0.0204	0.0197	0.020	102	99	73-116	3.53	20
1,2-Dichloropropane	0.0165	0.0160	0.020	83	80	65-111	3.08	20
1,3-Dichloropropane	0.0188	0.0178	0.020	94	89	67-110	5.27	20
2,2-Dichloropropane	0.0209	0.0198	0.020	105	99	65-125	5.35	20
1,1-Dichloropropene	0.0197	0.0188	0.020	98	94	70-123	4.37	20

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Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/09/2020 - 03/13/2020
Instrument: GC10, GC16
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195296
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS/LCSD-195296

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	0.0194	0.0180	0.020	97	90	68-126	7.68	20
trans-1,3-Dichloropropene	0.0189	0.0176	0.020	94	88	69-117	6.88	20
Diisopropyl ether (DIPE)	0.0142	0.0139	0.020	71	69	57-110	2.50	20
Ethylbenzene	0.0226	0.0208	0.020	113	104	80-128	8.39	20
Ethyl tert-butyl ether (ETBE)	0.0155	0.0159	0.020	77	79	54-106	2.48	20
Freon 113	0.0181	0.0171	0.020	91	85	60-108	5.89	20
Hexachlorobutadiene	0.0328	0.0301	0.020	164	150	67-182	8.77	20
Hexachloroethane	0.0244	0.0230	0.020	122	115	85-156	6.29	20
2-Hexanone	0.0133	0.0126	0.020	67	63	37-90	5.14	20
Isopropylbenzene	0.0275	0.0257	0.020	137	128	64-167	6.81	20
4-Isopropyl toluene	0.0278	0.0262	0.020	139	131	88-167	5.86	20
Methyl-t-butyl ether (MTBE)	0.0166	0.0179	0.020	83	89	60-102	7.45	20
Methylene chloride	0.0190	0.0183	0.020	95	92	71-117	3.47	20
4-Methyl-2-pentanone (MIBK)	0.0144	0.0123	0.020	72	61	48-90	16.0	20
Naphthalene	0.0142	0.0118	0.020	71,F7	59	29-65	18.8	20
n-Propyl benzene	0.0288	0.0269	0.020	144	134	88-161	6.86	20
Styrene	0.0184	0.0172	0.020	92	86	70-108	6.87	20
1,1,1,2-Tetrachloroethane	0.0202	0.0188	0.020	101	94	69-117	7.23	20
1,1,2,2-Tetrachloroethane	0.0187	0.0177	0.020	94	88	53-96	5.88	20
Tetrachloroethene	0.0266	0.0247	0.020	133,F7	123	78-128	7.63	20
Toluene	0.0216	0.0205	0.020	108	102	78-121	5.29	20
1,2,3-Trichlorobenzene	0.0144	0.0121	0.020	72	60	35-80	17.3	20
1,2,4-Trichlorobenzene	0.0177	0.0163	0.020	88	82	46-101	8.03	20
1,1,1-Trichloroethane	0.0195	0.0188	0.020	98	94	69-121	3.52	20
1,1,2-Trichloroethane	0.0186	0.0175	0.020	93	88	64-104	6.12	20
Trichloroethene	0.0207	0.0200	0.020	103	100	73-118	3.08	20
Trichlorofluoromethane	0.0188	0.0182	0.020	94	91	31-119	3.30	20
1,2,3-Trichloropropane	0.0108	0.0102	0.010	108,F7	102	65-107	5.97	20
1,2,4-Trimethylbenzene	0.0229	0.0216	0.020	114	108	80-147	5.91	20
1,3,5-Trimethylbenzene	0.0248	0.0232	0.020	124	116	83-156	6.62	20
Vinyl Chloride	0.00915	0.00890	0.010	92	89	40-125	2.85	20
m,p-Xylene	0.0437	0.0413	0.040	109	103	80-122	5.61	20
o-Xylene	0.0195	0.0185	0.020	98	92	79-116	5.42	20

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Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/09/2020 - 03/13/2020
Instrument: GC10, GC16
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195296
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS/LCSD-195296

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Surrogate Recovery								
Dibromofluoromethane	0.124	0.128	0.12	99	102	66-112	2.80	20
Toluene-d8	0.156	0.152	0.12	125,F3	122,F3	92-109	2.55	20
4-BFB	0.0129	0.0130	0.012	103	104	72-112	0.893	20
Benzene-d6	0.0894	0.0861	0.10	89	86	81-126	3.83	20
Ethylbenzene-d10	0.143	0.128	0.10	143,F3	128	92-138	10.8	20
1,2-DCB-d4	0.0872	0.0829	0.10	87	83	68-108	5.00	20

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Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/10/2020
Instrument: GC10
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195325
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS/LCSD-195325
 2003414-018AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Acetone	0.0403,J	0.0390	0.100	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.00100	0.00500	-	-	-
Benzene	ND	0.00160	0.00500	-	-	-
Bromobenzene	ND	0.00300	0.00500	-	-	-
Bromochloromethane	ND	0.00150	0.00500	-	-	-
Bromodichloromethane	ND	0.00120	0.00500	-	-	-
Bromoform	ND	0.00120	0.00500	-	-	-
Bromomethane	ND	0.00200	0.00500	-	-	-
2-Butanone (MEK)	ND	0.0210	0.0500	-	-	-
t-Butyl alcohol (TBA)	ND	0.00530	0.0500	-	-	-
n-Butyl benzene	ND	0.00350	0.00500	-	-	-
sec-Butyl benzene	ND	0.00340	0.00500	-	-	-
tert-Butyl benzene	ND	0.00290	0.00500	-	-	-
Carbon Disulfide	ND	0.00360	0.00500	-	-	-
Carbon Tetrachloride	ND	0.00170	0.00500	-	-	-
Chlorobenzene	ND	0.00180	0.00500	-	-	-
Chloroethane	ND	0.00160	0.00500	-	-	-
Chloroform	ND	0.00160	0.00500	-	-	-
Chloromethane	ND	0.00170	0.00500	-	-	-
2-Chlorotoluene	ND	0.00220	0.00500	-	-	-
4-Chlorotoluene	ND	0.00240	0.00500	-	-	-
Dibromochloromethane	ND	0.00110	0.00500	-	-	-
1,2-Dibromo-3-chloropropane	ND	0.00370	0.00500	-	-	-
1,2-Dibromoethane (EDB)	ND	0.00130	0.00400	-	-	-
Dibromomethane	ND	0.00140	0.00500	-	-	-
1,2-Dichlorobenzene	ND	0.00320	0.00500	-	-	-
1,3-Dichlorobenzene	ND	0.00180	0.00500	-	-	-
1,4-Dichlorobenzene	ND	0.00180	0.00500	-	-	-
Dichlorodifluoromethane	ND	0.00110	0.00500	-	-	-
1,1-Dichloroethane	ND	0.00170	0.00500	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.00140	0.00400	-	-	-
1,1-Dichloroethene	ND	0.00170	0.00500	-	-	-
cis-1,2-Dichloroethene	ND	0.00150	0.00500	-	-	-
trans-1,2-Dichloroethene	ND	0.00160	0.00500	-	-	-
1,2-Dichloropropane	ND	0.00140	0.00500	-	-	-
1,3-Dichloropropane	ND	0.00160	0.00500	-	-	-
2,2-Dichloropropane	ND	0.00130	0.00500	-	-	-
1,1-Dichloropropene	ND	0.00180	0.00500	-	-	-

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Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/10/2020
Instrument: GC10
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195325
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS/LCSD-195325
 2003414-018AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
cis-1,3-Dichloropropene	ND	0.00150	0.00500	-	-	-
trans-1,3-Dichloropropene	ND	0.00140	0.00500	-	-	-
Diisopropyl ether (DIPE)	ND	0.00140	0.00500	-	-	-
Ethylbenzene	ND	0.00250	0.00500	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.00130	0.00500	-	-	-
Freon 113	ND	0.00160	0.00500	-	-	-
Hexachlorobutadiene	ND	0.00500	0.00500	-	-	-
Hexachloroethane	ND	0.00250	0.00500	-	-	-
2-Hexanone	ND	0.00220	0.00500	-	-	-
Isopropylbenzene	ND	0.00320	0.00500	-	-	-
4-Isopropyl toluene	ND	0.00320	0.00500	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.00130	0.00500	-	-	-
Methylene chloride	ND	0.0100	0.0200	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	0.000800	0.00500	-	-	-
Naphthalene	ND	0.00440	0.00500	-	-	-
n-Propyl benzene	ND	0.00290	0.00500	-	-	-
Styrene	ND	0.00300	0.00500	-	-	-
1,1,1,2-Tetrachloroethane	ND	0.00160	0.00500	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.00130	0.00500	-	-	-
Tetrachloroethene	ND	0.00230	0.00500	-	-	-
Toluene	ND	0.00240	0.00500	-	-	-
1,2,3-Trichlorobenzene	ND	0.00300	0.00500	-	-	-
1,2,4-Trichlorobenzene	ND	0.00290	0.00500	-	-	-
1,1,1-Trichloroethane	ND	0.00180	0.00500	-	-	-
1,1,2-Trichloroethane	ND	0.00190	0.00500	-	-	-
Trichloroethene	ND	0.00170	0.00500	-	-	-
Trichlorofluoromethane	ND	0.00160	0.00500	-	-	-
1,2,3-Trichloropropane	ND	0.00190	0.00500	-	-	-
1,2,4-Trimethylbenzene	ND	0.00280	0.00500	-	-	-
1,3,5-Trimethylbenzene	ND	0.00260	0.00500	-	-	-
Vinyl Chloride	ND	0.00150	0.00500	-	-	-
m,p-Xylene	ND	0.00400	0.00500	-	-	-
o-Xylene	ND	0.00180	0.00500	-	-	-

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Quality Control Report

Client: Langan	WorkOrder: 2003414
Date Prepared: 03/09/2020	BatchID: 195325
Date Analyzed: 03/10/2020	Extraction Method: SW5030B
Instrument: GC10	Analytical Method: SW8260B
Matrix: Soil	Unit: mg/kg
Project: 750650003; Lake Merritt Bart	Sample ID: MB/LCS/LCSD-195325 2003414-018AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Surrogate Recovery						
Dibromofluoromethane	0.112			0.125	89	66-112
Toluene-d8	0.134			0.125	107	92-109
4-BFB	0.0123			0.0125	98	72-112
Benzene-d6	0.0822			0.1	82	81-126
Ethylbenzene-d10	0.0979			0.1	98	92-138
1,2-DCB-d4	0.0778			0.1	78	68-108

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Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/10/2020
Instrument: GC10
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195325
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS/LCSD-195325
 2003414-018AMS/MSD

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acetone	0.229	0.235	0.20	115	117	59-127	2.45	20
tert-Amyl methyl ether (TAME)	0.0152	0.0152	0.020	76	76	54-98	0.459	20
Benzene	0.0196	0.0191	0.020	98	95	71-115	2.75	20
Bromobenzene	0.0161	0.0162	0.020	80	81	69-120	1.08	20
Bromochloromethane	0.0176	0.0174	0.020	88	87	63-117	0.809	20
Bromodichloromethane	0.0156	0.0155	0.020	78	78	61-109	0.423	20
Bromoform	0.0116	0.0118	0.020	58	59	46-87	1.54	20
Bromomethane	0.0155	0.0170	0.020	78	85	22-195	9.08	20
2-Butanone (MEK)	0.0568	0.0543	0.080	71	68	53-124	4.60	20
t-Butyl alcohol (TBA)	0.0689	0.0544	0.080	86	68	29-142	23.4,F2	20
n-Butyl benzene	0.0261	0.0269	0.020	130	134	102-169	3.12	20
sec-Butyl benzene	0.0237	0.0241	0.020	118	121	100-166	1.87	20
tert-Butyl benzene	0.0226	0.0228	0.020	113	114	91-153	1.04	20
Carbon Disulfide	0.0185	0.0171	0.020	92	85	60-125	7.78	20
Carbon Tetrachloride	0.0195	0.0188	0.020	97	94	69-124	3.76	20
Chlorobenzene	0.0177	0.0179	0.020	89	90	73-116	1.04	20
Chloroethane	0.0177	0.0168	0.020	89	84	47-140	5.28	20
Chloroform	0.0200	0.0198	0.020	100	99	69-118	1.40	20
Chloromethane	0.0173	0.0169	0.020	87	84	30-132	2.66	20
2-Chlorotoluene	0.0195	0.0196	0.020	98	98	75-147	0.436	20
4-Chlorotoluene	0.0201	0.0205	0.020	100	102	75-137	2.00	20
Dibromochloromethane	0.0160	0.0163	0.020	80	81	57-105	1.65	20
1,2-Dibromo-3-chloropropane	0.00854	0.00713	0.010	85	71	36-103	18.0	20
1,2-Dibromoethane (EDB)	0.00746	0.00758	0.010	75	76	66-101	1.50	20
Dibromomethane	0.0163	0.0163	0.020	81	81	61-103	0.0774	20
1,2-Dichlorobenzene	0.0143	0.0144	0.020	72	72	59-104	0.775	20
1,3-Dichlorobenzene	0.0176	0.0181	0.020	88	90	70-133	2.48	20
1,4-Dichlorobenzene	0.0180	0.0184	0.020	90	92	68-123	2.50	20
Dichlorodifluoromethane	0.00561	0.00464	0.020	28	23	13-107	19.0	20
1,1-Dichloroethane	0.0196	0.0187	0.020	98	93	69-118	4.85	20
1,2-Dichloroethane (1,2-DCA)	0.0188	0.0185	0.020	94	92	59-112	1.70	20
1,1-Dichloroethene	0.0173	0.0162	0.020	87	81	69-126	6.89	20
cis-1,2-Dichloroethene	0.0181	0.0179	0.020	91	89	69-116	1.41	20
trans-1,2-Dichloroethene	0.0200	0.0188	0.020	100	94	73-116	6.18	20
1,2-Dichloropropane	0.0178	0.0174	0.020	89	87	65-111	1.98	20
1,3-Dichloropropane	0.0168	0.0169	0.020	84	84	67-110	0.366	20
2,2-Dichloropropane	0.0184	0.0175	0.020	92	87	65-125	5.31	20
1,1-Dichloropropene	0.0197	0.0188	0.020	99	94	70-123	4.65	20

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Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/10/2020
Instrument: GC10
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195325
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS/LCSD-195325
 2003414-018AMS/MSD

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	0.0178	0.0181	0.020	89	90	68-126	1.46	20
trans-1,3-Dichloropropene	0.0159	0.0163	0.020	80	81	69-117	2.22	20
Diisopropyl ether (DIPE)	0.0163	0.0157	0.020	82	79	57-110	3.77	20
Ethylbenzene	0.0196	0.0196	0.020	98	98	80-128	0.0759	20
Ethyl tert-butyl ether (ETBE)	0.0163	0.0159	0.020	81	80	54-106	2.01	20
Freon 113	0.0141	0.0128	0.020	70	64	60-108	9.48	20
Hexachlorobutadiene	0.0214	0.0224	0.020	107	112	67-182	4.88	20
Hexachloroethane	0.0208	0.0211	0.020	104	105	85-156	1.53	20
2-Hexanone	0.0134	0.0133	0.020	67	66	37-90	0.608	20
Isopropylbenzene	0.0202	0.0204	0.020	101	102	64-167	1.02	20
4-Isopropyl toluene	0.0215	0.0222	0.020	108	111	88-167	2.93	20
Methyl-t-butyl ether (MTBE)	0.0166	0.0163	0.020	83	82	60-102	1.58	20
Methylene chloride	0.0200	0.0195	0.020	100	98	71-117	2.29	20
4-Methyl-2-pentanone (MIBK)	0.0125	0.0128	0.020	62	64	48-90	2.93	20
Naphthalene	0.00639	0.00653	0.020	32	33	29-65	2.21	20
n-Propyl benzene	0.0238	0.0239	0.020	119	120	88-161	0.356	20
Styrene	0.0173	0.0173	0.020	86	87	70-108	0.295	20
1,1,1,2-Tetrachloroethane	0.0168	0.0168	0.020	84	84	69-117	0.235	20
1,1,2,2-Tetrachloroethane	0.0148	0.0151	0.020	74	76	53-96	1.79	20
Tetrachloroethene	0.0197	0.0199	0.020	98	99	78-128	0.998	20
Toluene	0.0201	0.0200	0.020	101	100	78-121	0.620	20
1,2,3-Trichlorobenzene	0.00655	0.00691	0.020	33,F2	35	35-80	5.33	20
1,2,4-Trichlorobenzene	0.0110	0.0108	0.020	55	54	46-101	1.61	20
1,1,1-Trichloroethane	0.0201	0.0193	0.020	101	97	69-121	4.16	20
1,1,2-Trichloroethane	0.0165	0.0184	0.020	82	92	64-104	11.2	20
Trichloroethene	0.0180	0.0176	0.020	90	88	73-118	2.33	20
Trichlorofluoromethane	0.0177	0.0162	0.020	89	81	31-119	8.97	20
1,2,3-Trichloropropane	0.00908	0.00924	0.010	91	92	65-107	1.67	20
1,2,4-Trimethylbenzene	0.0237	0.0242	0.020	119	121	80-147	2.01	20
1,3,5-Trimethylbenzene	0.0230	0.0233	0.020	115	117	83-156	1.26	20
Vinyl Chloride	0.00748	0.00666	0.010	75	67	40-125	11.5	20
m,p-Xylene	0.0385	0.0391	0.040	96	98	80-122	1.63	20
o-Xylene	0.0188	0.0192	0.020	94	96	79-116	1.66	20

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/10/2020
Instrument: GC10
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195325
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS/LCSD-195325
 2003414-018AMS/MSD

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Surrogate Recovery								
Dibromofluoromethane	0.112	0.112	0.12	90	90	66-112	0.258	20
Toluene-d8	0.135	0.134	0.12	108	108	92-109	0.193	20
4-BFB	0.0124	0.0123	0.012	99	98	72-112	0.645	20
Benzene-d6	0.0809	0.0788	0.10	81	79,F3	81-126	2.67	20
Ethylbenzene-d10	0.0948	0.0948	0.10	95	95	92-138	0.0838	20
1,2-DCB-d4	0.0772	0.0780	0.10	77	78	68-108	1.02	20

Analyte	MS DF	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Acetone	1	0.206	0.204	0.20	ND	82	81	48-114	1.04	20
tert-Amyl methyl ether (TAME)	1	0.0148	0.0146	0.020	ND	74	73	44-94	1.71	20
Benzene	1	0.0185	0.0180	0.020	ND	93	90	50-115	2.79	20
Bromobenzene	1	0.0155	0.0155	0.020	ND	78	77	60-114	0.160	20
Bromochloromethane	1	0.0168	0.0163	0.020	ND	84	82	50-113	2.81	20
Bromodichloromethane	1	0.0152	0.0149	0.020	ND	76	74	46-109	2.02	20
Bromoform	1	0.0115	0.0114	0.020	ND	57	57	38-83	0.343	20
Bromomethane	1	0.0196	0.0190	0.020	ND	98	95	10-149	3.08	20
2-Butanone (MEK)	1	0.0594	0.0585	0.080	ND	74	73	46-111	1.47	20
t-Butyl alcohol (TBA)	1	0.0645	0.0630	0.080	ND	81	79	32-112	2.33	20
n-Butyl benzene	1	0.0245	0.0246	0.020	ND	123	123	71-156	0.517	20
sec-Butyl benzene	1	0.0219	0.0219	0.020	ND	110	109	28-190	0.220	20
tert-Butyl benzene	1	0.0209	0.0209	0.020	ND	105	105	69-145	0.109	20
Carbon Disulfide	1	0.0176	0.0165	0.020	ND	88	83	19-135	6.26	20
Carbon Tetrachloride	1	0.0186	0.0179	0.020	ND	93	89	51-120	4.07	20
Chlorobenzene	1	0.0171	0.0170	0.020	ND	86	85	63-108	0.905	20
Chloroethane	1	0.0148	0.0149	0.020	ND	74	74	40-122	0.329	20
Chloroform	1	0.0191	0.0186	0.020	ND	95	93	55-114	2.50	20
Chloromethane	1	0.0168	0.0158	0.020	ND	84	79	14-128	6.30	20
2-Chlorotoluene	1	0.0183	0.0183	0.020	ND	92	91	45-153	0.286	20
4-Chlorotoluene	1	0.0194	0.0192	0.020	ND	97	96	65-126	0.698	20
Dibromochloromethane	1	0.0156	0.0154	0.020	ND	78	77	48-97	1.29	20
1,2-Dibromo-3-chloropropane	1	0.00731	0.00737	0.010	ND	73	74	32-95	0.839	20
1,2-Dibromoethane (EDB)	1	0.00740	0.00724	0.010	ND	74	72	52-99	2.20	20
Dibromomethane	1	0.0160	0.0157	0.020	ND	80	78	50-100	2.13	20
1,2-Dichlorobenzene	1	0.0139	0.0140	0.020	ND	70	70	38-116	0.296	20

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Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/10/2020
Instrument: GC10
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195325
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS/LCSD-195325
 2003414-018AMS/MSD

QC Summary Report for SW8260B

Analyte	MS DF	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
1,3-Dichlorobenzene	1	0.0170	0.0170	0.020	ND	85	85	58-127	0.511	20
1,4-Dichlorobenzene	1	0.0174	0.0174	0.020	ND	87	87	54-123	0.161	20
Dichlorodifluoromethane	1	0.00506	0.00452	0.020	ND	25	23	8-93	11.3	20
1,1-Dichloroethane	1	0.0183	0.0176	0.020	ND	91	88	53-115	3.98	20
1,2-Dichloroethane (1,2-DCA)	1	0.0178	0.0174	0.020	ND	89	87	48-105	2.22	20
1,1-Dichloroethene	1	0.0165	0.0155	0.020	ND	82	78	47-127	5.88	20
cis-1,2-Dichloroethene	1	0.0174	0.0169	0.020	ND	87	85	56-111	3.04	20
trans-1,2-Dichloroethene	1	0.0192	0.0184	0.020	ND	96	92	51-115	4.42	20
1,2-Dichloropropane	1	0.0169	0.0166	0.020	ND	85	83	51-111	2.03	20
1,3-Dichloropropane	1	0.0163	0.0160	0.020	ND	81	80	51-109	1.88	20
2,2-Dichloropropane	1	0.0180	0.0172	0.020	ND	90	86	50-116	4.64	20
1,1-Dichloropropene	1	0.0189	0.0181	0.020	ND	94	90	46-124	4.27	20
cis-1,3-Dichloropropene	1	0.0174	0.0172	0.020	ND	87	86	41-127	1.36	20
trans-1,3-Dichloropropene	1	0.0159	0.0155	0.020	ND	80	77	50-111	2.90	20
Diisopropyl ether (DIPE)	1	0.0154	0.0150	0.020	ND	77	75	50-103	2.36	20
Ethylbenzene	1	0.0186	0.0186	0.020	ND	93	93	65-119	0.498	20
Ethyl tert-butyl ether (ETBE)	1	0.0156	0.0152	0.020	ND	78	76	47-100	2.65	20
Freon 113	1	0.0133	0.0124	0.020	ND	67	62	48-98	7.13	20
Hexachlorobutadiene	1	0.0201	0.0205	0.020	ND	101	103	36-166	1.90	20
Hexachloroethane	1	0.0194	0.0194	0.020	ND	97	97	61-146	0.0580	20
2-Hexanone	1	0.0125	0.0124	0.020	ND	62	62	31-87	0.293	20
Isopropylbenzene	1	0.0191	0.0190	0.020	ND	96	95	24-171	0.489	20
4-Isopropyl toluene	1	0.0202	0.0201	0.020	ND	101	100	69-150	0.234	20
Methyl-t-butyl ether (MTBE)	1	0.0158	0.0153	0.020	ND	79	77	50-95	2.97	20
Methylene chloride	1	0.0184	0.0175	0.020	ND	92	88	39-123	4.89	20
4-Methyl-2-pentanone (MIBK)	1	0.0120	0.0118	0.020	ND	60	59	41-83	1.44	20
Naphthalene	1	0.00649	0.00686	0.020	ND	32	34	13-77	5.55	20
n-Propyl benzene	1	0.0222	0.0220	0.020	ND	111	110	26-184	0.887	20
Styrene	1	0.0164	0.0167	0.020	ND	82	84	54-105	2.00	20
1,1,1,2-Tetrachloroethane	1	0.0162	0.0160	0.020	ND	81	80	60-108	0.924	20
1,1,2,2-Tetrachloroethane	1	0.0144	0.0143	0.020	ND	72	72	37-108	0.486	20
Tetrachloroethene	1	0.0190	0.0188	0.020	ND	95	94	54-127	1.53	20
Toluene	1	0.0192	0.0188	0.020	ND	96	94	63-114	1.92	20
1,2,3-Trichlorobenzene	1	0.00763	0.00832	0.020	ND	38	42	14-97	8.63	20
1,2,4-Trichlorobenzene	1	0.0120	0.0129	0.020	ND	60	64	31-106	7.05	20
1,1,1-Trichloroethane	1	0.0190	0.0184	0.020	ND	95	92	55-114	3.69	20
1,1,2-Trichloroethane	1	0.0172	0.0172	0.020	ND	86	86	50-104	0.187	20
Trichloroethene	1	0.0173	0.0172	0.020	ND	87	86	47-127	0.953	20

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Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/10/2020
Instrument: GC10
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195325
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: mg/kg
Sample ID: MB/LCS/LCSD-195325
 2003414-018AMS/MSD

QC Summary Report for SW8260B

Analyte	MS DF	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Trichlorofluoromethane	1	0.0167	0.0155	0.020	ND	83	77	9-119	7.62	20
1,2,3-Trichloropropane	1	0.00874	0.00844	0.010	ND	87	84	45-115	3.49	20
1,2,4-Trimethylbenzene	1	0.0224	0.0223	0.020	ND	112	111	69-133	0.598	20
1,3,5-Trimethylbenzene	1	0.0215	0.0215	0.020	ND	107	107	27-172	0.0887	20
Vinyl Chloride	1	0.00704	0.00647	0.010	ND	70	65	33-114	8.47	20
m,p-Xylene	1	0.0370	0.0364	0.040	ND	92	91	62-117	1.45	20
o-Xylene	1	0.0179	0.0177	0.020	ND	89	89	19-144	0.752	20
Surrogate Recovery										
Dibromofluoromethane	1	0.112	0.112	0.12		89	89	66-116	0.188	20
Toluene-d8	1	0.132	0.132	0.12		106	105	86-110	0.158	20
4-BFB	1	0.0122	0.0124	0.012		98	99	71-114	1.50	20
Benzene-d6	1	0.0763	0.0757	0.10		76	76	62-122	0.690	20
Ethylbenzene-d10	1	0.0885	0.0884	0.10		88	88	69-130	0.113	20
1,2-DCB-d4	1	0.0735	0.0738	0.10		74	74	55-108	0.322	20



Quality Control Report

Client:	Langan	WorkOrder:	2003414
Date Prepared:	03/09/2020	BatchID:	195301
Date Analyzed:	03/09/2020	Extraction Method:	SW3550B
Instrument:	GC17	Analytical Method:	SW8270C
Matrix:	Soil	Unit:	mg/Kg
Project:	750650003; Lake Merritt Bart	Sample ID:	MB/LCS/LCSD-195301

QC Summary Report for SW8270C

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
1,1-Biphenyl	ND	0.00230	0.0130	-	-	-
1,2,4-Trichlorobenzene	ND	0.150	0.250	-	-	-
1,2-Dichlorobenzene	ND	0.150	0.250	-	-	-
1,2-Diphenylhydrazine	ND	0.150	0.250	-	-	-
1,3-Dichlorobenzene	ND	0.130	0.250	-	-	-
1,4-Dichlorobenzene	ND	0.180	0.250	-	-	-
1-Methylnaphthalene	ND	0.00110	0.00130	-	-	-
2,4,5-Trichlorophenol	ND	0.00130	0.00250	-	-	-
2,4,6-Trichlorophenol	ND	0.00120	0.0130	-	-	-
2,4-Dichlorophenol	ND	0.00170	0.0130	-	-	-
2,4-Dimethylphenol	ND	0.160	0.250	-	-	-
2,4-Dinitrophenol	ND	0.0510	0.130	-	-	-
2,4-Dinitrotoluene	ND	0.00110	0.00630	-	-	-
2,6-Dinitrotoluene	ND	0.00130	0.00250	-	-	-
2-Chloronaphthalene	ND	0.140	0.250	-	-	-
2-Chlorophenol	ND	0.00200	0.00500	-	-	-
2-Methylnaphthalene	ND	0.00170	0.00250	-	-	-
2-Methylphenol (o-Cresol)	ND	0.270	0.500	-	-	-
2-Nitroaniline	ND	0.690	1.20	-	-	-
2-Nitrophenol	ND	0.660	1.20	-	-	-
3 & 4-Methylphenol (m,p-Cresol)	ND	0.240	0.250	-	-	-
3,3-Dichlorobenzidine	ND	0.00160	0.00250	-	-	-
3-Nitroaniline	ND	0.840	1.20	-	-	-
4,6-Dinitro-2-methylphenol	ND	0.810	1.20	-	-	-
4-Bromophenyl Phenyl Ether	ND	0.150	0.250	-	-	-
4-Chloro-3-methylphenol	ND	0.200	0.250	-	-	-
4-Chloroaniline	ND	0.00160	0.00250	-	-	-
4-Chlorophenyl Phenyl Ether	ND	0.160	0.250	-	-	-
4-Nitroaniline	ND	1.10	1.20	-	-	-
4-Nitrophenol	ND	0.770	1.20	-	-	-
Acenaphthene	ND	0.000770	0.00130	-	-	-
Acenaphthylene	ND	0.000410	0.00130	-	-	-
Acetochlor	ND	0.250	0.250	-	-	-
Anthracene	ND	0.000820	0.00130	-	-	-
Benzidine	ND	0.670	1.20	-	-	-
Benzo (a) anthracene	ND	0.00430	0.00500	-	-	-
Benzo (a) pyrene	ND	0.00120	0.00250	-	-	-
Benzo (b) fluoranthene	ND	0.00160	0.00630	-	-	-

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Quality Control Report

Client: Langan	WorkOrder: 2003414
Date Prepared: 03/09/2020	BatchID: 195301
Date Analyzed: 03/09/2020	Extraction Method: SW3550B
Instrument: GC17	Analytical Method: SW8270C
Matrix: Soil	Unit: mg/Kg
Project: 750650003; Lake Merritt Bart	Sample ID: MB/LCS/LCSD-195301

QC Summary Report for SW8270C

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Benzo (g,h,i) perylene	ND	0.00110	0.00250	-	-	-
Benzo (k) fluoranthene	ND	0.000790	0.00130	-	-	-
Benzyl Alcohol	ND	0.760	1.20	-	-	-
Bis (2-chloroethoxy) Methane	ND	0.150	0.250	-	-	-
Bis (2-chloroethyl) Ether	ND	0.00160	0.00250	-	-	-
Bis (2-chloroisopropyl) Ether	ND	0.00140	0.00250	-	-	-
Bis (2-ethylhexyl) Adipate	ND	0.150	0.500	-	-	-
Bis (2-ethylhexyl) Phthalate	ND	0.00340	0.00500	-	-	-
Butylbenzyl Phthalate	ND	0.0210	0.0250	-	-	-
Chrysene	ND	0.000800	0.00250	-	-	-
Dibenzo (a,h) anthracene	ND	0.00150	0.00250	-	-	-
Dibenzofuran	ND	0.160	0.250	-	-	-
Diethyl Phthalate	ND	0.00360	0.00500	-	-	-
Dimethyl Phthalate	ND	0.00250	0.00250	-	-	-
Di-n-butyl Phthalate	ND	0.00250	0.00500	-	-	-
Di-n-octyl Phthalate	ND	0.00430	0.00500	-	-	-
Fluoranthene	ND	0.00110	0.00130	-	-	-
Fluorene	ND	0.000860	0.00250	-	-	-
Hexachlorobenzene	ND	0.000570	0.00130	-	-	-
Hexachlorobutadiene	ND	0.000420	0.00250	-	-	-
Hexachlorocyclopentadiene	ND	0.110	2.00	-	-	-
Hexachloroethane	ND	0.00110	0.00250	-	-	-
Indeno (1,2,3-cd) pyrene	ND	0.00100	0.00250	-	-	-
Isophorone	ND	0.150	0.250	-	-	-
Naphthalene	ND	0.000690	0.00130	-	-	-
Nitrobenzene	ND	0.160	0.250	-	-	-
N-Nitrosodimethylamine	ND	0.650	1.20	-	-	-
N-Nitrosodi-n-propylamine	ND	0.140	0.250	-	-	-
N-Nitrosodiphenylamine	ND	0.150	0.250	-	-	-
Pentachlorophenol	ND	0.0140	0.0310	-	-	-
Phenanthrene	ND	0.000670	0.00500	-	-	-
Phenol	ND	0.000940	0.00500	-	-	-
Pyrene	ND	0.00140	0.00250	-	-	-
Pyridine	ND	0.180	0.250	-	-	-

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Quality Control Report

Client: Langan	WorkOrder: 2003414
Date Prepared: 03/09/2020	BatchID: 195301
Date Analyzed: 03/09/2020	Extraction Method: SW3550B
Instrument: GC17	Analytical Method: SW8270C
Matrix: Soil	Unit: mg/Kg
Project: 750650003; Lake Merritt Bart	Sample ID: MB/LCS/LCSD-195301

QC Summary Report for SW8270C

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Surrogate Recovery						
2-Fluorophenol	1.19			1.25	95	70-130
Phenol-d5	1.24			1.25	99	70-130
Nitrobenzene-d5	1.09			1.25	87	60-130
2-Fluorobiphenyl	1.04			1.25	83	60-130
2,4,6-Tribromophenol	0.436			1.25	35,F3	60-130
4-Terphenyl-d14	0.921			1.25	74	60-130

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Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/09/2020
Instrument: GC17
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195301
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg
Sample ID: MB/LCS/LCSD-195301

QC Summary Report for SW8270C

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
1,1-Biphenyl	0.111	0.108	0.12	89	87	60-130	2.60	30
1,2,4-Trichlorobenzene	2.54	2.48	2.5	102	99	60-130	2.19	30
1,2-Dichlorobenzene	2.22	2.11	2.5	89	84	60-130	5.01	30
1,2-Diphenylhydrazine	2.54	2.48	2.5	102	99	60-130	2.58	30
1,3-Dichlorobenzene	2.25	2.16	2.5	90	86	60-130	4.02	30
1,4-Dichlorobenzene	2.34	2.29	2.5	94	92	60-130	2.12	30
1-Methylnaphthalene	0.109	0.107	0.12	87	85	70-130	1.84	30
2,4,5-Trichlorophenol	0.113	0.116	0.12	90	92	60-130	2.23	30
2,4,6-Trichlorophenol	0.109	0.111	0.12	87	89	60-130	1.62	30
2,4-Dichlorophenol	0.127	0.127	0.12	102	101	60-130	0.276	30
2,4-Dimethylphenol	2.45	2.41	2.5	98	97	70-130	1.55	30
2,4-Dinitrophenol	0.325	0.325	2.5	13,F2	13,F2	15-130	0.185	30
2,4-Dinitrotoluene	0.132	0.133	0.12	106	106	70-130	0.451	30
2,6-Dinitrotoluene	0.118	0.118	0.12	94	94	60-130	0.187	30
2-Chloronaphthalene	2.41	2.33	2.5	96	93	60-130	3.38	30
2-Chlorophenol	0.128	0.125	0.12	102	100	60-130	2.00	30
2-Methylnaphthalene	0.104	0.103	0.12	83	82	70-130	1.09	30
2-Methylphenol (o-Cresol)	3.04	2.92	2.5	122	117	60-130	3.94	30
2-Nitroaniline	13.0	12.9	12.5	104	103	70-130	0.745	30
2-Nitrophenol	11.6	11.4	12.5	92	92	70-130	1.01	30
3 & 4-Methylphenol (m,p-Cresol)	2.74	2.69	2.5	110	108	60-130	1.64	30
3,3-Dichlorobenzidine	0.114	0.114	0.12	91	91	40-130	0.664	30
3-Nitroaniline	11.9	11.8	12.5	95	94	50-130	1.61	30
4,6-Dinitro-2-methylphenol	2.49	2.51	12.5	20	20	20-130	0.923	30
4-Bromophenyl Phenyl Ether	2.57	2.43	2.5	103	97	60-130	5.43	30
4-Chloro-3-methylphenol	2.52	2.46	2.5	101	99	70-130	2.30	30
4-Chloroaniline	0.112	0.112	0.12	89	90	40-130	0.249	30
4-Chlorophenyl Phenyl Ether	2.34	2.30	2.5	93	92	70-130	1.62	30
4-Nitroaniline	10.4	10.4	12.5	83	83	60-130	0.482	30
4-Nitrophenol	10.1	10.6	12.5	81	85	60-130	4.67	30
Acenaphthene	0.124	0.120	0.12	99	96	60-130	3.13	30
Acenaphthylene	0.0894	0.0880	0.12	72	70	60-130	1.60	30
Acetochlor	2.35	2.23	2.5	94	89	60-130	5.52	30
Anthracene	0.131	0.129	0.12	105	103	60-130	1.13	30
Benzidine	7.92	7.85	12.5	63	63	20-130	0.835	30
Benzo (a) anthracene	0.0994	0.0981	0.12	80	79	70-130	1.28	30
Benzo (a) pyrene	0.107	0.104	0.12	86	83	70-130	2.78	30
Benzo (b) fluoranthene	0.0912	0.0897	0.12	73	72	60-130	1.69	30

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Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/09/2020
Instrument: GC17
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195301
Extraction Method: SW3550B
Analytical Method: SW8270C
Unit: mg/Kg
Sample ID: MB/LCS/LCSD-195301

QC Summary Report for SW8270C

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Benzo (g,h,i) perylene	0.114	0.112	0.12	91	90	70-130	1.99	30
Benzo (k) fluoranthene	0.107	0.0996	0.12	86	80	70-130	7.27	30
Benzyl Alcohol	12.8	12.4	12.5	102	100	70-130	2.54	30
Bis (2-chloroethoxy) Methane	2.33	2.28	2.5	93	91	70-130	2.17	30
Bis (2-chloroethyl) Ether	0.104	0.0998	0.12	83	80	60-130	3.89	30
Bis (2-chloroisopropyl) Ether	0.120	0.114	0.12	96	92	60-130	4.70	30
Bis (2-ethylhexyl) Adipate	3.00	2.97	2.5	120	119	60-130	0.864	30
Bis (2-ethylhexyl) Phthalate	0.134	0.135	0.12	108	108	60-130	0.303	30
Butylbenzyl Phthalate	0.129	0.130	0.12	103	104	60-130	0.409	30
Chrysene	0.108	0.106	0.12	87	84	70-130	2.80	30
Dibenzo (a,h) anthracene	0.114	0.112	0.12	91	89	70-130	2.31	30
Dibenzofuran	2.19	2.18	2.5	88	87	60-130	0.420	30
Diethyl Phthalate	0.117	0.114	0.12	93	91	70-130	2.73	30
Dimethyl Phthalate	0.114	0.111	0.12	91	89	70-130	2.50	30
Di-n-butyl Phthalate	0.108	0.106	0.12	86	85	60-130	1.57	30
Di-n-octyl Phthalate	0.118	0.116	0.12	94	93	60-130	1.99	30
Fluoranthene	0.0938	0.0932	0.12	75	75	70-130	0.599	30
Fluorene	0.129	0.126	0.12	103	101	60-130	1.70	30
Hexachlorobenzene	0.118	0.114	0.12	94	91	70-130	3.90	30
Hexachlorobutadiene	0.102	0.0981	0.12	82	78	70-130	3.95	30
Hexachlorocyclopentadiene	9.90	9.74	12.5	79	78	60-130	1.61	30
Hexachloroethane	0.108	0.104	0.12	86	83	70-130	3.55	30
Indeno (1,2,3-cd) pyrene	0.114	0.110	0.12	91	88	70-130	3.79	30
Isophorone	2.22	2.21	2.5	89	88	60-130	0.761	30
Naphthalene	0.102	0.100	0.12	82	80	70-130	2.13	30
Nitrobenzene	2.33	2.29	2.5	93	92	60-130	1.40	30
N-Nitrosodi-n-propylamine	2.66	2.61	2.5	106	104	60-130	2.12	30
N-Nitrosodiphenylamine	2.42	2.36	2.5	97	94	70-130	2.49	30
Pentachlorophenol	0.267	0.266	0.62	43,F2	43,F2	50-130	0.469	30
Phenanthrene	0.114	0.112	0.12	91	89	60-130	1.79	30
Phenol	0.567	0.560	0.50	113	112	60-130	1.36	30
Pyrene	0.124	0.123	0.12	100	98	70-130	1.05	30
Pyridine	1.52	1.52	2.5	61	61	60-130	0.0279	30

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Quality Control Report

Client: Langan	WorkOrder: 2003414
Date Prepared: 03/09/2020	BatchID: 195301
Date Analyzed: 03/09/2020	Extraction Method: SW3550B
Instrument: GC17	Analytical Method: SW8270C
Matrix: Soil	Unit: mg/Kg
Project: 750650003; Lake Merritt Bart	Sample ID: MB/LCS/LCSD-195301

QC Summary Report for SW8270C

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Surrogate Recovery								
2-Fluorophenol	1.23	1.15	1.25	98	92	70-130	6.76	30
Phenol-d5	1.26	1.25	1.25	101	100	70-130	0.614	30
Nitrobenzene-d5	1.10	1.09	1.25	88	87	60-130	0.770	30
2-Fluorobiphenyl	1.07	1.04	1.25	86	83	60-130	3.15	30
2,4,6-Tribromophenol	1.08	1.05	1.25	86	84	60-130	2.78	30
4-Terphenyl-d14	0.943	0.926	1.25	75	74	60-130	1.86	30

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Quality Control Report

Client: Langan
Date Prepared: 03/10/2020
Date Analyzed: 03/10/2020 - 03/11/2020
Instrument: ICP-MS4
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195323
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/kg
Sample ID: MB/LCS/LCSD-195323

QC Summary Report for Metals

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Antimony	ND	0.0940	0.500	-	-	-
Arsenic	ND	0.140	0.500	-	-	-
Barium	ND	0.970	5.00	-	-	-
Beryllium	ND	0.0720	0.500	-	-	-
Cadmium	ND	0.0580	0.250	-	-	-
Chromium	ND	0.0920	0.500	-	-	-
Cobalt	ND	0.0560	0.500	-	-	-
Copper	ND	0.0690	0.500	-	-	-
Lead	ND	0.0940	0.500	-	-	-
Mercury	0.0190,J	0.00500	0.0500	-	-	-
Molybdenum	ND	0.230	0.500	-	-	-
Nickel	ND	0.0720	0.500	-	-	-
Selenium	ND	0.130	0.500	-	-	-
Silver	ND	0.0550	0.500	-	-	-
Thallium	ND	0.100	0.500	-	-	-
Vanadium	ND	0.0640	0.500	-	-	-
Zinc	ND	1.40	5.00	-	-	-
Surrogate Recovery						
Terbium	474			500	95	70-130



Quality Control Report

Client: Langan
Date Prepared: 03/10/2020
Date Analyzed: 03/10/2020 - 03/11/2020
Instrument: ICP-MS4
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195323
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/kg
Sample ID: MB/LCS/LCSD-195323

QC Summary Report for Metals

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Antimony	53.7	54.1	50	107	108	75-125	0.697	20
Arsenic	51.2	52.9	50	102	106	75-125	3.22	20
Barium	510	515	500	102	103	75-125	0.785	20
Beryllium	52.8	53.6	50	106	107	75-125	1.33	20
Cadmium	51.7	52.8	50	103	106	75-125	2.20	20
Chromium	50.1	51.1	50	100	102	75-125	1.83	20
Cobalt	52.1	53.1	50	104	106	75-125	1.96	20
Copper	51.7	54.9	50	103	110	75-125	6.06	20
Lead	50.9	52.2	50	102	104	75-125	2.50	20
Mercury	1.29	1.31	1.25	103	105	75-125	1.38	20
Molybdenum	53.1	53.2	50	106	106	75-125	0.162	20
Nickel	52.3	53.0	50	105	106	75-125	1.19	20
Selenium	51.5	53.1	50	103	106	75-125	3.05	20
Silver	49.1	49.9	50	98	100	75-125	1.45	20
Thallium	51.5	53.2	50	103	106	75-125	3.13	20
Vanadium	50.5	51.9	50	101	104	75-125	2.63	20
Zinc	514	523	500	103	105	75-125	1.73	20
Surrogate Recovery								
Terbium	522	526	500	104	105	70-130	0.839	20



Quality Control Report

Client: Langan	WorkOrder: 2003414
Date Prepared: 03/09/2020	BatchID: 195329
Date Analyzed: 03/10/2020	Extraction Method: SW3050B
Instrument: ICP-MS4	Analytical Method: SW6020
Matrix: Soil	Unit: mg/kg
Project: 750650003; Lake Merritt Bart	Sample ID: MB/LCS/LCSD-195329

QC Summary Report for Metals

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Antimony	ND	0.0940	0.500	-	-	-
Arsenic	ND	0.140	0.500	-	-	-
Barium	ND	0.970	5.00	-	-	-
Beryllium	ND	0.0720	0.500	-	-	-
Cadmium	ND	0.0580	0.250	-	-	-
Chromium	ND	0.0920	0.500	-	-	-
Cobalt	ND	0.0560	0.500	-	-	-
Copper	ND	0.0690	0.500	-	-	-
Lead	ND	0.0940	0.500	-	-	-
Mercury	0.0190,J	0.00500	0.0500	-	-	-
Molybdenum	ND	0.230	0.500	-	-	-
Nickel	ND	0.0720	0.500	-	-	-
Selenium	ND	0.130	0.500	-	-	-
Silver	ND	0.0550	0.500	-	-	-
Thallium	ND	0.100	0.500	-	-	-
Vanadium	ND	0.0640	0.500	-	-	-
Zinc	ND	1.40	5.00	-	-	-
Surrogate Recovery						
Terbium	492			500	98	70-130



Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/10/2020
Instrument: ICP-MS4
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195329
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/kg
Sample ID: MB/LCS/LCSD-195329

QC Summary Report for Metals

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Antimony	49.0	51.1	50	98	102	75-125	4.31	20
Arsenic	46.8	50.7	50	94	101	75-125	8.06	20
Barium	460	503	500	92	101	75-125	9.03	20
Beryllium	47.8	50.8	50	96	102	75-125	6.20	20
Cadmium	47.6	51.5	50	95	103	75-125	7.75	20
Chromium	46.2	50.2	50	92	100	75-125	8.20	20
Cobalt	48.0	51.2	50	96	102	75-125	6.30	20
Copper	47.4	51.2	50	95	102	75-125	7.83	20
Lead	46.3	50.4	50	93	101	75-125	8.53	20
Mercury	1.21	1.25	1.25	97	100	75-125	2.84	20
Molybdenum	46.9	49.1	50	94	98	75-125	4.49	20
Nickel	47.6	51.9	50	95	104	75-125	8.65	20
Selenium	48.2	53.2	50	96	106	75-125	9.84	20
Silver	45.4	49.0	50	91	98	75-125	7.74	20
Thallium	46.4	50.6	50	93	101	75-125	8.61	20
Vanadium	47.0	51.0	50	94	102	75-125	8.27	20
Zinc	479	511	500	96	102	75-125	6.33	20
Surrogate Recovery								
Terbium	488	508	500	98	102	70-130	4.08	20



Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/09/2020 - 03/11/2020
Instrument: GC19, GC7
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195295
Extraction Method: SW5035
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg
Sample ID: MB/LCS/LCSD-195295

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
TPH(g) (C6-C12)	ND	0.700	1.00	-	-	-
MTBE	ND	0.00400	0.0500	-	-	-
Benzene	ND	0.00300	0.00500	-	-	-
Toluene	ND	0.00200	0.00500	-	-	-
Ethylbenzene	ND	0.00220	0.00500	-	-	-
m,p-Xylene	ND	0.00300	0.0100	-	-	-
o-Xylene	ND	0.00100	0.00500	-	-	-

Surrogate Recovery

2-Fluorotoluene	0.0968			0.1	97	75-134
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Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH(btex)	0.587	0.564	0.60	98	94	82-118	4.00	20
MTBE	0.0785	0.0790	0.10	79	79	61-119	0.615	20
Benzene	0.0990	0.104	0.10	99	104	77-128	5.07	20
Toluene	0.0992	0.105	0.10	99	105	74-132	5.45	20
Ethylbenzene	0.103	0.106	0.10	103	106	84-127	3.52	20
m,p-Xylene	0.214	0.220	0.20	107	110	80-120	2.74	20
o-Xylene	0.105	0.106	0.10	105	106	80-120	1.51	20

Surrogate Recovery

2-Fluorotoluene	0.0989	0.103	0.10	99	103	75-134	4.21	20
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Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/10/2020 - 03/12/2020
Instrument: GC19, GC7
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195328
Extraction Method: SW5035
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg
Sample ID: MB/LCS/LCSD-195328
 2003414-015AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
TPH(g) (C6-C12)	ND	0.700	1.00	-	-	-
MTBE	ND	0.00400	0.0500	-	-	-
Benzene	ND	0.00300	0.00500	-	-	-
Toluene	ND	0.00200	0.00500	-	-	-
Ethylbenzene	ND	0.00220	0.00500	-	-	-
m,p-Xylene	ND	0.00300	0.0100	-	-	-
o-Xylene	ND	0.00100	0.00500	-	-	-
Surrogate Recovery						
2-Fluorotoluene	0.105			0.1	105	75-134

DRAFT



Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/10/2020 - 03/12/2020
Instrument: GC19, GC7
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195328
Extraction Method: SW5035
Analytical Method: SW8021B/8015Bm
Unit: mg/Kg
Sample ID: MB/LCS/LCSD-195328
 2003414-015AMS/MSD

QC Summary Report for SW8021B/8015Bm

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH(btex)	0.524	0.543	0.60	87	91	82-118	3.47	20
MTBE	0.0739	0.0750	0.10	74	75	61-119	1.47	20
Benzene	0.104	0.100	0.10	104	100	77-128	3.36	20
Toluene	0.104	0.102	0.10	104	102	74-132	1.89	20
Ethylbenzene	0.106	0.104	0.10	106	104	84-127	2.06	20
m,p-Xylene	0.218	0.215	0.20	109	107	80-120	1.35	20
o-Xylene	0.105	0.104	0.10	105	104	80-120	0.176	20
Surrogate Recovery								
2-Fluorotoluene	0.104	0.102	0.10	104	101	75-134	2.37	20

Analyte	MS DF	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	1	0.629	0.547	0.60	ND	105	91	58-129	13.9	20
MTBE	1	0.112	0.0987	0.10	ND	112	99	47-118	12.2	20
Benzene	1	0.104	0.0972	0.10	ND	104	97	55-129	6.31	20
Toluene	1	0.104	0.0995	0.10	ND	104	100	56-130	4.09	20
Ethylbenzene	1	0.100	0.0984	0.10	ND	100	98	63-129	1.93	20
m,p-Xylene	1	0.206	0.204	0.20	ND	103	102	80-120	0.997	20
o-Xylene	1	0.0959	0.0960	0.10	ND	96	96	80-120	0.112	20
Surrogate Recovery										
2-Fluorotoluene	1	0.0955	0.0941	0.10		96	94	62-126	1.52	20

(Cont.)



Quality Control Report

Client: Langan	WorkOrder: 2003414
Date Prepared: 03/10/2020	BatchID: 195369
Date Analyzed: 03/11/2020	Extraction Method: SW5035
Instrument: GC19, GC7	Analytical Method: SW8021B/8015Bm
Matrix: Soil	Unit: mg/Kg
Project: 750650003; Lake Merritt Bart	Sample ID: MB/LCS/LCSD-195369

QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
TPH(g) (C6-C12)	ND	0.700	1.00	-	-	-
MTBE	ND	0.00400	0.0500	-	-	-
Benzene	ND	0.00300	0.00500	-	-	-
Toluene	ND	0.00200	0.00500	-	-	-
Ethylbenzene	ND	0.00220	0.00500	-	-	-
m,p-Xylene	ND	0.00300	0.0100	-	-	-
o-Xylene	ND	0.00100	0.00500	-	-	-

Surrogate Recovery

2-Fluorotoluene	0.0965			0.1	96	75-134
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Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH(btex)	0.522	0.507	0.60	87	85	82-118	2.82	20
MTBE	0.0737	0.0749	0.10	74	75	61-119	1.58	20
Benzene	0.0834	0.0823	0.10	83	82	77-128	1.26	20
Toluene	0.105	0.103	0.10	105	103	74-132	2.03	20
Ethylbenzene	0.116	0.113	0.10	116	113	84-127	2.42	20
m,p-Xylene	0.236	0.234	0.20	118	117	80-120	0.618	20
o-Xylene	0.119	0.116	0.10	119	116	80-120	2.84	20

Surrogate Recovery

2-Fluorotoluene	0.107	0.106	0.10	107	106	75-134	1.20	20
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Quality Control Report

Client: Langan
Date Prepared: 03/10/2020
Date Analyzed: 03/10/2020 - 03/11/2020
Instrument: ICP-MS4
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195323
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/kg
Sample ID: MB/LCS/LCSD-195323

QC Summary Report for Metals

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Cadmium	ND	0.0580	0.250	-	-	-
Chromium	ND	0.0920	0.500	-	-	-
Lead	ND	0.0940	0.500	-	-	-
Nickel	ND	0.0720	0.500	-	-	-
Zinc	ND	1.40	5.00	-	-	-
Surrogate Recovery						
Terbium	474			500	95	70-130

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Cadmium	51.7	52.8	50	103	106	75-125	2.20	20
Chromium	50.1	51.1	50	100	102	75-125	1.83	20
Lead	50.9	52.2	50	102	104	75-125	2.50	20
Nickel	52.3	53.0	50	105	106	75-125	1.19	20
Zinc	514	523	500	103	105	75-125	1.73	20
Surrogate Recovery								
Terbium	522	526	500	104	105	70-130	0.839	20

(Cont.)



Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/10/2020
Instrument: ICP-MS4
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195329
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/kg
Sample ID: MB/LCS/LCSD-195329
 2003414-015AMS/MSD

QC Summary Report for Metals

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Cadmium	ND	0.0580	0.250	-	-	-
Chromium	ND	0.0920	0.500	-	-	-
Lead	ND	0.0940	0.500	-	-	-
Nickel	ND	0.0720	0.500	-	-	-
Zinc	ND	1.40	5.00	-	-	-
Surrogate Recovery						
Terbium	492			500	98	70-130

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Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/10/2020
Instrument: ICP-MS4
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195329
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/kg
Sample ID: MB/LCS/LCSD-195329
 2003414-015AMS/MSD

QC Summary Report for Metals

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Cadmium	47.6	51.5	50	95	103	75-125	7.75	20
Chromium	46.2	50.2	50	92	100	75-125	8.20	20
Lead	46.3	50.4	50	93	101	75-125	8.53	20
Nickel	47.6	51.9	50	95	104	75-125	8.65	20
Zinc	479	511	500	96	102	75-125	6.33	20
Surrogate Recovery								
Terbium	488	508	500	98	102	70-130	4.08	20

Analyte	MS DF	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Cadmium	1	51.4	51.8	50	ND	103	103	75-125	0.696	20
Chromium	1	62.8	61.7	50	18.48	89	87	75-125	1.78	20
Lead	1	59.8	60.5	50	9.507	101	102	75-125	1.12	20
Nickel	1	66.8	66.6	50	18.35	97	97	75-125	0.337	20
Zinc	1	548	557	500	51.63	99	101	75-125	1.78	20
Surrogate Recovery										
Terbium	1	522	531	500		104	106	70-130	1.76	20

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Cadmium	ND<1.20	ND	-	-
Chromium	17.6	18.48	4.76	20
Lead	8.98	9.507	5.54	-
Nickel	17.5	18.35	4.63	20
Zinc	56.2	51.63	8.85	-

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.



Quality Control Report

Client: Langan	WorkOrder: 2003414
Date Prepared: 03/09/2020	BatchID: 195290
Date Analyzed: 03/10/2020	Extraction Method: SW3550B
Instrument: GC31B, GC6B	Analytical Method: SW8015B
Matrix: Soil	Unit: mg/Kg
Project: 750650003; Lake Merritt Bart	Sample ID: MB/LCS/LCSD-195290

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
TPH-Diesel (C10-C23)	ND	0.830	1.00	-	-	-
TPH-Motor Oil (C18-C36)	ND	3.80	5.00	-	-	-
Surrogate Recovery						
C9	24.8			25	99	70-130

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	41.0	41.3	40	103	103	70-130	0.562	20
Surrogate Recovery								
C9	24.4	24.3	25	97	97	70-130	0.0986	20

DRAFT



Quality Control Report

Client: Langan
Date Prepared: 03/09/2020
Date Analyzed: 03/10/2020
Instrument: GC31A, GC39A
Matrix: Soil
Project: 750650003; Lake Merritt Bart

WorkOrder: 2003414
BatchID: 195326
Extraction Method: SW3550B
Analytical Method: SW8015B
Unit: mg/Kg
Sample ID: MB/LCS/LCSD-195326
 2003414-014AMS/MSD

QC Report for SW8015B w/out SG Clean-Up

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
TPH-Diesel (C10-C23)	ND	0.830	1.00	-	-	-
TPH-Motor Oil (C18-C36)	ND	3.80	5.00	-	-	-
Surrogate Recovery						
C9	22.2			25	89	70-130

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	37.5	36.5	40	94	91	70-130	2.88	20
Surrogate Recovery								
C9	21.8	21.9	25	87	88	70-130	0.626	20

Analyte	MS DF	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	1	38.8	40.2	40	ND	97	100	70-130	3.46	20
Surrogate Recovery										
C9	1	28.1	28.1	25		112	112	70-130	0.0327	20

1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262



CHAIN-OF-CUSTODY RECORD

WorkOrder: 2003414

ClientCode: TWRF

- WaterTrax
 WriteOn
 EDF
 Excel
 EQuIS
 Email
 HardCopy
 ThirdParty
 J-flag
 Detection Summary
 Dry-Weight

Report to:
Arthur Machado
Langan
135 Main St, Suite 1500
San Francisco, CA 94105
(415) 955-9040 FAX: (415) 955-9041

Email: amachado@langan.com
cc/3rd Party: Dsutherland@langan.com;
PO:
Project: 750650003; Lake Merritt Bart

Bill to:
Accounts Payable
Langan
135 Main St, Suite 1500
San Francisco, CA 94105
Langan_InvoiceCapture@concur.solutio

Requested TAT: 5 days;

Date Received: 03/09/2020
Date Logged: 03/09/2020

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
2003414-001	EB-1-0.5	Soil	3/7/2020 12:05	<input type="checkbox"/>	A	A			A	A	A	A				
2003414-002	EB-1-5	Soil	3/7/2020 12:17	<input type="checkbox"/>		A			A	A	A	A				
2003414-003	EB-1-10	Soil	3/7/2020 12:21	<input type="checkbox"/>		A	A		A	A	A	A				
2003414-004	EB-1-15	Soil	3/7/2020 12:25	<input type="checkbox"/>		A	A		A	A	A	A				
2003414-005	EB-1-20	Soil	3/7/2020 12:29	<input type="checkbox"/>		A	A		A	A	A	A				
2003414-006	EB-2-0.5	Soil	3/7/2020 13:10	<input type="checkbox"/>		A		A	A		A	A				
2003414-007	EB-2-5	Soil	3/7/2020 13:00	<input type="checkbox"/>		A		A	A		A	A				
2003414-008	EB-2-10	Soil	3/7/2020 13:20	<input type="checkbox"/>		A	A	A	A		A	A				
2003414-009	EB-2-15	Soil	3/7/2020 13:25	<input type="checkbox"/>		A	A	A	A		A	A				
2003414-010	EB-2-20	Soil	3/7/2020 13:28	<input type="checkbox"/>		A	A	A	A		A	A				
2003414-011	EB-3-0.5	Soil	3/7/2020 13:34	<input type="checkbox"/>	A	A		A	A		A	A				
2003414-012	EB-3-5	Soil	3/7/2020 13:37	<input type="checkbox"/>		A	A	A	A		A	A				
2003414-013	EB-4-0.5	Soil	3/7/2020 13:45	<input type="checkbox"/>		A		A	A		A	A				
2003414-014	EB-4-5	Soil	3/7/2020 13:50	<input type="checkbox"/>		A		A	A		A	A				
2003414-015	EB-5-0.5	Soil	3/7/2020 10:10	<input type="checkbox"/>	A	A			A	A	A	A				

Test Legend:

1	8081PCB_S	2	8260B_S	3	8270_SCSM_S	4	CAM17MS_TTLC_S
5	G-MBTX_S	6	LUFTMS_6020_TTLC_S	7	PRDisposal Fee	8	TPH(DMO)_S
9		10		11		12	

Prepared by: Kena Ponce

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A, 009A, 010A, 011A, 012A, 013A, 014A, 015A, 016A, 017A, 018A, 019A, 020A, 021A, 022A contain testgroup Multi Range_S.

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 2003414

ClientCode: TWRF

WaterTrax WriteOn EDF

Excel EQuIS Email HardCopy ThirdParty J-flag

Detection Summary Dry-Weight

Report to:

Arthur Machado
Langan
135 Main St, Suite 1500
San Francisco, CA 94105
(415) 955-9040 FAX: (415) 955-9041

Email: amachado@langan.com
cc/3rd Party: Dsutherland@langan.com;
PO:
Project: 750650003; Lake Merritt Bart

Bill to:

Accounts Payable
Langan
135 Main St, Suite 1500
San Francisco, CA 94105
Langan_InvoiceCapture@concur.solutio

Requested TAT: 5 days;

Date Received: 03/09/2020

Date Logged: 03/09/2020

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
2003414-016	EB-5-5	Soil	3/7/2020 10:20	<input type="checkbox"/>		A	A		A	A	A	A				
2003414-017	EB-6-0.5	Soil	3/7/2020 10:00	<input type="checkbox"/>		A		A	A		A	A				
2003414-018	EB-6-5	Soil	3/7/2020 10:07	<input type="checkbox"/>		A		A	A		A	A				
2003414-019	EB-7-0.5	Soil	3/7/2020 09:45	<input type="checkbox"/>		A		A	A		A	A				
2003414-020	EB-7-5	Soil	3/7/2020 09:50	<input type="checkbox"/>		A		A	A		A	A				
2003414-021	EB-8-0.5	Soil	3/7/2020 08:44	<input type="checkbox"/>	A	A		A	A		A	A				
2003414-022	EB-8-5	Soil	3/7/2020 08:51	<input type="checkbox"/>		A	A	A	A		A	A				

DRAFT

Test Legend:

1	8081PCB_S	2	8260B_S	3	8270_SCSM_S	4	CAM17MS_TTLC_S
5	G-MBTEX_S	6	LUFTMS_6020_TTLC_S	7	PRDisposal Fee	8	TPH(DMO)_S
9		10		11		12	

Prepared by: Kena Ponce

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A, 009A, 010A, 011A, 012A, 013A, 014A, 015A, 016A, 017A, 018A, 019A, 020A, 021A, 022A contain testgroup Multi Range_S.

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: LANGAN
Client Contact: Arthur Machado
Contact's Email: amachado@langan.com

Project: 750650003; Lake Merritt Bart

Work Order: 2003414
QC Level: LEVEL 2
Date Logged: 3/9/2020

Comments:

WaterTrax WriteOn EDF Excel EQUIS Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
2003414-001A	EB-1-0.5	Soil	SW6020 (LUFT)	1	Acetate Liner	<input type="checkbox"/>	3/7/2020 12:05	5 days		<input type="checkbox"/>	
			Multi-Range TPH			<input type="checkbox"/>		5 days			
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			
			SW8081A/8082 (OC Pesticides+PCBs)			<input type="checkbox"/>		5 days			
2003414-002A	EB-1-5	Soil	SW6020 (LUFT)	1	Acetate Liner	<input type="checkbox"/>	3/7/2020 12:17	5 days		<input type="checkbox"/>	
			Multi-Range TPH			<input type="checkbox"/>		5 days			
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			
2003414-003A	EB-1-10	Soil	SW6020 (LUFT)	1	Acetate Liner	<input type="checkbox"/>	3/7/2020 12:21	5 days		<input type="checkbox"/>	
			Multi-Range TPH			<input type="checkbox"/>		5 days			
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days			
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			
2003414-004A	EB-1-15	Soil	SW6020 (LUFT)	1	Acetate Liner	<input type="checkbox"/>	3/7/2020 12:25	5 days		<input type="checkbox"/>	
			Multi-Range TPH			<input type="checkbox"/>		5 days			
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days			
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			
2003414-005A	EB-1-20	Soil	SW6020 (LUFT)	1	Acetate Liner	<input type="checkbox"/>	3/7/2020 12:29	5 days		<input type="checkbox"/>	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.



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Project: 750650003; Lake Merritt Bart

Work Order: 2003414
QC Level: LEVEL 2
Date Logged: 3/9/2020

Comments:

WaterTrax WriteOn EDF Excel EQUIS Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
2003414-005A	EB-1-20	Soil	Multi-Range TPH	1	Acetate Liner	<input type="checkbox"/>	3/7/2020 12:29	5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days			
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			
2003414-006A	EB-2-0.5	Soil	Multi-Range TPH	1	Acetate Liner	<input type="checkbox"/>	3/7/2020 13:10	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days			
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			
2003414-007A	EB-2-5	Soil	Multi-Range TPH	1	Acetate Liner	<input type="checkbox"/>	3/7/2020 13:00	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days			
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			
2003414-008A	EB-2-10	Soil	Multi-Range TPH	1	Acetate Liner	<input type="checkbox"/>	3/7/2020 13:20	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days			
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days			
			SW8260B (VOCs)			<input type="checkbox"/>		5 days			
2003414-009A	EB-2-15	Soil	Multi-Range TPH	1	Acetate Liner	<input type="checkbox"/>	3/7/2020 13:25	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days			
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days			

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Client Name: LANGAN
Client Contact: Arthur Machado
Contact's Email: amachado@langan.com

Project: 750650003; Lake Merritt Bart

Work Order: 2003414
QC Level: LEVEL 2
Date Logged: 3/9/2020

Comments:

WaterTrax WriteOn EDF Excel EQUIS Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
2003414-009A	EB-2-15	Soil	SW8260B (VOCs)	1	Acetate Liner	<input type="checkbox"/>	3/7/2020 13:25	5 days		<input type="checkbox"/>	
2003414-010A	EB-2-20	Soil	Multi-Range TPH	1	Acetate Liner	<input type="checkbox"/>	3/7/2020 13:28	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
2003414-011A	EB-3-0.5	Soil	Multi-Range TPH	1	Acetate Liner	<input type="checkbox"/>	3/7/2020 13:34	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8081A/8082 (OC Pesticides+PCBs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
2003414-012A	EB-3-5	Soil	Multi-Range TPH	1	Acetate Liner	<input type="checkbox"/>	3/7/2020 13:37	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
2003414-013A	EB-4-0.5	Soil	Multi-Range TPH	1	Acetate Liner	<input type="checkbox"/>	3/7/2020 13:45	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

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WORK ORDER SUMMARY

Client Name: LANGAN
Client Contact: Arthur Machado
Contact's Email: amachado@langan.com

Project: 750650003; Lake Merritt Bart

Work Order: 2003414
QC Level: LEVEL 2
Date Logged: 3/9/2020

Comments:

WaterTrax WriteOn EDF Excel EQUIS Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut		
2003414-014A	EB-4-5	Soil	Multi-Range TPH	1	Stainless Steel tube 2"x6"	<input type="checkbox"/>	3/7/2020 13:50	5 days		<input type="checkbox"/>			
			SW6020 (CAM 17)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
			SW8260B (VOCs)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
2003414-015A	EB-5-0.5	Soil	SW6020 (LUFT)	1	Acetate Liner	<input type="checkbox"/>	3/7/2020 10:10	5 days		<input type="checkbox"/>			
			Multi-Range TPH			<input type="checkbox"/>						5 days	<input type="checkbox"/>
			SW8260B (VOCs)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
			SW8081A/8082 (OC Pesticides+PCBs)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
2003414-016A	EB-5-5	Soil	SW6020 (LUFT)	1	Stainless Steel tube 2"x6"	<input type="checkbox"/>	3/7/2020 10:20	5 days		<input type="checkbox"/>			
			Multi-Range TPH			<input type="checkbox"/>						5 days	<input type="checkbox"/>
			SW8270C (SVOCs)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
			SW8260B (VOCs)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
2003414-017A	EB-6-0.5	Soil	Multi-Range TPH	1	Acetate Liner	<input type="checkbox"/>	3/7/2020 10:00	5 days		<input type="checkbox"/>			
			SW6020 (CAM 17)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
			SW8260B (VOCs)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
2003414-018A	EB-6-5	Soil	Multi-Range TPH	1	Acetate Liner	<input type="checkbox"/>	3/7/2020 10:07	5 days		<input type="checkbox"/>			
			SW6020 (CAM 17)			<input type="checkbox"/>						5 days	<input type="checkbox"/>

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WORK ORDER SUMMARY

Client Name: LANGAN
Client Contact: Arthur Machado
Contact's Email: amachado@langan.com

Project: 750650003; Lake Merritt Bart


Work Order: 2003414
QC Level: LEVEL 2
Date Logged: 3/9/2020

Comments:

WaterTrax WriteOn EDF Excel EQUIS Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
2003414-018A	EB-6-5	Soil	SW8260B (VOCs)	1	Acetate Liner	<input type="checkbox"/>	3/7/2020 10:07	5 days		<input type="checkbox"/>	
2003414-019A	EB-7-0.5	Soil	Multi-Range TPH	1	Acetate Liner	<input type="checkbox"/>	3/7/2020 9:45	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
2003414-020A	EB-7-5	Soil	Multi-Range TPH	1	Acetate Liner	<input type="checkbox"/>	3/7/2020 9:50	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
2003414-021A	EB-8-0.5	Soil	Multi-Range TPH	1	Stainless Steel tube 2"x6"	<input type="checkbox"/>	3/7/2020 8:44	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8081A/8082 (OC Pesticides+PCBs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
2003414-022A	EB-8-5	Soil	Multi-Range TPH	1	Stainless Steel tube 2"x6"	<input type="checkbox"/>	3/7/2020 8:51	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).
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	McCAMPBELL ANALYTICAL, INC.		CHAIN OF CUSTODY RECORD					
	1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701		Turn Around Time: 1 Day Rush	2 Day Rush	3 Day Rush	STD	<input checked="" type="checkbox"/>	Quote #
	Telephone: (877) 252-9262 / Fax: (925) 252-9269		J-Flag / MDL	ESL	Cleanup Approved	Dry Weight	Bottle Order #	
	www.mccampbell.com main@mccampbell.com		Delivery Format: PDF	<input checked="" type="checkbox"/>	GeoTracker EDF	EDD	Write On (DW)	Detect Summary


Report To: ARTHUR MACHADO	Bill To: ARTHUR MACHADO/LANGAN	Analysis Requested	
Company: LANGAN			
Address: 135 MAIN ST. STE. 1500			
Email: AMACHADO@LANGAN.COM	Telex: 415.955.5242		
Project Name: LAKE MERRITT BART	Project #: 750650003		
Project Location: GAKLAND	PO # 11		
Sampler Signature: <i>[Signature]</i>			

SAMPLE ID Location / Field Point	Sampling		#Containers	Matrix	Preservative	Mud Range as Gas, Diesel, and Motor Oil (8021/8015)	BTEX & TPH as Gas (8021/ 8015) MTBE	TPH as Diesel (8015) + Motor Oil Without Silica Gel	TPH as Diesel (8015) + Motor Oil With Silica Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/ 608 / 8081 (CI Pesticides)	EPA 608 / 8082 PCB's ; Aroclors only	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / FNAs)	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)*	Byblends Requirements	Lab to filter sample for dissolved metals analysis	LUFT 5 METALS		
	Date	Time																						
EB-1-0.5	3/7/20	1205	1	SOIL	ICE	X							X	X	X								X	
EB-1-5		1217																						X
EB-1-10		1221														X	X							X
EB-1-15		1225														X	X							X
EB-1-20		1229														X	X							X
EB-2-0.5		1310																	X					
EB-2-5		1300																						
EB-2-10		1326														X	X							
EB-2-15		1325														X	X							
EB-2-20	▽	1328	▽	▽	▽	▽									▽	X	X	▽						

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

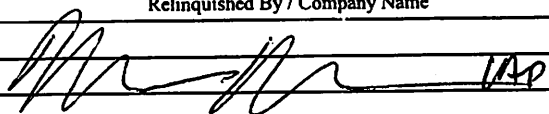
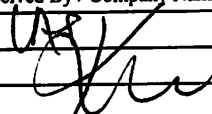
* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.						Comments / Instructions PLEASE CC DSUTHERLAND@LANGAN.COM
Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.						
Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time	
<i>[Signature]</i>	3/9/20	1215	<i>[Signature]</i>	3/9/20	1215	
	3/9/20	1345	<i>[Signature]</i>	3/9/20	1345	

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other
 Preservative Code: 1=4°C 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=ZnOAc/NaOH 7=None
 Temp 0.5°C Initials _____


 <p>McCAMPBELL ANALYTICAL, INC. 1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701 Telephone: (877) 252-9262 / Fax: (925) 252-9269 www.mccampbell.com main@mccampbell.com</p>	CHAIN OF CUSTODY RECORD
Report To: _____ Bill To: _____ Company: _____ Address: SEE PAGE 1 Email: _____ Tele: _____ Project Name: _____ Project #: _____ Project Location: _____ PO #: _____ Sampler Signature: _____	Turn Around Time: 1 Day Rush <input type="checkbox"/> 2 Day Rush <input type="checkbox"/> 3 Day Rush <input type="checkbox"/> STD <input checked="" type="checkbox"/> Quote # _____ J-Flag / MDL _____ ESL _____ Cleanup Approved <input type="checkbox"/> Dry Weight <input type="checkbox"/> Bottle Order # _____ Delivery Format: PDF <input checked="" type="checkbox"/> GeoTracker EDF <input type="checkbox"/> EDD <input type="checkbox"/> Write On (DW) <input type="checkbox"/> Detect Summary <input type="checkbox"/>

SAMPLE ID Location / Field Point	Sampling		#Containers	Matrix	Preservative	Analysis Requested																	
	Date	Time				Mult Range as Gas, Diesel, and Motor Oil (8021/8015)	BTEX & TPH as Gas (8021/ 8015) MTBE	TPH as Diesel (8015) + Motor Oil Without Silica Gel	TPH as Diesel (8015) + Motor Oil With Silica Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/ 608 / 8081 (CI Pesticides)	EPA 608 / 8082 PCB's ; Aroclors only	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAH)	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)*	Baylands Requirements	Lab to filter sample for dissolved metals analysis	LUFT 5 METALS	
EB-3-0.5	3/7/20	1334	1	SOIL	ICE	X						X	X	X				X					
EB-3-5		1337													X	X							
EB-4-0.5		1345																					
EB-4-5		1350																					
EB-5-0.5		1010										X	X										X
EB-5-5		1020													X	X							X
EB-6-0.5		1000																X					
EB-6-5		1007																					
EB-7-0.5		0945																					
EB-7-5		0950																					

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.						Comments / Instructions	
Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.							
Relinquished By / Company Name		Date	Time	Received By / Company Name			Date	Time
 WP		3/9/20	1215			3/9/20	1215
		3/9/20	1345			3/9/20	1345

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other
 Preservative Code: 1=4°C 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=ZnOAc/NaOH 7=None
 Temp _____ °C Initials _____



McCAMPBELL ANALYTICAL, INC.
 1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701
 Telephone: (877) 252-9262 / Fax: (925) 252-9269
www.mccampbell.com main@mccampbell.com

CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush	2 Day Rush	3 Day Rush	STD	<input checked="" type="checkbox"/>	Quote #
J-Flag / MDL	ESL	Cleanup Approved	Dry Weight	Bottle Order #	
Delivery Format: PDF	<input checked="" type="checkbox"/>	GeoTracker EDF	EDD	Write On (DW)	Detect Summary

Report To: _____ Bill To: _____

Company: _____

Address: SEE PAGE 1

Email: _____ Tele: _____

Project Name: _____ Project #: _____

Project Location: _____ PO #: _____

Sampler Signature: _____

Analysis Requested

SAMPLE ID Location / Field Point	Sampling		#Containers	Matrix	Preservative	Multi Range as Gas, Diesel, and Motor Oil (8021/8015)	BTEX & TPH as Gas (8021/ 8015) MTBE	TPH as Diesel (8015) + Motor Oil Without Silica Gel	TPH as Diesel (8015) + Motor Oil With Silica Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/ 608 / 8081 (CI Pesticides)	EPA 608 / 8082 PCB's; Aroclors only	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAAs)	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)*	Baylands Requirements	Lab to filter sample for dissolved metals analysis		
	Date	Time																					
EB-8-0.5	3/7/20	0844	1	SOIL	ICE	X							X	X	X			X					
EB-8-5	↓	0851	↓	↓	↓	↓									↓	X	X	↓					

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
	3/9/20	1215		3/9/20	1215
	3/9/20	1345		3/9/20	1245

Comments / Instructions

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other
 Preservative Code: 1=4°C 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=ZnOAc/NaOH 7=None

Temp _____ °C Initials _____



Sample Receipt Checklist

Client Name: **Langan**
 Project: **750650003; Lake Merritt Bart**
 WorkOrder No: **2003414** Matrix: Soil
 Carrier: Lorenzo Perez (MAI Courier)

Date and Time Received: **3/9/2020 13:45**
 Date Logged: **3/9/2020**
 Received by: **Kena Ponce**
 Logged by: **Kena Ponce**

Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sampler's name noted on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
COC agrees with Quote?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE)

Sample/Temp Blank temperature	Temp: 0.5°C		NA <input type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
pH acceptable upon receipt (Metal: <2; Nitrate 353.2/4500NO3: <2; 522: <4; 218.7: >8)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

UCMR Samples:

pH tested and acceptable upon receipt (200.8: ≤2; 525.3: ≤4; 530: ≤7; 541: <3; 544: <6.5 & 7.5)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Free Chlorine tested and acceptable upon receipt (<0.1mg/L)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

Comments:

Attachment D3

**Corrective Action Plan for Lake Merritt RT
Affordable Senior Housing Project (Building B)**



DRAFT CORRECTIVE ACTION FACT SHEET

March 15, 2024

Lake Merritt BART Station Redevelopment

Block 1 – Building B in Oakland
Site Cleanup Program Case No. RO0003559

Summary – Alameda County Department of Environmental Health (ACDEH) is the environmental regulatory agency providing oversight of investigation and cleanup of subsurface contamination at the Site to facilitate redevelopment of a proposed senior affordable housing. ACDEH is distributing this *Fact Sheet* to inform community members and other interested stakeholders about environmental corrective action activities at Lake Merritt Bay Area Rapid Transit (BART) transit-oriented development (TOD) Block 1 – Building B project located at the Lake Merritt BART station in Oakland (Site). Bay Area Rapid Transit – BART (the Property Owner) is working with East Bay Asian Local Development Corporation – EBALDC (the developer) and ACDEH to investigate environmental impacts and implement corrective actions and mitigation measures at the Site in conjunction with redevelopment. This *Fact Sheet* contains information on the Site background, environmental investigations, proposed corrective actions/mitigation measures, next steps, and informational contacts.



Site Background – EBALDC is leasing (from BART) the roughly 1.4-acre Site (APN # 001-0169-001) is located in a mixed commercial and residential area of Oakland. The Site currently includes a plaza with BART entrances above the underground Lake Merritt BART station and an asphalt-paved BART parking lot over the remainder of the block. Previously, the Site was utilized as a gasoline service station as early as 1952. The former gasoline service station building previously on-site was demolished in 1960. Although EBALDC did not contaminate the Site, they are

Public Comment Period March 18 – April 17, 2024

ACDEH invites you to review and comment on the *Draft Corrective Action Plan*. All comments must be received by 5 p.m. on April 17, 2024, sent to:

Drew York
ACDEH Case Manager
1131 Harbor Bay Parkway
Alameda, CA 94502
Andrew.york@acgov.org

voluntarily cleaning it up to support development.

Site Redevelopment – The City of Oakland oversees redevelopment activities. The proposed development of the Site will consist of two buildings, Building A and Building B. This *Fact Sheet* pertains to Building B which includes construction of a seven-story, concrete residential building to be used for senior housing.

Environmental Investigations – Site-wide environmental investigations have reported the presence of elevated levels of soluble lead in soil primarily from existing fill material beneath the Site.

Proposed Corrective Actions – ACDEH is requiring corrective actions to reduce the human health risk to construction workers, the adjacent community, and future Site occupants from the potential for exposure to chemicals of concern in soil at the Site. The *Draft Corrective Action Plan (Draft CAP)*, dated 1 March 2024, proposes the following actions:

- Excavating soil beneath portions of the ground surface to facilitate construction and remove the historically contaminated soil, and
- Transporting soil to a licensed, off-Site disposal facility.

Community Protection Measures – The Property Owner, Developer, and its environmental contractors, under the oversight of ACDEH, will protect surrounding community from dust and other environmental related nuisances during implementation of corrective actions including measures to protect the surrounding community including:

- Controlling dust during soil disturbing activities by using water and covering soil stockpiles,
- Monitoring noise levels during work hours and reducing equipment speeds or using mufflers, as needed,

- Cleaning truck tires and undercarriages to prevent dust track out,
- Using flaggers and traffic signage to safely manage construction-related traffic,
- Maintaining perimeter Site fencing with signage that includes a phone number for more information, and
- Conducting work in accordance with all guidelines to limit risks associated with COVID-19

Next Steps – ACDEH will review and consider all public comments before making a final decision on the *Draft CAP*. ACDEH will send a *Response to Comments* document to all those who commented and provided contact information.

The *Draft CAP*, as well as all Site documents presenting previous environmental investigation activities and results are available online for public download at the State Water Resources Control Board (Water Board) GeoTracker website at

https://geotracker.waterboards.ca.gov/profile_report?global_id=T10000020306.

Should the *Draft CAP* be approved, environmental work at the Site is anticipated to begin in June 2024 in conjunction with redevelopment construction activities.

For more information about the proposed corrective actions, related Site documents, how to access the Site documents, or general Site questions, please contact:

Andrew York, ACDEH Case
Manager 510-639-1276
andrew.york@acgov.org



Legend

Parcel Search Layer

Notes

Cleanup Program Site Case NO
RO0003559 - Block 1 Building B Senior
Housing

**DRAFT CAP Public
Notification Map**

1: 2,257



376.2 0 188.08 376.2 Feet

WGS_1984_Web_Mercator_Auxiliary_Sphere
© Latitude Geographics Group Ltd.

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION



Sort_APN	Parcel_APN	Name	StreetAddress	Unit	City	Zip	Zip_4
001 016900100	1-169-1	SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT	2150 WEBSTER ST	9TH	OAKLAND CA	94612	3012
001 016900100	1-169-1	OCCUPANT	51 9TH ST		OAKLAND CA	94607	
001 016900200	1-169-2	YU HELEN J TR & JEE DAN ETAL	801 FRANKLIN ST	1206	OAKLAND CA	94607	4237
001 016900200	1-169-2	OCCUPANT	91 8TH ST		OAKLAND CA	94607	
001 016900300	1-169-3	CHU JUDY	77 8TH ST	205	OAKLAND CA	94607	4704
001 016900400	1-169-4	PON WAI H TR	1697 BENEDICT DR		SAN LEANDRO CA	94577	5350
001 016900400	1-169-4	OCCUPANT	73 8TH ST		OAKLAND CA	94607	
001 016900500	1-169-5	WONG YUEN Y & HUA SIMON	3685 38TH AVE		OAKLAND CA	94619	2003
001 016900500	1-169-5	OCCUPANT	61 8TH ST		OAKLAND CA	94607	
001 016900600	1-169-6	LEE GANWAH & MAY T	59 8TH ST		OAKLAND CA	94607	4705
001 016900700	1-169-7	YEE THICK L & CHAU W TRS	55 8TH ST		OAKLAND CA	94607	4705
001 016900800	1-169-8	CHIM MARILYN M TR & CHOU HELEN TR	26 CASTLEBAR PL		ALAMEDA CA	94502	7746
001 016900800	1-169-8	OCCUPANT	51 8TH ST		OAKLAND CA	94607	
001 017100100	1-171-1	SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT	2150 WEBSTER ST	9TH	OAKLAND CA	94612	3012
001 017100100	1-171-1	OCCUPANT	800 MADISON ST		OAKLAND CA	94607	
001 017100200	1-171-2	SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT	2150 WEBSTER ST	9TH	OAKLAND CA	94612	3012
001 017100200	1-171-2	OCCUPANT	107 8TH ST		OAKLAND CA	94607	
001 017700100	1-177-1	CITY OF OAKLAND	250 FRANK OGAWA PLZ	4	OAKLAND CA	94612	2010
001 017700100	1-177-1	OCCUPANT	163 9TH ST		OAKLAND CA	94607	
001 017700200	1-177-2	LEE MARY & JANET L P	631 16TH AVE		SAN FRANCISCO CA	94118	3510
001 017700200	1-177-2	OCCUPANT	722 JACKSON ST		OAKLAND CA	94607	
001 017700300	1-177-3	LEE MELVIN W & LORRAINE V ETAL	276 LOS PALMOS DR		SAN FRANCISCO CA	94127	2314
001 017700300	1-177-3	OCCUPANT	175 8TH ST		OAKLAND CA	94607	
001 017700400	1-177-4	DANG LARRY S	171 8TH ST		OAKLAND CA	94607	4749
001 017700500	1-177-5	KWONG SEE T TR	169 8TH ST		OAKLAND CA	94607	4749
001 017700500	1-177-5	OCCUPANT	167 8TH ST		OAKLAND CA	94607	
001 017700600	1-177-6	SUN YI	6114 LA SALLE AVE	426	OAKLAND CA	94611	2802
001 017700600	1-177-6	OCCUPANT	165 8TH ST		OAKLAND CA	94607	
001 017700700	1-177-7	TENG SUSANNA & DIANA	161 8TH ST		OAKLAND CA	94607	4749
001 017700800	1-177-8	157 159 EIGHT STREET LLC	PO BOX 460171		SAN FRANCISCO CA	94146	171
001 017700800	1-177-8	OCCUPANT	157 8TH ST		OAKLAND CA	94607	
001 017701000	1-177-10	WONG KENNY M & CHOU EMILY	632 ELDERBERRY WAY		SAN LEANDRO CA	94578	3838
001 017701000	1-177-10	OCCUPANT	729 MADISON ST		OAKLAND CA	94607	
002 008302300	2-83-23	GIN CAROL Y TR	688 BEACON ST	5	OAKLAND CA	94610	3618
002 008302300	2-83-23	OCCUPANT	152 9TH ST		OAKLAND CA	94607	
002 008302400	2-83-24	GIN HAROLD G & ROSE Y TRS	16019 CHANNEL ST		SAN LORENZO CA	94580	2047
002 008302400	2-83-24	OCCUPANT	160 9TH ST		OAKLAND CA	94607	
002 008302500	2-83-25	YEE PETER K & JUDY Y	1000 SAN ANTONIO AVE		ALAMEDA CA	94501	3928
002 008302500	2-83-25	OCCUPANT	178 9TH ST		OAKLAND CA	94607	
002 008302600	2-83-26	CHEE YUK C & WESLEY L TRS	1939 HARRISON ST	205	OAKLAND CA	94612	4713
002 008302600	2-83-26	OCCUPANT	184 9TH ST		OAKLAND CA	94607	
002 008302700	2-83-27	WONG BRUCE D & RANDALL H	503 CYPRESS AVE		MILLBRAE CA	94030	1208
002 008302700	2-83-27	OCCUPANT	900 JACKSON ST		OAKLAND CA	94607	
002 008501200	2-85-12	MADISON PARK HOUSING ASSOCIATES II LP	1825 SAN PABLO AVE	200	OAKLAND CA	94612	1517
002 008501200	2-85-12	OCCUPANT	100 9TH ST		OAKLAND CA	94607	
002 008501300	2-85-13	ATU 1555 ENTERPRISES LLC	132 9TH ST		OAKLAND CA	94607	4714
002 008501400	2-85-14	GANG WONG PROPERTY SERVICE LLC	138 9TH ST	1	OAKLAND CA	94607	4776
002 008501500	2-85-15	FANG DAVID Y & KUANG QI H TRS	30670 TIDEWATER DR		UNION CITY CA	94587	1623
002 008501500	2-85-15	OCCUPANT	142 9TH ST		OAKLAND CA	94607	
002 008501600	2-85-16	HUEY ELEANOR TR	PO BOX 3059		WALNUT CREEK CA	94598	59
002 008501600	2-85-16	OCCUPANT	148 9TH ST		OAKLAND CA	94607	
002 009300601	2-93-6-1	OAKLAND MUSEUM OF CALIFORNIA	1000 OAK ST		OAKLAND CA	94607	4820
002 009300601	2-93-6-1	OCCUPANT	52 9TH ST		OAKLAND CA	94607	
002 009300800	2-93-8	FONG DARRYL B & DARRYL B ETAL	1475 22ND AVE		SAN FRANCISCO CA	94122	3335
002 009300800	2-93-8	OCCUPANT	80 9TH ST		OAKLAND CA	94607	
002 009300900	2-93-9	SERBIAN ORTHODOX CHURCH	94 9TH ST		OAKLAND CA	94607	4702

KEY PROJECT STAKEHOLDERS

Company/Office	Last Name	First Name	Title	Address	City	State	Zip	Phone	Email
East Bay Asian Local Development Corporation									
East Bay Asian Local Development Corporation	Perez	James	Senior Project Manager	1825 San Pablo Avenue, Suite 200	Oakland	CA	94612	510-512-2444	jperez@ebaldc.org
East Bay Asian Local Development Corporation	Pineda	Alejandro	Assistant Project Manager	1825 San Pablo Avenue, Suite 200	Oakland	CA	94612	510-745-4520	apined@ebaldc.org
San Francisco Bay Area Rapid Transit District									
San Francisco Bay Area Rapid Transit District	McCoy	Yvette	Principal Property Development Officer	2150 Webster Street, 9th Floor	Oakland	CA	94612	510-292-7196	ymccoy@bart.gov
San Francisco Bay Area Rapid Transit District	Moore	Edward	Principal Engineer	2150 Webster Street, 9th Floor	Oakland	CA	94612	510-368-8447	emoore2@bart.gov
Langan CA, Inc.									
Langan CA, Inc.	Hayward	Brendan	Senior Staff Geologist	135 Main Street, Suite 1500	San Francisco	CA	94105	415-955-5242	bhayward@langan.com
Langan CA, Inc.	Brown	Adam	Senior Project Geologist	135 Main Street, Suite 1500	San Francisco	CA	94105	279-399-8215	abrown@langan.com
Langan CA, Inc.	Shipman	Dorinda	Principal/Vice President	135 Main Street, Suite 1500	San Francisco	CA	94105	415-955-5262	dshipman@langan.com
Regulatory Agencies									
Alameda County Department of Environmental Health	Roe	Dilan	Chief - Land Water Division	1131 Harbor Bay Parkway	Alameda	CA	94502	510-567-6767	dilan.roe@acgov.org
Alameda County Department of Environmental Health	York	Andrew	Case Manager	1131 Harbor Bay Parkway	Alameda	CA	94502	510-639-1276	andrew.york@acgov.org
Alameda County Department of Environmental Health	Khatri	Paresh	Program Manager	1131 Harbor Bay Parkway	Alameda	CA	94502	510-777-2478	paresh.khatri@acgov.org



**Environmental
Health Department**
Alameda County Health

June 4, 2024

Andre Madeira (*Sent via electronic mail to: amadeira@ebaldc.org*)
Chinatown Senior Housing, LP
1825 San Pablo Ave., Suite 200,
Oakland, CA 94612

Abigail Thorn-Lyman (*Sent via electronic mail to: AThorne@bart.gov*)
SF BART District
2150 Webster Street
Oakland, California 94612

SUBJECT: Conditional Approval of the *Corrective Action Plan* and *Well Abandonment Work Plan*

51 9th Street, Oakland, CA 94607
Assessor's Parcel Number (APN): 1-169-1

Cleanup Program Site Case No. RO0003559
GeoTracker Global ID T10000020306
Block 1 Building B – Senior Housing

Cleanup Program Site Case No. RO0003435
GeoTracker Global ID T10000014553
Lake Merritt BART Development

Dear Responsible Parties:

On July 20, 2020, the property developers, East Bay Asian Local Development Corporation, (EBALDC) and Strada Investment Group (Strada), with acknowledgement from the current property owner, Bay Area Rapid Transit (BART), entered into a Voluntary Remedial Action Agreement (VRAA) with Alameda County Environmental Health Department (ACEHD) to provide regulatory oversight of environmental site investigations and cleanup under the subject Cleanup Program Site (CPS) Case RO0003435 to facilitate redevelopment of two parcels located at 51 9th Street (Assessor Parcel Number [APN] 1-169-1; herein after referred to as "Block 1") and 107 8th Street (APN 1-171-2; herein after referred to as "Block 2") both located in Oakland California and described below

On November 16, 2022, and December 12, 2022, the responsible parties identified in the VRAA for RO0003435, executed new VRAAs with different developer entity names with acknowledgement from the property owner, BART, to provide regulatory oversight of environmental site investigations and cleanup on Block 1

Ronald Browder
Director

Dilan Roe
Chief, Land & Water Protection
Division

1131 Harbor Bay Parkway
Alameda, CA 94502

(510) 567-6700

Health.AlamedaCountyCA.gov/ACEHD

under the following CSP Cases to facilitate the phased redevelopment (Phase 1 & 2) of the Block 1 parcel starting in 2023:

- RO0003559 – Block 1, Building B – Senior Housing
 - VRAA signed by property owner, BART, and developer, Chinatown Senior Housing, LP;
- RO0003560 – Block 1, Building A – Market Rate
 - VRAA signed by property owner, BART, and developer, LMTOD Property, LLC; and
- RO0003561 – Block 1 – Paseo & Remainder Parcel
 - VRAA signed by property owner, BART, and developer, LMTOD Property, LLC.

A detailed description of the history of regulatory oversight for the Lake Merritt transit-oriented development (TOD) redevelopment project is provide in *Attachment 1* of ACEHD directive letter dated January 24, 2023.

SITE STATUS

On January 16, 2024, a conference call was conducted with representatives from BART, EBALDC, their environmental consultant, Langan, and ACEHD to discuss the path for the Site as documented in the *Meeting Notes* dated January 16, 2024, and uploaded to the case file on the State Water Board’s GeoTracker website. Deliverables outlined during the meeting included but were not limited to submittal of a draft corrective action plan (*Draft CAP*), distribution of a *Draft CAP Fact Sheet*, submittal of updated project schedules, groundwater and soil vapor probe decommissioning work plan and report, and permit/plans/approvals from other agencies.

On March 15, 2024, the *Draft CAP Fact Sheet* was distributed to recipients and sensitive receptors surrounding the Site and the 30-day public comment period was initiated on March 18, 2024, to facilitate comments on the *Draft CAP*, dated March 1, 2024, and prepared on behalf of EBALDC by Langan. Public comments relating to proposed corrective actions were not received, and the public comment period was closed on April 17, 2024.

On April 3, 2024, a conference call was conducted with BART, EBALDC, Langan, and ACEHD to discuss ACEHD comments on the *Draft CAP*. Subsequent to the April 4th meeting and closure of the public comment period on April 17, 2024, the *Final CAP* was submitted for ACEHD review and approval. A summary of corrective actions is presented in *Attachment 1* of this directive letter.

DOCUMENTS REVIEWED

ACEHD has reviewed the case files for the subject environmental cleanup cases associated with the Block 1, Building B – Senior Housing redevelopment prepared by Langan Engineering & Environmental Services, Inc (Langan) on behalf of EBALDC:

- **Corrective Actions**

- *Final Corrective Action Plan* (the “*Final CAP*”), dated April 26, 2024;

- **Work Plans**

- *Well Abandonment Work Plan* (the “*Well Destruction Work Plan*”), dated April 26, 2024;

- **Investigation Reports**

- *Revised Soil Waste Characterization Report* (the “*Waste Characterization Report*”), dated April 26, 2024;

- **Project Schedules**

- *Environmental Baseline Schedule Lake Merritt BART – Block 1 – Building B* (the “*Baseline Schedule*”), dated April 26, 2024;

- **Other Agency Documents**

- *Lake Merritt BART – Building B, Affordable Senior Housing, Permit Set Bldg. B* (the “*Bid Addendum Set*”), dated February 28, 2024, and revised on April 18, 2024, prepared by Pyatok Architects; and
- *Lake Merritt BART – Building B* (the “*Permit Plan Set*”), dated February 28, 2024, prepared by Pyatok Architects.

The above listed documents present a summary of site investigations, remedial action plans, site-specific remedial goals, projected site schedule for environmental related work and plans sets for the redevelopment of Block 1. A detailed summary of the above listed documents is included in **Attachment 1 – Document Summary**.

ACEHD FINDINGS & CONDITIONAL APPROVAL OF THE WELL DESTRUCTION & FINAL CAP

With the provision that the information provided to this agency is accurate and representative of currently known Site conditions, this letter provides ACEHD’s conditional approval of implementation of the groundwater monitoring well and soil vapor probe destruction and proposed soil remedial actions during Site redevelopment presented in the documents listed above in accordance with the *Well Destruction Work Plan* and *Final CAP*. ACEHD concurs that implementation of the proposed remedial actions will reduce the contaminant mass of metals in soil and minimize risk to on- and off-Site receptors to residual subsurface contamination in soil, soil vapor and groundwater to levels that are protective of human health. Therefore, ACEHD approves of the implementation of the proposed remedial actions at the Site provided the conditions of approval and requested deliverables listed below are met.



TECHNICAL REPORTS AND DELIVERABLES REQUEST

ACEHD's request that you submit the deliverables provided in **Attachment 2 – List of Deliverables & Compliance Dates** and **Attachment 3 – Deliverable Requirements**. The requisite deliverables must be:

- (a) Submitted to ACEHD by the compliance dates listed in **Attachment 2** and approved by ACEHD prior to the start of each of the associated phases of corrective action implementation and site redevelopment activities.
- (b) Prepared in accordance with the requirements provided in **Attachment 3**.
- (c) Uploaded to the Case file on the State Water Resources Control Board's GeoTracker database in accordance with requirements listed in *Responsible Party(ies) Legal Requirement & Obligations Instructions* included as **Attachment 4**.

CLOSING

Thank you for your cooperation. If you have any questions, please call me at (510) 639-1276 or send me an email message at andrew.york@acgov.org

Sincerely,

A handwritten signature in blue ink, appearing to read "Drew J. York".

Drew J. York
Senior Environmental Scientist

A handwritten signature in blue ink, appearing to read "Dilan Roe".

Dilan Roe, PE, C73703
Chief - Land Water Division

Encl.: Attachment 1 – Document Summary
Attachment 2 – List of Deliverables & Compliance Dates
Attachment 3 – Deliverable Requirements
Attachment 4 – Responsible Party (ies) Legal Requirement/Obligations Instructions



cc: Edward Moore, BART (Sent via E-mail to: emoore2@bart.gov)
Yvette McCoy, BART (Sent via E-mail to: ymccoy@bart.gov)
James Perez, EBALDC (Sent via E-mail to: jperez@ebaldc.org)
Alejandro Pineda, EBALDC (Sent via E-mail to: apineda@ebaldc.org)
Brendan Hayward, Langan (Sent via E-mail to: bhayward@langan.com)
Adam Brown, Langan (Sent via E-mail to: abrown@langan.com)
Dorinda Shipman, Langan (Sent via E-mail to: dshipman@langan.com)
Anthony Rosas, DTSC (Sent via E-mail to: anthony.rosas@dtsc.ca.gov)
Dilan Roe, ACEHD, Chief Land, and Water Division (Sent via E-mail to: dilan.roe@acgov.org)
Paresh Khatri, ACEHD (Sent via E-mail to: paresh.khatri@acgov.org)
Drew York, ACEHD (Sent via E-mail to: andrew.york@acgov.org)
Electronic File, GeoTracker

ATTACHMENT 1



**Environmental
Health Department**
Alameda County Health

Case No.: RO0003435/RO0003559

Global ID: T10000020306

Case Name: Block 1 Building B – Senior
Housing

Case Address: 51 9th Street, Oakland, CA
94607

Directive Letter June 4, 2024

Issue Date:

ATTACHMENT 1 –DOCUMENT SUMMARY

Final Corrective Action Plan

The *Final CAP* presents details on the remedial excavation to remove the soluble lead concentrations in soil exceeding State of California hazardous waste criteria during construction, which totals approximately 58 cubic yards of soil. The objective of the *Final CAP* is to minimize exposure to construction workers, the surrounding community, and future site users to constituents in the soil by removing the concentrations in soil that exceed State of California hazardous waste criteria and disposing of them off-site at a permitted landfill facility. The extent of contaminated soil that will be removed is presented on *Figure 2* of the *Final CAP* includes plans and specifications of remedial excavation using standard excavation equipment and disposal of impacted soil off-site at a permitted landfill. The boundaries of the remedial excavation will be established using survey equipment and marked in the field prior to selective removal of surface asphalt and soil excavation. Plans and specifications for the corrective action activities are presented on *Figure 2* and include the following:

- Removal of the upper 1.5 feet below ground surface (bgs) of Class II non-hazardous soil and temporarily place on plastic sheeting for use as backfill.
 - Survey the top and bottom extents of the Class I State of California non-RCRA hazardous soil layer.
- Remedial excavation of lead-impacted Class I State of California non-resource conservation and recovery act (RCRA) hazardous soil from approximately 1.5 feet bgs to a total depth of 5 feet bgs.
- Direct load the Class I State of California non-RCRA hazardous soil into trucks for off-site disposal at a permitted landfill.
- Backfill excavation area and regrade the Site with the Class II non-hazardous soil, and
- Import clean fill (if warranted) in accordance with ACEHD's *Soil Import/Export Characterization Requirements*, dated August 1, 2018, and revised on August 9, 2019.

Well Abandonment Work Plan

The *Well Abandonment Work Plan* presents the procedures for the removal of one groundwater monitoring well (EB-24) and two soil vapor probes (EBSV-32 and EBSV-33). These procedures include the removal of existing well boxes for both the groundwater well and soil vapor probes, pressure grouting the groundwater monitoring well, over-drilling the two soil vapor probes and backfilling the soil vapor probe boreholes with neat cement grout via a tremie pipe to the existing ground surface. After tremie grouting, the groundwater well borehole will be pressure grouted for 15 minutes with 5 pounds per square inch (PSI) of pressure. All well abandonment procedures will be completed by a licensed C-57 driller and will be observed under the supervision of a California licensed Professional Geologist and inspected by Alameda County Public Works Agency.

Revised Soil Waste Characterization Report

The *Revised Soil Waste Characterization Report* documents subsurface investigation activities to delineate the horizontal and vertical extent of soluble lead in soil identified at historical boring EB-24 and to pre-characterize soil encountered during construction. The scope of work included the advancement of 11 exploratory borings (EB-24, EB-24-N, EB-24-NN, EB-24-E, EB-24-EE, EB-24-W, EB-24-WW, SS-1, SS-2, SS-3, and SS-5) to depths ranging from 2.5 feet bgs to 12 feet bgs as presented on *Figure 2* of the *Revised Soil Waste Characterization Report*. Results from the *Revised Soil Waste Characterization Report* indicate that approximately 58 cubic yards of material containing soluble lead concentrations exceeding the State of California Class I non-RCRA hazardous waste criteria are located in the proximity of EB-24 at depths of approximately 1.5 feet bgs to 5 feet bgs. During remedial excavation this impacted soil will be handled and disposed of as State of California Class I non-RCRA hazardous waste. The remaining fill material that is excavated during construction will be disposed or regraded as Class II non-hazardous material as needed based on the grading plan.

Project Schedule

The *Baseline Project Schedule* identifies milestones and important target dates, such as submittal of documents, ACEHD review and approval, the anticipated start and end of construction, and the target occupancy date. The *Baseline Project Schedule* aid in the anticipated allocation of resources to allow for reasonable and timely preparation and review of documents.

ACEHD's review of the *Baseline Project Schedule* indicates the baseline schedule for Building B is out of date and, therefore, is required to be updated as requested in *Item 3.a* in *Attachment 2 & 3* of this directive letter. Subsequent *Updated Project Schedules* must be updated throughout the lifecycle of the project as a planning and scheduling tool and be submitted to ACEHD on Monday of each week during implementation of the corrective actions and site redevelopment activities to be reflective of the actual project timetables.

Other Agency Documents

Two drawing sets have been uploaded the case file on GeoTracker and include the *Lake Merritt BART – Building B Permit Set Drawings*, prepared by Pyatok Architects (Pyatok) and the *Lake Merritt BART – Building B Bid Addendum 1 Drawings*, dated February 28, 2024, and revised for a bid addendum on April 18, 2024, and prepared by Pyatok. These two plan sets present the current development plans for the Site including the construction of a seven-story, concrete residential building for senior housing. The building will include an 11-inch-thick reinforced concrete slab on grade supported by piles and five to six foot thick pile caps. Excavation depths for Building B are anticipated to primarily range between one and six feet bgs to accommodate grading, structural excavation/foundation installation, and utility trenching. The elevator pit will require an isolated deeper excavation with an approximate depth of up to 12 feet bgs.

ATTACHMENT 2



Case No.: RO0003435/RO0003559

Global ID: T10000020306

Case Name: Block 1 Building B – Senior Housing

Case Address: 51 9th Street, Oakland, CA 94607

Directive Letter June 4, 2024

Issue Date:

ATTACHMENT 2 - LIST OF DELIVERABLES & COMPLIANCE DATES

PURPOSE

This document identifies deliverables requested by Alameda County Environmental Health Department (ACDEH) for the above referenced Cleanup Program Site (CPS) case and provides compliance dates for submittal of these deliverables. These deliverables are being requested pursuant to ACDEH's conditions of approval regarding proposed groundwater monitoring well destruction activities and corrective action plans including the following documents prepared by Langan on behalf of EBALDC:

- *Well Abandonment Work Plan* (the "Well Destruction Work Plan"), dated April 26, 2024; and
- *Final Corrective Action Plan* (the "Final CAP"), dated April 26, 2024;

As required in ACDEH's directive letter dated October 19, 2023, ACDEH requests that you prepare the following deliverables in accordance with the requirements provided in **Attachment 3 – Deliverable Requirements** and submit the deliverables to the State Water Resources Control Board's GeoTracker website in compliance with the requirements identified in ACDEH's *Responsible Party(ies) Legal Requirement/Obligations Instructions* included as **Attachment 4**. ACDEH also requests email notification verifying upload of the requested deliverables to the Case file on GeoTracker be provided to the primary caseworker, Drew York (andrew.york@acgov.org).

LIST OF DELIVERABLES AND COMPLIANCE DATES

Prior to the start of all site demolition and earthwork activities including grading and remedial excavation, submittal and ACDEH-approval of the following deliverables:

1. ONSITE GROUNDWATER MONITORING WELL AND SOIL VAPOR PROBE DESTRUCTION

- a. **Deliverable:** On-Site Groundwater Monitoring Well and Soil Vapor Probe Decommissioning Report
Submittal Compliance Date: Thirty (30) days after decommissioning of probes
File Name: RO3559_WELL_SVP_DCM_R_XXXX-XX-XX

2. PERMITS, PLANS, AND APPROVALS FROM OTHER AGENCIES (ACDEH APPROVAL NOT REQUIRED)

- a. **Local Planning Department Entitlement Approvals**
 - i. **Deliverable:** California Environmental Quality Act (CEQA) Compliance Documents
Submittal Compliance Date: Thirty (30) days after City Adoption
File Name: RO3559_DEV_CEQA_XXXX-XX-XX

Attachment 2 - List of Deliverables & Compliance Dates

b. Local Building Department Construction & Demolition Permits

- i. **Deliverable:** Approved Building Permit Plan Set
Submittal Compliance Date: Sixty (60) days prior to the start of foundation and hardscape demolition
File Name: RO3559_BLD_PERMIT_XXXX-XX-XX

- ii. **Deliverable:** Demolition & Grading Permits
Submittal Compliance Date: One (1) week prior to subsurface disturbance work at the Site
File Name: RO3559_DEMO_GRADING_PERMIT_XXXX-XX-XX

Recurring deliverable requirements throughout the implementation of corrective actions at the Site for submittal and ACDEH-approval:

3. SCHEDULES AND STATUS REPORTS

- a. **Deliverable:** Updated Project Schedules
Submittal Compliance Date: Monthly after submittal Baseline Project Schedule
File Name: RO3559_UPDATED_PROJ_SCHD_2024-06-14 (first update)
RO3559_UPDATED_PROJ_SCHD_XXXX-XX-XX (subsequent updates)

- b. **Deliverable:** Weekly Status Reports
Submittal Compliance Date: First report is required to be submitted the first Monday after commencement of foundation/hardscape removal or earthwork activities and each Monday thereafter until installation of final groundcover at the Site is completed.
File Name: RO3559_STATUS_R_XXXX-XX-XX

Prior to backfilling remedial excavations and fill import activities, submittal and ACDEH-approval of the following deliverables:

4. REMEDIAL ACTION COMPLETION & FILL IMPORT DOCUMENTATION

- a. **Deliverable:** Remedial Completion Documentation Submittal Package
Submittal Compliance Date: Fifteen (15) days prior to the start of backfilling
File Name: RO3559_REM_SOIL_EXC_COMP_XXXX-XX-XX

- b. **Deliverable:** Application for Determination of Fill Material Suitability
Submittal Compliance Date: Thirty (30) days prior to the start of backfilling
File Name: RO3559_SOIL_IMPORT_XXXX-XX-XX

Prior to building occupancy, submittal and ACDEH-approval of the following deliverables:

5. REMEDIAL ACTION COMPLETION REPORTS

- a. **Deliverable:** Remedial Action Completion Report
Submittal Compliance Date: Sixty (60) days after completion of remedial actions
File Name: RO3559_RACR_XXXX-XX-XX

Attachment 2 - List of Deliverables & Compliance Dates

- b. **Deliverable:** Soil Import Summary Report
Submittal Compliance Date: Sixty (60) days after completion of soil import
File Name: RO3559_RACR_XXXX-XX-XX

6. **GEOTRACKER COMPLIANCE**

- a. **GeoTracker Database Compliance**
Deliverable: Electronic Deliverable Format (EDF), logs, etc.
Submittal Compliance Date: ongoing as investigation and reports are submitted

ATTACHMENT 3



**Environmental
Health Department**
Alameda County Health

Case No.: RO0003435/RO0003559

Global ID: T10000020306

Case Name: Block 1 Building B – Senior
Housing

Case Address: 51 9th Street, Oakland, CA
94607

Directive Letter June 4, 2024

Issue Date:

ATTACHMENT 3 - DELIVERABLE REQUIREMENTS

PURPOSE

The purpose of this document is to identify requisite elements for each of the deliverables requested by Alameda County Department of Environmental Health (ACEHD) as conditions of approval for implementation of proposed remedial actions and Site redevelopment.

ACEHD requests that you prepare the deliverables listed in **Attachment 2 - List of Deliverables & Compliance Dates** in accordance with the corresponding Technical Comments and Deliverable Requirements provided below and submit the deliverables to the State Water Resources Control Board's GeoTracker website in compliance with the requirements identified in **Attachment 4**.

DELIVERABLES REQUIREMENTS

Prior to the start of all site demolition and earthwork activities including grading and remedial excavation, submittal and ACEHD-approval of the following deliverables:

1. ONSITE GROUNDWATER MONITORING WELL AND SOIL VAPOR PROBE DESTRUCTION

- a. **On-Site Groundwater Monitoring Well and Soil Vapor Decommissioning Report** – A *Report* documenting the permitted destruction of the existing groundwater monitoring well and two existing soil vapor probes in accordance with an approved *Work Plan*. The *Report* must include appropriate documentation (permits, waste disposal documentation, etc.). Final disposal documentation requires full and complete disposal forms, with a minimum of three accepting signatures.

2. PERMITS, PLANS, AND APPROVALS FROM OTHER AGENCIES (ACEHD APPROVAL NOT REQUIRED)

- a. **Local Planning Department Entitlement Approvals** – Submittal of the following documents approved by the City of Oakland Planning Department. The documents must be accompanied by a transmittal letter prepared by the Environmental Consultant that states that the documents are consistent with the permit plans presented in *Lake Merritt BART – Building B* (the "*Permit Plan Set*"), dated February 28, 2024, prepared by Pyatok Architects and the corrective actions proposed in a *Final CAP* and if not, must identify changes to the Site redevelopment, subterranean foundational elements (garages, elevator pits), and first floor building plans. ACEHD notes that substantial changes may invalidate the conclusions of the protectiveness of the proposed redevelopment of the Site with respect to the residual contamination and the proposed corrective actions presented in the *Final CAP*.
 - i. California Environmental Quality Act (CEQA) Compliance Documents

Attachment 3 - Deliverable Requirements

- ii. Documentation of the redevelopment Project approval by the City of Oakland Planning Department

- b. **Local Building Department Construction & Demolition Permits** – Submittal of the following documents approved by the City of Oakland Building Department. The documents must be accompanied by a transmittal letter prepared by the Environmental Consultant that states that the documents are consistent with the Site development plans and corrective actions presented in the *Final CAP*.
 - i. The Building Permit Plan Set

 - ii. Demolition and Grading Permits

Recurring deliverable requirements throughout the implementation of corrective actions at the Site for submittal and ACEHD-approval:

3. SCHEDULES AND STATUS REPORTS

- a. **Updated Project Schedules** – The *Project Schedule* is a living document that must be updated throughout the lifecycle of the project as a planning and scheduling tool. *Updated Project Schedules* must be submitted to ACEHD on Monday of each week during implementation of the remedial and potential corrective actions and site redevelopment activities to be reflective of the actual project timetables.

- b. **Weekly Status Reports** – *Weekly Status Reports* must be submitted to ACEHD on Monday of each week during implementation of the remedial and corrective actions and site redevelopment activities. The reports must include at a minimum:
 - 1. A description of approved remedial and corrective actions implemented, and discovery of unknown environmental conditions and contingency measures taken during the previous week;

 - 2. A description of approved remedial and corrective actions that are planned to be conducted during the next current week;

 - 3. Documentation showing compliance with the requirements of the *Final CAP* and the results of community protection monitoring, including:
 - i. Identification of the number and duration of dust/volatile organic compound (VOC) action level exceedances (collectively, *Action Level Exceedances*);

 - ii. A summary of corrective actions implemented to address *Action Level Exceedances*;

 - iii. A figure depicting the inner quartile range of dust/VOC measurements at each monitoring station;

Attachment 3 - Deliverable Requirements

- iv. A wind-rose diagram;
- v. A statement identifying if a potential unacceptable exposure to contaminated dust or volatile organic compounds (VOCs) occurred during the reporting period;
- vi. Raw data collected from each monitoring station (as an appendix/attachment); and
- vii. A copy of the Complaint Log and discussion of complaints received, and mitigation measures taken to resolve the complaints

Prior to backfilling remedial excavations and fill import activities, submittal and ACEHD-approval of the following deliverables:

4. REMEDIAL ACTION COMPLETION & FILL IMPORT DOCUMENTATION

All contaminated soil exported from the site must be disposed of at an off-Site permitted disposal facility unless otherwise approved by ACEHD. ACEHD requires that imported or exported soil to other than a permitted disposal facility be characterized in accordance with the ACEHD's *Soil Import/Export Characterization Requirements* which was last revised on August 9, 2019 (ACEHD's *Fill Guidance*). The *Fill Guidance* provides requirements for the characterization of soil to determine its suitability for use at another site. These requirements have been prepared to ensure that unsuitable soil is not imported to environmental cleanup sites or exported from environmental cleanup sites to properties with sensitive land uses. The *Fill Guidance* is for characterization of soil only and does not address requirements for characterization of other fill material including, but not limited to crushed rock, pea gravel, recycled concrete, or flowable material.

Written approval is required from ACEHD prior to the import or on-Site re-use of recycled aggregates (including crushed concrete or asphalt). Please be advised that ACEHD has adopted the New Jersey Department of Environmental Protection Solid and Hazardous Waste Management Program's *Guidance for Characterization of Concrete and Clean Material Certification for Recycling* dated January 12, 2010, and *Recycled Asphalt Pavement and Asphalt Millings Reuse Guidance* dated March 2013 amended with applicable ESLs.

- a. **Remedial Action Completion Documentation Submittal Package** – A submittal package with a transmittal letter prepared by the Environmental Consultant documenting that remedial soil excavation has been completed in accordance with the *Final CAP*. The submittal package must be submitted to ACEHD for review and approval prior to backfilling remedial excavations. ACEHD suggests the submittal package be submitted via email correspondence to facilitate quick review and backfill approval. At a minimum, the report must include scaled figures (plan views and cross-sections) showing confirmation sampling locations and extents of excavation, tabulated volumes of soil excavated disposition (on-Site stockpile, direct haul to off-Site disposal facility, on-Site consolidation), volumes of contaminated groundwater removed and disposition (temporary storage in on-Site tanks, discharged to sanitary sewer or storm drain- if warranted), subsurface infrastructure removed and disposition, tabulated soil and groundwater analytical results compared to cleanup goals, and draft soil and groundwater laboratory analytical reports.

Attachment 3 - Deliverable Requirements

- b. **Application for Determination of Fill Material Suitability** – If soil is imported to the Site for construction or as part of an environmental engineering controls, ACEHD requires the submittal of the *Application for Determination of Fill Material Suitability* to support requirements outlined in ACEHD’s *Fill Guidance*. Submittal of the application and requisite supporting documents must be submitted to ACEHD for review and approval prior to import of fill. Requisite documents are outlined in the *Application* and include but are not limited to proposed sources, sampling and profiling protocols, analytical laboratory reports, and tables with analytical results and applicable environmental screening levels.

Prior to building occupancy, submittal and ACEHD-approval of the following deliverables:

5. REMEDIAL ACTION COMPLETION REPORTS

- a. **Remedial Action Completion Report (RACR)** – A comprehensive report documenting implementation of the remedial actions presented in the *Final CAP* demonstrating that remedial action objectives have been met or identifying any remedial action objectives that have not yet been met. The *RACR* must include as-built drawings and photo documentation and must include a certification by the remedial action design engineer that the remedial measures were implemented in accordance with the approved *Final CAP*. The *RACR* must also include copies of all permits and must document at a minimum the following (if applicable):
- i. Description of the remedial soil excavation activities including at a minimum the information submitted in the *Remedial Soil Excavation Completion Documentation Submittal Package*, the final disposition of soil (on-Site consolidation and capping, off-Site disposal), a figure depicting the surveyed locations and depths of consolidated lead impacted soil, copies of all manifests or other waste disposal documentation, and final laboratory analytical reports for soil confirmation samples and pre-characterization results of in-situ sampling and/or stockpiling sampling for soil disposed of off-Site.
 - ii. Description of groundwater removal activities with supporting documentation, including but not limited to tables, figures, laboratory analytical reports, copies of discharge reports, and corrective actions associated with unauthorized releases during construction activities.
 - iii. Description of removal of subsurface infrastructure in source areas (e.g., oil/water separation and piping, sanitary sewer laterals) and copies of waste manifests.
 - iv. Description of discovery of unexpected subsurface structures (e.g., tanks, vaults, sumps), contingency measures implemented, and copies of laboratory analytical reports and waste manifests.
 - v. Certification of compliance with the *Final CAP* protocols during implementation of remedial measures including but not limited to agency notification and reporting requirements, pre-field activities (site security and access, traffic control, excavation permits, notification and utility clearance), waste management, soil and groundwater management, storm water management, dust and odor emission control, and contingency measures for discovery of unexpected underground structures.

Attachment 3 - Deliverable Requirements

- vi. As-built plans showing the surveyed locations of consolidated impacted soil (plans and cross-sections)
 - vii. Photo-logs and field notes
- b. **Soil Import Summary Report**– If soil is imported to the Site, a *Report* documenting the import/export of soil (if not disposed of at a permitted disposal facility) must be drafted in accordance with the *Fill Guidance*. The *Report* must be uploaded to the GeoTracker information repositories for both the fill material source area and the destination. At a minimum the *Report* must include the following:
- i. A cover letter from the owner of the proposed fill source material that states, at a minimum, the following: “I have read and acknowledge the content, recommendations, and/or conclusions contained in the attached document or report submitted on my behalf to ACEHD.” This cover letter must be signed by the owner of the proposed fill source material or a legally authorized representative of the owner of the proposed fill source material.
 - ii. A statement that fill material characterization was conducted under the responsible charge of a Qualified Professional. This statement must be accompanied by the signed and dated seal of the Qualified Professional with responsible charge.
 - iii. Summary tables of soil import logs. These logs must include the following information for each delivery of fill material: arrival date, manifest number or truck tag, quantity of fill material delivered, originating facility, and profile number.
 - iv. A figure depicting the location and depth of imported soil. If fill material from multiple sources has been imported, the location and depth of imported soil from each source must be distinguished.
 - v. Copies of all manifests or other documentation of soil import as an appendix.
 - vi. Copies of all fill characterization profiles as an appendix.

6. GEOTRACKER COMPLIANCE

- a. **GeoTracker Database Compliance** - On-going compliance by uploading all environmental documents related to the subject site including but not limited soil, groundwater and soil vapor analytical data, monitoring well depth-to-water measurements, and surveyed location and elevation data for sampling locations, documents and reports, maps, and boring logs to GeoTracker.

ATTACHMENT 4

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	REVISION DATE: May 19, 2020
	ISSUE DATE: July 25, 2012
	PREVIOUS REVISIONS: September 17, 2013, May 15, 2014, December 12, 2016, December 14, 2017
SECTION: ACDEH Procedures	SUBJECT: Responsible Party(ies) Legal Requirements / Obligations

REPORT & DELIVERABLE REQUESTS

Alameda County Department of Environmental Health (ACDEH) Cleanup Oversight Programs, Local Oversight Program (LOP) and Site Cleanup Program (SCP) require submission of all reports in electronic form to the State Water Board's (SWB) GeoTracker website in accordance with California Code of Regulations, Title 23, Chapter 30, Division 3, Article 2, Section 3892 and Chapter 16, Article 11, Division 3.

Leaking Underground Fuel Tank (LUFT) Cases

Reports and deliverable requests are pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party (RP) in conjunction with an unauthorized release from a petroleum underground storage tank (UST) system.

Site Cleanup Program (SCP) Cases

For non-petroleum UST cases, reports and deliverables requests are pursuant to California Health and Safety Code Section 101480.

ELECTRONIC SUBMITTAL OF REPORTS

A complete report submittal includes the PDF report and all associated electronic data files, including but not limited to GEO_MAP, GEO_XY, GEO_Z, GEO_BORE, GEO_WELL, and laboratory analytical data in Electronic Deliverable Format™ (EDF). Additional information on these requirements is available on the State Water Board's website (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/)

- Do not upload draft reports to GeoTracker
- Rotate each page in the PDF document in the direction that will make it easiest to read on a computer monitor.

GEOTRACKER UPLOAD CERTIFICATION

Each report submittal is to include a GeoTracker Upload Summary Table with GeoTracker valid values¹ as illustrated in the example below to facilitate ACDEH review and verify compliance with GeoTracker requirements.

GeoTracker Upload Table Example

Report Title	Sample Period	PDF Report	GEO_MAPS	Sample ID	Matrix	GEO_Z	GEO_XY	GEO_BORE	GEO_WELL	EDF
2016 Subsurface Investigation Report	2016 S1	✓	✓	Effluent	SO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
2012 Site Assessment Work Plan	2012	✓	✓			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2010 GW Investigation Report	2008 Q4	✓	✓	SB-10	W	✓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
				SB-10-6	SO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
				MW-1	WG	✓	✓	✓	✓	✓
				SW-1	W	✓	✓	✓	✓	✓

¹ GeoTracker Survey XYZ, Well Data, and Site Map Guidelines & Restrictions, CA State Water Resources Control Board, April 2005

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	REVISION DATE: NA
	ISSUE DATE: December 14, 2017
	PREVIOUS REVISIONS: September 17, 2013, May 15, 2014, December 12, 2016
SECTION: ACDEH Procedures	SUBJECT: Responsible Party(ies) Legal Requirements / Obligations

ACKNOWLEDGEMENT STATEMENT

All work plans, technical reports, or technical documents submitted to ACDEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I have read and acknowledge the content, recommendations and/or conclusions contained in the attached document or report submitted on my behalf to the State Water Board's GeoTracker website." This letter must be signed by the Responsible Party, or legally authorized representative of the Responsible Party.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6731, 6735, and 7835) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately licensed or certified professional and include the professional registration stamp, signature, and statement of professional certification. Additional information is available on the Board of Professional Engineers, Land Surveyors, and Geologists website at: <http://www.bpelsg.ca.gov/laws/index.shtml>.

UNDERGROUND STORAGE TANK CLEANUP FUND

For LUFT cases, RP's non-compliance with these regulations may result in ineligibility to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse the cost of cleanup. Additional information is available on the internet at: https://www.waterboards.ca.gov/water_issues/programs/ustcf/

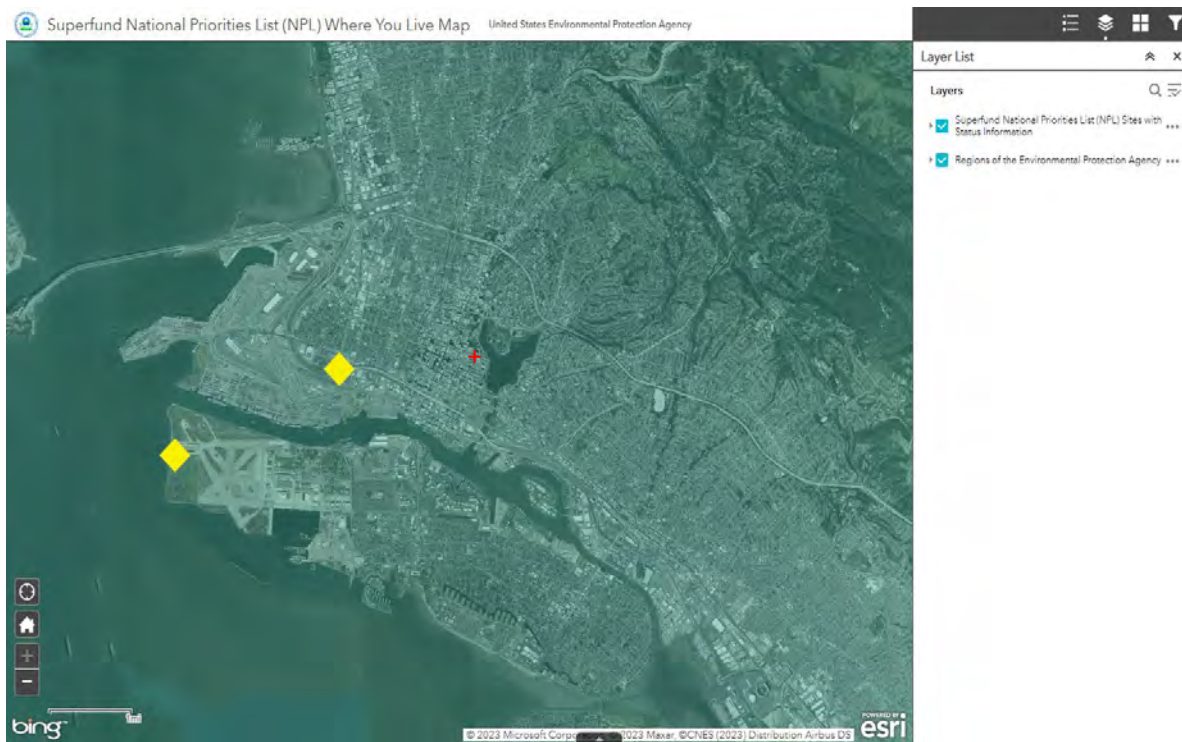
AGENCY OVERSIGHT

Significant delays in conducting site assessment/cleanup or report submittals may result in referral of the case to the Regional Water Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

Attachment E

USEPA Superfund and CERCLIS Sites

There are no Superfund or CERCLIS sites (identified by yellow diamonds) in the project vicinity (red + identifies the project site).



Source link: <https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=33ceb7cdfdd1b4c3a8b51d416956c41f1>

Attachment F

USFWS IPaC Endangered Species and Critical Habitats



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To:

February 27, 2024

Project Code: 2024-0054960

Project Name: Lake Merritt BART Senior Affordable Housing Project (Building B)

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through IPaC by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2))

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: <https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see [Migratory Bird Permit | What We Do | U.S. Fish & Wildlife Service \(fws.gov\)](https://www.fws.gov/partner/council-conservation-migratory-birds).

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

PROJECT SUMMARY

Project Code: 2024-0054960
Project Name: Lake Merritt BART Senior Affordable Housing Project (Building B)
Project Type: Residential Construction
Project Description: The project site is at 51 9th Street and bounded by Fallon Street to the east, 8th Street to the south, Oak Street to the west, and 9th Street to the north on part of a single parcel (Assessor's Parcel Number (001-0169-001) of about 0.26 acre. Oakland Downtown is west of the project site which is located in Oakland Chinatown.

The East Bay Asian Local Development Corporation (EBALDC) proposes to develop and manage the Lake Merritt Bay Area Rapid Transit District (BART) Affordable Senior Housing project.

The proposed project would be the affordable housing anchor for a larger multi-phase, multi-block transit-oriented development (TOD), in partnership with Strada Investment Group and BART, that would strengthen the existing neighborhood with an extensive suite of community benefits. The entire development would include four new buildings across two blocks (Buildings A through D, sited east and south of the Lake Merritt BART Station). The redevelopment TOD project would consist of a high-density mix of market-rate and affordable residential housing (including the proposed project, referred to as 'Building B'), office and community space; ground-floor retail, and restaurant; a childcare center; a new public open space; and public space improvements. The Lake Merritt BART Affordable Senior Housing project is the first of the four buildings to start construction and be completed.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@37.7970493,-122.26465390615323,14z>



Counties: Alameda County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 12 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Salt Marsh Harvest Mouse <i>Reithrodontomys raviventris</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/613	Endangered

BIRDS

NAME	STATUS
California Least Tern <i>Sternula antillarum browni</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8104	Endangered
California Ridgway's Rail <i>Rallus obsoletus obsoletus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4240	Endangered
Western Snowy Plover <i>Charadrius nivosus nivosus</i> Population: Pacific Coast population DPS-U.S.A. (CA, OR, WA), Mexico (within 50 miles of Pacific coast) There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8035	Threatened

REPTILES

NAME	STATUS
Alameda Whipsnake (=striped Racer) <i>Masticophis lateralis euryxanthus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5524	Threatened
Green Sea Turtle <i>Chelonia mydas</i> Population: East Pacific DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6199	Threatened
Northwestern Pond Turtle <i>Actinemys marmorata</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

AMPHIBIANS

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
Foothill Yellow-legged Frog <i>Rana boylei</i> Population: Central Coast Distinct Population Segment (Central Coast DPS) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5133	Threatened

FISHES

NAME	STATUS
Tidewater Goby <i>Eucyclogobius newberryi</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/57	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Santa Cruz Tarplant <i>Holocarpha macradenia</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6832	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Oakland city
Name: Alan Chan-Alvarado
Address: 300 Lakeside Drive
City: Oakland
State: CA
Zip: 94612
Email: alan.chanalvarado@aecom.com
Phone: 7022759096

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Housing and Urban Development

Attachment G

Above-Ground Storage Tanks Information for Explosive and Flammable Hazards Assessment

[Home \(/\)](#) > [Programs \(/programs/\)](#) > [Environmental Review \(/programs/environmental-review/\)](#) > [ASD Calculator](#)

Acceptable Separation Distance (ASD) Electronic Assessment Tool

The Environmental Planning Division (EPD) has developed an electronic-based assessment tool that calculates the Acceptable Separation Distance (ASD) from stationary hazards. The ASD is the distance from above ground stationary containerized hazards of an explosive or fire prone nature, to where a HUD assisted project can be located. The ASD is consistent with the Department's standards of blast overpressure (0.5 psi-buildings) and thermal radiation (450 BTU/ft² - hr - people and 10,000 BTU/ft² - hr - buildings). Calculation of the ASD is the first step to assess site suitability for proposed HUD-assisted projects near stationary hazards. Additional guidance on ASDs is available in the Department's guidebook "Siting of HUD- Assisted Projects Near Hazardous Facilities" and the regulation 24 CFR Part 51, Subpart C, Siting of HUD-Assisted Projects Near Hazardous Operations Handling Conventional Fuels or Chemicals of an Explosive or Flammable Nature.

Note: Tool tips, containing field specific information, have been added in this tool and may be accessed by hovering over the ASD result fields with the mouse.

Acceptable Separation Distance Assessment Tool

Is the container above ground?

Yes: No:

Is the container under pressure?

Yes: No:

Does the container hold a cryogenic liquified gas?

Yes: No:

Is the container diked?

Yes: No:

What is the volume (gal) of the container?

What is the Volume (gal) of the container?	<input type="text"/>
What is the Diked Area Length (ft)?	<input type="text" value="27"/>
What is the Diked Area Width (ft)?	<input type="text" value="16"/>
<input type="button" value="Calculate Acceptable Separation Distance"/>	
Diked Area (sqft)	<input type="text" value="432"/>
ASD for Blast Over Pressure (ASDBOP)	<input type="text"/>
ASD for Thermal Radiation for People (ASDPPU)	<input type="text"/>
ASD for Thermal Radiation for Buildings (ASDBPU)	<input type="text"/>
ASD for Thermal Radiation for People (ASDPNPD)	<input type="text" value="108.93"/>
ASD for Thermal Radiation for Buildings (ASDBNPD)	<input type="text" value="18.03"/>

For mitigation options, please click on the following link: [Mitigation Options \(/resource/3846/acceptable-separation-distance-asd-hazard-mitigation-options/\)](/resource/3846/acceptable-separation-distance-asd-hazard-mitigation-options/)

Providing Feedback & Corrections

After using the ASD Assessment Tool following the directions in this User Guide, users are encouraged to provide feedback on how the ASD Assessment Tool may be improved. Users are also encouraged to send comments or corrections for the improvement of the tool.

Please send comments or other input using the **Contact Us** (<https://www.hudexchange.info/contact-us/>) form.

Related Information

- [ASD User Guide \(/resource/3839/acceptable-separation-distance-asd-assessment-tool-user-guide/\)](/resource/3839/acceptable-separation-distance-asd-assessment-tool-user-guide/)
- [ASD Flow Chart \(/resource/3840/acceptable-separation-distance-asd-flowchart/\)](/resource/3840/acceptable-separation-distance-asd-flowchart/)

[Home \(/\)](#) > [Programs \(/programs/\)](#) > [Environmental Review \(/programs/environmental-review/\)](#) > [ASD Calculator](#)

Acceptable Separation Distance (ASD) Electronic Assessment Tool

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Acceptable Separation Distance Assessment Tool

Is the container above ground?

Yes: No:

Is the container under pressure?

Yes: No:

Does the container hold a cryogenic liquified gas?

Yes: No:

Is the container diked?

Yes: No:

What is the volume (gal) of the container?

What is the Volume (gal) of the container?	<input type="text"/>
What is the Diked Area Length (ft)?	<input type="text" value="21"/>
What is the Diked Area Width (ft)?	<input type="text" value="10"/>
<input type="button" value="Calculate Acceptable Separation Distance"/>	
Diked Area (sqft)	<input type="text" value="432"/>
ASD for Blast Over Pressure (ASDBOP)	<input type="text"/>
ASD for Thermal Radiation for People (ASDPPU)	<input type="text"/>
ASD for Thermal Radiation for Buildings (ASDBPU)	<input type="text"/>
ASD for Thermal Radiation for People (ASDPNPD)	<input type="text" value="108.93"/>
ASD for Thermal Radiation for Buildings (ASDBNPD)	<input type="text" value="18.03"/>

For mitigation options, please click on the following link: [Mitigation Options \(/resource/3846/acceptable-separation-distance-asd-hazard-mitigation-options/\)](/resource/3846/acceptable-separation-distance-asd-hazard-mitigation-options/)

Providing Feedback & Corrections

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Please send comments or other input using the **Contact Us** (<https://www.hudexchange.info/contact-us/>) form.

Related Information

- [ASD User Guide \(/resource/3839/acceptable-separation-distance-asd-assessment-tool-user-guide/\)](/resource/3839/acceptable-separation-distance-asd-assessment-tool-user-guide/)
- [ASD Flow Chart \(/resource/3840/acceptable-separation-distance-asd-flowchart/\)](/resource/3840/acceptable-separation-distance-asd-flowchart/)

Search

1221 Oak Street, Oakland, CA Search

ex: 37 25.818' N, 122 05.36' W

Get Directions History

1221 Oak St

Ruler

Line Path Polygon Circle 3D path 3D polygon

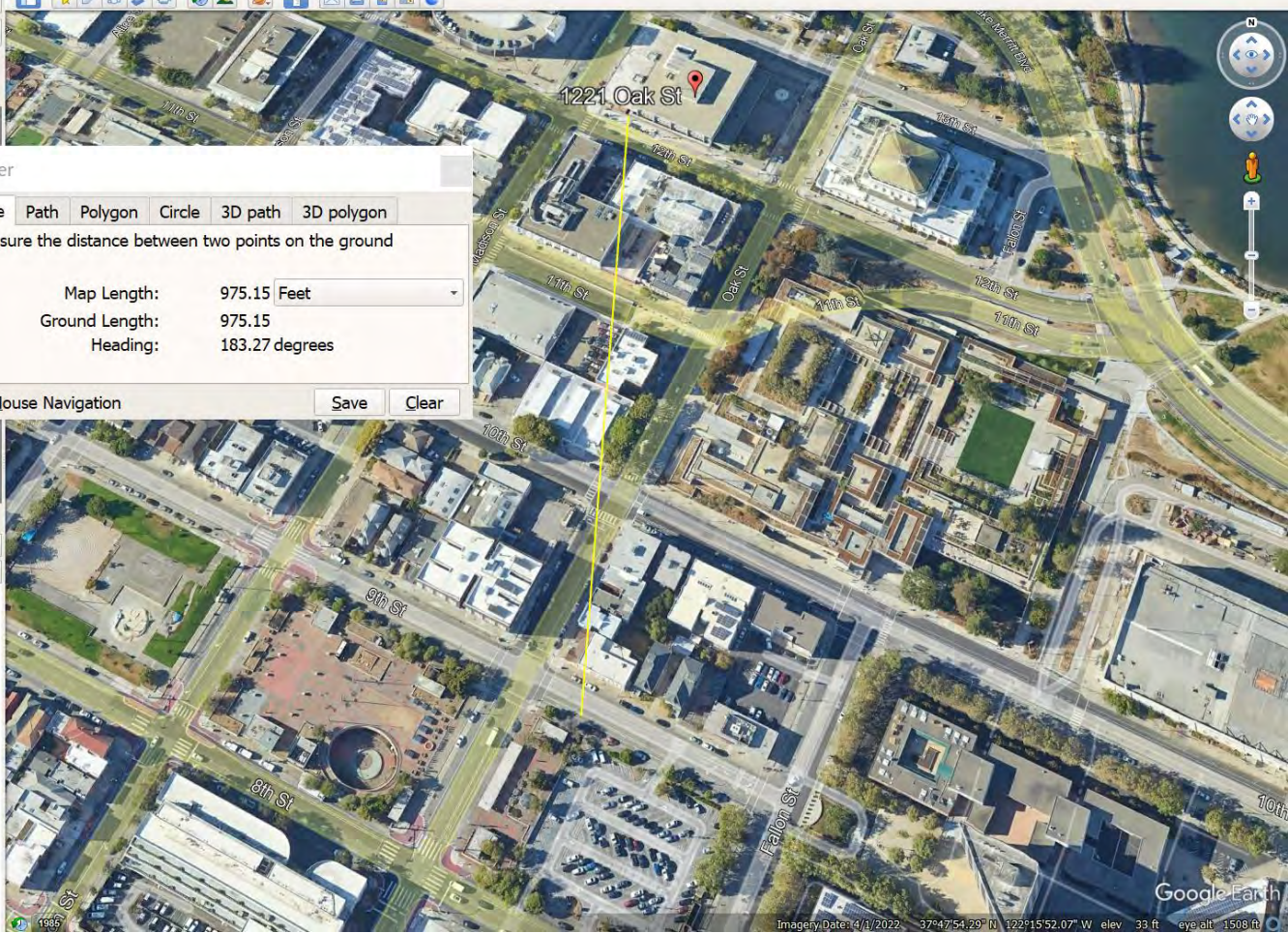
Measure the distance between two points on the ground

Map Length:	975.15 Feet
Ground Length:	975.15
Heading:	183.27 degrees

Mouse Navigation Save Clear

Places

- Layers
- Primary Database
 - Announcements
 - Borders and Labels
 - Places
 - Photos
 - Roads
 - 3D Buildings
 - Weather
 - Gallery
 - More
 - Terrain



Search

101 8th Street, Oakland, CA Search

ex: 37 25.818' N, 122 05.36' W

Get Directions History

101 8th St

Places

Layers

- Primary Database
- Announcements
- Borders and Labels
- Places
- Photos
- Roads
- 3D Buildings
- Weather
- Gallery
- More
- Terrain

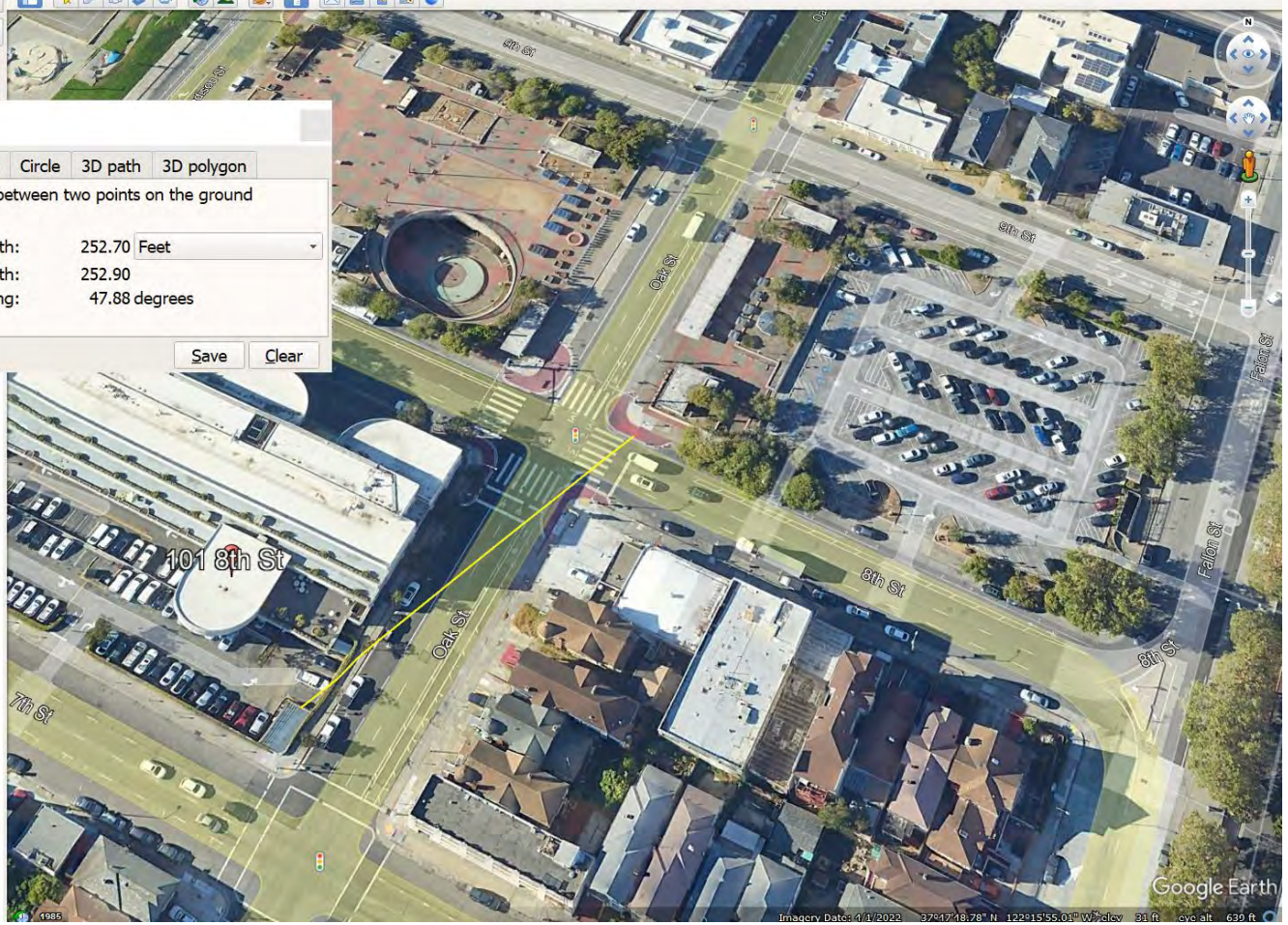
Ruler

Line Path Polygon Circle 3D path 3D polygon

Measure the distance between two points on the ground

Map Length:	252.70 Feet
Ground Length:	252.90
Heading:	47.88 degrees

Mouse Navigation Save Clear



Attachment H

Important Farmlands

Project site and surroundings are classified as urban lands.
There are no important farmlands on or in the vicinity of the project site.

The screenshot shows the USDA Web Soil Survey interface. At the top, there is a navigation bar with links for Contact Us, Subscribe, Archived Soil Surveys, Soil Survey Status, Glossary, Preferences, Link, Logout, and Help. Below this is a secondary navigation bar with buttons for Area of Interest (AOI), Soil Map (selected), Soil Data Explorer, Download Soils Data, and Shopping Cart (Free). The main content area is divided into a search and legend section on the left and a map section on the right. The search section shows the location: Alameda County, California, Western Part (CA610). The legend section contains a table with the following data:

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
147	Urban land-Baywood complex	2.2	100.0%
Totals for Area of Interest		2.2	100.0%

The map section shows an aerial view of an urban area with a red outline indicating the area of interest. The map includes a scale of 1:3,230 and a warning: "Warning: Soil Map may not be valid at this scale." The map also shows a scale bar for 500 feet.

FOIA | Accessibility Statement | Privacy Policy | Non-Discrimination Statement | Information Quality | USA.gov | White House

Source link: <https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

Attachment I

Section 106 Documentation

Memorandum

To	Heather Klein, City of Oakland	Page	1
CC	Betty Marvin, City of Oakland		
Subject	East Bay Asian Local Development Corporation Lake Merritt BART Affordable Senior Housing Project, 51 9 th Street, Oakland – Section 106 of the National Historic Preservation Act Review		
From	Heather Miller, MA, Architectural Historian Karen Gardner, RPA, Archaeologist Karin G. Beck, RPA, RPH, Archaeologist		
Date	April 9, 2024		

Introduction

The East Bay Asian Local Development Corporation (EBALDC) proposes to develop and manage the Lake Merritt Bay Area Rapid Transit District (BART) Affordable Senior Housing Project (hereafter referred to as the “proposed project”). The proposed project is the first phase of a larger two-block, multi-phased planned unit development to redevelop existing BART-owned properties adjacent to the underground Lake Merritt BART Station. The first phase of development is located at 51 9th Street, which is a single parcel (Assessor’s Parcel Number [APN] 001-0169-001) and encompasses an entire city block bounded by Fallon Street to the east, 8th Street to the south, Oak Street to the west, and 9th Street to the north in Oakland. The second phase of development is located at 107 8th Street, which is also one parcel, (APN 001-0171-002) and is bounded by Oak, 7th, Madison, and 8th Streets). The project site is on the southern part of the city block at 51 9th Street that currently is used for BART station entrances/exits and a surface parking lot.

The project site lies within the Lake Merritt Station Area Plan (LMSAP), a plan by the City, BART, and other stakeholders for the future development of the area. The City certified an Environmental Impact Report (EIR) for the LMSAP in November 2014, pursuant to the California Environmental Quality Act (CEQA).¹ The 2014 LMSAP EIR analyzed the environmental impacts of adoption and implementation of the LMSAP. In 2021, EBALDC proposed the Lake Merritt BART Station Redevelopment Project (Project) within the LMSAP. This redevelopment proposal covers two phases and four buildings to provide a high-density mix of market-rate and affordable residential units; office and community space; ground-floor retail, and restaurant; a childcare center; a new public open space; and public space improvements. The proposed project includes the affordable senior housing project and associated public realm improvements, including street, sidewalk, landscaping, and open space amenities. Existing BART facilities and structures on the block would remain as-is. The City approved the Lake Merritt BART Station Redevelopment Project CEQA Checklist that tiered off the 2014 LMSAP EIR, concluding that the project would not result in substantial changes or involve new information not already analyzed in the 2014 LMSAP EIR because the uses, scale, and intensity of development at the project site is within the broader development assumptions analyzed in the 2014 LMSAP EIR. The City’s analysis also determined that the project would not cause new significant impacts not previously identified in the 2014 LMSAP EIR or result in a substantial increase in the severity of previously identified significant impacts, including those to identified historical resources. Therefore, no new mitigation measures would be necessary to reduce significant impacts. No

¹ *Lake Merritt Station Area Plan Final EIR*, Certified November 18, 2014. SCH No. 2012032012. Oakland Case Nos. ZS11225, ER1100-17, GP13287, ZT13288, RZ13289.

changes occurred with respect to circumstances surrounding the LMSAP that would cause significant environmental impacts to which the project would contribute considerably, and no new information had been put forward that showed that the project would cause significant environmental impacts. Therefore, no supplemental environmental review was required in accordance with Public Resources Code Section 21166, and CEQA Guidelines Sections 15162 through 15164.² The project was approved by the Oakland City Planning Commission on July 20, 2022. The approval was made contingent upon the project complying with the Standard Conditions of Approval and Mitigation Monitoring and Reporting Program (SCAMMRP), which includes all mitigation measures identified in the Lake Merritt BART Station Redevelopment CEQA Checklist (approved by the Commission on May 19, 2021).

EBALDC has applied for assistance from the U.S. Department of Housing and Urban Development (HUD). Because of this federal involvement, the project is considered an undertaking that requires review under Section 106 of the National Historic Preservation Act (Section 106). HUD is the lead agency for compliance with the National Environmental Policy Act and Section 106. AECOM prepared this memorandum in support of HUD's responsibilities in compliance with Section 106 review. This memorandum includes a description of the undertaking, the Area of Potential Effects (APE), the methodology used to identify and evaluate historic properties³ within the APE, the affected historic properties, and an assessment of potential effects resulting from the undertaking. This analysis was prepared by Heather Miller, M.A., and Karen Gardner, M.A., who meet the Secretary of the Interior's Professional Qualification Standards (36 Code of Federal Regulations [C.F.R.] Part 61) for architectural history and archaeology, respectively.

As a result of this study, the Section 106 finding of **No Adverse Effect** is appropriate.

Description of the Undertaking

Project Location

The proposed project site is located at 51 9th Street, a city block bounded by Fallon Street to the east, 8th Street to the south, Oak Street to the west, and 9th Street to the north Street in Oakland. The undertaking is located on the southern portion of a 1.38-acre parcel (APN 001-0169-001). The building footprint itself, excluding public realm and open space improvements, is approximately 0.26 acre in size (**Figure 1, Project Location and Figure 2, Project Site Plan**).

Project Description

The proposed project would be the affordable housing anchor for a larger multiphase, multi-block transit-oriented development (TOD), in partnership with Strada Investment Group and BART, which would strengthen the existing neighborhood with an extensive suite of community benefits. The entire development would include four new buildings across two blocks owned by BART, at the Lake Merritt BART Station, and would consist of a high-density mix of market-rate and affordable residential housing (including the proposed project, referred to as 'Building B' and inclusive of associated public improvements at the project site, such as street, sidewalk, landscaping, and open space amenities), office and community space; ground-floor retail, and restaurant; a childcare center; a new public open space; and public space improvements. The Lake Merritt BART Affordable Senior Housing project is the first of the four buildings to start construction and be completed.

The proposed project would construct a new 7-story, approximately 85-foot tall, 79,300-square-foot building on the southern portion of the existing 1.38-acre parcel, **as shown in Figure 3, Conceptual**

² *Lake Merritt BART Station Redevelopment Project CEQA Checklist*, Prepared by ESA, May 2021, City Project No. PLN20-038.

³ In relation to Section 106, "historic property" means any precontact or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP).

Renderings. The Building B project footprint is 11,633 gross square feet (or approximately 20 percent of the entire parcel). The mixed-use residential and retail building would be developed with approximately 97 units of affordable housing, targeted for senior households (55+), as well as Special Needs and formerly Homeless households, with Area Median Incomes ranging from 30% to 60%.

As shown in **Figure 4, Ground Floor Plan**, the ground floor would include a community room/lounge, service offices, restrooms, bike room, storage, trash and utility space. The ground floor would also provide approximately 3,235 square feet of commercial space at the western portion of the building, adjacent to and interacting with the Lake Merritt BART Station entrance and a publicly accessible open space area, referred to as the paseo. Approximately 354 square feet of the commercial space would be utilized for a community-serving, limited-service restaurant or café, and approximately 2,881 square feet would be utilized for a Commercial Kitchen. The upper levels (2nd through 7th floors) would be occupied by approximately 97 senior residential units (22 studios, 70 one-bedroom and 5 two-bedroom units), of which 44 would be reserved for special needs and homeless populations. The 7th floor would also contain a community room/lounge and an outdoor rooftop deck.

No vehicle parking would be constructed onsite as part of the proposed project. A secure bicycle parking room on the ground floor would be provided for residents, with a capacity for 54 bicycles, comprised of 49 long-term and 5 short-term spaces. An additional six bicycle parking spaces, four long-term and two short-term, would be provided for commercial uses. The project would also provide approximately 5,636 square feet of open space, including part of the publicly accessible paseo area and 2,562 square feet for two community rooms/lounges and the outdoor roof deck. There are 41 trees on the existing one-block parcel, all of which would be removed as part of redevelopment of the site. Almost all of the trees are in the public right-of-way along the sidewalks on portions of the block where BART facilities would be left-as-is. The estimated number of trees within the Building B footprint is approximately five and fewer than another ten on the adjoining sidewalks along 8th and Fallon Streets. New trees would be planted as part of the landscaping plan in accordance with the City's master street tree list and Tree Planting Guidelines. The intersection corners and street signals adjoining the proposed project would also be upgraded to enhance pedestrian safety,

Building B would also be set back from the adjacent underground BART station structure. Piles for the Building B foundation would be set back from the underground BART station by a minimum of 10 feet. The Building B foundation would be set back from the BART station from 1.5 feet above the structure to 8 feet below the structure (**Figure 5, Building B Section**).

Area of Potential Effects

The Area of Potential Effects (APE) accounts for potential effects to historic properties, which are any precontact or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP). To address direct effects within the limits of staging and construction for the proposed project, the APE encompasses the area of direct impacts (ADI), which is defined as the limits of the project site, consisting of most of the single parcel (APN 001-0169-001). To address indirect effects to adjacent historic properties, the APE also encompasses properties one parcel deep within immediate view of the project site. While four properties along 8th Street south of the project site are located within, and contributors to, the NRHP-eligible 7th Street/Harrison Square Residential District, the district spans 11 city blocks and was not brought into the APE in its entirety (**Figure 6, APE Map**). Effects to these four properties in the APE, and the historic district as a whole, will be addressed in Assessments of Effects later in this document.

The building would be supported on a structural slab that would be founded on piles approximately 70 feet to 110 feet in length. The maximum depth of excavation is estimated to be approximately 130 feet below the ground surface (bgs), which is the extent of the vertical APE.

Identification of Historic Properties

Records Search

AECOM conducted a records search at the Northwest Information Center (NWIC) at Sonoma State University in Rohnert Park on January 11, 2024. The records search included the APE and a one-block buffer to identify known cultural resources in the vicinity of the APE. The records search resulted in the identification of one previously recorded archaeological resource in the records search buffer, but none in the APE (**Table 1**). Five previously recorded built environment resources are located in the APE, including one NRHP-listed building, and one large historic district with four buildings within the APE (**Table 2**).

Previously Recorded Archaeological Resources

The NWIC records search identified no previously recorded archaeological resources in the APE. One archaeological resource was identified within a one block buffer (see **Table 1**).

**Table 1
 Archaeological Resources Within One Block Radius of the APE**

Primary Number	Trinomial	Name	Precontact or Historic	Description	In APE?
P-01-10796	--	Isolated burial site	Precontact	Single burial with groundstone mortar, discovered in 1906 while excavating foundation for a house.	No

Notes:

APE = Area of Potential Effects

Previously Recorded Built Environment Resources

The NWIC records search identified five previously recorded built environment resources, including one NRHP-listed building and one large historic district with four buildings that were previously recorded in the APE (see **Table 2**).

**Table 2
 Previously Recorded Built Environment Resources in the APE**

Primary Number	Address	Name	Built Date(s)	NRHP Status	NRHP Status Code*
P-01-004560	100 9 th Street, Oakland	Madison Park Apartments	1908	NRHP-listed on April 1, 1982 Reference #82008164	1S
P-01-004478	Multiple	7 th Street/Harrison Square Residential District	1889-1910	NRHP-eligible	3S
P-01-004462; Contributor to P-01-004478	51 8 th Street, Oakland	Lougee-Baumgartner House (Primary Contributor to 7 th Street/Harrison Square Residential District)	1890-1891	Contributor to NRHP-eligible district	2D2, 3D

Table 2
Previously Recorded Built Environment Resources in the APE (continued)

Primary Number	Address	Name	Built Date(s)	NRHP Status	NRHP Status Code*
P-01-004463; Contributor to P-01-004478	55 8 th Street, Oakland	None (Contributor to 7 th Street/Harrison Square Residential District)	1897-1898	Contributor to NRHP- eligible district	2D2, 3D
P-01-004464; Contributor to P-01-004478	59 8 th Street, Oakland	Sullivan House (Contributor to 7 th Street/Harrison Square Residential District)	1896	Contributor to NRHP- eligible district	2D2, 3D
P-01-004465; Contributor to P-01-004478	61 8 th Street, Oakland	Josephs House (Contributor to 7 th Street/Harrison Square Residential District)	1892-1893; Addition 1905-1906	Contributor to NRHP- eligible district	2D2, 3D

Notes:

*NRHP Status Code reflects the designation assigned by the OHP

NRHP = National Register of Historic Places

OHP = Office of Historic Preservation

1S = Individually listed in the NRHP

2D2 = Contributor to a historic district determined eligible for listing in the NRHP by consensus through Section 106 process

3D = Appears eligible for NRHP as a contributor to a NRHP eligible multi-component resource through survey evaluation

3S = Appears individually eligible for listing in the NRHP

P-01-004650

Originally constructed in 1908, the Madison Park Apartments at 100 9th Street is a five-story apartment building that was listed in the NRHP in 1982. This building is located northwest from the project site. While not stated in the NRHP nomination, the building appears to have been listed under Criterion C with a period of significance of 1908.

P-01-004478

The 7th Street/Harrison Square Residential District was recorded in 1985 on Historic Resources Inventory sheets as part of the Oakland Heritage Survey. The district largely consists of residences constructed between 1889 and 1910 and one park. It is located along five blocks of 7th Street, the cross streets from Harrison to Fallon streets, extending in some places to 8th Street and 6th Street. The district was found eligible for listing in the NRHP in a local survey “as a surviving area of middle- and lower-middle-class housing constructed largely between 1889 and 1910” (OCHS 1984). Surveyors in 1984 identified two-thirds of the buildings in the district boundary (79) as contributors, 39 properties as non-contributors, and 5 vacant lots. The district is located south and southwest from the project site.

Four properties along 8th Street, south of the project site, are located within, and contributors to, the NRHP-eligible 7th Street/Harrison Square Residential District.

P-01-004462 (Contributor to P-01-004478)

51 8th Street, also called the Lougee-Baumgartner House, was completed in 1891. This building is located directly across 8th Street, south from the project site. According to the author of the Historic Resources Inventory form prepared as part of the “7th Street/Harrison Square Residential District” survey, the residence was described as “among Oakland’s most elaborate and most intact surviving large Queen Anne residences, distinguished by its richly varied forms, ornamentation and surface treatments” (OCHS 1983). Therefore, 51 8th Street was one of two

properties in the historic district identified as “Primary Contributors.” The other property is Harrison Square, formerly known as Harrison Railroad Park at the 600 block of Harrison Street, approximately 0.25-miles southwest from the project site.

51 8th Street is also designated as a City of Oakland Heritage Property. Heritage Properties are defined in the Preservation Element of the Oakland General Plan as “properties which definitively warrant preservation but which are not Landmarks.” Heritage Properties are protected by design review, environmental review, demolition findings, and the California Historical Building Code.

P-01-004463 (Contributor to P-01-004478)

55 8th Street is a transitional Queen Anne and Colonial Revival style cottage completed in 1898. This building is located directly across 8th Street, south from the project site. The building was identified as a contributor to the 7th Street/Harrison Square Residential District for “architecture and history” (OCHS 1984).

P-01-004464 (Contributor to P-01-004478)

59 8th Street, also called the Sullivan House, is a Queen Anne style cottage completed in 1896. This building is located directly across 8th Street, south from the project site. The building was identified as a contributor to the 7th Street/Harrison Square Residential District for “architecture and history” (OCHS 1984).

P-01-004465 (Contributor to P-01-004478)

61 8th Street, also called the Josephs House, is a three-story Queen Anne residence completed in 1893. This building is located directly across 8th Street, south from the project site. The building was identified as a contributor to the 7th Street/Harrison Square Residential District for “architecture and history” (OCHS 1984).

Additional Background Research

Oakland Cultural Heritage Survey Records

The Oakland Cultural Heritage Survey (OCHS) is the City’s inventory of buildings in Oakland and contains varying levels of information on buildings and historic districts of possible historical or architectural interest. Review of the OCHS provided information on two additional built environment resources in the APE (**Table 3**). The OCHS ratings system is nuanced with categories for resources that may achieve a higher level of importance or contribution with restoration, further research, or other contingencies.

**Table 3
 Built Environment Resources in the APE – OCHS Search Results**

Address	Name	Built Date(s)	OCHS Rating	Local Status	NRHP Status
94 9 th Street / 900 Oak Street, Oakland	Serbian Orthodox Church of St. George	1910-1911; 1924-1925	B+3	Local Register of Historical Resources	Appears eligible
80-82 & 88-90 9 th Street, Oakland	Tutt-Sieman-Chew double flats	1903-1904; Moved 1916-1917	C3	Designated Heritage Property	Unevaluated

Notes:

B+3 = Major importance, not in a historic district
 C3 = Secondary importance, not in a historic district
 NRHP = National Register of Historic Places
 OCHS = Oakland Cultural Heritage Survey

94 9th Street / 900 Oak Street

Originally completed in 1911 as an Episcopal chapel, the Serbian Orthodox Church of St. George is at the northeast intersection of 9th and Oak streets. This building is located directly across 9th Street, north from the project site. A large addition was constructed in 1926 and rededicated as the Serbian Orthodox Church of St. George. The building was found eligible for listing in the NRHP under Criterion A “as the ‘Mother Church for all Serbs in the Bay Area’” (OCHS 1982). The church was added to the City’s Local Register of Historical Resources when it was City’s Preservation Study List (OCHS 2000; Yee 1995).

80-82 & 88-90 9th Street

Originally completed in 1904 at a different location, these two mirror-image, two-story Colonial Revival style apartment buildings were moved to the current location around 1917. These buildings are located directly across 9th Street, north from the project site. The buildings were recorded on an Oakland Landmarks Preservation Advisory Board – Oakland Landmark, S-7/S20 Preservation Combining Zone, and Heritage Property Application Form in 2014. The buildings were identified as locally significant under the areas of “Architecture,” “Community,” and “Social/humanitarian,” and were not evaluated for NRHP eligibility. The property was designated a Heritage Property by Landmarks Board on July 14, 2014 (Fong 2014; Marvin 2024).

Historic Maps

The following maps were reviewed using the listed online sources:

- San Francisco Public Library
 - 1889 Sanborn Fire Insurance Map
 - 1912 Sanborn Fire Insurance Map
 - 1950 Sanborn Fire Insurance Map
 - 1952 Sanborn Fire Insurance Map

- U.S. Geological Survey
 - 1895 *San Francisco, Calif.* 15-minute topographic quadrangle
 - 1899 *San Francisco, Calif.* 15-minute topographic quadrangle
 - 1915 *San Francisco, Calif.* 15-minute topographic quadrangle
 - 1949 *Oakland West, Calif.* 7.5-minute topographic quadrangle

City of Oakland

AECOM reviewed construction date information available online, including City of Oakland parcel data to identify previously unrecorded properties 50 years or older within the project APE. As a result, four new historic-age properties were identified for recordation and evaluation. One of the properties, Laney College at 900 Fallon Street, is a large, 60-acre campus sited immediately east from the project site. It is outside the scope of work for this project to record and evaluate the entire campus, therefore, for the purpose of this project, the campus will be assumed eligible for listing in the NRHP and treated as a historic property.

Tribal Consultation

The Native American Heritage Commission (NAHC) was contacted on December 27, 2023, for a search of its Sacred Lands File (SLF) and a list of Native Americans who may have information related to Native American cultural resources in the vicinity of the proposed project. The NAHC responded on January 10, 2024, stating that a search of the SLF yielded positive results and recommended contacting the following tribes for further information: the Amah Mutsun Tribal Band of Mission San Juan Bautista, the Confederated Villages of Lisjan Nation, and the Northern Valley Yokut/Ohlone Tribe. The NAHC also provided a list of 14 individuals from eight tribes (including the three specified above) with a potential interest in the project vicinity. HUD's Tribal Directory Assessment Tool was also searched for a list of federally recognized tribes with an interest in Alameda County. Only the California Valley Miwok Tribe was listed, whose tribal territory is outside of the current project vicinity.

Cheyenne Zepeda, Cultural Resource Manager of the Confederated Villages of Lisjan Nation, responded to the NAHC's notification letter with an email request to AECOM dated January 25, 2024, requesting consultation. AECOM, on behalf of EBALDC and HUD, established contact with the tribe and the initial consultation meeting was held (virtually) with the Tribe, EBALDC, and AECOM on February 14, 2024. Project data was requested by the Tribe, which included cultural reports, site records, as well as the 2014 LMSAP. These materials were sent to Chairperson Corrina Gould on February 20, 2024. After multiple emails (February 20 and 27, 2024) and attempts via telephone (February 27 and 29, 2024 and March 13, 2024) to contact the Tribe without success (the voicemail box was always full and no email replies were received), AECOM used an SMS message on March 13, 2024, to communicate efforts towards follow-up and scheduling another meeting, if needed. On the same day, AECOM received an email from Chairperson Gould stating the Tribe was satisfied and that consultation was closed.

On February 27, 2024, EBALDC sent letters describing the project with a map depicting the APE to the Native American individuals specified by the NAHC, including the Amah Mutsun Tribal Band of Mission San Juan Bautista, the Confederated Villages of Lisjan Nation, and the Northern Valley Yokut/Ohlone Tribe, requesting information or concerns regarding the APE. EBALDC received an email on March 9, 2024, from Chairperson Katherine Perez of the Northern Valley Yokut/Ohlone Tribe requesting consultation and further project documentation. AECOM sent project data including cultural reports, site records, as well as the 2014 LMSAP on March 14, 2024. On March 19, 2024, members of EBALDC and AECOM met virtually with Chairperson Perez. After reviewing the project details, Chairperson Perez recommended Cultural Resources Awareness Training for the construction crew by a Native American and an Alert Sheet for reference of protocols in case of discovery; consultation with the Northern Valley Yokut/Ohlone Tribe is closed.

On March 15, 2024, AECOM received a form letter via email from Irenne Zwierlein, Chairperson of the Amah Mutsun Tribal Band of San Juan Bautista, which stated that if there was there was cultural sensitivity in the vicinity of 1-mile of the project area the Tribe recommends sensitivity training for all individuals associated with earth-moving activities, a qualified archaeological monitor be present during earth-moving activities, and a qualified Native American monitor also be present during earth-moving activities.

No other responses were received by EBALDC or AECOM to date. On April 9, 2024, EBALDC sent follow-up emails and calls requesting comments or concerns regarding resources in the project’s APE. No further concerns were raised during these outreach efforts.

Survey

Archaeological Survey

Because the entire APE has been previously developed and paved, and the area was adjacent to the mass excavation for the construction of the BART station (see **Plate 4** – Excavation of Lake Merritt BART complex), it was determined that no native ground would be available to observe. Therefore, an archaeological survey was not conducted.

Built Environment Survey

AECOM conducted an intensive survey of the APE to identify all potential historic properties on February 29, 2024. Survey efforts included resurvey of six previously recorded built environment resources and five new properties at least 50 years old that required recordation and evaluation (**Table 4**) (**Figure 6, APE Map**). Archaeologist Jay Rehor, MA, RPA, under direction and guidance from Architectural Historian Heather Miller, MA, who meets the Secretary of the Interior’s Professional Qualification Standards for History and Architectural History, visited the APE to photograph potential historic properties. Each resource was recorded on California Department of Parks and Recreation (DPR) 523 forms. For architectural descriptions and significance evaluations, refer to the DPR 523 forms located in **Attachment A**. Note: Madison Park Apartments at 100 9th Street was not resurveyed because it is listed in the NRHP, and the 7th Street/Harrison Square Residential District was not resurveyed because it is beyond the scope of this project.

**Table 4
 Historic-Age Built Environment Resources in APE – Survey Results**

Map Ref. No.	Primary Number	Address	Name/Description
01	n/a	94 9 th Street / 900 Oak Street, Oakland	Serbian Orthodox Church of St. George (formerly St. Paul’s Episcopal Church)
02	n/a	80-82 & 88-90 9 th Street, Oakland	Multi-family residential buildings
03	n/a	52 9 th Street, Oakland	Light Industrial building
04	n/a	900 Fallon Street, Oakland	Laney College
05	P-01-004462; Contributor to P-01-004478	51 8 th Street, Oakland	Lougee-Baumgartner House (Primary Contributor to 7 th Street/Harrison Square Residential District)
06	P-01-004463; Contributor to P-01-004478	55 8 th Street, Oakland	None (Contributor to 7 th Street/Harrison Square Residential District)
07	P-01-004464; Contributor to P-01-004478	59 8 th Street, Oakland	Sullivan House (Contributor to 7 th Street/Harrison Square Residential District)

**Table 4
 Historic-Age Built Environment Resources in APE – Survey Results (continued)**

Map Ref. No.	Primary Number	Address	Name/Description
08	P-01-004465; Contributor to P-01-004478	61 8 th Street, Oakland	Josephs House (Contributor to 7 th Street/Harrison Square Residential District)
09	n/a	73 8 th Street, Oakland	Commercial building
10	n/a	77 8 th Street, Oakland	Commercial building
11	n/a	91 8 th Street, Oakland	Commercial building
12	P-01-004478	Multiple	7 th Street/Harrison Square Residential District
13	P-01-004560	100 9 th Street, Oakland	Madison Park Apartments

Environmental Setting

To evaluate potential historic properties for eligibility to the NRHP, AECOM compiled contexts related to major precontact and historical themes associated with the project site.

Environmental Context

Drawings and early written accounts of Oakland note that the area was relatively flat and covered with oak trees, with a marsh—later known as Lake Merritt—extending westward from the San Antonio Bay (Malcolm Margolin, quoted in Reed 2002:55). Much of Oakland was covered with sand dunes prior to urbanization. The project site is mapped in Urban Land-Baywood complex soils (U.C. Davis SoilWeb2024). “Urban Land” suggests that the project site contains fill or has been impacted by cutting and filling. Baywood soils are excessively drained soils that formed in old sand dunes along the coast (National Cooperative Soil Series 2024).

A preliminary geotechnical investigation for the project site was completed on January 23, 2020, (updated April 9, 2021) and determined that the project site is not within a liquefaction hazard zone as mapped in the California Geologic Survey’s 2003 *State of California Seismic Hazard Zones, Oakland West Quadrangle Official Map*.⁴

Precontact Context

Milliken et al. (2007) presented one of the most recent contributions to the understanding of precontact lifeways in the San Francisco Bay Area; their work offers a hybrid system of understanding the precontact chronology of the region by combining the Early-Middle-Late Period temporal sequence of Beardsley (1954, cited in Milliken et al. 2007) and using Fredrickson’s (1973, cited in Milliken et al. 2007) pattern, aspect, and phase concept to differentiate units of culture. This hybridized perspective allows for a more complex and nuanced understanding of the precontact era of the region. The following section is adapted from Milliken et al. (2007). The dates presented below, in conjunction with the hybridized cultural and temporal sequence, are based on calibrated (cal) radiocarbon dates.

⁴ Langan Engineering and Environmental Services, Inc., 2020. *Preliminary Geotechnical Investigation Lake Merritt BART Redevelopment, Oakland, California*, January 23.

Early Holocene (Lower Archaic) 8000 – 3500 cal B.C.

Early occupation of the San Francisco Bay region is characterized by the use of millingslabs, handstones, and flaked tools including the use of large wide-stemmed and leaf-shaped projectile points. Archaeobotanical remains from a site in Contra Costa, CA-CCO-696, suggest an economy focused on acorns and other vegetal items. In the North Bay Area, CA-SON-348/H yielded a deposit of mussel, fish, bird, and pinniped remains. Data from these early sites indicate a mobile forager economic patterning.

Early Period (Middle Archaic) 3500 – 500 cal B.C.

Indicators of a general trend toward a more sedentary lifestyle are the hallmarks of this time period. New ground stone technology and the first cut shell beads in mortuary settings imply regional symbolic integration and an increase in trade throughout the Bay Area. Mortars and pestles are documented for the first time during this time period. In the Central Bay Area, the Lower Berkeley Pattern is characterized by mortars and pestles and a burial complex with ornamental grave associations. With the exception of the North Bay, where variations of foraging economies persisted through this period, this represents the movement from forager to a semi-sedentary land use.

Lower Middle Period (Initial Upper Archaic) 500 cal B.C. – cal A.D. 430

A somewhat abrupt change in shell bead styles during this time period is indicative of a possible cultural disruption. The omnipresent rectangular shell beads that had been employed for 3,000 years were replaced by different bead styles. Olivella saucer beads became common and *Haliotis* ornaments began to appear. New bone tools and ornaments, such as elk femur spatulae, whistles, and basketry tools were produced. While millingslabs were still in use at some locations, there was a general shift to the use of mortars and pestles throughout this period.

Upper Middle Period (Late Upper Archaic) cal A.D. 430 – 1050

During the Upper Middle Period, the Olivella saucer bead trade network collapsed, sea otter hunting increased, and the Meganos mortuary pattern appeared and began to spread within the interior of the East Bay. The Meganos complex is characterized by dorsally extended burials, such as at the Santa Rita village site, CA-ALA-413 in the Livermore Valley. Saucer beads began to disappear as burial accompaniments, replaced by rough-edged, full saddle *Olivella* beads with small perforations. Such small perforations are marks of the Bead Horizon M2a. This bead horizon is marked by mixed *Olivella* saddle beads with 1.0- to 1.5-millimeter perforations that date to cal A.D. 430 – 600. During this horizon, a number of new items appear in Central Bay sites, including fishtail charmstones, new *Haliotis* ornament forms, and mica ornaments. Bead Horizon M3 is the apex of the Upper Middle Period, characterized by small, delicate square saddle *Olivella* beads in burials, often in off-village single component cemeteries. Single barbed bone fish spears, ear spoons, and large mortars appear during the M3 horizon. The Meganos complex spread down into the Santa Clara Valley throughout this period but did not extend into the West or North Bay.

Initial Late Period (Lower Emergent) cal A.D. 1050 – 1550 and the Terminal Late Period

Lifeways during this period became more socio-economically complex as a new level of sedentism and status ascription emerged. Items identified with the Augustine Pattern begin to appear during this time period concurrently with the Bead Horizon L1. The cultural items affiliated with this bead horizon include the arrow, the flanged pipe, the banjo effigy ornament, and the *Olivella* callus cup bead. The Stockton series of serrated projectile points began to appear in central California. Mortuary evidence is indicative of increasing social stratification. Partial cremation, often associated with elaborate grave offerings, appeared in some places and reappeared in other places. During the Terminal Late Period, the Bead Horizon L1 abruptly disappeared, around cal A.D. 1500. Clamshell disk beads, Bead Horizon L2, began to appear and extend across the North Bay. However, the only shell beads in the South and Central Bay mortuary patterns from this period were *Olivella* lipped and spire-lopped beads. In the North Bay, the toggle harpoon, hopper mortar, plain corner-notched arrow-sized projectile point and clamshell disk beads, among other items, all appear in this region. The hopper mortar does not appear to have spread into the Central or South Bay. Additionally, while the

corner-notched points replaced the Stockton serrated points in the North Bay and in the Central Bay, the Desert side-notched points seem to spread into the South Bay from the Central Coast.

Ethnographic Context

Ethnographic literature (Kroeber 1976; Levy 1978; Milliken 1995) indicates the project site is within the traditional territory of the Ohlone tribe. The Ohlone language is one of the five languages that existed within the San Francisco Bay Area that also included Bay Miwok, Plains Miwok, Patwin, and Wappo (Milliken 1995:13). These language groups are often treated as distinct and cohesive language units. However, Milliken (1995) points out that this can create a “misleading and overly simplistic view” of the complex mosaic that was, and the cultural variation that existed in, the aboriginal San Francisco Bay Area (Milliken 1995:13). The vicinity of the project was likely inhabited by the Huichun. Huichun territory extended over a large area along the East Bay shore, from Temescal Creek in Oakland north to the lower San Pablo and Wildcat Creek drainages in present-day Richmond (Milliken 1995:243). The tribe was the basic unit of political organization for the Ohlone-speaking people. Tribes consisted of one or more villages and there were a number of camps within each tribe’s territory. Territory boundaries were often defined by physiographic features (Levy 1978:487). An extensive trade network with neighboring groups existed. Trade items included obsidian from the upper valley of the Napa River; shells from the coast; sinew-backed bows from the east; and tobacco, basketry materials, and ornamented pigments from various locations (Milliken 1995:16).

Domed structures thatched with tule grass, wild alfalfa, ferns, or *carrizo* (reeds) were the most common type of dwelling structure. Sweathouses, used by both adult men and women, were constructed by excavating a pit in stream banks and building the remainder of the structure against the bank. Dance enclosures were circular or oval and included a woven fence of brush or laurel branches. Such assembly houses or dance plazas were located in the center of the village with dwellings along the periphery (Levy 1978:492).

Subsistence practices included harvesting plant, fish, and animal resources in their local environments. Acorns were probably one of the most important plant foods used by the Ohlone. The coast live oak and valley oak were the favored type of acorn (Levy 1978:491; Milliken 1995:16). Acorns were ground and leached to remove bitter tannins and then were made into mush or bread. Seeds, such as those from the gray pine or holly-leaf cherry and berries, such as elderberries and manzanita also played an important role in the Ohlone diet. Meat sources included, but were not limited to, deer, sea lion, rabbit, elk, and antelope. The most important fish were salmon, steelhead, and sturgeon. Fowl and waterfowl also comprised an important part of the Ohlone diet (Levy 1978:491). A sexual division of labor existed. Women harvested plant foods and spent a considerable portion of time weaving baskets that were used for gathering, storing, and preparing foodstuffs. Men augmented the food supply by fishing and hunting for game (Milliken 1995:16). Those who lived closer to the coast relied heavily upon fish and shellfish, while those who lived farther inland relied more upon hunting (Milliken 1995:18).

Historic Context⁵

City of Oakland

The proposed project site is within the Rancho San Antonio land grant, which was originally granted to Luis Maria Peralta in 1820 for his service to the Spanish government. His 43,000-acre rancho included what are now the cities of Oakland, Berkeley, Alameda, and parts of San Leandro and Piedmont. Peralta’s land grant was confirmed after Mexico’s independence from Spain in 1822, and this title was honored when California entered the Union by treaty in 1848. The City of Oakland was

⁵ This historic context is adapted from “Chapter 9: Historic Resources” in the *Lake Merritt Station Area Plan, Existing Conditions and Key Issues Report*, June 2010, which informed the 2014 LMSAP EIR and the “Bart Transit Operations Facility and Lake Merritt Plaza Redesign Project – National Historic Preservation Act Section 106 Historic Properties Memorandum,” prepared by AECOM for BART, dated February 9, 2018.

incorporated in 1852, and officially recognized by the State in 1854. The project site is in one of the oldest areas of the city located on the outskirts of town and was the site of the only graveyard known as the Oakland Cemetery. According to Gene Anderson, Oakland historian and researcher and historical maps, the cemetery was located between Oak and Fallon streets, between 8th and 9th streets. In 1857, due to the need for more land, a new cemetery was approved by the City Council and burials from Oakland Cemetery were moved to the new location on Webster Street.

Oakland grew around its waterfront, with development limited only by the available modes of transportation. Steam ferry service to San Francisco was established in 1850, and by 1869 the first horse-car followed a route from the estuary up Telegraph Avenue to 40th Street. On November 8, 1869, the transcontinental railroad's first west-bound trip rolled through Oakland along Central Pacific tracks, which terminated at the new 7th Street station. By 1891, Oakland's first streetcar ran along Broadway to the City of Berkeley.

Subsequent to the devastation of the 1906 earthquake and fire in San Francisco, numerous refugees lived for months in tents set up in Lakeside Park on the shores of Lake Merritt. The influx of people to Oakland escaping the devastation from across the bay prompted the development of new residential areas in Oakland to accommodate displaced San Francisco residents. Older neighborhoods became more densely populated as new apartment buildings and related growth became part of Oakland's residential fabric.

Throughout the 20th century, commercial enterprises and industrial development, particularly the Port of Oakland and the Oakland Municipal Airport, played a vital role in Oakland's growth. During World War II, the Port provided land and facilities to the Army and Navy. By 1943, Oakland had become the largest shipping center on the West Coast and within two decades was the largest container terminal on the West Coast. As suburbs grew outward during the 1950s, the inner core of the City began to decline as residents left for the outlying areas. The perception of Oakland, as with many large cities during the 1960s and 1970s, was that of a neglected urban core with high unemployment, racial tension, and reduced economic opportunity. This trend began to reverse in the 1980s as reinvestment and redevelopment helped to invigorate the City's image and prospects.

Oakland's Chinatown

Chinese were the first Asian people to come to Oakland in significant numbers. They came from the Pearl River Delta region of southeast China, lured by the discovery of gold near Sacramento. Some came to Oakland in the 1850s. They lived in at least four different parts of a new and growing Oakland and were moved from place to place to accommodate the development needs of other private interest and institutions, until they settled at the corner of 8th and Webster Streets either in the late 1860s or 1870s. This corner remains the center of the Oakland Commercial District today.

The 1906 San Francisco earthquake and fire significantly increased Oakland's Chinese population. While some people returned to San Francisco, thousands of others stayed in Oakland. With a larger resident population, some moved into what is today the 7th Street/Harrison Square Residential District. Oakland's Chinatown, while relatively compact and small, thrived during World War II because it was near shipyards that brought in thousands of workers from other states. These workers went to Chinatown for food, haircuts and other personal needs. There were also significant numbers of Japanese and Filipinos who either lived or worked in or near Chinatown in the first half of the 20th century. For instance, a 1940 map developed by Japanese American historians in Oakland indicates a number of Japanese businesses in or near the core of Chinatown, reflecting a significant Japanese business presence. President Roosevelt's executive order to "relocate" Japanese on the U.S. West Coast in effect eliminated the presence of Japanese businesses and residents in Chinatown and other parts of Oakland during and after 1942. The Japanese population has subsequently been more dispersed.

Oakland's Chinatown substantially grew between the 1880s and 1960s. Immediately east of the Chinatown Commercial District and immediately north of the 7th Street/Harrison Square Residential

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District are three blocks with significant history for the Chinatown community. The three blocks are bounded by Jackson Street on the west, 9th Street on the north, Fallon Street on the east, and 8th Street on the south. The three blocks are part of what was once called the Madison Square area in the last half of the 19th century and into the 20th century. As the young city expanded from its core at the estuary northward along Broadway, the Madison Square area became a desirable residential area for a growing white middle class in the late 19th century and into the early 20th century.

As Oakland continued to grow in the early decades of the 20th century, middle-class white Madison Square area residents moved further away from the core, giving housing opportunities for a gradually increasing Chinese population that had spiked upwards because the earthquake and fire that devastated San Francisco in 1906 brought over thousands of San Francisco Chinese suddenly displaced. Several thousand of them decided to stay in Oakland, at least doubling Oakland's Chinese population.

For approximately 40 years – the 1920s to the 1960s – Chinese families occupied many, if not, most of residential properties (duplexes, four-plexes, and apartments) on two of those blocks – Jackson to Madison, 8th and 9th; and Oak to Fallon, 8th and 9th. (Madison Square Park was between Madison and Oak, 8th and 9th). A 1951 Sanborn map shows 20 multiple-dwelling residential buildings on those two blocks, along with the Chinese Episcopal Church, the Ming Quong Home for Chinese Girls, and a gasoline station.

The Chinese families and individuals found the location to be convenient because it was immediately east of commercial Chinatown centered at 8th and Webster streets. There were important cultural and social services in commercial Chinatown, such as Chinese schools, family and business associations, and services like barber and herb shops. It was also near Lincoln Elementary School, which educated generations of Chinese children.

By the early 1960s, major public-works projects began to transform the three blocks. The biggest project was the new Bay Area Rapid Transit District (BART), created by the California Legislature in 1957 to provide a fixed-rail mass transit system. BART won voter approval in three Bay Area counties to operate, one of them being Alameda County, which includes Oakland as the county seat.

In 1963, at the urging of Oakland and other East Bay officials, BART decided to permanently locate its operational headquarters, which was in San Francisco on an interim basis, in Oakland. In addition, it drew up plans to open three downtown Oakland stations, one of them underneath the three blocks from Madison to Fallon between 8th and 9th Streets.

Those decisions had deep impact on the property owners, residents, businesses, and cultural institutions on those three blocks. From 1964 to 1966, BART acquired the rights to 24 parcels of property on the three blocks (one was the city-owned Madison Square Park). The acquisition costs ranged widely, from \$10,250 to \$52,750, but many were generally about \$30,000 per parcel.

BART records show that 16 of the parcel owners were Chinese. This ultimately meant the displacement of approximately 75 Chinese households, according to Willard T. Chow, who wrote his Ph.D. dissertation for the University of California at Berkeley in 1974 on Chinese settlement in the East Bay.

The displaced Chinese households, along with other families and residents, spread to other parts of Oakland and beyond. The change was especially difficult for elderly Chinese, who felt comfortable living in close proximity to commercial Chinatown and whose grasp of English was weak or non-existent. Moving away meant an inconvenience and a cultural and linguistic disruption. For the Chinese Episcopal Church that occupied the southwest corner of 9th and Madison Streets, its move to the Oakland hills resulted in a loss of many of its Chinese congregants who stopped attending the church because it was too far away.

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BART and the Lake Merritt BART Station Complex

All of the buildings and the Madison Square Park infrastructure on the three blocks bounded by Jackson Street on the west, 9th Street on the north, Fallon Street on the east, and 8th Street on the south were demolished between 1965 and 1968 to construct the Lake Merritt BART station (Cartwright Aerial Surveys 1965 May 18; HistoricAerials.com 1968). Construction of the station began in the late 1960s and officially opened in 1972. Because of the underground station and connecting structures, ground disturbance and construction activities on top of and adjacent to the BART facilities are restricted and must be reviewed and approved by BART to ensure that these activities do not harm the structures. The six-story BART administrative and engineering headquarters building at 800 Madison Street was officially open for business in December of 1971. One significant change was moving Madison Square Park one block to the west (Jackson to Madison between 8th and 9th Streets), giving BART two contiguous blocks to establish its headquarters building and a parking lot (Madison to Fallon between 8th and 9th Streets) and building the Lake Merritt Station underground.

In 2006, the BART headquarters building above the Lake Merritt Station was deemed “at risk” if a major earthquake struck. Subsequently, the six-story building was dismantled in 2009 and operational headquarters moved to the Kaiser complex along Lakeside Drive. That move has provided an opportunity for BART, the City of Oakland, Laney College, and the surrounding community, including Chinatown, to envision redeveloping the three Madison Square blocks.

Project Site

Today the project site contains entrances and exits to the underground Lake Merritt BART Station, an AC Transit bus stop and sheltered area, and a surface parking lot that serves the BART station. The dotted red line in the exhibits that follow shows the location for Building B. Publicly accessible open space and a high-rise mixed use building are proposed north of Building B as part of redevelopment of the City block. The block was historically developed with residential properties. The 1889 Sanborn Fire Insurance Map depicts a large, two-story residence with three porches near the center of the block, an elevated water tank at the northeast corner, and a detached two-story outbuilding and attached woodshed just north of the water tank in what is now the 9th Street roadway (**Plate 1 - top**) (Sanborn 1889).

By 1911, the large two-story residence was demolished or moved, and eight residences and apartment buildings were constructed on the block. A large two-story residence and an elevated water tank and windmill occupied the northwest quadrant of the block, and the remaining eight residences and apartment buildings were constructed close together on the west half of the block (**Plate 1 - bottom**) (Sanborn 1911).

The large two-story residence and an elevated water tank and windmill that occupied the northwest quadrant of the block was replaced with the Ming Quong Home for Chinese Girls around 1936. By 1950, a two-story, six-unit apartment building near the southwest corner of the block had been demolished and a three-story, 24-unit apartment building was constructed on the same lot (**Plate 2 - top**). Lastly, a gas station was built at the undeveloped southeast quadrant of the block between 1950 and 1952 (**Plate 2 - bottom**) (Sanborn 1950; *Oakland Tribune* 1968 August 11; Sanborn 1952).

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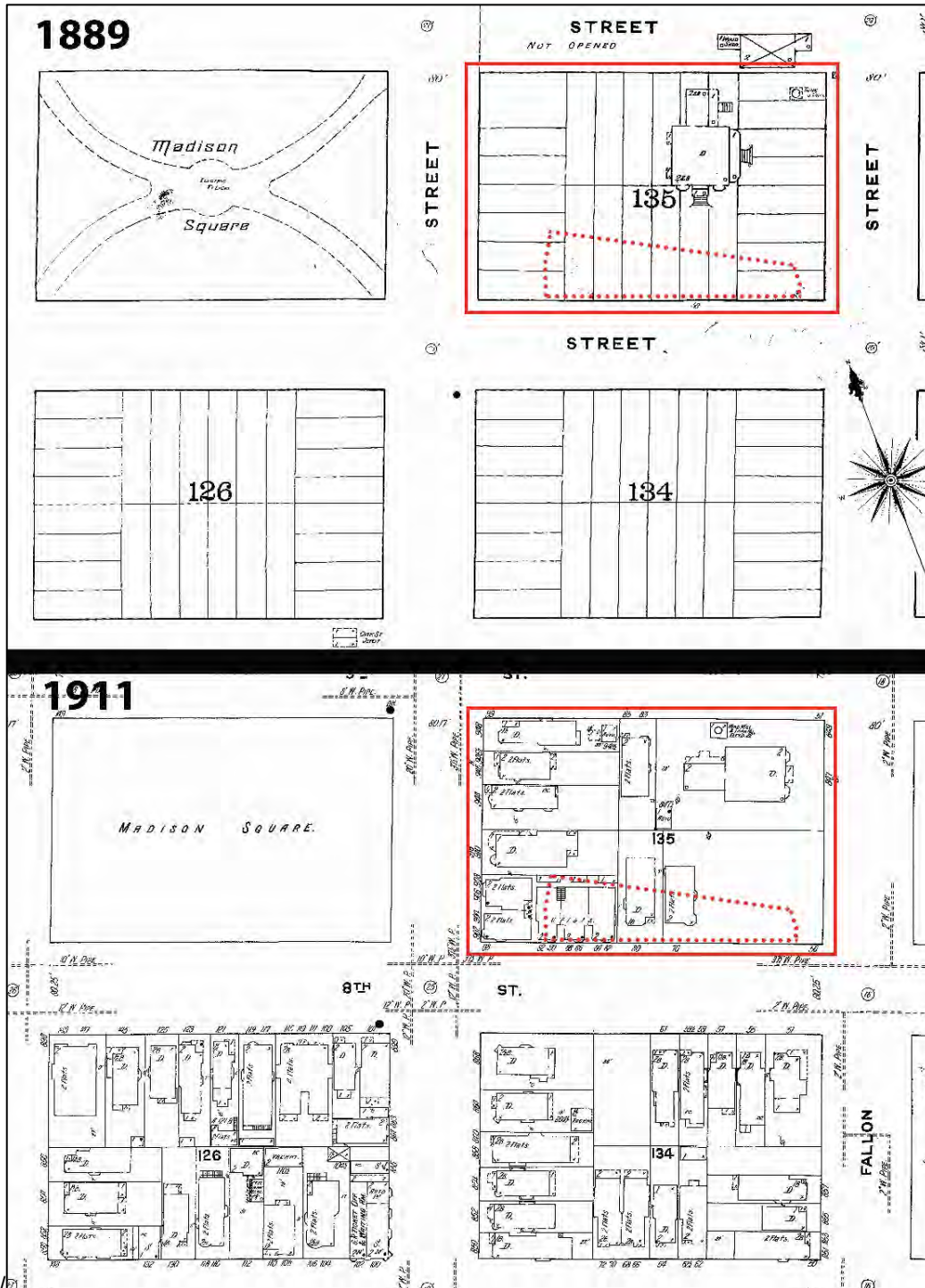


Plate 1: 1889 Sanborn (top) and Sanborn 1911 (bottom) with project site block bound in red box and proposed building footprint shown by dotted line (Sources: Sanborn 1889, 1911)

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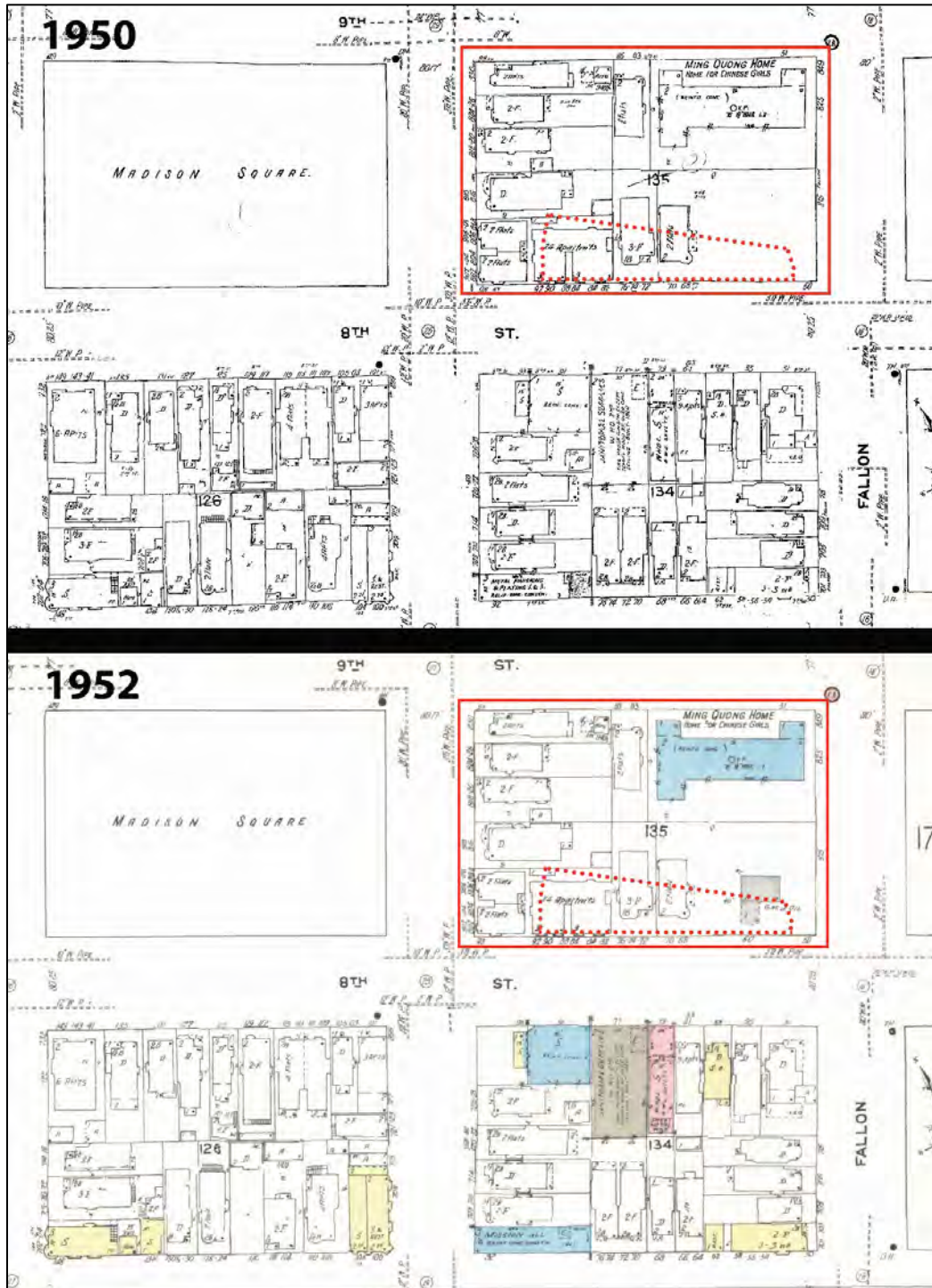


Plate 2: 1950 Sanborn (top) and Sanborn 1952 (bottom) with project site block bound in red box and proposed building footprint shown by dotted line (Sources: Sanborn 1950, 1952)

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By 1965, two apartment buildings on the block that fronted Oak Street and the gas station were demolished, and the remaining buildings on the block/project site were demolished between 1965 and 1968 (**compare Plate 3 and Plate 4**). The majority of the project site block was excavated for the BART tunnel (Cartwright Aerial Surveys 1965 May 18; HistoricAerials.com 1968).



Plate 3: 1965 aerial with project site block bound in red box and proposed building footprint shown by dotted line (Source: Cartwright Aerial Surveys 1965 May 18)

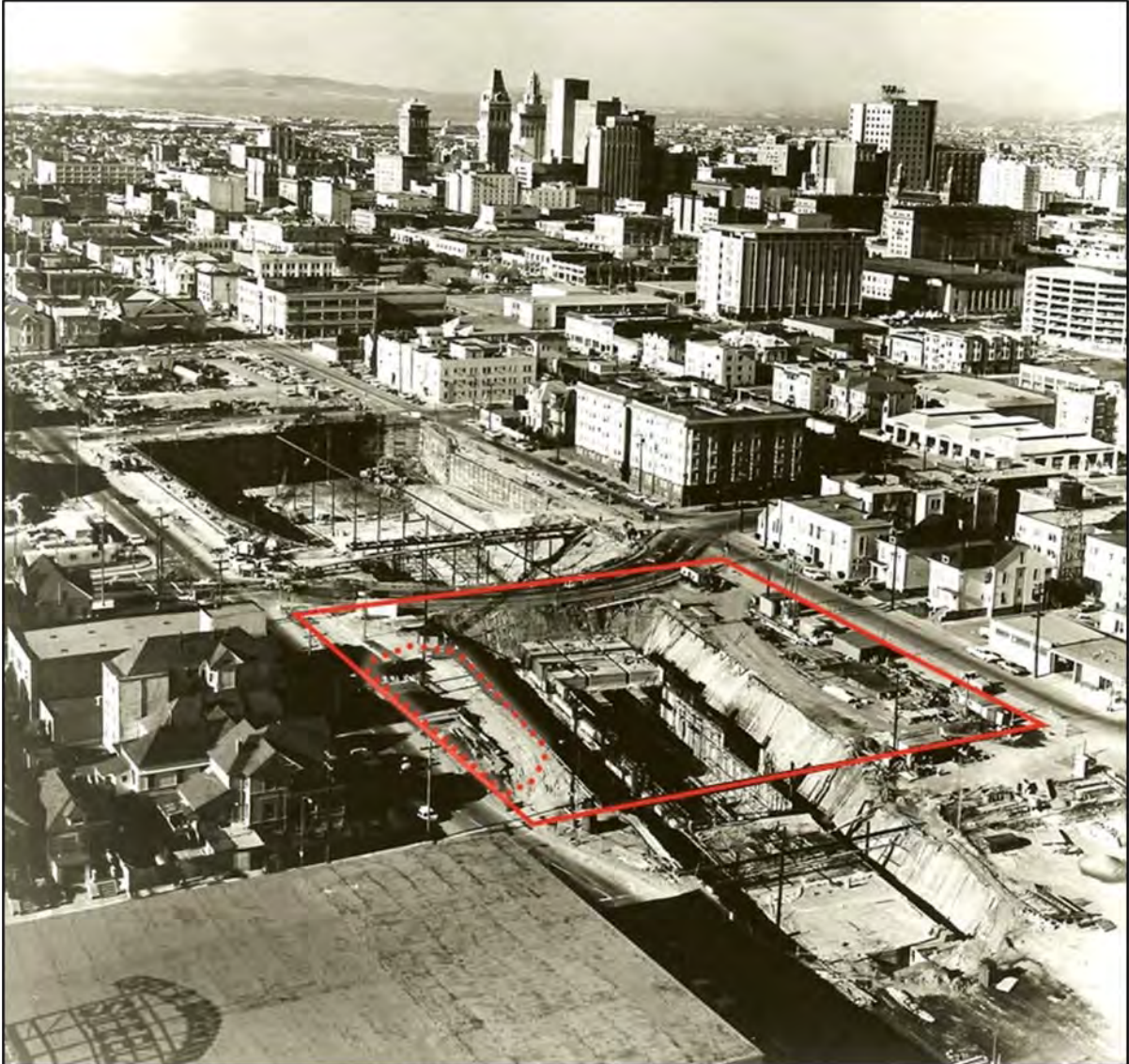


Plate 4: Excavation for Lake Merritt BART complex circa 1968/1969 (BART.gov 2024)

Description of Historic Properties in APE

As a result of background research, survey, and significance evaluation, nine historic properties are within the APE. While four properties along 8th Street south of the project site (MR 05-08) are located within, and contributors to, the NRHP-eligible 7th Street/Harrison Square Residential District (MR 12), the district spans 11 city blocks and was not brought into the APE in its entirety. Additionally, one of the properties, Laney College at 900 Fallon Street (MR 04), is a large, 67-acre campus sited immediately east from the project site. It is outside the scope of work for this project to record and evaluate the entire campus, therefore, for the purpose of this project, the campus will be assumed eligible for listing in the NRHP and treated as a historic property. See **Table 5** and descriptive summaries for each historic property below. For full architectural descriptions and significance evaluations, refer to the DPR 523 forms located in **Attachment A**.

**Table 5
 Historic Properties in the APE**

Map Ref. No.	Primary Number	Address	Name/Description	NRHP Status Code*
01	P-01-004664	94 9 th Street / 900 Oak Street, Oakland	Serbian Orthodox Church of St. George (formerly St. Paul's Episcopal Church)	3S (BERD); 3S (AECOM)
02	n/a	80-82 & 88-90 9 th Street, Oakland	Colonial Revival flat buildings	3S (AECOM)
04	n/a	900 Fallon Street, Oakland	Laney College	7R, but assumed NRHP-eligible for the purpose of this project (AECOM)
05	P-01-004462; Contributor to P-01-004478	51 8 th Street, Oakland	Lougee-Baumgartner House (Primary Contributor to 7 th Street/Harrison Square Residential District)	2D2, 3D (BERD & Reconfirmed by AECOM)
06	P-01-004463; Contributor to P-01-004478	55 8 th Street, Oakland	None (Contributor to 7 th Street/Harrison Square Residential District)	2D2, 3D (BERD & Reconfirmed by AECOM)
07	P-01-004464; Contributor to P-01-004478	59 8 th Street, Oakland	Sullivan House (Contributor to 7 th Street/Harrison Square Residential District)	2D2, 3D (BERD & Reconfirmed by AECOM)
08	P-01-004465; Contributor to P-01-004478	61 8 th Street, Oakland	Josephs House (Contributor to 7 th Street/Harrison Square Residential District)	2D2, 3D (BERD & Reconfirmed by AECOM)
12	n/a	100 9 th Street, Oakland	Madison Park Apartments	1S (BERD)
13	P-01-004478	Multiple	7 th Street/Harrison Square Residential District	3S (BERD)

Notes:

*NRHP Status Code reflects the designation assigned by the OHP

1S = Individually listed in the NRHP

2D2 = Contributor to a multi-component resource determined eligible for NR by consensus through Section 106 process. Listed in the CRHR.

3D = Appears eligible for NRHP as a contributor to a NRHP eligible multi-component resource through survey evaluation

3S = Appears eligible for NR individually through survey evaluation.

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Serbian Orthodox Church of St. George at 94 9th Street / 900 Oak Street – MR 01

The Serbian Orthodox Church of St. George is a one- and two-story modified church building was found eligible for listing in the NRHP in 1985 for its association with the Serbian Orthodox population in the Bay Area; it was known as the “Mother Church for all Serbs in the Bay Area” (**Photograph 1**). The current survey continues to find the at 94 9th Street/900 Oak Street eligible for listing at the local level in the NRHP and the California Register of Historical Resources (CRHR) under Criterion A/1 and retains sufficient integrity to its period of significance, 1926, when the congregation added the rear social hall and classroom space and dedicated the building with its new name. This historic property is located north from the project site.



Photograph 1: Serbian Orthodox Church of St. George at 94 9th Street / 900 Oak Street (MR 01)

80-82 & 88-90 9th Street, Oakland – MR 02

The two, mirror-image, two-story “Classic Box” Colonial Revival style flat buildings were constructed in 1903-1904 and were moved to the property between 1916-1917 (**Photograph 2**). The flats buildings were designated as a local Heritage Property by the Landmarks Board on July 14, 2014. At the time of this survey, the two Colonial Revival flats at 80-82 & 88-90 9th Street also appear to meet the criteria for listing in the NRHP at the local level and the CRHR under Criterion C/3. The two flats retain their overall integrity, despite their relocation between 1916 and 1917. This historic property is located north from the project site.



Photograph 2: 80-82 & 88-90 9th Street / 900 Oak Street (MR 02)

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Laney College at 900 Fallon Street – MR 04 (Assumed eligible for the purpose of this project)

The 67-acre New Formalism-style Laney College campus that was completed in 1971 and consists of roughly two dozen buildings, surrounding a central eight-story triangular, concrete administration building (**Photograph 3**). Buildings located along the campus perimeter are typically two- to three-stories, with exposed concrete and brick exteriors, and flat roofs. The first floors generally feature multi-light windows, entries, or exterior passthroughs with staircases accessing the campus courtyards. For the purpose of this project, this property is assumed eligible for listing in the NRHP and the CRHR for its significance at the local level as a Post-Modern-style, master-planned college campus and appears to retain integrity to its period of significance, 1971, the year the campus was completed. This historic property is located east from the project site.



Photograph 3: Laney College at 900 Fallon Street, main public entry point (MR 04)

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Lougee-Baumgartner House at 51 8th Street – MR 05

This two and three-and-a-half-story, Queen Anne style residence was constructed between 1890 and 1891 (**Photograph 4**). It was inventoried and evaluated on a Historic Resources Inventory (HRI) form by the Oakland Cultural Heritage Survey (OCHS) in 1983 as part of the “7th Street/Harrison Square Residential District” survey efforts. The author of the HRI form stated that the residence was “among Oakland’s most elaborate and most intact surviving large Queen Anne residences, distinguished by its richly varied forms, ornamentation and surface treatments” and identified the building as a “Primary Contributor” to the “7th Street/Harrison Square Residential District” which OCHS concluded was eligible for listing in the NRHP. The property at 51 8th Street was determined a contributor to the NRHP-eligible “7th Street/Harrison Square Residential District,” which is eligible under NRHP Criterion A and C (see description of 7th Street/Harrison Square Residential District significance below in MR 12), in 2009. While changes have been made to the building since then, it retains sufficient integrity to continue to convey its significance as a contributor and is a therefore reconfirmed as a historic property. This historic property is located south from the project site.



Photograph 4: Lougee-Baumgartner House at 51 8th Street (MR 05)

55 8th Street – MR 06

This two-story with an attic, Queen Anne and Colonial Revival transitional style residence was constructed between 1897 and 1898 (**Photograph 5**). It was inventoried and evaluated on an HRI form by the OCHS in 1984 as part of the “7th Street/Harrison Square Residential District” survey efforts. The author of the HRI form stated that the residence was a contributor to the “Seventh Street/Harrison Square Residential District” “for its architecture and history” which OCHS concluded was eligible for listing in the NRHP. The property at 55 8th Street was determined a contributor to the NRHP-eligible “7th Street/Harrison Square Residential District,” which is eligible under NRHP Criterion A and C (which is eligible under NRHP Criterion A and C (see description of 7th Street/Harrison Square Residential District significance below in MR 12), in 2009. Minimal changes have been made to the building since then (see B6), and it retains sufficient integrity to continue to convey its significance as a contributor and is a therefore reconfirmed as a historic property. This historic property is located south from the project site.



Photograph 5: 55 8th Street (MR 06)

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Sullivan House at 59 8th Street – MR 07

This two-story with an attic, Queen Anne style residence was constructed in 1896 (**Photograph 6**). It was inventoried and evaluated on an HRI form by the OCHS in 1984 as part of the “7th Street/Harrison Square Residential District” survey efforts. The author of the HRI form stated that the residence was a contributor to the “Seventh Street/Harrison Square Residential District” “for its architecture and history” which OCHS concluded was eligible for listing in the NRHP. The property at 59 8th Street was determined a contributor to the NRHP-eligible “7th Street/Harrison Square Residential District,” which is eligible under NRHP Criterion A and C (which is eligible under NRHP Criterion A and C (see description of 7th Street/Harrison Square Residential District significance below in MR 12), in 2009. It does not appear that any changes have been made to the building since then, it retains sufficient integrity to continue to convey its significance as a contributor and is a therefore reconfirmed as a historic property. This historic property is located south from the project site.



Photograph 6: Sullivan House at 59 8th Street (MR 07)

Josephs House at 61 8th Street – MR 08

This three-story with an attic, Queen Anne style residence was constructed between 1892 and 1893 (**Photograph 7**). It was inventoried and evaluated on an HRI form by the OCHS in 1984 as part of the “7th Street/Harrison Square Residential District” survey efforts. The author of the HRI form stated that the residence was a contributor to the “Seventh Street/Harrison Square Residential District” “for its architecture and history” which OCHS concluded was eligible for listing in the NRHP. The property at 61 8th Street was determined a contributor to the NRHP-eligible “7th Street/Harrison Square Residential District,” which is eligible under NRHP Criterion A and C (see description of 7th Street/Harrison Square Residential District significance below in MR 12), in 2009. It does not appear that any changes have been made to the building since then, it retains sufficient integrity to continue to convey its significance as a contributor and is therefore reconfirmed as a historic property. This historic property is located south from the project site.



Photograph 7: Josephs House at 61 8th Street (MR 08)

7th Street/Harrison Square Residential District – MR 12

The “7th Street/Harrison Square Residential District” was recorded in 1985 on HRI sheets as part of the OCHS. The district largely consists of residences constructed between 1889 and 1910 and one park (see **Figure 6** and **Photograph 8**). It is located along five blocks of 7th Street, the cross streets from Harrison to Fallon streets, extending in some places to 8th Street and 6th Street. The district was found eligible for listing in the NRHP in a local survey “as a surviving area of middle- and lower-middle-class housing constructed largely between 1889 and 1910,” but no specific NRHP criteria, period of significance, or character-defining features were identified as part of the significance evaluation. Based on the themes and built dates of the buildings recorded within in the district and the historic themes in (in order of importance) of architecture, social/ education, exploration/settlement, and economic/industrial, the district is assumed significant under NRHP Criterion A for its important association within the residential growth of Oakland during the 19th and early 20th centuries, and under NRHP Criterion C as concentration of Italianate, Queen Anne, and Colonial Revival style lower-and-middle-class housing. The period of significance of the district appears to be from the 1860s when the earliest buildings were constructed to 1910 when most of the lots were built out. Character-defining features of the district are assumed to consist of the extant contributing buildings, their size and scale, late 19th and early 20th century architectural styles and details, and the historic street grid pattern. Surveyors in 1984 identified two-thirds of the buildings in the district boundary (79) as contributors, 39 properties as non-contributors, and 5 vacant lots. The district is located south and southwest from the project site.



Photograph 8: Four Contributing Buildings to the 7th Street/Harrison Square Residential District (on left half of frame) (MR 12)

Madison Park Apartments at 100 9th Street - MR 13

The Madison Park Apartments, a five-story building with 98 apartment units and a full basement, is one of the largest surviving early wood apartment buildings in the San Francisco Bay Area (**Photograph 9**). Originally constructed in 1908 by Charles MacGregor, the building was rehabilitated in 1995 to repair damage from the 1989 Loma Prieta earthquake (Madison Park Apartments 2017). The property is listed in the NRHP for its architectural significance, although the OHP assigned the property NRHP status code 7J (Undetermined) in 1993, following the earthquake. While not stated on the NRHP nomination, the building appears to be eligible under Criterion C with a period of significance of 1908 and Architecture as the NRHP area of significance. This historic property is located northwest from the Project site.



Photograph 9: Madison Park Apartments (MR 13)

Assessment of Effects

The Criteria of Adverse Effect pursuant to 36 C.F.R. 800.5(a)(1) were applied to assess effects of the undertaking on historic properties within the APE:

An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the NRHP. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative.

Several examples of adverse effects are listed in 36 C.F.R. 800.5(a)(2), including:

- (i) Physical destruction of or damage to all or part of the property*
- (ii) Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary's standards for the treatment of historic properties (36 C.F.R. part 68) and applicable guidelines.*
- (iii) Removal of the property from its historic location*
- (iv) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance*
- (v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features*
- (vi) Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization*
- (vii) Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance*

Application of Criteria of Adverse Effects on Built Environment Historic Properties

Nine built environment historic properties are within the APE, including a portion of a NRHP-eligible district (MR 13), and the Laney College campus (MR 4) that is assumed eligible for the purpose of this project.

(i) Physical destruction of or damage to all or part of the property

The proposed project be contained within the block bound by Fallon, 8th, Oak, and 9th Streets (APN 001-0169-001-00) and will not physically destroy or damage any part of the nine adjacent historic properties in the APE.

(ii) Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary's standards for the treatment of historic properties (36 C.F.R. part 68) and applicable guidelines.

Not applicable. The proposed project is on an empty parking lot and is not a historic property.

(iii) Removal of the property from its historic location

No historic properties within the APE will be relocated as part of the proposed project.

(iv) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance

The proposed project would not change the use of any of the historic properties within the APE. Of the nine historic properties in the APE, no physical features of the immediate setting were identified as character-defining features.

(v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features

The proposed project would introduce a new 7-story, approximately 85-foot tall, 79,318-square-foot building on the southern portion of the existing 0.26-acre parcel which is currently used as a parking lot. While the new building would introduce new visual, atmospheric, and audible elements both during construction, and after completion, since the 1960s, the setting of the historic properties in the APE has changed dramatically. These changes include the demolition of single-family and multi-family residential dwellings in a two-block area (the present BART parking area and the current Madison Square Park) in the 1960s, removal of Caroline Square (immediately west from the project site) in the 1960s, creation of Madison Square Park in the late 1960s, construction of the LMA Building in 1969, construction of the Joseph P. Bort MetroCenter between 1982 and 1984, and finally the demolition of the LMA Building in 2009.

Given the extensive alterations to the existing urban fabric within the APE since the 1960s, particularly on the sites associated with the Lake Merritt BART station, the proposed project would not diminish the historic integrity of any of the nine historic properties in the APE to a level where could no longer convey their historic significance.

(vi) Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization

Not applicable.

(vii) Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance

Not applicable.

Potential Effects to Archaeological Resources

No previously recorded archaeological resources were identified in or adjacent to the APE as a result of background research. However, the APE is sensitive for precontact and historic-period resources due to the location being only 200 to 400 feet west of the historic-era tidal marsh shoreline and the resources that that environment offered to precontact people, the presence of precontact burial (P-01-10796) identified nearby the APE, as well as the APE being the previous location of the Oakland Cemetery for a brief period in the 1850s. Historic-period burials were removed in 1857. The surface sensitivity for potentially encountering archaeological resources in the APE is reduced from moderate to low due to the various land uses over time, including the construction and removal of residential buildings and the excavation and construction of the BART station adjacent to the APE. Any resources that may be encountered would have the potential to be eligible for the NRHP and may be adversely affected by the undertaking.

The greatest potential for encountering intact archaeological resources is in the location of the proposed foundation piles needed to support the concrete slab. Buried sensitivity for potential archaeological resources is mapped as high in the APE. Maximum excavation for building foundation pilings is 130 feet below ground surface for piles approximately 70 to 110 feet in length.

The following are standard conditions of approval (SCAs) that relate to cultural resources imposed by the City of Oakland and included as part of the City's approval of the plans for the proposed project. The following applies to construction in the event of accidental discovery of buried materials.

Standard Condition of Approval: Archaeological and Paleontological Resources – Discovery During Construction

Pursuant to CEQA Guidelines section 15064.5(f), in the event that any historic or prehistoric subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the project applicant shall notify the City and consult with a qualified archaeologist or paleontologist, as applicable, to assess the significance of the find. In the case of discovery of paleontological resources, the assessment shall be done in accordance with the Society of Vertebrate Paleontology standards. If any find is determined to be significant, appropriate avoidance measures recommended by the consultant and approved by the City must be followed unless avoidance is determined unnecessary or infeasible by the City. Feasibility of avoidance shall be determined with consideration of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery, excavation) shall be instituted. Work may proceed on other parts of the project site while measures for the cultural resources are implemented.

In the event of data recovery of archaeological resources, the project applicant shall submit an Archaeological Research Design and Treatment Plan (ARDTP) prepared by a qualified archaeologist for review and approval by the City. The ARDTP is required to identify how the proposed data recovery program would preserve the significant information the archaeological resource is expected to contain. The ARDTP shall identify the scientific/historic research questions applicable to the expected resource, the data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. The ARDTP shall include the analysis and specify the curation and storage methods. Data recovery, in general, shall be limited to the portions of the archaeological resource that could be impacted by the proposed project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practicable. Because the intent of the ARDTP is to save as much of the archaeological resource as possible, including moving the resource, if feasible, preparation and implementation of the ARDTP would reduce the potential adverse impact to less than significant. The project applicant shall implement the ARDTP at his/her expense.

In the event of excavation of paleontological resources, the project applicant shall submit an excavation plan prepared by a qualified paleontologist to the City for review and approval. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and/or a report prepared by a qualified paleontologist, as appropriate, according to current professional standards and at the expense of the project applicant.

Standard Condition of Approval: Archaeologically Sensitive Areas – Pre-Construction Measures

The project applicant shall implement Provision A (Intensive Pre-Construction Study) and Provision B (Construction ALERT Sheet) concerning archaeological resources. If Native American archaeological resources are identified or suspected in a project site, the City shall consult with a Native American representative(s) registered with the Native American Heritage Commission that is traditionally and culturally affiliated with the geographic area as described in Public Resources Code Section 21080.3.

Provision A: Intensive Pre-Construction Study.

The project applicant shall retain a qualified archaeologist to conduct a site-specific, intensive archaeological resources study for review and approval by the City prior to soil-disturbing activities occurring on the project site. The purpose of the site-specific, intensive archaeological resources study is to identify early the potential presence of history-period archaeological resources on the project site. At a minimum, the study shall include:

- a. Subsurface presence/absence studies of the project site. Field studies may include, but are not limited to, auguring and other common methods used to identify the presence of archaeological resources.
- b. A report disseminating the results of this research.
- c. Recommendations for any additional measures that could be necessary to mitigate any adverse impacts to recorded and/or inadvertently discovered cultural resources.

If the results of the study indicate a high potential presence of historic-period archaeological resources on the project site, or a potential resource is discovered, the project applicant shall hire a qualified archaeologist to monitor any ground disturbing activities on the project site during construction and prepare an ALERT sheet pursuant to Provision B below that details what could potentially be found at the project site. Archaeological monitoring would include briefing construction personnel about the type of artifacts that may be present (as referenced in the ALERT sheet, required per Provision B below) and the procedures to follow if any artifacts are encountered, field recording and sampling in accordance with the Secretary of Interior's Standards and Guidelines for Archaeological Documentation, notifying the appropriate officials if human remains or cultural resources are discovered, and preparing a report to document negative findings after construction is completed if no archaeological resources are discovered during construction.

Provision B: Construction ALERT Sheet.

The project applicant shall prepare a construction "ALERT" sheet developed by a qualified archaeologist for review and approval by the City prior to soil-disturbing activities occurring on the project site. The ALERT sheet shall contain, at a minimum, visuals that depict each type of artifact that could be encountered on the project site. Training by the qualified archaeologist shall be provided to the project's prime contractor, any project subcontractor firms (including demolition, excavation, grading, foundation, and pile driving), and utility firms involved in soil-disturbing activities within the project site.

The ALERT sheet shall state, in addition to the basic archaeological resource protection measures contained in other standard conditions of approval, all work must stop and the City's Environmental Review Officer contacted in the event of discovery of the following cultural materials: concentrations of shellfish remains; evidence of fire (ashes, charcoal, burnt earth, fire-cracked rocks); concentrations of bones; recognizable Native American artifacts (arrowheads, shell beads, stone mortars [bowls], humanly shaped rock); building foundation remains; trash pits, privies (outhouse holes); floor remains; wells; concentrations of bottles, broken dishes, shoes, buttons, cut animal bones, hardware, household items, barrels, etc.; thick layers of burned building debris (charcoal, nails, fused glass, burned plaster, burned dishes); wood structural remains (building, ship, wharf); clay roof/floor tiles; stone walls or footings; or gravestones. Prior to any soil-disturbing activities, each contractor shall be responsible for ensuring that the ALERT sheet is circulated to all field personnel, including machine operators, field crew, pile drivers, and supervisory personnel. The ALERT sheet shall also be posted in a visible location at the project site.

Standard Condition of Approval: Human Remains – Discovery During Construction

Pursuant to CEQA Guidelines section 15064.5(e)(1), in the event that human skeletal remains are uncovered at the project site during construction activities, all work shall immediately halt and the project applicant shall notify the City and the Alameda County Coroner. If the County Coroner determines that an investigation of the cause of death is required or that the remains are Native

American, all work shall cease within 50 feet of the remains until appropriate arrangements are made. In the event that the remains are Native American, the City shall contact the California Native American Heritage Commission (NAHC), pursuant to subdivision (c) of section 7050.5 of the California Health and Safety Code. If the agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with specific steps and timeframe required to resume construction activities. Monitoring, data recovery, determination of significance, and avoidance measures (if applicable) shall be completed expeditiously and at the expense of the project applicant.

Mitigation Measures

Mitigation measures in addition to the standard conditions of approval are also recommended to address the interests raised during Native American tribal consultation. These measures include sensitivity training for all individuals associated with earth-moving activities, a qualified archaeological monitor be present during earth-moving activities, and a qualified Native American monitor also be present during earth-moving activities.

Conclusion

The project, which is subject to Section 106 review, has been analyzed for potential effects on historic properties in the APE. This memorandum presents a description of the undertaking, the APE, the methodology used to identify and evaluate historic properties within the APE, the affected historic properties, and an assessment of potential effects resulting from the undertaking. Background research and survey did not identify archaeological resources in the APE but identified low to high potential for precontact and historic-period archaeological resources to be present in the vertical APE.

As a result of background research, survey, and significance evaluation, nine historic properties were identified in the APE. Because the project would not alter, directly or indirectly, any of the characteristics of the historic properties that qualify them for inclusion in the NRHP, a finding of **No Adverse Effect** with (36 CFR 800.5(b)) is recommended.

The APE was determined to be archaeologically sensitive. The Section 106 finding of **No Adverse Effect** is conditional upon the implementation of the SCAs and mitigation measures identified by the City of Oakland.

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Attachments

Figures

DPR 523 Forms

FIGURES

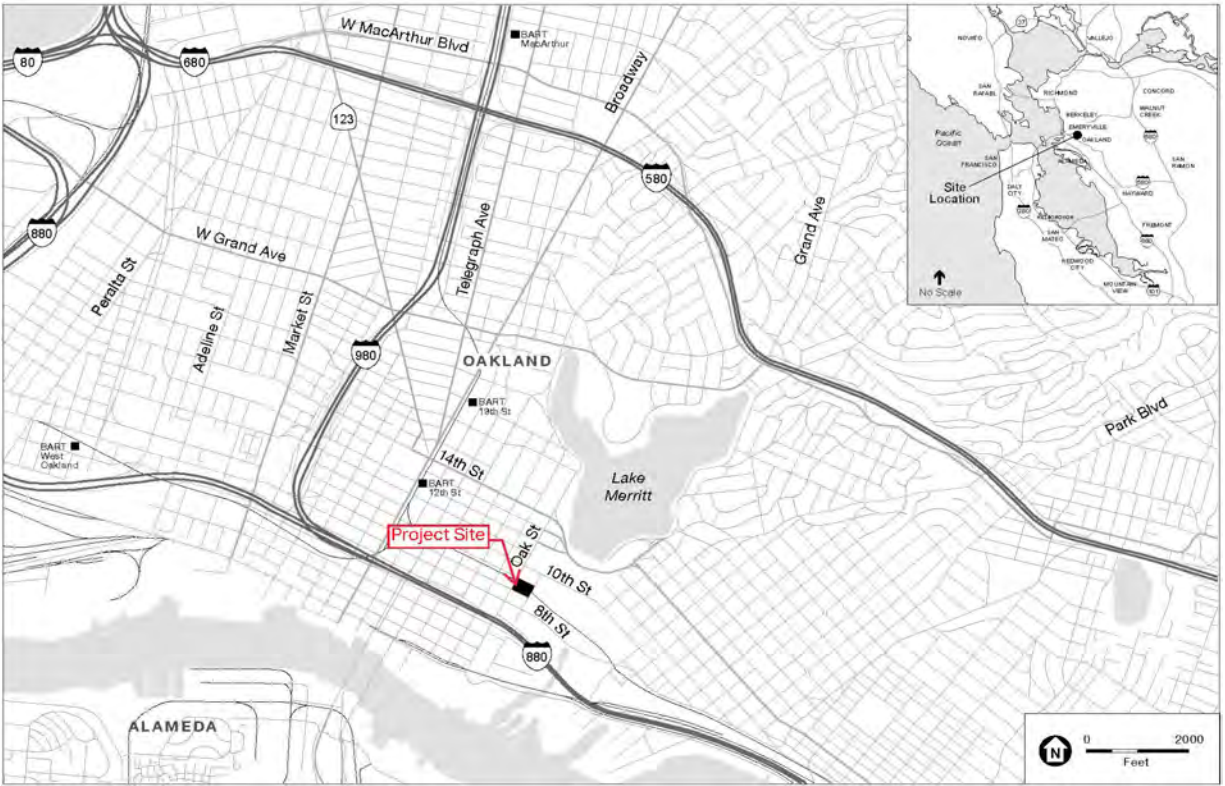


Figure 1: Project Location

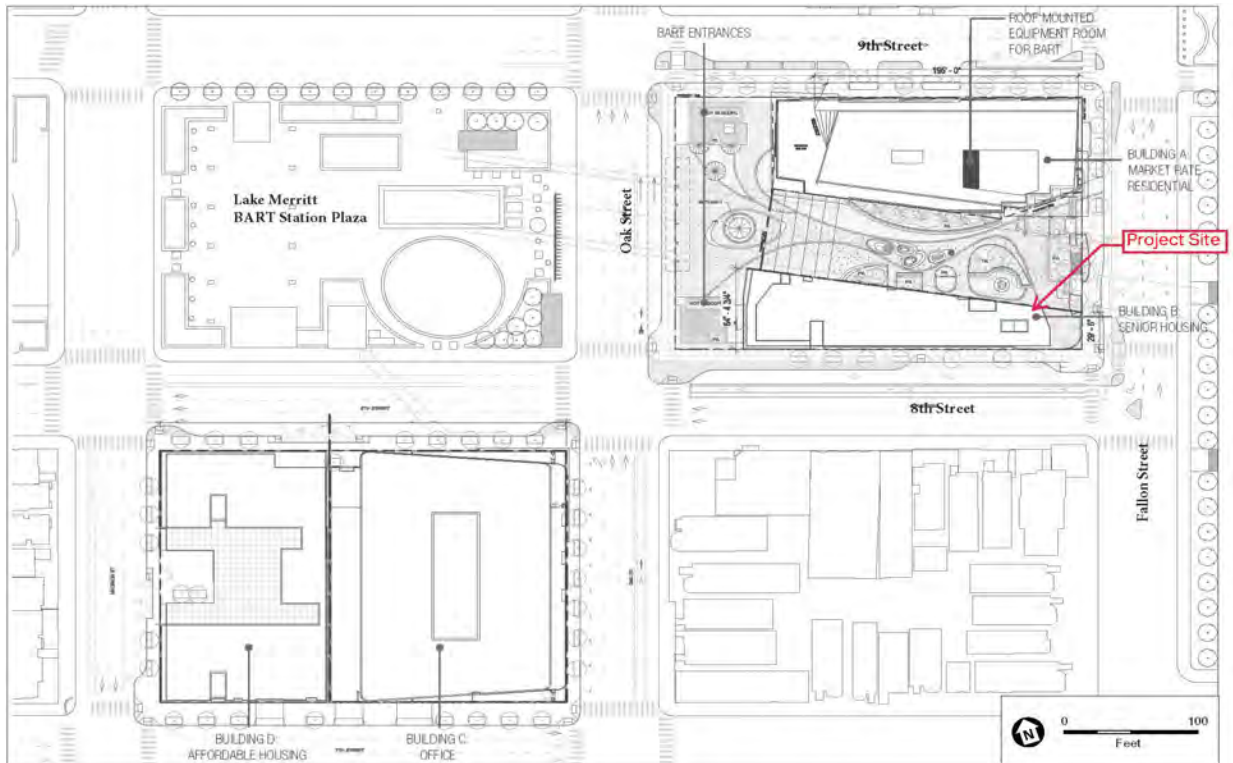


Figure 2: Project Site Plan



BIRD-EYED VIEW LOOKING NORTH WEST



STREET VIEW, 8TH ST. AND FALLON ST



BIRD-EYED VIEW LOOKING SOUTH EAST



STREET VIEW, 8TH ST. AND OAK ST

Figure 3: Building B Conceptual Renderings



Figure 4: Level 1 - Ground Floor Plan

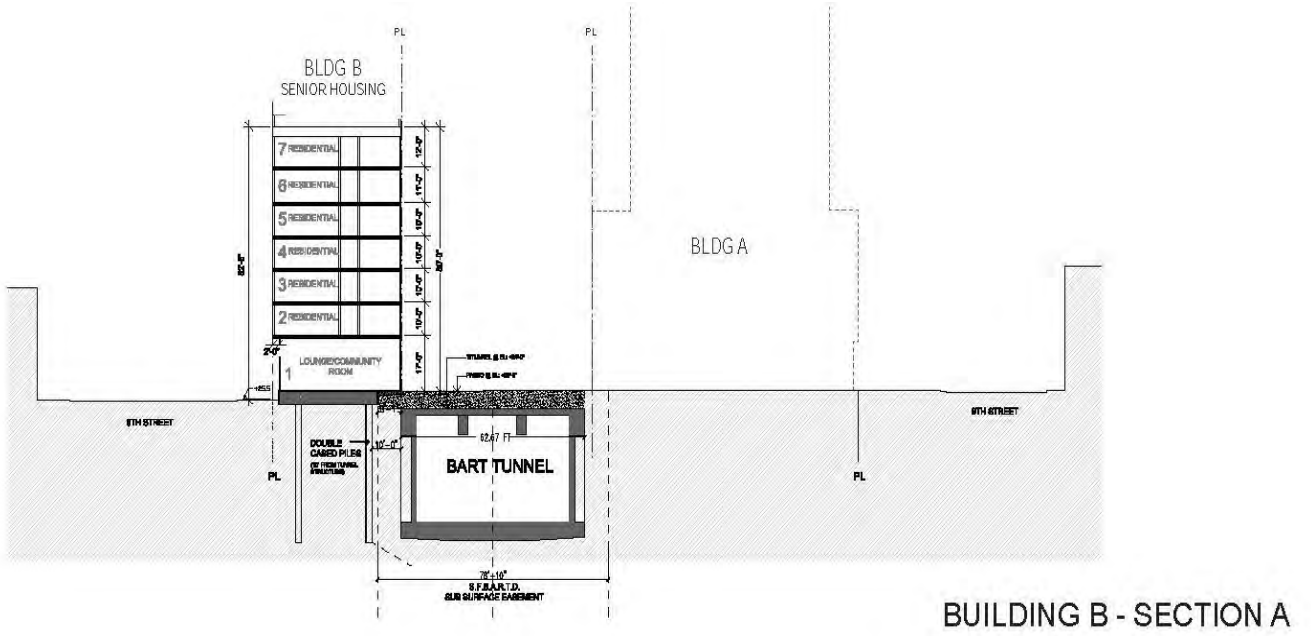


Figure 5: Building B Section

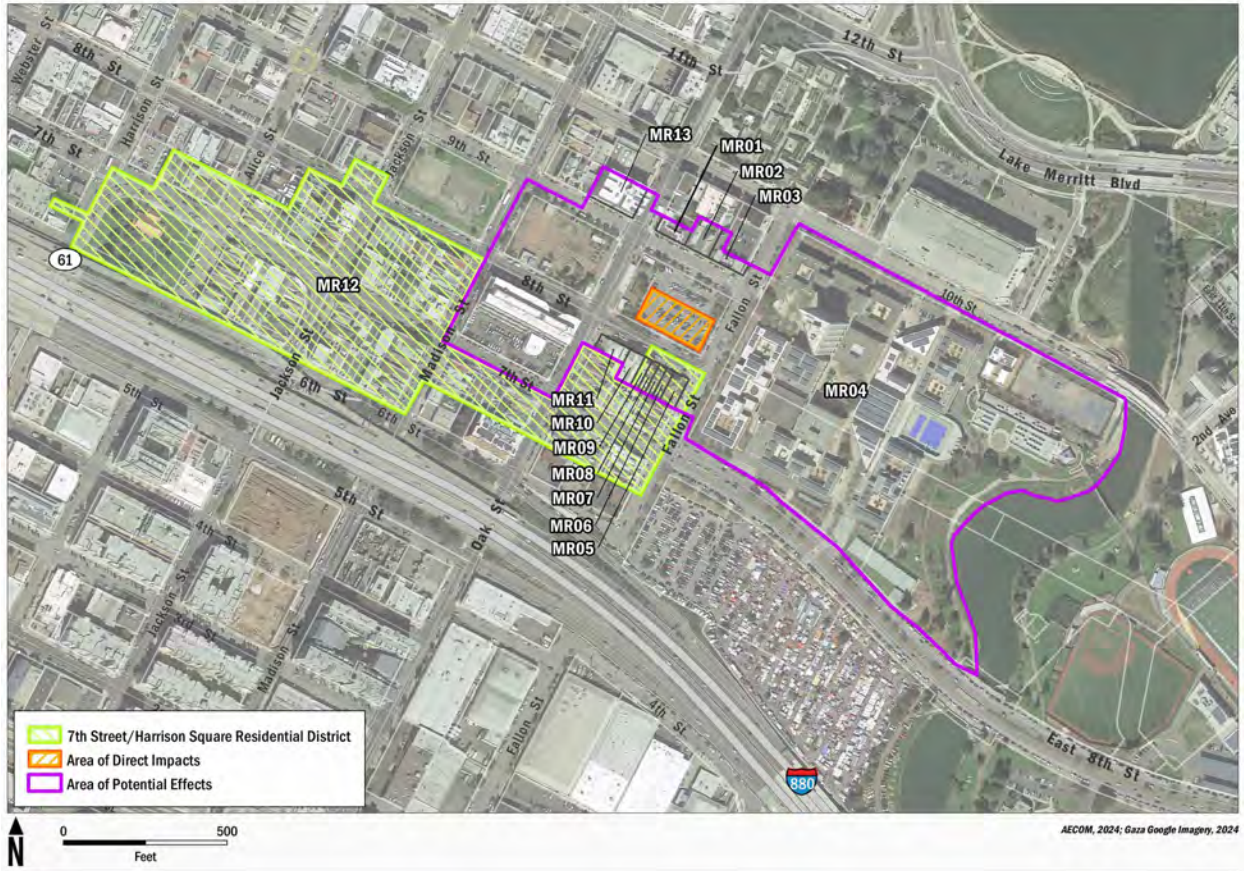


Figure 6: APE Map with Map Reference (MR) Numbers

DPR 523 FORMS

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 3S

Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 7

*Resource Name or #: (Assigned by recorder) Serbian Orthodox Church of St. George, MR 01

P1. Other Identifier: 94 9th Street / 900 Oak Street

*P2. Location: Not for Publication Unrestricted *a. County: Alameda

*b. USGS 7.5' Quad Oakland West, CA Date 2021

c. Address 94 9th Street / 900 Oak Street City Oakland Zip 94607

d. UTM: (Give more than one for large and/or linear resources) Zone 10S ; 564733.13 mE / 4183623.09 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Assessor's Parcel Number (APN): 002 009300900

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Serbian Orthodox Church of St. George, located at 94 9th Street / 900 Oak Street was originally constructed between 1910 and 1911 and is sited at the northeast intersection of 9th and Oak streets (**Photograph 1**). The Lake Merritt Bay Area Rapid Transit (BART) System parking lot is immediately south of the property and the BART station is immediately southwest (see **Sketch Map**). The church building has a rectangular plan and rests on a slab concrete foundation. Between 1924 and 1926, new owners heavily modified the building with a two-story rear addition that faces 9th Street and non-originally stucco siign (**Photograph 1**). The building is wood frame that has been clad in stucco siding on the western-facing façade and the south side, and the east and north sides feature horizontal wood boards (**Photograph 2**). The building is topped with a gable and flat roof system, clad in built-composition shingles and a belt cornice underscores the flat roof portion. Fenestration details include aluminum sash and lancet windows. The western-facing facade is characterized by a U-shaped plan, composed of a shed roof that is interrupted by gabled dormers. The hollow of the U-shaped plan is filled with a low-walled partial porch entry that is accessed by a broad flight of stairs. (SEE CONTINUATION SHEET).

*P3b. Resource Attributes: (List attributes and codes) HP16 – Religious Building

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing



P5b. Description of Photo: (view, date, accession #) Photograph 1. View of the original chapel facade and south elevation, camera facing east; February 29, 2024

*P6. Date Constructed/Age and Source:
 Historic Prehistoric Both
1910-1911; 1924-1926 (OCHS 1985)

*P7. Owner and Address:
Serbian Orthodox Church of St. George
94 9th Street/ 900 Oak Street
Oakland, CA 94607

*P8. Recorded by: (Name, affiliation, address)
H. Miller, AECOM
300 Lakeside Drive, Suite 400
Oakland, CA 94612

*P9. Date Recorded: March 1, 2024

*P10. Survey Type: Intensive

*P11. Report Citation: AECOM. "East Bay Asian Local Development Corporation, Lake Merritt BART Affordable Senior Housing – Section 106 of the National Historic Preservation Act Review." Prepared for City of Oakland, 2024.

*Attachments: NONE Location Map Continuation Sheet Building, Structure, and Object Record Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record Artifact Record Photograph Record Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) Serbian Orthodox Church of St. George, MR 01

B1. Historic Name: Chapel of the Good Samaritan; St. Paul's Episcopal Church

B2. Common Name: Serbian Orthodox Church of St. George

B3. Original Use: Religious Building

B4. Present Use: Religious Building

*B5. Architectural Style: Arts and Crafts

*B6. Construction History: (Construction date, alterations, and date of alterations) Original chapel building constructed between 1910 and 1911. Between 1924 and 1926, rear two story addition added; includes a secondary entrance that faces 9th Street and operates as a social hall and classroom space. Modern roof shingles, exterior stucco cladding, and aluminum sash fenestration details added sometime prior to 1985 (OCHS 1985)

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features: n/a

B9a. Architect: unknown b. Builder: unknown

*B10. Significance: Theme Religion Area Oakland, Alameda County

Period of Significance 1926 Property Type Church Applicable Criteria NRHP A/CRHR 1

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

On June 30, 1985, the Oakland Cultural Heritage Survey inventoried and evaluated the Serbian Orthodox Church of St. George for potential eligibility for listing on the National Register of Historic Places (NRHP). The survey found the church eligible for the NRHP under Criterion A for its association with the Serbian Orthodox population in the Bay Area; it was known as the "Mother Church for all Serbs in the Bay Area." The current survey continues to find the at 94 9th Street/900 Oak Street eligible for listing at the local level in the NRHP and the California Register of Historical Resources (CRHR) under Criterion A/1 and retains sufficient integrity to its period of significance, 1926, when the congregation added the rear social hall and classroom space and dedicated the building with its new name. Therefore, the building is a historical resource for purposes of the California Environmental Quality Act (CEQA) and a historic property under Section 106 of the National Historic Preservation Act (NHPA). At the local level Oakland Cultural Heritage Survey (OCHS) assigned an individual property rating of "B+3", which means Major Importance: Especially fine architectural example, major historical importance, not in a historic district. The church is also designated as a City of Oakland Heritage Property because it was added to the City's Preservation Study List in 2000 (OCHS 2000). (SEE CONTINUATION SHEET)

B11. Additional Resource Attributes: (List attributes and codes)

*B12. References: SEE CONTINUATION SHEET

B13. Remarks:

*B14. Evaluator: E. Mackall, AECOM

*Date of Evaluation: March 2024

(This space reserved for official comments.)



Page 3 of 7

*Resource Name or # (Assigned by recorder) Serbian Orthodox Church of St. George, MR 01

Recorded by: H. Miller *Date: February 29, 2024

Continuation Update

***P3a. Description (continued):**

The north arm includes a wood single-entry door, while the south arm includes a wood double-entry door; each entry is covered by a mansard-like awning. The porch entry is enclosed with a cross-topped arch, gate and fence constructed of wrought iron; it is flanked on each side by an aluminum sash window. Other details include a wood-framed prayer box on the exterior of the façade, exterior light fixtures, two air vents near the foundation, and a plaque in the porch entry that reads, "Serbian Orthodox Church – St. George – Dedicated 1926" (**Photographs 3 and 4**).

The south side features details primarily added between 1924 and 1926; although, it includes some original details from the 1910 to 1911 construction (**Photograph 5**). These include three original stained-glass lancet windows at the west end of the elevation; they are flanked on each side by fixed sash windows of varying size. Other details include wood surrounds on the fenestration, as well as an air vent near the foundation. The east half of the elevation is characterized by a recessed arch entrance adorned with a stucco-clad keystone, accentuated by an exterior light fixture. The fenestration pattern includes aluminum sash windows on both the second and ground levels, surrounded by wood, with three sets of these windows appearing in pairs. The north side is not visible to the public right-of-way. The rear (east) side is the exposed horizontal wood siding and is also the location of a steel-framed fire escape system (**Photograph 2**).

***B10. Significance (continued):**

HISTORIC CONTEXT

Property Specific

The following context was excerpted and adapted from the Historic Resource Inventory (HRI) form authored by the Oakland Cultural Heritage Survey on June 30, 1982. Please see attached HRI for further details.

The Serbian Orthodox Church of St. George was historically known as the "Mother Church for all Serbs in the Bay Area." It has always been the focus of Serbian ethnic activities in the East Bay. The organization traces back to a 1916 Oakland Serbian Orthodox group called "Education," for learning and cultural appreciation, affiliated with a central office in Sarajevo, Bosnia. In 1923, it reorganized to meet local needs, especially for a weekly school teaching Serbian language and culture. Early in 1924, the group purchased the present property from St. Paul's Episcopal Church, which had constructed the original church sanctuary, small office, and sacristy building to house the Mission of the Good Samaritan, which St. Paul's organized and supported. F. E. Brigham's large Queen Anne residence had occupied the site earlier. The stained glass of the three lancet windows seem to date from this pre-Serb period, as its iconography is more Episcopal than Orthodox.

The name St. George was chosen for the Serbian Orthodox Church at the time of incorporation in November 1924. Immediately it was decided the physical needs demanded a major addition for social hall, kitchen, classrooms, and meeting rooms. Which the addition built (see **Plate 1**), and the debt paid off, the church was consecrated on December 19, 1926 by Bishop Mardarjie, the first Serbian Hierarch in the United States. Over a hundred people attended the dedication banquet. Through the years the people of the church have kept alive and transmitted their Serbian heritage by using the language and the Cyrillic alphabet, by celebrating their country's special religious rites, by maintaining strong in-group social ties, by participating in the world-wide politics of their religion and country, and by enjoying cultural activities such as the Serbian Singing Society, a tamburitza-playing band, and shared ethnic recipes. According to the Harvard Encyclopedia of American Ethnic Groups, Serbs make up 40% of the population of Yugoslavia and are distinguished from their fellow South Slavs by their own branch of Orthodox Christianity (as opposed to the Roman Catholicism of the Croats) and by their use of Cyrillic and the Julian calendar. In the United States, the predominant force holding Serbs together is their church which sustains a strong community life in a relatively small group of Serbian centers, of which St. George's is one. The first Serb arrived in San Francisco before the Gold Rush, and the first purely Serbian Church in the United States was the one in Jackson, California (1893). The Serbian Orthodox Church of St. George was consecrated the same year as the first Serbian-Orthodox Bishop in the U.S. was selected. The church is the nucleus of the organization making up Serbian-American social life.

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*Resource Name or # (Assigned by recorder) Serbian Orthodox Church of St. George, MR 01

Recorded by: H. Miller *Date: February 29, 2024

Continuation Update



Plate 1. Undated pre-1926 photograph of the church building (Source: OCHS 2006).

Lake Merritt Bay Area Rapid Transit (BART)

The following context for the immediate setting of the property was excerpted and adapted from "Chapter 9: Historic Resources" in the Lake Merritt Station Area Plan, Existing Conditions and Key Issues Report, June 2013.

"By the early 1960s, major public-works projects began to transform the three blocks [north and northwest from the property at 55 8th Street]. The biggest project was the new Bay Area Rapid Transit District (BART), created by the California Legislature in 1957 to provide a fixed-rail mass transit system. BART won voter approval in three Bay Area counties to operate, one of them being Alameda County, which includes Oakland as the county seat.

All of the buildings and the Madison Square Park infrastructure on the three blocks bounded by Jackson Street on the west, 9th Street on the north, Fallon Street on the east, and 8th Street on the south were demolished between 1965 and 1968 to construct the Lake Merritt BART station (Cartwright Aerial Surveys 1965 May 18; HistoricAerials.com 1968). Construction of the station began in the late 1960s and officially opened in 1972. The six-story BART administrative and engineering headquarters building at 800 Madison Street was officially open for business in December of 1971. One significant change was moving Madison Square Park one block to the west (Jackson to Madison between 8th and 9th Streets), giving BART two contiguous blocks to establish its headquarters building and a parking lot (Madison to Fallon between 8th and 9th Streets) and building the Lake Merritt Station underground.

In 2006, the BART headquarters building above the Lake Merritt Station was deemed "at risk" if a major earthquake struck. Subsequently, the six-story building was dismantled in 2009 and operational headquarters moved to the Kaiser complex along Lakeside Drive. That move has provided an opportunity for BART, the City of Oakland, Laney College, and the surrounding community, including Chinatown, to envision redeveloping the three Madison Square blocks."

EVALUATION

Under NRHP Criterion A or CRHR Criterion 1, the Serbian Orthodox Church of St. George appears to have significant association with important historic events. The building on this parcel, constructed between 1910 and 1911, and altered between 1924 and 1926, is associated with the Serbian-Orthodox population in Oakland and the East Bay. Research indicated the people became known as the "Mother Church of Serbs in the East Bay," and also operated as the nucleus of Serbian-American social life in Oakland. As a result, the building played a distinct and important role in the Serbian population and their religious affiliations. Therefore, Serbian Orthodox Church of St. George meets eligibility

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*Resource Name or # (Assigned by recorder) Serbian Orthodox Church of St. George, MR 01

Recorded by: H. Miller *Date: February 29, 2024

Continuation Update

for inclusion in the NRHP and CRHR under Criterion A/1.

Under NRHP Criterion B or CRHR Criterion 2, the Serbian Orthodox Church of St. George is not significant for any associations with the lives of persons important to history. Research did not indicate that any individuals, such as related to the development and use of this building made demonstrably important contributions to history at the local, state, or national level.

Under NRHP Criterion C or CRHR Criterion 3, the Serbian Orthodox Church of St. George is not significant because it is not an important example of a type, period, or method of construction. The heavily modified church building lacks distinctive design that would merit listing on the NRHP and CRHR. There is no master architect or builder associated with this building; therefore, it is not significant as the work of a master.

Under NRHP Criterion D or CRHR Criterion 4, the Serbian Orthodox Church of St. George is not significant as a source (or likely source) of important information regarding history. It does not appear to have any likelihood of yielding important information about historic construction materials or technologies.

Integrity Analysis and Conclusion

Buildings, structures, objects, sites, and districts listed in, eligible for listing in, or that appear eligible for listing in the NRHP are considered historic properties under the regulations for Section 106 of the National Historic Preservation Act (NHPA). Eligibility for listing buildings, structures, objects, sites, and districts (i.e., resources) in the NRHP rests on twin factors of historic significance and integrity. A resource must have both significance and integrity to be considered eligible.

Integrity is determined through applying seven factors to the historic resource: location, design, setting, workmanship, materials, feeling, and association. These seven can be roughly grouped into three types of integrity considerations. Location and setting relate to the relationship between the property and its environment. Design, materials, and workmanship, as they apply to historic buildings, relate to construction methods and architectural details. Feeling and association are the least objective of the seven criteria and pertain to the overall ability of the property to convey a sense of the historical time and place in which it was constructed.

The Serbian Orthodox Church of St. George meets the criteria of significance for eligibility for listing in the NRHP and CRHR under Criteria A/1 at the local level and retains sufficient historic integrity to convey its significance. The building remains in its original location, the setting of which is in the modified area south of Lake Merritt. The property is still used as a Serbian church and social center, so it retains integrity of association. It retains a high level of integrity of design, materials, and workmanship because there appear to be no alterations to the building since it was altered by the Serbian church and dedicated the building with its new name. And finally, in terms of feeling, the most subjective of integrity considerations, the property continues to look like a building of its period.

In conclusion, the Serbian Orthodox Church of St. George appears eligible for listing in the NRHP and CRHR under Criteria A/1 at the local level and retains sufficient integrity to convey its significance. Therefore, the building is a historical resource for purposes of the California Environmental Quality Act (CEQA) and a historic property under Section 106 of the National Historic Preservation Act (NHPA). The boundary for the historic property/historical resource is the legal parcel.

***B12. References (continued):**

Oakland Cultural Heritage Survey. 1982. "Historic Resources Inventory form: Serbian Orthodox Church of St. George." On file at City of Oakland, Bureau of Planning.

_____. 2000. "City of Oakland Community & Economic Development Agency: Preservation Study List." January 5. On file at City of Oakland, Bureau of Planning.

_____. 2006. Email correspondence transmitting photograph of church building from Anthony Bruce at Berkeley Heritage to the OCHS Office. August 8. On file at City of Oakland, Bureau of Planning.

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*Resource Name or # (Assigned by recorder) Serbian Orthodox Church of St. George, MR 01

Recorded by: H. Miller *Date: February 29, 2024

Continuation Update

P5a. Photographs (continued):



Photograph 2. South and east sides; camera facing northwest, February 29, 2024.



Photograph 3. Western-facing façade; camera facing east, February 29, 2024.



Photograph 4. Detail of plaque on the façade of the building, February 29, 2024.



Photograph 5. South side of the building; camera facing north, February 29, 2024.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 3S

Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 6

*Resource Name or #: (Assigned by recorder) 80-82 & 88-90 9th Street, MR 02

P1. Other Identifier: 80-82 & 88-90 9th Street

***P2. Location:** Not for Publication Unrestricted *a. County: Alameda

***b. USGS 7.5' Quad** Oakland West, Ca Date 2021

c. Address 80-82 & 88-90 9th Street City Oakland Zip 94607

d. UTM: (Give more than one for large and/or linear resources) Zone 10S; 564762.66 mE/ 4183612.74 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Assessor's Parcel Number (APN): 002 009300800

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The two mirror-image flat buildings were constructed in 1903-1904 and were moved to the property between 1916-1917 (**Photograph 1**). They are sited mid-block on the north side of 9th Street between Oak Fallon streets. The Lake Merritt Bay Area Rapid Transit (BART) System parking lot is immediately south of the property and the BART station is one-block to the southwest (see **Sketch Map**). A narrow, gated driveway is sited between the two buildings and provides access to a small, flat roof, detached garage. The wood frame, two-story "Classic Box" Colonial Revival style flat buildings have rectangular plans and rest on raised foundations. Exteriors are clad in narrow horizontal wood siding with Corinthian corner pilasters and brick veneer on the foundation of the porch façade. The buildings are topped with cross-hip-and-gable roof systems with moderate overhang and covered in composition shingles. Tall friezes with egg-and-dart details and dentils underscore the roofline and small hipped roof dormers project from the center of the façade roof plane. Dual primary entries with transoms are on the façade, are accessed by concrete and brick stairs, and are protected by a Corinthian column supported, flat roof porch. Windows consist of one-over-one vinyl replacements throughout. Windows on the façade are framed by Corinthian pilasters and a Palladian arranged window on the first story. Shallow, full-height bay windows line the exterior walls that face the shared driveway (**Photograph 1**) and the cross-gable portions of the building are on the outside walls (**Photographs 2 and 3**).

***P3b. Resource Attributes:** (List attributes and codes) HP3 – Multiple Family Property

***P4. Resources Present:** Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing



P5b. Description of Photo: (view, date, accession #) **Photograph 1.** View of facades of 88-90 9th Street (left) and 80-82 9th Street (right), camera facing northeast, February 29, 2024

***P6. Date Constructed/Age and Source:**

Historic Prehistoric Both

1903-1904; Moved 1916-1917 (Fong 2014)

***P7. Owner and Address:**

Private

***P8. Recorded by:** (Name, affiliation, address)

H. Miller, AECOM
300 Lakeside Drive, Suite 400
Oakland, CA 94612

***P9. Date Recorded:** March 1, 2024

***P10. Survey Type:** Intensive

***P11. Report Citation:** AECOM. "East Bay Asian Local Development Corporation, Lake Merritt BART Affordable Senior Housing – Section 106 of the National Historic Preservation Act Review." Prepared for City of Oakland, 2024.

***Attachments:** NONE Location Map Continuation Sheet Building, Structure, and Object Record Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record Artifact Record Photograph Record Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) 80-82 & 88-90 9th Street, MR 02

B1. Historic Name: Tutt – Sieman – Chew double flats

B2. Common Name: n/a

B3. Original Use: Multiple-Family Property

B4. Present Use: Multiple-Family Property

*B5. Architectural Style: Colonial Revival

*B6. Construction History: (Construction date, alterations, and date of alterations) Built as attached wings around a deep lightwell in 1903-04, the flats were moved to present location in 1916-17 and now sit on one 75' wide x 100' deep parcel, separated by a central driveway and in opposite orientation (L – R) to their original plan.

*B7. Moved? No X Yes Unknown Date: 1916-1917

Original Location: 10th Street between Webster and Harrison

*B8. Related Features: n/a

B9a. Architect: unknown (possibly A.W. Smith)

b. Builder: Eugene R. Tutt (Developer)

*B10. Significance: Theme Architecture

Area Oakland, Alameda County

Period of Significance 1903-1904; 1916-1917

Property Type Multi-family flats

Applicable Criteria NRHP C/CRHR3

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

On April 17, 2014, Darryl Fong inventoried and evaluated the two Colonial Revival flats as a local Heritage Property and was designated as such by the Landmarks Board on July 14, 2014 (Fong 2014; Marvin 2024). Heritage Properties are defined in the Preservation Element of the Oakland General Plan as "properties which definitively warrant preservation, but which are not Landmarks." Heritage Properties are protected by design review, environmental review, demolition findings, and the California Historical Building Code (Oaklandca.gov 2024). At the local level Oakland Cultural Heritage Survey (OCHS) assigned an individual property rating of "C3" to property at 80-82 & 88-90 9th Street, which in this case means Secondary importance, not in a historic district. At the time of this survey, the two Colonial Revival flats at 80-82 & 88-90 9th Street also appear to meet the criteria for listing in the National Register of Historic Places (NRHP) at the local level, and the California register of Historical Resources (CRHR) under Criterion C/3. The two flats retain their overall integrity, despite their relocation between 1916 and 1917. Therefore, the buildings are historical resources for purposes of the California Environmental Quality Act (CEQA) and historic properties under Section 106 of the National Historic Preservation Act (NHPA). (SEE CONTINUATION SHEET)

B11. Additional Resource Attributes: (List attributes and codes)

*B12. References: SEE CONTINUATION SHEET

B13. Remarks:

*B14. Evaluator: E. Mackall, AECOM

*Date of Evaluation: March 2024

(This space reserved for official comments.)

(Sketch Map with north arrow required.)



Page 3 of 6

Recorded by: H. Miller *Date: February 29, 2024

*Resource Name or # (Assigned by recorder) 80-82 & 88-90 9th Street, MR 02

Continuation Update

***P3a. Description (continued):**

The buildings demonstrate a "Classic Box" variation of Colonial Revival architecture. The southwest facing facades include offset partial porch entries supported by Corinthian porch columns; the porch roof includes iron-railed balconies (formerly balustrered). The porch entries cover two single-entry doors that provide access to each separate unit. The porch entries are flanked by a wood-framed Palladian window with Corinthian details. The second level sash windows include faux Corinthian capitals. The side elevations include additional one-over-one-sash windows with Corinthian column details. The rear elevations are not visible to the public right-of-way; however, aerials and review of the former Heritage Property form indicate they include full-width lattice-enclosed utility porches on the second and ground levels. A detached flat roof garage building flanks the rear elevations. Other details include Corinthian style corner boards on the exterior walls (**Photographs 2 and 3**).

***B10. Significance (continued):**

HISTORIC CONTEXT

Property Specific

The following context was excerpted and adapted from the Heritage Property application form authored by Darryl Fong on April 14, 2014. See attached application for further details.

The Colonial Revival flats remain as well-preserved architectural examples of early twentieth century "Classic Box" Georgian Colonial Revival flats buildings. The structures were moved to present location between 1916 and 1917 and placed in unique "opposite" orientation to each other on three (original) parcels with a central common driveway and garages at the rear. These grand side-by-side twin flats are prominently sited across 9th Street from the Lake Merritt BART station and are the only early residential structures remaining on this block face.

A search of the 1911 to 1912 Sanborn maps, volumes 1 and 2, turned up a matching footprint on 10th Street between Webster and Harrison, where five double flats buildings were displaced by construction of two buildings that still stand, 1001-19 Harrison/304 10th Street (1915) and 312-32 10th Street (1916). Notes in the 1915 tax assessor's block books indicate that two of the Harrison Street pairs of flats were moved to 915 and 925 Fallon Street between 9th and 10th Streets (around the corner from 80-90 9th Street; these buildings, owned in 1917 by H.A. Marckresi [?] Co., were demolished in 1973). The 1916 book is missing and the 1917 book notes the two buildings on Gus Sieman's formerly vacant lots at today's 80-90 9th Street as "Imp. House moved." The building that is now 80-90 9th Street is the only one of the five with angled bays on the sides. This identifies it as the westernmost and last built of the five double flats buildings at 10th and Harrison.

Developer of the new buildings on 10th Street was Eugene R. Tutt, hardware dealer, plumbing contractor, and capitalist (occupation "own income" in 1910 census), who had also developed the cluster of flats on 10th and Harrison between circa 1901 and 1904. Double flats (and triple: one nearby example is at 701-11 Alice) were a building type well suited to blend into neighborhoods that were gradually intensifying from single family residential. As development accelerated after the 1906 earthquake, Tutt's block became increasingly commercial. He apparently determined that the decade-old flats were not the highest and best use of the site, but were too good to demolish, and in some way placed all of them with new owners who would relocate them to nearby residential sites. The block where three of the five pairs went, Fallon to Oak and 9th to 10th, was very little developed in 1915 and was fairly fully built up by 1917.

Tutt's 1915 to 1916 buildings at 10th and Harrison were designed by A.W. Smith, a prolific and inventive early 20th century Oakland architect who could well have also designed Tutt's elegant and ingenious Colonial Revival flats (constructed before Oakland instituted building permits in 1905). In addition to the 10th and Harrison group, three other sets of twins of 80-90 9th Street are known to the Oakland Cultural Heritage Survey, also developed by Tutt in 1903-04 (and therefore also pre-permit and without identified designer or builder). When they were built at 14th and Brush Streets, they were in another gradually intensifying downtown fringe neighborhood like 10th and Harrison. They were moved in 1978-79 from the 980 freeway and are now at 815-17/821-23 20th Street, 1808-10/1812-18 West Street, and 780-90 17th/1712-18 West Street in the Oak Center Historic District. Each pair is separated into two buildings ("Too big to move and too good to destroy," according to a 1979 article). The pair at 17th and West is set at 90 degrees to each other.

The owners of 80-90 9th Street at its new location in 1917 were Gus and Flora Sieman. Gus was born in Australia c.1868 and is listed as a "storekeeper" in the 1918 city directory. The 1936 WPA housing survey describes him as "retired" (and landlord of the flats). The other residents were a "white" truck driver working for the WPA and two "oriental" households headed by a printer (Suey Won Lowe, of Suey-Won Printing Co., 167 9th Street, according to 1936 directories) and a merchant whose business was at 8th and Franklin. Oakland's present Chinatown was a well-developed community by that time. In 1938 George Chew bought the property, and his descendants have owned it ever since. George Chew (1905-2000) was born in Los Angeles and was a prominent member of the Bay

Area Chinese community for decades. His obituary describes him as “a past Grand President of the Chinese American Citizens Alliance, President of the Pan American Loong Kong Tien Yee Association, Vice President of the Chinese Consolidated Benevolent Association and Director of the Chinese Times.

Lake Merritt Bay Area Rapid Transit (BART)

The following context for the immediate setting of the property was excerpted and adapted from “Chapter 9: Historic Resources” in the Lake Merritt Station Area Plan, Existing Conditions and Key Issues Report, June 2013.

“By the early 1960s, major public-works projects began to transform the three blocks [north and northwest from the property at 55 8th Street]. The biggest project was the new Bay Area Rapid Transit District (BART), created by the California Legislature in 1957 to provide a fixed-rail mass transit system. BART won voter approval in three Bay Area counties to operate, one of them being Alameda County, which includes Oakland as the county seat.

All of the buildings and the Madison Square Park infrastructure on the three blocks bounded by Jackson Street on the west, 9th Street on the north, Fallon Street on the east, and 8th Street on the south were demolished between 1965 and 1968 to construct the Lake Merritt BART station (Cartwright Aerial Surveys 1965 May 18; HistoricAerials.com 1968). Construction of the station began in the late 1960s and officially opened in 1972. The six-story BART administrative and engineering headquarters building at 800 Madison Street was officially open for business in December of 1971. One significant change was moving Madison Square Park one block to the west (Jackson to Madison between 8th and 9th Streets), giving BART two contiguous blocks to establish its headquarters building and a parking lot (Madison to Fallon between 8th and 9th Streets) and building the Lake Merritt Station underground.

In 2006, the BART headquarters building above the Lake Merritt Station was deemed “at risk” if a major earthquake struck. Subsequently, the six-story building was dismantled in 2009 and operational headquarters moved to the Kaiser complex along Lakeside Drive. That move has provided an opportunity for BART, the City of Oakland, Laney College, and the surrounding community, including Chinatown, to envision redeveloping the three Madison Square blocks.”

Colonial Revival Architecture

These flat buildings are built in the Colonial Revival style, most popular in America between circa 1880 and 1950. The style refers to the rebirth in interest of the early English and Dutch colonial styles. Houses built in the period between 1915 and 1930 often include details influenced by early examples of American architecture, with 1920 to 1930 representing a time when the most accurate details were integrated into the designs. Residences are typically one- to three-stories and hallmarks of the classical style include a symmetrically arranged façade with central door flanked by balanced windows, an accentuated front door with portico or porch hood supported by columns, multi-pane windows (commonly in pairs), fanlights, pediments, and roof dormers. Wall cladding materials varied greatly and could include brick, wood shingles, wide and narrow horizontal wood siding, as well as stucco. Roof types within the style also varied greatly from side-gable, hipped, Gambrel (Dutch Colonial), and second-story overhang. Reverence of Colonial Revival architecture spanned nearly six decades and was adapted for urban and suburban settings from rowhouses to large classical-inspired houses. Although large examples come to mind when Colonial Revival is mentioned, single-story examples very popular in the United States in the 1940s. The style also evolved over time to accommodate modern lifestyles with post-war examples featuring integrated garages on the facades and more reserved architectural details (McAlester 2013 :408-429; Harris 1998:106-208).

EVALUATION

Under NRHP Criterion A or CRHR Criterion 1, the Colonial Revival flats have no significant association with important historic events. The buildings on this parcel, constructed between 1903 and 1904, are associated with residential development in Oakland and the East Bay; however, many residents likely occupied these buildings, but research did not reveal that the building played a distinct or important role in the economic development of the in the area.

Under NRHP Criterion B or CRHR Criterion 2, the Colonial Revival flats are not significant for any associations with the lives of persons important to history. Research did not indicate that any individuals, like Eugene R. Tutt, or George Chew, related to the development and use of this building made demonstrably important contributions to history at the local, state, or national level.

Under NRHP Criterion C or CRHR Criterion 3, the Colonial Revival flats are significant as an important type, period, and method of construction: Colonial Revival, at the local level. The Colonial Revival style building proliferated on main streets and residential corridors throughout the nation between 1880 and 1950. The Colonial Revival flats at 80-82 & 88-90 9th Street are a remarkable and excellent example reflecting the twentieth century trends of this style. The buildings on this parcel retain the high artistic value and distinctive design that would merit listing in the NRHP and the CRHR. A.W. Smith may be the master architect responsible for the buildings; however, research did not reveal enough

Page 5 of 6

Recorded by: H. Miller *Date: February 29, 2024

*Resource Name or # (Assigned by recorder) 80-82 & 88-90 9th Street, MR 02

Continuation Update

information to support the claim.

Under NRHP Criterion D or CRHR Criterion 4, the Colonial Revival flats are not significant as a source (or likely source) of important information regarding history. They do not appear to have any likelihood of yielding important information about historic construction materials or technologies.

Integrity Analysis and Conclusion

Buildings, structures, objects, sites, and districts listed in, eligible for listing in, or that appear eligible for listing in the NRHP are considered historic properties under the regulations for Section 106 of the National Historic Preservation Act (NHPA). Eligibility for listing buildings, structures, objects, sites, and districts (i.e., resources) in the NRHP rests on twin factors of historic significance and integrity. A resource must have both significance and integrity to be considered eligible.

Integrity is determined through applying seven factors to the historic resource: location, design, setting, workmanship, materials, feeling, and association. These seven can be roughly grouped into three types of integrity considerations. Location and setting relate to the relationship between the property and its environment. Design, materials, and workmanship, as they apply to historic buildings, relate to construction methods and architectural details. Feeling and association are the least objective of the seven criteria and pertain to the overall ability of the property to convey a sense of the historical time and place in which it was constructed.

The Colonial Revival flats meet the criteria of significance for eligibility for listing in the NRHP and CRHR under Criteria C/3 at the local level and they retain sufficient historic integrity to convey their significance. The buildings remain in their original location, the setting of which is in the modified area south of Lake Merritt. The property is still used as a multiple-family residential property, so it retains integrity of association. It retains a high level of integrity of design, materials, and workmanship because there appear to be no alterations to either building since their construction. And finally, in terms of feeling, the most subjective of integrity considerations, the property continues to look like buildings of its period.

In conclusion, the Colonial Revival flats at 80-82 & 88-90 9th Street is a City of Oakland Heritage Property and are also eligible for listing in the NRHP and CRHR under Criteria C/3 at the local level and retain sufficient integrity to convey their significance. Therefore, the buildings are historical resources for purposes of the California Environmental Quality Act (CEQA) and historic properties under Section 106 of the National Historic Preservation Act (NHPA). The boundary for the historic property/historical resource is the legal parcel.

***B12. References (continued):**

Harris, Cyril M. 1998. *American Architecture: An Illustrated Encyclopedia*. New York and London: W.W. Norton & Company.

Fong, Darryl. 2014. "Tutt – Sieman – Chew double flats." Heritage Property Application Form. April 14, 2014. On file at City of Oakland, Bureau of Planning.

Foster, Gerald. 2004. *American Houses: a Field Guide to the Architecture of the Home*. Boston and New York: Houghton Mifflin Company.

Marvin, Betty. 2024. Email correspondence transmitting documents pertaining to property at 80-82 & 88-90 9th Street to Heather Miller at AECOM. January 30.

McAlester, Virginia Savage. 2013. *A Field Guide to American Houses*. New York: Alfred A. Knopf, Inc.

P5a. Photographs (continued):



Photograph 2. View of the southern-facing facade and east sides; camera facing northwest, February 29, 2024.



Photograph 3. View of the southern-facing façades and west sides; camera facing east, February 29, 2024.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 6Z

Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 4

*Resource Name or #: (Assigned by recorder) 52 9th Street, MR 03

P1. Other Identifier: 52 9th Street

***P2. Location:** Not for Publication Unrestricted *a. County: Alameda

***b. USGS 7.5' Quad** Oakland West, CA Date 2021

c. Address 52 9th Street City Oakland Zip 94607

d. UTM: (Give more than one for large and/or linear resources) Zone 10S ; 564793.37 mE/ 4183592.99 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Assessor's Parcel Number (APN): 002 009300601

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This light industrial building was constructed in 1956 and is sited at the northwest intersection of 9th and Fallon streets (**Photograph 1**). The Lake Merritt Bay Area Rapid Transit (BART) System parking lot is immediately south of the property and the BART station is one-block to the southwest (see **Sketch Map**). The Contemporary style building is a single-story with a rectangular plan and a concrete foundation. The building is composed of a flat roof clad in built-up material with wide, overhanging eaves and parapets; the rear elevation includes a stepped parapet. The building is constructed of concrete masonry unit (CMU) block. Fenestration details include anodized metal framed, fixed windows with concrete sills and glass block. Access into the building is defined by two entries on the southern-facing facade. An industrial roll-up garage door flanked by a single-entry door and two glass block windows is on the west end and a recessed entry covered by a projecting eave that wraps onto the east elevation. The recessed entrance includes a concrete ramp and staircase, a single-entry door with a transom and sidelight, an anodized metal framed sash window, and square brick veneer that extends onto the east elevation. A portion of the brick work extends south and creates a breezeway. The east side includes a planter box along the foundation, three anodized metal framed sash windows, and a projecting concrete wall at the north end. The west side features two additional glass block windows and an exterior access ladder. (**Photograph 2**). The rear (north) side lacks wall openings.

***P3b. Resource Attributes:** (List attributes and codes) HP8 – Industrial Building

***P4. Resources Present:** Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing



P5b. Description of Photo: (view, date, accession #) Photograph 1. View of the southern-facing facade and east side; camera facing northwest, February 29, 2024

***P6. Date Constructed/Age and Source:**

Historic Prehistoric Both
1956 (Oakland Tribune 1958 September 26)

***P7. Owner and Address:**

Private

***P8. Recorded by:** (Name, affiliation, address)

H. Miller, AECOM
300 Lakeside Drive, Suite 400
Oakland, CA 94612

***P9. Date Recorded:** March 1, 2024

***P10. Survey Type:** Intensive

***P11. Report Citation:** AECOM. "East Bay Asian Local Development Corporation, Lake Merritt BART Affordable Senior Housing – Section 106 of the National Historic Preservation Act Review." Prepared for City of Oakland, 2024.

***Attachments:** NONE Location Map Continuation Sheet Building, Structure, and Object Record Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record Artifact Record Photograph Record Other (List):

Page 2 of 4

Recorded by: H. Miller *Date: February 29, 2024

*Resource Name or # (Assigned by recorder) 52 9th Street, MR 03
 Continuation Update

B1. Historic Name: Industrial Bearing Sales

B2. Common Name: n/a

B3. Original Use: Light Industrial

B4. Present Use: Light Industrial

*B5. Architectural Style: Contemporary

*B6. Construction History: (Construction date, alterations, and date of alterations) 1956 (Oakland Tribune 1958 September 26)

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features: n/a

B9a. Architect: unknown b. Builder: unknown

*B10. Significance: Theme n/a Area n/a
Period of Significance n/a Property Type n/a Applicable Criteria n/a

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The property at 52 9th Street does not appear to meet the criteria for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR), nor does it appear to be an historical resource for purposes of the California Environmental Quality Act (CEQA). The property does not meet any of the significance criteria necessary for eligibility for listing in either the NRHP or CRHR. The property has been evaluated in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code.

B11. Additional Resource Attributes: (List attributes and codes)

*B12. References: SEE CONTINUATION SHEET

B13. Remarks:

*B14. Evaluator: E. Mackall, AECOM

*Date of Evaluation: March 2024

(This space reserved for official comments.)

(Sketch Map with north arrow required.)



Page 3 of 4

Recorded by: H. Miller *Date: February 29, 2024

*Resource Name or # (Assigned by recorder) 52 9th Street, MR 03

Continuation Update

***B10. Significance (continued):**

HISTORIC CONTEXT

Property Specific

The commercial building evaluated on this form was constructed in 1956. Two years after construction year the building was in danger of being demolished by the city when the City Planning Commission considered creating two city blocks of surface parking to support the convention center, auditorium, and exposition buildings, by razing the buildings bounded by Oak, Fallon, 8th and 10th Streets. During the Commission's hearing, "Charles Hansen, owner of a ball-bearing firm at 52 9th St., pleaded that the two blocks, including his year-old plant be spared from the project. He contended the city would save \$750,000 if parking could be provided on property already owner by the city" (*Oakland Tribune* 1958 September 26). It is unclear what type of business currently operates out the building.

Lake Merritt Bay Area Rapid Transit (BART)

The following context for the immediate setting of the property was excerpted and adapted from "Chapter 9: Historic Resources" in the Lake Merritt Station Area Plan, Existing Conditions and Key Issues Report, June 2013.

"By the early 1960s, major public-works projects began to transform the three blocks [*north and northwest from the property at 55 8th Street*]. The biggest project was the new Bay Area Rapid Transit District (BART), created by the California Legislature in 1957 to provide a fixed-rail mass transit system. BART won voter approval in three Bay Area counties to operate, one of them being Alameda County, which includes Oakland as the county seat.

All of the buildings and the Madison Square Park infrastructure on the three blocks bounded by Jackson Street on the west, 9th Street on the north, Fallon Street on the east, and 8th Street on the south were demolished between 1965 and 1968 to construct the Lake Merritt BART station (Cartwright Aerial Surveys 1965 May 18; HistoricAerials.com 1968). Construction of the station began in the late 1960s and officially opened in 1972. The six-story BART administrative and engineering headquarters building at 800 Madison Street was officially open for business in December of 1971. One significant change was moving Madison Square Park one block to the west (Jackson to Madison between 8th and 9th Streets), giving BART two contiguous blocks to establish its headquarters building and a parking lot (Madison to Fallon between 8th and 9th Streets) and building the Lake Merritt Station underground.

In 2006, the BART headquarters building above the Lake Merritt Station was deemed "at risk" if a major earthquake struck. Subsequently, the six-story building was dismantled in 2009 and operational headquarters moved to the Kaiser complex along Lakeside Drive. That move has provided an opportunity for BART, the City of Oakland, Laney College, and the surrounding community, including Chinatown, to envision redeveloping the three Madison Square blocks."

Contemporary Architecture

This light industrial building utilizes elements of the Contemporary style, popular between circa 1940 and 1980. The style is generally characterized by strong roof forms including flat, gabled, shed, or butterfly, typically with deep overhangs and/or exposed beams; large windows, and non-traditional exterior finishes. This architectural style emerged and proliferated through innovations in building materials that occurred in the late 1930s, including creation of exterior-grade plywood, laminated engineered wood with industrial glues, and large plate glass windows. These building materials allowed architects to create designs that blurred the line between indoor and outdoor spaces, utilizing large windows further highlighted through large spans of uninterrupted wall space. Exterior cladding materials could also include vertical wood siding, concrete block, stucco, flagstone, and mullion-free glass; angular massing; sun shades, screens, or shadow block accents. Entrances into Contemporary style buildings are most often restrained or hidden from view with privacy screens. The Contemporary style was relatively inexpensive to build and was applied to single-family, multi-family, religious, commercial, school, and government buildings. More exaggerated roof forms like triangular, parabolic, or arched forms were used on commercial buildings rather than residential construction (McAlester 2013: 628-632).

EVALUATION

Under NRHP Criterion A or CRHR Criterion 1, this building has no significant association with important historic events. The building on this parcel, constructed in 1956, is associated with infill development; but research did not reveal that the building played a distinct or important role in any respective industries, or that the building played an important role in the economic development of the area south of Lake Merritt.

Under NRHP Criterion B or CRHR Criterion 2, this building is not significant for any associations with the lives of persons important to history. Research did not indicate that any individuals, such as original business owner Charles Hansen or subsequent owners related to the development and use of this building made demonstrably important contributions to history at the local, state, or national level.

Page 4 of 4

*Resource Name or # (Assigned by recorder) 52 9th Street, MR 03

Recorded by: H. Miller *Date: February 29, 2024

Continuation Update

Under NRHP Criterion C or CRHR Criterion 3, this building is not significant because it is not an important example of a type, period, or method of construction. Contemporary style buildings were in wide use during the twentieth century on industrial properties throughout California. The light industrial commercial building at 52 9th Street is a typical and unremarkable example reflecting the trends of this style. The building on this parcel also lacks distinctive design that would merit listing on the NRHP and CRHR. IT does not appear that is no master architect or builder associated with this building; therefore, it is not significant as the work of a master.

Under NRHP Criterion D or CRHR Criterion 4, the building at 52 9th Street is not significant as a source (or likely source) of important information regarding history. It does not appear to have any likelihood of yielding important information about historic construction materials or technologies.

At the local level, this building has not been surveyed by the Oakland Cultural Heritage Survey (OCHS). Based on this survey and evaluation, it appears that is should be assigned an individual property rating of "E3" which means Of no particular interest, not in a historic district (Oaklandca.gov 2024).

Integrity Analysis and Conclusion

Although the building generally retains integrity of location, setting, design, materials, workmanship, feeling, and association to its date of construction, it does not meet any of the significance criteria necessary for eligibility for listing in either the NRHP or CRHR.

***B12. References (continued):**

McAlester, Virginia Savage. 2013. *A Field Guide to American Houses*. New York: Alfred A. Knopf, Inc.

Oaklandca.gov. 2024. "Historical and Architectural Rating Systems." City of Oakland. Available at: <https://www.oaklandca.gov/topics/historical-and-architectural-rating-systems>. Accessed February 2024.

Oakland Tribune. 1958 September 26. "Convention Hall Plan Gets Council Vote." 7.

P5a. Photographs (continued):



Photograph 2. View of the southern-facing façade and west side, camera facing east, February 29, 2024.

State of California - The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
 HRI # _____
 Trinomial _____
 NRHP Status Code ____

Other Listings _____
 Review Code _____ Reviewer _____ Date _____

*Resource Name or #: (Assigned by recorder) Laney College, MR 04

P1. Other Identifier: Laney College

*P2. Location: Not for Publication Unrestricted

*a. County: Alameda

*b. USGS 7.5' Quad Oakland West Date 2021

c. Address 900 Fallon Street City Oakland Zip 94607

d. UTM: (Give more than one for large and/or linear resources) Zone 10S ; 36460.82 mE/ 4196434.73 mN; Zone 10S ; 37006.86 mE/ 4195969.28 mN; Zone 10S ; 36752.22 mE/ 4195732.61 mN; Zone 10S ; 36296.66 mE/ 4196131.36 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Assessor's Parcel Number (APN): 018 045000200; 018 044501100; 018 045501300; 018 045500805; 018 045500107; 018 045500101; 018 045500103; 018 045500700; 018 045500805; 018 045501200; 018 045500600; 019 000502101; 019 000401400; 019 000801603; 019 000701701; 018 045000300; 018 044501202; 018 045501502; 018 045501800

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This property consists of the 67-acre New Formalism-style Laney College campus that was completed 1971 (Photograph 1). The campus is bound by Fallon Street at the west, 5th Avenue at the east, 7th Street at the south, 10th Street at the north, and is bisected by the Merritt Channel (see Sketch Map). The campus consists of roughly two dozen buildings. The primary public access point to the campus is at the intersection of Fallon Street and 9th Street. The view from this intersection is dominated by the eight-story triangular, concrete administration building that features a flat roof and is punctuated with recessed, paired aluminum windows. Buildings located along the campus perimeter are typically two- to three-stories, with exposed concrete and brick exteriors, and flat roofs. The first floors generally feature multi-light windows, entries, or exterior passthroughs with staircases accessing the campus courtyards.

*P3b. Resource Attributes: (List attributes and codes) HP15 – Educational Building, HP42 – Stadium/Sports Arena

*P4. Resources Present: Building Structure Object Site District Element of District Other (isolates, etc.)

P5a. Photo or Drawing



*P5b. Description of Photo: (view, date, accession #) Photograph 1. View of Laney College Campus at the intersection of 9th Street and Fallon Street, camera facing east, February 29, 2024

*P6. Date Constructed/Age and Source: Historic Prehistoric Both
1971 (Laney.edu 2024)

*P7. Owner and Address: Peralta Community College District
333 East 8th Street
Oakland, CA 94606

*P8. Recorded by: (Name, affiliation, address)
H. Miller, AECOM
300 Lakeside Drive, Suite 400
Oakland, CA 94612

*P9. Date Recorded: February 29, 2024

*P10. Survey Type: Intensive

*P11. Report Citation: AECOM. "East Bay Asian Local Development Corporation, Lake Merritt BART Affordable Senior Housing – Section 106 of the National Historic Preservation Act Review." Prepared for City of Oakland, 2024.

*Attachments: NONE Location Map Continuation Sheet Building, Structure, and Object Record Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record Artifact Record Photograph Record Other (List):

State of California — The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # _____
 HRI # _____
 Trinomial _____
 NRHP Status Code _____

Page 2 of 2

*Resource Name or # (Assigned by recorder) Laney College, MR 04

Recorded by: H. Miller *Date: February 29, 2024

Continuation Update

- B1. Historic Name: Laney College
- B2. Common Name: Laney College
- B3. Original Use: College Campus including Educational Buildings and Stadium/Sports Arena
- B4. Present Use: College Campus including Educational Buildings and Stadium/Sports Arena

*B5. Architectural Style: Modern

*B6. Construction History: (Construction date, alterations, and date of alterations) 1971 (Laney.edu 2024); Little to no alterations noted (based on field observation).

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features: Adjacent athletic facilities to the east

B9a. Architect: Skidmore, Owings and Merrill b. Builder: unknown

*B10. Significance: Theme Post-Modern Master Planned College Campus Area Oakland
 Period of Significance 1971 Property Type Educational Applicable Criteria NRHP C/CRHR 3
 (Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

For the purpose of the Project under P11., this property is assumed eligible for listing in the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR) for its significance at the local level as a Post-Modern-style, master-planned college campus and appears to retain integrity to its period of significance, 1971, the year the campus was completed.

The assumed character-defining features of the campus would be grided building layout and pedestrian walkways, size, scale, and massing of the shorter buildings around the tall, eight-story triangular, concrete administration building, and exposed concrete and brick exteriors.

B11. Additional Resource Attributes: (List attributes and codes)

*B12. References: Laney.edu. 2024. "Historical Documents." Available at: <https://laney.edu/archives/laney-college-digital-archives/historical-documents/>. Accessed March 2024.

B13. Remarks:

*B14. Evaluator: H. Miller, AECOM

*Date of Evaluation: March 2024

(This space reserved for official comments.)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HR I# _____
Trinomial _____
NRHP Status Code 2D2, 3D

Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 6

*Resource Name or #: (Assigned by recorder) 51 8th Street, MR 05

P1. Other Identifier: 51 8th Street

***P2. Location:** Not for Publication Unrestricted

***a. County:** Alameda

***b. USGS 7.5' Quad** Oakland West, Calif. **Date** 2021

c. Address 51 8th Street **City** Oakland **Zip** 94607

d. UTM: (Give more than one for large and/or linear resources) Zone 10S ; 564740.66 mE/ 4183478.01 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Assessor's Parcel Number (APN): 001 016900800

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This two and three-and-a-half-story, Queen Anne style residence was constructed between 1890 and 1891 and is sited at the southwest intersection of 8th and Fallon streets (**Photograph 1**). The Lake Merritt Bay Area Rapid Transit (BART) System parking lot is immediately north of the property and the BART station is one-block to the northwest (see **Sketch Map**). The parcel is lined with a modern metal security fence and gate system. A two-story shed and hipped roof addition are constructed at the rear of the property. The building has a roughly rectangular plan and rests on a raised foundation with a half-story basement level. It is topped with a cross-hip-and-gable roof system with narrow overhang and covered with composition shingles. Several types of wood siding cover the exterior including flush, horizontal wood boards on the basement half-story and first story and straight and fish scale wood singles on the second and attic half-story. Primary entry is gained on the northern-facing façade through stairs that extend from the sidewalk to the raised first-story, wrap around porch that features arches and spindle work details (**Photograph 2**). The entry consists of a pair of glazed, wood panel doors with fixed transoms above (**Photograph 3**). A second-story integral balcony porch is above the primary entry porch and also features arches and spindle work details. Carved, decorative wood brackets line the area above the second-story balcony porch and in the end gable, flanking a small, two-part replacement window. Windows throughout the building generally consist of one-over-one and fixed, vinyl frame replacement windows, with two-part sliding vinyl frame replacement windows in the half-story basement level. (SEE CONTINUATION SHEET)

***P3b. Resource Attributes:** (List attributes and codes) HP3 – Multiple Family Property

***P4. Resources Present:** Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing



P5b. Description of Photo: (view, date, accession #) **Photograph 1.** View of northern-facing façade and east side, camera facing southwest, February 29, 2024

***P6. Date Constructed/Age and Source:**
 Historic Prehistoric Both
1890-1891 (City of Oakland)

***P7. Owner and Address:**
Private

***P8. Recorded by:** (Name, affiliation, address)
H. Miller, AECOM
300 Lakeside Drive, Suite 400
Oakland, CA 94612

***P9. Date Recorded:** February 29, 2024

***P10. Survey Type:** Intensive

***P11. Report Citation:** AECOM. "East Bay Asian Local Development Corporation, Lake Merritt BART Affordable Senior Housing – Section 106 of the National Historic Preservation Act Review." Prepared for City of Oakland, 2024.

***Attachments:** NONE Location Map Continuation Sheet Building, Structure, and Object Record Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record Artifact Record Photograph Record Other (List):

Page 2 of 6

Recorded by: H. Miller *Date: February 29, 2024

*Resource Name or # (Assigned by recorder) 51 8th Street, MR 05
 Continuation Update

- B1. Historic Name: N/A
- B2. Common Name: Lougee-Baumgartner House
- B3. Original Use: Residence
- B4. Present Use: Residence

*B5. Architectural Style: Queen Anne

*B6. Construction History: (Construction date, alterations, and date of alterations) 1890-1891 (City of Oakland); Rear single-story porch enclosed between 1912 and 1950 (Sanborn Map and Publishing Company 1912, 1950); Single-story carport constructed behind the enclosed rear single-story porch between 1946 and 1950 (UCSB 1946; Sanborn Map Company 1950); Single-story garages added along Fallon Street between 1965 and 1983 (UCSB 1965; OCHS 1983); Garages converted into living quarters and second-story addition and porch constructed above between 1965-1983 (UCSB 1965; OCHS 1983); Metal fence erected between 2011 and 2014 (Google Maps Street View 2024); Vinyl replacement windows installed in half-story basement level prior to 2011 (Google Maps Street View 2024); Remainder of original wood windows replaced with vinyl frame between 2011 and 2015 (Google Maps Street View 2024).

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features: n/a

B9a. Architect: unknown b. Builder: Charles H. Lougee (attributed)

*B10. Significance: Theme Residential Growth (A) & Architecture (C) Area Oakland
 Period of Significance 1860s-1910 Property Type Residential (contributor) Applicable Criteria NRHP A & C
 (Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The property at 51 8th Street was inventoried and evaluated on a Historic Resources Inventory (HRI) form by the Oakland Cultural Heritage Survey (OCHS) in 1983 as part of the "7th Street/Harrison Square Residential District" survey efforts (see attached HRI form). The author of the HRI form stated that the residence was "among Oakland's most elaborate and most intact surviving large Queen Anne residences, distinguished by its richly varied forms, ornamentation and surface treatments" and identified the building as a "Primary Contributor" to the "7th Street/Harrison Square Residential District" which OCHS concluded was eligible for listing in the National Register of Historic Places (NRHP) (OCHS 1983; OCHS 1984). OCHS found the district eligible for listing in the NRHP "as a surviving area of middle- and lower-middle-class housing constructed largely between 1889 and 1910" (OCHS 1984), but no specific NRHP criteria, period of significance, or character-defining features were identified as part of the significance evaluation. (SEE CONTINUATION SHEET)

B11. Additional Resource Attributes: (List attributes and codes)

*B12. References: SEE CONTINUATION SHEET

B13. Remarks:

*B14. Evaluator: H. Miller, AECOM

*Date of Evaluation: March 2024

(This space reserved for official comments.)



***P3a. Description (continued):**

The two-story shed and hipped roof addition at the rear of the property contains entries at the ground level as well as the main first story (Photograph 3). The main first story entries are accessed by a long, wood frame staircase that leads to a narrow deck area where the two entry doors are protected by gable door shelters. The ground level entries are located beyond arched wall openings, cut into exterior wall below the deck.

***B10. Significance (continued):**

Based on the themes and built dates of the buildings recorded within in the district and the historic themes in (in order of importance) of architecture, social/ education, exploration/settlement, and economic/industrial, the district is assumed significant under NRHP Criterion A for its important association within the residential growth of Oakland during the 19th and early 20th centuries, and under NRHP Criterion C as concentration of Italianate, Queen Anne, and Colonial Revival style lower-and-middle-class housing. The period of significance of the district appears to be from the 1860s when the earliest buildings were constructed to 1910 when most of the lots were built out. Character-defining features of the district are assumed to consist of the extant contributing buildings, their size and scale, late 19th and early 20th century architectural styles and details, and the historic street grid pattern.

The "7th Street/Harrison Square Residential District" survey documents from the early 1980s were submitted to the Northwest Information Center (NWIC) and the property at 51 8th Street was assigned a California Historical Resources Status Code of 3D: "Appears eligible for NRHP as a contributor to a NRHP eligible multi-component resource through survey evaluation" (BERD 2024). In 2009 a United States Department of Housing and Urban Development (HUD) report was prepared and submitted to NWIC that appears to have reevaluated and reconfirmed 51 8th Street as a contributor to the NRHP-eligible "7th Street/Harrison Square Residential District" and received concurrence from the State Historic Preservation Officer (SHPO) because it was assigned a California Historical Resources Status Code of 2D2: "Contributor to a multi-component resource determined eligible for NRHP by consensus through Section 106 process. Listed in the CRHR" (BERD 2024). Therefore, the property at 51 8th Street is a historic property under Section 106 of the National Historic Preservation Act (NHPA). However, a copy of the 2009 HUD report nor an updated recordation and evaluation of the property at 51 8th Street were on-file at NWIC.

At the local level, as a result of the "7th Street/Harrison Square Residential District" survey efforts, OCHS assigned an individual property rating of "A1+" to property at 51 8th Street which in this case means Highest Importance: Outstanding architectural example, and in a National Register quality/eligible district. The property at 51 8th Street was also designated as a City of Oakland Heritage Property in 2015. Heritage Properties are defined in the Preservation Element of the Oakland General Plan as "properties which definitively warrant preservation but which are not Landmarks." Heritage Properties are protected by design review, environmental review, demolition findings, and the California Historical Building Code (Oaklandca.gov 2024).

HISTORIC CONTEXT

Property Specific

The following context was excerpted and adapted from the HRI form authored by OCHS in 1983.

"The first appearance of \$1,500 worth of improvements for this parcel in the 1890 city tax assessor's block book and the increase in that value to \$2,000 in the 1892 books (the 1891 book is missing) suggests that the Lougee-Baumgartner House was partially completed by mid-1890 and finished by mid-1892. The owner shown in the 1890 and 1892 block books, Charles H. Lougee, is first listed as a resident here in the January 1, 1892 directory, indicating that the house was finished in 1891. Lougee is listed in the 1888-9 to 1894 directories as a "wrecker" but in earlier directories was also listed as a "carpenter", suggesting that he may have built the house at 51 8th Street himself. His name first appears in the 1875-6 directory residing at a house at what is now 1523 8th Street (see SHRI form), which he also appears to have built. In 1876-77 he had been listed as a carpenter with Western Development Company, construction arm of Central Pacific Railroad which during that period was developing railroad worker housing near Lougee's 1523 Street residence. Lougee continued to live at 1523 Street apparently building house next door at 1509 Street until 1888-9 when directory shows him living on Filbert Street where he remained until moving into subject [property].

Lougee lived at 51 8th Street until between mid-1882 and mid-1893, when the block books show the owner as Albert W. Craig, employed at Craig and Mosher in San Francisco. The 1894 directory shows that Lougee had moved to Grove Street. His short residency at 51 8th Street is characteristic of many nineteenth century carpenter-builders, who would live in one of their recently completed houses until their next group of houses was finished.

The 1895 block books shows another new owner, A.J. Baumgartner, secretary for Oakland Preserving Company, who continued to

own the house at least through mid-1900. The 1895 directory shows he lived here with A.F. and John J. Baumgartner, but only A.F. Baumgartner is listed as a residence here after 1896."

Several modifications have been made to the building since it was initially constructed including enclosing the rear single-story porch, construction of single-story garages along Fallon Street, conversion of garages into living quarters and second-story addition and porch constructed above. Changes made since the OCHS survey include replacement of all of the original wood windows with modern vinyl frame windows and the installation of the modern metal security fence and gate system.

Lake Merritt Bay Area Rapid Transit (BART)

The following context for the immediate setting of the property was excerpted and adapted from "Chapter 9: Historic Resources" in the Lake Merritt Station Area Plan, Existing Conditions and Key Issues Report, June 2013.

"By the early 1960s, major public-works projects began to transform the three blocks [north and northwest from the property at 55 8th Street]. The biggest project was the new Bay Area Rapid Transit District (BART), created by the California Legislature in 1957 to provide a fixed-rail mass transit system. BART won voter approval in three Bay Area counties to operate, one of them being Alameda County, which includes Oakland as the county seat.

All of the buildings and the Madison Square Park infrastructure on the three blocks bounded by Jackson Street on the west, 9th Street on the north, Fallon Street on the east, and 8th Street on the south were demolished between 1965 and 1968 to construct the Lake Merritt BART station (Cartwright Aerial Surveys 1965 May 18; HistoricAerials.com 1968). Construction of the station began in the late 1960s and officially opened in 1972. The six-story BART administrative and engineering headquarters building at 800 Madison Street was officially open for business in December of 1971. One significant change was moving Madison Square Park one block to the west (Jackson to Madison between 8th and 9th Streets), giving BART two contiguous blocks to establish its headquarters building and a parking lot (Madison to Fallon between 8th and 9th Streets) and building the Lake Merritt Station underground.

In 2006, the BART headquarters building above the Lake Merritt Station was deemed "at risk" if a major earthquake struck. Subsequently, the six-story building was dismantled in 2009 and operational headquarters moved to the Kaiser complex along Lakeside Drive. That move has provided an opportunity for BART, the City of Oakland, Laney College, and the surrounding community, including Chinatown, to envision redeveloping the three Madison Square blocks."

NRHP RE-EVALUATION

The property at 51 8th Street is located within the Lake Merritt Station Area Planning Area which is an approximately one-half mile radius around the nearby Lake Merritt BART Station. As directed in the *Draft Environmental Impact Report for Lake Merritt Station Area Plan* in "Chapter 3.8: Cultural and Historic Resources," several mitigation measures were developed to reduce redevelopment impacts to historical resources including "Future Site-specific Surveys and Evaluations" which states, "Although most of the Project Area has been surveyed by the City of Oakland's OCHS, evaluations and ratings may change with time and other conditions. As such, there may be numerous other previously unidentified historical resources which would be affected by future redevelopment activities, including demolition, alteration, and new construction. For any future development project that would occur on or immediately adjacent to buildings 50 years old or older that have not been surveyed within the last 10 years, the City shall require specific surveys and evaluations of such properties to determine their potential historical significance at the federal, state, and local levels. Intensive-level surveys and evaluations shall be completed by a qualified architectural historian who meets the Secretary of the Interior's Standards for architectural history. For all historical resources identified as a result of site-specific surveys and evaluations, the City shall ensure that future redevelopment activities, including demolition, alteration, and new construction, would avoid, adaptively reuse, and/or appropriately relocate such historical resources in accordance with measure "a" (Avoidance, Adaptive Reuse, or Appropriate Relocation of Historically Significant Structures), above. Site-specific surveys and evaluations that are more than 5 years old shall be updated to account for changes which may have occurred over time" (City of Oakland 2013: 3.8-58).

Because the last documentation and evaluation of the property at 51 8th Street occurred at least 15 years ago, and the currently available documentation is 40 years old, this recordation and evaluation serves as an update to identify any changes that have been made and to re-evaluate the property for NRHP-eligibility accordingly.

Under NRHP Criterion A, this building has been previously determined a contributor to the NRHP-eligible "7th Street/Harrison Square Residential District" which is significant for its association within residential growth of Oakland during the 19th and early 20th centuries.

Under NRHP Criterion B, this building and the NRHP-eligible "7th Street/Harrison Square Residential District" have been previously determined not significant for any associations with the lives of persons important to history. Research has never indicated that any individuals, such as early resident and builder Charles H. Lougee or subsequent early owner Andrew F. Baumgar, or others related to the development and use of

this building made demonstrably important contributions to history at the local, state, or national level.

Under NRHP Criterion C, this building has been previously determined a contributor to the NRHP-eligible "7th Street/Harrison Square Residential District" as part of the concentration of Italianate, Queen Anne, and Colonial Revival style lower-and-middle-class housing.

Under NRHP Criterion D, this building and the NRHP-eligible "7th Street/Harrison Square Residential District" have been previously determined not significant as a source (or likely source) of important information regarding history. They do not appear to have any likelihood of yielding important information about historic construction materials or technologies.

Integrity Analysis

Buildings, structures, objects, sites, and districts listed in, eligible for listing in, or that appear eligible for listing in the NRHP are considered historic properties under the regulations for Section 106 of the National Historic Preservation Act (NHPA). Eligibility for listing buildings, structures, objects, sites, and districts (i.e., resources) in the NRHP rests on twin factors of historic significance and integrity. A resource must have both significance and integrity to be considered eligible.

Integrity is determined through applying seven factors to the historic resource: location, design, setting, workmanship, materials, feeling, and association. These seven can be roughly grouped into three types of integrity considerations. Location and setting relate to the relationship between the property and its environment. Design, materials, and workmanship, as they apply to historic buildings, relate to construction methods and architectural details. Feeling and association are the least objective of the seven criteria and pertain to the overall ability of the property to convey a sense of the historical time and place in which it was constructed.

The building has not been moved so it retains integrity of location. The setting of the building since it was found to be a contributor to the "7th Street/Harrison Square Residential District" in the 1980s as part of the OCHS survey has remained largely unchanged. Changes made since the OCHS survey include replacement of all of the original wood windows with modern vinyl frame windows and the installation of the modern metal security fence and gate system which has affected integrity of design, materials, and workmanship, but overall the building continues to convey the feeling of an 1890s residence and its association with the 7th Street/Harrison Square Residential District."

Several modifications have been made to the building since it was initially constructed including enclosing the rear single-story porch, construction of single-story garages along Fallon Street, conversion of garages into living quarters and second-story addition and porch constructed above. Changes made since the OCHS survey include replacement of all of the original wood windows with modern vinyl frame windows and the installation of the modern metal security fence and gate system.

CONCLUSION

In conclusion, the property at 51 8th Street was determined a contributor to the NRHP-eligible "7th Street/Harrison Square Residential District" in 2009. While changes have been made to the building since then (see B6), it retains sufficient integrity to continue to convey its significance as a contributor, and is a therefore reconfirmed as a historic property under Section 106 of the National Historic Preservation Act (NHPA).

***B12. References (continued):**

Built Environment Resource Directory (BERD). 2024. "Alameda." Excel spreadsheet available for download at: https://ohp.parks.ca.gov/?page_id=30338. Accessed February 2024.

City of Oakland. 2013. *Lake Merritt Station Area Plan, Draft Environmental Impact Report, SCH #2012032012, Volume II of II*.

Google Maps Street View. 2024. 51 8th Street, Oakland, CA. Street side imagery, various years.

Oakland Cultural Heritage Survey. 1983. "Historic Resources Inventory: Lougee (Charles H.) – Baumgartner (Andrew F.) House / 51 8th Street, Oakland." On file at Northwest Information Center, Sonoma State University, Rohnert Park, CA.

_____. 1984. "Seventh Street/Harrison Square Residential District." On file at Northwest Information Center, Sonoma State University, Rohnert Park, CA.

Oaklandca.gov. 2024. "Historical and Architectural Rating Systems." City of Oakland. Available at: <https://www.oaklandca.gov/topics/historical-and-architectural-rating-systems>. Accessed February 2024.

Sanborn Map and Publishing Company. 1912, 1950. Oakland, CA. New York: Sanborn Map and Publishing Company, Limited. November.

University of Santa Barbara (UCSB) Library. 1946. Flight ID: GS-CP, Frame: 1-16. July 26.

_____. 1965. Flight ID: ALA, Frame: 15-133. May 18.

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Recorded by: H. Miller *Date: February 29, 2024

*Resource Name or # (Assigned by recorder) 51 8th Street, MR 05

Continuation Update

P5a. Photographs (continued):



Photograph 2. Northern-facing facade of 51 8th Street, camera facing south, February 29, 2024.



Photograph 3. East side of 51 8th Street showing rear addition, camera facing west, February 29, 2024.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 2D2, 3D

Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 5

*Resource Name or #: (Assigned by recorder) 55 8th Street, MR 06

P1. Other Identifier: 55 8th Street

***P2. Location:** Not for Publication Unrestricted

***a. County:** Alameda

***b. USGS 7.5' Quad** Oakland West, Calif. **Date** 2021

c. Address 55 8th Street **City** Oakland **Zip** 94607

d. UTM: (Give more than one for large and/or linear resources) Zone 10S ; 564732.75 mE / 4183477.69 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Assessor's Parcel Number (APN): 001 016900700

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This two-story with an attic, Queen Anne and Colonial Revival transitional style residence was constructed between 1897 and 1898 and is sited at near the southwest intersection of 8th and Fallon streets (**Photograph 1**). The Lake Merritt Bay Area Rapid Transit (BART) System parking lot is immediately north of the property and the BART station is one-block to the northwest (see **Sketch Map**). The parcel is lined with a modern metal security fence and gate system. The building has a roughly rectangular plan and rests on a slab foundation with a full-story basement level. It is topped with a cross-hip-and-gable roof system with narrow overhang and is covered with composition shingles. Several types of wood siding cover the exterior including wide and narrow horizontal wood boards on the basement and main story levels with wood shingles in the end gables and the frieze. Brick veneer on the façade of the basement level around the integrated single-car garage with a modern overhead garage door are later additions. Primary entry into the residence is gained on the northern-facing façade through stairs that extend from the sidewalk to the raised first-story. The entry is protected in an integral porch that is supported on a Tuscan column with a brick pier. The single flush wood door has a fixed transom above and is protected by a metal security door (**Photograph 2**). Windows generally consist of one-over-one wood frame with a fixed, two-part wood frame window on the façade with a stained-glass upper sash. A small, multi-light Palladian window is at the attic level on the façade.

***P3b. Resource Attributes:** (List attributes and codes) HP2 – Single Family Property

***P4. Resources Present:** Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing



P5b. Description of Photo: (view, date, accession #) **Photograph 1.** View of northern-facing façade and east side, camera facing southwest, February 29, 2024

***P6. Date Constructed/Age and Source:**
 Historic Prehistoric Both
1897-1898 (City of Oakland)

***P7. Owner and Address:**
Private

***P8. Recorded by:** (Name, affiliation, address)
H. Miller, AECOM
300 Lakeside Drive, Suite 400
Oakland, CA 94612

***P9. Date Recorded:** February 29, 2024

***P10. Survey Type:** Intensive

***P11. Report Citation:** AECOM. "East Bay Asian Local Development Corporation, Lake Merritt BART Affordable Senior Housing – Section 106 of the National Historic Preservation Act Review." Prepared for City of Oakland, 2024.

***Attachments:** NONE Location Map Continuation Sheet Building, Structure, and Object Record Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record Artifact Record Photograph Record Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

- B1. Historic Name: N/A
- B2. Common Name: N/A
- B3. Original Use: Residence
- B4. Present Use: Residence

*B5. Architectural Style: Queen Anne / Colonial Revival transitional

*B6. Construction History: (Construction date, alterations, and date of alterations) 1897-1898 (City of Oakland 2024); Single-car garage and brick veneer on the façade of the basement level added at unknown date prior to 1984 (OCHS 1984a); Overhead garage door replaced between 2022 and 2024 (Google Maps Street View 2024; fieldwork observation).

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features: n/a

B9a. Architect: unknown b. Builder: James A. Smilie

*B10. Significance: Theme Residential Growth (A) & Architecture (C) Area Oakland
Period of Significance 1860s-1910 Property Type Residential (contributor) Applicable Criteria NRHP A & C
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The property at 55 8th Street was inventoried and evaluated on a Historic Resources Inventory (HRI) form by the Oakland Cultural Heritage Survey (OCHS) in 1984 as part of the "7th Street/Harrison Square Residential District" survey efforts (see attached HRI form). The author of the HRI form stated that the residence was a contributor to the "Seventh Street/Harrison Square Residential District" "for its architecture and history" which OCHS concluded was eligible for listing in the National Register of Historic Places (NRHP) (OCHS 1984; OCHS 1985). OCHS found the district eligible for listing in the NRHP "as a surviving area of middle- and lower-middle-class housing constructed largely between 1889 and 1910" (OCHS 1985), but no specific NRHP criteria, period of significance, or character-defining features were identified as part of the significance evaluation. (SEE CONTINUATION SHEET)

B11. Additional Resource Attributes: (List attributes and codes)

*B12. References: SEE CONTINUATION SHEET

B13. Remarks:

*B14. Evaluator: H. Miller, AECOM

*Date of Evaluation: MONTH 2024

*B10. Significance (continued):

(This space reserved for official comments.)



BUILDING, STRUCTURE, AND OBJECT RECORD

Page 3 of 5

*NRHP Status Code 2D2, 3D

*Resource Name or # (Assigned by recorder) 55 8th Street, MR 06

Based on the themes and built dates of the buildings recorded within in the district and the historic themes in (in order of importance) of architecture, social/ education, exploration/settlement, and economic/industrial, the district is assumed significant under NRHP Criterion A for its important association within the residential growth of Oakland during the 19th and early 20th centuries, and under NRHP Criterion C as concentration of Italianate, Queen Anne, and Colonial Revival style lower-and-middle-class housing. The period of significance of the district appears to be from the 1860s when the earliest buildings were constructed to 1910 when most of the lots were built out. Character-defining features of the district are assumed to consist of the extant contributing buildings, their size and scale, late 19th and early 20th century architectural styles and details, and the historic street grid pattern.

The "7th Street/Harrison Square Residential District" survey documents from the early 1980s were submitted to the Northwest Information Center (NWIC) and the property at 55 8th Street was assigned a California Historical Resources Status Code of 3D: "Appears eligible for NRHP as a contributor to a NRHP eligible multi-component resource through survey evaluation" (BERD 2024). In 2009 a United States Department of Housing and Urban Development (HUD) report was prepared and submitted to NWIC that appears to have reevaluated and reconfirmed 55 8th Street as a contributor to the NRHP-eligible "7th Street/Harrison Square Residential District" and received concurrence from the State Historic Preservation Officer (SHPO) because it was assigned a California Historical Resources Status Code of 2D2: "Contributor to a multi-component resource determined eligible for NRHP by consensus through Section 106 process. Listed in the CRHR" (BERD 2024). Therefore, the property at 55 8th Street is a historic property under Section 106 of the National Historic Preservation Act (NHPA). However, a copy of the 2009 HUD report nor an updated recordation and evaluation of the property at 55 8th Street were on-file at NWIC.

At the local level, as a result of the "7th Street/Harrison Square Residential District" survey efforts, OCHS assigned an individual property rating of "C1+" to property at 55 8th Street which in this case means Secondary Importance: Superior or visually important example, or very early (pre-1906), and in a National Register quality/eligible district (Oaklandca.gov 2024).

HISTORIC CONTEXT

Property Specific

The following context was excerpted and adapted from the HRI form authored by OCHS in 1984.

"According to Assessor's Block Books the first owner and builder-contractor was James A. Smilie, who constructed the building in 1897-98. Born in Canada in 1851, Smilies came to Oakland with his brother Robert in 1875, returned in 1881, and finally established himself with Robert in 1886 as Smilie Brothers, building and contractors, also owners of a lumber yard in Oakland and a fruit farm near Fresno. Guinn says they constructed the Macdonough Block, the Central Bank Building and the Dalziel & Moller block in Oakland, the pre-1906 Union Savings Bank and six more store buildings in San Francisco, the Palamaras Hotel in Pomona and the Wilcox Block in Los Angeles. Most of these are now demolished, and only a few residences, like this and 701-03 Fallon, remain to shoe the firm's work. Smilie was also president of the Builders Exchange. He kept these houses for income."

It appears that the only changes made to the building since the OCHS survey is replacement of the overhead garage door between 2022 and 2024.

Lake Merritt Bay Area Rapid Transit (BART)

The following context for the immediate setting of the property was excerpted and adapted from "Chapter 9: Historic Resources" in the Lake Merritt Station Area Plan, Existing Conditions and Key Issues Report, June 2013.

"By the early 1960s, major public-works projects began to transform the three blocks [north and northwest from the property at 55 8th Street]. The biggest project was the new Bay Area Rapid Transit District (BART), created by the California Legislature in 1957 to provide a fixed-rail mass transit system. BART won voter approval in three Bay Area counties to operate, one of them being Alameda County, which includes Oakland as the county seat.

All of the buildings and the Madison Square Park infrastructure on the three blocks bounded by Jackson Street on the west, 9th Street on the north, Fallon Street on the east, and 8th Street on the south were demolished between 1965 and 1968 to construct the Lake Merritt BART station (Cartwright Aerial Surveys 1965 May 18; HistoricAerials.com 1968). Construction of the station began in the late 1960s and officially opened in 1972. The six-story BART administrative and engineering headquarters building at 800 Madison Street was officially open for business in December of 1971. One significant change was moving Madison Square Park one block to the west (Jackson to Madison between 8th and 9th Streets), giving BART two contiguous blocks to establish its headquarters building and a parking lot (Madison to Fallon between 8th and 9th Streets) and building the Lake Merritt Station underground.

In 2006, the BART headquarters building above the Lake Merritt Station was deemed "at risk" if a major earthquake struck. Subsequently, the six-story building was dismantled in 2009 and operational headquarters moved to the Kaiser complex along

BUILDING, STRUCTURE, AND OBJECT RECORD

Page 4 of 5

*NRHP Status Code 2D2, 3D

*Resource Name or # (Assigned by recorder) 55 8th Street, MR 06

Lakeside Drive. That move has provided an opportunity for BART, the City of Oakland, Laney College, and the surrounding community, including Chinatown, to envision redeveloping the three Madison Square blocks."

NRHP RE-EVALUATION

The property at 55 8th Street is located within the Lake Merritt Station Area Planning Area which is an approximately one-half mile radius around the nearby Lake Merritt BART Station. As directed in the *Draft Environmental Impact Report for Lake Merritt Station Area Plan* in "Chapter 3.8: Cultural and Historic Resources," several mitigation measures were developed to reduce redevelopment impacts to historical resources including "Future Site-specific Surveys and Evaluations" which states, "Although most of the Project Area has been surveyed by the City of Oakland's OCHS, evaluations and ratings may change with time and other conditions. As such, there may be numerous other previously unidentified historical resources which would be affected by future redevelopment activities, including demolition, alteration, and new construction. For any future development project that would occur on or immediately adjacent to buildings 50 years old or older that have not been surveyed within the last 10 years, the City shall require specific surveys and evaluations of such properties to determine their potential historical significance at the federal, state, and local levels. Intensive-level surveys and evaluations shall be completed by a qualified architectural historian who meets the Secretary of the Interior's Standards for architectural history. For all historical resources identified as a result of site-specific surveys and evaluations, the City shall ensure that future redevelopment activities, including demolition, alteration, and new construction, would avoid, adaptively reuse, and/or appropriately relocate such historical resources in accordance with measure "a" (Avoidance, Adaptive Reuse, or Appropriate Relocation of Historically Significant Structures), above. Site-specific surveys and evaluations that are more than 5 years old shall be updated to account for changes which may have occurred over time" (City of Oakland 2013: 3.8-58).

Because the last documentation and evaluation of the property at 55 8th Street occurred at least 15 years ago, and the currently available documentation is 40 years old, this recordation and evaluation serves as an update to identify any changes that have been made and to re-evaluate the property for NRHP-eligibility accordingly.

Under NRHP Criterion A, this building has been previously determined a contributor to the NRHP-eligible "7th Street/Harrison Square Residential District" which is significant for its association within residential growth of Oakland during the 19th and early 20th centuries.

Under NRHP Criterion B, this building and the NRHP-eligible "7th Street/Harrison Square Residential District" have been previously determined not significant for any associations with the lives of persons important to history. Research has never indicated that any individuals, such as early resident and builder James A. Smilie, or others related to the development and use of this building made demonstrably important contributions to history at the local, state, or national level.

Under NRHP Criterion C, this building has been previously determined a contributor to the NRHP-eligible "7th Street/Harrison Square Residential District" as part of the concentration of Italianate, Queen Anne, and Colonial Revival style lower-and-middle-class housing.

Under NRHP Criterion D, this building and the NRHP-eligible "7th Street/Harrison Square Residential District" have been previously determined not significant as a source (or likely source) of important information regarding history. They do not appear to have any likelihood of yielding important information about historic construction materials or technologies.

Integrity Analysis

Buildings, structures, objects, sites, and districts listed in, eligible for listing in, or that appear eligible for listing in the NRHP are considered historic properties under the regulations for Section 106 of the National Historic Preservation Act (NHPA). Eligibility for listing buildings, structures, objects, sites, and districts (i.e., resources) in the NRHP rests on twin factors of historic significance and integrity. A resource must have both significance and integrity to be considered eligible.

Integrity is determined through applying seven factors to the historic resource: location, design, setting, workmanship, materials, feeling, and association. These seven can be roughly grouped into three types of integrity considerations. Location and setting relate to the relationship between the property and its environment. Design, materials, and workmanship, as they apply to historic buildings, relate to construction methods and architectural details. Feeling and association are the least objective of the seven criteria and pertain to the overall ability of the property to convey a sense of the historical time and place in which it was constructed.

The building has not been moved so it retains integrity of location. The setting of the building since it was found to be a contributor to the "7th Street/Harrison Square Residential District" in the 1980s as part of the OCHS survey has remained largely unchanged. It appears that the only changes made to the building since the OCHS survey is replacement of the non-original overhead garage door between 2022 and 2024 which is minimal and does not affect integrity of design, materials, workmanship, and feeling of an 1890s residence, nor its association with the 7th Street/Harrison Square Residential District."

BUILDING, STRUCTURE, AND OBJECT RECORD

CONCLUSION

In conclusion, the property at 55 8th Street was determined a contributor to the NRHP-eligible "7th Street/Harrison Square Residential District" in 2009. Minimal changes have been made to the building since then (see B6), and it retains sufficient integrity to continue to convey its significance as a contributor and is a therefore reconfirmed as a historic property under Section 106 of the National Historic Preservation Act (NHPA).

***B12. References (continued):**

Built Environment Resource Directory (BERD). 2024. "Alameda." Excel spreadsheet available for download at: https://ohp.parks.ca.gov/?page_id=30338. Accessed February 2024.

City of Oakland. 2013. *Lake Merritt Station Area Plan, Draft Environmental Impact Report, SCH #2012032012, Volume II of II*.

Google Maps Street View. 2024. 55 8th Street, Oakland, CA. Street side imagery, various years.

Oakland Cultural Heritage Survey. 1984a. "Historic Resources Inventory: 55 8th Street, Oakland." On file at Northwest Information Center, Sonoma State University, Rohnert Park, CA.

_____. 1985. "Seventh Street/Harrison Square Residential District." On file at Northwest Information Center, Sonoma State University, Rohnert Park, CA.

Oaklandca.gov. 2024. "Historical and Architectural Rating Systems." City of Oakland. Available at: <https://www.oaklandca.gov/topics/historical-and-architectural-rating-systems>. Accessed February 2024.

P5a. Photographs (continued):



Photograph 2. Northern-facing facade of 5 8th Street, camera facing south, February 29, 2024.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 2D2, 3D

Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 5

*Resource Name or #: (Assigned by recorder) 59 8th Street, MR 07

P1. Other Identifier: 59 8th Street

***P2. Location:** Not for Publication Unrestricted

***a. County:** Alameda

***b. USGS 7.5' Quad** Oakland West, Calif. **Date** 2021

c. Address 59 8th Street **City** Oakland **Zip** 94607

d. UTM: (Give more than one for large and/or linear resources) Zone 10S ; 564724.26 mE/ 4183481.72 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Assessor's Parcel Number (APN): 001 016900600

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This two-story with an attic, Queen Anne style residence was constructed in 1896 and is sited near the center of the block at the southwest intersection of 8th and Fallon streets (**Photograph 1**). The Lake Merritt Bay Area Rapid Transit (BART) System parking lot is immediately north of the property and the BART station is one-block to the northwest (see **Sketch Map**). The parcel is lined with a modern metal security fence and gate system. The building has a roughly rectangular plan and rests on a slab foundation with a full-story basement level. It is topped with a stacked gable roof system with narrow overhang and is covered with composition shingles. Three-sided bays are featured on the northern-facing façade and the east and west sides (**Photographs 1 and 2**). Several types of wood siding cover the exterior including wide and narrow horizontal wood boards on the basement and main story levels with fish-scale wood shingles in the end gables. Additional ornamentation in the end gables consist of a carved floral patterned apex panel, turned bosses in the bargeboard, and bow garland details in the frieze. Primary entry into the residence is gained on the northern-facing façade through stairs that extend from the sidewalk to the raised first-story. The entry is protected in an integral porch that is supported on turned wood posts. The multi-light glazed wood door has a fixed transom above and is protected by a metal security door. Windows consist of one-over-one wood frame with a small, four-over-one window at the attic level on the façade. A former single-car garage opening at the full-story basement level is boarded over.

***P3b. Resource Attributes:** (List attributes and codes) HP2 – Single Family Property

***P4. Resources Present:** Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing



P5b. Description of Photo: (view, date, accession #) Photograph 1. View of northern-facing facade camera facing south, February 29, 2024

***P6. Date Constructed/Age and Source:**

Historic Prehistoric Both
1896 (City of Oakland)

***P7. Owner and Address:**

Private

***P8. Recorded by:** (Name, affiliation, address)

H. Miller, AECOM
300 Lakeside Drive, Suite 400
Oakland, CA 94612

***P9. Date Recorded:** February 29, 2024

***P10. Survey Type:** Intensive

***P11. Report Citation:** AECOM. "East Bay Asian Local Development Corporation, Lake Merritt BART Affordable Senior Housing – Section 106 of the National Historic Preservation Act Review." Prepared for City of Oakland, 2024.

***Attachments:** NONE Location Map Continuation Sheet Building, Structure, and Object Record Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record Artifact Record Photograph Record Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

Page 2 of 5

*NRHP Status Code 2D2, 3D

*Resource Name or # (Assigned by recorder) 59 8th Street, MR 07

B1. Historic Name: Robert E. Sullivan House; 57 8th Street

B2. Common Name: n/a

B3. Original Use: Single-Family Property

B4. Present Use: Single-Family Property

*B5. Architectural Style: Queen Anne

*B6. Construction History: (Construction date, alterations, and date of alterations) 1896 (City of Oakland 2024); 1963 basement unit (Oakland Tribune 1963 March 27).

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features: n/a

B9a. Architect: unknown b. Builder: unknown

*B10. Significance: Theme Residential Growth (A) & Architecture (C) Area Oakland

Period of Significance 1860s-1910 Property Type Residential (contributor) Applicable Criteria NRHP A & C

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The property at 59 8th Street was inventoried and evaluated on a Historic Resources Inventory (HRI) form by the Oakland Cultural Heritage Survey (OCHS) in 1984 as part of the "7th Street/Harrison Square Residential District" survey efforts (see attached HRI form). The author of the HRI form stated that the residence was a contributor to the "Seventh Street/Harrison Square Residential District" "for its architecture and history" which OCHS concluded was eligible for listing in the National Register of Historic Places (NRHP) (OCHS 1984; OCHS 1985). OCHS found the district eligible for listing in the NRHP "as a surviving area of middle- and lower-middle-class housing constructed largely between 1889 and 1910" (OCHS 1985), but no specific NRHP criteria, period of significance, or character-defining features were identified as part of the significance evaluation. (SEE CONTINUATION SHEET)

B11. Additional Resource Attributes: (List attributes and codes)

*B12. References: SEE CONTINUATION SHEET

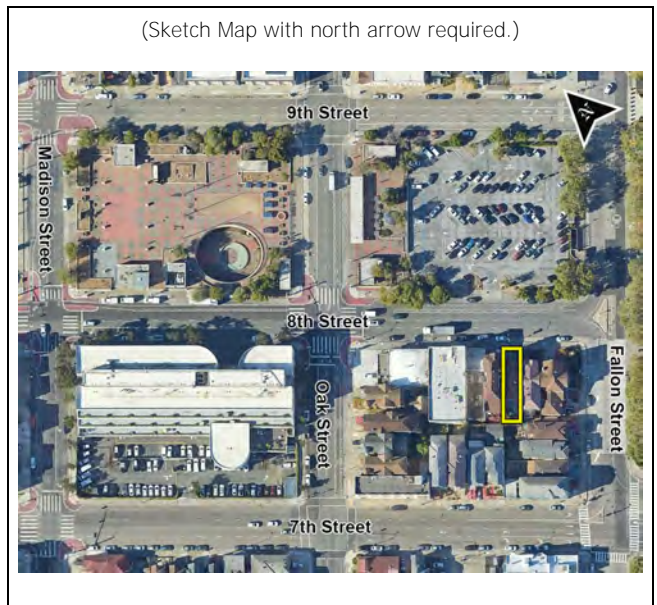
B13. Remarks:

*B14. Evaluator: H. Miller, AECOM

*Date of Evaluation: March 2024

(This space reserved for official comments.)

(Sketch Map with north arrow required.)



***B10. Significance (continued):**

Based on the themes and built dates of the buildings recorded within in the district and the historic themes in (in order of importance) of architecture, social/ education, exploration/settlement, and economic/industrial, the district is assumed significant under NRHP Criterion A for its important association within the residential growth of Oakland during the 19th and early 20th centuries, and under NRHP Criterion C as concentration of Italianate, Queen Anne, and Colonial Revival style lower-and-middle-class housing. The period of significance of the district appears to be from the 1860s when the earliest buildings were constructed to 1910 when most of the lots were built out. Character-defining features of the district are assumed to consist of the extant contributing buildings, their size and scale, late 19th and early 20th century architectural styles and details, and the historic street grid pattern.

The "7th Street/Harrison Square Residential District" survey documents from the early 1980s were submitted to the Northwest Information Center (NWIC) and the property at 59 8th Street was assigned a California Historical Resources Status Code of 3D: "Appears eligible for NRHP as a contributor to a NRHP eligible multi-component resource through survey evaluation" (BERD 2024). In 2009 a United States Department of Housing and Urban Development (HUD) report was prepared and submitted to NWIC that appears to have reevaluated and reconfirmed 55 8th Street as a contributor to the NRHP-eligible "7th Street/Harrison Square Residential District" and received concurrence from the State Historic Preservation Officer (SHPO) because it was assigned a California Historical Resources Status Code of 2D2: "Contributor to a multi-component resource determined eligible for NRHP by consensus through Section 106 process. Listed in the CRHR" (BERD 2024). Therefore, the property at 55 8th Street is a historic property under Section 106 of the National Historic Preservation Act (NHPA). However, a copy of the 2009 HUD report nor an updated recordation and evaluation of the property at 59 8th Street were on-file at NWIC.

At the local level, as a result of the "7th Street/Harrison Square Residential District" survey efforts, OCHS assigned an individual property rating of "C1+" to the property at 59 8th Street which in this case means Secondary Importance: Superior or visually important example, or very early (pre-1906), and in a National Register quality/eligible district (Oaklandca.gov 2024).

HISTORIC CONTEXT

Property Specific

The following context was excerpted and adapted from the HRI form authored by OCHS in 1984.

"Assessor's Block Books indicate it was built between mid-1895 and mid-1896 for R.E. and Margaret Sullivan. A printing foreman, Robert E. Sullivan was listed living at 57 8th Street beginning in 1897. This is part of a row of four fairly intact Queen Anne residences that define and anchor the northeast corner of the district."

It appears that the only changes made to the building since the OCHS survey is replacement boards on the garage opening at the full-story basement level.

Lake Merritt Bay Area Rapid Transit (BART)

The following context for the immediate setting of the property was excerpted and adapted from "Chapter 9: Historic Resources" in the Lake Merritt Station Area Plan, Existing Conditions and Key Issues Report, June 2013.

"By the early 1960s, major public-works projects began to transform the three blocks [north and northwest from the property at 55 8th Street]. The biggest project was the new Bay Area Rapid Transit District (BART), created by the California Legislature in 1957 to provide a fixed-rail mass transit system. BART won voter approval in three Bay Area counties to operate, one of them being Alameda County, which includes Oakland as the county seat.

All of the buildings and the Madison Square Park infrastructure on the three blocks bounded by Jackson Street on the west, 9th Street on the north, Fallon Street on the east, and 8th Street on the south were demolished between 1965 and 1968 to construct the Lake Merritt BART station (Cartwright Aerial Surveys 1965 May 18; HistoricAerials.com 1968). Construction of the station began in the late 1960s and officially opened in 1972. The six-story BART administrative and engineering headquarters building at 800 Madison Street was officially open for business in December of 1971. One significant change was moving Madison Square Park one block to the west (Jackson to Madison between 8th and 9th Streets), giving BART two contiguous blocks to establish its headquarters building and a parking lot (Madison to Fallon between 8th and 9th Streets) and building the Lake Merritt Station underground.

In 2006, the BART headquarters building above the Lake Merritt Station was deemed "at risk" if a major earthquake struck. Subsequently, the six-story building was dismantled in 2009 and operational headquarters moved to the Kaiser complex along Lakeside Drive. That move has provided an opportunity for BART, the City of Oakland, Laney College, and the surrounding community, including Chinatown, to envision redeveloping the three Madison Square blocks."

NRHP RE-EVALUATION

The property at 59 8th Street is located within the Lake Merritt Station Area Planning Area which is an approximately one-half mile radius around the nearby Lake Merritt BART Station. As directed in the *Draft Environmental Impact Report for Lake Merritt Station Area Plan* in "Chapter 3.8: Cultural and Historic Resources," several mitigation measures were developed to reduce redevelopment impacts to historical resources including "Future Site-specific Surveys and Evaluations" which states, "Although most of the Project Area has been surveyed by the City of Oakland's OCHS, evaluations and ratings may change with time and other conditions. As such, there may be numerous other previously unidentified historical resources which would be affected by future redevelopment activities, including demolition, alteration, and new construction. For any future development project that would occur on or immediately adjacent to buildings 50 years old or older that have not been surveyed within the last 10 years, the City shall require specific surveys and evaluations of such properties to determine their potential historical significance at the federal, state, and local levels. Intensive-level surveys and evaluations shall be completed by a qualified architectural historian who meets the Secretary of the Interior's Standards for architectural history. For all historical resources identified as a result of site-specific surveys and evaluations, the City shall ensure that future redevelopment activities, including demolition, alteration, and new construction, would avoid, adaptively reuse, and/or appropriately relocate such historical resources in accordance with measure "a" (Avoidance, Adaptive Reuse, or Appropriate Relocation of Historically Significant Structures), above. Site-specific surveys and evaluations that are more than 5 years old shall be updated to account for changes which may have occurred over time" (City of Oakland 2013: 3.8-58).

Because the last documentation and evaluation of the property at 59 8th Street occurred at least 15 years ago, and the currently available documentation is 40 years old, this recordation and evaluation serves as an update to identify any changes that have been made and to re-evaluate the property for NRHP-eligibility accordingly.

Under NRHP Criterion A, this building has been previously determined a contributor to the NRHP-eligible "7th Street/Harrison Square Residential District" which is significant for its association within residential growth of Oakland during the 19th and early 20th centuries.

Under NRHP Criterion B, this building and the NRHP-eligible "7th Street/Harrison Square Residential District" have been previously determined not significant for any associations with the lives of persons important to history. Research has never indicated that any individuals, such as early residents Robert E. and Margaret Sullivan, or others related to the development and use of this building made demonstrably important contributions to history at the local, state, or national level.

Under NRHP Criterion C, this building has been previously determined a contributor to the NRHP-eligible "7th Street/Harrison Square Residential District" as part of the concentration of Italianate, Queen Anne, and Colonial Revival style lower-and-middle-class housing.

Under NRHP Criterion D, this building and the NRHP-eligible "7th Street/Harrison Square Residential District" have been previously determined not significant as a source (or likely source) of important information regarding history. They do not appear to have any likelihood of yielding important information about historic construction materials or technologies.

Integrity Analysis and Conclusion

Buildings, structures, objects, sites, and districts listed in, eligible for listing in, or that appear eligible for listing in the NRHP are considered historic properties under the regulations for Section 106 of the National Historic Preservation Act (NHPA). Eligibility for listing buildings, structures, objects, sites, and districts (i.e., resources) in the NRHP rests on twin factors of historic significance and integrity. A resource must have both significance and integrity to be considered eligible.

Integrity is determined through applying seven factors to the historic resource: location, design, setting, workmanship, materials, feeling, and association. These seven can be roughly grouped into three types of integrity considerations. Location and setting relate to the relationship between the property and its environment. Design, materials, and workmanship, as they apply to historic buildings, relate to construction methods and architectural details. Feeling and association are the least objective of the seven criteria and pertain to the overall ability of the property to convey a sense of the historical time and place in which it was constructed.

The building has not been moved so it retains integrity of location. The setting of the building since it was found to be a contributor to the "7th Street/Harrison Square Residential District" in the 1980s as part of the OCHS survey has remained largely unchanged. It appears that the only changes made to the building since the OCHS survey is replacement boards on the garage opening at the full-story basement level which is minimal and does not affect integrity of design, materials, workmanship, and feeling of an 1890s residence, nor its association with the 7th Street/Harrison Square Residential District."

In conclusion, the property at 59 8th Street was determined a contributor to the NRHP-eligible "7th Street/Harrison Square Residential District" in 2009. It does not appear that any changes have been made to the building since then, it retains sufficient integrity to continue to convey its significance as a contributor and is a therefore reconfirmed as a historic property under Section 106 of the National Historic Preservation Act (NHPA).

Page 5 of 5

Recorded by: H. Miller *Date: February 29, 2024

*Resource Name or # (Assigned by recorder) 59 8th Street, MR 07
 Continuation Update

***B12. References (continued):**

Built Environment Resource Directory (BERD). 2024. "Alameda." Excel spreadsheet available for download at: https://ohp.parks.ca.gov/?page_id=30338. Accessed February 2024.

City of Oakland. 2013. *Lake Merritt Station Area Plan, Draft Environmental Impact Report, SCH #2012032012, Volume II of II*.

Oakland Cultural Heritage Survey (OCHS). 1984. "Historic Resources Inventory: Sullivan (Robert E.) House / 59 8th St. (formerly 57 8th St.), Oakland." On file at Northwest Information Center, Sonoma State University, Rohnert Park, CA.

_____. 1985. "Seventh Street/Harrison Square Residential District." On file at Northwest Information Center, Sonoma State University, Rohnert Park, CA.

Oaklandca.gov. 2024. "Historical and Architectural Rating Systems." City of Oakland. Available at: <https://www.oaklandca.gov/topics/historical-and-architectural-rating-systems>. Accessed February 2024.

Oakland Tribune. 1963 March 27. "Legal Notices, 7101." 45.

P5a. Photographs (continued):



Photograph 2. 59 8th Street, camera facing southwest, February 29, 2024.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 2D2, 3D

Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 5

*Resource Name or #: (Assigned by recorder) 61 8th Street, MR 08

P1. Other Identifier: 61 8th Street, Oakland

***P2. Location:** Not for Publication Unrestricted

***a. County:** Alameda

***b. USGS 7.5' Quad** Oakland West, Calif. **Date** 2021

c. Address 61 8th Street **City** Oakland **Zip** 94607

d. UTM: (Give more than one for large and/or linear resources) Zone 10S ; 564717.13 mE/ 4183482.00 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Assessor's Parcel Number (APN): 001 016900500

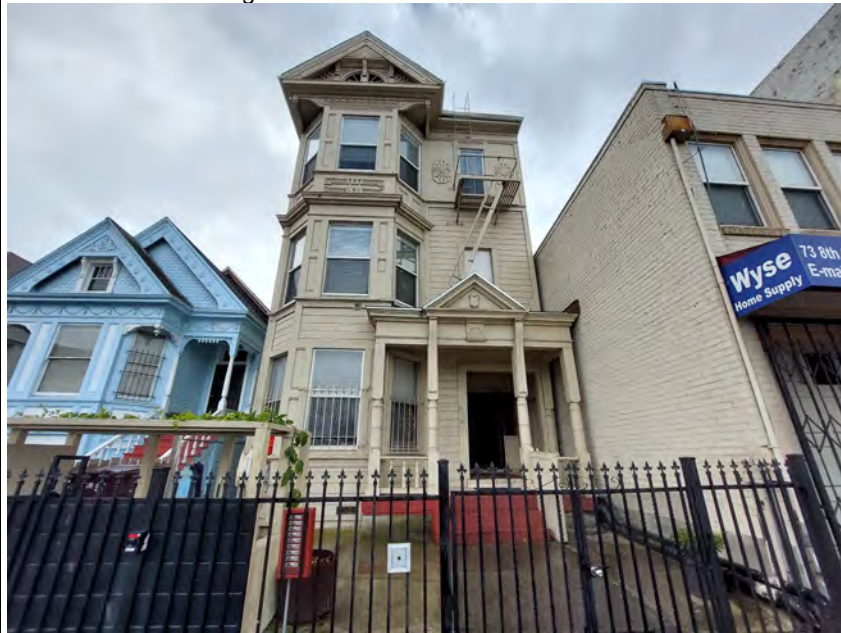
***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This three-story with an attic, Queen Anne style residence was constructed between 1892 and 1893 and is sited mid-block on the south side of 8th Street between Oak and Fallon streets (**Photograph 1**). The Lake Merritt Bay Area Rapid Transit (BART) System parking lot is immediately north of the property and the BART station is one-block to the northwest (see **Sketch Map**). The parcel is lined with a modern metal security fence and gate system. The building has a roughly rectangular plan and rests on a concrete foundation. It is topped with a cross-hip-and-gable roof system with narrow overhang and is covered with composition shingles. A three-sided bay that extends from the second story to the roofline is on the west side (**Photograph 2**). The exterior is sheathed in wide, flush horizontal wood boards. The northern-facing façade features a full-height, three-sided bay. Most of the decorative details expressed in the building are concentrated in and around the façade end gable which features a fanlight attic window, multiple sunbursts, and latticework of diamonds and turned knobs. Primary entry into the residence is gained on the northern-facing façade through stairs that extend from the sidewalk. The entry is protected by a pedimented porch that is supported on turned wood posts. The recessed entry is paneled in the fashion of 1900-1910 and may date to when the building was converted for multi-family living and is accessed by a modern metal security door. Windows consist of one-over-one aluminum frame replacements throughout. The building currently contains nine apartments.

***P3b. Resource Attributes:** (List attributes and codes) HP3 – Multiple Family Property

***P4. Resources Present:** Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing



P5b. Description of Photo: (view, date, accession #) **Photograph 1.** View of northern-facing façade, camera facing south, February 29, 2024

***P6. Date Constructed/Age and Source:**
 Historic Prehistoric Both
1892-93 (City of Oakland)

***P7. Owner and Address:**
Private

***P8. Recorded by:** (Name, affiliation, address)
H. Miller, AECOM
300 Lakeside Drive, Suite 400
Oakland, CA 94612

***P9. Date Recorded:** February 29, 2024

***P10. Survey Type:** Intensive

***P11. Report Citation:** AECOM. "East Bay Asian Local Development Corporation, Lake Merritt BART Affordable Senior Housing – Section 106 of the National Historic Preservation Act Review." Prepared for City of Oakland, 2024.

***Attachments:** NONE Location Map Continuation Sheet Building, Structure, and Object Record Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record Artifact Record Photograph Record Other (List):

Page 2 of 5

Recorded by: H. Miller *Date: February 29, 2024

*Resource Name or # (Assigned by recorder) 61 8th Street, MR 08
 Continuation Update

- B1. Historic Name: Frank B. Josephs House; 59 & 59 1/2 8th Street
- B2. Common Name: n/a
- B3. Original Use: Single-Family Property
- B4. Present Use: Multiple-Family Property

*B5. Architectural Style: Queen Anne

*B6. Construction History: (Construction date, alterations, and date of alterations) 1892-93 (City of Oakland 2024); 1905-06 converted to flats, some ornament removed (OCHS 1984).

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features: n/a

B9a. Architect: unknown b. Builder: unknown

*B10. Significance: Theme Residential Growth (A) & Architecture (C) Area Oakland
 Period of Significance 1860s-1910 Property Type Residential (contributor) Applicable Criteria NRHP A & C
 (Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The property at 61 8th Street was inventoried and evaluated on a Historic Resources Inventory (HRI) form by the Oakland Cultural Heritage Survey (OCHS) in 1984 as part of the "7th Street/Harrison Square Residential District" survey efforts (see attached HRI form). The author of the HRI form stated that the residence was a contributor to the "Seventh Street/Harrison Square Residential District" "for its architecture and history" which OCHS concluded was eligible for listing in the National Register of Historic Places (NRHP) (OCHS 1984c; OCHS 1985). OCHS found the district eligible for listing in the NRHP "as a surviving area of middle- and lower-middle-class housing constructed largely between 1889 and 1910" (OCHS 1985), but no specific NRHP criteria, period of significance, or character-defining features were identified as part of the significance evaluation. (SEE CONTINUATION SHEET)

B11. Additional Resource Attributes: (List attributes and codes)

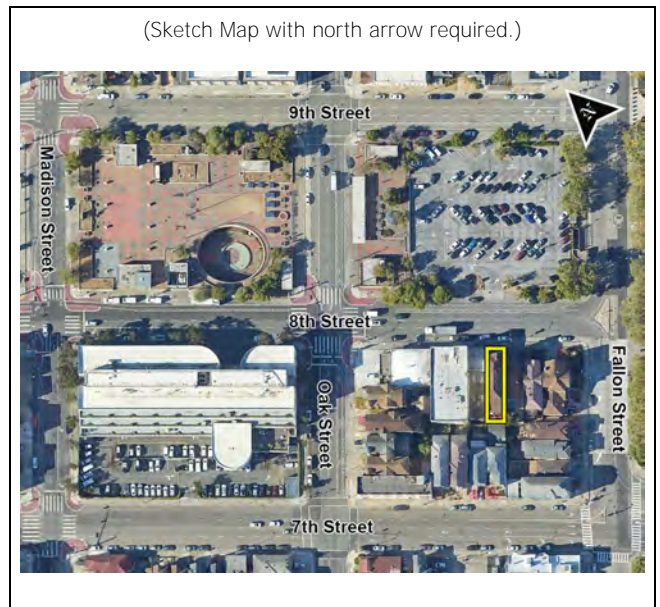
*B12. References: SEE CONTINUATION SHEET

B13. Remarks:

*B14. Evaluator: H. Miller, AECOM

*Date of Evaluation: March 2024

(This space reserved for official comments.)



***B10. Significance (continued):**

Based on the themes and built dates of the buildings recorded within in the district and the historic themes in (in order of importance) of architecture, social/ education, exploration/settlement, and economic/industrial, the district is assumed significant under NRHP Criterion A for its important association within the residential growth of Oakland during the 19th and early 20th centuries, and under NRHP Criterion C as concentration of Italianate, Queen Anne, and Colonial Revival style lower-and-middle-class housing. The period of significance of the district appears to be from the 1860s when the earliest buildings were constructed to 1910 when most of the lots were built out. Character-defining features of the district are assumed to consist of the extant contributing buildings, their size and scale, late 19th and early 20th century architectural styles and details, and the historic street grid pattern.

The "7th Street/Harrison Square Residential District" survey documents from the early 1980s were submitted to the Northwest Information Center (NWIC) and the property at 61 8th Street was assigned a California Historical Resources Status Code of 3D: "Appears eligible for NRHP as a contributor to a NRHP eligible multi-component resource through survey evaluation" (BERD 2024). In 2009 a United States Department of Housing and Urban Development (HUD) report was prepared and submitted to NWIC that appears to have reevaluated and reconfirmed 55 8th Street as a contributor to the NRHP-eligible "7th Street/Harrison Square Residential District" and received concurrence from the State Historic Preservation Officer (SHPO) because it was assigned a California Historical Resources Status Code of 2D2: "Contributor to a multi-component resource determined eligible for NRHP by consensus through Section 106 process. Listed in the CRHR" (BERD 2024). Therefore, the property at 55 8th Street is a historic property under Section 106 of the National Historic Preservation Act (NHPA). However, a copy of the 2009 HUD report nor an updated recordation and evaluation of the property at 61 8th Street were on-file at NWIC.

At the local level, as a result of the "7th Street/Harrison Square Residential District" survey efforts, OCHS assigned an individual property rating of "C1+" to property at 61 8th Street which in this case means Secondary Importance: Superior or visually important example, or very early (pre-1906), and in a National Register quality/eligible district (Oaklandca.gov 2024).

HISTORIC CONTEXT

Property Specific

The following context was excerpted and adapted from the HRI form authored by OCHS in 1984.

"Assessor's Block Books indicate the house was built between mid-1892 and mid-1893 for Frank B. Josephs, a police clerk who later became an attorney with [an] office in the Blake & Moffit Block at the northeast corner of 8th and Broadway. Josephs was first listed in the subject house in the 1892-93 directory. The Block Books also imply that the lower floor was inserted and the building converted to flats between mid-1905 and mid-1906: the latter date would coincide with the post-earthquake housing boom. The owner then was Stella A. Ogden, wife of George B. Ogden, who sold monuments and real estate in San Francisco. The subject property was not their residence but a source of income."

It does not appear that any changes have been made to the building since the OCHS survey.

Lake Merritt Bay Area Rapid Transit (BART)

The following context for the immediate setting of the property was excerpted and adapted from "Chapter 9: Historic Resources" in the Lake Merritt Station Area Plan, Existing Conditions and Key Issues Report, June 2013.

"By the early 1960s, major public-works projects began to transform the three blocks [north and northwest from the property at 55 8th Street]. The biggest project was the new Bay Area Rapid Transit District (BART), created by the California Legislature in 1957 to provide a fixed-rail mass transit system. BART won voter approval in three Bay Area counties to operate, one of them being Alameda County, which includes Oakland as the county seat.

All of the buildings and the Madison Square Park infrastructure on the three blocks bounded by Jackson Street on the west, 9th Street on the north, Fallon Street on the east, and 8th Street on the south were demolished between 1965 and 1968 to construct the Lake Merritt BART station (Cartwright Aerial Surveys 1965 May 18; HistoricAerials.com 1968). Construction of the station began in the late 1960s and officially opened in 1972. The six-story BART administrative and engineering headquarters building at 800 Madison Street was officially open for business in December of 1971. One significant change was moving Madison Square Park one block to the west (Jackson to Madison between 8th and 9th Streets), giving BART two contiguous blocks to establish its headquarters building and a parking lot (Madison to Fallon between 8th and 9th Streets) and building the Lake Merritt Station underground.

In 2006, the BART headquarters building above the Lake Merritt Station was deemed "at risk" if a major earthquake struck. Subsequently, the six-story building was dismantled in 2009 and operational headquarters moved to the Kaiser complex along

Lakeside Drive. That move has provided an opportunity for BART, the City of Oakland, Laney College, and the surrounding community, including Chinatown, to envision redeveloping the three Madison Square blocks."

NRHP RE-EVALUATION

The property at 61 8th Street is located within the Lake Merritt Station Area Planning Area which is an approximately one-half mile radius around the nearby Lake Merritt BART Station. As directed in the *Draft Environmental Impact Report for Lake Merritt Station Area Plan* in "Chapter 3.8: Cultural and Historic Resources," several mitigation measures were developed to reduce redevelopment impacts to historical resources including "Future Site-specific Surveys and Evaluations" which states, "Although most of the Project Area has been surveyed by the City of Oakland's OCHS, evaluations and ratings may change with time and other conditions. As such, there may be numerous other previously unidentified historical resources which would be affected by future redevelopment activities, including demolition, alteration, and new construction. For any future development project that would occur on or immediately adjacent to buildings 50 years old or older that have not been surveyed within the last 10 years, the City shall require specific surveys and evaluations of such properties to determine their potential historical significance at the federal, state, and local levels. Intensive-level surveys and evaluations shall be completed by a qualified architectural historian who meets the Secretary of the Interior's Standards for architectural history. For all historical resources identified as a result of site-specific surveys and evaluations, the City shall ensure that future redevelopment activities, including demolition, alteration, and new construction, would avoid, adaptively reuse, and/or appropriately relocate such historical resources in accordance with measure "a" (Avoidance, Adaptive Reuse, or Appropriate Relocation of Historically Significant Structures), above. Site-specific surveys and evaluations that are more than 5 years old shall be updated to account for changes which may have occurred over time" (City of Oakland 2013: 3.8-58).

Because the last documentation and evaluation of the property at 59 8th Street occurred at least 15 years ago, and the currently available documentation is 40 years old, this recordation and evaluation serves as an update to identify any changes that have been made and to re-evaluate the property for NRHP-eligibility accordingly.

Under NRHP Criterion A, this building has been previously determined a contributor to the NRHP-eligible "7th Street/Harrison Square Residential District" which is significant for its association within residential growth of Oakland during the 19th and early 20th centuries.

Under NRHP Criterion B, this building and the NRHP-eligible "7th Street/Harrison Square Residential District" have been previously determined not significant for any associations with the lives of persons important to history. Research has never indicated that any individuals, such as early resident Frank B. Josephs or subsequent early owner Stella A. Ogden, or others related to the development and use of this building made demonstrably important contributions to history at the local, state, or national level.

Under NRHP Criterion C, this building has been previously determined a contributor to the NRHP-eligible "7th Street/Harrison Square Residential District" as part of the concentration of Italianate, Queen Anne, and Colonial Revival style lower-and-middle-class housing.

Under NRHP Criterion D, this building and the NRHP-eligible "7th Street/Harrison Square Residential District" have been previously determined not significant as a source (or likely source) of important information regarding history. They do not appear to have any likelihood of yielding important information about historic construction materials or technologies.

Integrity Analysis

Buildings, structures, objects, sites, and districts listed in, eligible for listing in, or that appear eligible for listing in the NRHP are considered historic properties under the regulations for Section 106 of the National Historic Preservation Act (NHPA). Eligibility for listing buildings, structures, objects, sites, and districts (i.e., resources) in the NRHP rests on twin factors of historic significance and integrity. A resource must have both significance and integrity to be considered eligible.

Integrity is determined through applying seven factors to the historic resource: location, design, setting, workmanship, materials, feeling, and association. These seven can be roughly grouped into three types of integrity considerations. Location and setting relate to the relationship between the property and its environment. Design, materials, and workmanship, as they apply to historic buildings, relate to construction methods and architectural details. Feeling and association are the least objective of the seven criteria and pertain to the overall ability of the property to convey a sense of the historical time and place in which it was constructed.

The building has not been moved so it retains integrity of location. The setting of the building since it was found to be a contributor to the "7th Street/Harrison Square Residential District" in the 1980s as part of the OCHS survey has remained largely unchanged. It does not appear that any changes have been made to the building since the OCHS survey and therefore retains integrity of design, materials, workmanship, and feeling of an 1890s residential building, and association with the 7th Street/Harrison Square Residential District."

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Recorded by: H. Miller *Date: February 29, 2024

*Resource Name or # (Assigned by recorder) 61 8th Street, MR 08
 Continuation Update

CONCLUSION

In conclusion, the property at 61 8th Street was determined a contributor to the NRHP-eligible "7th Street/Harrison Square Residential District" in 2009. While changes have been made to the building since then (see B6), it retains sufficient integrity to continue to convey its significance as a contributor, and is therefore reconfirmed as a historic property under Section 106 of the National Historic Preservation Act (NHPA).

***B12. References (continued):**

Built Environment Resource Directory (BERD). 2024. "Alameda." Excel spreadsheet available for download at: https://ohp.parks.ca.gov/?page_id=30338. Accessed February 2024.

City of Oakland. 2013. *Lake Merritt Station Area Plan, Draft Environmental Impact Report, SCH #2012032012, Volume II of II.*

Oakland Cultural Heritage Survey. 1984. "Historic Resources Inventory: Josephs (Frank B.) House / 61 8th St. (formerly 59 8th St.), Oakland." On file at Northwest Information Center, Sonoma State University, Rohnert Park, CA.

_____. 1985. "Seventh Street/Harrison Square Residential District." On file at Northwest Information Center, Sonoma State University, Rohnert Park, CA.

Oaklandca.gov. 2024. "Historical and Architectural Rating Systems." City of Oakland. Available at: <https://www.oaklandca.gov/topics/historical-and-architectural-rating-systems>. Accessed February 2024.

P5a. Photographs (continued):



Photograph 2. Northern-facing façade and west side of 61 8th Street, camera facing southwest, February 29, 2024.

State of California - The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
 HRI # _____
 Trinomial _____
 NRHP Status Code 6Z

Other Listings _____
 Review Code _____ Reviewer _____ Date _____

Page 1 of 5

*Resource Name or #: (Assigned by recorder) 73 8th Street, MR 10

P1. Other Identifier: 73 8th Street

***P2. Location:** Not for Publication Unrestricted

***a. County:** Alameda

***b. USGS 7.5' Quad** Oakland West, Calif. **Date** 2021

c. Address 73 8th Street **City** Oakland **Zip** 94607

d. UTM: (Give more than one for large and/or linear resources) Zone 10S ; 564710.47 mE/ 4183489.16 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Assessor's Parcel Number (APN): 001 016900400

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This two-part commercial block building was constructed between 1946 and 1946 and is sited mid-block on the south side of 8th Street between Oak and Fallon streets (**Photograph 1**). The Lake Merritt Bay Area Rapid Transit (BART) System parking lot is immediately north of the property and the BART station is one-block to the northwest (see **Sketch Map**). The utilitarian building has a rectangular plan, is constructed of brick masonry, and is topped with a flat roof system (**Photographs 1 and 2**). Primary entry into the building is through a metal security door on the east end of the northern-facing façade and features a fixed transom above. An overhead garage door dominates the west half of the first-story façade and is protected by a metal security gate. A three-part, metal frame fixed window is sited between the doors and a tile apron lines the lower portion of the façade. The second story is punctuated by six, two-over-two vinyl frame replacement windows with brick sills.

***P3b. Resource Attributes:** (List attributes and codes) HP6 – 1-3 Story Commercial Building

***P4. Resources Present:** Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing



***P5b. Description of Photo:** (view, date, accession #) Photograph 1. View of northern-facing façade, camera facing south, February 29, 2024

***P6. Date Constructed/Age and Source:**
 Historic Prehistoric Both
1945-1946 (City of Oakland)

***P7. Owner and Address:**
Private

***P8. Recorded by:** (Name, affiliation, address)
H. Miller, AECOM
300 Lakeside Drive, Suite 400
Oakland, CA 94612

***P9. Date Recorded:** February 29, 2024

***P10. Survey Type:** Intensive

***P11. Report Citation:** AECOM. "East Bay Asian Local Development Corporation, Lake Merritt BART Affordable Senior Housing – Section 106 of the National Historic Preservation Act Review." Prepared for City of Oakland, 2024.

***Attachments:** NONE Location Map Continuation Sheet Building, Structure, and Object Record Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record Artifact Record Photograph Record Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

- B1. Historic Name: n/a
- B2. Common Name: n/a
- B3. Original Use: Commercial Building
- B4. Present Use: Commercial Building
- *B5. Architectural Style: utilitarian two-part commercial block

*B6. Construction History: (Construction date, alterations, and date of alterations) 1945-1946 (City of Oakland 2024); Garage door replaced with non-historic door prior to 1983; second story windows replaced with non-historic windows, doors replaced with non-historic doors after 1983 (OCHS 1983)

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____
*B8. Related Features: n/a

B9a. Architect: J.Y. Long b. Builder: Shale Ortow

*B10. Significance: Theme n/a Area n/a
Period of Significance n/a Property Type n/a Applicable Criteria n/a

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The property at 73 8th Street does not appear to meet the criteria for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR), nor does it appear to be an historical resource for purposes of the California Environmental Quality Act (CEQA). The building does not retain integrity to its original construction and does not meet any of the significance criteria necessary for eligibility for listing in either the NRHP or CRHR. The property has been evaluated in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code.

B11. Additional Resource Attributes: (List attributes and codes)

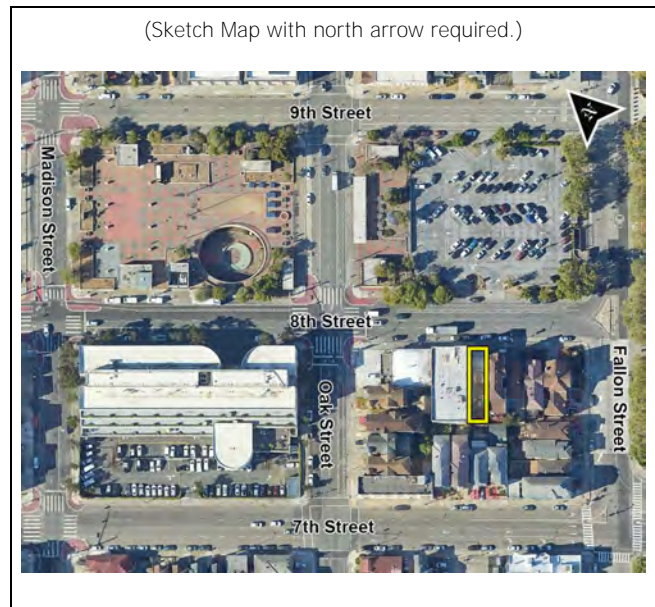
*B12. References: SEE CONTINUATION SHEET

B13. Remarks:

*B14. Evaluator: H. Miller, AECOM

*Date of Evaluation: March 2024

(This space reserved for official comments.)



Page 3 of 5

Recorded by: H. Miller *Date: February 29, 2024

*Resource Name or # (Assigned by recorder) 73 8th Street, MR 10

Continuation Update

***B10. Significance (continued):**

HISTORIC CONTEXT

Property Specific

The commercial building evaluated on this form was completed in 1946 as a brick and concrete factory. It was constructed by owner/builder Shale Ortzow in a design by Jack Y. Long (OCHS 1983). Ortzow was born in Russia in 1882 and was living in Sioux City, Iowa with his wife Annie as of 1907 and working as a building contractor. By 1920 the Ortzow family had relocated to Oakland and Shale continued work as a building contractor until his death in 1962 (Ancestry.com 2024b). Oakland-based civil engineer Jack Y. Long designed the building who was born Oakland in 1914. After high school he worked with steel fabricators in San Francisco and Sacramento and eventually secured a position with the state designing bridges. Two years after this building was completed, Long became the chairman of the Construction Industries Committee of the Oakland Chamber of Commerce (Ancestry.com 2024b; *Oakland Tribune* 1948 March 19).

The 1951 edition of Sanborn Fire Insurance Maps depict the building as a two-story warehouse with sheet metal works (Sanborn Map and Publishing Company 1951). Blue Ribbon Products, conveyers of fine coffee, occupied the building in the early 1950s (*Oakland Tribune* 1952 April 19). The building was intentionally excluded from the Oakland Cultural Heritage Survey (OCHS) in the mid-1980s of the adjacent "7th Street/Harrison Square Residential District."

At the local level, the property has been assigned an Oakland Cultural Heritage Survey (OCHS) individual property rating of "D3" which means Minor Importance, not in a historic district (Oaklandca.gov 2024).

Lake Merritt Bay Area Rapid Transit (BART)

The following context for the immediate setting of the property was excerpted and adapted from "Chapter 9: Historic Resources" in the Lake Merritt Station Area Plan, Existing Conditions and Key Issues Report, June 2013.

"By the early 1960s, major public-works projects began to transform the three blocks [north and northwest from the property at 55 8th Street]. The biggest project was the new Bay Area Rapid Transit District (BART), created by the California Legislature in 1957 to provide a fixed-rail mass transit system. BART won voter approval in three Bay Area counties to operate, one of them being Alameda County, which includes Oakland as the county seat.

All of the buildings and the Madison Square Park infrastructure on the three blocks bounded by Jackson Street on the west, 9th Street on the north, Fallon Street on the east, and 8th Street on the south were demolished between 1965 and 1968 to construct the Lake Merritt BART station (Cartwright Aerial Surveys 1965 May 18; HistoricAerials.com 1968). Construction of the station began in the late 1960s and officially opened in 1972. The six-story BART administrative and engineering headquarters building at 800 Madison Street was officially open for business in December of 1971. One significant change was moving Madison Square Park one block to the west (Jackson to Madison between 8th and 9th Streets), giving BART two contiguous blocks to establish its headquarters building and a parking lot (Madison to Fallon between 8th and 9th Streets) and building the Lake Merritt Station underground.

In 2006, the BART headquarters building above the Lake Merritt Station was deemed "at risk" if a major earthquake struck. Subsequently, the six-story building was dismantled in 2009 and operational headquarters moved to the Kaiser complex along Lakeside Drive. That move has provided an opportunity for BART, the City of Oakland, Laney College, and the surrounding community, including Chinatown, to envision redeveloping the three Madison Square blocks."

Two-Part Commercial Block

The two-part commercial block building was the most common type of small commercial buildings constructed in the United States from the mid-nineteenth to mid-twentieth century. It is generally two to four stories in height, features a division between public and private access and use, and fronts directly onto the sidewalk. Mid-twentieth century examples of this building type take on a simple, reserved, and unpretentious appearance and show the influences of the popular Modern style of the time in their design and materials (Longstreth 1987: 24).

EVALUATION

Under NRHP Criterion A or CRHR Criterion 1, this building has no significant association with important historic events. The building on this parcel, constructed in ca. 1945, is associated with commercial development of the area south of Lake Merritt however, many businesses occupied this building, but research did not reveal that the building played an important role in the economic development of the area.

Under NRHP Criterion B or CRHR Criterion 2, this building is not significant for any associations with the lives of persons important to history.

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*Resource Name or # (Assigned by recorder) 73 8th Street, MR 10

Recorded by: H. Miller *Date: February 29, 2024

Continuation Update

Research did not indicate that any individuals, such as business owners related to the development and use of this building made demonstrably important contributions to history at the local, state, or national level.

Under NRHP Criterion C or CRHR Criterion 3, this building is not significant because it is not an important example of a type, period, or method of construction. The two-part commercial block building type proliferated on main streets and commercial rows throughout the nation during the mid-nineteenth and mid-twentieth centuries. The commercial building at 73 8th street is an unremarkable example reflecting the twentieth century trends of this style. The building on this parcel also lacks high artistic values that would merit listing on the NRHP and CRHR. There is no indication that building designer Jack Y. Long, nor owner/builder Shale Ortzow are considered masters in their respective fields; therefore, it is not significant as the work of a master.

Under NRHP Criterion D or CRHR Criterion 4, this building is not significant as a source (or likely source) of important information regarding history. It does not appear to have any likelihood of yielding important information about historic construction materials or technologies.

At the local level, the property has been assigned an OCHS individual property rating of "D3" which means Minor Importance, not in a historic district. The building remains little changed since and this individual property rating remains accurate.

Integrity Analysis and Conclusion

In addition to the building's lack of significance, it also has losses to its historic integrity. While the building has integrity of location, setting, and association, the replacement windows and doors have affected integrity of design, workmanship, materials, and feeling of the original ca. 1945 building. The building, therefore, does not meet any of the significance criteria necessary for eligibility for listing in either the NRHP or the CRHR.

***B12. References (continued):**

Ancestry.com. 2024a. Family Tree for Shale Abraham Ortzow. Available at: https://www.ancestry.com/family-tree/person/tree/37399454/person/28682996523/facts?_phsrc=rYC31&_phstart=successSource. Accessed March 2024.

_____. 2024b. 1950 U.S. Census sheet for Jack Y. Long. Available at: https://www.ancestry.com/discoveryui-content/view/263456192:62308?tid=&pid=&queryId=88ab6cec-145e-452a-a9d8-bbc154fba90a&_phsrc=rYC30&_phstart=successSource. Accessed March 2024.

Longstreth, Richard. 1987. *The Buildings of Main Street: A Guide to American Commercial Architecture*. Preservation Press: Washington, D.C.

Oaklandca.gov. 2024. "Historical and Architectural Rating Systems." City of Oakland. Available at: <https://www.oaklandca.gov/topics/historical-and-architectural-rating-systems>. Accessed February 2024.

Oakland Cultural Heritage Survey (OCHS). 1983. "Oakland Cultural Heritage Survey – Evaluation Sheet – Oakland City Planning Department: 73 8th St." On file at City of Oakland, Bureau of Planning.

Oakland Tribune. 1948 March 19. "Jack Long Heads Chamber's Construction Industries Group." 12.

_____. 1953 April 29. "Sea Wolf Advertisement." 13.

Sanborn Map and Publishing Company. 1951. Oakland, CA. New York: Sanborn Map and Publishing Company, Limited. November.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 6Z

Page 5 of 5

Recorded by: H. Miller *Date: February 29, 2024

*Resource Name or # (Assigned by recorder) 73 8th Street, MR 10

Continuation Update

P5a. Photographs (continued):



Photograph 2. Northern-facing façade and west side of 73 8th Street, camera facing southwest, February 29, 2024.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 6Z

Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 5

*Resource Name or #: (Assigned by recorder) 77 8th Street, MR 10

P1. Other Identifier: 77 8th Street

***P2. Location:** Not for Publication Unrestricted

***a. County:** Alameda

***b. USGS 7.5' Quad** Oakland West, Calif. **Date** 2021

c. Address 77 8th Street **City** Oakland **Zip** 94607

d. UTM: (Give more than one for large and/or linear resources) Zone 10S ; 574678.73 mE/ 4147879.82 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Assessor's Parcel Number (APN): 001 016900300

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This heavily modified, two-part commercial block building was originally constructed in 1920 and is sited mid-block on the south side of 8th Street between Oak and Fallon streets (**Photograph 1**). The Lake Merritt Bay Area Rapid Transit (BART) System parking lot is immediately north of the property and the BART station is one-block to the northwest (see **Sketch Map**). The utilitarian building has a rectangular plan, is constructed of brick masonry, and clad in non-original, modern stucco siding, including two wide string courses across the northern-facing façade. A flat roof tops the building, lined with a low parapet, and an elevator equipment structure is sited at the northeast corner. Three recessed, anodized framed glass door and window configurations are on the first story of the façade and are protected by fabric covered, box frame awnings (**Photograph 2**). The second story features three anodized framed garden windows with fixed, casement, and one-over-one operations.

***P3b. Resource Attributes:** (List attributes and codes) HP6 – 1-3 Story Commercial Building

***P4. Resources Present:** Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing



P5b. Description of Photo: (view, date, accession #) **Photograph 1.** View of northern-facing facade, camera facing south, February 29, 2024

***P6. Date Constructed/Age and Source:**

Historic Prehistoric Both
1920 (City of Oakland)

***P7. Owner and Address:**

Private

***P8. Recorded by:** (Name, affiliation, address)

H. Miller, AECOM
300 Lakeside Drive, Suite 400
Oakland, CA 94612

***P9. Date Recorded:** February 29, 2024

***P10. Survey Type:** Intensive

***P11. Report Citation:** AECOM. "East Bay Asian Local Development Corporation, Lake Merritt BART Affordable Senior Housing – Section 106 of the National Historic Preservation Act Review." Prepared for City of Oakland, 2024.

***Attachments:** NONE Location Map Continuation Sheet Building, Structure, and Object Record Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record Artifact Record Photograph Record Other (List):

State of California — The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # _____
 HRI # _____
 Trinomial _____
 NRHP Status Code 6Z

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*Resource Name or # (Assigned by recorder) 77 8th Street, MR 10

Recorded by: H. Miller *Date: February 29, 2024

Continuation Update

B1. Historic Name: Oakland Tribune Garage

B2. Common Name: n/a

B3. Original Use: Industrial Building

B4. Present Use: Commercial Building

*B5. Architectural Style: Two-part Commercial Block/Modern

*B6. Construction History: (Construction date, alterations, and date of alterations) 1920 (City of Oakland 2024); Complete exterior remodel ca. 1984.

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features: n/a

B9a. Architect: Edward Foulkes b. Builder: James H. Pedgrift

*B10. Significance: Theme n/a Area n/a
 Period of Significance n/a Property Type n/a Applicable Criteria n/a

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The property at 77 8th Street does not appear to meet the criteria for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR), nor does it appear to be an historical resource for purposes of the California Environmental Quality Act (CEQA). The property does not retain integrity to its original construction and does not meet any of the significance criteria necessary for eligibility for listing in either the NRHP or CRHR. The property has been evaluated in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code.

B11. Additional Resource Attributes: (List attributes and codes)

*B12. References: SEE CONTINUATION SHEET

B13. Remarks:

*B14. Evaluator: H. Miller, AECOM

*Date of Evaluation: March 2024

(This space reserved for official comments.)



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 6Z

Page 3 of 5

Recorded by: H. Miller *Date: February 29, 2024

*Resource Name or # (Assigned by recorder) 77 8th Street, MR 10

Continuation Update

***B10. Significance (continued):**

HISTORIC CONTEXT

Property Specific

The commercial building evaluated on this form was developed in 1920 as a garage and paper storage for the *Oakland Tribune*. It was constructed by James H. Pedgrift in a design by Edward Foulkes (OCHS 1982). Architect Edward Thomas Foulkes was born on August 14, 1874 in Monmouth, Oregon. Foulkes studied at Stanford University, Massachusetts Institute of Technology and the Ecole Des Beaux Arts in Paris. He designed many buildings in northern California and Oregon but he primarily worked in Oakland. His portfolio includes the Tribune Tower (1920), Joaquin Miller Memorial Amphitheater (1931), and City Hall (1914). Foulkes died on December 10, 1967 in Oakland, California (*Oakland Tribune* 1967 December 11). Builder James H. Pedgrift was born on February 24, 1877, on the west coast of England. He immigrated to the United States in 1883 and arrived in California in 1902. Pedgrift was a partner at an Oakland building and construction firm. At the time that 77 8th Street was constructed, Pedgrift served as president of the General Contractors Association of Alameda County. He died on February 10, 1948 in Oakland (*Oakland Tribune* 1948 February 12; *Oakland Tribune* 1919 April 20).

The 1952 edition of Sanborn Fire Insurance Maps depict the building as a two-story building housing janitorial supplies with a second-floor warehouse (Sanborn Map and Publishing Company 1952). In 1961, the Thermostat Sales & Service Co. occupied the building and by 1967 was replaced by the Stove Plumbers Supplies Company (*Oakland Tribune* 1961 August 23; *Oakland Tribune* 1967 October 16). Oakland Cultural Heritage Survey (OCHS) recorded the building in 1982, but the exterior was heavily remodeled into its current appearance ca. 1984 (OCHS 1982; City of Oakland Building Department 1983) (see Plate 1). The building was intentionally excluded from the Oakland Cultural Heritage Survey (OCHS) in the mid-1980s of the adjacent "7th Street/Harrison Square Residential District."



Plate 1. 1982 photograph of 77 8th Street (Source: OCHS 1982)

At the local level, the property has been assigned an Oakland Cultural Heritage Survey (OCHS) individual property rating of "Ec3" which means Of no particular interest, potentially C "secondary importance" or superior example if restored, and not in a historic district (Oaklandca.gov 2024). A Re-evaluation was prepared by PCHS in August 1995 that reconfirmed the OCHS individual property rating of "Ec3" and also gave the building a California Historical Resources Status Code of 5S (now 5S2): "Individually listed or designated locally." The author of the re-evaluation did state that the building was ineligible for listing in the National Register of Historic Places "since its architectural integrity has been seriously compromised and there are more significant examples" (OCHS 1995; BERD 2024).

Two-Part Commercial Block

The two-part commercial block building was the most common type of small commercial buildings constructed in the United States from the mid-nineteenth to mid-twentieth century. It is generally two to four stories in height, features a division between public and private access and use, and fronts directly onto the sidewalk. Mid-twentieth century examples of this building type take on a simple, reserved, and unpretentious appearance and show the influences of the popular Modern style of the time in their design and materials (Longstreth 1987: 24).

Modern Architecture

The building was heavily modified from its original appearance ca. 1984 into its current Modernist style. Modern architecture began in the late 1920s and early 1930s and extended through the 1970s, although the modern era in the United States is most closely associated with the two decades following World War II. The overarching label of "Modern," although imprecise, can generally be characterized by buildings exhibiting simple volumes (in institutional and commercial buildings) and a lack of decorative detail. Additional characteristics include a use of materials in place of decorative details, and the use of natural colors and textures of materials to embellish a building (for example, employing brick or concrete for decorative effect). The modern era was also a time, however, when new materials and construction methods were explored. An example is curtain wall construction, which utilizes aluminum frames for window walls in place of steel, and new material combinations in the solid spandrel panels that separate them. Additional examples include thin shell construction, folded plate construction, and the hyperbolic paraboloid (Painter 2010: 22-23).

EVALUATION

Under NRHP Criterion A or CRHR Criterion 1, this building has no significant association with important historic events. The building on this parcel, constructed in 1920, is associated with commercial development of south of Lake Merritt; however, many businesses occupied this building, but research did not reveal that the building played an important role in the economic development of the area itself.

Under NRHP Criterion B or CRHR Criterion 2, this building is not significant for any associations with the lives of persons important to history. Research did not indicate that any individuals, such as business owners related to the development and use of this building made demonstrably important contributions to history at the local, state, or national level.

Under NRHP Criterion C or CRHR Criterion 3, this building is not significant because it is not an important example of a type, period, or method of construction. The two-part commercial block building proliferated on main streets and commercial rows throughout the nation during the late nineteenth and early twentieth centuries. The building at 77 9th Street was an unremarkable example reflecting the twentieth century trends of this style, but has been heavily modified since its original construction in 1920. The building on this parcel also lacks the high artistic value and distinctive design that would merit listing on the NRHP and CRHR. There is no indication that Edward Foulkes is a master architect nor James H. Pedgrift is a master builder; therefore, it is not significant as the work of a master.

Under NRHP Criterion D or CRHR Criterion 4, this building is not significant as a source (or likely source) of important information regarding history. It does not appear to have any likelihood of yielding important information about historic construction materials or technologies.

At the local level, the property has been assigned an OCHS individual property rating of "Ec3" which means Of no particular interest, potentially C "secondary importance" or superior example if restored, and not in a historic district. The building remains little changed since and this individual property rating remains accurate. However, the 1995 re-evaluation that assigned a California Historical Resources Status Code of 5S (now 5S2): 'Individually listed or designated locally' appears to be data entry error. Because of the significant alterations and lack of significance, the building should be assigned a California Historical Resources Status Code of 6Z: Found ineligible for National Register, California Register or local designation through survey evaluation.

Integrity Analysis and Conclusion

In addition to the building's lack of significance, it also has substantial losses to its historic integrity. While the building has integrity of location, setting, and association, the complete exterior remodel in ca. 1984 have affected integrity of design, workmanship, materials, and feeling of the original 1920 building. The building, therefore, does not meet any of the significance criteria necessary for eligibility for listing in either the NRHP or the CRHR.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 6Z

Page 5 of 5

Recorded by: H. Miller *Date: February 29, 2024

*Resource Name or # (Assigned by recorder) 77 8th Street, MR 10

Continuation Update

***B12. References (continued):**

Built Environment Resource Directory (BERD). 2024. "Alameda." Excel spreadsheet available for download at: https://ohp.parks.ca.gov/?page_id=30338. Accessed February 2024.

City of Oakland Building Department. 1983. "Application for Granting Design Review Approval, Case Number D83-157." September 3. Available through City of Oakland Online Permit Center at: <https://apps.oaklandca.gov/microfilm/>. Accessed March 2024.

Longstreth, Richard. 1987. *The Buildings of Main Street: A Guide to American Commercial Architecture*. Preservation Press: Washington, D.C.

Oaklandca.gov. 2024. "Historical and Architectural Rating Systems." City of Oakland. Available at: <https://www.oaklandca.gov/topics/historical-and-architectural-rating-systems>. Accessed February 2024.

Oakland Cultural Heritage Survey (OCHS). 1982. "Oakland Cultural Heritage Survey – Evaluation Sheet – Oakland City Planning Department: 77 8th St." On file at City of Oakland, Bureau of Planning.

_____. 1995. "Oakland Cultural Heritage Survey – Evaluation Tally Sheet: 77 8th St." On file at City of Oakland, Bureau of Planning.

Oakland Tribune. 1919 April 20. "'Building projects are many.'" 32.

_____. 1948 February 12. "Last Rites for James Pedgrift." 15.

_____. 1961 August 23. "Notes on Bay Commerce." 45.

_____. 1967 October 16. "Supply Firm Outgrows Its Space Again." 11.

Painter, Diana J. 2010. *Montana Post-World War II Architectural Survey and Inventory Historic Context and Survey Report*.

Sanborn Map and Publishing Company. 1952. Oakland, CA. New York: Sanborn Map and Publishing Company, Limited. November.

P5a. Photographs (continued):



Photograph 2. 77 8th Street, camera facing south, February 29, 2024.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 6Z

Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 4

*Resource Name or #: (Assigned by recorder) 91 8th Street, MR 11

P1. Other Identifier: 91 8th Street

P2. Location: Not for Publication Unrestricted

*a. County: Alameda

*b. USGS 7.5' Quad Oakland West, Calif. Date 2021

c. Address 91 8th Street City Oakland Zip 94607

d. UTM: (Give more than one for large and/or linear resources) Zone 10S ; 574678.73 mE/ 4147879.82 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Assessor's Parcel Number (APN): 001 016900200

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This single-story commercial building was originally constructed in 1946 and is sited at the southeast intersection of 8th and Oak streets (Photograph 1). The Lake Merritt Bay Area Rapid Transit (BART) System parking lot is immediately north of the property and the BART station is immediately northwest (see Sketch Map). The Streamline Moderne, one-part Commercial Block building has a rectangular plan and is largely constructed of board-formed reinforced concrete. The south end of the west side is sheathed with vertical grooved plywood siding. Restrained Streamline Moderne details are limited to base-relief fluting with at the northwest corner, flanking the primary entry, and between the storefront window bays. The building is topped with a rainbow domed roof that is obscured by a flat roof parapet. Primary entry into the building is on the northern-facing façade and consists of double metal security doors with a fixed transom above and is protected by a conical awning. The entry is accessed by a low-grade ramp that is lined with metal railing. An ATM is installed on the exterior wall west of the entry. A metal security door employee entry is on the south end of the west side. Windows consist of fixed, aluminum, multi-light storefront windows on the northern-facing facade and west side. The two westernmost bays on the façade and northernmost bay on the west side feature curved awnings with stretched vinyl. A 1,200-square-foot surface parking is west of the building and a row of bollards lines the west side of the building (Photograph 2).

***P3b. Resource Attributes:** (List attributes and codes) HP6 – 1-3 Story Commercial Building

***P4. Resources Present:** Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing



P5b. Description of Photo: (view, date, accession #) Photograph 1. View of northern-facing façade and west side, camera facing southeast, February 29, 2024

***P6. Date Constructed/Age and Source:**
 Historic Prehistoric Both
1946 (City of Oakland)

***P7. Owner and Address:**
Private

***P8. Recorded by:** (Name, affiliation, address)
H. Miller, AECOM
300 Lakeside Drive, Suite 400
Oakland, CA 94612

***P9. Date Recorded:** February 29, 2024

***P10. Survey Type:** Intensive

***P11. Report Citation:** AECOM. "East Bay Asian Local Development Corporation, Lake Merritt BART Affordable Senior Housing – Section 106 of the National Historic Preservation Act Review." Prepared for City of Oakland, 2024.

***Attachments:** NONE Location Map Continuation Sheet Building, Structure, and Object Record Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record Artifact Record Photograph Record Other (List):

DPR 523A (9/2003)

*Required information

Page 2 of 4

*Resource Name or # (Assigned by recorder) 91 8th Street. MR 11

Recorded by: H. Miller *Date: February 29, 2024

Continuation Update

- B1. Historic Name: unknown; 91 8th Street
- B2. Common Name: Eddie's Liquors (1983); Home Town Donuts; 93 8th Street
- B3. Original Use: Commercial Building
- B4. Present Use: Commercial Building

*B5. Architectural Style: Streamline Moderne

*B6. Construction History: (Construction date, alterations, and date of alterations) 1946 (City of Oakland 2024); Altered ca. 1950 including 425-square-foot addition at the northwest corner; altered 1970 included windows replaced with non-historic windows, doors replaced with non-historic doors, 200-square-foot addition at the southwest corner (1951 Sanborn Map and Publishing Company; Google Earth Pro 2024, based on field observation); Windows replaced in 2020 (Google Maps Street View 2024).

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features: n/a

B9a. Architect: unknown b. Builder: E. Elener

*B10. Significance: Theme n/a Area n/a
 Period of Significance n/a Property Type n/a Applicable Criteria n/a

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The property at 91 8th Street does not appear to meet the criteria for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR), nor does it appear to be an historical resource for purposes of the California Environmental Quality Act (CEQA). The property does not retain integrity to its original construction and does not meet any of the significance criteria necessary for eligibility for listing in either the NRHP or CRHR. The property has been evaluated in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code.

B11. Additional Resource Attributes: (List attributes and codes)

*B12. References: SEE CONTINUATION SHEET

B13. Remarks:

*B14. Evaluator: T. Forsi, AECOM

*Date of Evaluation: March 2024

(This space reserved for official comments.)



Page 3 of 4

Recorded by: H. Miller *Date: February 29, 2024

*Resource Name or # (Assigned by recorder) 91 8th Street, MR 11

Continuation Update

***B10. Significance (continued):**

HISTORIC CONTEXT

Property Specific

This commercial building was originally developed in 1946. The 1951 edition of the Sanborn Fire Insurance Maps depict a 425-square-foot addition at the northwest (Sanborn Map and Publishing Company 1951). The building has been in continual use as a store, typically as a convince store or liquor store (*Oakland Tribune* 1955 April 2; *Oakland Tribune* 1956 March 21). The building was intentionally excluded from the Oakland Cultural Heritage Survey (OCHS) in the mid-1980s of the adjacent "7th Street/Harrison Square Residential District."

At the local level, the property was assigned an Oakland Cultural Heritage Survey (OCHS) individual property rating of in the 1980s of "'3" which means Less than 45 years old, not in a historic district (Oaklandca.gov 2024).

Lake Merritt Bay Area Rapid Transit (BART)

The following context for the immediate setting of the property was excerpted and adapted from "Chapter 9: Historic Resources" in the Lake Merritt Station Area Plan, Existing Conditions and Key Issues Report, June 2013.

"By the early 1960s, major public-works projects began to transform the three blocks [north and northwest from the property at 55 8th Street]. The biggest project was the new Bay Area Rapid Transit District (BART), created by the California Legislature in 1957 to provide a fixed-rail mass transit system. BART won voter approval in three Bay Area counties to operate, one of them being Alameda County, which includes Oakland as the county seat.

All of the buildings and the Madison Square Park infrastructure on the three blocks bounded by Jackson Street on the west, 9th Street on the north, Fallon Street on the east, and 8th Street on the south were demolished between 1965 and 1968 to construct the Lake Merritt BART station (Cartwright Aerial Surveys 1965 May 18; HistoricAerials.com 1968). Construction of the station began in the late 1960s and officially opened in 1972. The six-story BART administrative and engineering headquarters building at 800 Madison Street was officially open for business in December of 1971. One significant change was moving Madison Square Park one block to the west (Jackson to Madison between 8th and 9th Streets), giving BART two contiguous blocks to establish its headquarters building and a parking lot (Madison to Fallon between 8th and 9th Streets) and building the Lake Merritt Station underground.

In 2006, the BART headquarters building above the Lake Merritt Station was deemed "at risk" if a major earthquake struck. Subsequently, the six-story building was dismantled in 2009 and operational headquarters moved to the Kaiser complex along Lakeside Drive. That move has provided an opportunity for BART, the City of Oakland, Laney College, and the surrounding community, including Chinatown, to envision redeveloping the three Madison Square blocks."

Streamline Moderne Architecture

Streamline Moderne (or Art Moderne), popular from 1920 to the commencement of World War II, is characterized by smooth stucco wall surface; rounded corners, parapets, and windows; emphasis on the horizontal through the use of banded surfaces and banded windows; curved projecting wings; glass brick; round windows (ship portholes); steel (ship) railing and door and window trim; and an asymmetrical façade (McAlester and McAlester 1984:465; Blumenson 1981:79).

EVALUATION

Under NRHP Criterion A or CRHR Criterion 1, this building has no significant association with important historic events. The building on this parcel, constructed in 1946, is associated with commercial development of the area south of Lake Merritt; however, many businesses occupied this building, but research did not reveal that the building played an important role in the economic development of the area itself.

Under NRHP Criterion B or CRHR Criterion 2, this building is not significant for any associations with the lives of persons important to history. Research did not indicate that any individuals, such as business owners related to the development and use of this building made demonstrably important contributions to history at the local, state, or national level.

Under NRHP Criterion C or CRHR Criterion 3, this building is not significant because it is not an important example of a type, period, or method of construction. The streamline modern style building proliferated on main streets and commercial rows throughout the nation during the late nineteenth and early twentieth centuries. This commercial building is an unremarkable, and late example reflecting the twentieth century trends of this style. The building also lacks the high artistic value that would merit listing on the NRHP. There is no master architect or builder associated with this building; therefore, it is not significant as the work of a master.

Page 4 of 4

*Resource Name or # (Assigned by recorder) 91 8th Street, MR 11

Recorded by: H. Miller *Date: February 29, 2024

Continuation Update

Under NRHP Criterion D or CRHR Criterion 4, this building is not significant as a source (or likely source) of important information regarding history. It does not appear to have any likelihood of yielding important information about historic construction materials or technologies.

At the local level, the property was assigned an Oakland Cultural Heritage Survey (OCHS) individual property rating in the 1980s of “*3” which means Less than 45 years old, not in a historic district (Oakland.ca.gov 2024). Because the building is now 78 years old and based on this recordation and evaluation, it appears that a new individual property rating of “E: Of no particular interest, not in a historic district” is more appropriate.

Integrity Analysis and Conclusion

In addition to the building’s lack of significance, it also has substantial losses to its historic integrity. While the building retains integrity of location, setting, and association, the additional periods of construction and expansion represent a loss of integrity of design, workmanship, materials, and feeling of the original 1946 building. The building, therefore, does not meet any of the significance criteria necessary for eligibility for listing in either the NRHP or the CRHR.

***B12. References (continued):**

Blumenson, John J.-G. 1981. *Identifying American Architecture: A Pictorial Guide to Styles and Terms, 1600-1945*. Revised Edition. New York: W.W. Norton & Company, Inc.

City of Oakland. 2024. “Parcel Information” accessed through “Planning and Zoning Map” GIS portal. Available at: <https://www.arcgis.com/apps/webappviewer/index.html?id=3676148ea4924fc7b75e7350903c7224>. Accessed February 2024.

Google Earth Pro. 2024. 91 8th Street, Oakland, CA. Aerial imagery, various years.

Google Maps Street View. 2024. 91 8th Street, Oakland, CA. Street side imagery, various years.

McAlester, Virginia Savage. 2013. *A Field Guide to American Houses*. New York: Alfred A. Knopf, Inc.

Oakland Tribune. 1955 April 2. “Cop Halts Holdup, Shoots One Thug.” 3.

_____. 1956 March 21. “Police Map New Drive on Stolen Goods Buyer.” 3.

Sanborn Map and Publishing Company. 1951. Oakland, CA. New York: Sanborn Map and Publishing Company, Limited. November.

P5a. Photographs (continued):



Photograph 2. 93 8th Street, camera facing east, February 29, 2024.

**Native American Outreach Log:
EBALDC Lake Merritt Affordable
Senior Housing Project**

<i>Name/ Affiliation Contact Info</i>	<i>Type of Contact</i>	<i>Date</i>	<i>Action/Response</i>
NAHC	Email	12/27/2023	REQUEST: Sacred Lands file search and contact list for Section 106 (HUD) development project.
	Email	1/10/2024	RECEIVED REPLY: SLF positive - Contact: Lisjan Nation, Amah Mutsun Tribal Band of Mission San Juan Bautista, and Northern Valley Yokut/Ohlone Tribe for further details.
Confederated Villages of the Lisjan Nation	Letter: FedEx or USPS (PO Boxes) & Email	2/27/2024	EBALDC SENT: describing project, cultural resource identification efforts, and project map; REQUESTED: info and specific concerns. Receipt of delivery received.
Cheyenne Zepeda, Cultural Resources Manager	Email	1/25/2024	TRIBE SENT: Email from Tribe REQUESTED: consultation
	Teams Meeting	2/14/2024	CONSULTATION MEETING w/Corrina Gould (Chairperson), Cheyenne Gould-Zepeda, Deja Gould (Tribe), Alejandro Pineda (EBALDC), Rod Jeung (AECOM), Karin Beck (AECOM). Introductions; Overview of Project; Section 106 - HUD; BART construction and disturbances and project vertical APE; building construction; known cultural sensitivity. Corrina - requested cultural resources materials for review, then we can meet again.
Corrina Gould, Chairperson	FTP	2/20/2024	AECOM REPLY: FTP to Tribe cultural documents requested regarding the project's analysis of cultural resources.
	Email/Call	2/27/2024	AECOM REPLY: (after multiple calls to Tribe were met with a voicemail box full and unable to leave a message) Email to Tribe regarding receipt of cultural documents; REQUESTED: if Tribe had any further concerns regarding project or needed clarification on materials sent.
	SMS Message	3/13/2024	AECOM REPLY: Text message to Tribe requesting contact to continue consultation after making several attempts to call and email without response. REQUESTED: comments or concerns after reading through provided materials; second meeting date in late March/early April in order to maintain funding schedule; read response to text message.
	Email	3/13/2024	TRIBE RESPONSE: Email from Tribe to AECOM "The Tribe is satisfied with the results that anything of cultural interest to the Tribe is outside of the proposed project area." CONSULTATION CONCLUDED.

Native American Outreach Log: EBALDC Lake Merritt Affordable Senior Housing Project			
Name/ Affiliation Contact Info	Type of Contact	Date	Action/Response
Northern Valley Yokut/Ohlone Tribe	Letter: FedEx or USPS (PO Boxes) & Email	2/27/2024	EBALDC SENT: describing project, cultural resource identification efforts, and project map; REQUESTED: info and specific concerns. Receipt of delivery received.
Katherine Perez, Chairperson			
Timothy Perez, Tribal Compliance Officer			
Katherine Perez, Chairperson	Email	3/9/2024	EBALDC RECEIVED: Email from Tribe stating they received notification regarding project and would like to initiate consultation. REQUESTED: further info regarding project
	Email	3/12/2024	EBALDC REPLY: Email to Tribe to set up meeting
	FTP	3/14/2024	AECOM REPLY: FTP to Tribe cultural documents requested regarding the project's analysis of cultural resources.
	Zoom Meeting	3/19/2024	CONSULTATION MEETING w/KP (Tribe), James Perez (EBALDC), Alejandro Pineda (EBALDC), Rod Jeung (AECOM), Karin Beck (AECOM). Introductions; Overview of project; Section 106 - HUD; BART construction and disturbances; building construction; known cultural sensitivity. KP - recommended Cultural Resource training by NA (someone of the Lisjan due to their proximity to project area) of construction crew; an Alert Sheet for reference; and requested to be consulted prior to other buildings begin environmental process. CONSULTATION CONCLUDED.
Amah Mutsun Tribal Band of Mission San Juan Bautista	Letter: FedEx or USPS (PO Boxes) & Email	2/29/2024	EBALDC SENT: describing project, cultural resource identification efforts, and project map; REQUESTED: info and specific concerns. Receipt of delivery received.
Irenne Zweirlein, Chairperson	Email	3/15/2024	AECOM RECEIVED: Email from Tribe RECOMMENDED: SLF search, NWIC search to determine sensitivity - if yes, RECOMMEND sensitivity training, archaeological and NA monitors.
Costanoan Rumsen Carmel Tribe	Letter: FedEx or USPS (PO Boxes) & Email	2/27/2024	EBALDC SENT: describing project, cultural resource identification efforts, and project map; REQUESTED: info and specific concerns. Receipt of delivery received.
Carla Munoz, Tribal Council	Email	3/10/2024	EBALDC SENT: AECOM sent follow-up email with original letter.
Desiree Munoz, Tribal Liason	Email	3/10/2024	EBALDC SENT: AECOM sent follow-up email with original letter.

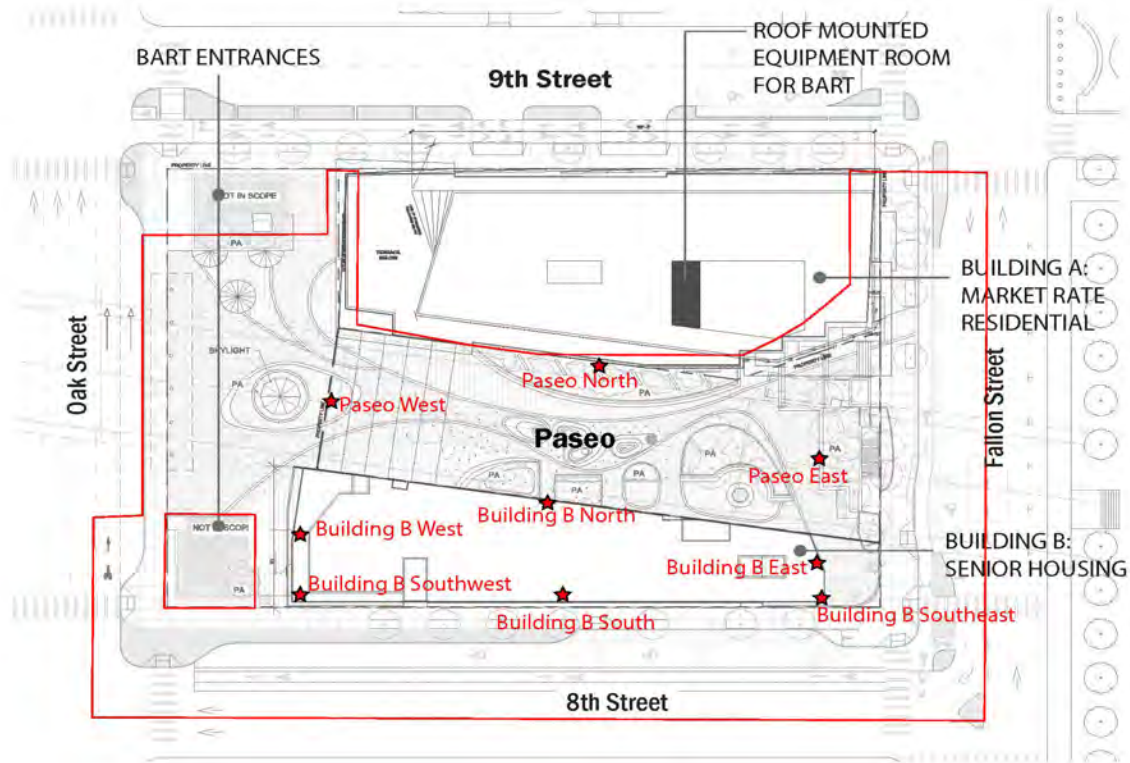
Native American Outreach Log: EBALDC Lake Merritt Affordable Senior Housing Project			
Name/ Affiliation Contact Info	Type of Contact	Date	Action/Response
Indian Canyon Mutsun Band of Costanoan	Letter: FedEx or USPS (PO Boxes) & Email	2/27/2024	EBALDC SENT: describing project, cultural resource identification efforts, and project map; REQUESTED: info and specific concerns. Receipt of delivery received.
Ann Marie Sayers, Chairperson Kanyon Sayers-Roods, MLD Contact	Email	2/28/2024	AECOM received mail delivery error message.
	Email	3/10/2024	EBALDC SENT: AECOM sent follow-up email with original letter.
Muwekma Ohlone Indian Tribe of the San Francisco Bay Area	Letter: FedEx or USPS (PO Boxes) & Email	2/27/2024	EBALDC SENT: describing project, cultural resource identification efforts, and project map; REQUESTED: info and specific concerns. Receipt of delivery received.
Monica Arellano, Vice Chairwoman	Email	3/10/2024	EBALDC SENT: AECOM sent follow-up email with original letter.
The Ohlone Indian Tribe	Letter: FedEx or USPS (PO Boxes) & Email	2/27/2024	EBALDC SENT: describing project, cultural resource identification efforts, and project map; REQUESTED: info and specific concerns. Receipt of delivery received.
Andrew Galvan, Chairperson	Email	3/10/2024	EBALDC SENT: AECOM sent follow-up email with original letter.
Desiree Vigil, THPO	Email	3/10/2024	EBALDC SENT: AECOM sent follow-up email with original letter.
Vincent Medina, Cultural Leader	Email	2/28/2024	AECOM received mail delivery error message.
Wuksachi Indian Tribe/Eshom Valley Band	Letter: FedEx or USPS (PO Boxes) & Email	2/27/2024	EBALDC SENT: describing project, cultural resource identification efforts, and project map; REQUESTED: info and specific concerns. Receipt of delivery received.
Kenneth Woodrow, Chairperson	Email	3/10/2024	EBALDC SENT: AECOM sent follow-up email with original letter.

Attachment J1

HUD Noise Assessment Worksheets

Project Background

Site Plan and Noise Assessment Locations



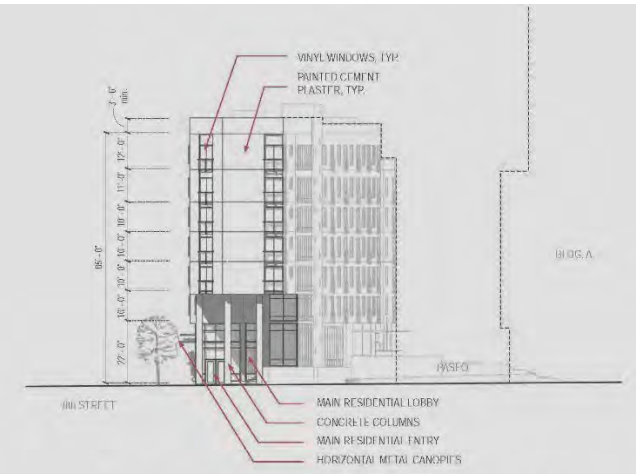
Project site plan for 51 9th Street, Oakland. Building B is the southern building and the assessment evaluated noise levels at six locations along the Building B facades. North of Building B is the paseo, where the assessment evaluated noise levels at three locations.

Project Background

Building B Elevations



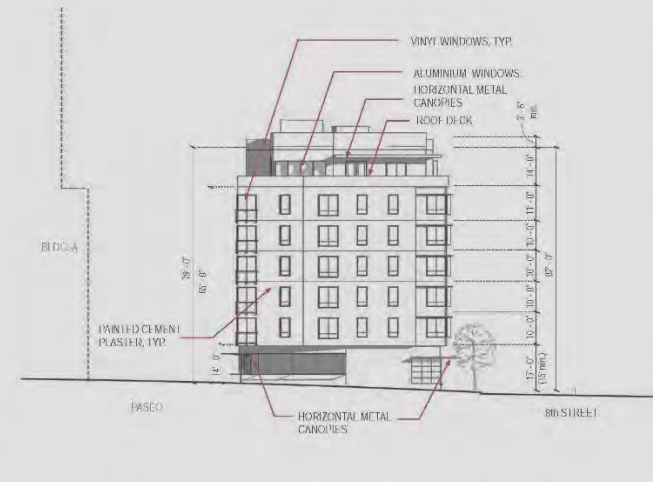
2. BUILDING B SOUTH ELEVATION



1. BUILDING B EAST ELEVATION



4. BUILDING B NORTH ELEVATION



3. BUILDING B WEST ELEVATION

HUD DNL Calculator Worksheets

Note: The HUD DNL calculator was used to estimate existing and future exterior noise levels at the project site. A total of nine assessment locations were evaluated: four locations along each side of the proposed Building B, two locations at the southwest and southeast corners of Building B, and three locations at the western, northern, and eastern edge of the proposed paseo.

HUD DNL Calculator Worksheets

Existing Exterior Noise Conditions at the proposed Building B facades and the edges of the proposed paseo based on existing traffic volumes on nearby roadways.
Existing Conditions at the Project Site

[Home \(/\)](#) > [Programs \(/programs/\)](#) > [Environmental Review \(/programs/environmental-review/\)](#) > DNL Calculator


DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the [Day/Night Noise Level Calculator Electronic Assessment Tool Overview \(/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/\)](#).

Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	Lake Merritt Senior Housing (North Side)
Record Date	03/13/2024 
User's Name	MISSAM

Road # 1 Name: 9th Street - Oak Street to Fallon Street

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	180	180	180
Distance to Stop Sign	150	150	150
Average Speed	25	20	20
Average Daily Trips (ADT)	434	9	5
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	34	25	44
Calculate Road #1 DNL	44	Reset	

Road # 2 Name: 10th Street - Fallon Street to Oak Street

Road #2

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
--------------	--	---	--

Effective Distance	<input type="text" value="460"/>	<input type="text" value="460"/>	<input type="text" value="460"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="922"/>	<input type="text" value="19"/>	<input type="text" value="10"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="36"/>	<input type="text" value="27"/>	<input type="text" value="38"/>
Calculate Road #2 DNL	<input type="text" value="41"/>	<input type="text" value="Reset"/>	

Road # 3 Name:

Road #3

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="950"/>	<input type="text" value="950"/>	<input type="text" value="950"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="10132"/>	<input type="text" value="209"/>	<input type="text" value="105"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="42"/>	<input type="text" value="33"/>	<input type="text" value="44"/>
Calculate Road #3 DNL	<input type="text" value="46"/>	<input type="text" value="Reset"/>	

Road # 4 Name: Fallon Street - 8th Street to 9th Street

Road #4

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="150"/>	<input type="text" value="150"/>	<input type="text" value="150"/>
Distance to Stop Sign	<input type="text" value="150"/>	<input type="text" value="150"/>	<input type="text" value="150"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="328"/>	<input type="text" value="7"/>	<input type="text" value="4"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="34"/>	<input type="text" value="25"/>	<input type="text" value="44"/>
Calculate Road #4 DNL	<input type="text" value="45"/>	<input type="button" value="Reset"/>	

Road # 5 Name: Oak Street - 8th Street to 9th Street

Road #5

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="150"/>	<input type="text" value="150"/>	<input type="text" value="150"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="695"/>	<input type="text" value="15"/>	<input type="text" value="7"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>

Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text"/>
Vehicle DNL	<input type="text" value="42"/>	<input type="text" value="34"/>	<input type="text" value="44"/>

Calculate Road #5 DNL	<input type="text" value="46"/>	<input type="button" value="Reset"/>
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Road # 6 Name:	<input type="text" value="10th Street - Fallon Street to East of Fallon Street"/>
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Road #6

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="600"/>	<input type="text" value="600"/>	<input type="text" value="600"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="485"/>	<input type="text" value="10"/>	<input type="text" value="5"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="32"/>	<input type="text" value="23"/>	<input type="text" value="34"/>

Calculate Road #6 DNL	<input type="text" value="36"/>	<input type="button" value="Reset"/>
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<input type="button" value="Add Road Source"/>	<input type="button" value="Add Rail Source"/>
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Airport Noise Level	<input type="text"/>
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Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No
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Combined DNL for all Road and Rail sources	<input type="text" value="52"/>
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Combined DNL including Airport	<input type="text" value="N/A"/>
--------------------------------	----------------------------------

	N/A
Site DNL with Loud Impulse Sound	
<input type="button" value="Calculate"/>	<input type="button" value="Reset"/>

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - Contact your Field or Regional Environmental Officer (</programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (</resource/313/hud-noise-guidebook/>)
 - Construct noise barrier. See the **Barrier Performance Module** (</programs/environmental-review/bpm-calculator/>)

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (</resource/3822/day-night-noise-level-assessment-tool-user-guide/>)

Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

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DNL Calculator

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Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	Lake Merritt Senior Housing (South Side)
Record Date	03/13/2024 
User's Name	MISSAM

Road # 1 Name: 8th Street - Oak Street to Fallon Street

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	50	50	50
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	625	13	7
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	49	40	51
Calculate Road #1 DNL	53	Reset	

Road # 2 Name: 7th Street - Oak Street to Fallon Street

Road #2

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
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Effective Distance	<input type="text" value="350"/>	<input type="text" value="350"/>	<input type="text" value="350"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="1871"/>	<input type="text" value="39"/>	<input type="text" value="19"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="41"/>	<input type="text" value="32"/>	<input type="text" value="43"/>
Calculate Road #2 DNL	<input type="text" value="45"/>	<input type="button" value="Reset"/>	

Road # 3 Name:

Road #3

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="770"/>	<input type="text" value="770"/>	<input type="text" value="770"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="45"/>	<input type="text" value="45"/>	<input type="text" value="45"/>
Average Daily Trips (ADT)	<input type="text" value="12911"/>	<input type="text" value="266"/>	<input type="text" value="133"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="49"/>	<input type="text" value="42"/>	<input type="text" value="46"/>
Calculate Road #3 DNL	<input type="text" value="52"/>	<input type="button" value="Reset"/>	

Road # 4 Name:

Road #4

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="770"/>	<input type="text" value="770"/>	<input type="text" value="770"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="65"/>	<input type="text" value="60"/>	<input type="text" value="55"/>
Average Daily Trips (ADT)	<input type="text" value="136528"/>	<input type="text" value="2815"/>	<input type="text" value="1471"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="63"/>	<input type="text" value="55"/>	<input type="text" value="57"/>
Calculate Road #4 DNL	<input type="text" value="64"/>	<input type="button" value="Reset"/>	

Airport Noise Level

Loud Impulse Sounds? Yes No

Combined DNL for all Road and Rail sources

Combined DNL including Airport

Site DNL with Loud Impulse Sound

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - Contact your Field or Regional Environmental Officer (</programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
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Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (</resource/3822/day-night-noise-level-assessment-tool-user-guide/>)

Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

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DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the [Day/Night Noise Level Calculator Electronic Assessment Tool Overview \(/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/\)](#).

Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	Lake Merritt Senior Housing (South Side)
Record Date	04/15/2024 
User's Name	MISSAM

Road # 1 Name: 8th Street - Oak Street to Fallon Street

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	100	100	100
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	625	13	7
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	44	36	47
Calculate Road #1 DNL	49	Reset	

Road # 2 Name: 7th Street - Oak Street to Fallon Street

Road #2

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
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Effective Distance	<input type="text" value="350"/>	<input type="text" value="350"/>	<input type="text" value="350"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="1871"/>	<input type="text" value="39"/>	<input type="text" value="19"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="41"/>	<input type="text" value="32"/>	<input type="text" value="43"/>
Calculate Road #2 DNL	<input type="text" value="45"/>	<input type="button" value="Reset"/>	

Road # 3 Name:

Road #3

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="770"/>	<input type="text" value="770"/>	<input type="text" value="770"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="45"/>	<input type="text" value="40"/>	<input type="text" value="35"/>
Average Daily Trips (ADT)	<input type="text" value="12911"/>	<input type="text" value="266"/>	<input type="text" value="133"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="49"/>	<input type="text" value="41"/>	<input type="text" value="46"/>
Calculate Road #3 DNL	<input type="text" value="52"/>	<input type="button" value="Reset"/>	

Road # 4 Name:

Road #4

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="770"/>	<input type="text" value="770"/>	<input type="text" value="770"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="65"/>	<input type="text" value="60"/>	<input type="text" value="55"/>
Average Daily Trips (ADT)	<input type="text" value="136528"/>	<input type="text" value="2815"/>	<input type="text" value="1471"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="63"/>	<input type="text" value="55"/>	<input type="text" value="57"/>
Calculate Road #4 DNL	<input type="text" value="64"/>	<input type="button" value="Reset"/>	

Airport Noise Level

Loud Impulse Sounds? Yes No

Combined DNL for all Road and Rail sources

Combined DNL including Airport

Site DNL with Loud Impulse Sound

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - Contact your Field or Regional Environmental Officer (</programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (</resource/313/hud-noise-guidebook/>)
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Tools and Guidance

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Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

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DNL Calculator

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Guidelines

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- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	Lake Merritt Senior Housing (East Side)
Record Date	03/13/2024 
User's Name	MISSAM

Road # 1 Name: **Fallon Street - 8th Street to 9th Street**

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	60	60	60
Distance to Stop Sign	150	150	150
Average Speed	25	20	20
Average Daily Trips (ADT)	328	7	4
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	40	31	50
Calculate Road #1 DNL	51	Reset	

Road # 2 Name: **10th Street - Fallon Street to East of Fallon Street**

Road #2

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
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Effective Distance	600	600	600
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	485	10	5
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	32	23	34
Calculate Road #2 DNL	36	Reset	

Road # 3 Name:

Road #3

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="400"/>	<input type="text" value="400"/>	<input type="text" value="400"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="2175"/>	<input type="text" value="45"/>	<input type="text" value="23"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="41"/>	<input type="text" value="32"/>	<input type="text" value="43"/>
Calculate Road #3 DNL	<input type="text" value="45"/>	<input type="button" value="Reset"/>	

Airport Noise Level

Loud Impulse Sounds? Yes No

Combined DNL for all Road and Rail sources

Combined DNL including Airport

Site DNL with Loud Impulse Sound

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - Contact your Field or Regional Environmental Officer (</programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (</resource/313/hud-noise-guidebook/>)
 - Construct noise barrier. See the **Barrier Performance Module** (</programs/environmental-review/bpm-calculator/>)

Tools and Guidance

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Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

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DNL Calculator

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Guidelines

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- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	Lake Merritt Senior Housing (West Side)
Record Date	03/13/2024 
User's Name	MISSAM

Road # 1 Name: **Oak Street - 8th Street to 9th Street**

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	100	100	100
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	695	15	7
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	45	36	47
Calculate Road #1 DNL	49	Reset	

Road # 2 Name: **Madison Street - 8th Street to 9th Street**

Road #2

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
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Effective Distance	485	485	485
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	658	14	7
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	34	26	36
Calculate Road #2 DNL	39	Reset	

Road # 3 Name: Jackson Street - 7th Street to 8th Street

Road #3

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	860	860	860
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	668	14	7
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	31	22	33
Calculate Road #3 DNL	35	Reset	

Road # 4 Name: **9th Street - Oak Street to Madison Street**

Road #4

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	350	350	350
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	475	10	5
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	35	26	37
Calculate Road #4 DNL	39	Reset	

Road # 5 Name: **8th Street - Oak Street to Madison Street**

Road #5

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	300	300	300
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	627	13	7
Night Fraction of ADT	15	15	15
Road Gradient (%)			0

Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text"/>
Vehicle DNL	<input type="text" value="37"/>	<input type="text" value="28"/>	<input type="text" value="40"/>
<input type="button" value="Calculate Road #5 DNL"/>	<input type="text" value="42"/>	<input type="button" value="Reset"/>	
<input type="button" value="Add Road Source"/>	<input type="button" value="Add Rail Source"/>		
Airport Noise Level	<input type="text"/>		
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No		
Combined DNL for all Road and Rail sources	<input type="text" value="51"/>		
Combined DNL including Airport	<input type="text" value="N/A"/>		
Site DNL with Loud Impulse Sound	<input type="text"/>		
<input type="button" value="Calculate"/>	<input type="button" value="Reset"/>		

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location

- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - Contact your Field or Regional Environmental Officer (</programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (</resource/313/hud-noise-guidebook/>)
 - Construct noise barrier. See the **Barrier Performance Module** (</programs/environmental-review/bpm-calculator/>)

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (</resource/3822/day-night-noise-level-assessment-tool-user-guide/>)

Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

[Home \(/\)](#) > [Programs \(/programs/\)](#) > [Environmental Review \(/programs/environmental-review/\)](#) > DNL Calculator

DNL Calculator

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Guidelines

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- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	Lake Merritt Senior Housing (North Side - Paseo)
Record Date	04/03/2024
User's Name	MISSAM

Road # 1 Name: 9th Street - Oak Street to Fallon Street

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	120	120	120
Distance to Stop Sign	180	180	180
Average Speed	25	20	20
Average Daily Trips (ADT)	434	9	5
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	37	28	47
Calculate Road #1 DNL	47	Reset	

Road # 2 Name: 10th Street - Fallon Street to Oak Street

Road #2

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
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Effective Distance	400	400	400
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	922	19	10
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	37	28	39
Calculate Road #2 DNL	41	Reset	

Road # 3 Name: **11th Street - 12th Street to Madison Street**

Road #3

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	890	890	890
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	10132	209	105
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	42	33	44
Calculate Road #3 DNL	47	Reset	

Road # 4 Name: **Fallon Street - 8th Street to 9th Street**

Road #4 Name: Fallon Street - 8th Street to 9th Street

Road #4

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="80"/>	<input type="text" value="80"/>	<input type="text" value="80"/>
Distance to Stop Sign	<input type="text" value="150"/>	<input type="text" value="150"/>	<input type="text" value="150"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="328"/>	<input type="text" value="7"/>	<input type="text" value="4"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="38"/>	<input type="text" value="29"/>	<input type="text" value="48"/>
<input type="button" value="Calculate Road #4 DNL"/>	<input type="text" value="49"/>	<input type="button" value="Reset"/>	

Road # 5 Name:

Road #5

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="150"/>	<input type="text" value="150"/>	<input type="text" value="150"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="695"/>	<input type="text" value="15"/>	<input type="text" value="7"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>

Road Gradient (%)			
Vehicle DNL	42	34	44

Calculate Road #5 DNL	46	Reset
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Road # 6 Name: 10th Street - Fallon Street to East of Fallon Street

Road #6

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	540	540	540
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	485	10	5
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	32	23	34

Calculate Road #6 DNL	37	Reset
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Add Road Source
Add Rail Source

Airport Noise Level

Loud Impulse Sounds? Yes No

Combined DNL for all Road and Rail sources **54**

Combined DNL including Airport **N/A**

	N/A
Site DNL with Loud Impulse Sound	
<input type="button" value="Calculate"/>	<input type="button" value="Reset"/>

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - Contact your **Field or Regional Environmental Officer** (</programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
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Tools and Guidance

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- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID

Lake Merritt Senior Housing (East Side - Paseo)

Record Date

04/03/2024

User's Name

MISSAM

Road # 1 Name:

Fallon Street - 8th Street to 9th Street

Road #1

Vehicle Type

Cars

Medium Trucks

Heavy Trucks

Effective Distance

80

80

80

Distance to Stop Sign

150

150

150

Average Speed

25

20

20

Average Daily Trips (ADT)

328

7

4

Night Fraction of ADT

15

15

15

Road Gradient (%)

0

Vehicle DNL

38

29

48

Calculate Road #1 DNL

49

Reset

Road # 2 Name:

10th Street - Fallon Street to East of Fallon Street

Road #2

Vehicle Type

Cars

Medium Trucks

Heavy Trucks

Effective Distance	540	540	540
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	485	10	5
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	32	23	34
Calculate Road #2 DNL	37	Reset	

Road # 2 Name: 7th Street - Fallon Street to East of Fallon Street

Road #3 Name: 7th Street - Fallon Street to East of Fallon Street

Road #3

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="400"/>	<input type="text" value="400"/>	<input type="text" value="400"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="2175"/>	<input type="text" value="45"/>	<input type="text" value="23"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="41"/>	<input type="text" value="32"/>	<input type="text" value="43"/>
Calculate Road #3 DNL	<input type="text" value="45"/>	<input type="button" value="Reset"/>	

Airport Noise Level

Loud Impulse Sounds? Yes No

Combined DNL for all Road and Rail sources

Combined DNL including Airport

Site DNL with Loud Impulse Sound

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - **Contact your Field or Regional Environmental Officer** (</programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
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Tools and Guidance

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[Home \(/\)](#) > [Programs \(/programs/\)](#) > [Environmental Review \(/programs/environmental-review/\)](#) > DNL Calculator


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- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	Lake Merritt Senior Housing (West Side)
Record Date	03/13/2024 
User's Name	MISSAM

Road # 1 Name: **Oak Street - 8th Street to 9th Street**

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	100	100	100
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	695	15	7
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	45	36	47
Calculate Road #1 DNL	49	Reset	

Road # 2 Name: **Madison Street - 8th Street to 9th Street**

Road #2

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
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Effective Distance	485	485	485
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	658	14	7
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	34	26	36
Calculate Road #2 DNL	39	Reset	

Road # 3 Name: Jackson Street - 7th Street to 8th Street

Road #3

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	860	860	860
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	668	14	7
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	31	22	33
Calculate Road #3 DNL	35	Reset	

Road # 4 Name: 9th Street - Oak Street to Madison Street

Road #4

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="350"/>	<input type="text" value="350"/>	<input type="text" value="350"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="475"/>	<input type="text" value="10"/>	<input type="text" value="5"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="35"/>	<input type="text" value="26"/>	<input type="text" value="37"/>
Calculate Road #4 DNL	<input type="text" value="39"/>	<input type="button" value="Reset"/>	

Road # 5 Name: 8th Street - Oak Street to Madison Street

Road #5

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="300"/>	<input type="text" value="300"/>	<input type="text" value="300"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="627"/>	<input type="text" value="13"/>	<input type="text" value="7"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>

Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text"/>
Vehicle DNL	<input type="text" value="37"/>	<input type="text" value="28"/>	<input type="text" value="40"/>
<input type="button" value="Calculate Road #5 DNL"/>	<input type="text" value="42"/>	<input type="button" value="Reset"/>	
<input type="button" value="Add Road Source"/>	<input type="button" value="Add Rail Source"/>		
Airport Noise Level	<input type="text"/>		
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No		
Combined DNL for all Road and Rail sources	<input type="text" value="51"/>		
Combined DNL including Airport	<input type="text" value="N/A"/>		
Site DNL with Loud Impulse Sound	<input type="text"/>		
<input type="button" value="Calculate"/>	<input type="button" value="Reset"/>		

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location

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- **Mitigation**
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Tools and Guidance

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Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

HUD DNL Calculator Worksheets

Future Exterior Noise Levels at the Building B Facades and the edges of the Paseo with 10-year traffic volume forecasts 10-year traffic forecasts

For the future conditions with the proposed Building B, one set of exterior noise level worksheets was prepared for the west, north, and east facades of Building B. Two sets of exterior noise levels worksheets were prepared for the south facade of Building B: one is labeled South 50 ft, and the second is labeled South 100 ft. The first set covers the building's lower levels where residential units are planned. The second set covers the upper level where residential units and the rooftop deck/community garden are planned. For the future conditions with the paseo, exterior noise level worksheets were prepared for west, north, and east sides of the publicly accessible walkway and outdoor space.

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DNL Calculator

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DNL Calculator

Site ID	Lake Merritt Senior Housing (North Side)
Record Date	02/19/2024
User's Name	MISSAM

Road # 1 Name: 9th Street - Oak Street to Fallon Street

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	180	180	180
Distance to Stop Sign	150	150	150
Average Speed	25	20	20
Average Daily Trips (ADT)	4721	97	49
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	44	36	54
Calculate Road #1 DNL	54	Reset	

Road # 2 Name: 10th Street - Fallon Street to Oak Street

Road #2

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
--------------	--	---	--

Effective Distance	460	460	460
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	3560	73	37
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	42	33	44
Calculate Road #2 DNL	46	Reset	

Road # 3 Name: 11th Street - 12th Street to Madison Street

Road #3

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	950	950	950
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	11364	234	117
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	42	33	44
Calculate Road #3 DNL	47	Reset	

Road # 4 Name: Fallon Street - 8th Street to 9th Street

Road #4

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="150"/>	<input type="text" value="150"/>	<input type="text" value="150"/>
Distance to Stop Sign	<input type="text" value="150"/>	<input type="text" value="150"/>	<input type="text" value="150"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="8158"/>	<input type="text" value="168"/>	<input type="text" value="84"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="48"/>	<input type="text" value="39"/>	<input type="text" value="57"/>
Calculate Road #4 DNL	<input type="text" value="58"/>	<input type="text" value="Reset"/>	

Road # 5 Name: Oak Street - 8th Street to 9th Street

Road #5

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="150"/>	<input type="text" value="150"/>	<input type="text" value="150"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="10225"/>	<input type="text" value="211"/>	<input type="text" value="105"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>

Road Gradient (%)

Vehicle DNL

Road # 6 Name:

Road #6

Vehicle Type **Cars** **Medium Trucks** **Heavy Trucks**

Effective Distance

Distance to Stop Sign

Average Speed

Average Daily Trips (ADT)

Night Fraction of ADT

Road Gradient (%)

Vehicle DNL

Airport Noise Level

Loud Impulse Sounds? Yes No

Combined DNL for all Road and Rail sources

Combined DNL including Airport

N/A

Site DNL with Loud Impulse Sound

Calculate

Reset

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

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DNL Calculator

Site ID	Lake Merritt Senior Housing (South Side)
Record Date	02/19/2024
User's Name	MISSAM

Road # 1 Name: 8th Street - Oak Street to Fallon Street

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	50	50	50
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	13097	270	135
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	62	53	64
Calculate Road #1 DNL	66	Reset	

Road # 2 Name: 7th Street - Oak Street to Fallon Street

Road #2

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
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Effective Distance	<input type="text" value="350"/>	<input type="text" value="350"/>	<input type="text" value="350"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="22841"/>	<input type="text" value="471"/>	<input type="text" value="235"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="52"/>	<input type="text" value="43"/>	<input type="text" value="54"/>
<input type="button" value="Calculate Road #2 DNL"/>	<input type="text" value="56"/>	<input type="button" value="Reset"/>	

Road # 3 Name:

Road #3

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="770"/>	<input type="text" value="770"/>	<input type="text" value="770"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="45"/>	<input type="text" value="45"/>	<input type="text" value="45"/>
Average Daily Trips (ADT)	<input type="text" value="17164"/>	<input type="text" value="354"/>	<input type="text" value="177"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="2"/>
Vehicle DNL	<input type="text" value="51"/>	<input type="text" value="44"/>	<input type="text" value="49"/>
<input type="button" value="Calculate Road #3 DNL"/>	<input type="text" value="53"/>	<input type="button" value="Reset"/>	

Road # 4 Name:

Road #4

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="770"/>	<input type="text" value="770"/>	<input type="text" value="770"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="65"/>	<input type="text" value="60"/>	<input type="text" value="55"/>
Average Daily Trips (ADT)	<input type="text" value="141882"/>	<input type="text" value="2925"/>	<input type="text" value="1463"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="63"/>	<input type="text" value="55"/>	<input type="text" value="57"/>
Calculate Road #4 DNL	<input type="text" value="65"/>	<input type="button" value="Reset"/>	

Airport Noise Level

Loud Impulse Sounds? Yes No

Combined DNL for all Road and Rail sources

Combined DNL including Airport

Site DNL with Loud Impulse Sound

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - Contact your Field or Regional Environmental Officer (</programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (</resource/313/hud-noise-guidebook/>)
 - Construct noise barrier. See the **Barrier Performance Module** (</programs/environmental-review/bpm-calculator/>)

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (</resource/3822/day-night-noise-level-assessment-tool-user-guide/>)

Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

[Home \(/\)](#) > [Programs \(/programs/\)](#) > [Environmental Review \(/programs/environmental-review/\)](#) > DNL Calculator


DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the [Day/Night Noise Level Calculator Electronic Assessment Tool Overview \(/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/\)](#).

Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	Lake Merritt Senior Housing (South Side)
Record Date	04/15/2024 
User's Name	MISSAM

Road # 1 Name: **8th Street - Oak Street to Fallon Street**

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	100	100	100
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	13097	270	135
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	58	49	60
Calculate Road #1 DNL	62	Reset	

Road # 2 Name: **7th Street - Oak Street to Fallon Street**

Road #2

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
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Effective Distance	<input type="text" value="350"/>	<input type="text" value="350"/>	<input type="text" value="350"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="22841"/>	<input type="text" value="471"/>	<input type="text" value="235"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="52"/>	<input type="text" value="43"/>	<input type="text" value="54"/>
<input type="button" value="Calculate Road #2 DNL"/>	<input type="text" value="56"/>	<input type="button" value="Reset"/>	

Road # 3 Name:

Road #3

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="770"/>	<input type="text" value="770"/>	<input type="text" value="770"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="45"/>	<input type="text" value="40"/>	<input type="text" value="35"/>
Average Daily Trips (ADT)	<input type="text" value="17164"/>	<input type="text" value="354"/>	<input type="text" value="177"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="51"/>	<input type="text" value="43"/>	<input type="text" value="47"/>
<input type="button" value="Calculate Road #3 DNL"/>	<input type="text" value="53"/>	<input type="button" value="Reset"/>	

Road # 4 Name:

Road #4

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="770"/>	<input type="text" value="770"/>	<input type="text" value="770"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="65"/>	<input type="text" value="60"/>	<input type="text" value="55"/>
Average Daily Trips (ADT)	<input type="text" value="141882"/>	<input type="text" value="2925"/>	<input type="text" value="1463"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="63"/>	<input type="text" value="55"/>	<input type="text" value="57"/>
Calculate Road #4 DNL	<input type="text" value="65"/>	<input type="button" value="Reset"/>	

Airport Noise Level

Loud Impulse Sounds? Yes No

Combined DNL for all Road and Rail sources

Combined DNL including Airport

Site DNL with Loud Impulse Sound

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - Contact your Field or Regional Environmental Officer (</programs/environmental-review/hud-environmental-staff-contacts/>)
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 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (</resource/313/hud-noise-guidebook/>)
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Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (</resource/3822/day-night-noise-level-assessment-tool-user-guide/>)

Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

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DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the [Day/Night Noise Level Calculator Electronic Assessment Tool Overview \(/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/\)](#).

Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
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- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	Lake Merritt Senior Housing (East Side)
Record Date	02/19/2024
User's Name	MISSAM

Road # 1 Name: **Fallon Street - 8th Street to 9th Street**

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	60	60	60
Distance to Stop Sign	150	150	150
Average Speed	25	20	20
Average Daily Trips (ADT)	8158	168	84
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	54	45	63
Calculate Road #1 DNL	64	Reset	

Road # 2 Name: **10th Street - Fallon Street to East of Fallon Street**

Road #2

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
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Effective Distance	600	600	600
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	2784	57	29
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	39	30	41
Calculate Road #2 DNL	44	Reset	

Road # 3 Name:

Road #3

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="400"/>	<input type="text" value="400"/>	<input type="text" value="400"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="27145"/>	<input type="text" value="560"/>	<input type="text" value="280"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="52"/>	<input type="text" value="43"/>	<input type="text" value="54"/>
Calculate Road #3 DNL	<input type="text" value="56"/>	<input type="button" value="Reset"/>	

Airport Noise Level

Loud Impulse Sounds? Yes No

Combined DNL for all Road and Rail sources

Combined DNL including Airport

Site DNL with Loud Impulse Sound

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - Contact your Field or Regional Environmental Officer (</programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (</resource/313/hud-noise-guidebook/>)
 - Construct noise barrier. See the **Barrier Performance Module** (</programs/environmental-review/bpm-calculator/>)

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (</resource/3822/day-night-noise-level-assessment-tool-user-guide/>)

Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

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DNL Calculator

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Guidelines

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- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	Lake Merritt Senior Housing (West Side)
Record Date	02/19/2024 
User's Name	MISSAM

Road # 1 Name: **Oak Street - 8th Street to 9th Street**

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	100	100	100
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	10225	211	105
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	56	48	59
Calculate Road #1 DNL	61	Reset	

Road # 2 Name: **Madison Street - 8th Street to 9th Street**

Road #2

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
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Effective Distance	485	485	485
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	8604	177	87
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	45	37	47
Calculate Road #2 DNL	50	Reset	

Road # 3 Name: Jackson Street - 7th Street to 8th Street

Road #3

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	860	860	860
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	15351	317	158
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	44	35	46
Calculate Road #3 DNL	49	Reset	

Road # 4 Name: 9th Street - Oak Street to Madison Street

Road #4

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="350"/>	<input type="text" value="350"/>	<input type="text" value="350"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="1506"/>	<input type="text" value="93"/>	<input type="text" value="46"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="40"/>	<input type="text" value="36"/>	<input type="text" value="47"/>
Calculate Road #4 DNL	<input type="text" value="48"/>	<input type="text" value="Reset"/>	

Road # 5 Name: 8th Street - Oak Street to Madison Street

Road #5

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="300"/>	<input type="text" value="300"/>	<input type="text" value="300"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="14698"/>	<input type="text" value="303"/>	<input type="text" value="152"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>

Road Gradient (%)			0
Vehicle DNL	51	42	53
Calculate Road #5 DNL	55	Reset	
Add Road Source	Add Rail Source		
Airport Noise Level			
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No		
Combined DNL for all Road and Rail sources	63		
Combined DNL including Airport	N/A		
Site DNL with Loud Impulse Sound			
Calculate	Reset		

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location

- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - Contact your Field or Regional Environmental Officer (</programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
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 - Construct noise barrier. See the **Barrier Performance Module** (</programs/environmental-review/bpm-calculator/>)

Tools and Guidance

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Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

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DNL Calculator

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Guidelines

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- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	Lake Merritt Senior Housing (West Side)
Record Date	02/19/2024 
User's Name	MISSAM

Road # 1 Name: **Oak Street - 8th Street to 9th Street**

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	100	100	100
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	10225	211	105
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	56	48	59
Calculate Road #1 DNL	61	Reset	

Road # 2 Name: **Madison Street - 8th Street to 9th Street**

Road #2

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
--------------	--	---	--

Effective Distance	485	485	485
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	8604	177	87
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	45	37	47
Calculate Road #2 DNL	50	Reset	

Road # 3 Name: Jackson Street - 7th Street to 8th Street

Road #3

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	860	860	860
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	15351	317	158
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	44	35	46
Calculate Road #3 DNL	49	Reset	

Road # 4 Name: 9th Street - Oak Street to Madison Street

Road #4

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="350"/>	<input type="text" value="350"/>	<input type="text" value="350"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="1506"/>	<input type="text" value="93"/>	<input type="text" value="46"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="40"/>	<input type="text" value="36"/>	<input type="text" value="47"/>
Calculate Road #4 DNL	<input type="text" value="48"/>	<input type="text" value="Reset"/>	

Road # 5 Name: 8th Street - Oak Street to Madison Street

Road #5

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="300"/>	<input type="text" value="300"/>	<input type="text" value="300"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="14698"/>	<input type="text" value="303"/>	<input type="text" value="152"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>

Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text"/>
Vehicle DNL	<input type="text" value="51"/>	<input type="text" value="42"/>	<input type="text" value="53"/>
Calculate Road #5 DNL	<input type="text" value="55"/>	<input type="button" value="Reset"/>	
<input type="button" value="Add Road Source"/>	<input type="button" value="Add Rail Source"/>		
Airport Noise Level	<input type="text"/>		
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No		
Combined DNL for all Road and Rail sources	<input type="text" value="63"/>		
Combined DNL including Airport	<input type="text" value="N/A"/>		
Site DNL with Loud Impulse Sound	<input type="text"/>		
<input type="button" value="Calculate"/>	<input type="button" value="Reset"/>		

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

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- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - Contact your Field or Regional Environmental Officer (</programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
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Tools and Guidance

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[Home \(/\)](#) > [Programs \(/programs/\)](#) > [Environmental Review \(/programs/environmental-review/\)](#) > [DNL Calculator](#)


DNL Calculator

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Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	Lake Merritt Senior Housing (North Side - Paseo)
Record Date	04/03/2024 
User's Name	MISSAM

Road # 1 Name: 9th Street - Oak Street to Fallon Street

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	120	120	120
Distance to Stop Sign	150	150	150
Average Speed	25	20	20
Average Daily Trips (ADT)	4721	97	49
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	47	38	57
Calculate Road #1 DNL	57	Reset	

Road # 2 Name: 10th Street - Fallon Street to Oak Street

Road #2

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	400	400	400
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	3560	73	37
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	43	34	45
Calculate Road #2 DNL	47	Reset	

Road # 3 Name: 11th Street - 12th Street to Madison Street

Road #3

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	890	890	890
Distance to Stop Sign			
Average Speed	25	20	20
Average Daily Trips (ADT)	11364	234	117
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	43	34	45

Vehicle DNL:

Calculate Road #3 DNL

Road # 4 Name:

Road #4

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="80"/>	<input type="text" value="80"/>	<input type="text" value="80"/>
Distance to Stop Sign	<input type="text" value="150"/>	<input type="text" value="150"/>	<input type="text" value="150"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="8158"/>	<input type="text" value="168"/>	<input type="text" value="84"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="52"/>	<input type="text" value="43"/>	<input type="text" value="62"/>

Calculate Road #4 DNL

Road # 5 Name:

Road #5

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="150"/>	<input type="text" value="150"/>	<input type="text" value="150"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="10225"/>	<input type="text" value="211"/>	<input type="text" value="105"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="54"/>	<input type="text" value="45"/>	<input type="text" value="56"/>

Calculate Road #5 DNL

Road # 6 Name:

Road #6

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="540"/>	<input type="text" value="540"/>	<input type="text" value="540"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="2784"/>	<input type="text" value="57"/>	<input type="text" value="29"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="40"/>	<input type="text" value="31"/>	<input type="text" value="42"/>

Calculate Road #6 DNL

Airport Noise Level

Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Combined DNL for all Road and Rail sources	65
Combined DNL including Airport	N/A
Site DNL with Loud Impulse Sound	

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

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
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DNL Calculator

Site ID	Lake Merritt Senior Housing (East Side - Paseo)
Record Date	04/03/2024 
User's Name	MISSAM

Road # 1 Name:

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="80"/>	<input type="text" value="80"/>	<input type="text" value="80"/>
Distance to Stop Sign	<input type="text" value="150"/>	<input type="text" value="150"/>	<input type="text" value="150"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="8158"/>	<input type="text" value="168"/>	<input type="text" value="84"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="52"/>	<input type="text" value="43"/>	<input type="text" value="62"/>
Calculate Road #1 DNL	<input type="text" value="62"/>	<input type="button" value="Reset"/>	

Road # 2 Name:

Road #2

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="540"/>	<input type="text" value="540"/>	<input type="text" value="540"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="2784"/>	<input type="text" value="57"/>	<input type="text" value="29"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="40"/>	<input type="text" value="31"/>	<input type="text" value="42"/>
Calculate Road #2 DNL	<input type="text" value="44"/>	<input type="button" value="Reset"/>	

Road # 3 Name:

Road #3

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="400"/>	<input type="text" value="400"/>	<input type="text" value="400"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="25"/>	<input type="text" value="20"/>	<input type="text" value="20"/>
Average Daily Trips (ADT)	<input type="text" value="27145"/>	<input type="text" value="560"/>	<input type="text" value="280"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="52"/>	<input type="text" value="43"/>	<input type="text" value="54"/>

Calculate Road #3 DNL	56	Reset
Add Road Source	Add Rail Source	
Airport Noise Level	<input type="text"/>	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	63	
Combined DNL including Airport	N/A	
Site DNL with Loud Impulse Sound	<input type="text"/>	
Calculate	Reset	

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If your site DNL is in Excess of 65 decibels, your options are:

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HUD DNL Calculator Worksheets















Input Data: Supporting Traffic Information

The following LOS worksheets are from Appendix C: Study Intersection LOS Report, in the 2021 City of Oakland CEQA Checklist, Appendix E (which is contained within City staff report for Case File Number PLN20108-PUDF01 51-9th Street, and approved by the Planning Commission on July 20, 2022). Intersection through and turning movements from the LOS worksheets were used to derive daily volumes along street segments in the project vicinity.

HCM 2010 Signalized Intersection Summary

1: Oak Street & 9th Street

12/04/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	115	0	0	0	0	0	798	91	0	0	0
Future Volume (veh/h)	69	115	0	0	0	0	0	798	91	0	0	0
Number	7	4	14				5	2	12			
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.83			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1863	0				0	1863	1900			
Adj Flow Rate, veh/h	69	115	0				0	798	91			
Adj No. of Lanes	0	3	0				0	3	0			
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	541	1042	0				0	2460	277			
Arrive On Green	0.33	0.33	0.00				0.00	0.54	0.54			
Sat Flow, veh/h	1341	3323	0				0	4700	510			
Grp Volume(v), veh/h	73	111	0				0	594	295			
Grp Sat Flow(s),veh/h/ln	1427	1543	0				0	1695	1652			
Q Serve(g_s), s	2.4	1.8	0.0				0.0	6.8	6.9			
Cycle Q Clear(g_c), s	2.5	1.8	0.0				0.0	6.8	6.9			
Prop In Lane	0.95		0.00				0.00		0.31			
Lane Grp Cap(c), veh/h	569	1014	0				0	1840	897			
V/C Ratio(X)	0.13	0.11	0.00				0.00	0.32	0.33			
Avail Cap(c_a), veh/h	569	1014	0				0	1840	897			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.95	0.95			
Uniform Delay (d), s/veh	16.6	16.4	0.0				0.0	8.9	8.9			
Incr Delay (d2), s/veh	0.5	0.2	0.0				0.0	0.4	0.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.1	0.8	0.0				0.0	3.2	3.3			
LnGrp Delay(d),s/veh	17.1	16.6	0.0				0.0	9.3	9.8			
LnGrp LOS	B	B						A	A			
Approach Vol, veh/h		184						889				
Approach Delay, s/veh		16.8						9.5				
Approach LOS		B						A				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		42.0		28.0								
Change Period (Y+Rc), s		4.0		5.0								
Max Green Setting (Gmax), s		38.0		23.0								
Max Q Clear Time (g_c+I1), s		8.9		4.5								
Green Ext Time (p_c), s		4.4		0.6								
Intersection Summary												
HCM 2010 Ctrl Delay			10.7									
HCM 2010 LOS			B									

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔↔	↔		↑	↑	
Traffic Vol, veh/h	126	63	0	90	129	0
Future Vol, veh/h	126	63	0	90	129	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	126	63	0	90	129	0
Number of Lanes	2	1	0	1	1	0

















Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	3	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	3
HCM Control Delay	7.8	8.5	8.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	EBLn3	SBLn1
Vol Left, %	0%	100%	100%	0%	0%
Vol Thru, %	100%	0%	0%	0%	100%
Vol Right, %	0%	0%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	90	63	63	63	129
LT Vol	0	63	63	0	0
Through Vol	90	0	0	0	129
RT Vol	0	0	0	63	0
Lane Flow Rate	90	63	63	63	129
Geometry Grp	7	7	7	7	7
Degree of Util (X)	0.127	0.098	0.098	0.047	0.181
Departure Headway (Hd)	5.081	5.607	5.607	2.659	5.044
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	706	641	641	1346	712
Service Time	2.803	3.325	3.325	0.377	2.765
HCM Lane V/C Ratio	0.127	0.098	0.098	0.047	0.181
HCM Control Delay	8.5	8.9	8.9	5.5	8.9
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.4	0.3	0.3	0.1	0.7

HCM Signalized Intersection Capacity Analysis

3: Jackson Street & 8th Street

















12/04/2020

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	0	0	0	66	523	72	116	245	0	0	249	63	
Future Volume (vph)	0	0	0	66	523	72	116	245	0	0	249	63	
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)				4.5	4.5			4.5			4.5		
Lane Util. Factor				1.00	0.95			1.00			1.00		
Frbp, ped/bikes				1.00	0.98			1.00			0.98		
Flpb, ped/bikes				0.89	1.00			0.98			1.00		
Frt				1.00	0.98			1.00			0.97		
Flt Protected				0.95	1.00			0.98			1.00		
Satd. Flow (prot)				1573	3389			1806			1778		
Flt Permitted				0.95	1.00			0.68			1.00		
Satd. Flow (perm)				1573	3389			1246			1778		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	0	0	66	523	72	116	245	0	0	249	63	
RTOR Reduction (vph)	0	0	0	0	12	0	0	0	0	0	22	0	
Lane Group Flow (vph)	0	0	0	66	583	0	0	361	0	0	290	0	
Confl. Peds. (#/hr)	104		63	63		104	77		37	37		77	
Confl. Bikes (#/hr)						9			5			1	
Parking (#/hr)									0				
Turn Type				Perm	NA		Perm	NA			NA		
Protected Phases					2			4			4		
Permitted Phases				2			4						
Actuated Green, G (s)				30.7	30.7			20.3			20.3		
Effective Green, g (s)				30.7	30.7			20.3			20.3		
Actuated g/C Ratio				0.51	0.51			0.34			0.34		
Clearance Time (s)				4.5	4.5			4.5			4.5		
Vehicle Extension (s)				0.2	0.2			0.2			0.2		
Lane Grp Cap (vph)				804	1734			421			601		
v/s Ratio Prot					c0.17						0.16		
v/s Ratio Perm				0.04				c0.29					
v/c Ratio				0.08	0.34			0.86			0.48		
Uniform Delay, d1				7.5	8.6			18.5			15.7		
Progression Factor				0.84	0.68			1.23			1.00		
Incremental Delay, d2				0.2	0.5			14.3			0.2		
Delay (s)				6.4	6.3			37.0			15.9		
Level of Service				A	A			D			B		
Approach Delay (s)		0.0			6.3			37.0			15.9		
Approach LOS		A			A			D			B		
Intersection Summary													
HCM 2000 Control Delay			16.9		HCM 2000 Level of Service						B		
HCM 2000 Volume to Capacity ratio			0.54										
Actuated Cycle Length (s)			60.0		Sum of lost time (s)						9.0		
Intersection Capacity Utilization			66.0%		ICU Level of Service						C		
Analysis Period (min)			15										
c Critical Lane Group													

HCM 2010 Signalized Intersection Summary

4: Madison Street & 8th Street
















12/04/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	220	715	0	0	0	0	0	458	82
Future Volume (veh/h)	0	0	0	220	715	0	0	0	0	0	458	82
Number				3	8	18				5	2	12
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.92
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	1863	0				0	1863	1863
Adj Flow Rate, veh/h				220	715	0				0	458	82
Adj No. of Lanes				1	2	0				0	2	1
Peak Hour Factor				1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				815	1386	0				0	1622	667
Arrive On Green				0.13	0.13	0.00				0.00	0.46	0.46
Sat Flow, veh/h				1774	3632	0				0	3632	1455
Grp Volume(v), veh/h				220	715	0				0	458	82
Grp Sat Flow(s),veh/h/ln				1774	1770	0				0	1770	1455
Q Serve(g_s), s				6.8	11.3	0.0				0.0	4.8	1.9
Cycle Q Clear(g_c), s				6.8	11.3	0.0				0.0	4.8	1.9
Prop In Lane				1.00		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				815	1386	0				0	1622	667
V/C Ratio(X)				0.27	0.52	0.00				0.00	0.28	0.12
Avail Cap(c_a), veh/h				815	1386	0				0	1622	667
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.79	0.79	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				18.8	20.8	0.0				0.0	10.1	9.3
Incr Delay (d2), s/veh				0.6	1.1	0.0				0.0	0.4	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.5	5.7	0.0				0.0	2.5	0.8
LnGrp Delay(d),s/veh				19.5	21.9	0.0				0.0	10.5	9.7
LnGrp LOS				B	C						B	A
Approach Vol, veh/h					935						540	
Approach Delay, s/veh					21.3						10.4	
Approach LOS					C						B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		32.0						28.0				
Change Period (Y+Rc), s		4.5						4.5				
Max Green Setting (Gmax), s		27.5						23.5				
Max Q Clear Time (g_c+I1), s		6.8						13.3				
Green Ext Time (p_c), s		2.2						2.8				
Intersection Summary												
HCM 2010 Ctrl Delay				17.3								
HCM 2010 LOS				B								

HCM 2010 Signalized Intersection Summary

5: Oak Street & 8th Street

12/04/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	762	169	177	668	0	0	0	0
Future Volume (veh/h)	0	0	0	0	762	169	177	668	0	0	0	0
Number				3	8	18	5	2	12			
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.88	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln				0	1863	1900	1863	1863	0			
Adj Flow Rate, veh/h				0	762	169	177	668	0			
Adj No. of Lanes				0	3	0	1	2	0			
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	1095	239	1150	2055	0			
Arrive On Green				0.00	0.27	0.27	0.58	0.58	0.00			
Sat Flow, veh/h				0	4235	886	1774	3632	0			
Grp Volume(v), veh/h				0	633	298	177	668	0			
Grp Sat Flow(s),veh/h/ln				0	1695	1563	1774	1770	0			
Q Serve(g_s), s				0.0	10.1	10.3	2.8	5.9	0.0			
Cycle Q Clear(g_c), s				0.0	10.1	10.3	2.8	5.9	0.0			
Prop In Lane				0.00		0.57	1.00		0.00			
Lane Grp Cap(c), veh/h				0	913	421	1150	2055	0			
V/C Ratio(X)				0.00	0.69	0.71	0.15	0.33	0.00			
Avail Cap(c_a), veh/h				0	1469	678	1150	2055	0			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	1.00	1.00	0.88	0.88	0.00			
Uniform Delay (d), s/veh				0.0	19.7	19.8	5.9	6.5	0.0			
Incr Delay (d2), s/veh				0.0	0.4	0.8	0.3	0.4	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	4.7	4.6	1.4	2.9	0.0			
LnGrp Delay(d),s/veh				0.0	20.1	20.6	6.1	6.9	0.0			
LnGrp LOS					C	C	A	A				
Approach Vol, veh/h					931			845				
Approach Delay, s/veh					20.2			6.7				
Approach LOS					C			A				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		39.3						20.7				
Change Period (Y+Rc), s		4.5						4.5				
Max Green Setting (Gmax), s		25.0						26.0				
Max Q Clear Time (g_c+I1), s		7.9						12.3				
Green Ext Time (p_c), s		3.1						3.8				
Intersection Summary												
HCM 2010 Ctrl Delay					13.8							
HCM 2010 LOS					B							

HCM Signalized Intersection Capacity Analysis

7: Jackson Street & 7th Street

12/04/2020















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑			↑	
Traffic Volume (vph)	54	664	524	0	0	0	0	247	70	26	257	0
Future Volume (vph)	54	664	524	0	0	0	0	247	70	26	257	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6						4.6			4.6	
Lane Util. Factor		0.91						1.00			1.00	
Frbp, ped/bikes		0.98						0.98			1.00	
Flpb, ped/bikes		1.00						1.00			1.00	
Frt		0.94						0.97			1.00	
Flt Protected		1.00						1.00			1.00	
Satd. Flow (prot)		4650						1775			1847	
Flt Permitted		1.00						1.00			0.95	
Satd. Flow (perm)		4650						1775			1768	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	54	664	524	0	0	0	0	247	70	26	257	0
RTOR Reduction (vph)	0	166	0	0	0	0	0	17	0	0	0	0
Lane Group Flow (vph)	0	1076	0	0	0	0	0	300	0	0	283	0
Confl. Peds. (#/hr)	32		15	15		32	38		70	70		38
Confl. Bikes (#/hr)									2			5
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						4			4	
Permitted Phases	2								4			
Actuated Green, G (s)		29.4						21.4			21.4	
Effective Green, g (s)		29.4						21.4			21.4	
Actuated g/C Ratio		0.49						0.36			0.36	
Clearance Time (s)		4.6						4.6			4.6	
Vehicle Extension (s)		2.0						2.0			2.0	
Lane Grp Cap (vph)		2278						633			630	
v/s Ratio Prot								c0.17				
v/s Ratio Perm		0.23									0.16	
v/c Ratio		0.47						0.47			0.45	
Uniform Delay, d1		10.2						14.9			14.8	
Progression Factor		1.00						1.00			1.41	
Incremental Delay, d2		0.7						2.5			2.3	
Delay (s)		10.9						17.5			23.2	
Level of Service		B						B			C	
Approach Delay (s)		10.9			0.0			17.5			23.2	
Approach LOS		B			A			B			C	
Intersection Summary												
HCM 2000 Control Delay			13.9					HCM 2000 Level of Service			B	
HCM 2000 Volume to Capacity ratio			0.47									
Actuated Cycle Length (s)			60.0					Sum of lost time (s)		9.2		
Intersection Capacity Utilization			71.4%					ICU Level of Service		C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 2010 Signalized Intersection Summary

8: Madison Street & 7th Street















12/04/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗							↖	↑↑	
Traffic Volume (veh/h)	0	472	288	0	0	0	0	0	0	134	630	0
Future Volume (veh/h)	0	472	288	0	0	0	0	0	0	134	630	0
Number	7	4	14							1	6	16
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863							1863	1863	0
Adj Flow Rate, veh/h	0	472	288							134	630	0
Adj No. of Lanes	0	3	1							1	2	0
Peak Hour Factor	1.00	1.00	1.00							1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	2627	804							770	1298	0
Arrive On Green	0.00	0.17	0.17							0.12	0.12	0.00
Sat Flow, veh/h	0	5253	1557							1774	3632	0
Grp Volume(v), veh/h	0	472	288							134	630	0
Grp Sat Flow(s),veh/h/ln	0	1695	1557							1774	1770	0
Q Serve(g_s), s	0.0	4.8	9.8							4.1	10.0	0.0
Cycle Q Clear(g_c), s	0.0	4.8	9.8							4.1	10.0	0.0
Prop In Lane	0.00		1.00							1.00		0.00
Lane Grp Cap(c), veh/h	0	2627	804							770	1298	0
V/C Ratio(X)	0.00	0.18	0.36							0.17	0.49	0.00
Avail Cap(c_a), veh/h	0	2627	804							770	1298	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(l)	0.00	0.85	0.85							0.97	0.97	0.00
Uniform Delay (d), s/veh	0.0	14.0	16.1							18.5	21.1	0.0
Incr Delay (d2), s/veh	0.0	0.1	1.1							0.5	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.3	4.5							2.1	5.1	0.0
LnGrp Delay(d),s/veh	0.0	14.1	17.2							19.0	22.3	0.0
LnGrp LOS		B	B							B	C	
Approach Vol, veh/h		760									764	
Approach Delay, s/veh		15.3									21.8	
Approach LOS		B									C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				35.0		25.0						
Change Period (Y+Rc), s				4.0		3.0						
Max Green Setting (Gmax), s				31.0		22.0						
Max Q Clear Time (g_c+I1), s				11.8		12.0						
Green Ext Time (p_c), s				2.6		2.3						
Intersection Summary												
HCM 2010 Ctrl Delay			18.5									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

9: Oak Street & 7th Street

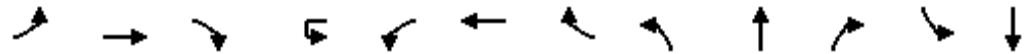
12/04/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	601	0	0	0	0	0	866	358	0	0	0
Future Volume (veh/h)	104	601	0	0	0	0	0	866	358	0	0	0
Number	7	4	14				5	2	12			
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1863	0				0	1863	1900			
Adj Flow Rate, veh/h	104	601	0				0	866	358			
Adj No. of Lanes	0	4	0				0	3	0			
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	281	1511	0				0	1900	782			
Arrive On Green	0.29	0.29	0.00				0.00	0.54	0.54			
Sat Flow, veh/h	715	5526	0				0	3668	1441			
Grp Volume(v), veh/h	210	495	0				0	839	385			
Grp Sat Flow(s),veh/h/ln	1630	1458	0				0	1695	1551			
Q Serve(g_s), s	5.1	6.4	0.0				0.0	10.5	10.6			
Cycle Q Clear(g_c), s	7.1	6.4	0.0				0.0	10.5	10.6			
Prop In Lane	0.50		0.00				0.00		0.93			
Lane Grp Cap(c), veh/h	543	1250	0				0	1840	842			
V/C Ratio(X)	0.39	0.40	0.00				0.00	0.46	0.46			
Avail Cap(c_a), veh/h	543	1250	0				0	1840	842			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	0.99	0.99	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	20.3	20.1	0.0				0.0	9.7	9.7			
Incr Delay (d2), s/veh	2.1	0.9	0.0				0.0	0.8	1.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.6	2.7	0.0				0.0	5.1	4.9			
LnGrp Delay(d),s/veh	22.4	21.1	0.0				0.0	10.5	11.5			
LnGrp LOS	C	C						B	B			
Approach Vol, veh/h		705						1224				
Approach Delay, s/veh		21.5						10.8				
Approach LOS		C						B				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		44.0		26.0								
Change Period (Y+Rc), s		6.0		6.0								
Max Green Setting (Gmax), s		38.0		20.0								
Max Q Clear Time (g_c+I1), s		12.6		9.1								
Green Ext Time (p_c), s		6.6		2.5								
Intersection Summary												
HCM 2010 Ctrl Delay			14.7									
HCM 2010 LOS			B									

HCM Signalized Intersection Capacity Analysis

10: Fallon Street & 7th Street

12/04/2020



Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	73	561	62	113	79	0	897	0	4	2	0	0
Future Volume (vph)	73	561	62	113	79	0	897	0	4	2	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0		3.0		3.0		3.0			
Lane Util. Factor	1.00	0.95	1.00		1.00		0.76		1.00			
Frbp, ped/bikes	1.00	1.00	0.93		1.00		0.97		0.99			
Flpb, ped/bikes	0.99	1.00	1.00		0.96		1.00		1.00			
Frt	1.00	1.00	0.85		1.00		0.85		0.95			
Flt Protected	0.95	1.00	1.00		0.95		1.00		1.00			
Satd. Flow (prot)	1758	3539	1471		1705		3500		1759			
Flt Permitted	0.95	1.00	1.00		0.35		1.00		1.00			
Satd. Flow (perm)	1758	3539	1471		632		3500		1759			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	73	561	62	113	79	0	897	0	4	2	0	0
RTOR Reduction (vph)	46	0	39	0	0	0	568	0	1	0	0	0
Lane Group Flow (vph)	27	561	23	0	192	0	329	0	5	0	0	0
Confl. Peds. (#/hr)	5		23	21	23		5	21		36	36	
Confl. Bikes (#/hr)			3									
Turn Type	Perm	NA	Perm	D.Pm	D.Pm		Perm		NA			
Protected Phases		4							2			
Permitted Phases	4		4	4	4		4					
Actuated Green, G (s)	22.0	22.0	22.0		22.0		22.0		32.0			
Effective Green, g (s)	22.0	22.0	22.0		22.0		22.0		32.0			
Actuated g/C Ratio	0.37	0.37	0.37		0.37		0.37		0.53			
Clearance Time (s)	3.0	3.0	3.0		3.0		3.0		3.0			
Vehicle Extension (s)	2.0	2.0	2.0		2.0		2.0		2.0			
Lane Grp Cap (vph)	644	1297	539		231		1283		938			
v/s Ratio Prot		0.16							c0.00			
v/s Ratio Perm	0.02		0.02		c0.30		0.09					
v/c Ratio	0.04	0.43	0.04		0.83		0.26		0.01			
Uniform Delay, d1	12.2	14.3	12.2		17.3		13.3		6.6			
Progression Factor	1.00	1.00	1.00		1.00		1.00		1.00			
Incremental Delay, d2	0.1	1.1	0.1		28.0		0.5		0.0			
Delay (s)	12.3	15.4	12.4		45.3		13.8		6.6			
Level of Service	B	B	B		D		B		A			
Approach Delay (s)		14.8				19.3			6.6			0.0
Approach LOS		B				B			A			A
Intersection Summary												
HCM 2000 Control Delay			17.5				HCM 2000 Level of Service		B			
HCM 2000 Volume to Capacity ratio			0.34									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)		6.0			
Intersection Capacity Utilization			61.1%				ICU Level of Service		B			
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 10: Fallon Street & 7th Street

12/04/2020





















Movement	SBR
Lane Configurations	
Traffic Volume (vph)	0
Future Volume (vph)	0
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frbp, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	0
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	21
Confl. Bikes (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM 2010 Signalized Intersection Summary

1: Oak Street & 9th Street

12/04/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  						  				
Traffic Volume (veh/h)	221	269	0	0	0	0	0	595	121	0	0	0
Future Volume (veh/h)	221	269	0	0	0	0	0	595	121	0	0	0
Number	7	4	14				5	2	12			
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.82			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1863	0				0	1863	1900			
Adj Flow Rate, veh/h	221	269	0				0	595	121			
Adj No. of Lanes	0	3	0				0	3	0			
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	605	1102	0				0	2112	413			
Arrive On Green	0.36	0.36	0.00				0.00	0.51	0.51			
Sat Flow, veh/h	1406	3238	0				0	4275	802			
Grp Volume(v), veh/h	221	269	0				0	487	229			
Grp Sat Flow(s),veh/h/ln	1406	1543	0				0	1695	1519			
Q Serve(g_s), s	8.4	4.3	0.0				0.0	5.7	6.0			
Cycle Q Clear(g_c), s	8.4	4.3	0.0				0.0	5.7	6.0			
Prop In Lane	1.00		0.00				0.00		0.53			
Lane Grp Cap(c), veh/h	605	1102	0				0	1744	781			
V/C Ratio(X)	0.37	0.24	0.00				0.00	0.28	0.29			
Avail Cap(c_a), veh/h	605	1102	0				0	1744	781			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.98	0.98			
Uniform Delay (d), s/veh	17.2	15.8	0.0				0.0	9.6	9.7			
Incr Delay (d2), s/veh	1.7	0.5	0.0				0.0	0.4	0.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.5	1.9	0.0				0.0	2.7	2.7			
LnGrp Delay(d),s/veh	18.9	16.4	0.0				0.0	10.0	10.7			
LnGrp LOS	B	B						B	B			
Approach Vol, veh/h		490						716				
Approach Delay, s/veh		17.5						10.2				
Approach LOS		B						B				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		40.0		30.0								
Change Period (Y+Rc), s		4.0		5.0								
Max Green Setting (Gmax), s		36.0		25.0								
Max Q Clear Time (g_c+I1), s		8.0		10.4								
Green Ext Time (p_c), s		3.5		1.8								
Intersection Summary												
HCM 2010 Ctrl Delay			13.2									
HCM 2010 LOS			B									

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖↗	↖		↖	↖	
Traffic Vol, veh/h	298	149	0	150	39	0
Future Vol, veh/h	298	149	0	150	39	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	298	149	0	150	39	0
Number of Lanes	2	1	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	3	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	3
HCM Control Delay	8.6	9.9	8.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	EBLn3	SBLn1
Vol Left, %	0%	100%	100%	0%	0%
Vol Thru, %	100%	0%	0%	0%	100%
Vol Right, %	0%	0%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	150	149	149	149	39
LT Vol	0	149	149	0	0
Through Vol	150	0	0	0	39
RT Vol	0	0	0	149	0
Lane Flow Rate	150	149	149	149	39
Geometry Grp	7	7	7	7	7
Degree of Util (X)	0.23	0.231	0.231	0.109	0.061
Departure Headway (Hd)	5.514	5.571	5.571	2.625	5.654
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	650	645	645	1360	631
Service Time	3.258	3.298	3.298	0.351	3.407
HCM Lane V/C Ratio	0.231	0.231	0.231	0.11	0.062
HCM Control Delay	9.9	10	10	5.7	8.8
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.9	0.9	0.9	0.4	0.2

HCM Signalized Intersection Capacity Analysis

3: Jackson Street & 8th Street

12/04/2020



















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations				↖	↕			↗			↖	↗	
Traffic Volume (vph)	0	0	0	52	526	34	119	184	0	0	334	83	
Future Volume (vph)	0	0	0	52	526	34	119	184	0	0	334	83	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)				4.5	4.5			4.5			4.5		
Lane Util. Factor				1.00	0.95			1.00			1.00		
Frbp, ped/bikes				1.00	0.99			1.00			0.98		
Flpb, ped/bikes				0.89	1.00			0.99			1.00		
Frt				1.00	0.99			1.00			0.97		
Flt Protected				0.95	1.00			0.98			1.00		
Satd. Flow (prot)				1573	3463			1801			1779		
Flt Permitted				0.95	1.00			0.48			1.00		
Satd. Flow (perm)				1573	3463			889			1779		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	0	0	52	526	34	119	184	0	0	334	83	
RTOR Reduction (vph)	0	0	0	0	7	0	0	0	0	0	17	0	
Lane Group Flow (vph)	0	0	0	52	553	0	0	303	0	0	400	0	
Confl. Peds. (#/hr)	104		63	63		104	77		37	37		77	
Confl. Bikes (#/hr)						9			5			1	
Parking (#/hr)									0				
Turn Type				Perm	NA		Perm	NA			NA		
Protected Phases					2			4			4		
Permitted Phases				2			4						
Actuated Green, G (s)				30.7	30.7			20.3			20.3		
Effective Green, g (s)				30.7	30.7			20.3			20.3		
Actuated g/C Ratio				0.51	0.51			0.34			0.34		
Clearance Time (s)				4.5	4.5			4.5			4.5		
Vehicle Extension (s)				0.2	0.2			0.2			0.2		
Lane Grp Cap (vph)				804	1771			300			601		
v/s Ratio Prot					c0.16						0.22		
v/s Ratio Perm				0.03				c0.34					
v/c Ratio				0.06	0.31			1.01			0.67		
Uniform Delay, d1				7.4	8.5			19.9			16.9		
Progression Factor				1.67	1.68			0.58			1.00		
Incremental Delay, d2				0.1	0.4			50.2			2.2		
Delay (s)				12.5	14.8			61.8			19.1		
Level of Service				B	B			E			B		
Approach Delay (s)		0.0			14.6			61.8			19.1		
Approach LOS		A			B			E			B		
Intersection Summary													
HCM 2000 Control Delay			26.7		HCM 2000 Level of Service						C		
HCM 2000 Volume to Capacity ratio			0.59										
Actuated Cycle Length (s)			60.0		Sum of lost time (s)					9.0			
Intersection Capacity Utilization			67.2%		ICU Level of Service					C			
Analysis Period (min)			15										
c Critical Lane Group													

HCM 2010 Signalized Intersection Summary
















4: Madison Street & 8th Street

12/04/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	181	463	0	0	0	0	0	593	85
Future Volume (veh/h)	0	0	0	181	463	0	0	0	0	0	593	85
Number				3	8	18				5	2	12
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.92
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	1863	0				0	1863	1863
Adj Flow Rate, veh/h				181	463	0				0	593	85
Adj No. of Lanes				1	2	0				0	2	1
Peak Hour Factor				1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				726	1209	0				0	1799	744
Arrive On Green				0.11	0.11	0.00				0.00	0.51	0.51
Sat Flow, veh/h				1774	3632	0				0	3632	1464
Grp Volume(v), veh/h				181	463	0				0	593	85
Grp Sat Flow(s),veh/h/ln				1774	1770	0				0	1770	1464
Q Serve(g_s), s				5.6	7.3	0.0				0.0	5.9	1.8
Cycle Q Clear(g_c), s				5.6	7.3	0.0				0.0	5.9	1.8
Prop In Lane				1.00		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				726	1209	0				0	1799	744
V/C Ratio(X)				0.25	0.38	0.00				0.00	0.33	0.11
Avail Cap(c_a), veh/h				726	1209	0				0	1799	744
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.83	0.83	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				20.0	20.8	0.0				0.0	8.7	7.7
Incr Delay (d2), s/veh				0.7	0.8	0.0				0.0	0.5	0.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.9	3.7	0.0				0.0	3.0	0.8
LnGrp Delay(d),s/veh				20.7	21.5	0.0				0.0	9.2	8.0
LnGrp LOS				C	C						A	A
Approach Vol, veh/h					644						678	
Approach Delay, s/veh					21.3						9.1	
Approach LOS					C						A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		35.0						25.0				
Change Period (Y+Rc), s		4.5						4.5				
Max Green Setting (Gmax), s		30.5						20.5				
Max Q Clear Time (g_c+I1), s		7.9						9.3				
Green Ext Time (p_c), s		2.9						1.8				
Intersection Summary												
HCM 2010 Ctrl Delay				15.0								
HCM 2010 LOS				B								

HCM 2010 Signalized Intersection Summary
 5: Oak Street & 8th Street

12/04/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	493	151	153	534	0	0	0	0
Future Volume (veh/h)	0	0	0	0	493	151	153	534	0	0	0	0
Number				3	8	18	5	2	12			
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.86	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln				0	1863	1900	1863	1863	0			
Adj Flow Rate, veh/h				0	493	151	153	534	0			
Adj No. of Lanes				0	3	0	1	2	0			
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	880	253	1214	2183	0			
Arrive On Green				0.00	0.23	0.23	0.62	0.62	0.00			
Sat Flow, veh/h				0	3940	1087	1774	3632	0			
Grp Volume(v), veh/h				0	440	204	153	534	0			
Grp Sat Flow(s),veh/h/ln				0	1695	1468	1774	1770	0			
Q Serve(g_s), s				0.0	6.9	7.4	2.2	4.1	0.0			
Cycle Q Clear(g_c), s				0.0	6.9	7.4	2.2	4.1	0.0			
Prop In Lane				0.00		0.74	1.00		0.00			
Lane Grp Cap(c), veh/h				0	791	343	1214	2183	0			
V/C Ratio(X)				0.00	0.56	0.60	0.13	0.24	0.00			
Avail Cap(c_a), veh/h				0	1158	502	1214	2183	0			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	1.00	1.00	0.80	0.80	0.00			
Uniform Delay (d), s/veh				0.0	20.3	20.5	4.8	5.2	0.0			
Incr Delay (d2), s/veh				0.0	0.2	0.6	0.2	0.2	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	3.2	3.1	1.1	2.0	0.0			
LnGrp Delay(d),s/veh				0.0	20.5	21.1	5.0	5.4	0.0			
LnGrp LOS					C	C	A	A				
Approach Vol, veh/h					644			687				
Approach Delay, s/veh					20.7			5.3				
Approach LOS					C			A				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		41.5						18.5				
Change Period (Y+Rc), s		4.5						4.5				
Max Green Setting (Gmax), s		30.5						20.5				
Max Q Clear Time (g_c+I1), s		6.1						9.4				
Green Ext Time (p_c), s		2.6						2.3				
Intersection Summary												
HCM 2010 Ctrl Delay					12.8							
HCM 2010 LOS					B							

HCM Signalized Intersection Capacity Analysis

7: Jackson Street & 7th Street

12/04/2020















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑			↑	
Traffic Volume (vph)	58	1321	257	0	0	0	0	194	208	42	343	0
Future Volume (vph)	58	1321	257	0	0	0	0	194	208	42	343	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6						4.6			4.6	
Lane Util. Factor		0.91						1.00			1.00	
Frbp, ped/bikes		0.99						0.96			1.00	
Flpb, ped/bikes		1.00						1.00			1.00	
Frt		0.98						0.93			1.00	
Flt Protected		1.00						1.00			0.99	
Satd. Flow (prot)		4911						1659			1846	
Flt Permitted		1.00						1.00			0.91	
Satd. Flow (perm)		4911						1659			1690	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	58	1321	257	0	0	0	0	194	208	42	343	0
RTOR Reduction (vph)	0	45	0	0	0	0	0	17	0	0	0	0
Lane Group Flow (vph)	0	1591	0	0	0	0	0	385	0	0	385	0
Confl. Peds. (#/hr)	32		15	15			32	38		70	70	38
Confl. Bikes (#/hr)										2		5
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						4			4	
Permitted Phases	2									4		
Actuated Green, G (s)		29.4						21.4			21.4	
Effective Green, g (s)		29.4						21.4			21.4	
Actuated g/C Ratio		0.49						0.36			0.36	
Clearance Time (s)		4.6						4.6			4.6	
Vehicle Extension (s)		2.0						2.0			2.0	
Lane Grp Cap (vph)		2406						591			602	
v/s Ratio Prot								c0.23				
v/s Ratio Perm		0.32									0.23	
v/c Ratio		0.66						0.65			0.64	
Uniform Delay, d1		11.5						16.2			16.1	
Progression Factor		1.00						1.00			0.46	
Incremental Delay, d2		1.4						5.5			4.6	
Delay (s)		13.0						21.7			12.1	
Level of Service		B						C			B	
Approach Delay (s)		13.0			0.0			21.7			12.1	
Approach LOS		B			A			C			B	
Intersection Summary												
HCM 2000 Control Delay			14.3					HCM 2000 Level of Service			B	
HCM 2000 Volume to Capacity ratio			0.66									
Actuated Cycle Length (s)			60.0					Sum of lost time (s)		9.2		
Intersection Capacity Utilization			92.2%					ICU Level of Service		F		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 2010 Signalized Intersection Summary

8: Madison Street & 7th Street













12/04/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑							↑	↑↑	
Traffic Volume (veh/h)	0	1293	278	0	0	0	0	0	0	279	704	0
Future Volume (veh/h)	0	1293	278	0	0	0	0	0	0	279	704	0
Number	7	4	14							1	6	16
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863							1863	1863	0
Adj Flow Rate, veh/h	0	1293	278							279	704	0
Adj No. of Lanes	0	3	1							1	2	0
Peak Hour Factor	1.00	1.00	1.00							1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	2882	883							682	1121	0
Arrive On Green	0.00	0.19	0.19							0.10	0.10	0.00
Sat Flow, veh/h	0	5253	1559							1774	3632	0
Grp Volume(v), veh/h	0	1293	278							279	704	0
Grp Sat Flow(s),veh/h/ln	0	1695	1559							1774	1770	0
Q Serve(g_s), s	0.0	13.5	9.2							8.9	11.4	0.0
Cycle Q Clear(g_c), s	0.0	13.5	9.2							8.9	11.4	0.0
Prop In Lane	0.00		1.00							1.00		0.00
Lane Grp Cap(c), veh/h	0	2882	883							682	1121	0
V/C Ratio(X)	0.00	0.45	0.31							0.41	0.63	0.00
Avail Cap(c_a), veh/h	0	2882	883							682	1121	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	0.69	0.69							0.96	0.96	0.00
Uniform Delay (d), s/veh	0.0	16.1	14.3							22.3	23.5	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.6							1.7	2.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.4	4.2							4.7	6.0	0.0
LnGrp Delay(d),s/veh	0.0	16.4	15.0							24.1	26.0	0.0
LnGrp LOS		B	B							C	C	
Approach Vol, veh/h		1571									983	
Approach Delay, s/veh		16.2									25.5	
Approach LOS		B									C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				38.0		22.0						
Change Period (Y+Rc), s				4.0		3.0						
Max Green Setting (Gmax), s				34.0		19.0						
Max Q Clear Time (g_c+I1), s				15.5		13.4						
Green Ext Time (p_c), s				7.1		2.0						
Intersection Summary												
HCM 2010 Ctrl Delay			19.8									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

9: Oak Street & 7th Street

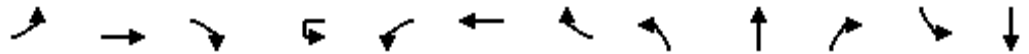
12/04/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4TTL						↑↑↑				
Traffic Volume (veh/h)	135	1395	0	0	0	0	0	555	534	0	0	0
Future Volume (veh/h)	135	1395	0	0	0	0	0	555	534	0	0	0
Number	7	4	14				5	2	12			
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.96			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1863	0				0	1863	1900			
Adj Flow Rate, veh/h	135	1395	0				0	555	534			
Adj No. of Lanes	0	4	0				0	3	0			
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	260	2328	0				0	1405	630			
Arrive On Green	0.41	0.41	0.00				0.00	0.41	0.41			
Sat Flow, veh/h	466	5856	0				0	3558	1522			
Grp Volume(v), veh/h	440	1090	0				0	555	534			
Grp Sat Flow(s),veh/h/ln	1711	1458	0				0	1695	1522			
Q Serve(g_s), s	11.0	13.6	0.0				0.0	8.0	22.2			
Cycle Q Clear(g_c), s	14.0	13.6	0.0				0.0	8.0	22.2			
Prop In Lane	0.31		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	776	1812	0				0	1405	630			
V/C Ratio(X)	0.57	0.60	0.00				0.00	0.40	0.85			
Avail Cap(c_a), veh/h	776	1812	0				0	1405	630			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	0.89	0.89	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	16.0	16.0	0.0				0.0	14.4	18.5			
Incr Delay (d2), s/veh	2.7	1.3	0.0				0.0	0.8	13.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.2	5.7	0.0				0.0	3.9	11.5			
LnGrp Delay(d),s/veh	18.7	17.3	0.0				0.0	15.2	31.8			
LnGrp LOS	B	B						B	C			
Approach Vol, veh/h		1530						1089				
Approach Delay, s/veh		17.7						23.3				
Approach LOS		B						C				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		35.0		35.0								
Change Period (Y+Rc), s		6.0		6.0								
Max Green Setting (Gmax), s		29.0		29.0								
Max Q Clear Time (g_c+I1), s		24.2		16.0								
Green Ext Time (p_c), s		2.4		6.2								
Intersection Summary												
HCM 2010 Ctrl Delay			20.0									
HCM 2010 LOS			C									

HCM Signalized Intersection Capacity Analysis

10: Fallon Street & 7th Street

12/04/2020



Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	138	1587	112	36	39	0	571	0	42	9	0	0
Future Volume (vph)	138	1587	112	36	39	0	571	0	42	9	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0		6.0		6.0		6.0			
Lane Util. Factor	1.00	0.95	1.00		1.00		0.76		1.00			
Frpb, ped/bikes	1.00	1.00	0.92		1.00		0.97		0.99			
Flpb, ped/bikes	0.99	1.00	1.00		1.00		1.00		1.00			
Frt	1.00	1.00	0.85		1.00		0.85		0.98			
Flt Protected	0.95	1.00	1.00		0.95		1.00		1.00			
Satd. Flow (prot)	1756	3539	1459		1770		3494		1806			
Flt Permitted	0.95	1.00	1.00		0.13		1.00		1.00			
Satd. Flow (perm)	1756	3539	1459		240		3494		1806			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	138	1587	112	36	39	0	571	0	42	9	0	0
RTOR Reduction (vph)	77	0	62	0	0	0	318	0	3	0	0	0
Lane Group Flow (vph)	61	1587	50	0	75	0	253	0	48	0	0	0
Confl. Peds. (#/hr)	5		23	21	23		5	21		36	36	
Confl. Bikes (#/hr)			3									
Turn Type	Perm	NA	Perm	D.Pm	D.Pm		Perm		NA			
Protected Phases		4							2			
Permitted Phases	4		4	4	4		4					
Actuated Green, G (s)	31.0	31.0	31.0		31.0		31.0		27.0			
Effective Green, g (s)	31.0	31.0	31.0		31.0		31.0		27.0			
Actuated g/C Ratio	0.44	0.44	0.44		0.44		0.44		0.39			
Clearance Time (s)	6.0	6.0	6.0		6.0		6.0		6.0			
Vehicle Extension (s)	2.0	2.0	2.0		2.0		2.0		2.0			
Lane Grp Cap (vph)	777	1567	646		106		1547		696			
v/s Ratio Prot		c0.45							c0.03			
v/s Ratio Perm	0.03		0.03		0.31		0.07					
v/c Ratio	0.08	1.01	0.08		0.71		0.16		0.07			
Uniform Delay, d1	11.3	19.5	11.2		15.8		11.7		13.6			
Progression Factor	0.33	0.59	0.34		1.00		1.00		1.00			
Incremental Delay, d2	0.2	23.9	0.2		32.9		0.2		0.2			
Delay (s)	3.9	35.4	4.0		48.7		11.9		13.8			
Level of Service	A	D	A		D		B		B			
Approach Delay (s)		31.1				16.2			13.8			0.0
Approach LOS		C				B			B			A
Intersection Summary												
HCM 2000 Control Delay			27.0				HCM 2000 Level of Service		C			
HCM 2000 Volume to Capacity ratio			0.57									
Actuated Cycle Length (s)			70.0				Sum of lost time (s)		12.0			
Intersection Capacity Utilization			87.2%				ICU Level of Service		E			
Analysis Period (min)			15									
c	Critical Lane Group											

HCM Signalized Intersection Capacity Analysis
 10: Fallon Street & 7th Street

12/04/2020




















Movement	SBR
Lane Configurations	
Traffic Volume (vph)	0
Future Volume (vph)	0
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frbp, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	0
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	21
Confl. Bikes (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM 2010 Signalized Intersection Summary

1: Oak Street & 9th Street

12/04/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 						  				
Traffic Volume (veh/h)	69	141	0	0	0	0	0	798	117	0	0	0
Future Volume (veh/h)	69	141	0	0	0	0	0	798	117	0	0	0
Number	7	4	14				5	2	12			
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.83			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1863	0				0	1863	1900			
Adj Flow Rate, veh/h	69	141	0				0	798	117			
Adj No. of Lanes	0	2	0				0	3	0			
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	376	752	0				0	2368	342			
Arrive On Green	0.33	0.33	0.00				0.00	0.54	0.54			
Sat Flow, veh/h	893	2374	0				0	4530	630			
Grp Volume(v), veh/h	113	97	0				0	617	298			
Grp Sat Flow(s),veh/h/ln	1572	1610	0				0	1695	1602			
Q Serve(g_s), s	2.1	3.0	0.0				0.0	7.1	7.3			
Cycle Q Clear(g_c), s	3.4	3.0	0.0				0.0	7.1	7.3			
Prop In Lane	0.61		0.00				0.00		0.39			
Lane Grp Cap(c), veh/h	599	529	0				0	1840	870			
V/C Ratio(X)	0.19	0.18	0.00				0.00	0.34	0.34			
Avail Cap(c_a), veh/h	599	529	0				0	1840	870			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.92	0.92			
Uniform Delay (d), s/veh	16.9	16.8	0.0				0.0	8.9	9.0			
Incr Delay (d2), s/veh	0.7	0.8	0.0				0.0	0.5	1.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.7	1.4	0.0				0.0	3.4	3.5			
LnGrp Delay(d),s/veh	17.6	17.5	0.0				0.0	9.4	10.0			
LnGrp LOS	B	B						A	A			
Approach Vol, veh/h		210						915				
Approach Delay, s/veh		17.6						9.6				
Approach LOS		B						A				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		42.0		28.0								
Change Period (Y+Rc), s		4.0		5.0								
Max Green Setting (Gmax), s		38.0		23.0								
Max Q Clear Time (g_c+I1), s		9.3		5.4								
Green Ext Time (p_c), s		4.6		0.7								
Intersection Summary												
HCM 2010 Ctrl Delay			11.1									
HCM 2010 LOS			B									

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘	↗		↑	↑	
Traffic Vol, veh/h	144	108	0	94	132	0
Future Vol, veh/h	144	108	0	94	132	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	144	108	0	94	132	0
Number of Lanes	1	1	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay	9	8.4	8.7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	SBLn1
Vol Left, %	0%	100%	0%	0%
Vol Thru, %	100%	0%	0%	100%
Vol Right, %	0%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	94	144	108	132
LT Vol	0	144	0	0
Through Vol	94	0	0	132
RT Vol	0	0	108	0
Lane Flow Rate	94	144	108	132
Geometry Grp	2	7	7	2
Degree of Util (X)	0.123	0.223	0.131	0.171
Departure Headway (Hd)	4.709	5.569	4.364	4.664
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	761	645	821	770
Service Time	2.734	3.299	2.094	2.687
HCM Lane V/C Ratio	0.124	0.223	0.132	0.171
HCM Control Delay	8.4	9.9	7.8	8.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.8	0.4	0.6

HCM Signalized Intersection Capacity Analysis

3: Jackson Street & 8th Street

12/04/2020


















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	0	0	0	109	553	72	116	263	0	0	271	63	
Future Volume (vph)	0	0	0	109	553	72	116	263	0	0	271	63	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)				4.5	4.5			4.5			4.5		
Lane Util. Factor				1.00	0.95			1.00			1.00		
Frbp, ped/bikes				1.00	0.98			1.00			0.98		
Flpb, ped/bikes				0.89	1.00			0.99			1.00		
Frt				1.00	0.98			1.00			0.97		
Flt Protected				0.95	1.00			0.98			1.00		
Satd. Flow (prot)				1573	3396			1810			1784		
Flt Permitted				0.95	1.00			0.67			1.00		
Satd. Flow (perm)				1573	3396			1228			1784		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	0	0	109	553	72	116	263	0	0	271	63	
RTOR Reduction (vph)	0	0	0	0	12	0	0	0	0	0	21	0	
Lane Group Flow (vph)	0	0	0	109	613	0	0	379	0	0	313	0	
Confl. Peds. (#/hr)	104		63	63		104	77		37	37		77	
Confl. Bikes (#/hr)						9			5			1	
Parking (#/hr)									0				
Turn Type				Perm	NA		Perm	NA			NA		
Protected Phases					2			4			4		
Permitted Phases				2			4						
Actuated Green, G (s)				30.1	30.1			20.9			20.9		
Effective Green, g (s)				30.1	30.1			20.9			20.9		
Actuated g/C Ratio				0.50	0.50			0.35			0.35		
Clearance Time (s)				4.5	4.5			4.5			4.5		
Vehicle Extension (s)				0.2	0.2			0.2			0.2		
Lane Grp Cap (vph)				789	1703			427			621		
v/s Ratio Prot					c0.18						0.18		
v/s Ratio Perm				0.07				c0.31					
v/c Ratio				0.14	0.36			0.89			0.50		
Uniform Delay, d1				8.0	9.1			18.4			15.5		
Progression Factor				1.27	1.15			1.21			1.00		
Incremental Delay, d2				0.3	0.4			16.9			0.2		
Delay (s)				10.4	10.9			39.3			15.7		
Level of Service				B	B			D			B		
Approach Delay (s)		0.0			10.8			39.3			15.7		
Approach LOS		A			B			D			B		
Intersection Summary													
HCM 2000 Control Delay			19.4		HCM 2000 Level of Service						B		
HCM 2000 Volume to Capacity ratio			0.58										
Actuated Cycle Length (s)			60.0		Sum of lost time (s)						9.0		
Intersection Capacity Utilization			68.9%		ICU Level of Service						C		
Analysis Period (min)			15										
c Critical Lane Group													

HCM 2010 Signalized Intersection Summary

4: Madison Street & 8th Street
















12/04/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	259	788	0	0	0	0	0	470	82
Future Volume (veh/h)	0	0	0	259	788	0	0	0	0	0	470	82
Number				3	8	18				5	2	12
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.92
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	0				0	1863	1863
Adj Flow Rate, veh/h				259	788	0				0	470	82
Adj No. of Lanes				0	2	0				0	2	1
Peak Hour Factor				1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				391	960	0				0	1622	667
Arrive On Green				0.13	0.13	0.00				0.00	0.46	0.46
Sat Flow, veh/h				772	2535	0				0	3632	1455
Grp Volume(v), veh/h				541	506	0				0	470	82
Grp Sat Flow(s),veh/h/ln				1612	1610	0				0	1770	1455
Q Serve(g_s), s				19.7	18.3	0.0				0.0	5.0	1.9
Cycle Q Clear(g_c), s				19.7	18.3	0.0				0.0	5.0	1.9
Prop In Lane				0.48		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				720	631	0				0	1622	667
V/C Ratio(X)				0.75	0.80	0.00				0.00	0.29	0.12
Avail Cap(c_a), veh/h				720	631	0				0	1622	667
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.66	0.66	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				24.5	23.9	0.0				0.0	10.1	9.3
Incr Delay (d2), s/veh				4.8	7.1	0.0				0.0	0.5	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.8	9.4	0.0				0.0	2.5	0.8
LnGrp Delay(d),s/veh				29.2	30.9	0.0				0.0	10.6	9.7
LnGrp LOS				C	C						B	A
Approach Vol, veh/h					1047						552	
Approach Delay, s/veh					30.0						10.5	
Approach LOS					C						B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		32.0						28.0				
Change Period (Y+Rc), s		4.5						4.5				
Max Green Setting (Gmax), s		27.5						23.5				
Max Q Clear Time (g_c+I1), s		7.0						21.7				
Green Ext Time (p_c), s		2.2						0.9				
Intersection Summary												
HCM 2010 Ctrl Delay				23.3								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary

5: Oak Street & 8th Street

12/04/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	830	178	221	685	0	0	0	0
Future Volume (veh/h)	0	0	0	0	830	178	221	685	0	0	0	0
Number				3	8	18	5	2	12			
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.90	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln				0	1863	1900	1863	1863	0			
Adj Flow Rate, veh/h				0	830	178	221	685	0			
Adj No. of Lanes				0	2	0	1	2	0			
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	996	214	1006	1767	0			
Arrive On Green				0.00	0.35	0.35	0.50	0.50	0.00			
Sat Flow, veh/h				0	2933	609	1774	3632	0			
Grp Volume(v), veh/h				0	517	491	221	685	0			
Grp Sat Flow(s),veh/h/ln				0	1770	1679	1774	1770	0			
Q Serve(g_s), s				0.0	16.1	16.1	4.3	7.2	0.0			
Cycle Q Clear(g_c), s				0.0	16.1	16.1	4.3	7.2	0.0			
Prop In Lane				0.00		0.36	1.00		0.00			
Lane Grp Cap(c), veh/h				0	621	589	1006	1767	0			
V/C Ratio(X)				0.00	0.83	0.83	0.22	0.39	0.00			
Avail Cap(c_a), veh/h				0	767	728	1006	1767	0			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	1.00	1.00	0.88	0.88	0.00			
Uniform Delay (d), s/veh				0.0	17.9	17.9	8.6	9.3	0.0			
Incr Delay (d2), s/veh				0.0	5.4	5.7	0.4	0.6	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	8.7	8.3	2.2	3.7	0.0			
LnGrp Delay(d),s/veh				0.0	23.3	23.5	9.0	9.9	0.0			
LnGrp LOS					C	C	A	A				
Approach Vol, veh/h					1008			906				
Approach Delay, s/veh					23.4			9.7				
Approach LOS					C			A				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		34.4						25.6				
Change Period (Y+Rc), s		4.5						4.5				
Max Green Setting (Gmax), s		25.0						26.0				
Max Q Clear Time (g_c+I1), s		9.2						18.1				
Green Ext Time (p_c), s		3.2						3.0				
Intersection Summary												
HCM 2010 Ctrl Delay					16.9							
HCM 2010 LOS					B							

HCM Signalized Intersection Capacity Analysis

7: Jackson Street & 7th Street

12/04/2020















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑			↑	
Traffic Volume (vph)	54	699	524	0	0	0	0	265	147	48	300	0
Future Volume (vph)	54	699	524	0	0	0	0	265	147	48	300	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6						4.6			4.6	
Lane Util. Factor		0.91						1.00			1.00	
Frbp, ped/bikes		0.98						0.97			1.00	
Flpb, ped/bikes		1.00						1.00			1.00	
Frt		0.94						0.95			1.00	
Flt Protected		1.00						1.00			0.99	
Satd. Flow (prot)		4661						1721			1842	
Flt Permitted		1.00						1.00			0.85	
Satd. Flow (perm)		4661						1721			1573	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	54	699	524	0	0	0	0	265	147	48	300	0
RTOR Reduction (vph)	0	141	0	0	0	0	0	33	0	0	0	0
Lane Group Flow (vph)	0	1136	0	0	0	0	0	379	0	0	348	0
Confl. Peds. (#/hr)	32		15	15			32	38		70	70	38
Confl. Bikes (#/hr)										2		5
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						4			4	
Permitted Phases	2									4		
Actuated Green, G (s)		29.4						21.4			21.4	
Effective Green, g (s)		29.4						21.4			21.4	
Actuated g/C Ratio		0.49						0.36			0.36	
Clearance Time (s)		4.6						4.6			4.6	
Vehicle Extension (s)		2.0						2.0			2.0	
Lane Grp Cap (vph)		2283						613			561	
v/s Ratio Prot								0.22				
v/s Ratio Perm		0.24									c0.22	
v/c Ratio		0.50						0.62			0.62	
Uniform Delay, d1		10.3						15.9			15.9	
Progression Factor		1.00						1.00			1.31	
Incremental Delay, d2		0.8						4.6			5.0	
Delay (s)		11.1						20.5			25.9	
Level of Service		B						C			C	
Approach Delay (s)		11.1			0.0			20.5			25.9	
Approach LOS		B			A			C			C	
Intersection Summary												
HCM 2000 Control Delay			15.5					HCM 2000 Level of Service			B	
HCM 2000 Volume to Capacity ratio			0.55									
Actuated Cycle Length (s)			60.0					Sum of lost time (s)		9.2		
Intersection Capacity Utilization			83.8%					ICU Level of Service		E		
Analysis Period (min)			15									
c Critical Lane Group												

HCM 2010 Signalized Intersection Summary

8: Madison Street & 7th Street















12/04/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑							↑	↑↑	
Traffic Volume (veh/h)	0	606	288	0	0	0	0	0	0	169	646	0
Future Volume (veh/h)	0	606	288	0	0	0	0	0	0	169	646	0
Number	7	4	14							1	6	16
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863							1863	1863	0
Adj Flow Rate, veh/h	0	606	288							169	646	0
Adj No. of Lanes	0	3	1							1	2	0
Peak Hour Factor	1.00	1.00	1.00							1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	2627	804							770	1298	0
Arrive On Green	0.00	0.17	0.17							0.12	0.12	0.00
Sat Flow, veh/h	0	5253	1557							1774	3632	0
Grp Volume(v), veh/h	0	606	288							169	646	0
Grp Sat Flow(s),veh/h/ln	0	1695	1557							1774	1770	0
Q Serve(g_s), s	0.0	6.2	9.8							5.2	10.2	0.0
Cycle Q Clear(g_c), s	0.0	6.2	9.8							5.2	10.2	0.0
Prop In Lane	0.00		1.00							1.00		0.00
Lane Grp Cap(c), veh/h	0	2627	804							770	1298	0
V/C Ratio(X)	0.00	0.23	0.36							0.22	0.50	0.00
Avail Cap(c_a), veh/h	0	2627	804							770	1298	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(l)	0.00	0.84	0.84							0.97	0.97	0.00
Uniform Delay (d), s/veh	0.0	14.6	16.1							19.0	21.2	0.0
Incr Delay (d2), s/veh	0.0	0.2	1.0							0.6	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.9	4.5							2.7	5.3	0.0
LnGrp Delay(d),s/veh	0.0	14.8	17.1							19.6	22.5	0.0
LnGrp LOS		B	B							B	C	
Approach Vol, veh/h		894									815	
Approach Delay, s/veh		15.5									21.9	
Approach LOS		B									C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				35.0		25.0						
Change Period (Y+Rc), s				4.0		3.0						
Max Green Setting (Gmax), s				31.0		22.0						
Max Q Clear Time (g_c+I1), s				11.8		12.2						
Green Ext Time (p_c), s				3.3		2.4						
Intersection Summary												
HCM 2010 Ctrl Delay			18.6									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

9: Oak Street & 7th Street

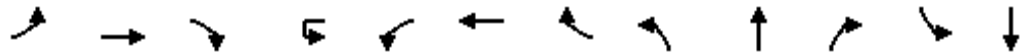
12/04/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	152	619	0	0	0	0	0	879	358	0	0	0
Future Volume (veh/h)	152	619	0	0	0	0	0	879	358	0	0	0
Number	7	4	14				5	2	12			
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1863	0				0	1863	1900			
Adj Flow Rate, veh/h	152	619	0				0	879	358			
Adj No. of Lanes	0	3	0				0	3	0			
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	310	1107	0				0	1909	775			
Arrive On Green	0.29	0.29	0.00				0.00	0.54	0.54			
Sat Flow, veh/h	809	4028	0				0	3685	1427			
Grp Volume(v), veh/h	284	487	0				0	847	390			
Grp Sat Flow(s),veh/h/ln	1600	1543	0				0	1695	1554			
Q Serve(g_s), s	9.8	9.4	0.0				0.0	10.7	10.7			
Cycle Q Clear(g_c), s	10.7	9.4	0.0				0.0	10.7	10.7			
Prop In Lane	0.54		0.00				0.00		0.92			
Lane Grp Cap(c), veh/h	536	881	0				0	1840	844			
V/C Ratio(X)	0.53	0.55	0.00				0.00	0.46	0.46			
Avail Cap(c_a), veh/h	536	881	0				0	1840	844			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	0.98	0.98	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	21.6	21.2	0.0				0.0	9.8	9.8			
Incr Delay (d2), s/veh	3.7	2.4	0.0				0.0	0.8	1.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.3	4.3	0.0				0.0	5.2	5.0			
LnGrp Delay(d),s/veh	25.3	23.7	0.0				0.0	10.6	11.6			
LnGrp LOS	C	C						B	B			
Approach Vol, veh/h		771						1237				
Approach Delay, s/veh		24.2						10.9				
Approach LOS		C						B				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		44.0		26.0								
Change Period (Y+Rc), s		6.0		6.0								
Max Green Setting (Gmax), s		38.0		20.0								
Max Q Clear Time (g_c+I1), s		12.7		12.7								
Green Ext Time (p_c), s		6.7		2.1								
Intersection Summary												
HCM 2010 Ctrl Delay			16.0									
HCM 2010 LOS			B									

HCM Signalized Intersection Capacity Analysis

10: Fallon Street & 7th Street

12/04/2020



Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	
Lane Configurations	↖	↑↑	↗		↙		↗↗↗		↑				
Traffic Volume (vph)	77	576	62	113	79	0	926	0	4	2	0	0	
Future Volume (vph)	77	576	62	113	79	0	926	0	4	2	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	3.0	3.0	3.0		3.0		3.0		3.0				
Lane Util. Factor	1.00	0.95	1.00		1.00		0.76		1.00				
Frpb, ped/bikes	1.00	1.00	0.93		1.00		0.97		0.99				
Flpb, ped/bikes	0.99	1.00	1.00		0.96		1.00		1.00				
Frt	1.00	1.00	0.85		1.00		0.85		0.95				
Flt Protected	0.95	1.00	1.00		0.95		1.00		1.00				
Satd. Flow (prot)	1758	3539	1471		1707		3500		1759				
Flt Permitted	0.95	1.00	1.00		0.34		1.00		1.00				
Satd. Flow (perm)	1758	3539	1471		615		3500		1759				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	77	576	62	113	79	0	926	0	4	2	0	0	
RTOR Reduction (vph)	49	0	39	0	0	0	586	0	1	0	0	0	
Lane Group Flow (vph)	28	576	23	0	192	0	340	0	5	0	0	0	
Confl. Peds. (#/hr)	5		23	21	23		5	21		36	36		
Confl. Bikes (#/hr)			3										
Turn Type	Perm	NA	Perm	D.Pm	D.Pm		Perm		NA				
Protected Phases		4							2				
Permitted Phases	4		4	4	4		4						
Actuated Green, G (s)	22.0	22.0	22.0		22.0		22.0		32.0				
Effective Green, g (s)	22.0	22.0	22.0		22.0		22.0		32.0				
Actuated g/C Ratio	0.37	0.37	0.37		0.37		0.37		0.53				
Clearance Time (s)	3.0	3.0	3.0		3.0		3.0		3.0				
Vehicle Extension (s)	2.0	2.0	2.0		2.0		2.0		2.0				
Lane Grp Cap (vph)	644	1297	539		225		1283		938				
v/s Ratio Prot		0.16							c0.00				
v/s Ratio Perm	0.02		0.02		c0.31		0.10						
v/c Ratio	0.04	0.44	0.04		0.85		0.26		0.01				
Uniform Delay, d1	12.2	14.4	12.2		17.5		13.3		6.6				
Progression Factor	1.00	1.00	1.00		1.00		1.00		1.00				
Incremental Delay, d2	0.1	1.1	0.1		31.5		0.5		0.0				
Delay (s)	12.4	15.5	12.4		49.0		13.8		6.6				
Level of Service	B	B	B		D		B		A				
Approach Delay (s)		14.9				19.9			6.6			0.0	
Approach LOS		B				B			A			A	
Intersection Summary													
HCM 2000 Control Delay			17.9									HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.35										
Actuated Cycle Length (s)			60.0									Sum of lost time (s)	6.0
Intersection Capacity Utilization			61.6%									ICU Level of Service	B
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

10: Fallon Street & 7th Street

12/04/2020



















Movement	SBR
Lane Configurations	
Traffic Volume (vph)	0
Future Volume (vph)	0
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frbp, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	0
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	21
Confl. Bikes (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM 2010 Signalized Intersection Summary

1: Oak Street & 9th Street

12/04/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 						 				
Traffic Volume (veh/h)	221	304	0	0	0	0	0	595	155	0	0	0
Future Volume (veh/h)	221	304	0	0	0	0	0	595	155	0	0	0
Number	7	4	14				5	2	12			
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.82			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1863	0				0	1863	1900			
Adj Flow Rate, veh/h	221	304	0				0	595	155			
Adj No. of Lanes	0	2	0				0	3	0			
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	518	677	0				0	1994	496			
Arrive On Green	0.36	0.36	0.00				0.00	0.51	0.51			
Sat Flow, veh/h	1190	1981	0				0	4044	964			
Grp Volume(v), veh/h	274	251	0				0	517	233			
Grp Sat Flow(s),veh/h/ln	1476	1610	0				0	1695	1450			
Q Serve(g_s), s	10.2	8.3	0.0				0.0	6.1	6.5			
Cycle Q Clear(g_c), s	10.2	8.3	0.0				0.0	6.1	6.5			
Prop In Lane	0.81		0.00				0.00		0.66			
Lane Grp Cap(c), veh/h	620	575	0				0	1744	746			
V/C Ratio(X)	0.44	0.44	0.00				0.00	0.30	0.31			
Avail Cap(c_a), veh/h	620	575	0				0	1744	746			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(l)	1.00	1.00	0.00				0.00	0.97	0.97			
Uniform Delay (d), s/veh	17.8	17.1	0.0				0.0	9.7	9.8			
Incr Delay (d2), s/veh	2.3	2.4	0.0				0.0	0.4	1.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.5	4.1	0.0				0.0	2.9	2.8			
LnGrp Delay(d),s/veh	20.0	19.5	0.0				0.0	10.2	10.9			
LnGrp LOS	C	B						B	B			
Approach Vol, veh/h		525						750				
Approach Delay, s/veh		19.8						10.4				
Approach LOS		B						B				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		40.0		30.0								
Change Period (Y+Rc), s		4.0		5.0								
Max Green Setting (Gmax), s		36.0		25.0								
Max Q Clear Time (g_c+I1), s		8.5		12.2								
Green Ext Time (p_c), s		3.7		1.7								
Intersection Summary												
HCM 2010 Ctrl Delay			14.3									
HCM 2010 LOS			B									

HCM 2010 AWSC
2: Fallon Street & 9th Street

12/04/2020

Intersection	
Intersection Delay, s/veh	11
Intersection LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘	↗		↑	↑	
Traffic Vol, veh/h	316	196	0	164	43	0
Future Vol, veh/h	316	196	0	164	43	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	316	196	0	164	43	0
Number of Lanes	1	1	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay	11.6	9.8	8.8
HCM LOS	B	A	A

Lane	NBLn1	EBLn1	EBLn2	SBLn1
Vol Left, %	0%	100%	0%	0%
Vol Thru, %	100%	0%	0%	100%
Vol Right, %	0%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	164	316	196	43
LT Vol	0	316	0	0
Through Vol	164	0	0	43
RT Vol	0	0	196	0
Lane Flow Rate	164	316	196	43
Geometry Grp	2	7	7	2
Degree of Util (X)	0.235	0.489	0.237	0.064
Departure Headway (Hd)	5.153	5.567	4.362	5.329
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	695	645	819	670
Service Time	3.193	3.313	2.107	3.383
HCM Lane V/C Ratio	0.236	0.49	0.239	0.064
HCM Control Delay	9.8	13.6	8.5	8.8
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.9	2.7	0.9	0.2

HCM Signalized Intersection Capacity Analysis

3: Jackson Street & 8th Street

12/04/2020


















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	0	0	0	160	602	34	119	208	0	0	342	83	
Future Volume (vph)	0	0	0	160	602	34	119	208	0	0	342	83	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)				4.5	4.5			4.5			4.5		
Lane Util. Factor				1.00	0.95			1.00			1.00		
Frbp, ped/bikes				1.00	0.99			1.00			0.98		
Flpb, ped/bikes				0.89	1.00			0.99			1.00		
Frt				1.00	0.99			1.00			0.97		
Flt Protected				0.95	1.00			0.98			1.00		
Satd. Flow (prot)				1573	3472			1806			1781		
Flt Permitted				0.95	1.00			0.50			1.00		
Satd. Flow (perm)				1573	3472			917			1781		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	0	0	160	602	34	119	208	0	0	342	83	
RTOR Reduction (vph)	0	0	0	0	6	0	0	0	0	0	16	0	
Lane Group Flow (vph)	0	0	0	160	630	0	0	327	0	0	409	0	
Confl. Peds. (#/hr)	104		63	63		104	77		37	37		77	
Confl. Bikes (#/hr)						9			5			1	
Parking (#/hr)									0				
Turn Type				Perm	NA		Perm	NA			NA		
Protected Phases					2			4			4		
Permitted Phases				2			4						
Actuated Green, G (s)				30.2	30.2			20.8			20.8		
Effective Green, g (s)				30.2	30.2			20.8			20.8		
Actuated g/C Ratio				0.50	0.50			0.35			0.35		
Clearance Time (s)				4.5	4.5			4.5			4.5		
Vehicle Extension (s)				0.2	0.2			0.2			0.2		
Lane Grp Cap (vph)				791	1747			317			617		
v/s Ratio Prot					c0.18						0.23		
v/s Ratio Perm				0.10				c0.36					
v/c Ratio				0.20	0.36			1.03			0.66		
Uniform Delay, d1				8.2	9.0			19.6			16.6		
Progression Factor				1.59	1.57			0.59			1.00		
Incremental Delay, d2				0.5	0.5			53.2			2.1		
Delay (s)				13.6	14.7			64.7			18.7		
Level of Service				B	B			E			B		
Approach Delay (s)		0.0			14.5			64.7			18.7		
Approach LOS		A			B			E			B		
Intersection Summary													
HCM 2000 Control Delay			26.3		HCM 2000 Level of Service						C		
HCM 2000 Volume to Capacity ratio			0.63										
Actuated Cycle Length (s)			60.0		Sum of lost time (s)						9.0		
Intersection Capacity Utilization			70.9%		ICU Level of Service						C		
Analysis Period (min)			15										
c Critical Lane Group													

HCM 2010 Signalized Intersection Summary
















4: Madison Street & 8th Street

12/04/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	228	647	0	0	0	0	0	597	85
Future Volume (veh/h)	0	0	0	228	647	0	0	0	0	0	597	85
Number				3	8	18				5	2	12
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.92
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	0				0	1863	1863
Adj Flow Rate, veh/h				228	647	0				0	597	85
Adj No. of Lanes				0	2	0				0	2	1
Peak Hour Factor				1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				364	824	0				0	1799	744
Arrive On Green				0.11	0.11	0.00				0.00	0.51	0.51
Sat Flow, veh/h				802	2496	0				0	3632	1464
Grp Volume(v), veh/h				454	421	0				0	597	85
Grp Sat Flow(s),veh/h/ln				1602	1610	0				0	1770	1464
Q Serve(g_s), s				16.6	15.2	0.0				0.0	6.0	1.8
Cycle Q Clear(g_c), s				16.6	15.2	0.0				0.0	6.0	1.8
Prop In Lane				0.50		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				638	550	0				0	1799	744
V/C Ratio(X)				0.71	0.77	0.00				0.00	0.33	0.11
Avail Cap(c_a), veh/h				638	550	0				0	1799	744
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.73	0.73	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				24.9	24.3	0.0				0.0	8.7	7.7
Incr Delay (d2), s/veh				4.9	7.2	0.0				0.0	0.5	0.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.3	7.9	0.0				0.0	3.0	0.8
LnGrp Delay(d),s/veh				29.8	31.5	0.0				0.0	9.2	8.0
LnGrp LOS				C	C						A	A
Approach Vol, veh/h					875						682	
Approach Delay, s/veh					30.6						9.1	
Approach LOS					C						A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		35.0						25.0				
Change Period (Y+Rc), s		4.5						4.5				
Max Green Setting (Gmax), s		30.5						20.5				
Max Q Clear Time (g_c+I1), s		8.0						18.6				
Green Ext Time (p_c), s		2.9						0.8				
Intersection Summary												
HCM 2010 Ctrl Delay				21.2								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary
5: Oak Street & 8th Street

12/04/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	548	162	329	557	0	0	0	0
Future Volume (veh/h)	0	0	0	0	548	162	329	557	0	0	0	0
Number				3	8	18	5	2	12			
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.88	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln				0	1863	1900	1863	1863	0			
Adj Flow Rate, veh/h				0	548	162	329	557	0			
Adj No. of Lanes				0	2	0	1	2	0			
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	688	202	1159	2074	0			
Arrive On Green				0.00	0.26	0.26	0.59	0.59	0.00			
Sat Flow, veh/h				0	2700	765	1774	3632	0			
Grp Volume(v), veh/h				0	371	339	329	557	0			
Grp Sat Flow(s),veh/h/ln				0	1770	1602	1774	1770	0			
Q Serve(g_s), s				0.0	11.7	11.9	5.7	4.6	0.0			
Cycle Q Clear(g_c), s				0.0	11.7	11.9	5.7	4.6	0.0			
Prop In Lane				0.00		0.48	1.00		0.00			
Lane Grp Cap(c), veh/h				0	467	423	1159	2074	0			
V/C Ratio(X)				0.00	0.79	0.80	0.28	0.27	0.00			
Avail Cap(c_a), veh/h				0	605	547	1159	2074	0			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	1.00	1.00	0.79	0.79	0.00			
Uniform Delay (d), s/veh				0.0	20.6	20.6	6.3	6.1	0.0			
Incr Delay (d2), s/veh				0.0	4.1	4.9	0.5	0.3	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	6.2	5.8	2.9	2.3	0.0			
LnGrp Delay(d),s/veh				0.0	24.6	25.5	6.8	6.4	0.0			
LnGrp LOS					C	C	A	A				
Approach Vol, veh/h					710			886				
Approach Delay, s/veh					25.1			6.5				
Approach LOS					C			A				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		39.7						20.3				
Change Period (Y+Rc), s		4.5						4.5				
Max Green Setting (Gmax), s		30.5						20.5				
Max Q Clear Time (g_c+I1), s		7.7						13.9				
Green Ext Time (p_c), s		2.9						1.8				
Intersection Summary												
HCM 2010 Ctrl Delay					14.8							
HCM 2010 LOS					B							

HCM Signalized Intersection Capacity Analysis

7: Jackson Street & 7th Street

12/04/2020















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑			↑	
Traffic Volume (vph)	58	1338	257	0	0	0	0	218	235	50	451	0
Future Volume (vph)	58	1338	257	0	0	0	0	218	235	50	451	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6						4.6			4.6	
Lane Util. Factor		0.91						1.00			1.00	
Frbp, ped/bikes		0.99						0.96			1.00	
Flpb, ped/bikes		1.00						1.00			1.00	
Frt		0.98						0.93			1.00	
Flt Protected		1.00						1.00			1.00	
Satd. Flow (prot)		4913						1659			1848	
Flt Permitted		1.00						1.00			0.79	
Satd. Flow (perm)		4913						1659			1473	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	58	1338	257	0	0	0	0	218	235	50	451	0
RTOR Reduction (vph)	0	44	0	0	0	0	0	16	0	0	0	0
Lane Group Flow (vph)	0	1609	0	0	0	0	0	437	0	0	501	0
Confl. Peds. (#/hr)	32		15	15		32	38		70	70		38
Confl. Bikes (#/hr)									2			5
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						4			4	
Permitted Phases	2								4			
Actuated Green, G (s)		29.4						21.4			21.4	
Effective Green, g (s)		29.4						21.4			21.4	
Actuated g/C Ratio		0.49						0.36			0.36	
Clearance Time (s)		4.6						4.6			4.6	
Vehicle Extension (s)		2.0						2.0			2.0	
Lane Grp Cap (vph)		2407						591			525	
v/s Ratio Prot								0.26				
v/s Ratio Perm		0.33									c0.34	
v/c Ratio		0.67						0.74			0.95	
Uniform Delay, d1		11.6						16.9			18.8	
Progression Factor		1.00						1.00			0.64	
Incremental Delay, d2		1.5						8.1			27.8	
Delay (s)		13.1						24.9			39.8	
Level of Service		B						C			D	
Approach Delay (s)		13.1			0.0			24.9			39.8	
Approach LOS		B			A			C			D	
Intersection Summary												
HCM 2000 Control Delay			20.3					HCM 2000 Level of Service			C	
HCM 2000 Volume to Capacity ratio			0.79									
Actuated Cycle Length (s)			60.0					Sum of lost time (s)		9.2		
Intersection Capacity Utilization			101.6%					ICU Level of Service		G		
Analysis Period (min)			15									

c Critical Lane Group

HCM 2010 Signalized Intersection Summary

8: Madison Street & 7th Street













12/04/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑							↑	↑↑	
Traffic Volume (veh/h)	0	1345	278	0	0	0	0	0	0	291	743	0
Future Volume (veh/h)	0	1345	278	0	0	0	0	0	0	291	743	0
Number	7	4	14							1	6	16
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863							1863	1863	0
Adj Flow Rate, veh/h	0	1345	278							291	743	0
Adj No. of Lanes	0	3	1							1	2	0
Peak Hour Factor	1.00	1.00	1.00							1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	2882	883							682	1121	0
Arrive On Green	0.00	0.19	0.19							0.10	0.10	0.00
Sat Flow, veh/h	0	5253	1559							1774	3632	0
Grp Volume(v), veh/h	0	1345	278							291	743	0
Grp Sat Flow(s),veh/h/ln	0	1695	1559							1774	1770	0
Q Serve(g_s), s	0.0	14.1	9.2							9.3	12.1	0.0
Cycle Q Clear(g_c), s	0.0	14.1	9.2							9.3	12.1	0.0
Prop In Lane	0.00		1.00							1.00		0.00
Lane Grp Cap(c), veh/h	0	2882	883							682	1121	0
V/C Ratio(X)	0.00	0.47	0.31							0.43	0.66	0.00
Avail Cap(c_a), veh/h	0	2882	883							682	1121	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	0.68	0.68							0.95	0.95	0.00
Uniform Delay (d), s/veh	0.0	16.3	14.3							22.5	23.8	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.6							1.9	3.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.7	4.2							4.9	6.4	0.0
LnGrp Delay(d),s/veh	0.0	16.7	15.0							24.4	26.7	0.0
LnGrp LOS		B	B							C	C	
Approach Vol, veh/h		1623									1034	
Approach Delay, s/veh		16.4									26.1	
Approach LOS		B									C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				38.0		22.0						
Change Period (Y+Rc), s				4.0		3.0						
Max Green Setting (Gmax), s				34.0		19.0						
Max Q Clear Time (g_c+I1), s				16.1		14.1						
Green Ext Time (p_c), s				7.3		1.9						
Intersection Summary												
HCM 2010 Ctrl Delay			20.2									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

9: Oak Street & 7th Street

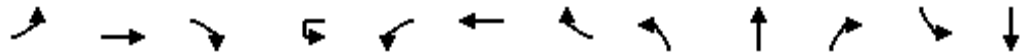
12/04/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Traffic Volume (veh/h)	317	1465	0	0	0	0	0	572	534	0	0	0
Future Volume (veh/h)	317	1465	0	0	0	0	0	572	534	0	0	0
Number	7	4	14				5	2	12			
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.96			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1863	0				0	1863	1900			
Adj Flow Rate, veh/h	317	1465	0				0	572	534			
Adj No. of Lanes	0	3	0				0	3	0			
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	409	1610	0				0	1405	630			
Arrive On Green	0.41	0.41	0.00				0.00	0.41	0.41			
Sat Flow, veh/h	800	4040	0				0	3558	1522			
Grp Volume(v), veh/h	635	1147	0				0	572	534			
Grp Sat Flow(s),veh/h/ln	1603	1543	0				0	1695	1522			
Q Serve(g_s), s	26.9	24.3	0.0				0.0	8.3	22.2			
Cycle Q Clear(g_c), s	26.9	24.3	0.0				0.0	8.3	22.2			
Prop In Lane	0.50		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	741	1278	0				0	1405	630			
V/C Ratio(X)	0.86	0.90	0.00				0.00	0.41	0.85			
Avail Cap(c_a), veh/h	741	1278	0				0	1405	630			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	0.88	0.88	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	19.9	19.1	0.0				0.0	14.4	18.5			
Incr Delay (d2), s/veh	10.9	9.0	0.0				0.0	0.9	13.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	14.0	11.8	0.0				0.0	4.1	11.5			
LnGrp Delay(d),s/veh	30.7	28.2	0.0				0.0	15.3	31.8			
LnGrp LOS	C	C						B	C			
Approach Vol, veh/h		1782						1106				
Approach Delay, s/veh		29.1						23.3				
Approach LOS		C						C				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		35.0		35.0								
Change Period (Y+Rc), s		6.0		6.0								
Max Green Setting (Gmax), s		29.0		29.0								
Max Q Clear Time (g_c+I1), s		24.2		28.9								
Green Ext Time (p_c), s		2.4		0.1								
Intersection Summary												
HCM 2010 Ctrl Delay			26.8									
HCM 2010 LOS			C									

HCM Signalized Intersection Capacity Analysis

10: Fallon Street & 7th Street

12/04/2020



Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	152	1643	112	36	39	0	586	0	42	9	0	0
Future Volume (vph)	152	1643	112	36	39	0	586	0	42	9	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0		6.0		6.0		6.0			
Lane Util. Factor	1.00	0.95	1.00		1.00		0.76		1.00			
Frbp, ped/bikes	1.00	1.00	0.92		1.00		0.97		0.99			
Flpb, ped/bikes	0.99	1.00	1.00		1.00		1.00		1.00			
Frt	1.00	1.00	0.85		1.00		0.85		0.98			
Flt Protected	0.95	1.00	1.00		0.95		1.00		1.00			
Satd. Flow (prot)	1756	3539	1459		1770		3494		1806			
Flt Permitted	0.95	1.00	1.00		0.13		1.00		1.00			
Satd. Flow (perm)	1756	3539	1459		240		3494		1806			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	152	1643	112	36	39	0	586	0	42	9	0	0
RTOR Reduction (vph)	85	0	62	0	0	0	326	0	2	0	0	0
Lane Group Flow (vph)	67	1643	50	0	75	0	260	0	49	0	0	0
Confl. Peds. (#/hr)	5		23	21	23		5	21		36	36	
Confl. Bikes (#/hr)			3									
Turn Type	Perm	NA	Perm	D.Pm	D.Pm		Perm		NA			
Protected Phases		4							2			
Permitted Phases	4		4	4	4		4					
Actuated Green, G (s)	31.0	31.0	31.0		31.0		31.0		27.0			
Effective Green, g (s)	31.0	31.0	31.0		31.0		31.0		27.0			
Actuated g/C Ratio	0.44	0.44	0.44		0.44		0.44		0.39			
Clearance Time (s)	6.0	6.0	6.0		6.0		6.0		6.0			
Vehicle Extension (s)	2.0	2.0	2.0		2.0		2.0		2.0			
Lane Grp Cap (vph)	777	1567	646		106		1547		696			
v/s Ratio Prot		c0.46							c0.03			
v/s Ratio Perm	0.04		0.03		0.31		0.07					
v/c Ratio	0.09	1.05	0.08		0.71		0.17		0.07			
Uniform Delay, d1	11.3	19.5	11.2		15.8		11.7		13.6			
Progression Factor	0.69	0.59	0.70		1.00		1.00		1.00			
Incremental Delay, d2	0.1	32.1	0.1		32.9		0.2		0.2			
Delay (s)	7.9	43.6	8.0		48.7		12.0		13.8			
Level of Service	A	D	A		D		B		B			
Approach Delay (s)		38.6				16.1			13.8			0.0
Approach LOS		D				B			B			A
Intersection Summary												
HCM 2000 Control Delay			32.5			HCM 2000 Level of Service						C
HCM 2000 Volume to Capacity ratio			0.59									
Actuated Cycle Length (s)			70.0			Sum of lost time (s)						12.0
Intersection Capacity Utilization			88.8%			ICU Level of Service						E
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

10: Fallon Street & 7th Street

12/04/2020



Movement	SBR
Lane Configurations	
Traffic Volume (vph)	0
Future Volume (vph)	0
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frbp, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	0
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	21
Confl. Bikes (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HUD DNL Calculator Worksheets

Input Data: Supporting Traffic Information

Using volume forecasts from City and Alameda Countywide Travel Demand for 2025 and 2035, future street and I-80 volumes were derived as inputs to the HUD noise assessment tool.

Traffic Volumes (Summary)

No.	Roadway	Segment		Speed	Traffic Volume AM			Traffic Volume PM			Traffic Volume ADT			City Data				Prediction		Vehicle Mix				
		From	To		Existing	Project	Existing + Project	Existing	Project	Existing + Project	Existing	Project	Existing + Project	2020	2035	2020	2035	Annual Rate	Project 2036	Auto	Medium Truck	Heavy Truck		
		AM	PM		AM	PM	ADT	ADT	Rate	2036	Auto	Medium Truck	Heavy Truck											
1	Oak Street	9th Street	10th Street	25	867	0	867	816	0	816	8415	0	8415	665	528	636	872	5965	7540	2%	10637	10318	212.738	106.37
	Oak Street	9th Street	8th Street	25	889	26	915	716	34	750	8025	300	8325	665	528	636	872	5965	7540	2%	10523	10207	210.463	105.23
	9th Street	Oak Street	Madison Street	25	184	26	210	490	35	525	3370	305	3675							2%	4645	4506	92.907	46.453
	9th Street	Oak Street	Fallon Street	25	206	63	258	447	69	512	3265	660	3850							2%	4867	4720.6	97.3311	48.666
2	Fallon Street	9th Street	10th Street	25	345	25	370	487	36	523	4160	305	4465	70	100	151	237	850	1940	6%	10191	9885	203.814	101.91
	Fallon Street	9th Street	8th Street	25	282	52	334	338	65	403	3100	585	3685	70	100	151	237	850	1940	6%	8410	8158.2	168.209	84.105
	9th Street	Fallon Street	Oak Street	25	206	63	258	447	69	512	3265	660	3850							2%	4867	4720.6	97.3311	48.666
3	Jackson Street	8th Street	9th Street	25	629	40	669	635	32	667	6320	360	6680	180	213	260	682	1965	4710	6%	16012	15531	320.232	160.12
	Jackson Street	8th Street	7th Street	25	676	83	759	689	140	829	6825	1115	7940	177	264	194	685	2205	4395	5%	15826	15351	316.52	158.26
	8th Street	Jackson Street	Alice Street	25	702	30	732	728	76	804	7150	530	7680	1468	891	2182	1981	11795	20815	4%	13553	13147	271.063	135.53
	8th Street	Jackson Street	Madison Street	25	797	73	870	612	184	796	7045	1285	8330	1594	882	2360	1951	12380	21555	4%	14503	14068	290.07	145.03
4	Madison Street	8th Street	9th Street	25	540	12	552	678	4	682	6090	80	6170	992	1531	1630	1997	12615	18135	2%	8870	8603.7	177.397	88.698
	Madison Street	8th Street	7th Street	25	764	51	815	983	51	1034	8735	510	9245	1481	1733	2003	2320	16070	21615	2%	12435	12062	248.7	124.35
	8th Street	Madison Street	Jackson Street	25	797	73	870	612	184	796	7045	1285	8330	1594	882	2360	1951	12380	21555	4%	14503	14068	290.07	145.03
	8th Street	Madison Street	Oak Street	25	939	112	1051	646	231	877	7925	1715	9640	2083	1084	2732	2246	15835	24890	3%	15152	14698	303.05	151.52
5	Oak Street	8th Street	9th Street	25	889	26	915	716	34	750	8025	300	8325	665	526	636	872	5955	7540	2%	10541	10225	210.816	105.41
	Oak Street	8th Street	7th Street	35	970	61	1031	690	199	889	8300	1300	9600	2748	1614	3368	3243	21810	33055	3%	14550	14113	290.993	145.5
	8th Street	Oak Street	Madison Street	25	939	112	1051	646	231	877	7925	1715	9640	2083	1084	2732	2246	15835	24890	3%	15152	14698	303.05	151.52
	8th Street	Oak Street	Fallon Street	25	931	77	1008	644	66	710	7875	715	8590		2	0	125	10	625	3%	13502	13097	270.041	135.02
6	Fallon Street	8th Street	9th Street	25	282	52	334	338	65	403	3100	585	3685	70	100	151	237	850	1940	6%	8410	8158.2	168.209	84.105
	Fallon Street	8th Street	7th Street	25	1053	33	1086	790	29	819	9215	310	9525		0	38	112	0	750	6%	21739	21087	434.788	217.39
	8th Street	Fallon Street	Oak Street	25	931	77	1008	644	66	710	7875	715	8590		2	0	125	10	625	3%	13502	13097	270.041	135.02
7	Jackson Street	7th Street	8th Street	25	676	83	759	689	140	829	6825	1115	7940	177	264	194	685	2205	4395	5%	15826	15351	316.52	158.26
	Jackson Street	7th Street	6th Street	25	1098	138	1236	1002	159	1161	10500	1485	11985	965	1017	797	1432	9910	11145	1%	13479	13074	269.572	134.79
	7th Street	Jackson Street	Alice Street	25	1188	35	1223	1578	17	1595	13830	260	14090	1161	1820	1141	2326	14905	17335	1%	16387	15896	327.743	163.87
	7th Street	Jackson Street	Madison Street	25	760	134	894	1571	52	1623	11655	930	12585	530	1296	1366	1736	9130	15510	4%	21379	20738	427.587	213.79
8	Madison Street	7th Street	8th Street	25	764	51	815	983	51	1034	8735	510	9245	1481	1733	2003	2320	16070	21615	2%	12435	12062	248.7	124.35
	Madison Street	7th Street	6th Street	25	918	16	934	982	39	1021	9500	275	9775	1603	1551	2077	2016	15770	20465	2%	12685	12305	253.704	126.85
	7th Street	Madison Street	Jackson Street	25	760	134	894	1571	52	1623	11655	930	12585	530	1296	1366	1736	9130	15510	2%	16955	16446	339.092	169.55
	7th Street	Madison Street	Oak Street	25	705	169	775	1572	252	1782	11385	2105	12785	314	1478	568	2040	8960	13040	3%	18607	18049	372.135	186.07
9	Oak Street	7th Street	8th Street	25	970	61	1031	690	199	889	8300	1300	9600	2748	1614	3368	3243	21810	33055	3%	14550	14113	290.993	145.5
	Oak Street	7th Street	6th Street	35	1224	13	1237	1089	17	1106	11565	150	11715	1205	1450	1532	1871	13275	17015	2%	15015	14565	300.31	150.15
	7th Street	Oak Street	Madison Street	25	705	169	775	1572	252	1782	11385	2105	12785	314	1478	568	2040	8960	13040	3%	18607	18049	372.135	186.07
	7th Street	Oak Street	Fallon Street	25	959	19	977	1929	70	1999	14440	445	14880	2027	3487	3918	4808	27570	43630	3%	23548	22841	470.957	235.48
10	Fallon Street	7th Street	8th Street	25	1053	33	1086	790	29	819	9215	310	9525			38	112	0	750	2%	13168	12773	263.356	131.68
	Fallon Street	7th Street	6th Street	25	181	0	181	199	0	199	1900	0	1900							2%	2627	2547.8	52.533	26.266
	7th Street	Fallon Street	Oak Street	25	959	19	977	1929	70	1999	14440	445	14880	2825	3487	3918	4808	31560	43630	2%	20571	19954	411.416	205.71
	7th Street	Fallon Street	East of Fallon Street	25	1652	44	1696	2242	71	2313	19470	575	20045	2825	3487	3904	4908	31560	44060	2%	27984	27145	559.685	279.84
11	10th Street	Fallon Street	Oak Street	25										104	86	491	243	950	3670	9%	3670	3559.9	73.4	36.7
12	10th Street	Fallon Street	East of Fallon Street											81	19	469	105	500	2870	12%	2870	2783.9	57.4	28.7
13	11th Street	12th Street	Madison Street	25										415	1674	701	1642	10445	11715	1%	11715	11364	234.3	117.15
14	12th Street	14th Street	Madison Street	25										1645	1681	1653	1653	16630	16525	0%	16525	16029	330.5	165.25
15	Freeway	WB	Madison Street	65										6751	7130	6967	7472	69405	72195	0%	72195	70029	1443.9	721.95
16	Freeway	Madison Street	EB	65										6942	7327	7195	7620	71345	74075	0%	74075	71853	1481.5	740.75
17	Off-Ramp	WB	Oak Street	45										846	456	945	947	6510	9460	3%	9460	9176.2	189.2	94.6
18	On-Ramp	Oak Street	EB	45										544	816	682	965	6800	8235	1%	8235	7988	164.7	82.35
																			141882	2925.4	1462.7			
																			17164	353.9	176.95			

HUD STRaCAT Worksheets

[Home \(/\)](#) > STraCAT

Sound Transmission Classification Assessment Tool (STraCAT)

Overview

The Sound Transmission Classification Assessment Tool (STraCAT) is an electronic version of Figures 17 and 19 in The HUD Noise Guidebook. The purpose of this tool is to document sound attenuation performance of wall systems. Based on wall, window, and door Sound Transmission Classification (STC) values, the STraCAT generates a composite STC value for the wall assembly as a whole. Users can enter the calculated noise level related to a specific Noise Assessment Location in front of a building façade and STraCAT will generate a target required attenuation value for the wall assembly in STC. Based on wall materials, the tool will state whether the composite wall assembly STC meets the required attenuation value.

How to Use This Tool

Location, Noise Level and Wall Configuration to Be Analyzed

STraCAT is designed to calculate the attenuation provided by the wall assembly for one wall of one unit. If unit exterior square footage and window/door configuration is identical around the structure, a single STraCAT may be sufficient. If units vary, at least one STraCAT should be completed for each different exterior unit wall configuration to document that all will achieve the required attenuation. Additionally, if attenuation is not based on a single worst-case NAL, but there are multiple NALs which require different levels of attenuation around the structure, a STraCAT should be completed for each differing exterior wall configuration associated with each NAL.

Exterior wall configurations associated with an NAL include those with parallel (facing) or near-parallel exposure as well as those with perpendicular exposure. When a façade has parallel or perpendicular exposure to two or more NALs, you should base the required attenuation on the NAL with the highest calculated noise level. For corner units where the unit interior receives exterior noise through two facades, the STraCAT calculation should incorporate the area of wall, window and door materials pertaining to the corner unit's total exterior wall area (i.e., from both walls).

Information to Be Entered

Users first enter basic project information and the NAL noise level that will be used as the basis for required attenuation. This noise level must be entered in whole numbers. STraCAT users then enter information on wall, window and door component type and area. Again, as noted above, the wall, window and door entries are based on one unit, and one wall (except for corner units as discussed above). The tool sums total wall square footage based on the combined area of walls, doors and windows for the façade being evaluated.

Users may input STC values for materials in one of two ways. The tool includes a dropdown menu

of common construction materials with STC values prefilled. If selected construction materials are not included in this dropdown menu, the user may also enter the STC for a given component manually. Verification of the component STC must be included in the ERR. Documentation includes the architect or construction manager's project plans showing wall material specifications. For new construction or for components that will be newly installed in an existing wall, documentation also includes the manufacturer's product specification sheet (cut sheet) documenting the STC rating of selected doors and windows.

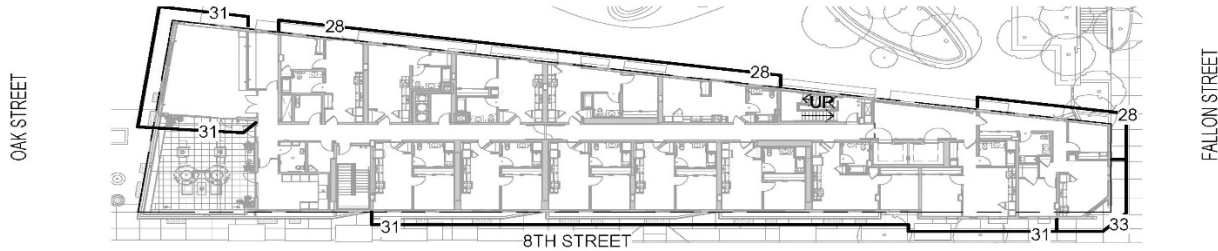
Required STC Rating and Determination of Compliance

Finally, based on project information entered the tool will indicate the required STC rating for the wall assembly being evaluated and whether or not the materials specified will produce a combined rating that meets this requirement. Note that for noise levels above 75 dB DNL, either HUD (for 24 CFR Part 50 reviews) or the Responsible Entity (for 24 CFR Part 58 reviews) must approve the level and type of attenuation, among other processing requirements. Required attenuation values generated by STraCAT for NALs above 75 dB DNL should therefore be considered tentative pending approval by HUD or the RE.

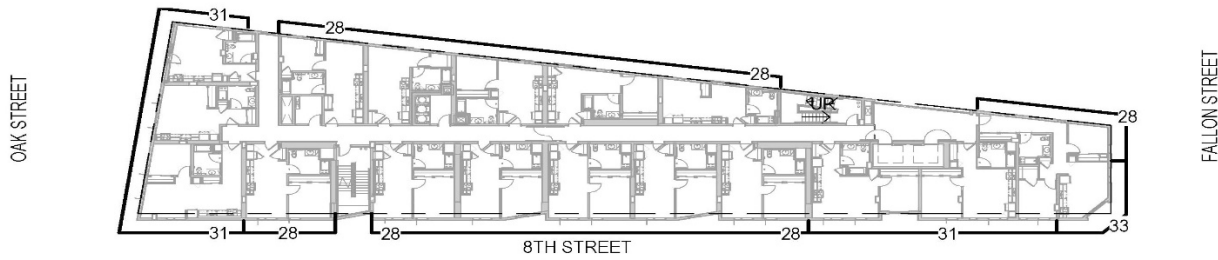
Part I - Description

HUD STRaCAT Worksheets

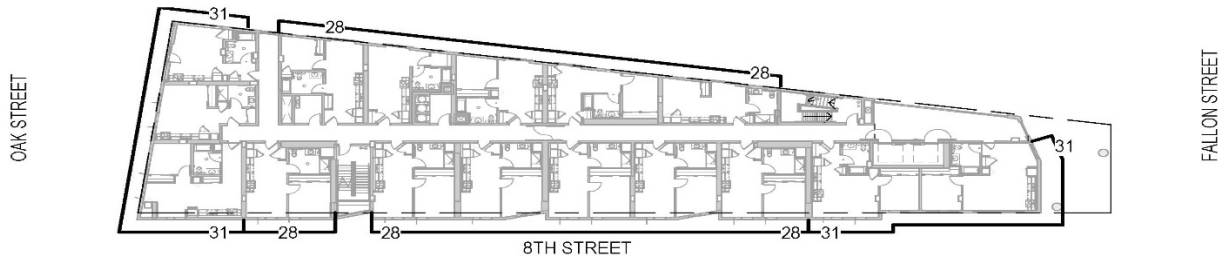
Input Data: Window Sound Transmission Classification Rating



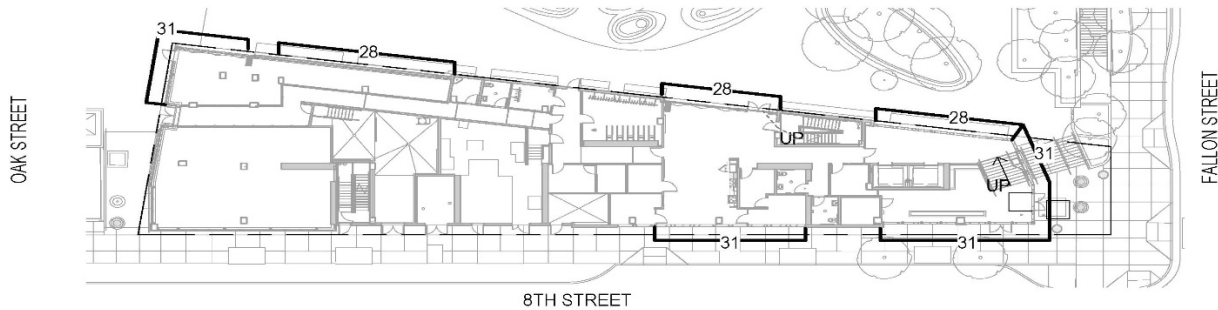
STC RATING DIAGRAM - LEVEL 7 **5**
1/32" = 1'-0"



STC RATING DIAGRAM - LEVEL 3-6 (TYP) **4**
1/32" = 1'-0"



STC RATING DIAGRAM - LEVEL 2 **3**
1/32" = 1'-0"



STC RATING DIAGRAM - LEVEL 1 **2**
1/32" = 1'-0"

HUD STRaCAT Worksheets

Input Data: Window and Wall Areas



Source: Pyatok

HUD STRaCAT Worksheets

Results

Note: Wall and window types available in STRaCAT did not include the types identified by the building architects. The wall and window types entered into STRaCAT were selected to reflect the STC ratings in the plans for the building.

Part I - Description

Project

Lake Merritt Senior Housi

Sponsor/Developer

Applicant

Location

Lake Merritt

Prepared by

MIssaM

Noise Level

71

Date

2/28/2024



Primary Source(s)

Roadway Traffic Noise

Part II - Wall Components

Part II - Wall Components

Wall Construction Detail	Area	STC	
4" face brick two courses with 2" air space	16226	50	
<input type="button" value="Add new wall"/>			
16,226 Sq. Feet		50	
Window Construction Detail	Quantity	Sq Ft/Unit	STC
3'x5' wood-framed double hung window each sash has one 7/16" glass panel	56	15	26
<input type="button" value="Add new window"/>			
Door Construction Detail	Quantity	Sq Ft/Unit	STC
<input type="button" value="Add new door"/>			

Part III - Results

Part III - Results

Wall Statistics

Stat	Value
Area:	16226 ft ²
Wall STC:	50

Aperture Statistics

Aperture	Count	Area	% of wall
Windows:	56	840 ft ²	5.18%
Doors:	0	0 ft ²	0%

Evaluation Criteria

Criteria	Value
Noise source sound level (dB):	71
Combined STC for wall assembly:	38.55
Required STC rating:	30

Does wall assembly meet requirements?

Yes

Print

Part 4 - Tins

HUD BarrHUD Building Performance Module

Results

This HUD module was used to estimate the noise attenuation provided by a partition on the rooftop level for users of the Building B rooftop deck.

Home (/) > Programs (/programs/) > Environmental Review (/programs/environmental-review/) > BPM Calculator

Barrier Performance Module

This module provides to the user a measure on the barrier's effectiveness on noise reduction. A list of the input/output variables and their definitions, as well as illustrations of different scenarios are provided.

Calculator

View Day/Night Noise Level Calculator (/programs/environmental-review/dnl-calculator/)

View Descriptions of the Input/Output variables.

Note: Tool tips, containing field specific information, have been added in this tool and may be accessed by hovering over the Input and Output variables with the mouse.

WARNING: If there is direct line-of-sight between the Source and the Observer, the module will report erroneous attenuation. "Direct line-of-sight" means if the 5' tall Observer can see the noise Source (cars, trucks, trains, etc.) over the Barrier (wall, hill/excavation, building, etc.), the current version of Barrier Performance Module will not accurately calculate the attenuation provided. In this instance, there is unlikely to be any appreciable attenuation.

Note: Barrier height must block the line of sight

Input Data

H	<input type="text" value="83"/>	R ¹	<input type="text" value="70"/>
S	<input type="text" value="5"/>	D ¹	<input type="text" value="15"/>
O	<input type="text" value="82"/>	α	<input type="text" value="132"/>

Calculate Output

Output Data

h	<input type="text" value="10"/>	R	<input type="text" value="117"/>
D	<input type="text" value="9"/>	FS	<input type="text" value="6.0685"/>

Reduction From Barrier (dB):

Refresh

Note: If you have separate Road and Rail DNL values, please enter the values below to calculate the new combined Road/Rail DNL :

Road DNL:

Rail DNL:

Calculate

Combined Road/Rail DNL with Barrier Reduction:

Input/Output Variables

Input Variables

The following variables and definitions from the barrier being assessed are the input required for the web-based barrier performance module:

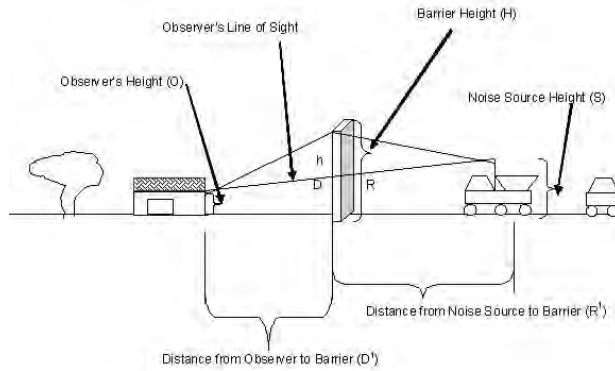
- H = Barrier Height
- S = Noise Source Height
- O = Observer Height (known as the receiver)
- R¹ = Distance from Noise Source to Barrier
- D¹ = Distance from the Observer to the Barrier
- α = Line of sight angle between the Observer and the Noise Source, subtended by the barrier at observer's location

Output Variables

Definitions of the output variables from the mitigation module of the Day/Night Noise Level Assessment Tools as part of the Assessment Tools for Environmental Compliance:

- h = The shortest distance from the barrier top to the line of sight from the Noise source to the Observer.
- R = Slant distance along the line of sight from the Barrier to the Noise Source
- D = Slant distance along the line of sight from the Barrier to the Observer

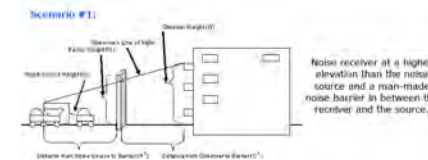
The "actual barrier performance for barriers of finite length" is noted on the worksheets(in the Guidebook) as **FS**.



Barrier Implementation Scenarios

Locate the cursor on the following thumbnails to enlarge the respective scenario as implementation examples of the barrier performance module.

Scenario #1:

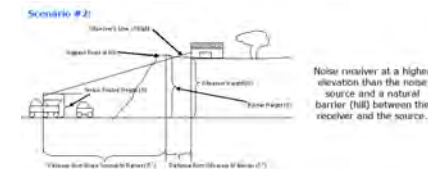


Noise receiver at a higher elevation than the noise source and a man-made noise barrier in between the receiver and the source.

(<https://www.hudexchange.info/resources/documents/Barrier-Performance-Module-Barrier-Implementation-Scenario-1.gif>)

view larger version of image (/resource/3841/barrier-performance-module-bpm-barrier-implementation-scenarios/)

Scenario #2:

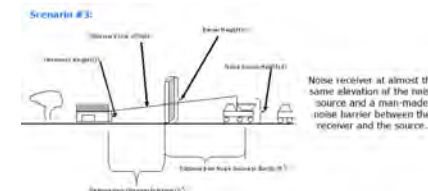


Noise receiver at a higher elevation than the noise source and a natural barrier (hill) between the receiver and the source.

(<https://www.hudexchange.info/resources/documents/Barrier-Performance-Module-Barrier-Implementation-Scenario-2.gif>)

view larger version of image (/resource/3841/barrier-performance-module-bpm-barrier-implementation-scenarios/)

Scenario #3:

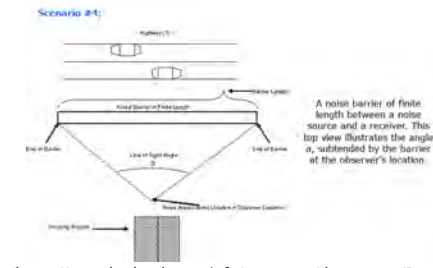


Noise receiver at almost the same elevation of the noise source and a man-made noise barrier between the receiver and the source.

(<https://www.hudexchange.info/resources/documents/Barrier-Performance-Module-Barrier-Implementation-Scenario-3.gif>)

view larger version of image (/resource/3841/barrier-performance-module-bpm-barrier-implementation-scenarios/)

Scenario #4:



A noise barrier of finite length between a noise source and a receiver. This top view illustrates the angle α , subtended by the barrier at the observer's location.

(<https://www.hudexchange.info/resources/documents/Barrier-Performance-Module-Barrier-Implementation-Scenario-4.gif>)

view larger version of image (<resource/3841/barrier-performance-module-bpm-barrier-implementation-scenarios/>)

Contents

Calculator

Input/Output Variables

Barrier Implementation Scenarios

Attachment J2

Noise Waiver

MEMORANDUM

TO: Whom It May Concern

FROM: Edward Manasse, Deputy Director of Planning and Alternate NEPA Certifying Officer,
City of Oakland

DATE: Jun 7, 2024

RE: Special Environmental Clearance and Waiver of EIS for the Lake Merritt BART Affordable
Senior Housing Project, 51 9th Street, Oakland, CA 94607

The Environmental Assessment conducted for the Lake Merritt BART Affordable Senior Housing Project contains a Noise Assessment prepared per HUD guidelines for new construction of housing at the above-named address. Based upon this Assessment, the proposed site is impacted by future traffic noise at the building exteriors with noise levels up to 71 DNL which is "Normally Unacceptable" per HUD Guidelines.

Under authority granted to me under 24 CFR Part 51, Section 51.104 (b)(1) and to provide a relatively noise-free environment for the proposed project's residents, I am requiring the following noise mitigations be included in the final project:

1. NOI-1: Noise Control Measures for Interior Noise Levels in Residential Units

To achieve HUD's 45 dB interior noise threshold, the window assemblies for Building B on Levels 2 through 6, where residential units are planned, shall be designed to achieve the minimum STC ratings illustrated in the attached figure (which also is included in the Environmental Assessment as Figure 11). These STC ratings shall be included in the construction specifications and drawings. For Level 7, because of the greater vehicle traffic noise along its southern façade due to the elevated I-880 freeway, all window assemblies where residential units are planned shall be designed to achieve a higher minimum STC rating as shown the attached figure. The minimum STC ratings on the attached figure shall be included in the construction specifications and drawings.

2. NOI-2: Noise Control Measures for Outdoor Rooftop Deck

To achieve HUD's 65 dB noise threshold for outdoor spaces, the rooftop deck shall be designed with a partition surrounding the rooftop deck with the following specifications:

- the partition shall be made of 3/8-inch-thick tempered glass, or comparable material and construction, as identified by an acoustical engineer and approved by the City, to achieve the outdoor noise threshold,
- the partition, if constructed with glass, shall be laminated to provide additional noise attenuation; and
- the partition shall be at least 6 feet tall, as measured from the ground elevation of the rooftop deck, to block line-of-sight for rooftop deck users from the vehicular traffic noise sources.

3. NOI-3: Mechanical Ventilation

Mechanical ventilation must be provided to units where windows must be closed to maintain a relatively noise-free environment.

Under my authority as the Alternate NEPA Certifying Officer and Environmental Clearance Officer, per 24 CFR Section 51.104(b)(1), I am waiving the requirement to prepare an EIS for the project as it has been demonstrated to me that the noise exposure of the proposed living areas and rooftop outdoor space ancillary to the residential uses on site can be adequately mitigated, and no other issues or statutes were found to be of concern in the Environmental Assessment which would merit preparation of an EIS.

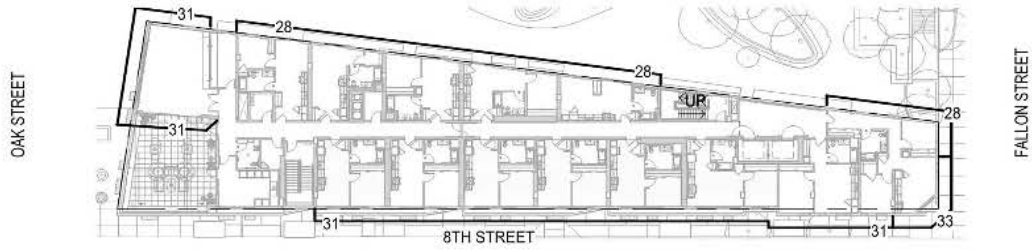

Edward Manasse (11/17/2024) (6:23 PM)

Jun 7, 2024

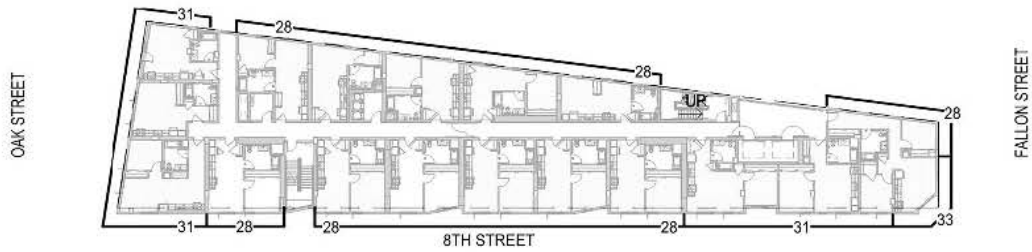
Edward Manasse, Deputy Director of Planning and
Alternate NEPA Certifying Officer, City of Oakland

Date

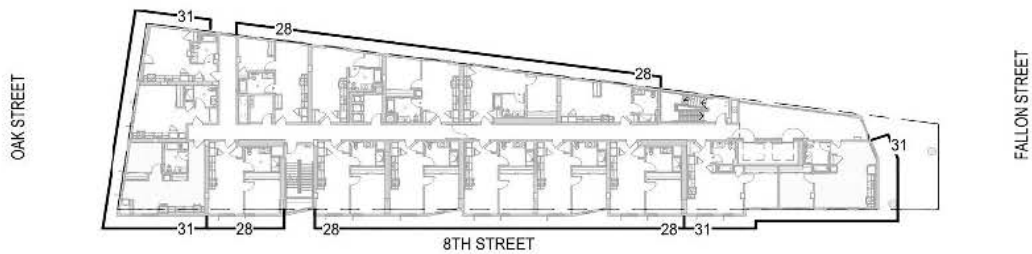
Lake Merritt Affordable Senior Housing Project – Window Standard Classification Ratings



STC RATING DIAGRAM - LEVEL 7 **5**
1/32" = 1'-0"



STC RATING DIAGRAM - LEVEL 3-6 (TYP) **4**
1/32" = 1'-0"

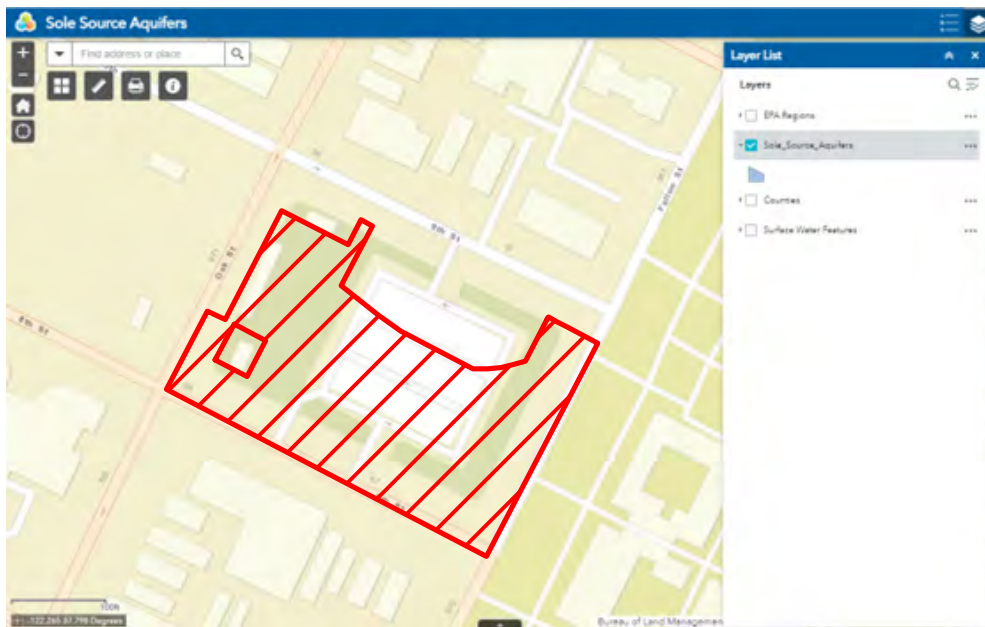


STC RATING DIAGRAM - LEVEL 2 **3**
1/32" = 1'-0"

Attachment K

Sole Source Aquifers

There are no designated sole source aquifers include the project site or surroundings.

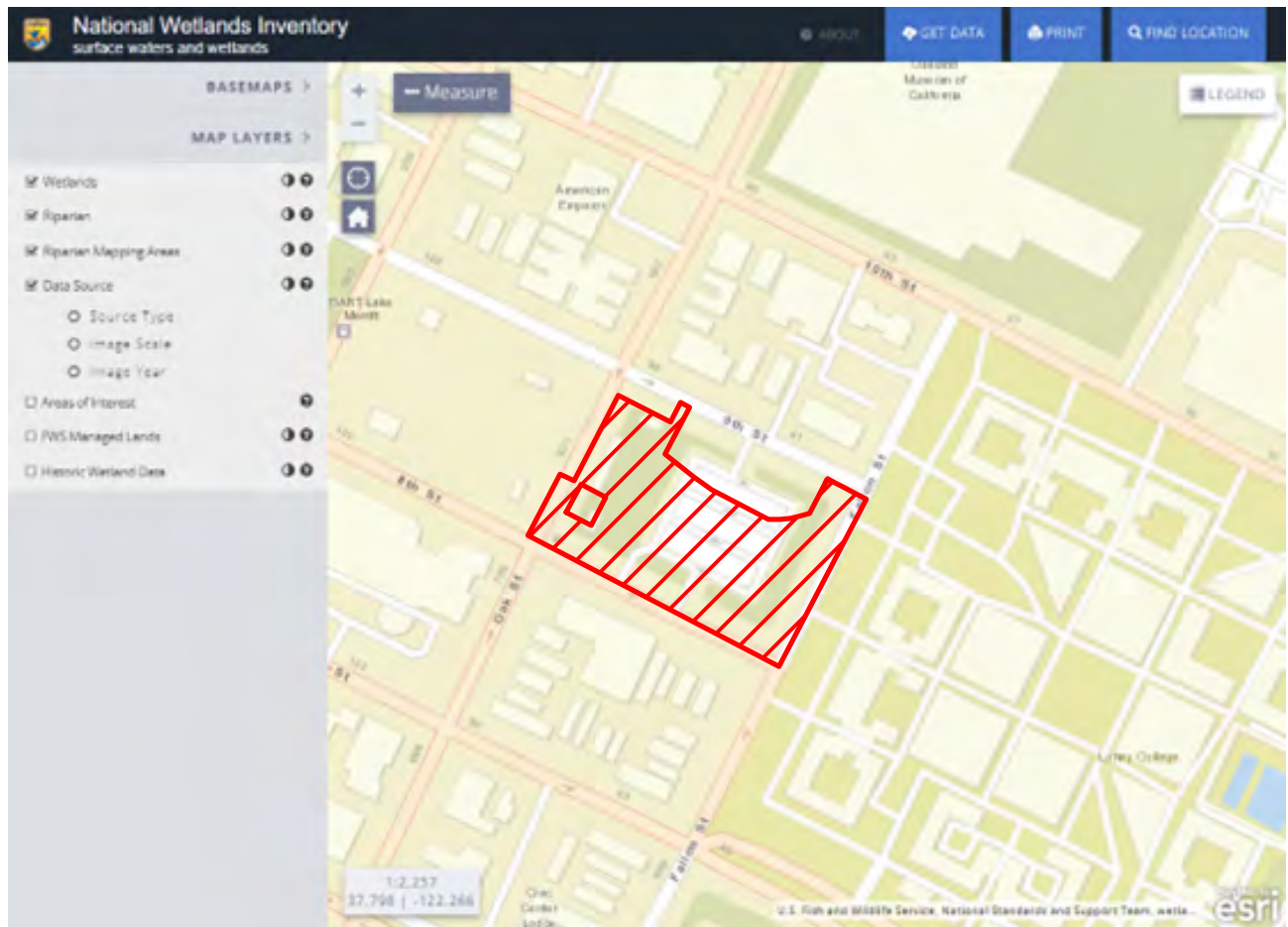


Source link: <https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=9ebb047ba3ec41ada1877155fe31356b>

Attachment L

USFWS National Wetlands Inventory

There are no wetlands or other waters of the U.S. at the project site or in the immediate surrounding area.

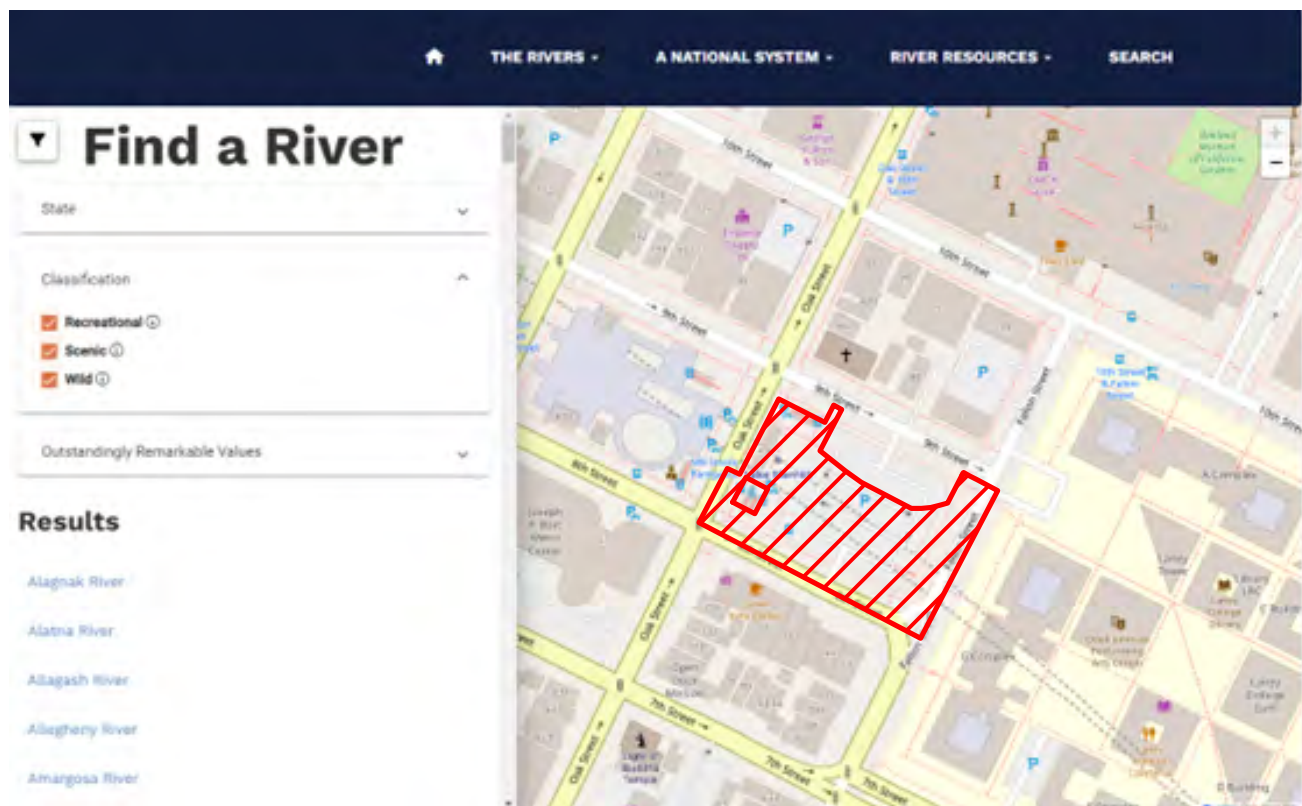


Source link: <https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/>

Attachment M

Wild and Scenic Rivers

There are no designated wild or scenic river at the project site or in the vicinity.



Source link: <https://www.rivers.gov/map>

Attachment N

Environmental Justice Assessment

Lake Merritt BART Affordable Senior Housing Project (Building B)

Environmental Justice Assessment



Prepared for

City of Oakland Planning Department

250 Frank H. Ogawa Plaza
Oakland, CA 94612

Prepared by

AECOM

300 California Street, Suite 600
Oakland, CA 94612

April 2024

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Acronyms

AC Transit	Alameda County Transit
ACDEH	Alameda County Department of Environmental Health
ACS	American Community Survey
AMIs	Area Median Incomes
BART	Bay Area Rapid Transit
CEJST	Climate and Economic Justice Screening Tool
CEQA	California Environmental Quality Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
City	City of Oakland
Cortese	Hazardous Waste and Substances Site List
DTSC	California Department of Toxic Substances Control
EBALDC	East Bay Asian Local Development Corporation
EIR	environmental impact report
EJ	Environmental Justice
EO	Executive Order
HHS	Department of Health and Human Services
HREC	Historical Recognized Environmental Conditions
LGBTQ+	lesbian, gay, bisexual, transgender, and queer
LMSAP	Lake Merritt Station Area Plan
NO _x	nitrogen oxide
PCE	tetrachloroethylene
PM ₁₀	particulate matter with aerodynamic diameter less than 10 microns
PM _{2.5}	particulate matter with aerodynamic diameter less than 2.5 microns
proposed project	Lake Merritt Bay Area Rapid Transit District Affordable Senior Housing project
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Conditions
ROG	reactive organic gas
SCAMMRP	Standard Conditions of Approval and Mitigation Monitoring and Reporting Program
SCAs	Standard Conditions of Approval
TCE	trichloroethylene
TIR	Transportation Impact Report
TOD	transit-oriented development
U.S. EPA	U.S. Environmental Protection Agency
VEC	Vapor Encroachment Concern

1. INTRODUCTION

1.1. BACKGROUND

The East Bay Asian Local Development Corporation (EBALDC) proposes to develop and manage the Lake Merritt Bay Area Rapid Transit District (BART) Affordable Senior Housing project (hereafter referred to as the “proposed project”).

The project site is at 51 9th Street and bounded by Fallon Street to the east, 8th Street to the south, Oak Street to the west, and 9th Street to the north on part of a single parcel (Assessor’s Parcel Number (001-0169-001). Oakland Downtown is west of the project site which is located in Oakland Chinatown. The project site and local vicinity are shown in Figure 1, Project Location.

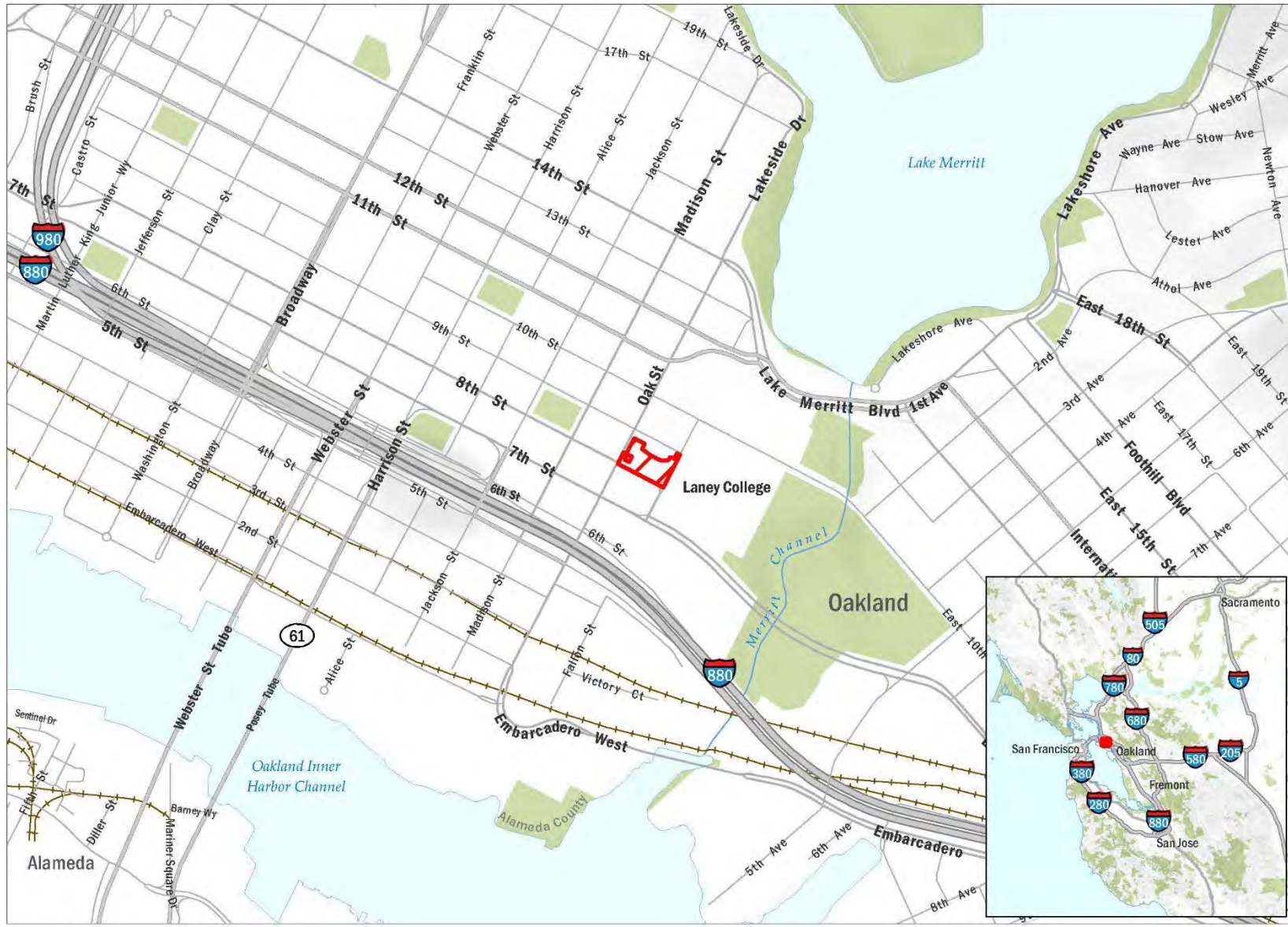
The proposed project would be the affordable housing anchor for a larger multi-phase, multi-block transit-oriented development (TOD), in partnership with Strada Investment Group and BART, that would strengthen the existing neighborhood with an extensive suite of community benefits. The entire development, which was approved by the City of Oakland, as a planned unit development, would include four new buildings across two blocks (refer to Figure 2, Buildings A through D, sited east and south of the Lake Merritt BART Station). The redevelopment TOD project would consist of a high-density mix of market-rate and affordable residential housing (including the proposed project, referred to as ‘Building B’), office and community space; ground-floor retail, and restaurant; a childcare center; a new public open space; and public space improvements. The Lake Merritt BART Affordable Senior Housing project is the first of the four buildings to start construction and be completed.

1.2. PROJECT DESCRIPTION

The proposed project would construct a new 7-story, approximately 85-foot tall, 79,318-square-foot building on the southern portion of the existing 1.38-acre parcel. The proposed Building B footprint would be 11,633 gross square feet (or approximately 20 percent of the entire parcel). The mixed-use residential and retail building would be developed with approximately 97 units of affordable housing, targeted for senior households (55+), as well as special needs and formerly homeless households, with Area Median Incomes (AMIs) ranging from 30% –60% AMI.

As shown in Figure 3, the ground floor would include a community room/lounge, service offices, restrooms, bike room, storage, trash and utility space. The ground floor would also provide approximately 3,235 square feet of commercial space at the western portion of the building, adjacent to and interacting with the Lake Merritt BART Station entrance and a new publicly accessible paseo area (also approved as part of the two-block planned unit development for the redevelopment TOD project) that would serve as a pedestrian friendly walkway connecting Laney College and the Lake Merritt BART Station. The walkway would be on top of the underground BART station and would provide an active space with seating areas, landscaping, public art, and lighting. Approximately 354 square feet of the commercial space would be utilized for a community-serving limited-service restaurant or café and approximately 2,881 square feet would be utilized for a Commercial Kitchen. The upper levels (2nd through 7th floors) would consist of approximately 97 senior residential units (22 studios, 70 one-bedroom and 5 two-bedroom units), of which 44 would be reserved for special needs and homeless populations. Typical floor plans for the 3rd through 6th floors are shown in Figure 4. The 7th floor would also contain a community room/lounge and an outdoor rooftop deck, as shown in Figure 5.

Figure 1. Project Location



Lake Merritt BART Affordable Senior Housing Project (Building B)
Environmental Justice Assessment

Figure 2. Project Site Plan

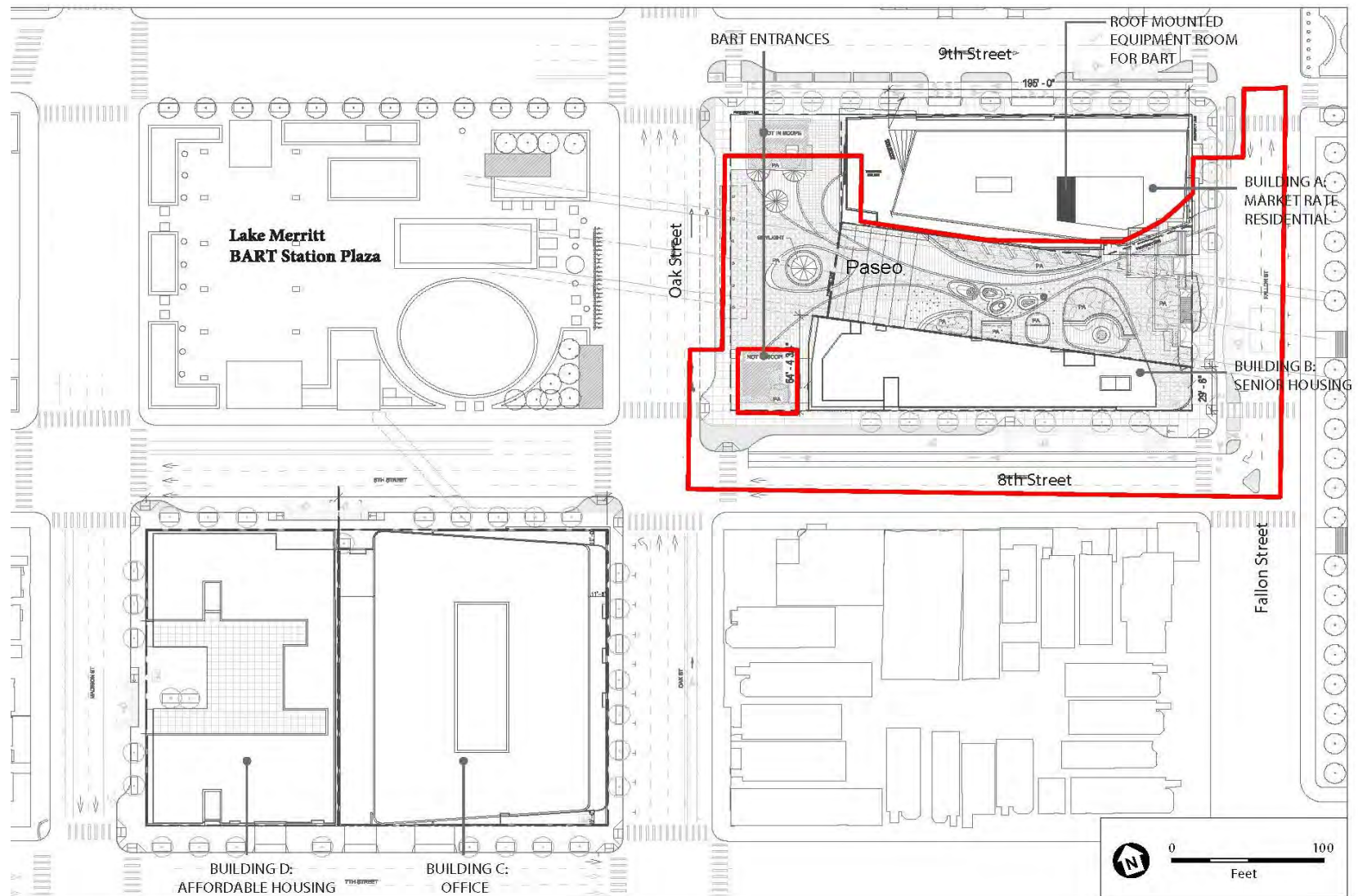
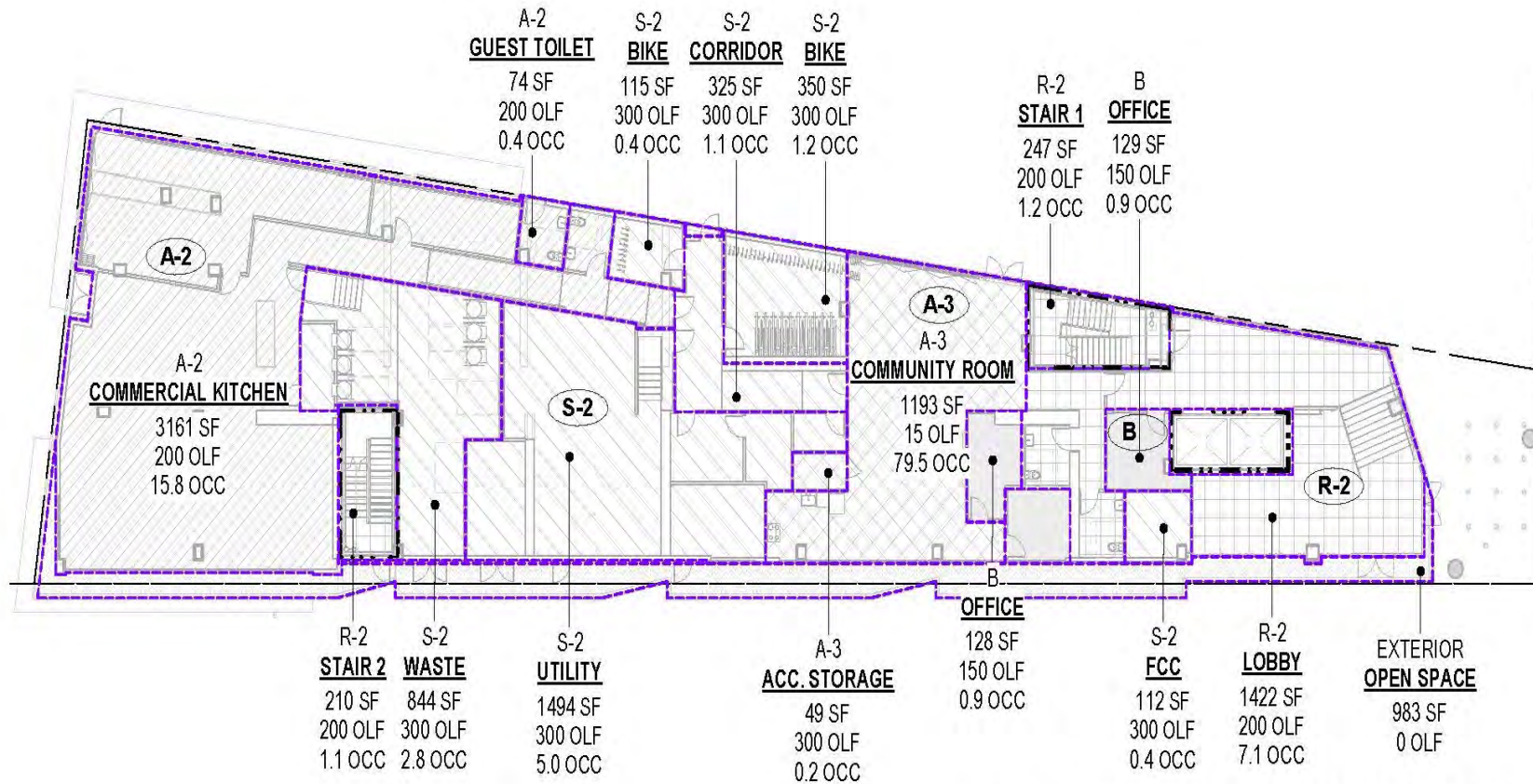
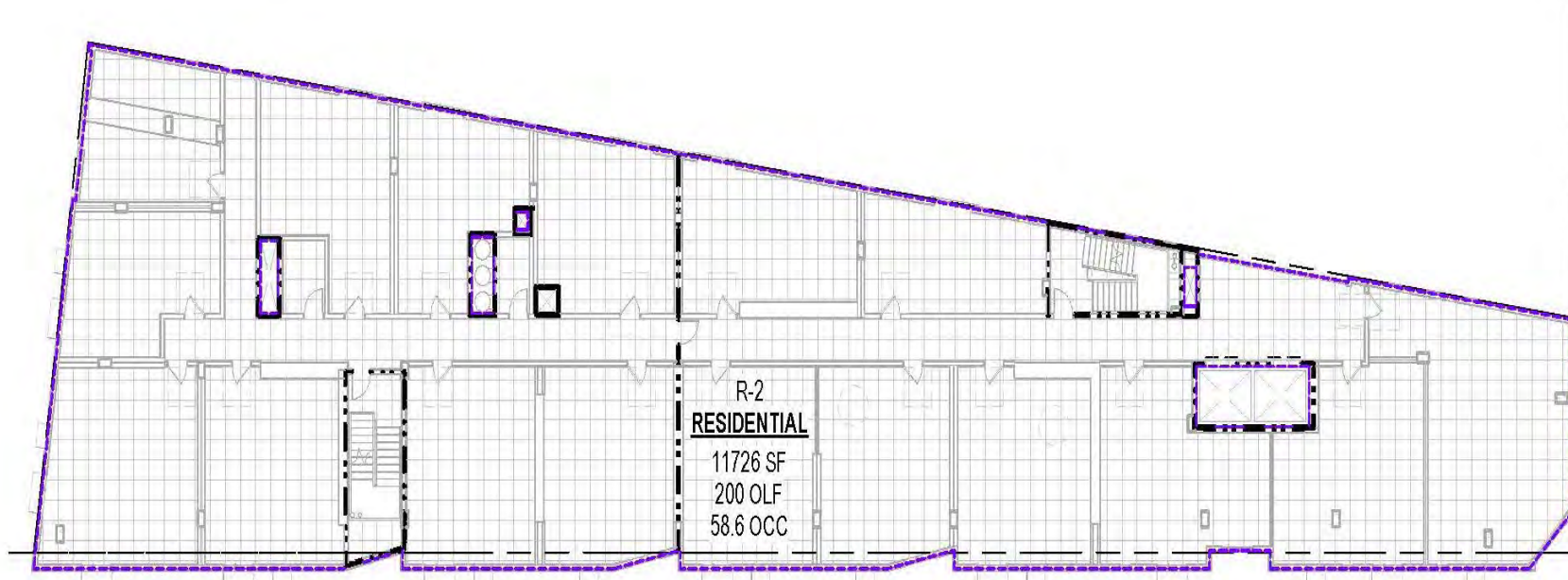


Figure 3. Level 1 - Ground Floor Plan



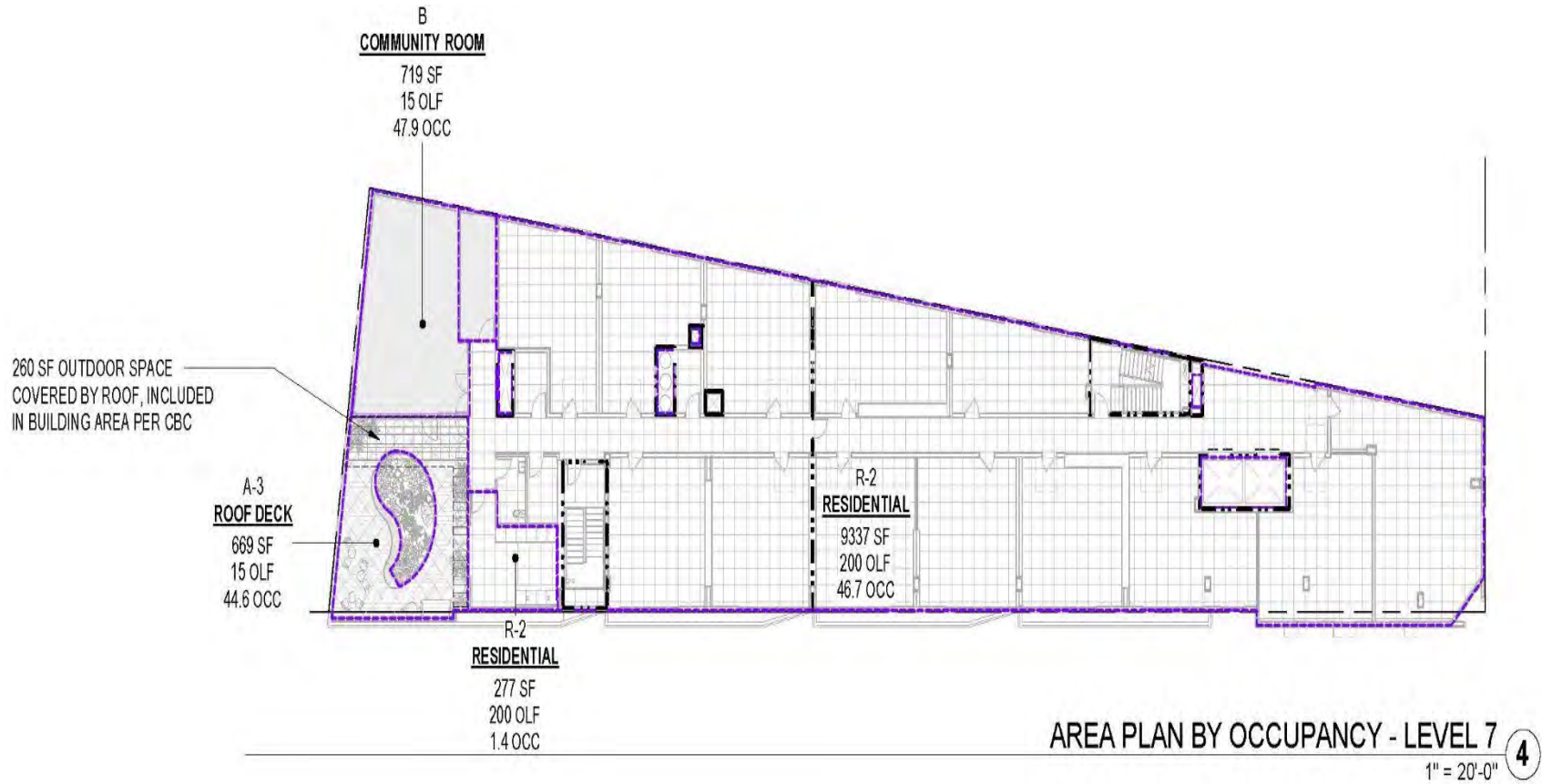
AREA PLAN BY OCCUPANCY - LEVEL 1 ①
1" = 20'-0"

Figure 4. Levels 3 – 6 Typical Residential Floor Plan



AREA PLAN BY OCCUPANCY - LEVEL 3-6 3
1" = 20'-0"

Figure 5. Level 7 – Residential and Rooftop Deck Floor Plan



Conceptual renderings of the building facades are presented in Figure 6 to illustrate the building architectural design, height, massing, and streetscape amenities.

Figure 6. Building B Renderings



BIRD-EYED VIEW LOOKING NORTH WEST



STREET VIEW, 8TH ST. AND FALLON ST



BIRD-EYED VIEW LOOKING SOUTH EAST



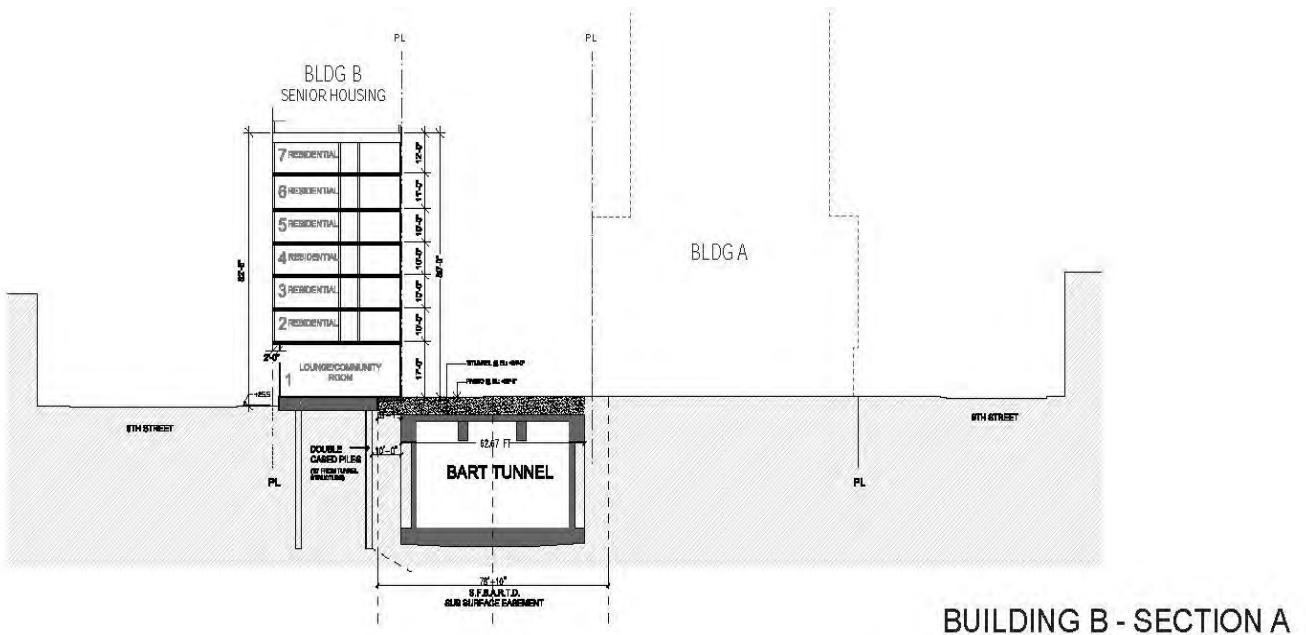
STREET VIEW, 8TH ST. AND OAK ST

No vehicle parking would be constructed onsite as part of the proposed project. A secure bicycle parking room on the ground floor would be provided for residents, with a capacity for 54 bicycles, comprised of 49 long-term and 5 short-term spaces. An additional six bicycle parking spaces, four long-term and two short-term, would be provided for commercial uses. The project would also provide approximately 2,562 square feet for two community rooms/lounges and the outdoor roof deck. A publicly accessible paseo with space for a food court, public gatherings and possibly a play area would be constructed north of Building B and also provide a convenient, pedestrian friendly connection between Laney College and the Lake Merritt BART Station. The paseo would be an amenity that is of part of the overall redevelopment of the block that would also include Building A to the north.

The building would tie into an existing water main on 8th Street for potable and fire water suppression. The building would also tie into an existing sewer main on 8th Street. New stormwater infrastructure would be constructed, including new storm drain laterals connecting to existing storm drain mains, as well as new storm drain inlets and manholes. The proposed project intends to meet Greenpoint Rated standards for Gold level certification. Exterior light sources would be designed to not create significant light and glare onto adjacent properties through the use of shielding and reflectors, in compliance with the City of Oakland’s (City’s) Uniformly Applied Development Standards that are imposed as Standard Conditions of Approval (SCAs).

The building would be setback from the adjacent underground BART station and tunnel structures. Piles for the building would be set back from the underground BART structures by a minimum of 10 feet and the building foundation would also be set back 1.5 feet from above the BART structures to 8 feet below the BART structures. These setbacks were based on the “zone of influence” defined by BART to protect BART underground structures and within which shoring is required for excavations. The building elevation and relationship to the BART tunnel are illustrated in Figure 7.

Figure 7. Building B Elevation (facing west)



The building would be supported on a structural concrete slab that would be founded on piles approximately 70 feet to 110 feet in length. The maximum depth of excavation is estimated to be approximately 130 feet below the ground surface where the piles would be installed.

The proposed project’s final development plans for its vertical and horizontal improvements were approved by the Oakland City Planning Commission on July 20, 2022. The approval was made contingent upon the project complying with the Standard Conditions of Approval and Mitigation Monitoring and Reporting Program (SCAMMRP), which includes all mitigation measures identified in the Lake Merritt

BART Station Redevelopment California Environmental Quality Act (CEQA) Checklist (approved by the Commission on May 19, 2021). In making this approval, the City determined that the project was consistent with and helped fulfill the 2014 Lake Merritt Station Area Plan and evaluated in a project EIR.^{1,2}

1.3. ENVIRONMENTAL JUSTICE STUDY AREA

The study area for environmental justice is made up of six U.S. Census Tract Block Groups that are within a 0.25-mile radius of the project site. These block groups are generally within the City of Oakland’s historic Chinatown neighborhood, and are listed in Table 1 below. The reference area against which the study area was compared for minority and household income characteristics is the City of Oakland. The City of Oakland, within Alameda County, is between the City of Berkeley to the north and the City of San Leandro to the south and contains the study area for the proposed project within its limits.

Table 1. Census Tract Block Groups included in the Project Study Area

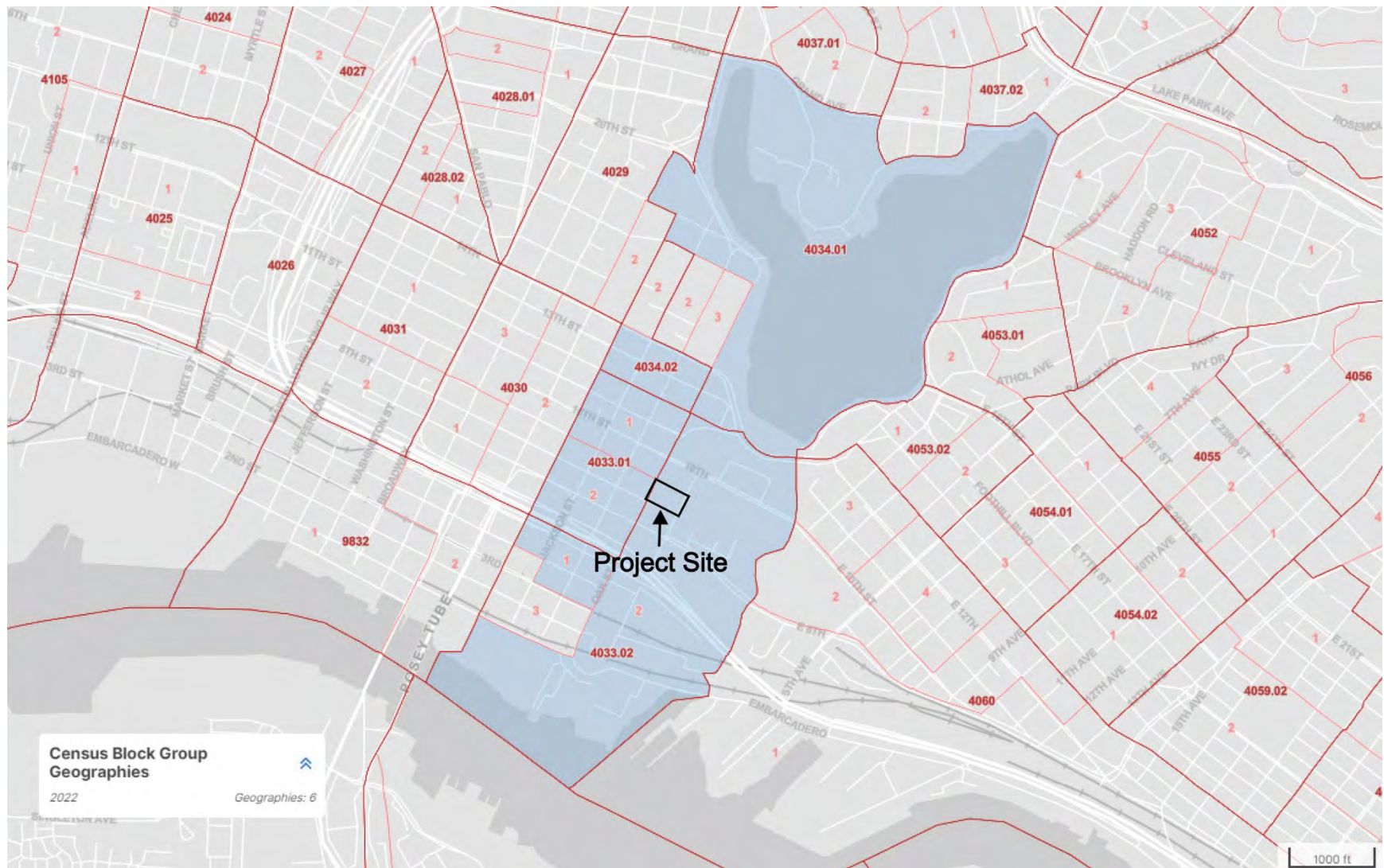
Census Tract	Block Group
4033.01	1
4033.01	2
4033.02	1
4033.02	2
4034.01	1
4034.02	2

Figure 8 below shows the U.S. Census Block groups that make up the study area.

¹ City of Oakland. 2014 (December). Lake Merritt Station Area Plan. Available: <https://cao-94612.s3.us-west-2.amazonaws.com/documents/oak048456.pdf>. Lake Merritt Station Area Plan

² City of Oakland. 2014 (July). Lake Merritt Station Area Plan EIR. Available: <https://www.oaklandca.gov/topics/lake-merritt-station-area-plan-environmental-impact-report>

Figure 8. Environmental Justice Study Area



2. TITLE VI/ENVIRONMENTAL JUSTICE ASSESSMENT

2.1. REGULATORY BACKGROUND

This project has been developed in accordance with Title VI of the Civil Rights Act of 1964, as amended; Executive Order (EO) 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations”; and EO 14096, “Revitalizing Our Nation’s Commitment to Environmental Justice for All.” Title VI states that “No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.” EO 12898 requires each federal agency (or its designee) to take the appropriate and necessary steps to identify and address “disproportionately high and adverse” effects of federal or federally funded projects on minority and low-income populations.

Additionally, President Biden’s EO 13985 (January 20, 2021) “Advancing Racial Equity and Support for Underserved Communities Through the Federal Government” serves to “pursue a comprehensive approach to advancing equity for all, including people of color and others who have been historically underserved, marginalized, and adversely affected by persistent poverty and inequality.” The subsequent EO 14008 (January 27, 2021), “Tackling the Climate Crisis at Home and Abroad,” and EO 14096 (April 21, 2023), “Revitalizing Our Nation’s Commitment to Environmental Justice for All,” reinforces the vision of EO 13895 by setting long-term planning goals and providing guidance on financial support for disadvantaged communities.

EO 14008 launched the “Justice40 Initiative,” a federal government commitment that 40 percent of the overall benefit of certain federal climate, clean energy, affordable and sustainable housing, and other investments flow to disadvantaged communities. The investments are intended to confront a history of underinvestment in disadvantaged communities and bring resources to communities that have suffered a legacy of pollution and environmental hazards.

The following definitions are provided in EO 13985:

- a) The term “equity” means the consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment, such as Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality.
- b) The term “underserved communities” refers to populations sharing a particular characteristic, as well as geographic communities, that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life, as exemplified by the list in the preceding definition of “equity.”

2.2. METHODOLOGY

To assess whether or not the project could lead to disproportionately high and adverse effects on a minority and/or low-income population, demographic characteristics of the study area were reviewed. The analysis of environmental justice impacts in this report leverages data from the latest American

Community Survey (ACS) (U.S. Census Bureau 2022). ACS 5-Year Estimates for race, ethnicity, and poverty levels were examined for the six block groups that make up the study area, as well as for the City of Oakland, which was used as a reference.

The following definitions are used in accordance with Title VI and the pertinent EJ circulars:

- Minorities are defined as all people except for Non-Hispanic white as defined by the ACS. This includes persons who self-identified themselves as American Indian or Alaskan Native, Asian, Black or African American, Native Hawaiian or other Pacific Islander, or Hispanic or Latinos.
- Low-income individuals are defined as those whose income is at or below 200 percent of the poverty level established for households by the Department of Health and Human Services (HHS) poverty guidelines. This assumption is more inclusive of low-income populations, accounting for higher incomes in the Bay Area as compared to the rest of the United States.

In 2024, 200 percent of the poverty threshold for a family of four was \$62,400. For the purpose of this analysis, low-income households are considered to be those below \$60,000 in annual household income. This is due to U.S. Census Bureau ACS 5-year estimates only reporting income in brackets of \$10,000 (i.e., \$50,000 – \$59,999). Therefore, the data is not granular enough to report up to \$62,400.

In addition, this methodology considers the Climate and Economic Justice Screening Tool (CEJST), an interactive mapping tool to identify disadvantaged communities that are marginalized by underinvestment and overburdened by pollution. Federal agencies are using CEJST to identify communities, based on 2010 census tract boundaries, that can benefit from their funding programs. The tool uses datasets as indicators of burden; disadvantaged communities are those at or above a defined threshold for one or more environmental, climate, or other burdens and at or above a defined threshold for an associated socioeconomic burden. The datasets cover climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development.

2.3. ANALYSIS

According to 2018-2022 ACS data (the latest available 5-year estimates), the percentage of the City of Oakland population that is considered ethnic and racial minority is 66.54 percent and the percentage of the population living below 200 percent of the U.S. Census Bureau-defined poverty line is 38.53 percent. These percentages are used as thresholds for defining environmental justice communities. A study area block group is considered an environmental justice community if the percentage of low-income or ethnic and racial minority population exceeds that of the reference area, the City of Oakland.

According to Table 2 and Table 3, four EJ communities are present in the study area. As stated above, EJ communities were identified if the percent minority population or percent low-income population for a block group was greater than that of the reference area, the City of Oakland. These EJ communities are census tract 4033.01, block group 1; 4033.01, block group 2; 4033.02, block group 2; and 4033.04, block group 2. Three of these block groups have both a minority population and low-income population greater than the City of Oakland, while one only has a low-income population greater than the City of Oakland.

Table 2. Minority Communities within the Study Area

Census Tract	Block Group	Minority Population	Total Population	Percent Minority	Compared to the Reference Area, is the Block Group an EJ Community in terms of Ethnicity? ¹
City of Oakland	N/A	307287	461,826	66.54%	N/A
4033.01	1	580	637	91.05%	Yes
4033.01	2	1027	1,193	86.09%	Yes
4033.02	1	217	690	31.45%	No
4033.02	2	487	1,075	45.30%	No
4034.01	1	342	904	37.83%	No
4034.02	2	25	30	83.33%	Yes

¹ If the percent minority in a census tract block group exceeds the average percent minority for the City of Oakland at 66.54 percent, the census tract block group is identified as an EJ community.

Source: U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates; Data compiled by AECOM in 2024.

Table 3. Low-Income Communities within the Study Area

Census Tract	Block Group	Low-Income Population	Total Population with Census Income ¹	Percent Low-Income	Compared to the Reference Area, is the Block Group an EJ Community in terms of Income? ²
City of Oakland	N/A	65,672	170,446	38.53%	N/A
4033.01	1	290	341	85.04%	Yes
4033.01	2	236	271	87.08%	Yes
4033.02	1	35	223	15.70%	No
4033.02	2	342	773	44.24%	Yes
4034.01	1	162	699	23.18%	No
4034.02	2	22	56	39.29%	Yes

¹ The population of the City of Oakland with income reported in the Census is smaller than the total population.

² If the percent minority in a census tract block group exceeds the average percent low-income for the City of Oakland at 38.53 percent, the census tract block group is identified as an EJ community.

Source: U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates; Data compiled by AECOM in 2024

The project site is within census tract 4033, which is generally bounded by Alice Street to the west, 12th Street to the north, the Lake Merritt Channel to the east, and the Oakland Estuary to the south (shown in Figure 9). The CJEST identifies the entire census tract as a disadvantaged community, as well as the census tracts to the northwest and to the east. Socioeconomically, the census tract is low income - in the 66th percentile of the individuals below the 200% federal poverty line and greater than or equal to the 90th percentile for households in linguistic isolation and low high school attainment. In terms of pollution burden, the census tract is greater than or equal to the 90th percentile for particulate matter with aerodynamic diameter less than 2.5 microns (PM_{2.5}) exposure and is low income; in the 85th percentile for diesel particulate matter exposure; in the 99th percentile for traffic proximity and volumes; and has experienced historic underinvestment and remains low income.

Figure 9. CEJST Disadvantaged Community Mapping (census tracts shaded in darker bluish gray are disadvantaged communities)



2.3.1. Conclusion

While four out of six block groups in the study area have been identified as environmental justice communities and the entire census tract encompassing the project site is defined as a disadvantaged community, the proposed project is not anticipated to result in disproportionately high and adverse impacts. A disproportionately high and adverse effect on a community of concern is commonly defined by federal agencies for environmental assessments pursuant to the National Environmental Policy Act as an adverse effect that either is predominantly borne by a minority population and/or a low-income population; or will be suffered by the minority population and/or low income population, and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non-low-income population.

The project is not anticipated to result in any substantially high adverse impacts. Table 4 below summarizes potential EJ-related resource areas, and their relevance to the proposed project. Since the

project would not result in adverse impacts, it would also not result in disproportionately high and adverse impacts to any of the EJ communities identified in the study area.

Table 4. Analysis of Proposed Action’s Disproportionate Impacts on Environmental Justice Communities

Environmental Resource	Impacts Summary	Relevance to Title VI/Environmental Justice
Air Quality	<p>The proposed project would result in temporary generation of criteria air pollutant emissions, including ROG, NO_x, PM₁₀, and PM_{2.5}. Additionally, fugitive dust emissions of PM₁₀ and PM_{2.5} may occur.</p> <p>Compliance with the City of Oakland’s Standard Conditions of Approval (SCAs) would be required for the project. The SCAs include air quality controls for criteria pollutants and fugitive dust during construction, as well as requirements to prevent the release of toxic air contaminants from stationary sources (i.e., during project operations). Compliance with the SCAs would reduce localized emissions during construction. Additionally, the project would not result in long-term increases in criteria air pollutants or toxic air contaminants, and would also be required to comply with long-term SCAs.</p>	<p>Project-related construction air quality would not violate or contribute substantially to an existing or projected air quality violation. The proposed project would not have an adverse effect related to air quality; therefore, no disproportionate adverse impacts on Title VI/environmental justice communities would occur.</p>
Biology	<p>The proposed project would not result in loss of habitat for any special status species identified in the study area. Additionally, it would comply with City SCAs to preserve or replace existing trees and vegetation at the project site and to ensure that nesting birds and roosting bats are protected during construction. Further, the project would plant replacement trees and include more planter areas than now exist onsite .</p>	<p>Project-related construction impacts to trees, nesting birds, and roosting bats would be prevented by compliance with City SCAs, and no adverse effects would occur related to biological resources. Therefore, no disproportionate adverse impacts on Title VI/environmental justice communities would occur.</p>
Hazards and Hazardous Materials	<p>A Phase I ESA and Phase II ESA were completed for the project site by Langan. There was one identified Recognized Environmental Conditions (REC), a Vapor Encroachment Concern (VEC), and one identified Historical REC (HREC), a Historical Gas Station, associated with the project site. Results of soil, groundwater, and soil vapor revealed no hazardous levels of contaminants in the native material beneath the fill. Groundwater analytical results detected contaminants exceeding both residential and/or commercial environmental screening levels. Specifically, exceedances of chemicals of concern such as ethylbenzene and xylenes, as well as tetrachloroethylene (PCE) and trichloroethylene (TCE), were found within the proposed footprint of the project. The project applicant entered into a Voluntary Remedial Action Agreement with the Alameda County Department of Environmental Health (ACDEH) in November 2022 (ACDEH 2022). The agreement stipulates that the ACEDH will provide environmental oversight during redevelopment and/or remedial action to ensure the</p>	<p>The project applicant has entered into a Voluntary Remedial Action Agreement and will comply with City SCAs and ACDEH requirements. A Corrective Action Plan to clean up the site has been prepared, and implementation of its measures is required by ACDEH and when completed, the ACDEH will issue a letter of no further action. The project site is not near a Superfund or CERCLIS site. Based on these facts, the project would not result in an adverse impact related to hazards and hazardous materials, and would therefore not result in a disproportionately high and adverse impact to Title VI/environmental justice communities.</p>

Environmental Resource	Impacts Summary	Relevance to Title VI/Environmental Justice
	<p>site would not pose a threat to human health or the environment.</p> <p>In response to further testing and ongoing consultations with ACEDH, the project applicant has prepared a Corrective Action Plan, the purpose of which describes the excavation of historically contaminated soils, containing soluble lead concentrations exceeding the California Class I non-RCRA hazardous waste criteria and their transport to a licensed off-site disposal facility. ACEDH has announced that the plan is available for public review and comment and will finalize the plan with the project applicant. To confirm that all steps have been followed and the site contamination remediated to acceptable levels, the project applicant must provide a ACEDH with a compliance report. If approved by ACEDH, a no further action notice will be issued and the case will be closed.</p> <p>The project site is not listed on the California Department of Toxic Substances Control (DTSC) Hazardous Waste and Substances Site List (Cortese) (California Department of Toxic Substances Control 2024, State Water Resources Control Board 2024). Additionally, the project site is not located within 0.25 mile of a Superfund or CERCLIS site (U.S. EPA 2024).</p> <p>In addition to the Corrective Action Plan, the project would also comply with hazardous material-related City SCAs. These SCAs regulate the use of hazardous materials during construction, and ensure that the proper surveys and documentation of hazardous materials at the project site are completed as part of the project.</p>	
Noise	<p>The proposed project would generate temporary, short-term noise and vibration from equipment operating at the project site during construction. As a residential project, future occupation of the site by senior households is not anticipated to result in a substantial long-term increase in noise or vibration. The project would be required to comply with City SCAs related to construction and operational noise and vibration. This compliance would ensure that construction is limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday, between 9:00 a.m. and 5:00 p.m. on Saturday, and that no construction would occur on Sundays or federal holidays. It would also ensure that measures are included to reduce construction noise to the extent feasible, and to prevent long-term noise and vibration effects on the local community.</p>	<p>Based on the project's compliance with City SCAs related to noise and vibration, the project would not result in an adverse impact related to noise. Therefore, no disproportionate adverse impacts on Title VI/environmental justice communities would occur.</p>
Transportation	<p>The project may result in a minor adverse impact to local traffic both in the short term during project construction. The long-term traffic impacts are associated with the project's operational phase (i.e.,</p>	<p>The project may result in temporary traffic disruptions during construction, but this effect is anticipated to be minor, as the</p>

Environmental Resource	Impacts Summary	Relevance to Title VI/Environmental Justice
	<p>when the proposed building is occupied). Temporary effects on traffic would be reduced by compliance with City SCAs that require preparation and implementation of a Traffic Control Plan approved by the City.</p> <p>The proposed project would place emphasis on alternative modes of transportation, such as bicycle, pedestrian, and public transportation. The project would integrate with existing public transportation infrastructure, as it is sited atop the Lake Merritt BART Station, which provides regional connectivity throughout the Bay Area via rail transit. Additionally, there are multiple Alameda County Transit (AC Transit) bus stops near the project site.</p> <p>The project would not provide any new vehicle parking, but would provide bicycle parking on the ground floor. There are existing Class II bike lanes on the street network surrounding the project site, as well as sidewalks. The City conditions of approval for the Planned Unit Development and horizontal improvements include improvements along the sidewalks, intersection corners, and crosswalks to enhance pedestrian safety.</p> <p>The project is anticipated to result in a limited number of new vehicle trips. According to the project's Transportation Impact Report (TIR), the proposed project (Building B within the greater planning context of the station) would result in approximately 250 daily vehicle trips, of which 12 trips would occur in the weekday AM peak hour, and 19 would occur in the weekday PM peak hour.</p>	<p>project would comply with transportation-related City SCAs.</p> <p>In terms of operations, the project would place emphasis on alternative modes of transportation. While the project is anticipated to result in a limited number of new vehicle trips, this effect on roadway network operations is consistent with the 2014 LMSAP EIR and the 2021 CEQA Checklist analyses of the project's transportation impacts. Therefore, no substantial transportation-related effects are anticipated, and the project would therefore not result in a disproportionately high and adverse impact to Title VI/environmental justice communities.</p>

AC Transit = Alameda County Transit
ACDEH = Alameda County Department of Environmental Health
BART = Bay Area Rapid Transit
CEQA = California Environmental Quality Act
CERCLIS = Comprehensive Environmental Response, Compensation, and Liability Information System
City = City of Oakland
Cortese = Hazardous Waste and Substances Site List
DTSC = California Department of Toxic Substances Control
EIR = environmental impact report
EJ = Environmental Justice
HREC = Historical Recognized Environmental Conditions
LMSAP = Lake Merritt Station Area Plan
NO_x = nitrogen oxide
PCE = tetrachloroethylene
PM₁₀ = particulate matter with aerodynamic diameter less than 10 microns
PM_{2.5} = particulate matter with aerodynamic diameter less than 2.5 microns
RCRA = Resource Conservation and Recovery Act
REC = Recognized Environmental Conditions
ROG = reactive organic gas
SCAs = Standard Conditions of Approval
TCE = trichloroethylene
TIR = Transportation Impact Report
VEC = Vapor Encroachment Concern

3. PUBLIC OUTREACH TO TITLE VI/ENVIRONMENTAL JUSTICE POPULATIONS

A key component of Title VI/environmental justice is engaging these populations as part of the planning process. EBALDC has engaged the public through extensive efforts. Engagement efforts included stakeholder meetings and interviews, community design workshops, and community surveys. The project was also discussed at the Design Review Committee of the City Planning Commission on April 14, 2021. These efforts informed EBALDC as to local community needs, and helped shape the project's design. The project was designed to include the following based on the community's needs: a food hub with restaurants and outdoor seating to create a food destination/venue in the neighborhood; a pedestrian paseo to increase landscaping, greening of the block, and opportunities for gathering and play space; a direct connection between Laney College and the Lake Merritt BART Station; pedestrian improvements that involve wider sidewalks, curb bulbs and ramps, and high visibility crosswalks; and community rooms and gathering spaces within the residential building.

4. CONCLUSION

The applicant will comply with City of Oakland SCAs, and has included community conscious elements in the project design as a result of their public outreach efforts to date. Additionally, the project would have the benefit of providing affordable housing options to vulnerable populations, to include seniors, Special Needs, and formerly Homeless households. It would also provide community gathering spaces and greening for the neighborhood. Based on the analysis above, and the public outreach efforts of the project applicant, the proposed project would not result in a disproportionately high and adverse impact on environmental justice communities in the study area.

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U.S. EPA. See U.S. Environmental Protection Agency.

Environmental Justice Assessment Tables

Census Tract	Block Group	Low-Income Population	Total Population with Census Income	Percent Low-Income	Compared to the Reference Area, is the Block Group an EJ Community in terms of Ethnicity?
City of Oakland	N/A	65,672	170,446	38.53%	N/A
4033.01	1	290	341	85.04%	Yes
4033.01	2	236	271	87.08%	Yes
4033.02	1	35	223	15.70%	No
4033.02	2	342	773	44.24%	Yes
4034.01	1	162	699	23.18%	No
4034.02	2	22	56	39.29%	Yes

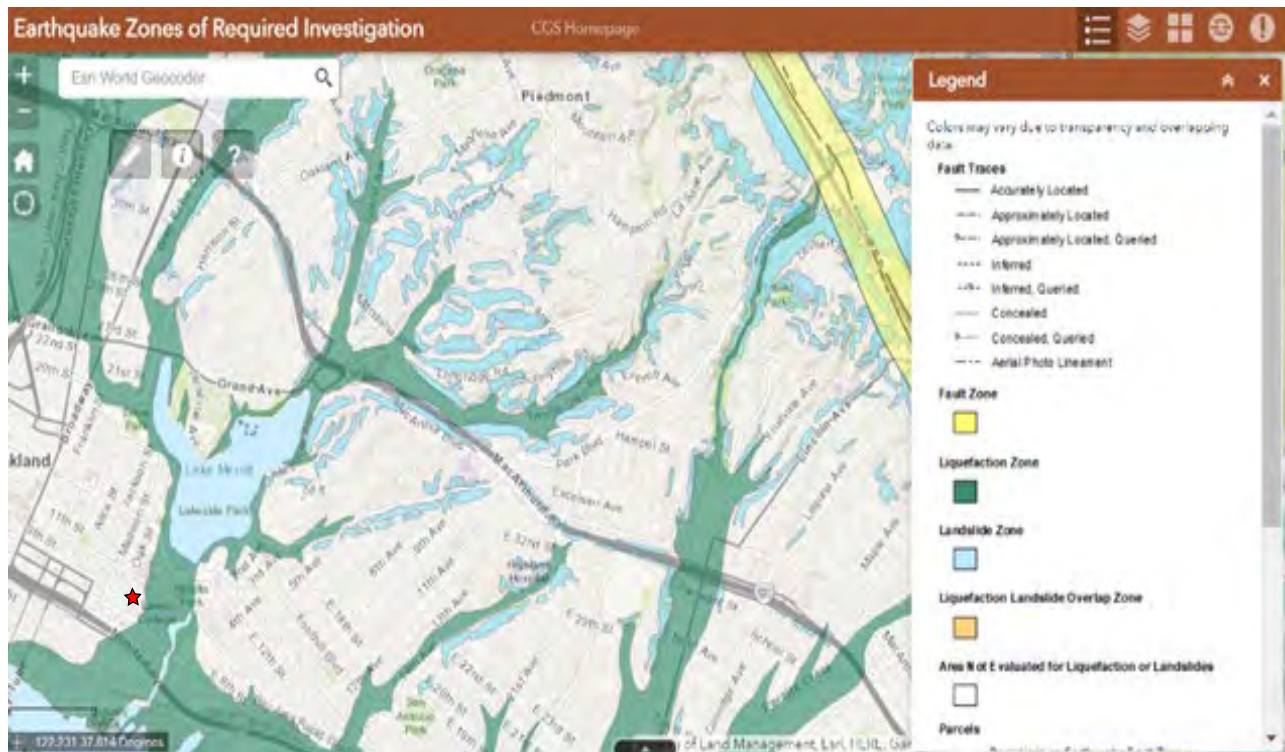
Census Tract	Block Group	Minority Population	Total Population	Percent Minority	Compared to the Reference Area, is the Block Group an EJ Community in terms of Ethnicity?
City of Oakland	N/A	307287	461,826	66.54%	N/A
4033.01	1	580	637	91.05%	Yes
4033.01	2	1027	1,193	86.09%	Yes
4033.02	1	217	690	31.45%	No
4033.02	2	487	1,075	45.30%	No
4034.01	1	342	904	37.83%	No
4034.02	2	25	30	83.33%	Yes

Attachment O
Geotechnical Data

Attachment O1

California Geological Survey Earthquake Zones of Required Investigation

There are no identified slope stability hazards at the project site and the nearest fault zone (associated with the Hayward Fault) requiring investigation is 3.5 miles to the northeast.



Source link: <https://maps.conservation.ca.gov/cgs/EQZApp/App/>

Attachment O2

Geotechnical Investigation

GEOTECHNICAL INVESTIGATION Lake Merritt BART Block 1 – Building B and Paseo Oakland, California

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- Appendix G BART Criteria

GEOTECHNICAL INVESTIGATION
Lake Merritt BART
Block 1 – Building B and Paseo
Oakland, California

1.0 INTRODUCTION

This report presents the results of the geotechnical investigation performed by Langan for the proposed Building B and paseo portions of the Block 1 development at the Lake Merritt Bay Area Rapid Transit (BART) Station in Oakland, California. We understand the Lake Merritt BART redevelopment project will consist of two adjacent sites, designated Block 1 and Block 2, as shown on Figure 1, Site Location Map, and that development plans for Block 2 will proceed at a later time. Previously, we performed a preliminary geotechnical investigation for Blocks 1 and 2 and presented the results in a letter report dated 23 January 2021, revised 9 April 2021.

Block 1 is bound by Fallon Street on the southeast, 8th Street on the southwest, Oak Street on the northwest, and 9th Street on the northeast. The Lake Merritt BART station crosses below Block 1, and the station transitions to a BART tunnel beneath Fallon Street, as shown on the Site Plan, Figure 2. At street level, the northwestern portion of Block 1 is occupied by a plaza with entrances to the underground BART station. An asphalt-paved BART parking lot occupies the remainder of the block to the southeast.

Plans for Block 1 are to construct an approximately 275-foot-tall, 28-story, market rate residential building, designated Building A, in the northeastern portion of the site, and an approximately 85-foot-tall, 7-story, concrete affordable senior housing building, designated Building B, in the southwestern portion of the site. The buildings will be constructed within the existing parking lot adjacent to, but not over, the BART station. A pedestrian paseo is planned between Buildings A and B, within an easement over the BART station. A 6-foot-square, 5-foot-deep cistern will be constructed in the southern portion of the Building B site to store stormwater.

Currently, only the Building B and paseo portions of the Block 1 redevelopment are in design; we understand Building A will be developed later. This report is for the Building B and paseo portions of the development only; recommendations for Building A will be provided in a separate report. The extents of Building B and the paseo comprise about two-thirds of Block 1 and are irregular in shape, with maximum plan dimensions of about 220 by 320 feet, as shown on the Site Plan, Figure 2.

Building B will be constructed at grade. According to the project structural engineer, DCI Engineers, dead plus live column loads for Building B will range from about 400 to 650 kips. The paseo is being designed to impose no new loads (on average across the project site) as it will be constructed over the BART station.

2.0 SCOPE OF SERVICES

Our scope of our services, as outlined in our proposal dated 30 July 2021 and our budget increase requests dated 9 June 2022 and 15 May 2023, consisted of reviewing available subsurface information for the site and vicinity, further exploring soil and groundwater conditions at the site, performing engineering studies, and preparing geotechnical recommendations for Building B and the paseo at Block 1. Using the results of our field investigation and engineering studies, we developed conclusions and recommendations regarding the following:

- soil and groundwater conditions at the site
- seismic hazards, including ground rupture, liquefaction, and seismic settlements
- ground improvement, if needed
- the most appropriate foundation type(s) for Building B
- design criteria for the most appropriate foundation type(s), including values for vertical and lateral capacities
- estimated foundation settlements, including total and differential settlement
- lateral earth pressures for design of elevator pit and other below-grade walls
- site grading, including soil subgrade preparation and criteria for fill quality and compaction
- pavement and concrete flatwork
- underground utilities
- excavation, temporary slopes, and dewatering
- 2022 California Building Code (CBC) seismic design parameters
- construction considerations.

Our geotechnical conclusions and recommendations for design of the project are presented in this report. Langan is also providing environmental consulting services for the project; the results of our environmental studies are published in separate reports.

3.0 FIELD INVESTIGATION AND LABORATORY TESTING

During our preliminary geotechnical investigation, we evaluated subsurface conditions at Block 1 by reviewing available boring logs provided by BART and performing one cone penetration test (CPT), designated CPT-2. To further evaluate subsurface conditions at Block 1 and provide final design-level geotechnical recommendations for the development, we drilled three borings, designated B-2 through B-4, and advanced two CPTs, designated CPT-3 and SCPT-4/4a; the approximate locations of the borings and CPTs are shown on Figure 2.

Prior to performing our field investigation, we purchased a railroad insurance policy for the duration of our field investigation as required by BART, coordinated access to the boring and CPT locations within the BART parking lot with BART personnel, obtained permits from Alameda County Public Works Agency (ACPWA), notified Underground Service Alert (USA), and checked that the boring and CPT locations were clear of underground utilities using an independent private utility locator.

3.1 Borings

Borings B-2 through B-4 were drilled in the Lake Merritt BART station parking lot by Pitcher Drilling from 3 to 12 January 2022 using a truck-mounted rotary wash drill rig. Borings B-2 and B-4 were drilled to depths of about 151½ feet below the ground surface (bgs), and Boring B-3 was drilled to a depth of about 251½ feet bgs. In-situ downhole geophysical suspension logging was performed in boring B-3. Logs of the borings are presented on Figure A-1 through A-3 in Appendix A. The soil encountered in the borings was classified in accordance with the Soil Classification Chart, Figure A-4.

Soil samples were obtained using four different types of samplers: two driven split-barrel samplers and two pushed thin-walled samplers. The sampler types are as follows:

- Sprague & Henwood (S&H) split-barrel sampler with a 3.0-inch outside diameter and 2.5-inch inside diameter, lined with steel or brass tubes with an inside diameter of 2.43 inches
- Standard Penetration Test (SPT) split-barrel sampler with a 2.0-inch outside diameter and 1.5-inch inside diameter, without liners
- Shelby Tube sampler with a 3.0-inch outside diameter and a 2.875-inch inside diameter
- Pitcher Barrel (PB) sampler with a spring-loaded Shelby Tube.

The sampler types were chosen on the basis of soil type being sampled and desired sample quality for laboratory testing. In general, the S&H sampler was used to obtain samples in medium stiff to very stiff cohesive soil and the SPT sampler was used to evaluate the relative density of sandy soil. The Shelby Tube sampler was used to obtain relatively undisturbed samples of stiff to very stiff cohesive soil, and the Pitcher Barrel sampler was used to obtain relatively undisturbed samples of very stiff to hard cohesive soil.

The SPT and S&H samplers were driven with a 140-pound downhole safety hammer falling 30 inches. The samplers were driven up to 18 inches and the hammer blows required to drive the samplers every six inches of penetration were recorded and are presented on the boring logs. The driving of samplers was discontinued if the observed (recorded) hammer blows was 60 for six inches or less of penetration. The blow counts required to drive the S&H and SPT samplers 12 inches (or less if 60 blows were achieved) were converted to approximate SPT N-values using factors of 0.7 and 1.2, respectively. The N-values are shown on the boring logs. The blow counts used for this conversion were: 1) the last two blow counts if the sampler was driven more than 12 inches, 2) the last one blow count if the sampler was driven more than six inches but less than 12 inches, and 3) the only blow count if the sampler was driven six inches or less.

The Shelby Tube sampler is pushed hydraulically into the soil; the pressure required to advance the sampler is shown on the logs, measured in pounds per square inch (psi). The Pitcher Barrel sampler uses a spring-loaded Shelby Tube to sample the soil. The Shelby Tube extends below the Pitcher Barrel and the spring-loaded mechanism pushes the Shelby Tube into the soil. The spring within the Pitcher Barrel compresses when hard soils are encountered, and the Shelby Tube retracts into the Pitcher Barrel as the spring compresses. When the spring is fully compressed, the Pitcher Barrel encompasses the Shelby Tube, and teeth at the end of the Pitcher Barrel cut into the soils to advance the sampler.

Upon completion, boring B-3 was completed as a standpipe piezometer so that the groundwater level can be measured over time. The piezometer was installed with a screened section from approximately 20 to 30 feet bgs. The remaining boreholes were backfilled with cement grout under the observation of an ACPWA inspector in accordance with the requirements of the ACPWA, and the pavement was patched. The soil cuttings from the borings were collected in 55-gallon drums, which were stored temporarily off-site, tested, and eventually properly disposed.

3.2 Cone Penetration Tests

The two CPTs for our final investigation, CPT-3 and SPCT-4/4a, were performed on 3 January 2022, and CPT-2, from our preliminary investigation, was performed on 15 November 2019. The CPTs were advanced by Gregg Drilling, LLC. (Gregg) of Martinez, California using a truck-mounted rig. CPTs are performed by hydraulically pushing a 1.7-inch-diameter cone-tipped probe into the ground. While the CPT probe is advanced, electrical strain gauges or load cells within the cone measure soil parameters continuously during the entire depth. Soil data is recorded in the field and then processed to provide engineering information, such as the types, approximate strength characteristics, and consolidation characteristics of the soil encountered.

The CPTs were advanced to depths of about 100 feet bgs; SCPT-4 was initially pushed to partial depth without the seismic cone and was subsequently repushed nearby as SCPT-4a. SCPT-4a was performed using a seismic cone in order to estimate the dynamic response of local soils during an earthquake and to correlate shear wave velocity measurements with the downhole geophysical testing. The CPT logs, showing tip resistance and friction ratio by depth, as well as interpreted SPT N-values and interpreted soil classifications, are presented in Appendix B. Soil types were estimated using the classification chart included in Appendix B. The shear wave velocity results from SCPT-4a are also provided in Appendix B.

Pore-pressure dissipation tests (PPDT) were performed at CPT-2 and SCPT-4 to measure hydrostatic water pressures and to determine the approximate depth of the groundwater level. The variation of pore pressure with time is measured behind the tip of the cone and recorded. For this investigation, the durations of the test were approximately 900 and 1370 seconds. The PPDT results are presented in Appendix B.

After completion, the CPTs were backfilled with cement grout in accordance with ACPWA requirements, and the pavement was patched.

3.3 Down-Hole Geophysical Logging

Upon completion of drilling in boring B-3, NorCal Geophysical Consultants Inc. performed in-situ downhole suspension logging to measure the shear and compression wave velocity of the soil within the boring. The details of the suspension logging methodology, procedures, and the results are presented in Appendix C. The results of the geophysical logging were used in our seismic hazards evaluation and to determine site class in accordance with the 2022 CBC.

3.4 Laboratory Testing

The soil samples recovered from the borings were reexamined in the office to confirm soil classifications, and representative samples were selected for laboratory testing. The laboratory testing program was designed to evaluate engineering properties of the soil at the site. Samples were tested to measure moisture content, dry density, gradation, fines content, plasticity, unconsolidated undrained triaxial shear strength, and consolidation characteristics. The results of the laboratory tests are shown on the boring logs and presented in Appendix D as Figures D-1 through D-18. In addition, a corrosion test was performed on a bulk sample of the shallow soil and the results are presented in Appendix E.

3.5 Previous Investigations by Others

Subsurface conditions at the site and vicinity were previously investigated by others in 1963 for the development of the Lake Merritt BART station and tunnel. The available borings in the vicinity of Block 1 include three borings (designated as K-005-6, K-005-7, and K-005-23) drilled to depths ranging from about 60 to 64 feet bgs. The approximate locations of the borings are shown on Figure 2. Logs of the borings by others are included in Appendix F.

4.0 SITE AND SUBSURFACE CONDITIONS

Site and subsurface conditions are discussed in this section. A regional geologic map is presented on Figure 3 and an idealized subsurface profile for Block 1 is shown on Figure 4.

4.1 Site Conditions

Block 1 is bound by Fallon Street on the southeast, 8th Street on the southwest, Oak Street on the northwest, and 9th Street on the northeast. At street level, the northwestern portion of Block 1 is occupied by a plaza with entrances to the underground BART station. An asphalt-paved BART parking lot occupies the remainder of the block to the southeast. A topographic survey prepared by BKF Engineers, the project civil engineer, indicates that the ground surface across Block 1 varies between Elevations 17 and 28.4 feet¹, with the low elevation at the intersection of 8th Street and Fallon Street and the high elevation at the intersection of Oak Street and 9th Street.

¹ All elevations based on City of Oakland Datum (COOVD). Elevations referenced are from a topographic survey titled "Lake Merritt BART Building B, Oakland, CA, 94607," Sheet C2.1, by BKF Engineers, dated 22 December 2022.

The Lake Merritt BART station crosses below Block 1, and the station transitions to a BART tunnel beneath Fallon Street. The BART station and tunnel were built in the 1960s using cut-and-cover methods. On the basis of available as-built BART drawings², we understand the BART station beneath the northwest portion of the site consists of a box structure approximately 62 feet wide and 33 to 35 feet tall. Below the central portion of the site, the bottom of the station is about 35 to 38 feet bgs, and the bottom of the station is relatively level at about Elevation -13 feet. Based on the as-built BART drawings, the cover soil and pavement section above the BART station is about one to three feet thick, increasing in thickness to the northwest between Fallon Street and the Lake Merritt BART station. The cover soil and pavement thickness will be confirmed by others by potholing.

4.2 Subsurface Conditions

Where explored in Block 1, the borings encountered undocumented fill consisting of sand with variable silt content in the upper five to ten feet. It is not known whether the fill was placed in a controlled (compacted) manner, as we were not provided records of how it was placed. However, the fill was likely placed during construction of the cut-and-cover Lake Merritt BART station. The fill is underlain by Merritt Sand which consists of medium dense to dense sand with variable silt and clay content. The Merritt Sand extends to depths of about 15 to 21½ feet bgs, corresponding to approximate Elevations 2 to 9 feet. The sand is underlain by the Alameda formation, which is comprised of medium stiff to hard clay with variable sand and silt content. The clays and silts of the Alameda formation have low to high plasticity, with plasticity indices (PI) ranging from 7 to 58, and are overconsolidated,³ with overconsolidation ratios (OCR) ranging from approximately 1.2 to 5.

Groundwater was encountered in boring B-4 at a depth of about 6½ bgs during drilling, corresponding to about Elevation 17.1 feet; however, this is not considered a stabilized groundwater level. The results of pore pressure dissipation tests performed in CPT-2 (performed in November 2019) and SCPT-4 (performed in January 2022) indicate that groundwater is present at depths ranging from 19½ and 17½ feet bgs, respectively, corresponding to approximate Elevations 5.1 and 5.2 feet. Groundwater was measured in a piezometer (designated EB-24)

² "Oakland Downtown Lake Merritt Station, Sections A, G, H, J" as-built plans dated 9 January 1967 by San Francisco BART District.

³ An underconsolidated clay has not yet achieved equilibrium under the existing load; a normally consolidated clay has completed consolidation under the existing load; and an overconsolidated clay has experienced a load greater than it is currently under.

installed by Langan’s environmental personnel within the Building B footprint at a depth of about 16.7 feet bgs, corresponding to about Elevation 5.3 feet, in June 2023. In piezometer B-3, groundwater was measured at a depth of about 18.2 feet, corresponding to about Elevation 5.7 feet, in September 2023. According to our review of the CGS Seismic Hazard Zone Report for the Oakland West Quadrangle (CGS, 2003), historic high groundwater level in the project vicinity is between 10 and 20 feet bgs. Considering the site’s proximity to the San Francisco Bay, the groundwater level may be influenced by the tides. Additionally, fluctuations in the groundwater levels should be expected during periods of heavy seasonal rainfall and due to climate change.

5.0 REGIONAL SEISMICITY AND FAULTING

The project site is in a seismically active region. Numerous earthquakes have been recorded in the region in the past, and moderate to large earthquakes should be anticipated during the life of the proposed development. The Hayward, San Andreas, and San Gregorio faults are the major faults closest to the site. These and other faults of the region are shown on Figure 5. For each of these faults, as well as other active faults within about 50 kilometers (km) of the site, the distance from the site and estimated mean Moment magnitude⁴ [2014 Working Group on California Earthquake Probabilities (WGCEP) (2015) and Uniform California Earthquake Rupture Forecast Version 3 (UCERF3) as detailed in the United States Geological Survey Open File Report 2013-1165] are summarized in Table 1. The mean Moment magnitude presented on Table 1 was computed assuming full rupture of the segment using Hanks and Bakun (2008) relationship.

⁴ Moment magnitude is an energy-based scale and provides a physically meaningful measure of the size of a faulting event. Moment magnitude is directly related to average slip and fault rupture area.

TABLE 1
Regional Faults and Seismicity

Fault Segment	Approx. Distance from fault (km)	Direction from Site	Mean Characteristic Moment Magnitude
Total Hayward-Rodgers Creek Healdsburg	5.7	East	7.6
Contra Costa (Lafayette)	16	East	6.1
Contra Costa Shear Zone (connector)	19	Northeast	6.6
Contra Costa (Larkey)	20	East	6.0
Franklin	20	East	6.7
Total Calaveras	20	East	7.5
Mount Diablo Thrust	22	East	6.6
Contra Costa (Dillon Point)	25	Northeast	6.1
San Andreas 1906 event	25	Southwest	8.1
Concord	27	East	6.4
Mission (connected)	27	Southeast	6.1
Total San Gregorio	31	West	7.6
Pilarcitos	31	Southwest	6.7
Green Valley	32	Northeast	6.8
Clayton	33	Northeast	6.4
Contra Costa (Vallejo)	35	North	5.6
Greenville	35	East	7.1
Contra Costa (Lake Chabot)	36	North	5.6
Monte Vista - Shannon	36	South	7.0
West Napa	41	North	6.8
Great Valley 05 Pittsburg - Kirby Hills	41	Northeast	6.3

Note: The table above is a summary and does not include all the fault segmentation, alternate traces and low activity faults included in the UCERF3 model.

Figure 5 also shows the earthquake epicenters for events with magnitude greater than 5.0 from January 1800 through August 2014. Since 1800, four major earthquakes have been recorded on the San Andreas fault. In 1836 an earthquake with an estimated maximum intensity of VII on the Modified Mercalli (MM) scale (Figure 6) occurred east of Monterey Bay on the San Andreas fault (Topozada and Borchardt 1998). The estimated Moment magnitude, M_w , for this earthquake is about 6.25. In 1838, an earthquake occurred with an estimated intensity of about VIII-IX (MM), corresponding to an M_w of about 7.5. The San Francisco Earthquake of 1906 caused the most significant damage in the history of the Bay Area in terms of loss of lives and property damage. This earthquake created a surface rupture along the San Andreas fault from Shelter Cove to San Juan Bautista approximately 470 kilometers in length. It had a maximum intensity of XI (MM),

an M_w of about 7.9, and was felt 560 kilometers away in Oregon, Nevada, and Los Angeles. The Loma Prieta Earthquake occurred on 17 October 1989 in the Santa Cruz Mountains with an M_w of 6.9, the epicenter of which is approximately 91 km from the site.

In 1868, an earthquake with an estimated maximum intensity of X on the MM scale occurred on the southern segment (between San Leandro and Fremont) of the Hayward fault. The estimated M_w for the earthquake is 7.0. In 1861, an earthquake of unknown magnitude (probably an M_w of about 6.5) was reported on the Calaveras fault. The most recent significant earthquake on this fault was the 1984 Morgan Hill earthquake ($M_w = 6.2$).

The most recent earthquake to affect the Bay Area occurred on 24 August 2014 and was located on the West Napa fault, approximately 47 km northeast of the site, with an M_w of 6.0.

The 2016 U.S. Geologic Survey (USGS) predicted a 72 percent chance of a magnitude 6.7 or greater earthquake occurring in the San Francisco Bay Area in 30 years (Aagaard et al. 2016). More specific estimates of the probabilities for different faults in the Bay Area are presented in Table 2.

TABLE 2
Estimates of 30-Year Probability (2014 to 2043) of a
Magnitude 6.7 or Greater Earthquake

Fault	Probability (percent)
Hayward-Rodgers Creek	33
N. San Andreas	22
San Gregorio	16
Mount Diablo Thrust	16
Greenville	6

6.0 SEISMIC HAZARDS

During a major earthquake on a segment of one of the nearby faults, strong to very strong shaking is expected to occur at the site. Strong shaking during an earthquake can result in ground failure

such as that associated with liquefaction⁵, lateral spreading⁶, and cyclic densification⁷. Our evaluation of these hazards, based on the available subsurface information from the site and engineering studies, is discussed in the remainder of this section.

The California Geologic Survey (CGS) has prepared a map titled *State of California Seismic Hazard Zones, Oakland West Quadrangle Official Map*, dated 14 February 2003. This map was prepared in accordance with the Seismic Hazards Mapping Act of 1990. The map indicates the site is not within a seismic hazard zone, as shown on Figure 7.

6.1 Soil Liquefaction and Associated Hazards

When a saturated, cohesionless soil liquefies during a major earthquake, it experiences a temporary loss of shear strength as a result of a transient rise in excess pore water pressure generated by strong ground motion. Flow failure, lateral spreading, differential settlement, loss of bearing, ground fissures, and sand boils are evidence of excess pore pressure generation and liquefaction.

We used the procedures presented in Boulanger and Idriss (2014) to evaluate the liquefaction potential at the site using the results of the borings and CPTs. These procedures are updates of the simplified procedures developed by Seed et al. (1971) and Idriss and Boulanger (2008). To estimate volumetric strain and associated liquefaction-induced settlement, we used the procedures developed by Tokimatsu and Seed (1987), Cetin (2009), and Zhang et al. (2002).

The level of ground shaking used in our liquefaction evaluation was based on the Risk-Targeted Maximum Considered Earthquake (MCE_R) mapped values. A peak geometric mean ground acceleration (PGA_M) of 0.805g was used in our analyses. This PGA_M was obtained from mapped

⁵ Liquefaction is a transformation of soil from a solid to a liquefied state during which saturated soil temporarily loses strength resulting from the buildup of excess pore water pressure, especially during earthquake-induced cyclic loading. Soil susceptible to liquefaction includes loose to medium dense sand and gravel, low-plasticity silt, and some low-plasticity clay deposits.

⁶ Lateral spreading is a phenomenon in which surficial soil displaces along a shear zone that has formed within an underlying liquefied layer. Upon reaching mobilization, the surficial blocks are transported downslope or in the direction of a free face by earthquake and gravitational forces. Lateral spreading is generally the most pervasive and damaging type of liquefaction-induced ground failure generated by earthquakes.

⁷ Cyclic Densification is a phenomenon in which non-saturated, cohesionless soil is compacted by earthquake vibrations, causing differential settlement.

values specified in the provisions of the 2022 California Building Code (CBC)/ASCE 7-16 for the MCE_R , using site class D. We assumed an earthquake magnitude of 7.6, which is the maximum Moment magnitude for the Hayward fault, located 5.7 km from the site, as shown in Table 1.

In our analyses using the CPT results, soil that has significant amount of plastic fines, with an I_p greater than 2.6, were considered too cohesive to liquefy. Additionally, soil with a cone tip resistance q_{c1N} greater than 160 tons per square foot (tsf) was considered too dense to liquefy. We also considered the approach for soil classification and behavior presented in Robertson (2016). In this approach, CPT data is used to determine dilative and contractive behavior. The soil classification and behavior chart uses the normalized CPT tip resistance and friction ratio to separate material into clayey, sandy, and transitional soil types. The chart further uses another parameter, CD, to divide the dilative and contractive behavior of these soil types. A CD value of 70 or higher separates the soil between contractive and dilative tendencies. To capture transitional and borderline material, we used a CD cut-off value of 80. Soil that was classified as dilative based on the contractive-dilative boundary (Robertson 2016) was considered to have a buildup in pore water pressure and potentially liquefy, however, would not settle significantly.

In the CPTs and borings performed at the site, thin, discontinuous layers of medium dense silty sand and clayey sand were encountered below the design groundwater table (10 feet bgs). These layers vary in thickness from about ½ foot to 5 feet and were encountered at a depth of 10 feet in boring B-2, at depths of approximately 20 and 40 feet bgs in boring B-4, and at a depth of about 36 feet in SCPT-4a. Based on our observations and the results of our liquefaction analyses, we conclude these layers could potentially liquefy during a major earthquake on a nearby fault. We calculate liquefaction-induced settlement of less than ¼ inch for the layers in borings B-2 and B-4 and about ¾ inch for the layer in SCPT-4a.

6.2 Lateral Spreading

Lateral spreading is a phenomenon in which a surficial soil displaces along a shear zone that has formed within an underlying liquefied layer. The surficial blocks are transported downslope or in the direction of a free face, such as a channel, by earthquake and gravitational forces. Lateral spreading is generally the most pervasive and damaging type of liquefaction-induced ground failure generated by earthquakes. Lateral spreading generally occurs in loose to medium dense sand layers with a blowcount of less than 15.

We evaluated the potential for lateral spreading at the site using an empirical relationship developed by Youd, Hansen, and Bartlett (2002). This relationship incorporates the thickness of

the liquefiable layer with corrected blow counts $[(N_1)_{60-CS}]$ less than 15; the fines content and mean grain-size diameter of the liquefiable soil; the relative density of the liquefiable soil; the magnitude and distance of the earthquake from the site; the slope of the ground surface; and, boundary conditions, such as a free face; to estimate the horizontal ground movement. The potentially liquefiable layers are isolated and discontinuous, and have corrected blow counts $[(N_1)_{60-CS}]$ greater than 15. Therefore, we judge the potential for lateral spreading at the site is low.

6.3 Cyclic Densification

Cyclic densification (also referred to as seismic densification and differential compaction) can occur during strong ground shaking in loose, clean granular deposits above the water table, resulting in ground surface settlement.

Up to 10 feet of undocumented fill is present at the site. The fill consists of loose to medium dense sand with variable silt and clay content. Using the Pradel (1998) method for evaluating seismically induced settlement in dry sand, we estimate that up to 1 inch of cyclic densification could occur within the fill during a major earthquake; however, because of the heterogeneity of the fill, the settlement could be erratic. The settlement could affect near-surface improvements that are supported within the fill in its current condition.

6.4 Fault Rupture

Historically, ground surface displacements closely follow the traces of geologically young faults. The site is not within an Earthquake Fault Zone, as defined by the Alquist-Priolo Earthquake Fault Zoning Act and no known active or potentially active faults exist on the site. In a seismically active area, the remote possibility exists for future faulting in areas where no faults previously existed; however, we conclude the risk of surface faulting and consequent secondary ground failure at the site is very low.

6.5 Tsunami Risk

Recent published maps (California Emergency Agency, 2009) indicate the site is not within the tsunami inundation zone; therefore, we conclude the risk of tsunami inundation for the site is low.

7.0 DISCUSSION AND CONCLUSIONS

Based on our review of the subsurface conditions at the site and the results of our engineering studies, we conclude that development of the site is feasible from a geotechnical standpoint. The site can be developed as proposed, provided the recommendations presented in this report are incorporated into the project plans and specifications and implemented during construction. The primary geotechnical concerns for this site are:

- the presence of existing BART station below the site
- foundation support for Building B
- total and differential consolidation settlement in the Alameda formation as a result of static loads from Building B
- design and construction of Building B and the paseo to meet the requirement that the development pose no adverse impact to BART structures during all phases of the project.

These and other geotechnical issues are discussed in this and the following sections.

7.1 BART Considerations

The presence of the BART station beneath Block 1 will have a significant impact on the selection of an appropriate foundation system for Building B and on the design of the paseo. Design and construction of the project should address the BART Facilities Standards Design Criteria, Structural, Design and Construction Near Existing BART Structures and Geo-Structures R3.2 December 2020. All criteria should be considered in the design and construction processes (see Appendix G for the comprehensive list of criteria); select criteria are summarized below:

- New structures near existing structures shall be designed and constructed so as not to impose any temporary or permanent adverse effects on existing BART structures. Potential impacts to the existing BART structures by new design and construction shall be identified at the planning stage of design.
- Analyses of the existing BART structures are required when there are changes to the existing BART structures, or temporary or permanent changes to loading upon the existing BART structures due to the new design and construction.

- The minimum clearance between any parts of the adjacent BART structures to exterior face of substructures (including temporary elements) shall be 7 feet 6 inches (7.5 feet). In addition, the substructures shall be located such that the loads from the foundations of the new structures shall not impact the BART structures.
- The temporary BART Zone of Influence (ZOI) is defined as the area above or below a line from the critical point of the substructure at a slope of 1½ horizontal to 1 vertical.
- The geotechnical engineer for the proposed structure shall determine the permanent effects or influence on the existing BART's structure based upon the soil and groundwater conditions in the vicinity of the proposed structures and the existing BART's structures. Particular attention shall be paid to liquefiable soil, expansive soil, and lateral spreading. The slope of the permanent ZOI shall not be steeper than the slope of the temporary ZOI as defined above.
- Shoring is required for excavations in the temporary and permanent ZOI.
- Seismic and wind loads shall be accounted for in the shoring design for temporary and permanent shoring (see Geo-Structures 7.3 A for details).
- Shoring shall maintain at-rest soil conditions and be monitored for movement.
- Soil redistribution caused by temporary shoring or existing foundation system shall be analyzed.
- Shoring support shall extend at least 10 feet below the base of the excavation or into a competent soil or rock layer, whichever is deeper, unless the geotechnical engineer shows that vertical and horizontal support requirements can be developed at less than 10 feet below the excavation depth. The minimum depth of shoring below the excavation depth shall be 2 feet.
- Where groundwater control is proposed, changes in groundwater elevation shall be evaluated together with the consequences to the structures located in proximity to the dewatering.
- Dewatering shall be monitored for changes in groundwater level; recharge program will be required if existing groundwater level is expected to drop more than two feet.

- Piles (if used) shall be predrilled to a minimum of 10 feet below the line of influence. If driven piles are used, piles shall be driven in a sequence away from BART structures.
- BART structures shall be monitored for vibration during pile driving operations for all driven piles within 100 feet of the BART structures (if used).
- No piles shall be allowed between steel-lined BART tunnels.
- When pile foundations are used, steel-lined tunnels shall be monitored for movement and deformation.
- A vibration monitoring plan shall be prepared to document the potential for induced vibration and noise from construction equipment and procedures, with respect to their effect on adjacent structures, BART facilities and operations.
- Where basements are excavated, the average vertical loading can be increased to the extent that it is balanced by the weight of the removed material. The effects of soil rebound in such cases shall be fully analyzed for each construction stage.
- Minimum soil cover of 8 feet on underground structures shall be maintained wherever possible.

Our interpretations of the BART station location and the location where the temporary ZOI would intersect the exterior ground surface elevations are shown on Figure 2. These interpretations are based on as-built drawings provided by San Francisco BART District (1967), the existing surface topography provided by BKF Engineers (2022), and proposed development plans provided by Pyatok Architects (2022).

We conclude almost the entire Building B footprint and the paseo are within the BART ZOI. Therefore, the BART guidelines will have to be considered during the design and construction of the Building B and paseo development. BART engineers will review the final geotechnical report, the structural plans and calculations, and the temporary shoring plans and calculations (if any). Furthermore, BART may require that structure-soil-structure interaction analysis be performed using finite element or finite difference analysis methods to evaluate the effect of the development on BART facilities.

7.2 Foundations and Settlement

Factors influencing the selection of a safe, economical foundation system with adequate capacities for Building B are:

- the presence of the adjacent BART station and BART’s guidelines and requirements for development near their structures
- the presence of undocumented fill in the upper 5 to 10 feet
- the presence of deep, medium stiff to hard, moderately compressible clay to significant depth
- the weight and variation in weight of the proposed structure
- total and differential settlement of the building and nearby improvements.

Almost the entire footprint of Building B is within the BART zone of influence, as shown on Figure 2, and the building is planned to be at grade. Shallow foundations bearing within the BART ZOI would increase stresses on BART and will not be an acceptable foundation system. We conclude deep foundation systems consisting of piles or drilled shafts extending through and gaining capacity in the Merritt Sand and Alameda formation clay below the BART ZOI will be needed for Building B. Deep foundations are viable provided they are double cased within the ZOI to provide an air void to prevent vertical and lateral stresses from acting on BART and provided the estimated settlements beneath the BART facilities are acceptable. We anticipate double casing for Building B piles will range from about 3 to 45 feet long, depending on the location of the piles within the Building B footprint.

7.2.1 Pile Foundations

We considered several pile types for this project, including driven steel H-piles, cast-in-place drilled piers, and augered cast-in-place (ACIP) piles. Driven piles generate noise and vibrations, which would likely be unacceptable because of the site’s proximity to the BART structures. In addition, piles would need to extend through the dense Merritt Sand; predrilling would be needed. Drilled piers can be installed as deep as necessary with various diameters; they will require casing and/or drilling fluid to prevent caving, as the shaft will extend below the groundwater table. ACIP piles can be installed through the Merritt Sand and below groundwater to depths of about 115 feet below construction grade; some contractors can install longer ACIP piles. Additional advantages of ACIP piles are that ACIP piles generate low noise and vibration

during installation. Drilled piers and ACIP piles create spoils from drilling, which will need to be off-hauled. Based on discussions with the team, we understand ACIP piles are the preferred pile type.

Because their capacity depends heavily on the method of installation, ACIP piles should be designed and installed by a design-build specialty contractor familiar with these types of piles. ACIP piles are installed by drilling to the required depth with a continuous flight, hollow stem auger. When the auger reaches the required depth, cement grout or concrete is injected through the bottom port of the auger. Grout or concrete is injected continuously as the augers are slowly withdrawn. While the grout is still fluid, a steel reinforcing cage is inserted into the shaft. ACIP piles can range in diameter; 16-, 18- and 24-inch-diameter piles are typical in this region, and we understand 36-inch-diameter ACIP piles are feasible.

The portions of the ACIP piles within the BART zone of influence will need to be constructed with a permanent air void so that there is no vertical or lateral load transfer from the new building to the BART structures. Typically, the permanent void consists of an annular space between the side of the pile and an outer casing. The piles will need to be structurally designed to fully resist the lateral building loads; lateral resistance cannot be provided by soil against piles, pile caps, or grade beams within the BART zone of influence. A compressible material will need to be provided below the floor slab and around pile caps that is designed to prevent application of vertical and lateral pressures within the BART zone of influence.

A test program will be needed to confirm pile integrity and pile capacity. The test program will consist of axial load testing and integrity testing. Axial load testing will include top-down compression load tests; tension load tests are not required provided the piles for the compression tests are equipped with strain gauges so that skin friction mobilized below the double casing can be evaluated.

Integrity testing of ACIP piles can be performed by methods such as thermal integrity profiling (TIP) and crosshole sonic logging (CSL). TIP is performed by embedding thermal wires within the pile concrete that read the concrete temperature during curing. The temperature sensors are typically spaced every foot along the length of the wire. The wires are typically attached to a center bar or reinforcing cage. During curing of the concrete, the hydrating cement generates heat, increasing the temperature in the shaft. The temperature readings during curing can be correlated to evaluate pile shape and integrity, concrete quality, and location of reinforcing cage.

CSL testing is achieved by installation of at least four 2-inch-inside-diameter tubes. These tubes are usually attached to the reinforcing cage along the full length of the elements. After concrete has been poured, the tubes are filled with water. During testing, a transmitter emits an ultrasonic signal in one tube, and the signal is sensed sometime later by a receiver in another tube. Poor concrete or soil inclusions between the tubes will delay or disrupt the signal.

7.2.2 Settlement Evaluation

To evaluate the distribution of stresses in the ground resulting from construction of Building B and the anticipated settlement of the foundations, we performed soil consolidation settlement analysis using the software program Settle3 by Rocscience Inc., version 5.008, build date 24 November 2020. We modeled the soil stratigraphy, soil parameters, and groundwater based on the conditions encountered in the borings and CPTs. We evaluated preliminary pile spacing and lengths for 18- to 24-inch-diameter ACIP piles using column loads and a preliminary pile foundation plan provided by DCI Engineers. Ultimately, the design-build pile subcontractor will need to perform further analysis to determine pile spacing, diameter, and length.

Based on our initial analysis, we preliminarily conclude that, using the column loads and a preliminary pile layout provided by DCI, piles with 3- to 42.5-foot-long double casing and average lengths of 115 feet will settle about 1 to 2½ inches, including elastic compression and long-term consolidation settlement. Differential settlement beneath the building is anticipated to be about 1 inch in a horizontal distance of 30 feet. Considering the stress distribution below BART, we estimate settlement of less than 1 inch, with less than ½ inch differential settlement over a horizontal distance of 30 feet. The effect of this settlement on the BART structures will need to be evaluated by a structural engineer. If the settlement causes an adverse impact on BART, the piles may need to be lengthened to reduce settlement. Final estimates of foundation settlement will need to be determined after final design of the foundation system.

7.3 Paseo Improvements

We understand paseo improvements will consist of new flatwork, planters, and other surface improvements to be constructed within the easement over the BART station. The project also includes replacement of the existing waterproofing membrane on top of the station. To maintain the existing loading condition over the BART station, any new loads from paseo improvements will be offset using lightweight fill materials, such as geofoam, to replace existing overburden soil.

Construction of the Paseo improvements and replacement of the existing waterproofing membrane will require temporary excavation and removal of overburden soil. The BART Facilities Standards Design Criteria (Structural and Geo-Structural) require that the effects of hydrostatic uplift pressure be accounted for whenever groundwater is present.

As discussed in Section 4.1, as-built BART drawings indicate that the overburden soil and pavement is one to three feet thick. Prior to soil excavation and removal, groundwater levels within the on-site piezometers will need to be measured, and a buoyancy evaluation will need to be performed by DCI Engineers, with input from Langan, to check that the weight of the station structure is sufficient to resist uplift forces associated with groundwater after removal of soil overburden. Per the BART Facilities Standards Design Criteria (Structural and Geo-Structural), for the short term (temporary) construction condition, a minimum factor of safety of 1.05 against uplift shall be maintained for the entire length of the structure, and soil shear strength and friction should not be considered in the buoyancy evaluation. Depending on the results of the buoyancy evaluation, if acceptable to BART, the groundwater level may need to be temporarily lowered by dewatering to maintain an acceptable factor of safety against uplift or soil removal may need to be sequenced such that only a portion of the station is exposed at one time.

7.4 Groundwater

Based on the data obtained during our field investigation and from piezometers at the site, we judge groundwater is present about 16½ to 19½ feet bgs, between approximate Elevations 5.1 and 5.7 feet. The groundwater level measured at 6½ feet bgs (Elevation 17.1 feet) during drilling of boring B-4 does not appear to be a stabilized reading because it is not consistent with the CPT or piezometer data. The historic high groundwater level at the site is between 10 and 20 feet bgs. We conclude a design high groundwater level of about 10 feet bgs, about Elevation 12 feet, should be used for design of the project.

The design groundwater level does not account for the effect, if any, of sea level rise. According to a City of Oakland report titled “Oakland Preliminary Sea Level Rise Road Map, Fall 2017,” the site is outside of low-lying areas mapped as being susceptible to sea level rise, defined as the Mean Higher High Water (MHHW) level plus 72 inches.

7.5 Excavation, Temporary Cut Slopes, and Dewatering

We anticipate that temporary excavations will be needed in localized areas to construct pile caps, the elevator pit, the cistern, and underground utilities. The soil to be excavated consists

predominantly of sand, which can be excavated using conventional earth-moving equipment such as loaders and backhoes; however, sand can be susceptible to caving. Excavations deeper than five feet that will be entered by workers will need to be shored or sloped for safety in accordance with the Occupational Safety and Health Administration (OSHA) standards (29 CFR Part 1926). Because the excavations will be localized, we anticipate cut slopes will be feasible. Recommendations for temporary cut slopes and shoring are provided in Section 8.3.

We anticipate that groundwater will not be encountered within the excavations. However, if localized water is present during excavation, dewatering will be needed. Where excavations encounter groundwater, wet, disturbed subgrade soil will likely require stabilization prior to placement of improvements. Groundwater encountered in excavations will need to be pumped out prior to constructing improvements.

7.6 Construction Considerations

Existing site improvements, including existing foundation, pavements, and structural elements, will need to be demolished and completely removed prior to construction. During demolition and site preparation, debris and concrete rubble encountered in the fill will need to be removed. Ho-rams, jackhammers and other similar equipment may be needed to remove larger obstacles, if encountered. Overexcavations made to remove foundations and structures will need to be properly backfilled with engineered fill.

Construction equipment used for the project will need to comply with BART's criteria regarding surcharging the existing station.

8.0 RECOMMENDATIONS

Our recommendations regarding site preparation and grading, foundation design, below-grade walls, floor slabs, seismic design, and other geotechnical aspects of this project are presented in the remaining sections of this report.

8.1 Earthwork

The site should be prepared and fill and backfill should be compacted in accordance with the recommendations presented in the following sections.

8.1.1 Site Preparation

Grading operations should commence after removal of existing pavement, utilities, landscaping, and other obstructions within the development area. Obstructions will need to be completely removed before piles can be installed. Following demolition, all areas to receive improvements should be stripped of vegetation and organic topsoil. The stripped organic soil can be stockpiled for later use in landscaped areas, if approved by the architect; organic topsoil should not be used as compacted fill.

We anticipate excavations for this project can be made using conventional earth-moving equipment except where obstructions (if any) are encountered within the fill. If concrete rubble is encountered within the fill, it may require hoe rams or jackhammers to remove.

Underground utilities should be removed to the service connections and properly capped or plugged with concrete. Where existing utility lines will not interfere with the planned construction, they may be abandoned in place, provided the lines are filled with lean concrete or cement grout to the limits of the project. Voids resulting from demolition activities should be properly backfilled with lean concrete or engineered fill, as described below.

8.1.2 Subgrade Preparation

The subgrade exposed at portions of the site that will receive site improvements should be scarified to a depth of at least twelve inches, moisture-conditioned to near optimum moisture content, and compacted to at least 90 percent relative compaction.⁸ If the soil subgrade is disturbed during installation of utilities or pile caps, the subgrade should be re-rolled prior to construction of the overlying improvements.

Subgrade preparation and placement of fill within the public right-of-way should conform to City of Oakland requirements. The upper six inches of soil subgrade in pavement areas should be compacted to at least 95 percent relative compaction.

8.1.3 Fill Placement

Fill placed as backfill behind below-grade walls and in utility trenches should consist of onsite native soil or imported soil that is non-corrosive, free of organic matter or other deleterious material, contains no rocks or lumps larger than four inches in greatest dimension, has a liquid limit of less than 25 and a plasticity index lower than 12, and is approved by the Geotechnical

⁸ Relative compaction refers to the in-place dry density of soil expressed as a percentage of the maximum dry density of the same material, as determined by the ASTM D1557 laboratory compaction procedure.

Engineer. On-site native soil may be suitable for reuse as backfill provided it is non-corrosive and meets the requirements given herein. Appropriate analytical testing should be performed to determine its suitability for re-use.

Fill should be placed in horizontal lifts not exceeding eight inches in loose thickness, moisture-conditioned to near the optimum moisture content, and compacted to at least 90 percent relative compaction. Fill thicker than five feet or clean sand or gravel (soil with less than 10 percent fines by weight) used as fill should be compacted to at least 95 percent relative compaction. All aggregate base materials should also be compacted to at least 95 percent relative compaction. A flowable cement grout or lean concrete may be used to backfill areas not accessible to compaction equipment.

Langan should approve all sources of fill at least three days before use at the site. The grading contractor should provide analytical test results or other suitable environmental documentation indicating the imported fill is free of hazardous materials at least three days before use at the site. If this data is not available, up to two weeks should be allowed to perform analytical testing on the proposed import material. A bulk sample of approved fill should be provided to the geotechnical engineer at least three working days before use at the site in order to obtain a compaction curve.

8.2 Utilities

Excavations for utility trenches can likely be made with a backhoe. Utility trenches should be excavated a minimum of four inches below the bottom of pipes or conduits and have clearances of at least four inches on both sides. All trenches should conform to CAL-OSHA requirements. Backfill for utility trenches and other excavations is also considered fill, and it should be compacted according to the recommendations previously presented. Special care should be taken when backfilling utility trenches within the building footprint. Poor compaction may result in excessive settlements and damage to the building.

To provide uniform support, pipes or conduits should be bedded on a minimum of four inches of sand or fine gravel. After the pipes and conduits are tested, inspected (if required) and approved, they should be covered to a depth of at least six inches with sand or fine gravel, which should be mechanically tamped. Backfill should meet the fill and compaction requirements as presented in Section 8.1 above. Jetting of trench backfill should not be permitted. Special care should be taken when backfilling utility trenches in pavement areas. Poor compaction may cause excessive settlements resulting in damage to the pavement section.

Thrust blocks, if needed, should be designed using an allowable passive resistance in soil of 260 pounds per cubic foot (pcf), which includes a factor of safety of about 1.5. BART may not allow the use of thrust blocks within the BART station zone of influence.

8.3 Temporary and Permanent Slopes

We anticipate that the majority of the site grading for the project will consist of performing localized excavations for the proposed cistern, pile caps, the elevator pit, and utility trenches. Where space permits, excavations may be temporarily sloped. Unsupported temporary cut slopes in fill or native soils should be no steeper than 1.5:1 (horizontal to vertical). The contractor should be familiar with applicable local, state, and federal regulations for unshored excavations, including the current OSHA Excavation and Trench Safety Standards. The contractor should be solely responsible for the maintaining a safe working environment inside and around all excavations.

If lack of space precludes the use of temporary cut slopes, the soil and improvements surrounding the proposed excavation should be supported using temporary shoring. Temporary shoring within the BART zone of influence should be designed in accordance with the BART Facilities Standards Design Criteria, Structural, Design and Construction Near Existing BART Structures and Geo-Structures R3.2 December 2020 (Appendix G). Shoring should also be designed for surcharging due to vehicular traffic and construction equipment, as applicable. We can provide recommendations for design of temporary shoring if needed.

Permanent fill and cut slopes, if planned, should not be steeper than 2:1 (horizontal to vertical).

8.4 Foundations

To support building loads, reduce settlement to the desired performance, and prevent any surcharge on BART, we recommend Building B be supported on piles that are double cased to provide an air void through the ZOI. Based on preliminary discussions with the team, we understand 18- and/or 24-inch-diameter ACIP piles that are designed to support the building loads and control settlement are planned for Building B. Because Building B is almost entirely within the BART zone of influence, the upper portion of the piles should be double cased with a permanent void between the casings that extends below the zone of influence. The void between the interior and outer casings must be wide enough to accommodate the calculated story drift at the ground floor level. The double casing should extend sufficiently deep such that no vertical or lateral loads are applied to the BART structures. Because of the use of double casing and

compressible material, no lateral resistance will be provided by the soil within the zone of influence on the foundation system, including the piles, pile caps, and grade beams. In addition, the building floor should be designed as a structurally support slab to span between pile caps.

ACIP piles are installed by design-build or specialty contractors, and we cannot provide specific recommendations for their design. This pile type is designed and installed by several experienced contractors in the Bay Area. The design capacities, pile lengths, double casing lengths, and elastic deflection of ACIP piles should be determined by the design-build contractor; the piles should be designed by a professional engineer. The foundation contractor should provide the results of their analyses to confirm that the double casing is sufficiently long such that no vertical or lateral loads are applied to the BART structures and to show the predicted settlement. We should review the pile design and test program submittals prior to installation.

The ACIP piles should gain capacity in friction in the Merritt Sand and Alameda formation clay below the double-cased section. Pile lengths should be selected to support the vertical and lateral building loads and to control long-term total and differential static consolidation settlement of the Alameda formation clay, as specified by the design team. For preliminary design, we recommend an ultimate friction capacity for dead plus live loads of 2,000 pounds per square foot (psf) be used. We note that pile lengths may need to be increased to reduce settlement to prevent an adverse effect on the BART structure.

Because the soil around the piles will not provide lateral resistance within the BART zone of influence, we are not providing lateral pile deflection or bending moment profiles. For lateral evaluation of the piles, we recommend the soil parameters in Table 3 be used below the double cased section of the pile.

TABLE 3
Recommended LPILE Parameters
Below Double-Cased Portion of Pile

Depth (feet bgs) ¹		Soil Type	Soil Model	Angle of Friction (deg.)	Cohesion (psf)	Effective Unit Weight (pcf)	Strain at 50% Max Stress (in/in) or Soil Modulus, k (pci)
Top of Layer	Bottom of Layer						
0	10	Fill	Sand (Reese, et al.)	31	0	130	default
10	19	Native Sand	Sand (Reese, et al.)	34	0	67.6 ²	default
19	36	Native Clay	Stiff Clay without Free Water	0	2,000 – 2,800	62.6	default
36	42	Native Sand	Sand (Reese, et al.)	34	0	62.6	default
42	75	Native Clay	Stiff Clay without Free Water	0	2,800 – 4,750	55.6	default
75	141	Native Clay	Stiff Clay without Free Water	0	3,000 – 4,310	55.6	default
141	149	Native Clay	Stiff Clay without Free Water	0	4,310	55.6	default

Note:

1. The soil parameters in Table 3 may be used below the double-cased portion of the pile. Design groundwater level is 10 feet bgs.

We collaborated with the project structural engineer to preliminarily evaluate the performance of the pile system under static loading conditions. On a preliminary basis (for initial estimating only – not for final design), we conclude piles will be an average of 115 feet long to achieve the settlements estimated in Section 7.2. The design-build pile subcontractor should perform analyses to design the piles and provide elastic settlement estimates for the piles. The piles should be designed by a professional engineer. We should update our long-term settlement estimates after the pile design is finalized.

Piles should be spaced at least three pile diameters center-to-center to prevent vertical capacity reductions due to pile group interaction effects; the outer auger-tip diameter should be used

when determining the pile spacing for the piles. Piles within six diameters, center to center, should not be installed within the same 12-hour period to help prevent communication between piles. The piles should be designed to accommodate the corrosive conditions presented in Appendix E.

We recommend that indicator and test piles be installed to: 1) evaluate installation methodology; 2) confirm production pile lengths; and 3) confirm the design capacities of the piles. Static compression load testing should be performed on at least two piles to evaluate load versus deflection. Tension load testing is not required. At least one test pile should be equipped with double casing. The test pile locations should be selected by the geotechnical engineer and approved by the structural engineer. Test piles can be used as production piles, provided they are not damaged during load testing. If an uncased test pile is planned, it should not be installed in a production pile location.

The reaction piles should be installed before the test piles, as indicator piles, so that the installation parameters can be evaluated. Indicator piles should be installed with the same equipment and using the same procedure that will be used for test piles and production piles, including but not limited to predrilling depth and predrill auger diameter.

The static compression load tests should be performed in accordance with the current version of ASTM D1143. Equipment used for the static test (load frame, jacks, and reaction piles) should be capable of applying at least 200 percent of the allowable dead plus live design load or 150 percent of the allowable total loads (including wind and/or seismic), whichever is greater. The static load tests should be interpreted using accepted criteria per the 2022 CBC to determine the ultimate capacities of the piles. Redundant pairs of strain gauges should be installed in the test piles spaced at about 20-foot intervals.

We recommend integrity testing be performed on all of the test and reaction piles, and on at least 5 percent of the production piles. Acceptable integrity testing techniques include TIP and CSL, as discussed in Section 7.2.1. TIP should be performed in accordance with ASTM D7949, *Standard Test Methods for Thermal Integrity Profiling of Concrete Deep Foundations*. CSL integrity testing should be performed in accordance with ASTM D6760, *Standard Test Method for Integrity Testing of Concrete Deep Foundations by Ultrasonic Crosshole Testing*.

As the geotechnical engineer of record, we should observe the installation and testing of the piles to check that the site conditions are as anticipated and the pile installation and testing are

performed in accordance with the project documents. Automated monitoring should be performed during installation of all piles; the contractor should provide a tablet or alternative option for Langan personnel to safely observe the installation parameters in real time. An automated monitoring report for each pile should be sent to Langan for review within 24 hours of pile installation. Following the receipt of pile load test results, we will require about one to two weeks to review and evaluate the load test results and to propose recommendations for production pile installation.

A pile design submittal, load test work plan, and installation work plan should be provided to us for review and approval at least five working days prior to the indicator pile and pile load test programs. The submittal and work plans should include calculations and shop drawings and should describe the proposed pile installation equipment and methodology, including, but not limited to, the pile installation equipment, monitoring equipment, pile diameter, proposed embedment layer and embedment depth, pile length, pile capacity, and proposed pile load test set-up and procedure, and a sample automated monitoring report. The automated monitoring report should include drilling depth, drilling/advancement rate, retraction rate, torque, rotations per minute (rpm), crowd or down pressure, pumping rate, grout pressure, total grout volume, and grout factor. The work plan should include a calculation justifying the number of strokes that the contractor plans to pump at the bottom of each pile to develop at least five feet of pressure head above the auger tip. The work plan should also include a site plan showing the locations of indicator, test, and reaction piles relative to permanent foundation elements and a drawing showing the layout of the load test set up. The structural engineer should review mill certificates for the steel and any welding procedures.

The contractor should be prepared to confirm the pile depth using an alternative method in addition to the automated system. A functional pressure gauge should be installed to monitor grout pressure head. A minimum pressure head of five feet should be developed at the beginning of grouting by pumping extra strokes at the pile tip and maintained at all times during grouting of the pile. If at any point this minimum pressure head is lost or if the grouting of the pile is stopped, the contractor should stop retracting the auger or mandrel, readvance the auger or mandrel five feet below the top of grout, and resume grouting. Grout return should occur at the ground surface when the auger is no less than five feet below grade. If any communication, bleeding, bubbling, or drop or rise in grout level is observed during or after installation of a pile, the pile should be redrilled or replaced.

The grout pump should be calibrated prior to the start of the project, immediately after any pump maintenance is performed, at any indication that the pump is operating differently from the last calibration, and regularly throughout production pile installation; at a minimum, the grout pump should be calibrated weekly. The grout factor (i.e., ratio of used volume of grout/concrete to theoretical volume for the specified pile size) $\pm 7.5\%$ that is calculated on the test pile(s) should be used for the installation of the production piles. However, it should not be less than 1.05. The grout factor should be achieved for the total pile length, as well as for every 5-foot segment. During center bar placement, the bar should be placed without difficulty or resistance. If excessive effort is required to install the center bar, the bar should be removed and the pile should be redrilled and regouted.

8.5 Below-Grade Wall Design

Below-grade walls, including elevator pit walls, should be designed to resist lateral pressures imposed by the adjacent soil and any surcharge loads. Because the site is in a seismically active area, walls greater than six feet tall should be checked for the seismic condition. The increment during seismic loading should be added to active earth pressures. We used the procedures outlined in (Sitar et al. 2012) to compute the seismic active pressure increment. Table 4 presents the active, at-rest, and total pressure (active plus seismic pressure increment) for walls with level backfill. The more critical condition of either at-rest pressure for static conditions or active pressure plus a seismic pressure increment for seismic conditions should be checked. Total pressures as equivalent fluid weights (triangular distribution) are presented for a peak ground acceleration of 0.54g corresponding to the Design Earthquake (DE) level of shaking.

TABLE 4
Equivalent Fluid Weights for Below-Grade Wall Design

Drainage Condition	Static Conditions		Seismic Conditions*
	Active Equivalent Fluid Weight (pcf)	At-rest Equivalent Fluid Weight (pcf)	Total Equivalent Fluid Weight for DE (Active plus Seismic Increment)
			(PGA=0.54g) (pcf)
Drained and Above Design Groundwater**	40	61	40 + 34 = 74
Undrained and/or Below Design Groundwater	82	93	82 + 17 = 99

* The more critical condition of either at-rest pressure for static conditions or active pressure plus a seismic pressure increment for seismic conditions should be checked.

** Design groundwater level is at Elevation 12 feet, per Section 7.4.

Where vehicular traffic will pass within 10 feet of below-grade walls, temporary traffic loads should be considered in the design of the walls. Traffic loads may be modeled by a uniform pressure of 100 psf applied in the upper 10 feet of the walls.

If the walls will be designed for drained conditions, they should be properly backdrained to prevent the buildup of hydrostatic pressure. One acceptable method for backdraining the walls is to place a prefabricated drainage panel against the backside of the walls. Groundwater from the drainage panel can be allowed to flow into the soil; a collector pipe is not necessary. We should check the manufacturer’s specifications for the proposed drainage panel materials to verify they are appropriate for their intended use.

To protect against moisture migration, below-grade walls should be waterproofed, and water stops placed at all construction joints. The waterproofing should be placed directly against the backside of the walls unless the manufacturer of the waterproofing directs otherwise.

8.6 Floor Slab

The floor should consist of a structurally supported slab designed to span between pile caps and grade beams. The floor slab and pile caps should be underlain by a compressible foam to reduce the potential for load transfer within the BART zone of influence.

Moisture is likely to condense on the underside of the at-grade floor slabs, even though they will be above the design groundwater level. Consequently, a moisture barrier should be considered if movement of water vapor through the slabs would be detrimental to their intended use. A typical moisture barrier consists of a capillary moisture break and a water vapor retarder.

The capillary moisture break should consist of at least four inches of clean, free-draining gravel or crushed rock. The vapor retarder should meet the requirements for Class C vapor retarders stated in ASTM E1745. The vapor retarder should be placed in accordance with the requirements of ASTM E1643. These requirements include overlapping seams by six inches, taping seams, and sealing penetrations in the vapor retarder. The particle size of the gravel/crushed rock should meet the gradation requirements presented in Table 5.

TABLE 5
Gradation Requirements for Capillary Moisture Break

Sieve Size	Percentage Passing Sieve
<i>Gravel or Crushed Rock</i>	
1 inch	90 – 100
3/4 inch	30 – 100
1/2 inch	5 – 25
3/8 inch	0 – 6

Concrete mixes with high water/cement (w/c) ratios result in excess water in the concrete, which increases the cure time and results in excessive vapor transmission through the slab. Therefore, concrete for the floor slab should have a low w/c ratio - less than 0.45. The slab should be properly cured. Before the floor covering is placed, the contractor should check that the concrete surface and the moisture emission levels (if emission testing is required) meet the manufacturer's requirements.

8.7 Pavement Design

8.7.1 Asphalt Pavement

The State of California flexible pavement design method was used to develop the recommended asphalt concrete pavement sections. We expect the near-surface soil will generally consist of sandy fill, as discussed in Section 4.2. Resistance value (R-value) testing was not part of our

original scope of services; however, based on the results of R-value tests on similar soil from previous projects, we anticipate that the fill likely has an R-value ranging from about 30 to 50. We selected an R-value of 30 for our design. During construction, we should sample the on-site soil to confirm its R-value and update the pavement section recommendations, if needed.

The project civil engineer, BKF Engineers, informed us that the proposed pavement sections should be designed for traffic indices (TIs) of 5.0, 6.0, and 7.0, which correspond to residential, commercial, and minor arterial street classifications, respectively. Table 6 presents our preliminary recommendations for asphalt pavement sections assuming a subgrade R-value of 30 and TIs varying from 5.0 to 7.0.

TABLE 6
Recommended Asphalt Pavement Sections
for Subgrade R-value of 30

TI	Asphalt Concrete (inches)	Class 2 Aggregate Base R = 78 (inches)
5.0	3.0	6.0
6.0	3.5	7.5
7.0	4.0	9.5

Pavement components (e.g. asphalt concrete and aggregate base) should conform to the current Caltrans Standard Specifications. The aggregate base should be moisture conditioned, placed in horizontal lifts not exceeding eight inches in loose thickness, and compacted to a relative compaction of at least 95 percent. The finished compacted aggregate base should be firm and unyielding and be proof rolled prior to placement of the new AC. If unstable areas are identified during proof rolling, or if the contractor is unable to achieve the recommended degree of compaction, the aggregate base in these areas may need to be removed in order to repair the underlying sub-base or soil subgrade.

The upper six inches of the soil subgrade in pavement areas should be moisture-conditioned to above optimum moisture content and compacted to at least 95 percent relative compaction.

8.7.2 Concrete Pavement

Concrete pavement design is based on a maximum single-axle load of 18,000 pounds and a maximum tandem axle of 32,000 pounds (corresponds to a garbage truck). The recommended rigid pavement section for these axle loads is seven inches of Portland cement concrete over six inches of Caltrans Class 2 aggregate base. If only passenger cars or light trucks will use the pavement, such as in parking areas, the recommended minimum pavement section is five inches of Portland cement concrete over six inches of Class 2 aggregate base. Class 2 aggregate base should conform to the current State of California Department of Transportation (Caltrans) Standard Specifications.

The modulus of rupture of the concrete should be at least 500 psi at 28 days. Contraction joints should be constructed at 15-foot spacing. Where the outer edge of a concrete pavement meets asphalt pavement, the concrete slab should be thickened by 50 percent at a taper not to exceed a slope of 1 in 10. Recommendations for subgrade preparation and aggregate base compaction for concrete pavement are the same as those described for asphalt pavement.

8.7.3 Interlocking Pavement

We understand that impervious, interlocking pavers are being considered for use in some areas for parking and pedestrian access. As noted in Section 8.7.1, R-value testing has not been performed on the on-site fill, and we have assumed an R-value of 30 for design. During construction, we should test the fill on site to confirm its R-value.

Pedestrian paver sections should consist of 60- to 80-millimeter pavers set on one to two inches of bedding sand over at least four inches of aggregate base. Vehicular paver sections should consist of 80-millimeter (3.15 inch) pavers. We recommend using vehicular pavers that consist of interlocking shapes that fully lock on all sides and have an aspect ratio of 3:1 or less. The vehicular pavers should be placed on a 2-inch-thick sand leveling course (i.e. bedding sand) underlain by Class 2 aggregate base. Our preliminary recommendations for vehicular interlocking paver sections are presented in Table 7.

TABLE 7
Preliminary Recommended Vehicular Interlocking Paver Sections
for Subgrade R-value of 30

Design TI	Interlocking Paver (inches)	Bedding Sand (inches)	Class 2 Aggregate Base (R=78) (inches)
5.0	3.15	2.0	6.0
6.0	3.15	2.0	8.5
7.0	3.15	2.0	11.5

The subgrade and aggregate base beneath the pedestrian and vehicular pavers should be compacted in accordance with the recommendations previously provided for asphalt concrete pavements. The bedding sand should be moisture-conditioned and mechanically tamped.

Concrete pavers should conform to the product requirements of ASTM C936, Standard Specification for Solid Concrete Interlocking Paving Units (ASTM 2008b). Installation of the unit pavers, including use of a vibratory plate to seat the pavers, should be performed in accordance with the manufacturer’s recommendations. Vehicular pavements should be designed with edge restraints at the perimeter (typically concrete curbs).

8.8 Concrete Flatwork

Exterior concrete flatwork should be supported on compacted subgrade and at least four inches of Class 2 aggregate base. The subgrade and aggregate base should be compacted to at least 95 percent relative compaction and provide a smooth, non-yielding surface for support of the concrete flatwork. Recommendations for subgrade preparation beneath concrete flatwork and fill placement are provided in Sections 8.1.2 and 8.1.3, respectively.

Within the City of Oakland right of way, sidewalks and streets should conform to City standards.

8.9 Drainage

Drainage control design should be in accordance with the BART Facilities Standards Design Criteria for drainage (BART 2022). In addition, drainage control design should include provisions for positive surface gradients so that surface runoff is not permitted to pond, particularly above

slopes or adjacent to building foundations, roadways, pavements, or slabs. Surface runoff should be directed away from slopes and foundations, collected, and directed to a storm drain or paved roadway. Discharge from the roof gutter and downspout systems should be included in the collection system and not allowed to infiltrate the subsurface near the structure. To reduce the potential for water ponding adjacent to the structure, we recommend the ground surface within a horizontal distance of five feet from the building slope down away from the building with a surface gradient of at least two percent in unpaved areas and one percent in paved areas.

8.10 Seismic Design

The site is generally underlain by dense to very dense sands and medium stiff to hard clays; our evaluation of measurements from the downhole geophysical logging in boring B-3 indicate the average shear wave velocity in the upper 30 meters (V_{s30}) at the site is about 960 feet per second. Therefore, for seismic design in accordance with the provisions of 2022 California Building Code (CBC), we judge the site is Site Class D. A site-specific ground motion analysis is required for structures on Site Class D sites with S_1 greater than or equal to 0.2, in accordance with the 2022 CBC and by reference ASCE 7-16, unless the criteria listed in the exceptions in Section 11.4.8 of ASCE 7-16 as modified by Supplement 3 of ASCE 7-16 are met. We understand from the project structural engineer, DCI Engineers, that these criteria will be met for the project. Therefore, for seismic design in accordance with the provisions of 2022 CBC/ASCE 7-16 and Supplement 3, we recommend the following:

- Risk-Targeted Maximum Considered Earthquake (MCE_R) ground motion parameter spectral response acceleration (5% critical damping) for 0.2 seconds (S_s) and 1 second (S_1) of 1.739g and 0.660g, respectively
- Site Class D
- Site Coefficients F_a and F_v of 1.0 and 1.7, respectively
- MCE_R and Design Earthquake (DE) spectral response acceleration parameters at short periods, S_{MS} and S_{DS} , of 1.739g and 1.159g, respectively
- MCE_R and DE spectral response acceleration parameters at one-second period, S_{M1} and S_{D1} , of 1.683g and 1.122g, respectively (these values have been increased by 50% in accordance with ASCE 7-16 Supplement 3).

8.11 Construction Monitoring

Prior to construction, survey points should be established and monitored to evaluate the effects of the construction on the adjacent BART structures. The locations of the survey points should

be selected with our input, as geotechnical engineer of record, so the surveying can provide the most value to the project. The survey points should be used to monitor the vertical and horizontal movements of the existing improvements and should be read at least weekly throughout the duration of construction. Results of survey monitoring should be submitted to us and the construction team after each weekly reading for review in a format that is easy to interpret. In addition, a site conditions survey should be performed prior to performing any work at the site.

8.12 Corrosion Potential

The design of elements in contact with the ground, such as buried metal utilities and concrete, should be designed to account for the corrosion potential of the soil, as presented in Appendix E. A corrosion expert should be consulted during the design phase for the most economical and effective corrosion protection, if necessary.

9.0 FUTURE GEOTECHNICAL SERVICES

During final design we should be retained to consult with the design team as geotechnical questions arise. Technical specifications and design drawings should incorporate Langan's recommendations. When authorized, Langan will assist the design team in preparing specification sections related to geotechnical issues such as earthwork, foundations, and excavation support. Langan should also, when authorized, review the project plans, as well as Contractor submittals relating to materials and construction procedures for geotechnical work, to check that the designs incorporate the intent of our recommendations.

Langan has investigated and interpreted the site subsurface conditions and developed the foundation design recommendations contained herein and is therefore best suited to perform quality assurance observation and testing of geotechnical-related work during construction. The work requiring quality assurance confirmation and/or special inspections per the Building Code includes, but is not limited to, earthwork, backfill, and installation of foundations. Our engineer should observe pile installation and testing. We should also observe fill placement and perform field density tests to check that adequate fill compaction has been achieved.

Recognizing that construction observation is the final stage of geotechnical design, quality assurance observation during construction by Langan is necessary to confirm the design assumptions and design elements, to maintain our continuity of responsibility on this project, and allow us to make changes to our recommendations, as necessary. The foundation system and general geotechnical construction methods recommended herein are predicated upon Langan

reviewing the final design and providing construction observation services for the owner. Should Langan not be retained for these services, we cannot assume the role of geotechnical engineer of record, and the entity providing the final design and construction observation services must serve as the engineer of record.

10.0 OWNER AND CONTRACTOR RESPONSIBILITIES

The Contractor is responsible for construction quality control, which includes satisfactorily constructing the foundation system and any associated temporary works to achieve the design intent while not adversely impacting or causing loss of support to neighboring properties, structures, utilities, roadways, etc. Construction activities that can alter the existing ground conditions such as excavation, fill placement, foundation construction, etc. can also induce stresses, vibrations, and movements in nearby structures and utilities, and disturb occupants. Contractors are solely responsible to ensure that their activities will not adversely affect the structures and utilities. Contractors must also take all necessary measures to protect the existing structures, utilities, etc. during construction.

11.0 LIMITATIONS

The conclusions and recommendations provided in this report result from our interpretation of the geotechnical conditions existing at the site inferred from a limited number of borings as well as architectural, structural, and civil information provided by the design team. Actual subsurface conditions could vary. Recommendations provided are dependent upon one another and no recommendation should be followed independent of the others. Any proposed changes in structures or their locations should be brought to Langan's attention as soon as possible so that we can determine whether such changes affect our recommendations. Information on subsurface strata and groundwater levels shown on the logs represent conditions encountered only at the locations indicated and at the time of investigation. If different conditions are encountered during construction, they should immediately be brought to Langan's attention for evaluation, as they may affect our recommendations.

This report has been prepared to assist the Owner, architects, structural engineer, and civil engineer in the design process and is only applicable to the design of the specific project identified. The information in this report cannot be utilized or depended on by engineers or contractors who are involved in evaluations or designs of facilities on adjacent properties which are beyond the limits of that which is the specific subject of this report.

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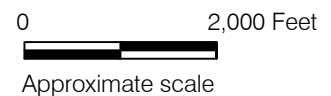
FIGURES




Legend

-  Block 1 Boundary
-  Block 2 Boundary

Notes:
 1. Topographic base map is provided through Langan's Esri Arc GIS software licensing and Arc GIS online, National Geographic Society, i-cubed.



 Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. 1814 Franklin Street Suite 505 Oakland, CA 94612 T: 510.874.7000 F: 510.874.7001 www.langan.com	Project LAKE MERRITT BART BLOCK 1 BUILDING B AND PASEO OAKLAND ALAMEDA COUNTY CALIFORNIA	Figure Title SITE LOCATION MAP	Project No. 750650005 Date 09/20/2023 Drawn By STAFF Checked By DW	Figure 1
---	--	---	---	--------------------



Legend

- B-3 + Approximate location of piezometer by Langan, January 2022
- B-2 ● Approximate location of borings by Langan, January 2022
- K-005-6 ● Approximate location of BART borings by others, July 1963
- CPT-3 ▲ Approximate location of cone penetration test by Langan, January 2022
- CPT-2 ▲ Approximate location of cone penetration test by Langan, November 2019
- ↔ Approximate location of idealized subsurface profile A-A'
- ▭ Block 1 site boundary
- ▭ Approximate limits of below-grade BART tunnel
- ▭ Approximate limits of below-grade BART station
- ▭ Approximate extents of BART Zone of Influence (ZOI) to the ground surface
- ▭ Approximate footprint of proposed Building B
- ▭ Approximate footprint of proposed Paseo

Notes:
 1. Aerial imagery provided by Langan's subscription to Nearmap.com. Aerial flown 09/16/2022.
 2. All features shown are approximate.
 3. Location of BART structures is based on our interpretation of available drawings and should be confirmed by others prior to design.

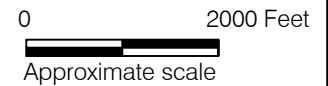
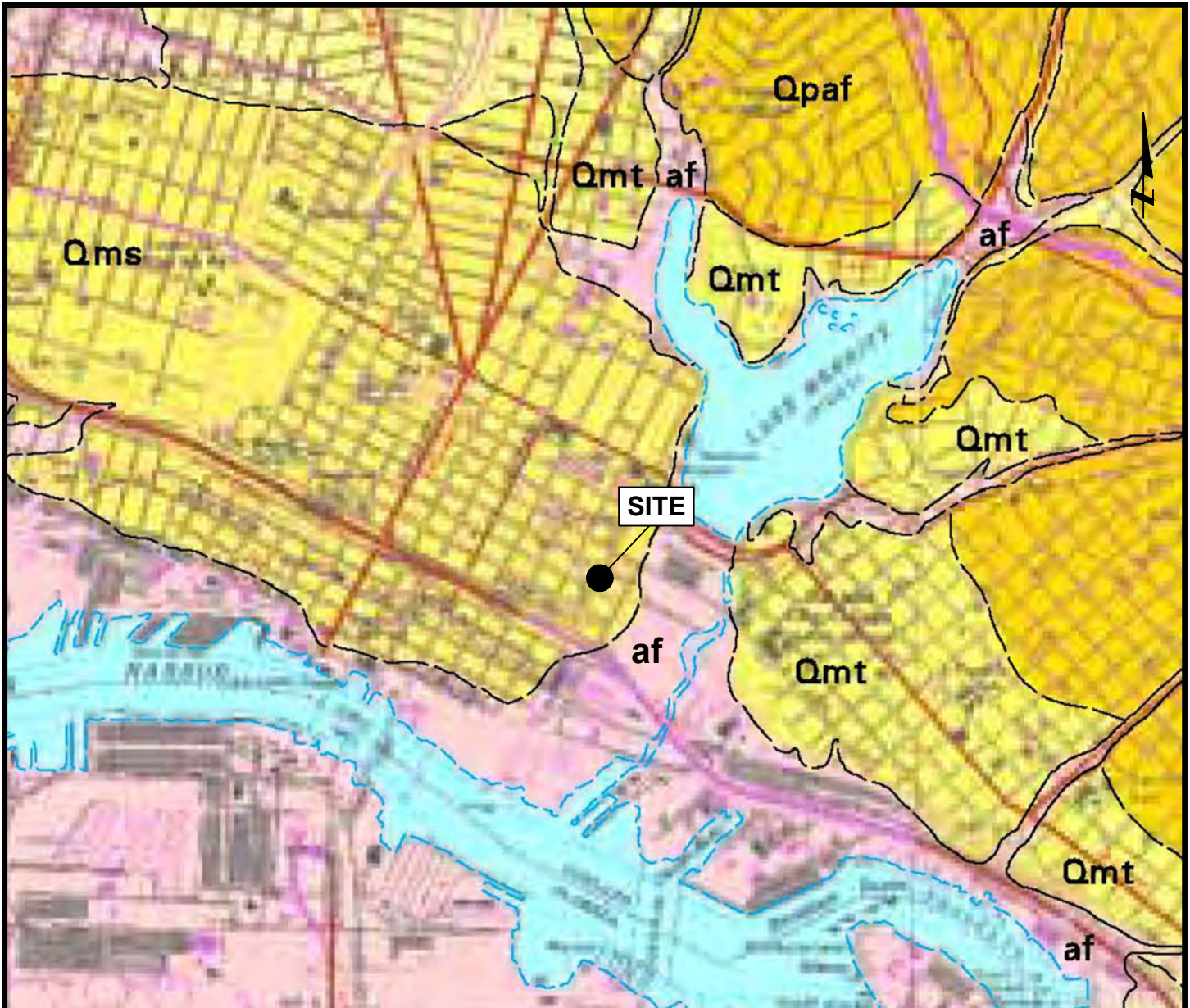


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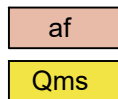
Project
**LAKE MERRITT BART
 BLOCK 1
 BUILDING B AND PASEO**
 OAKLAND
 ALAMEDA COUNTY CALIFORNIA

Drawing Title
SITE PLAN

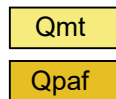
Project No.	750650005	2
Date	12/1/2023	
Scale	1" = 50'	
Drawn By	AC	



EXPLANATION



af Artificial fill (Historic)
Qms Merritt sand (Holocene and Pleistocene)

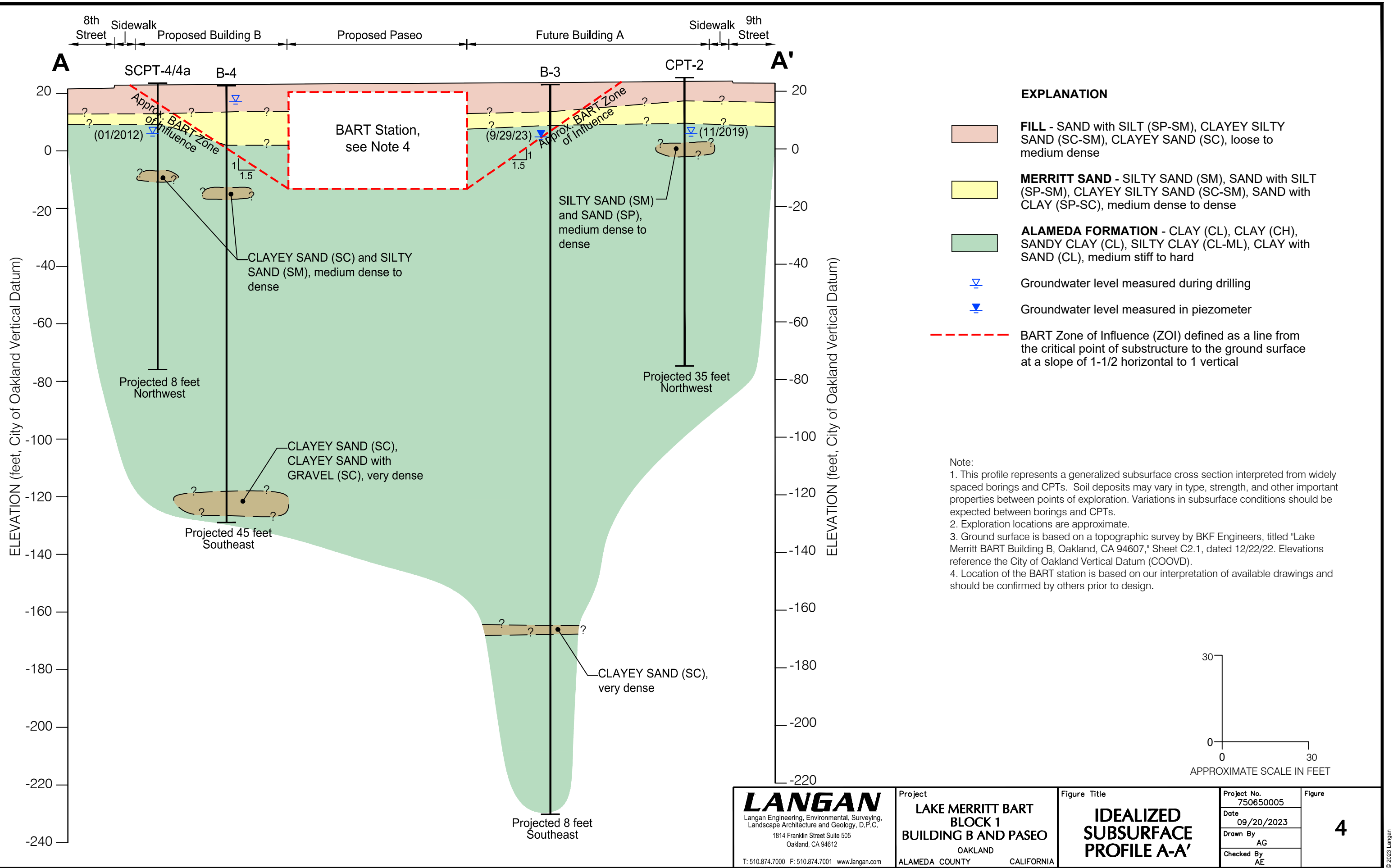


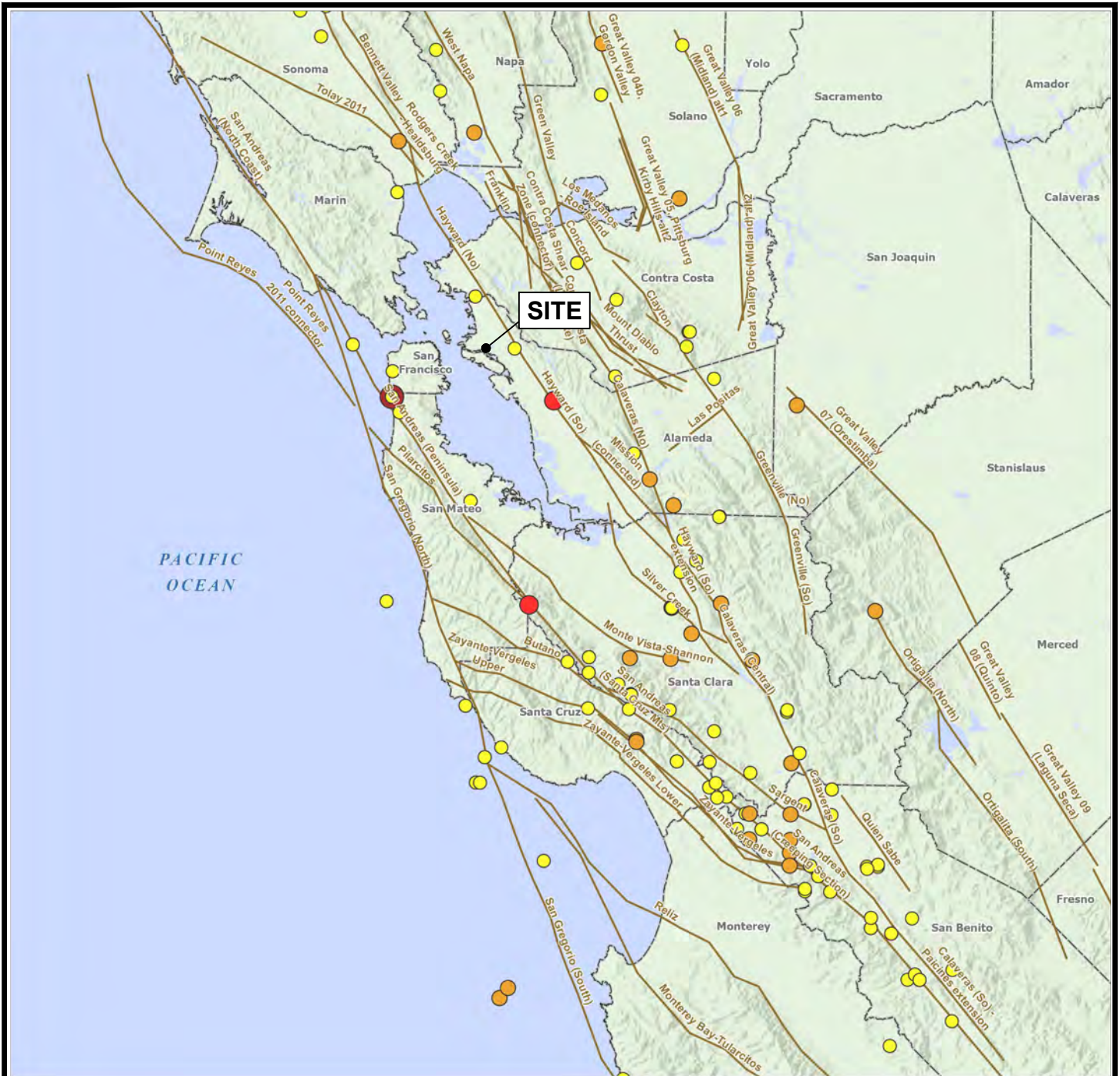
Qmt Marine terrace deposits (Pleistocene)
Qpaf Alluvial fan and fluvial deposits (Pleistocene)

Contact Depositional or intrusive contact, dashed where approximate located, dotted where concealed







Base map: Geology Map and Map Database of the Oakland and Metropolitan Areas, Alameda, Contra Costa, and San Francisco Counties, California, by R.W. Graymer 2000.


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	LAKE MERRITT BART BLOCK 1 BUILDING B AND PASEO	REGIONAL GEOLOGIC MAP	750650005	
	OAKLAND		Date	
	ALAMEDA COUNTY CALIFORNIA		09/20/2023	
			Drawn By	3
			STAFF	
			Checked By	
			DW	





LEGEND

-  County Boundary
-  Fault
- Earthquake Epicenter Magnitude**
-  Magnitude 5 to 5.9
-  Magnitude 6 to 6.9
-  Magnitude 7 to 7.4
-  Magnitude 7.5 to 8

0 20 Miles

 Approximate scale



Notes:

1. Quaternary fault data displayed are based on a generalized version of USGS Quaternary Fault and fold database, 2010. For cartographic purposes only.
2. The Earthquake Epicenter (Magnitude) data is provided by the U.S Geological Survey (USGS) and is current through 08/26/2014.
3. Basemap hillshade and County boundaries provided by USGS and California Department of Transportation.
4. Map displayed in California State Coordinate System, California (Teale) Albers, North American Datum of 1983 (NAD83), Meters.

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Project
**LAKE MERRITT BART
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 OAKLAND
 ALAMEDA COUNTY CALIFORNIA

Figure Title
**MAP OF MAJOR
 FAULTS AND EARTHQUAKE
 EPICENTERS IN THE
 SAN FRANCISCO BAY AREA**

Project No.
 750650005
 Date
 09/20/2023
 Drawn By
 STAFF
 Checked By
 DW

Figure

5

I Not felt by people, except under especially favorable circumstances. However, dizziness or nausea may be experienced.

Sometimes birds and animals are uneasy or disturbed. Trees, structures, liquids, bodies of water may sway gently, and doors may swing very slowly.

II Felt indoors by a few people, especially on upper floors of multi-story buildings, and by sensitive or nervous persons.

As in Grade I, birds and animals are disturbed, and trees, structures, liquids and bodies of water may sway. Hanging objects swing, especially if they are delicately suspended.

III Felt indoors by several people, usually as a rapid vibration that may not be recognized as an earthquake at first. Vibration is similar to that of a light, or lightly loaded trucks, or heavy trucks some distance away. Duration may be estimated in some cases.

Movements may be appreciable on upper levels of tall structures. Standing motor cars may rock slightly.

IV Felt indoors by many, outdoors by a few. Awakens a few individuals, particularly light sleepers, but frightens no one except those apprehensive from previous experience. Vibration like that due to passing of heavy, or heavily loaded trucks. Sensation like a heavy body striking building, or the falling of heavy objects inside.

Dishes, windows and doors rattle; glassware and crockery clink and clash. Walls and house frames creak, especially if intensity is in the upper range of this grade. Hanging objects often swing. Liquids in open vessels are disturbed slightly. Stationary automobiles rock noticeably.

V Felt indoors by practically everyone, outdoors by most people. Direction can often be estimated by those outdoors. Awakens many, or most sleepers. Frightens a few people, with slight excitement; some persons run outdoors.

Buildings tremble throughout. Dishes and glassware break to some extent. Windows crack in some cases, but not generally. Vases and small or unstable objects overturn in many instances, and a few fall. Hanging objects and doors swing generally or considerably. Pictures knock against walls, or swing out of place. Doors and shutters open or close abruptly. Pendulum clocks stop, or run fast or slow. Small objects move, and furnishings may shift to a slight extent. Small amounts of liquids spill from well-filled open containers. Trees and bushes shake slightly.

VI Felt by everyone, indoors and outdoors. Awakens all sleepers. Frightens many people; general excitement, and some persons run outdoors.

Persons move unsteadily. Trees and bushes shake slightly to moderately. Liquids are set in strong motion. Small bells in churches and schools ring. Poorly built buildings may be damaged. Plaster falls in small amounts. Other plaster cracks somewhat. Many dishes and glasses, and a few windows break. Knickknacks, books and pictures fall. Furniture overturns in many instances. Heavy furnishings move.

VII Frightens everyone. General alarm, and everyone runs outdoors.

People find it difficult to stand. Persons driving cars notice shaking. Trees and bushes shake moderately to strongly. Waves form on ponds, lakes and streams. Water is muddied. Gravel or sand stream banks cave in. Large church bells ring. Suspended objects quiver. Damage is negligible in buildings of good design and construction; slight to moderate in well-built ordinary buildings; considerable in poorly built or badly designed buildings, adobe houses, old walls (especially where laid up without mortar), spires, etc. Plaster and some stucco fall. Many windows and some furniture break. Loosened brickwork and tiles shake down. Weak chimneys break at the roofline. Cornices fall from towers and high buildings. Bricks and stones are dislodged. Heavy furniture overturns. Concrete irrigation ditches are considerably damaged.

VIII General fright, and alarm approaches panic.

Persons driving cars are disturbed. Trees shake strongly, and branches and trunks break off (especially palm trees). Sand and mud erupts in small amounts. Flow of springs and wells is temporarily and sometimes permanently changed. Dry wells renew flow. Temperatures of spring and well waters varies. Damage slight in brick structures built especially to withstand earthquakes; considerable in ordinary substantial buildings, with some partial collapse; heavy in some wooden houses, with some tumbling down. Panel walls break away in frame structures. Decayed pilings break off. Walls fall. Solid stone walls crack and break seriously. Wet grounds and steep slopes crack to some extent. Chimneys, columns, monuments and factory stacks and towers twist and fall. Very heavy furniture moves conspicuously or overturns.

IX Panic is general.

Ground cracks conspicuously. Damage is considerable in masonry structures built especially to withstand earthquakes; great in other masonry buildings - some collapse in large part. Some wood frame houses built especially to withstand earthquakes are thrown out of plumb, others are shifted wholly off foundations. Reservoirs are seriously damaged and underground pipes sometimes break.

X Panic is general.

Ground, especially when loose and wet, cracks up to widths of several inches; fissures up to a yard in width run parallel to canal and stream banks. Landsliding is considerable from river banks and steep coasts. Sand and mud shifts horizontally on beaches and flat land. Water level changes in wells. Water is thrown on banks of canals, lakes, rivers, etc. Dams, dikes, embankments are seriously damaged. Well-built wooden structures and bridges are severely damaged, and some collapse. Dangerous cracks develop in excellent brick walls. Most masonry and frame structures, and their foundations are destroyed. Railroad rails bend slightly. Pipe lines buried in earth tear apart or are crushed endwise. Open cracks and broad wavy folds open in cement pavements and asphalt road surfaces.

XI Panic is general.

Disturbances in ground are many and widespread, varying with the ground material. Broad fissures, earth slumps, and land slips develop in soft, wet ground. Water charged with sand and mud is ejected in large amounts. Sea waves of significant magnitude may develop. Damage is severe to wood frame structures, especially near shock centers, great to dams, dikes and embankments, even at long distances. Few if any masonry structures remain standing. Supporting piers or pillars of large, well-built bridges are wrecked. Wooden bridges that "give" are less affected. Railroad rails bend greatly and some thrust endwise. Pipe lines buried in earth are put completely out of service.

XII Panic is general.

Damage is total, and practically all works of construction are damaged greatly or destroyed. Disturbances in the ground are great and varied, and numerous shearing cracks develop. Landslides, rock falls, and slumps in river banks are numerous and extensive. Large rock masses are wrenched loose and torn off. Fault slips develop in firm rock, and horizontal and vertical offset displacements are notable. Water channels, both surface and underground, are disturbed and modified greatly. Lakes are dammed, new waterfalls are produced, rivers are deflected, etc. Surface waves are seen on ground surfaces. Lines of sight and level are distorted. Objects are thrown upward into the air.

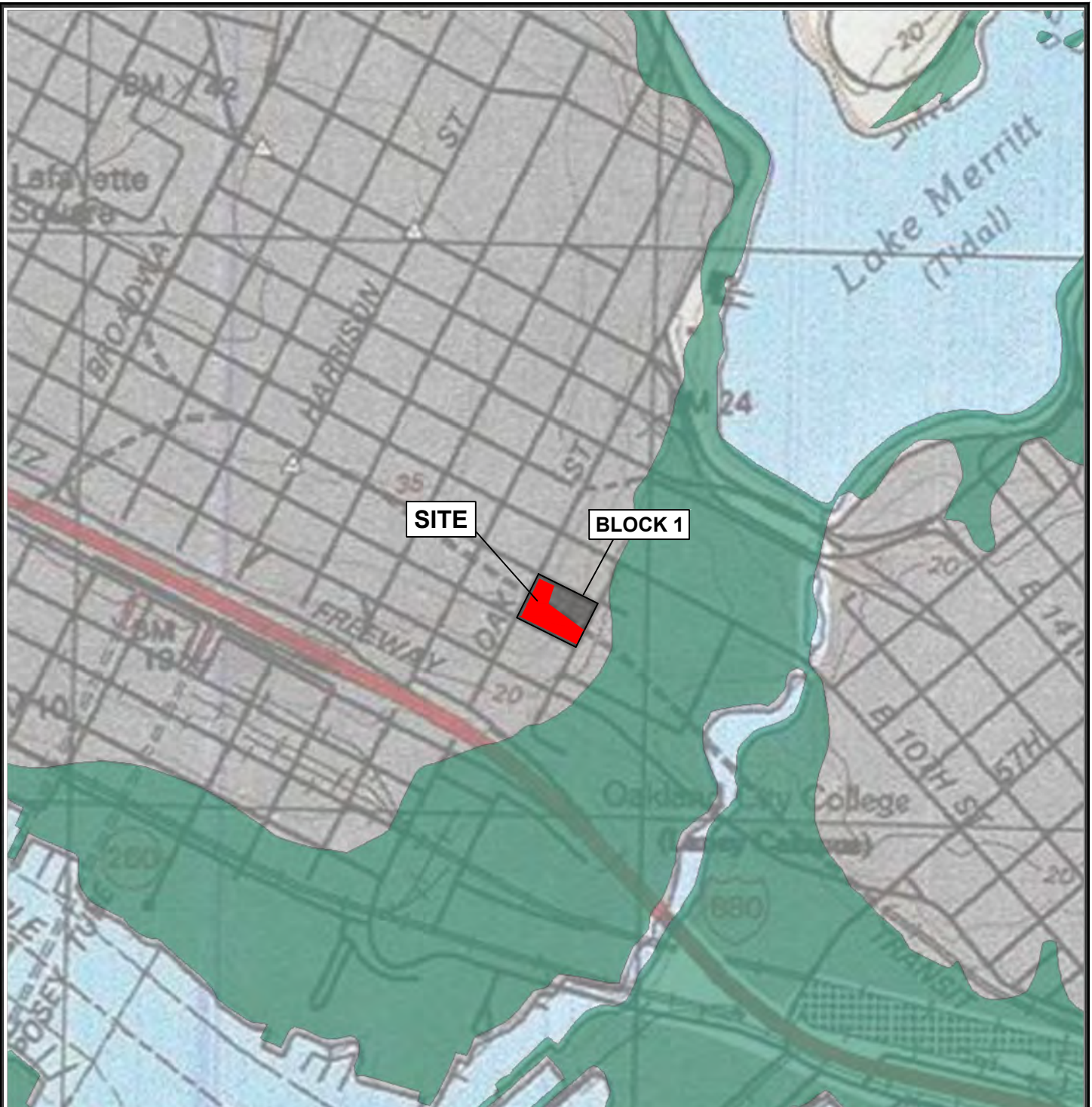
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Project
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 BLOCK 1
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Figure Title
**MODIFIED
 MERCALLI
 INTENSITY SCALE**

Project No.
750650005
 Date
09/20/2023
 Drawn By
STAFF
 Checked By
DW

Figure
6



EXPLANATION

 Zone of Liquefaction Hazard Potential



0 1,000 Feet

Approximate scale

Notes:

1. Topographic basemap is provided through Langan's Esri ArcGIS software licensing and ArcGIS online, National Geographic Society, I-cubed and the USGS.
2. Data provided by the CGS through the GIS Seismic Hazard Zone Map presenting areas where liquefaction and landslides may occur during a strong earthquake.

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Project
**LAKE MERRITT BART
BLOCK 1
BUILDING B AND PASEO**
OAKLAND
ALAMEDA COUNTY CALIFORNIA

Figure Title
**REGIONAL SEISMIC
HAZARD ZONES MAP**

Project No.
750650005
Date
09/20/2023
Drawn By
STAFF
Checked By
DW

Figure

7

APPENDIX A
LOGS OF BORINGS

Boring location: See Site Plan, Figure 2

Logged by: PSM
Drilled By: Pitcher Services, LLC

Date started: 1/10/22

Date finished: 1/11/22

Drilling method: Rotary Wash

Hammer weight/drop: 140 lbs./30 inches

Hammer type: Automatic

LABORATORY TEST DATA

Samplers: Sprague & Herwood (S&H), Standard Penetration Test (SPT), Pitcher Barrel (PB)

DEPTH (feet)	SAMPLES			SPT N-Value ¹	LITHOLOGY	MATERIAL DESCRIPTION	Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
	Sampler Type	Sample	Blows/6"									
Ground Surface Elevation: 24.7 feet ²												
1						3 inches Asphalt Concrete (AC)						
2						4 inches Aggregate Base (AB)						
3	BULK	☒				SAND with SILT (SP-SM) yellow-brown, medium dense, moist, fine- to medium-grained, trace clay [FILL]						
4	BULK	☒			SP-SM	brown						
5				9								
6	SPT	▒		9	23							
7				10								
8												
9						CLAYEY SILTY SAND (SC-SM) yellow-brown, medium dense, moist, fine- to medium-grained, trace sea shells [MERRITT SAND] LL = 20, PI = 4, see Appendix D-1				17.5	14.0	
10				7								
11	SPT	▒		7	19							
12				7								
13				9								
14				10								
15												
16	SPT	▒		9	28	yellow-brown with oxidation, fine-grained, LL = 19, PI = 4, see Appendix D-1				35.8	15.9	
17				13								
18				10								
19												
20												
21	S&H	▒		11	23	CLAY (CL) gray-brown to yellow-brown with yellow mottling, very stiff, wet, trace sand [ALAMEDA FORMATION]	PP		2,750			
22				14					2,500			
23				19		CLAY with SAND (CL) gray-brown to yellow-brown, very stiff, wet, fine- to medium-grained sand [ALAMEDA FORMATION]						
24												
25												
26						olive with olive-gray mottling Triaxial Test, see Appendix D-4 Consolidation Test, see Appendix D-11	TxUU	2,500	3,200		18.3	112
27	PB			85							37.7	94
28				to 200								
29				psi								
30												
31	S&H	▒		7	9	olive to yellow-brown with dark brown and orange mottling, stiff, wet, fine- to coarse-grained sand, trace gravel	PP		2,000			
32				6								
33				7		CLAY (CL) olive with yellow-brown and dark brown mottling, stiff, wet [ALAMEDA FORMATION]						
34												
35						CLAY (CH)						

TEST GEOTECH LOG 750650005 LAKE MERRITT BART BLOCK 1.GPJ TEMPLATE CA-MODIFIED.GDT 12/1/23



Project No.: 750650005

Figure: A-1a

DEPTH (feet)	SAMPLES				LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA					
	Sampler Type	Sample	Blows/6"	SPT N-Value ¹			Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
36	S&H		0	14	CH	CLAY (CH) (continued) gray, medium stiff to stiff, wet, trace fine-grained sand, trace silt [ALAMEDA FORMATION] LL = 86, PI = 58, see Appendix D-1			94.8	42.7		
37			5		SM							
38			8			SILTY SAND (SM) gray, medium dense, wet [ALAMEDA FORMATION]						
39			8			CLAYEY SAND (SC) gray to olive-gray, medium dense, wet, fine- to coarse-grained, trace fine gravel [ALAMEDA FORMATION] LL = 29, PI = 13, see Appendix D-1			27.8	15.1		
40	S&H		7	11	SC							
41			8									
42			8									
43												
44						CLAY with SAND (CL) gray to olive-gray with yellow-brown mottling, very stiff, wet, fine- to coarse-grained sand, trace fine gravel and shells [ALAMEDA FORMATION]						
45	S&H		12	24	CL		PP	3,750	21.6	112		
46			18				TV	2,750				
47			16									
48						CLAY (CL) olive to olive-gray, very stiff, wet, trace fine- to medium-grained sand [ALAMEDA FORMATION]						
49												
50	S&H		11	24			TV	2,750				
51			14									
52			20									
53												
54												
55	S&H		8	22		olive with yellow-brown mottling						
56			14				PP	3,750				
57			17				TV	3,000				
58												
59					CL							
60	S&H		7	21		gray with olive mottling, decreased sand content, trace shells						
61			12									
62			18									
63												
64												
65	S&H		12	38		gray with yellow-brown mottling, hard						
66			30									
67			24									
68												
69												
70												

TEST GEOTECH LOG 750650005_LAKE MERRITT BART BLOCK 1.GPJ TEMPLATE CA-MODIFIED.GDT 12/1/23

LANGAN

Project No.: 750650005

Figure: A-1b

TEST GEOTECH LOG 750650005_LAKE MERRITT BART BLOCK 1.GPJ TEMPLATE_CA-MODIFIED.GDT 12/1/23

DEPTH (feet)	SAMPLES				LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA						
	Sampler Type	Sample	Blows/6"	SPT N-Value ¹			Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft	
71	S&H		12 25 34	41	CL	CLAY (CL) (continued) gray with olive-gray mottling							
72													
73													
74													
75							olive-gray	TxUU	6,000	4,690	26.6	100	
76	PB		85 to 250 psi			Triaxial Test, see Appendix D-5 Consolidation Test, see Appendix D-12							
77												9.4	111
78													
79													
80													
81	S&H		16 21 21	29		gray with olive-gray mottling							
82													
83													
84													
85													
86	S&H		12 19 24	30		gray, very stiff to hard	TV	2,000					
87													
88													
89													
90													
91													
92													
93													
94													
95													
96	S&H		15 24 31	39		CLAY with SAND (CL) gray, hard, wet, fine- to coarse-grained sand, trace shells [ALAMEDA FORMATION]							
97													
98													
99													
100					CL								
101													
102													
103													
104													
105													

LANGAN

Project No.: 750650005

Figure: A-1c

DEPTH (feet)	SAMPLES				LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA							
	Sampler Type	Sample	Blows/6"	SPT N-Value ¹			Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft		
106	S&H		14 24 31	39	CL	CLAY (CL) gray, hard, trace shells and fine- to medium-grained sand [ALAMEDA FORMATION]	PP		4,500					
107														
108														
109														
110														
111														
112														
113														
114														
115			85 to 200 psi				Triaxial Test, see Appendix D-6 Consolidation Test, see Appendix D-13	TxUU	8,500	2,450		38.9	83	
116	PB											36.6	79	
117														
118														
119														
120														
121	S&H		14 21 29	35										
122														
123														
124														
125														
126														
127														
128														
129														
130														
131	S&H		12 21 25	32	CL	SANDY CLAY (CL) gray, hard, wet, trace fine- to medium-grained sand [ALAMEDA FORMATION]								
132														
133														
134														
135														
136	SPT		11 15 23	46	CL	SANDY CLAY (CL) gray, hard, wet, fine- to medium-grained sand [ALAMEDA FORMATION]								
137														
138														
139														
140														

TEST GEOTECH LOG 750650005_LAKE MERRITT BART BLOCK 1.GPJ TEMPLATE_CA-MODIFIED.GDT 12/1/23

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Project No.: 750650005

Figure: A-1d

DEPTH (feet)	SAMPLES			LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA					
	Sampler Type	Sample	Blows/6" SPT N-Value ¹			Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
141	SPT		21 25 37	74	SC SANDY CLAY (CL) (continued) CLAYEY SAND (SC) gray, very dense, wet, fine- to coarse-grained sand, trace fine subangular gravel [ALAMEDA FORMATION]						
142											
143					CL CLAY (CL) gray, hard, wet, trace shells and fine- to medium-grained sand [ALAMEDA FORMATION]						
144											
145	S&H		34 50/ 4.5"	35/ 4.5"							
146											
147											
148											
149											
150	SPT		13 21 25	55	gray to olive						
151											
152											
153											
154											
155											
156											
157											
158											
159											
160											
161											
162											
163											
164											
165											
166											
167											
168											
169											
170											
171											
172											
173											
174											
175											

TEST GEOTECH LOG 750650005_LAKE MERRITT BART BLOCK 1.GPJ TEMPLATE_CA-MODIFIED.GDT 12/1/23

Boring terminated at a depth of 151.5 feet below ground surface (bgs).
Boring backfilled with cement grout.
Groundwater level obscured by drilling method.
PP = Pocket penetrometer
TV = Torvane

¹ S&H and SPT blow counts for the last two increments were converted to SPT N-Values using factors of 0.7 and 1.2, respectively, to account for sampler type and hammer energy.
² Elevations based on the topographic survey by BKF Engineers, titled "Lake Merritt BART Building B, Oakland, CA 94607," Sheet C2.1, dated 12/22/22. Elevations reference the City of Oakland Vertical Datum (COVD).



Boring location: See Site Plan, Figure 2

Logged by: PSM
Drilled By: Pitcher Services, LLC

Date started: 1/3/22 Date finished: 1/6/22

Drilling method: Rotary Wash

Hammer weight/drop: 140 lbs./30 inches Hammer type: Automatic

Samplers: Sprague & Henwood (S&H), Standard Penetration Test (SPT), Pitcher Barrel (PB)

LABORATORY TEST DATA

PIEZOMETER COMPLETION INFORMATION

GEO TECH PIEZOMETER W BLOWS PER 6 INCHES 750650005 LAKE MERRITT BART BLOCK 1.GPJ TEMPLATE CA-MODIFIED.GDT 12/1/23

DEPTH (feet)	SAMPLES				LITHOLOGY	MATERIAL DESCRIPTION	Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft	PIEZOMETER COMPLETION INFORMATION
	Sampler Type	Sample	Blows/6"	SPT N-Value ¹									
Ground Surface Elevation: 23.9 feet ²													
1						3 inches Asphalt Concrete (AC)							
2	BULK	⊗			SC-SM	4.5 inches Aggregate Base (AB)							
3						CLAYEY SILTY SAND (SC-SM) yellow-brown, loose, moist, fine- to medium-grained, trace fine gravel [FILL]							
4	BULK	⊗			SC-SM	LL = 21, PI = 6, see Appendix D-1				29.5	12.9		
5													
6	SPT	▒	3	3			6						
7			2										
8					SP-SC	SAND with CLAY (SP-SC) yellow-brown with oxidation, dense, wet, fine- to medium-grained [MERRITT SAND]							
9													
10	SPT	▒	7	11			36						
11			19										
12					CL	SANDY CLAY (CL) gray-brown with yellow mottling, very stiff, wet, fine- to medium-grained sand [ALAMEDA FORMATION] LL = 26, PI = 12, see Appendix D-1 (9/29/23, 11:55 AM)							
13													
14													
15	SPT	▒	6	7	19								
16			9										
17					CL	gray-brown to yellow-brown with olive mottling, very stiff, increase in fines content							
18	S&H	▒	10	11			18						
19			15										
20					CL	olive with olive-gray and dark brown mottling, very stiff, wet, trace fine gravel							
21													
22													
23					CL	CLAY (CL) olive with yellow-brown and olive-gray mottling, medium stiff, wet [ALAMEDA FORMATION]							
24													
25	S&H	▒	5	10			17						
26			14										
27													
28													
29													
30	S&H	▒	5	10	14								
31			10										
32			10										
33													
34													
35													

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Figure: A-2a

GEOTECH/PIEZOMETER W/ BLOWS PER 6 INCHES 750650005 LAKE MERRITT BART BLOCK 1.GPJ TEMPLATE CA-MODIFIED.GDT 12/1/23

DEPTH (feet)	SAMPLES				LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA						PIEZOMETER COMPLETION INFORMATION	
	Sampler Type	Sample	Blows/6"	SPT N-Value ¹			Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft		
36	PB		100 to 175	psi		CLAY (CL) (continued) Triaxial Test, see Appendix D-7 Consolidation Test, see Appendix D-14	TxUU	3,500	2,630			20.0	110	
37												21.8	105	
38														
39														
40	S&H		6 to 14		17	gray with olive mottling, very stiff, with sandy clay layer, fine- to medium-grained sand	PP		2,000					
41														
42														
43														
44														
45	S&H		12 to 30		35	hard								
46														
47	S&H		9 to 22		27	yellow-brown with gray mottling, very stiff, trace medium- to coarse-grained sand						22.8	107	
48														
49														
50	SPT		9 to 19		40	hard	CL							
51														
52														
53														
54														
55	S&H		10 to 16		21	olive-gray with yellow-brown mottling, very stiff	TV		3,000					
56														
57														
58														
59														
60	S&H		6 to 20		26	gray with yellow-brown mottling	TV		2,500					
61														
62														
63														
64														
65	S&H		9 to 17		22	CLAY (CL) gray with olive-gray and yellow-brown mottling, very stiff, wet, trace fine- to coarse-grained sand [ALAMEDA FORMATION]	CL							
66														
67														
68														
69														
70														

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Figure: A-2b

GEO TECH PIEZOMETER W/ BLOWS PER 6 INCHES 750650005 LAKE MERRITT BART BLOCK 1.GPJ TEMPLATE CA-MODIFIED.GDT 12/1/23

DEPTH (feet)	SAMPLES				LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA						PIEZOMETER COMPLETION INFORMATION
	Sampler Type	Sample	Blows/ 6"	SPT N-Value ¹			Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft	
71	S&H		12 24 30	38	CL	CLAY (CL) (continued) olive-gray, hard, wet				27.7	100		
72													
73													
74													
75	S&H		17 29 37	46			olive-gray						
76													
77													
78													
79													
80	SPT		8 11 14	30			gray, very stiff to hard						
81													
82													
83													
84													
85	S&H		14 18 27	32		hard, trace shells							
86													
87													
88													
89													
90	S&H		14 23 30	37									
91													
92													
93													
94													
95	S&H		12 18 24	29		with olive-gray mottling, very stiff							
96													
97													
98													
99													
100													
101	S&H		12 16 20	25		gray	TV	2,500					
102													
103													
104													
105													

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Figure: A-2c

GEO TECH PIEZOMETER W/ BLOWS PER 6 INCHES 750650005 LAKE MERRITT BART BLOCK 1.GPJ TEMPLATE CA-MODIFIED.GDT 12/1/23

DEPTH (feet)	SAMPLES				LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA						PIEZOMETER COMPLETION INFORMATION
	Sampler Type	Sample	Blows/6"	SPT N-Value ¹			Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft	
106	S&H		13 23 25	34	CL	CLAY (CL) (continued) gray with olive-gray mottling, hard	PP	4,500		29.9	96		
107													
108													
109													
110	S&H		12 20 29	34			olive-gray	PP	4,250				
111													
112													
113													
114													
115													
116													
117													
118													
119													
120	SPT		7 12 14	31									
121													
122													
123													
124													
125													
126													
127													
128													
129													
130	SPT		16 25 27	62		SANDY CLAY (CL) gray, hard, wet, trace fine- to coarse-grained sand [ALAMEDA FORMATION]							
131													
132													
133													
134													
135													
136													
137													
138													
139													
140													

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Figure:
A-2d

GEOTECH/PIEZOMETER W/ BLOWS PER 6 INCHES 750650005_LAKE_MERRITT_BART_BLOCK_1.GPJ_TEMPLATE_CA-MODIFIED.GDT 12/1/23

DEPTH (feet)	SAMPLES				LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA						PIEZOMETER COMPLETION INFORMATION
	Sampler Type	Sample	Blows/6"	SPT N-Value ¹			Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft	
141	S&H		24	41	CL	CLAY (CL) (continued) gray with olive and yellow-brown mottling, hard, wet, with sandy clay layer, fine- to medium-grained sand [ALAMEDA FORMATION]							
142			32										
143			27										
144													
145	SPT		13	58	CL	trace sand and silt							
146			26										
147			22										
148													
149													
150	S&H		27	35/5"	CL	CLAY with SAND (CL) brown with yellow-brown mottling, hard, wet, fine- to coarse-grained sand [ALAMEDA FORMATION]							
151			50/5"										
152													
153													
154													
155													
156	PB		85 to 185 psi			olive with yellow-brown mottling Consolidation Test, see Appendix D-15			13.9	117			
157													
158													
159													
160	S&H		28	35/6"	CL	CLAY (CL) brown with yellow mottling, hard, wet, trace fine to coarse gravel [ALAMEDA FORMATION]							
161			50/6"										
162													
163													
164													
165	SPT		15	48	CL	yellow-brown to olive-gray							
166			20										
167			20										
168													
169													
170	S&H		23	35/6"	CL	olive with yellow mottling							
171			50/6"								17.3	119	
172													
173													
174													
175													

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Figure: A-2e

GEOTECH-PIEZOMETER W/ BLOWS PER 6 INCHES 750650005_LAKE_MERRITT_BART_BLOCK_1.GPJ_TEMPLATE_CA-MODIFIED.GDT 12/1/23

DEPTH (feet)	SAMPLES				LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA						PIEZOMETER COMPLETION INFORMATION	
	Sampler Type	Sample	Blows/ 6"	SPT N-Value ¹			Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft		
176	S&H		50/6"	35/6"	CL	CLAY (CL) (continued) trace fine- to coarse-grained sand and coarse gravel								
177														
178														
179														
180														
181					SC	CLAYEY SAND (SC) gray, very dense, wet, fine- to medium-grained [ALAMEDA FORMATION]								
182														
183														
184					CL	CLAY with SAND (CL) gray with yellow-brown mottling, hard, wet, fine- to medium-grained sand [ALAMEDA FORMATION]								
185														
186														
187														
188														
189					SC	CLAYEY SAND (SC) gray, very dense, wet, fine- to medium-grained [ALAMEDA FORMATION]								
190	SPT		13 18 27	54										
191					CL	CLAY with SAND (CL) gray with yellow-brown mottling, hard, wet, fine- to medium-grained sand [ALAMEDA FORMATION]								
192														
193														
194														
195														
196					CL	gray with olive mottling								
197														
198														
199					CL	gray with olive mottling								
200														
201	SPT		17 27 29	67										
202														
203														
204					CL	gray with olive mottling								
205	SPT		50/6"	60/6"										
206														
207														
208														
209														
210														




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Figure:

A-2f


GEO TECH PIEZOMETER W/ BLOWS PER 6 INCHES 750650005_LAKE MERRITT BART BLOCK 1.GPJ TEMPLATE CA-MODIFIED.GDT 12/1/23

DEPTH (feet)	SAMPLES				LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA						PIEZOMETER COMPLETION INFORMATION
	Sampler Type	Sample	Blows/ 6"	SPT N-Value ¹			Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft	
211						CLAY with SAND (CL) (continued)							
212													
213													
214													
215													
216	SPT		15 24 32	67		olive with yellow-brown mottling, trace coarse-grained sand							
217					CL								
218													
219													
220													
221													
222													
223													
224													
225	S&H		25	60/6"									
226			50/6"			SANDY CLAY (CL) gray with olive mottling, hard, wet, fine- to coarse-grained sand, trace rock fragments [ALAMEDA FORMATION]	PP	4,500	53.9	16.5			
227													
228													
229					CL								
230													
231													
232													
233													
234						CLAY (CL) light brown with olive mottling, hard, wet [ALAMEDA FORMATION]				98.7	20.9	107	
235													
236	PB		175 - 300 psi			Consolidation Test, see Appendix D-16							
237													
238													
239					CL								
240													
241													
242													
243													
244													
245													

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Figure:
A-2g

DEPTH (feet)	SAMPLES				LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA						PIEZOMETER COMPLETION INFORMATION
	Sampler Type	Sample	Blows/6"	SPT N-Value ¹			Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft	
246						SANDY CLAY (CL) (continued)							
247					CL								
248													
249													
250	SPT		14 22 28	60	CL	gray, increased sand content CLAY (CL) gray with yellow-brown mottling, hard, wet, trace sand [ALAMEDA FORMATION]							
251													
252													
253													
254													
255													
256													
257													
258													
259													
260													
261													
262													
263													
264													
265													
266													
267													
268													
269													
270													
271													
272													
273													
274													
275													
276													
277													
278													
279													
280													

GEOTECH-PIEZOMETER W/ BLOWS PER 6 INCHES 750650005_LAKE_MERRITT BART BLOCK 1.GPJ_TEMPLATE_CA-MODIFIED.GDT 12/1/23

Boring terminated at a depth of 251.5 feet below ground surface (bgs).
Boring backfilled with cement grout to about 33 feet bgs. Piezometer
installed in upper ~33 feet.
Groundwater measured in piezometer at a depth of 18.2 feet on 29
September 2023.
PP = Pocket penetrometer
TV = Torvane

¹ S&H and SPT blow counts for the last two increments were converted to
SPT N-Values using factors of 0.7 and 1.2, respectively, to account for
sampler type and hammer energy.
² Elevations based on the topographic survey by BKF Engineers, titled "Lake
Merritt BART Building B, Oakland, CA 94607," Sheet C2.1, dated 12/22/22.
Elevations reference the City of Oakland Vertical Datum (COVD).

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Project No.:
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Figure:
A-2h

Boring location: See Site Plan, Figure 2

Logged by: PSM
Drilled By: Pitcher Services, LLC

Date started: 1/11/22

Date finished: 1/12/22

Drilling method: Rotary Wash

Hammer weight/drop: 140 lbs./30 inches

Hammer type: Automatic

LABORATORY TEST DATA

Samplers: Sprague & Henwood (S&H), Standard Penetration Test (SPT), Pitcher Barrel (PB), Shelby Tube (ST)

DEPTH (feet)	SAMPLES				LITHOLOGY	MATERIAL DESCRIPTION	Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
	Sampler Type	Sample	Blows/6"	SPT N-Value ¹								
Ground Surface Elevation: 23.6 feet ²												
1						1.5 inches Asphalt Concrete (AC)						
2						6 inches Aggregate Base (AB)						
3	BULK					SAND with SILT (SP-SM) yellow-brown to brown, medium dense, moist, fine-grained, trace clay [FILL]						
4	BULK											
5	SPT		7	24	SP-SM							
6			8									
7			12			∇ (1/11/22, 1:08PM) wet						
8												
9												
10	SPT		9	23	SM	SILTY SAND (SM) light brown to yellow-brown, medium dense, wet, fine-grained, trace clay [MERRITT SAND] LL = 18, PI = 3, see Appendix D-1				24.5	12.9	
11			9									
12			10									
13												
14												
15	SPT		9	46	SP-SM							
16			14			SAND with SILT (SP-SM) dark brown to brown, dense, wet, fine-grained, trace clay [MERRITT SAND]						
17			24			SAND with CLAY (SP-SC) yellow-brown to brown, dense, wet, fine-grained, trace silt [MERRITT SAND]						
18												
19												
20	ST		85		SC-SM	CLAYEY SILTY SAND (SC-SM) gray-brown to olive-gray, medium dense, wet, fine-grained [MERRITT SAND] LL = 21, PI = 5, see Appendix D-1				37.6	17.9	
21	SPT		5	20								
22			7									
23			10		CL	CLAY (CL) gray-brown, very stiff, wet, trace sand [ALAMEDA FORMATION]						
24												
25						SANDY CLAY (CL) gray-brown with orange oxidation staining, medium stiff, wet, fine-grained sand, trace shell fragments [ALAMEDA FORMATION] Triaxial Test, see Appendix D-8	PP TxUU	2,500	1,750 1,480			89
26	S&H		3	6								
27			4									
28			5									
29												
30					CL	light brown with gray-brown mottling, trace silt						
31	PB		175									
32			to									
33			200									
34			psi									
35												

TEST GEOTECH LOG 750650005_LAKE MERRITT BART BLOCK 1.GPJ TEMPLATE CA-MODIFIED.GDT 12/1/23



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Figure: A-3a

DEPTH (feet)	SAMPLES			LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA						
	Sampler Type	Sample	Blows/6"			SPT N-Value ¹	Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
36	SPT		3 4 17	25	CL	SANDY CLAY (CL) (continued) light brown to gray-brown, very stiff						
37						CLAYEY SAND (SC) light brown, dense, wet, fine- to medium-grained, with fine angular gravel, with silt LL = 25, PI = 8, see Appendix D-2			21.0	10.2		
38	SPT		10 15 20	42	SC							
39												
40												
41	SPT		11 10 11	25	CL SC	SANDY CLAY (CL) gray-brown to light brown, very stiff, wet, fine-grained sand, trace fine angular gravel [ALAMEDA FORMATION]			20.8	25.2		
42												
43						CLAYEY SAND (SC) brown, medium dense, wet, fine- to medium-grained [ALAMEDA FORMATION]						
44												
45						CLAY (CL) gray-brown, very stiff, wet, trace sand [ALAMEDA FORMATION]						
46	S&H		12 24 27	36								
47						SANDY CLAY (CL) gray with brown mottling and orange oxidation staining, hard, fine- to medium-grained sand, trace shell fragments [ALAMEDA FORMATION]						
48												
49												
50												
51												
52												
53												
54												
55												
56	PB		125 to 200 psi			brown to dark brown Triaxial Test, see Appendix D-9 Consolidation Test, see Appendix D-17	TxUU	4,500	3,360	38.0	82	
57										16.8	115	
58												
59												
60												
61												
62												
63						CLAY (CL) gray with trace dark brown mottling, hard, trace sand and shell fragments [ALAMEDA FORMATION]						
64												
65										29.1	97	
66	S&H		10 19 25	31	CL							
67												
68												
69												
70												

TEST GEOTECH LOG 750650005_LAKE MERRITT BART BLOCK 1.GPJ TEMPLATE CA-MODIFIED.GDT 12/1/23

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Figure: A-3b

TEST GEOTECH LOG 750650005_LAKE MERRITT BART BLOCK 1.GPJ TEMPLATE CA-MODIFIED.GDT 12/1/23

DEPTH (feet)	SAMPLES				LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA							
	Sampler Type	Sample	Blows/6"	SPT N-Value ¹			Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft		
71					CL	CLAY (CL) (continued)								
72														
73						CLAY (CL) gray with dark brown mottling, hard, wet, trace sand [ALAMEDA FORMATION]								
74														
75														
76	S&H		14 35 35	49										
77					CL									
78														
79														
80														
81														
82														
83														
84						CLAY with SAND (CL) gray with olive mottling, wet, fine- to medium-grained sand [ALAMEDA FORMATION] Triaxial Test, see Appendix D-10 Consolidation Test, see Appendix D-18	TxUU	6,500	1,570		33.9	86		
85														
86	PB		175 to 285 psi		CL						32.3	90		
87														
88														
89														
90														
91	S&H		12 13 20	23		SANDY CLAY (CL) gray, very stiff, wet, fine-grained sand [ALAMEDA FORMATION]								
92					CL									
93														
94														
95														
96	SPT		7 10 13	28		CLAY (CL) gray, very stiff, wet, trace fine-grained sand [ALAMEDA FORMATION]								
97					CL									
98														
99														
100														
101	S&H		19 29 32	43		SANDY CLAY (CL) gray, hard, wet, fine-grained sand, trace shell fragments [ALAMEDA FORMATION]								
102					CL									
103														
104														
105														

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Figure:
A-3c

TEST GEOTECH LOG 750650005_LAKE MERRITT BART BLOCK 1.GPJ TEMPLATE_CA-MODIFIED.GDT 12/1/23

DEPTH (feet)	SAMPLES				LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA					
	Sampler Type	Sample	Blows/6"	SPT N-Value ¹			Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
106	S&H		15 20 21	29	CL	CLAY (CL) gray with olive-brown mottling, very stiff, wet, trace sand and shell fragments [ALAMEDA FORMATION]				34.8	89	
107												
108												
109												
110	S&H		15 24 24	34			gray with dark brown mottling, hard, wet					
111												
112												
113												
114												
115	S&H		18 25 30	39								
116												
117												
118												
119												
120	S&H		12 17 24	29		very stiff						
121												
122												
123												
124												
125	S&H		15 24 22	32		hard						
126												
127												
128												
129												
130	S&H		18 25 29	38						29.8	96	
131												
132												
133												
134					CL	SANDY CLAY (CL) light gray to olive-gray, hard, wet, fine- to coarse-grained sand [ALAMEDA FORMATION]						
135												
136	SPT		7 22 22	53					88.3	26.7		
137					CL-ML	SILTY CLAY (CL-ML) gray-brown, hard, wet, trace fine-grained sand [ALAMEDA FORMATION] LL = 28, PI = 7, see Appendix D-2						
138												
139												
140												

LANGAN

Project No.: 750650005

Figure: A-3d

DEPTH (feet)	SAMPLES				LITHOLOGY	MATERIAL DESCRIPTION	LABORATORY TEST DATA					
	Sampler Type	Sample	Blows/6"	SPT N-Value ¹			Type of Strength Test	Confining Pressure Lbs/Sq Ft	Shear Strength Lbs/Sq Ft	Fines %	Natural Moisture Content, %	Dry Density Lbs/Cu Ft
141	SPT		11 21 23	53	CL	SANDY CLAY (CL) gray to gray-brown, hard, fine- to coarse-grained sand [ALAMEDA FORMATION]			32.5	18.8		
142					SC	CLAYEY SAND (SC) gray to gray-brown, very dense, wet, fine- to medium-grained, with pockets of blue-gray sandy clay [ALAMEDA FORMATION] LL = 31, PI = 13, see Appendix D-2						
145	SPT		27 27 32	71	SC	CLAYEY SAND with GRAVEL (SC) gray to dark brown, very dense, wet, fine- to coarse-grained, fine angular gravel [ALAMEDA FORMATION] Sieve Analysis, see Appendix D-3			24.1	22.7		
149	S&H		30 50/ 6"	35/6"	CL	SANDY CLAY (CL) dark gray to gray-brown, hard, wet, fine-grained sand [ALAMEDA FORMATION]	PP	>4500				
150												
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TEST GEOTECH LOG 750650005_LAKE MERRITT BART BLOCK 1.GPJ TEMPLATE_CA-MODIFIED.GDT 12/1/23

Boring terminated at a depth of 151.5 feet below ground surface (bgs).
Boring backfilled with cement grout.
Groundwater encountered at 6.5 feet bgs during drilling.
PP = Pocket penetrometer
TV = Torvane

¹ S&H and SPT blow counts for the last two increments were converted to SPT N-Values using factors of 0.7 and 1.2, respectively, to account for sampler type and hammer energy.
² Elevations based on the topographic survey by BKF Engineers, titled "Lake Merritt BART Building B, Oakland, CA 94607," Sheet C2.1, dated 12/22/22. Elevations reference the City of Oakland Vertical Datum (COVD).



UNIFIED SOIL CLASSIFICATION SYSTEM

Major Divisions	Symbols	Typical Names
Coarse-Grained Soils (more than half of soil > no. 200 sieve size)	Gravels (More than half of coarse fraction > no. 4 sieve size)	GW Well-graded gravels or gravel-sand mixtures, little or no fines
		GP Poorly-graded gravels or gravel-sand mixtures, little or no fines
		GM Silty gravels, gravel-sand-silt mixtures
		GC Clayey gravels, gravel-sand-clay mixtures
	Sands (More than half of coarse fraction < no. 4 sieve size)	SW Well-graded sands or gravelly sands, little or no fines
		SP Poorly-graded sands or gravelly sands, little or no fines
		SM Silty sands, sand-silt mixtures
		SC Clayey sands, sand-clay mixtures
Fine -Grained Soils (more than half of soil < no. 200 sieve size)	Silts and Clays LL = < 50	ML Inorganic silts and clayey silts of low plasticity, sandy silts, gravelly silts
		CL Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, lean clays
		OL Organic silts and organic silt-clays of low plasticity
	Silts and Clays LL = > 50	MH Inorganic silts of high plasticity
		CH Inorganic clays of high plasticity, fat clays
		OH Organic silts and clays of high plasticity
Highly Organic Soils	PT	Peat and other highly organic soils

SAMPLE DESIGNATIONS/SYMBOLS

GRAIN SIZE CHART		
Classification	Range of Grain Sizes	
	U.S. Standard Sieve Size	Grain Size in Millimeters
Boulders	Above 12"	Above 305
Cobbles	12" to 3"	305 to 76.2
Gravel coarse fine	3" to No. 4	76.2 to 4.76
	3" to 3/4" 3/4" to No. 4	76.2 to 19.1 19.1 to 4.76
Sand coarse medium fine	No. 4 to No. 200	4.76 to 0.075
	No. 4 to No. 10	4.76 to 2.00
	No. 10 to No. 40 No. 40 to No. 200	2.00 to 0.420 0.420 to 0.075
Silt and Clay	Below No. 200	Below 0.075

- Sample taken with Sprague & Henwood split-barrel sampler with a 3.0-inch outside diameter and a 2.43-inch inside diameter. Darkened area indicates soil recovered
- Classification sample taken with Standard Penetration Test sampler
- Undisturbed sample taken with thin-walled tube
- Disturbed sample
- Sampling attempted with no recovery
- Core sample
- Analytical laboratory sample
- Sample taken with Direct Push or Drive sampler
- Sonic

Unstabilized groundwater level

Stabilized groundwater level

PP = Pocket Penetrometer

TV = Torvane

SAMPLER TYPE

C Core barrel

CA California split-barrel sampler with 2.5-inch outside diameter and a 1.93-inch inside diameter

D&M Dames & Moore piston sampler using 2.5-inch outside diameter, thin-walled tube

O Osterberg piston sampler using 3.0-inch outside diameter, thin-walled Shelby tube

PT Pitcher tube sampler using 3.0-inch outside diameter, thin-walled Shelby tube

S&H Sprague & Henwood split-barrel sampler with a 3.0-inch outside diameter and a 2.43-inch inside diameter

SPT Standard Penetration Test (SPT) split-barrel sampler with a 2.0-inch outside diameter and a 1.38- or 1.5-inch inside diameter - see report text

ST Shelby Tube (3.0-inch outside diameter, thin-walled tube) advanced with hydraulic pressure

LANGAN

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Environmental Services, Inc.
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Oakland, CA 94612

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Project

**LAKE MERRITT BART
REDEVELOPMENT (BLOCK 1)**

OAKLAND

ALAMEDA COUNTY CALIFORNIA

Figure Title

SOIL CLASSIFICATION CHART

Project No.

750650005

Date

09/29/2023

Drawn By

AG

Checked By

DW

Figure

A-4

APPENDIX B
CONE PENETRATION TEST RESULTS



GREGG DRILLING, LLC.
 GEOTECHNICAL AND ENVIRONMENTAL INVESTIGATION SERVICES

January 4, 2022

Langan
 Attn: Paul Marien

Subject: CPT Site Investigation
 Lake Merritt BART
 Oakland, California
 GREGG Project Number: D2229001

Dear Paul:

The following report presents the results of GREGG Drilling Cone Penetration Test investigation for the above referenced site. The following testing services were performed:

1	Cone Penetration Tests	(CPTU)	<input checked="" type="checkbox"/>
2	Pore Pressure Dissipation Tests	(PPD)	<input checked="" type="checkbox"/>
3	Seismic Cone Penetration Tests	(SCPTU)	<input checked="" type="checkbox"/>
4	Membrane Interface Probe	(MIP)	<input type="checkbox"/>
5	Hydraulic Profiling Tool	(HPT)	<input type="checkbox"/>
6	Groundwater Sampling	(GWS)	<input type="checkbox"/>
7	Soil Sampling	(SS)	<input type="checkbox"/>
8	Vapor Sampling	(VS)	<input type="checkbox"/>

A list of reference papers providing additional background on the specific tests conducted is provided in the bibliography following the text of the report. If you would like a copy of any of these publications or should you have any questions or comments regarding the contents of this report, please do not hesitate to contact me at 949-903-6873.

Sincerely,
 Gregg Drilling, LLC.

CPT Reports Team
 Gregg Drilling, LLC.



Bibliography

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Copies of ASTM Standards are available through www.astm.org

Cone Penetration Testing Procedure (CPT)

Gregg Drilling carries out all Cone Penetration Tests (CPT) using an integrated electronic cone system, *Figure CPT*.

The cone takes measurements of tip resistance (q_c), sleeve resistance (f_s), and penetration pore water pressure (u_2). Measurements are taken at either 2.5 or 5 cm intervals during penetration to provide a nearly continuous profile. CPT data reduction and basic interpretation is performed in real time facilitating on-site decision making. The above mentioned parameters are stored electronically for further analysis and reference. All CPT soundings are performed in accordance with revised ASTM standards (D 5778-12).

The 5mm thick porous plastic filter element is located directly behind the cone tip in the u_2 location. A new saturated filter element is used on each sounding to measure both penetration pore pressures as well as measurements during a dissipation test (PPDT). Prior to each test, the filter element is fully saturated with oil under vacuum pressure to improve accuracy.

When the sounding is completed, the test hole is backfilled according to client specifications. If grouting is used, the procedure generally consists of pushing a hollow tremie pipe with a “knock out” plug to the termination depth of the CPT hole. Grout is then pumped under pressure as the tremie pipe is pulled from the hole. Disruption or further contamination to the site is therefore minimized.

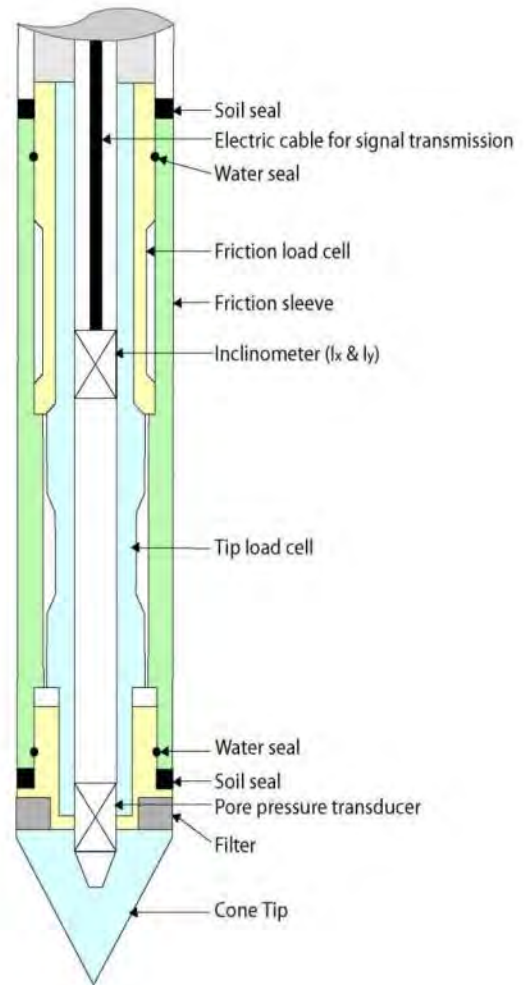


Figure CPT

Gregg 15cm² Standard Cone Specifications

Dimensions	
Cone base area	15 cm ²
Sleeve surface area	225 cm ²
Cone net area ratio	0.85
Specifications	
Cone load cell	
Full scale range	180 kN (20 tons)
Overload capacity	150%
Full scale tip stress	120 MPa (1,200 tsf)
Repeatability	120 kPa (1.2 tsf)
Sleeve load cell	
Full scale range	31 kN (3.5 tons)
Overload capacity	150%
Full scale sleeve stress	1,400 kPa (15 tsf)
Repeatability	1.4 kPa (0.015 tsf)
Pore pressure transducer	
Full scale range	7,000 kPa (1,000 psi)
Overload capacity	150%
Repeatability	7 kPa (1 psi)

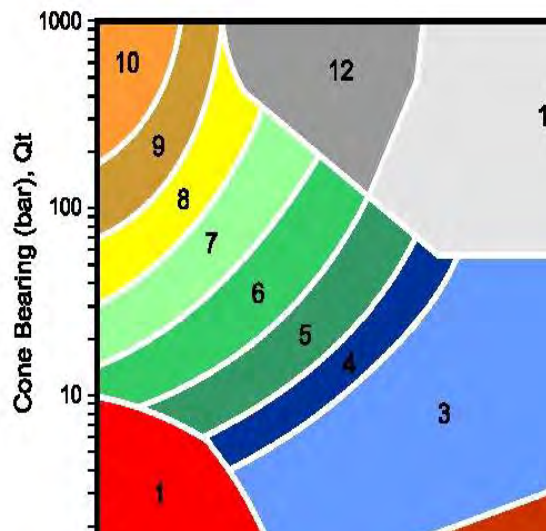
Note: The repeatability during field use will depend somewhat on ground conditions, abrasion, maintenance and zero load stability.

Cone Penetration Test Data & Interpretation

The Cone Penetration Test (CPT) data collected are presented in graphical and electronic form in the report. The plots include interpreted Soil Behavior Type (SBT) based on the charts described by Robertson (1990). Typical plots display SBT based on the non-normalized charts of Robertson et al (1986). For CPT soundings deeper than 30m, we recommend the use of the normalized charts of Robertson (1990) which can be displayed as SBT_n, upon request. The report also includes spreadsheet output of computer calculations of basic interpretation in terms of SBT and SBT_n and various geotechnical parameters using current published correlations based on the comprehensive review by Lunne, Robertson and Powell (1997), as well as recent updates by Professor Robertson (Guide to Cone Penetration Testing, 2015). The interpretations are presented only as a guide for geotechnical use and should be carefully reviewed. Gregg Drilling LLC does not warranty the correctness or the applicability of any of the geotechnical parameters interpreted by the software and does not assume any liability for use of the results in any design or review. The user should be fully aware of the techniques and limitations of any method used in the software. Some interpretation methods require input of the groundwater level to calculate vertical effective stress. An estimate of the in-situ groundwater level has been made based on field observations and/or CPT results, but should be verified by the user.

A summary of locations and depths is available in Table 1. Note that all penetration depths referenced in the data are with respect to the existing ground surface.

Note that it is not always possible to clearly identify a soil type based solely on q_t , f_s , and u_2 . In these situations, experience, judgment, and an assessment of the pore pressure dissipation data should be used to infer the correct soil behavior type.



ZONE	SBT
1	Sensitive, fine grained
2	Organic materials
3	Clay
4	Silty clay to clay
5	Clayey silt to silty clay
6	Sandy silt to clayey silt
7	Silty sand to sandy silt
8	Sand to silty sand
9	Sand
10	Gravelly sand to sand
11	Very stiff fine grained*
12	Sand to clayey sand*

*over consolidated or cemented

Figure SBT (After Robertson et al., 1986) – Note: Colors may vary slightly compared to plots

Cone Penetration Test (CPT) Interpretation

Gregg uses a proprietary CPT interpretation and plotting software. The software takes the CPT data and performs basic interpretation in terms of soil behavior type (SBT) and various geotechnical parameters using current published empirical correlations based on the comprehensive review by Lunne, Robertson and Powell (1997). The interpretation is presented in tabular format using MS Excel. The interpretations are presented only as a guide for geotechnical use and should be carefully reviewed. Gregg does not warranty the correctness or the applicability of any of the geotechnical parameters interpreted by the software and does not assume any liability for any use of the results in any design or review. The user should be fully aware of the techniques and limitations of any method used in the software.

The following provides a summary of the methods used for the interpretation. Many of the empirical correlations to estimate geotechnical parameters have constants that have a range of values depending on soil type, geologic origin and other factors. The software uses 'default' values that have been selected to provide, in general, conservatively low estimates of the various geotechnical parameters.

Input:

- 1 Units for display (Imperial or metric) (atm. pressure, $p_a = 0.96$ tsf or 0.1 MPa)
- 2 Depth interval to average results (ft or m). Data are collected at either 0.02 or 0.05m and can be averaged every 1, 3 or 5 intervals.
- 3 Elevation of ground surface (ft or m)
- 4 Depth to water table, z_w (ft or m) – input required
- 5 Net area ratio for cone, a (default to 0.85)
- 6 Relative Density constant, C_{Dr} (default to 350)
- 7 Young's modulus number for sands, α (default to 5)
- 8 Small strain shear modulus number
 - a. for sands, S_G (default to 180 for SBT_n 5, 6, 7)
 - b. for clays, C_G (default to 50 for SBT_n 1, 2, 3 & 4)
- 9 Undrained shear strength cone factor for clays, N_{kt} (default to 15)
- 10 Over Consolidation ratio number, k_{ocr} (default to 0.3)
- 11 Unit weight of water, (default to $\gamma_w = 62.4$ lb/ft³ or 9.81 kN/m³)

Column

- 1 Depth, z , (m) – CPT data is collected in meters
- 2 Depth (ft)
- 3 Cone resistance, q_c (tsf or MPa)
- 4 Sleeve resistance, f_s (tsf or MPa)
- 5 Penetration pore pressure, u (psi or MPa), measured behind the cone (i.e. u_2)
- 6 Other – any additional data
- 7 Total cone resistance, q_t (tsf or MPa) $q_t = q_c + u(1-a)$

8	Friction Ratio, R_f (%)	$R_f = (f_s/q_t) \times 100\%$
9	Soil Behavior Type (non-normalized), SBT	see note
10	Unit weight, γ (pcf or kN/m^3)	based on SBT, see note
11	Total overburden stress, σ_v (tsf)	$\sigma_{vo} = \sigma z$
12	In-situ pore pressure, u_o (tsf)	$u_o = \gamma_w (z - z_w)$
13	Effective overburden stress, σ'_{vo} (tsf)	$\sigma'_{vo} = \sigma_{vo} - u_o$
14	Normalized cone resistance, Q_{tn}	$Q_{tn} = (q_t - \sigma_{vo}) / \sigma'_{vo}$
15	Normalized friction ratio, F_r (%)	$F_r = f_s / (q_t - \sigma_{vo}) \times 100\%$
16	Normalized Pore Pressure ratio, B_q	$B_q = u - u_o / (q_t - \sigma_{vo})$
17	Soil Behavior Type (normalized), SBT_n	see note
18	SBT_n Index, I_c	see note
19	Normalized Cone resistance, Q_{tn} (n varies with I_c)	see note
20	Estimated permeability, k_{SBT} (cm/sec or ft/sec)	see note
21	Equivalent SPT N_{60} , blows/ft	see note
22	Equivalent SPT $(N_1)_{60}$ blows/ft	see note
23	Estimated Relative Density, D_r , (%)	see note
24	Estimated Friction Angle, ϕ' , (degrees)	see note
25	Estimated Young's modulus, E_s (tsf)	see note
26	Estimated small strain Shear modulus, G_o (tsf)	see note
27	Estimated Undrained shear strength, s_u (tsf)	see note
28	Estimated Undrained strength ratio	s_u/σ'_v
29	Estimated Over Consolidation ratio, OCR	see note

Notes:

- 1 Soil Behavior Type (non-normalized), SBT (Lunne et al., 1997 and table below)
- 2 Unit weight, γ either constant at 119 pcf or based on Non-normalized SBT (Lunne et al., 1997 and table below)
- 3 Soil Behavior Type (Normalized), SBT_n Lunne et al. (1997)
- 4 SBT_n Index, I_c $I_c = ((3.47 - \log Q_{tn})^2 + (\log F_r + 1.22)^2)^{0.5}$
- 5 Normalized Cone resistance, Q_{tn} (n varies with I_c)

$Q_{tn} = ((q_t - \sigma_{vo})/pa) (pa/(\sigma'_{vo})^n)$ and recalculate I_c , then iterate:

When $I_c < 1.64$, $n = 0.5$ (clean sand)
 When $I_c > 3.30$, $n = 1.0$ (clays)
 When $1.64 < I_c < 3.30$, $n = (I_c - 1.64)0.3 + 0.5$
 Iterate until the change in n , $\Delta n < 0.01$

6 Estimated permeability, k_{SBT} based on Normalized SBT_n (Lunne et al., 1997 and table below)

7 Equivalent SPT N_{60} , blows/ft Lunne et al. (1997)

$$\frac{(q_t/p_a)}{N_{60}} = 8.5 \left(1 - \frac{I_c}{4.6} \right)$$

8 Equivalent SPT $(N_1)_{60}$ blows/ft $(N_1)_{60} = N_{60} C_N$
 where $C_N = (p_a/\sigma'_{vo})^{0.5}$

9 Relative Density, D_r , (%) $D_r^2 = Q_{tn} / C_{Dr}$
 Only SBT_n 5, 6, 7 & 8 Show 'N/A' in zones 1, 2, 3, 4 & 9

10 Friction Angle, ϕ' , (degrees) $\tan \phi' = \frac{1}{2.68} \left[\log \left(\frac{q_c}{\sigma'_{vo}} \right) + 0.29 \right]$
 Only SBT_n 5, 6, 7 & 8 Show 'N/A' in zones 1, 2, 3, 4 & 9

11 Young's modulus, E_s $E_s = \alpha q_t$
 Only SBT_n 5, 6, 7 & 8 Show 'N/A' in zones 1, 2, 3, 4 & 9

12 Small strain shear modulus, G_o
 a. $G_o = S_G (q_t \sigma'_{vo} p_a)^{1/3}$ For SBT_n 5, 6, 7
 b. $G_o = C_G q_t$ For SBT_n 1, 2, 3 & 4
 Show 'N/A' in zones 8 & 9

13 Undrained shear strength, s_u $s_u = (q_t - \sigma_{vo}) / N_{kt}$
 Only SBT_n 1, 2, 3, 4 & 9 Show 'N/A' in zones 5, 6, 7 & 8

14 Over Consolidation ratio, OCR $\text{OCR} = k_{ocr} Q_{t1}$
 Only SBT_n 1, 2, 3, 4 & 9 Show 'N/A' in zones 5, 6, 7 & 8

The following updated and simplified SBT descriptions have been used in the software:

SBT Zones

- 1 sensitive fine grained
- 2 organic soil
- 3 clay
- 4 clay & silty clay
- 5 clay & silty clay
- 6 sandy silt & clayey silt

SBT_n Zones

- 1 sensitive fine grained
- 2 organic soil
- 3 clay
- 4 clay & silty clay



7	silty sand & sandy silt	5	silty sand & sandy silt
8	sand & silty sand	6	sand & silty sand
9	sand		
10	sand	7	sand
11	very dense/stiff soil*	8	very dense/stiff soil*
12	very dense/stiff soil*	9	very dense/stiff soil*

*heavily overconsolidated and/or cemented

Track when soils fall with zones of same description and print that description (i.e. if soils fall only within SBT zones 4 & 5, print 'clays & silty clays')

Estimated Permeability (see Lunne et al., 1997)

SBT _n	Permeability (ft/sec)	(m/sec)
1	3×10^{-8}	1×10^{-8}
2	3×10^{-7}	1×10^{-7}
3	1×10^{-9}	3×10^{-10}
4	3×10^{-8}	1×10^{-8}
5	3×10^{-6}	1×10^{-6}
6	3×10^{-4}	1×10^{-4}
7	3×10^{-2}	1×10^{-2}
8	3×10^{-6}	1×10^{-6}
9	1×10^{-8}	3×10^{-9}

Estimated Unit Weight (see Lunne et al., 1997)

SBT	Approximate Unit Weight (lb/ft ³)	(kN/m ³)
1	111.4	17.5
2	79.6	12.5
3	111.4	17.5
4	114.6	18.0
5	114.6	18.0
6	114.6	18.0
7	117.8	18.5
8	120.9	19.0
9	124.1	19.5
10	127.3	20.0
11	130.5	20.5
12	120.9	19.0

Pore Pressure Dissipation Tests (PPDT)

Pore Pressure Dissipation Tests (PPDT's) conducted at various intervals can be used to measure equilibrium water pressure (at the time of the CPT). If conditions are hydrostatic, the equilibrium water pressure can be used to determine the approximate depth of the ground water table. A PPDT is conducted when penetration is halted at specific intervals determined by the field representative. The variation of the penetration pore pressure (u) with time is measured behind the tip of the cone and recorded.

Pore pressure dissipation data can be interpreted to provide estimates of:

- Equilibrium piezometric pressure
- Phreatic Surface
- In situ horizontal coefficient of consolidation (c_h)
- In situ horizontal coefficient of permeability (k_h)

In order to correctly interpret the equilibrium piezometric pressure and/or the phreatic surface, the pore pressure must be monitored until it reaches equilibrium, *Figure PPDT*. This time is commonly referred to as t_{100} , the point at which 100% of the excess pore pressure has dissipated.

A complete reference on pore pressure dissipation tests is presented by Robertson et al. 1992 and Lunne et al. 1997.

A summary of the pore pressure dissipation tests completed for this project is included in Table 1.

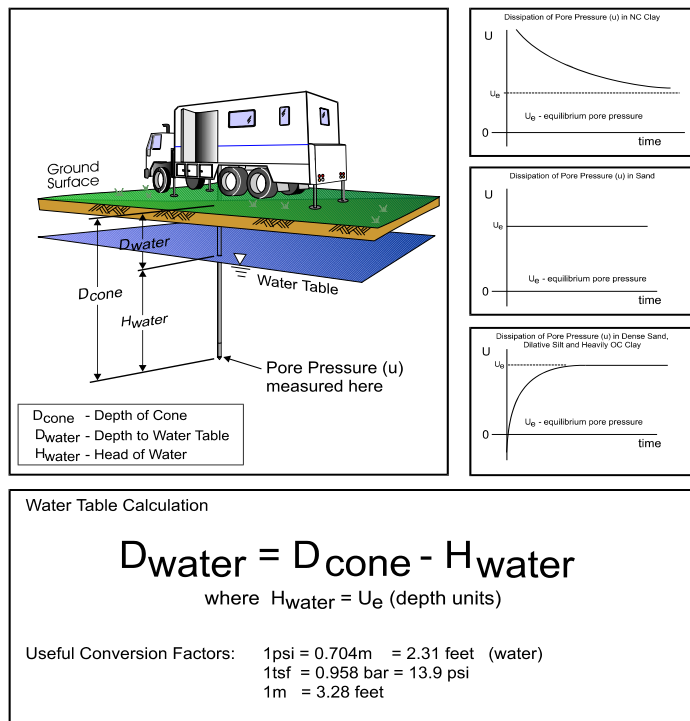


Figure PPDT

Seismic Cone Penetration Testing (SCPT)

Seismic Cone Penetration Testing (SCPT) can be conducted at various intervals during the Cone Penetration Test. Shear wave velocity (V_s) can then be calculated over a specified interval with depth. A small interval for seismic testing, such as 1-1.5m (3-5ft) allows for a detailed look at the shear wave profile with depth. Conversely, a larger interval such as 3-6m (10-20ft) allows for a more average shear wave velocity to be calculated. Gregg Drilling's cones have a horizontally active geophone located 0.2m (0.66ft) behind the tip.

To conduct the seismic shear wave test, the penetration of the cone is stopped and the rods are decoupled from the rig. An automatic hammer is triggered to send a shear wave into the soil. The distance from the source to the cone is calculated knowing the total depth of the cone and the horizontal offset distance between the source and the cone. To calculate an interval velocity, a minimum of two tests must be performed at two different depths. The arrival times between the two wave traces are compared to obtain the difference in time (Δt). The difference in depth is calculated (Δd) and velocity can be determined using the simple equation: $v = \Delta d / \Delta t$

Multiple wave traces can be recorded at the same depth to improve quality of the data.

A complete reference on seismic cone penetration tests is presented by Robertson et al. 1986 and Lunne et al. 1997.

A summary the shear wave velocities, arrival times and wave traces are provided with the report.

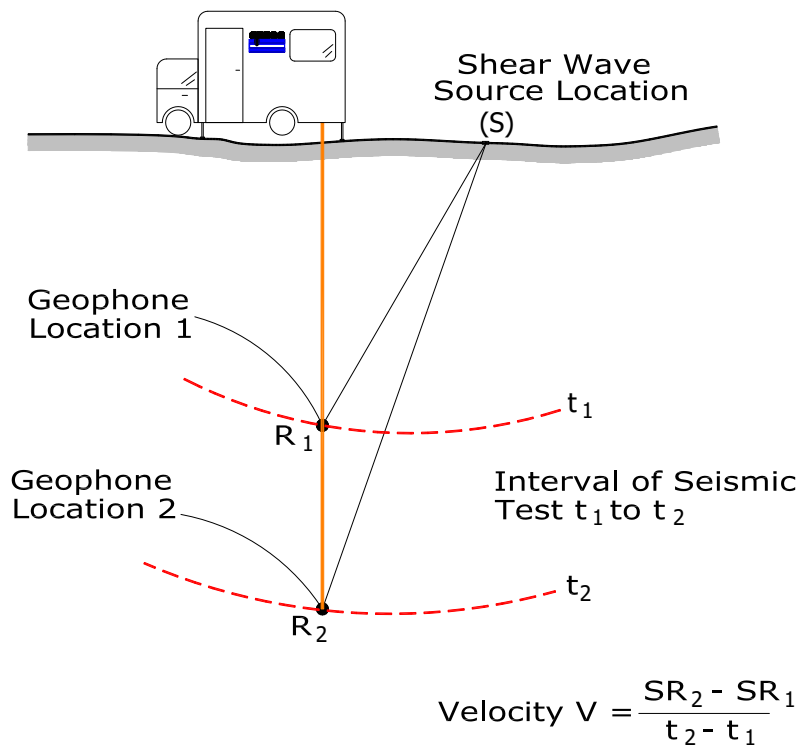


Figure SCPT

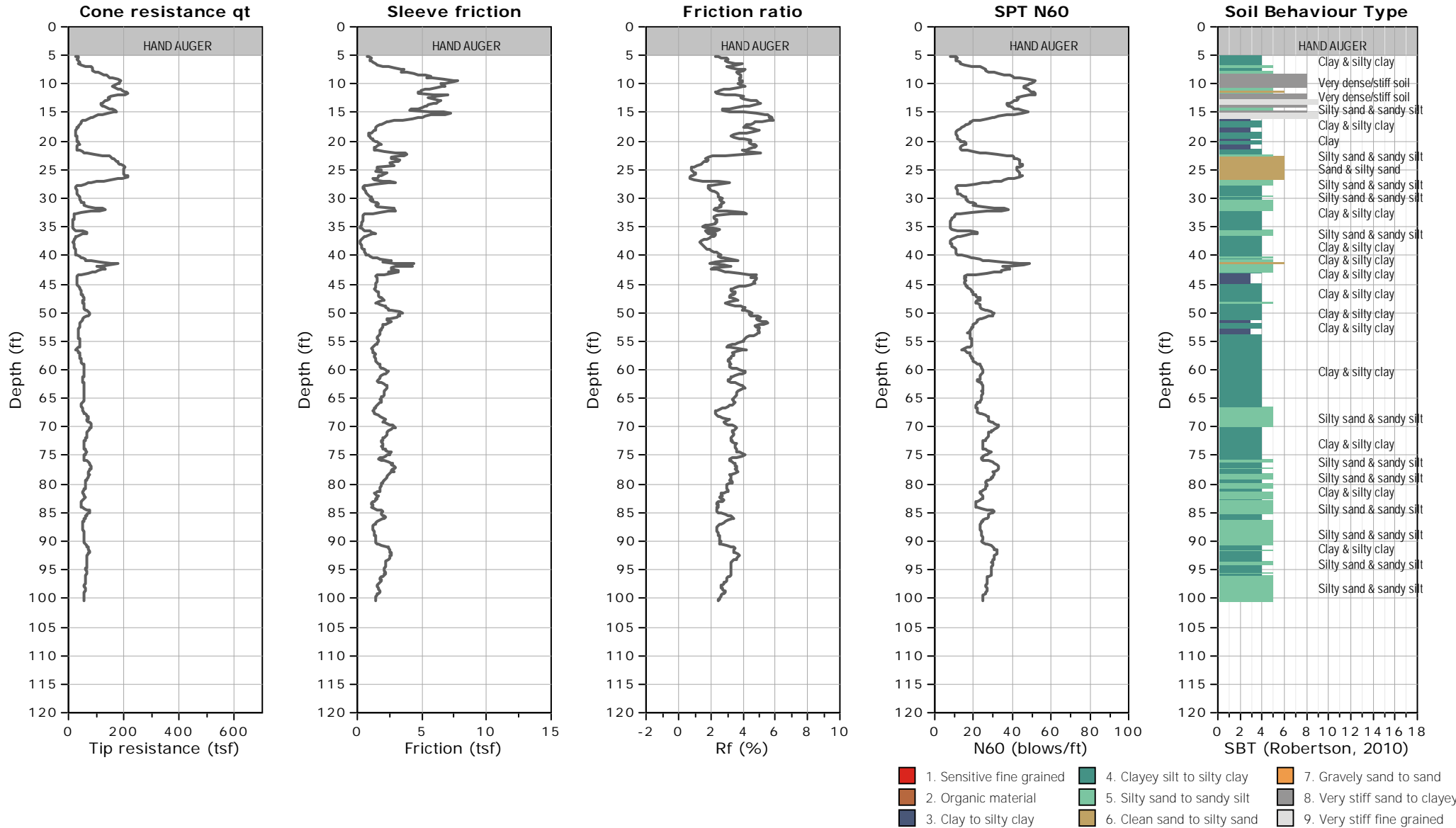


CLIENT: LANGAN

SITE: LAKE MERRIT BART, OAKLAND, CA

FIELD REP: JUSTIN RAY

Total depth: 100.39 ft, Date: 11/15/2019



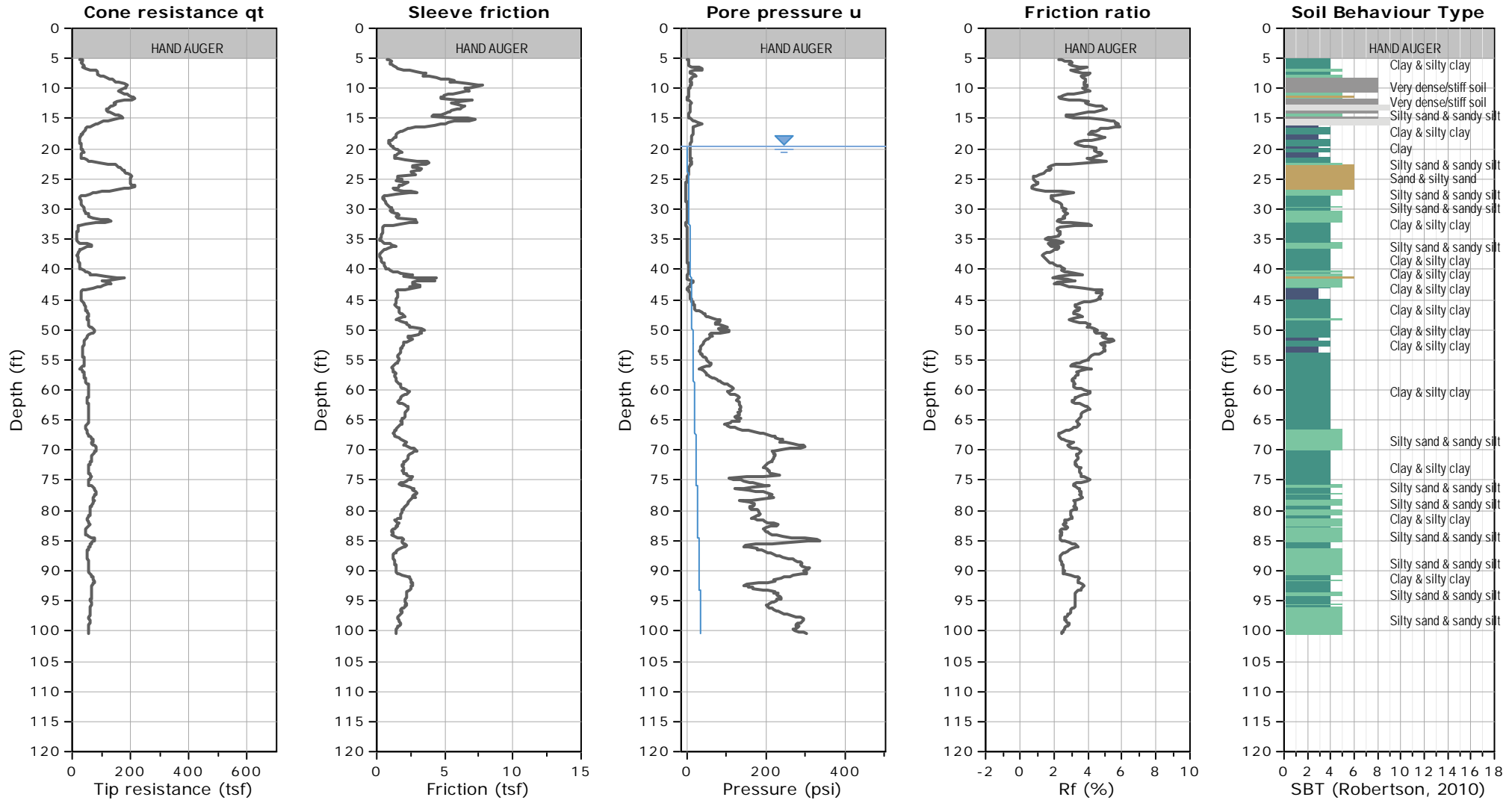


CLIENT: LANGAN

FIELD REP: JUSTIN RAY

SITE: LAKE MERRIT BART, OAKLAND, CA

Total depth: 100.39 ft, Date: 11/15/2019



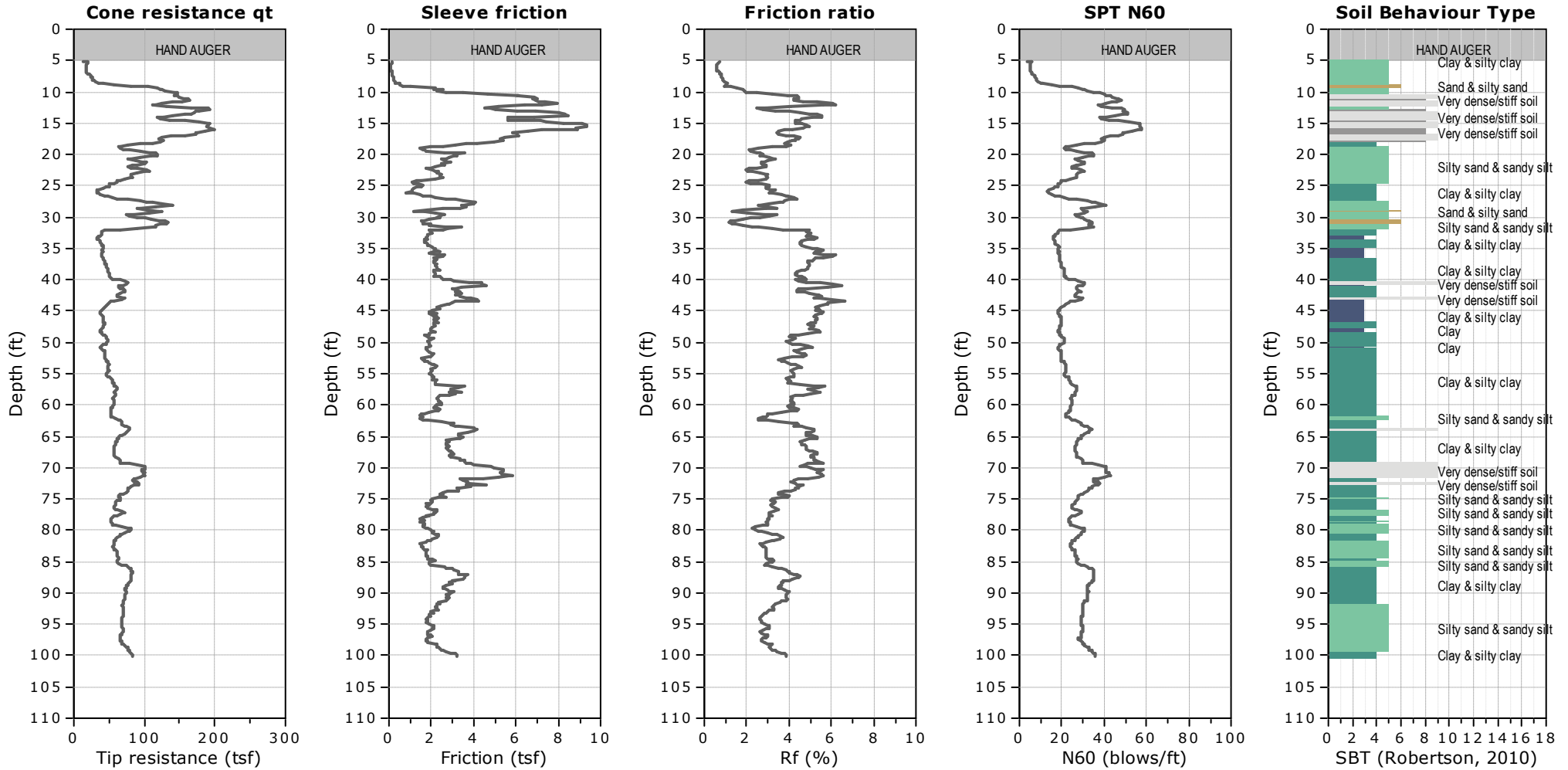
WATER TABLE FOR ESTIMATING PURPOSES ONLY

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- 4. Clayey silt to silty clay
- 7. Gravely sand to sand
- 2. Organic material
- 5. Silty sand to sandy silt
- 8. Very stiff sand to clayey
- 3. Clay to silty clay
- 6. Clean sand to silty sand
- 9. Very stiff fine grained



CLIENT:
SITE:

Total depth: 100.07 ft, Date: 1/3/2022



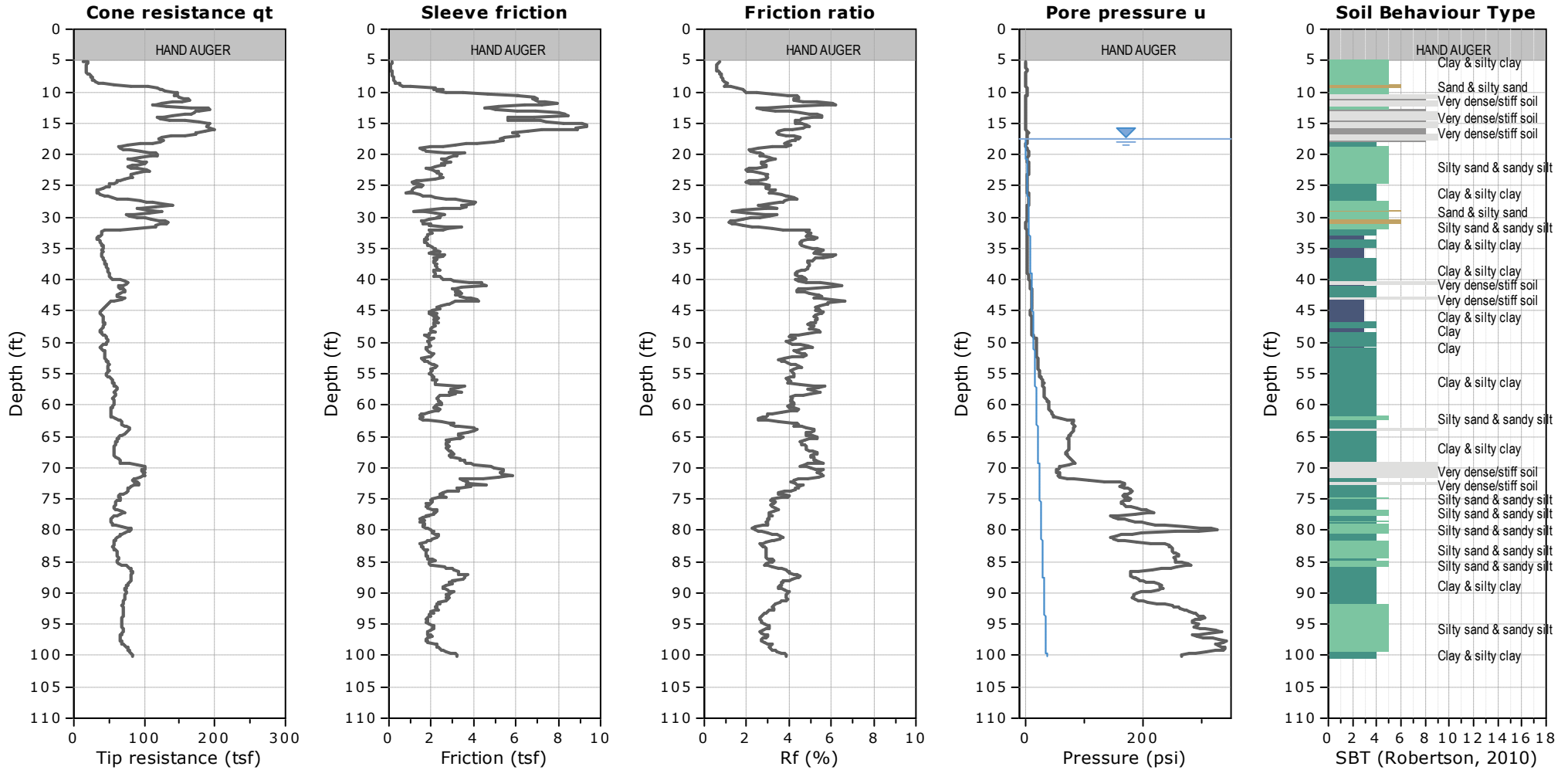
SBTn legend

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|---------------------------|------------------------------|-----------------------------------|
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| 2. Organic material | 5. Silty sand to sandy silt | 8. Very stiff sand to clayey sand |
| 3. Clay to silty clay | 6. Clean sand to silty sand | 9. Very stiff fine grained |



CLIENT:
SITE:

Total depth: 100.07 ft, Date: 1/3/2022



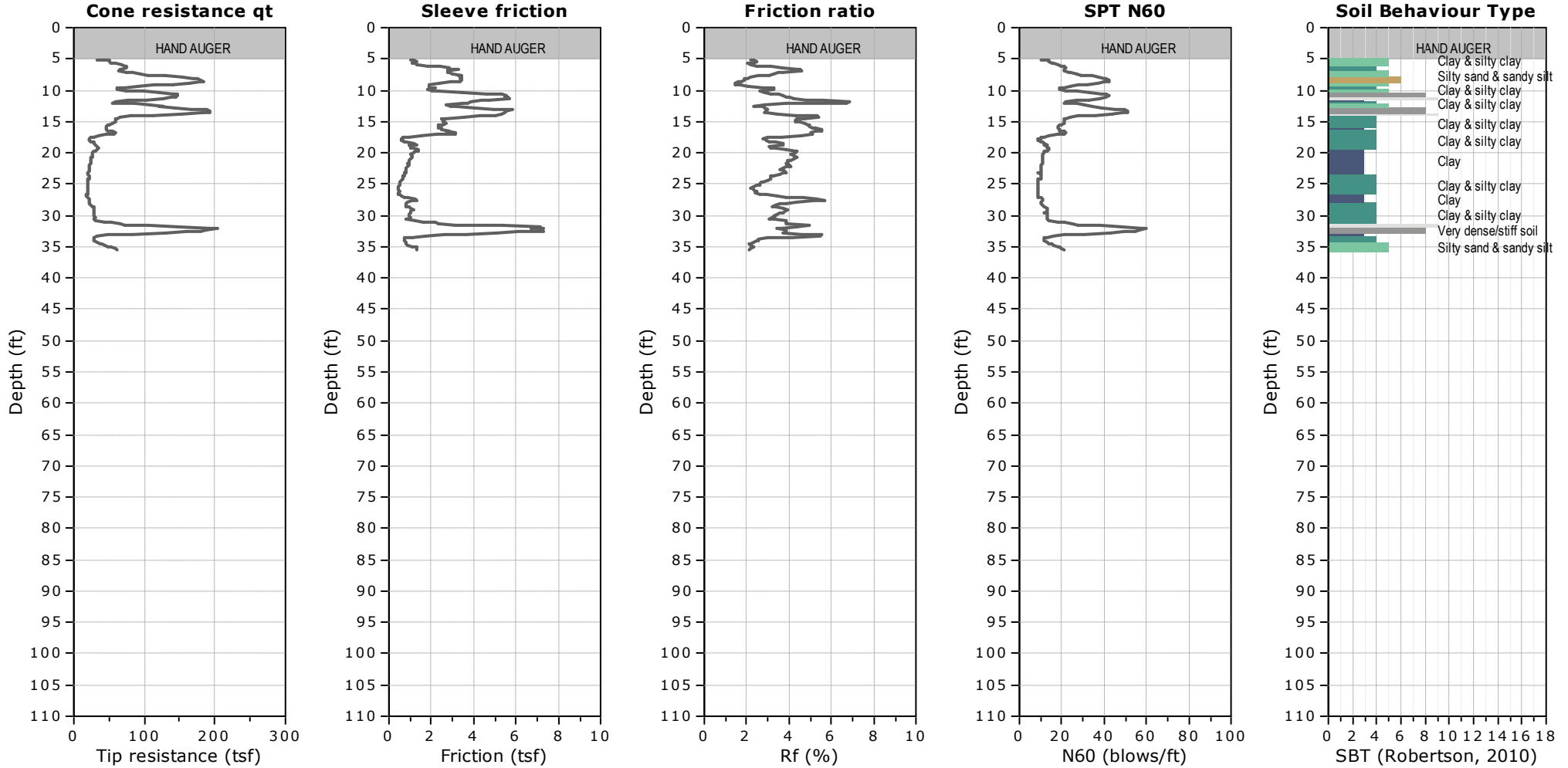
- SBTn legend**
- | | | |
|---------------------------|------------------------------|-----------------------------------|
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| 2. Organic material | 5. Silty sand to sandy silt | 8. Very stiff sand to clayey sand |
| 3. Clay to silty clay | 6. Clean sand to silty sand | 9. Very stiff fine grained |

WATER TABLE FOR ESTIMATING PURPOSES ONLY



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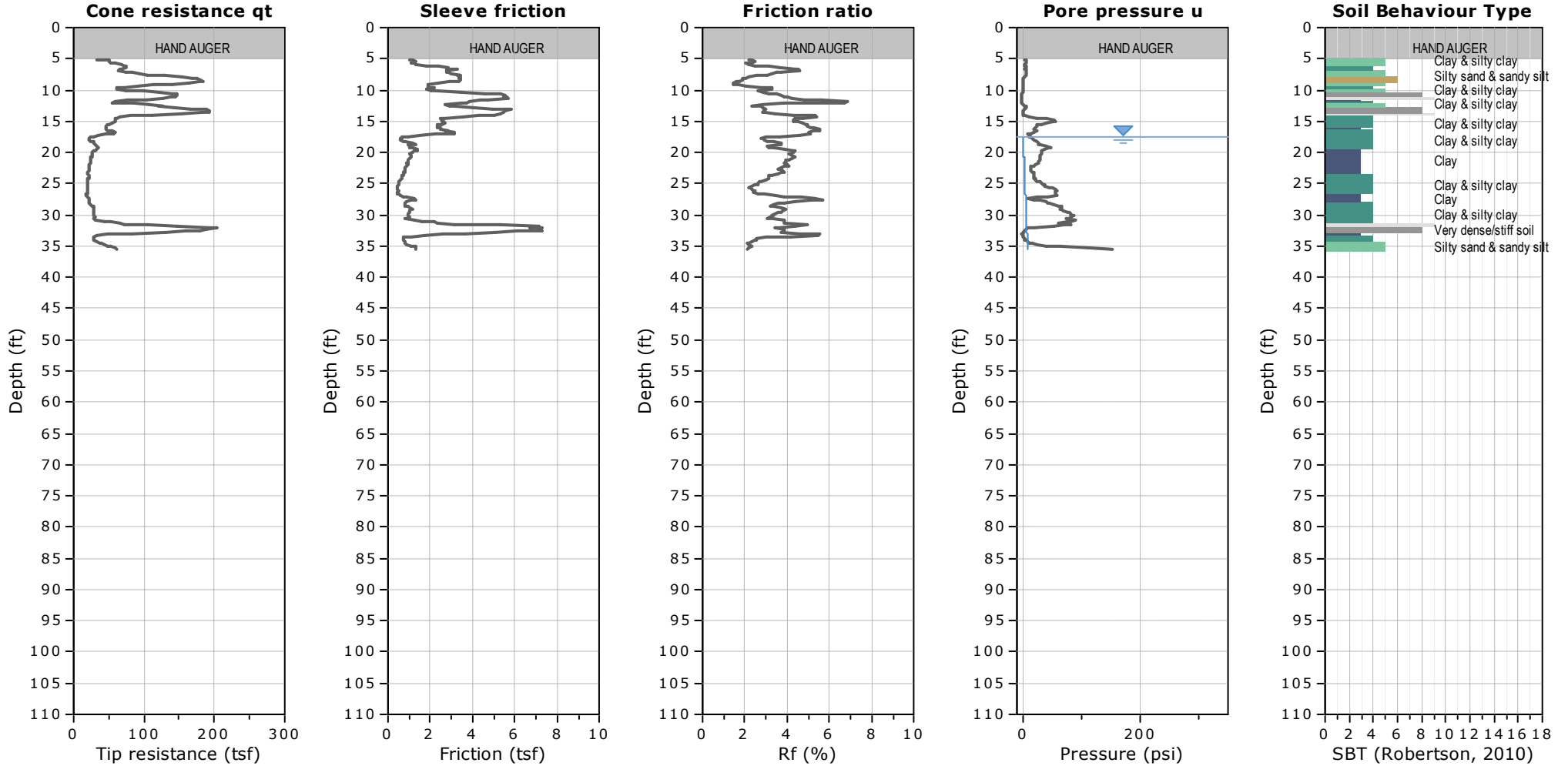
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CLIENT:
SITE:

Total depth: 35.43 ft, Date: 1/3/2022



SBTn legend

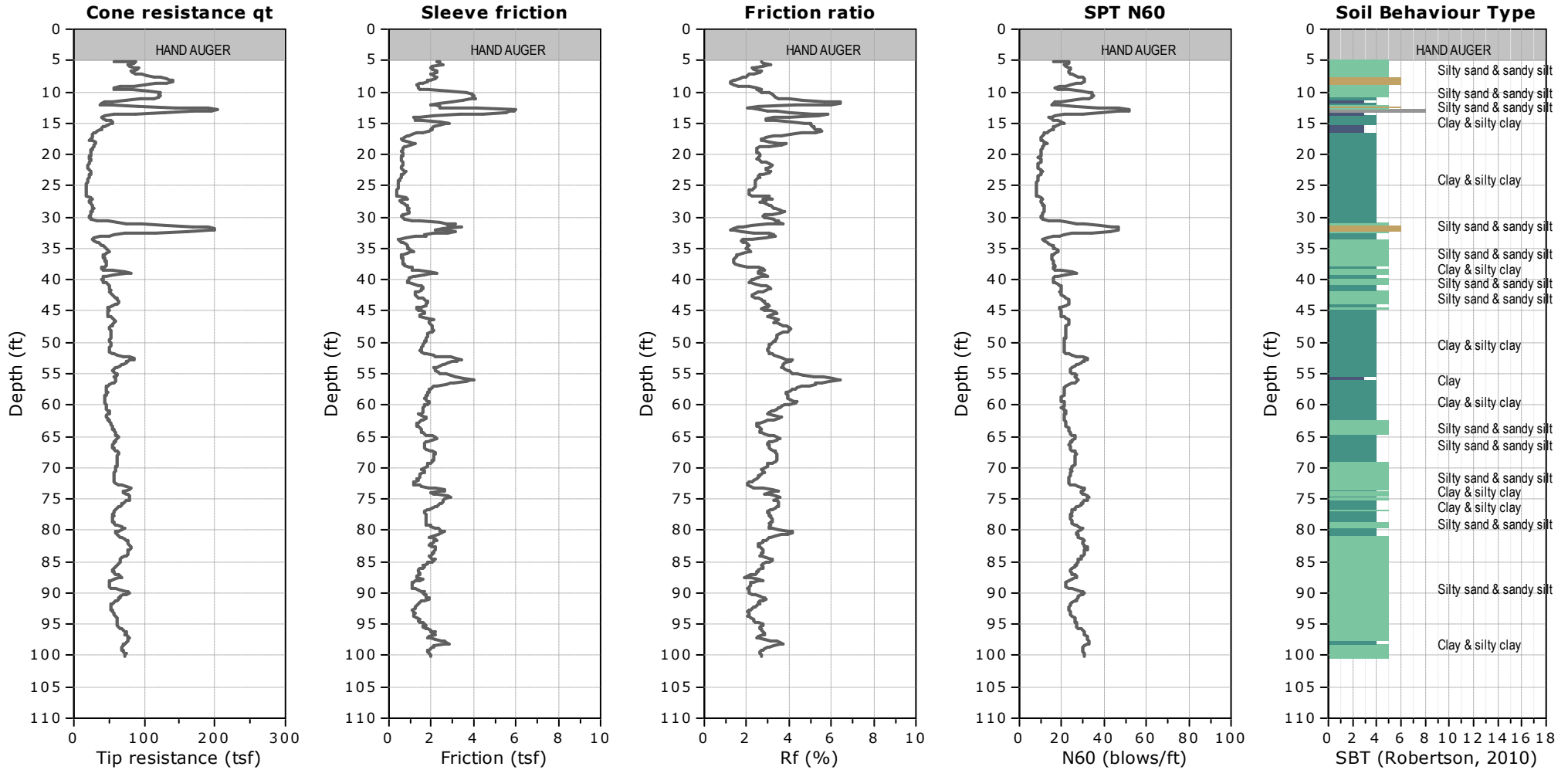
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|---------------------------|------------------------------|-----------------------------------|
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| 2. Organic material | 5. Silty sand to sandy silt | 8. Very stiff sand to clayey sand |
| 3. Clay to silty clay | 6. Clean sand to silty sand | 9. Very stiff fine grained |

WATER TABLE FOR ESTIMATING PURPOSES ONLY



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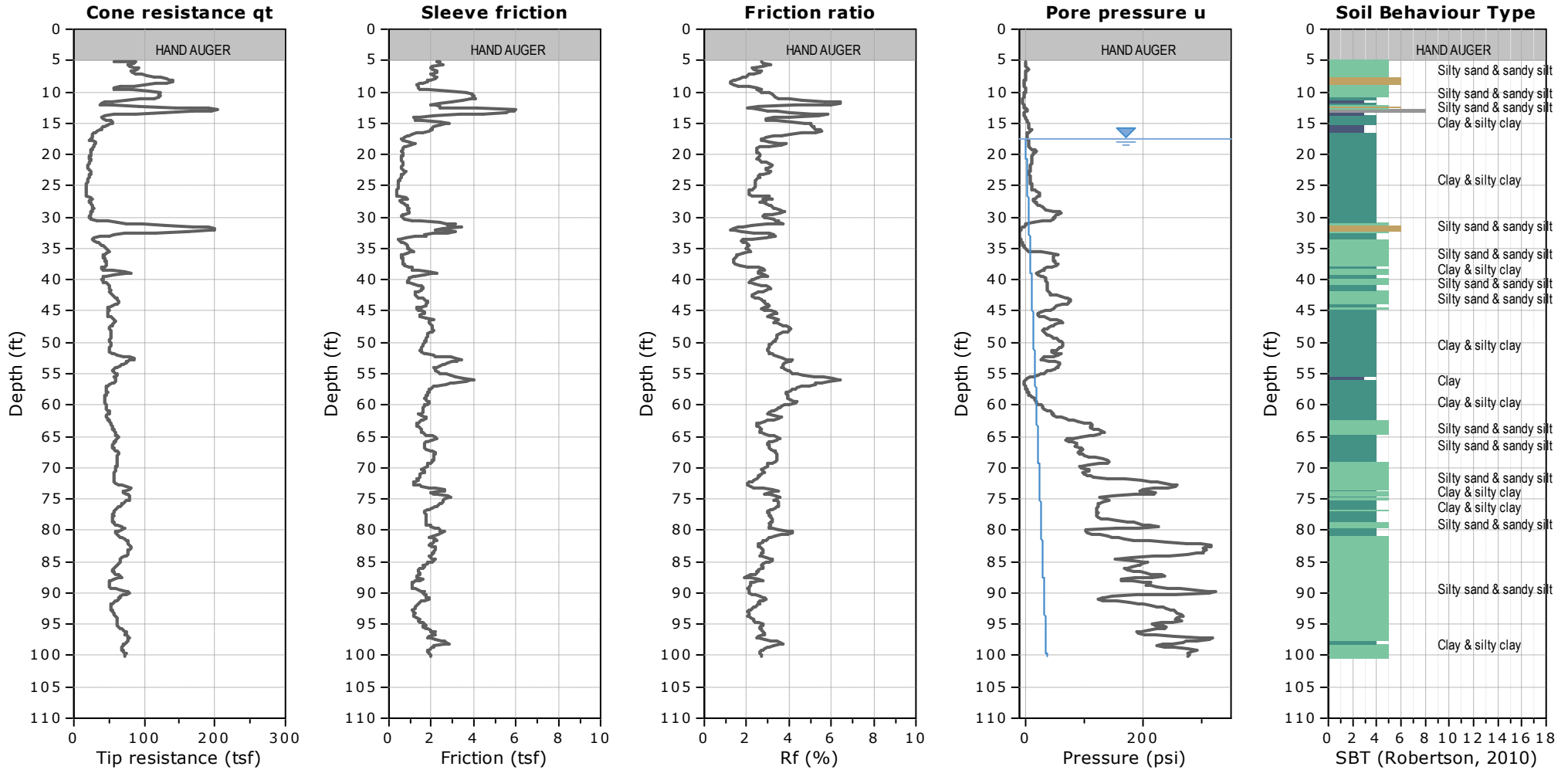
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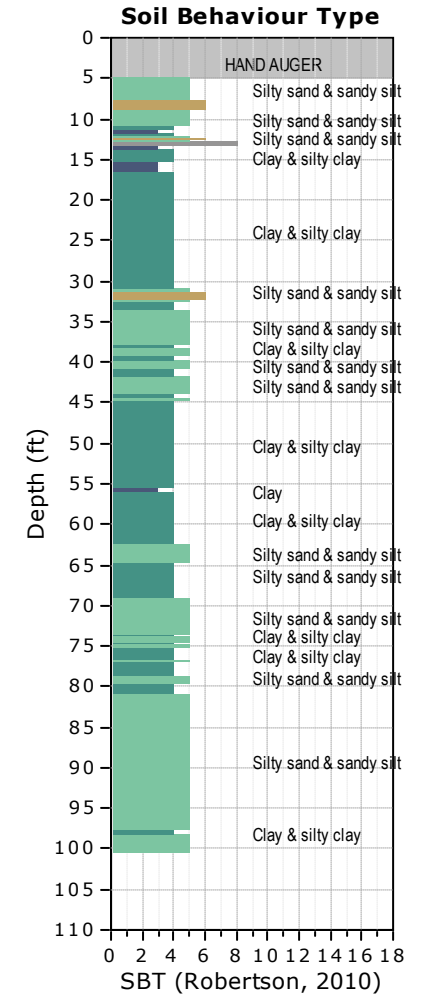
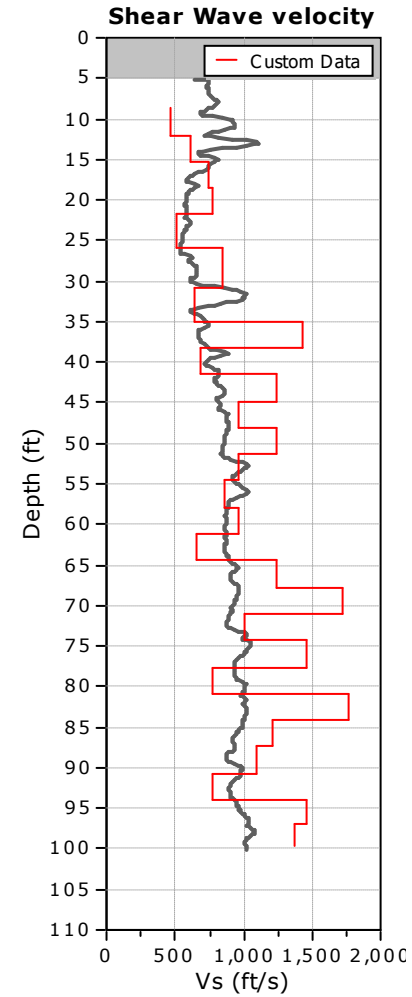
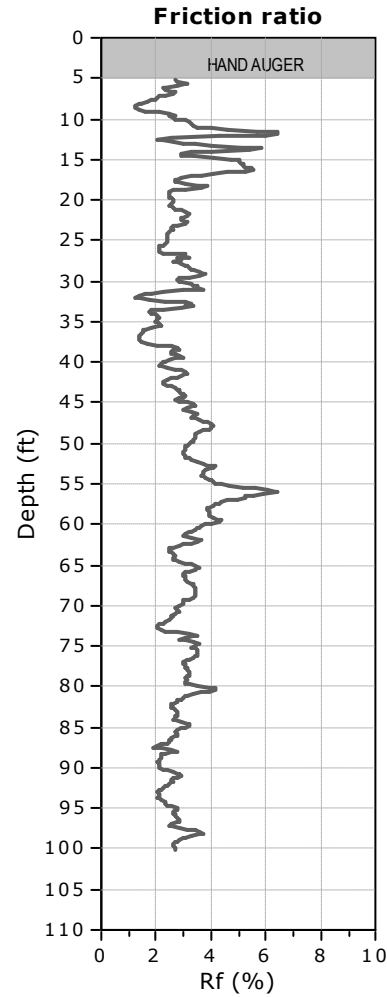
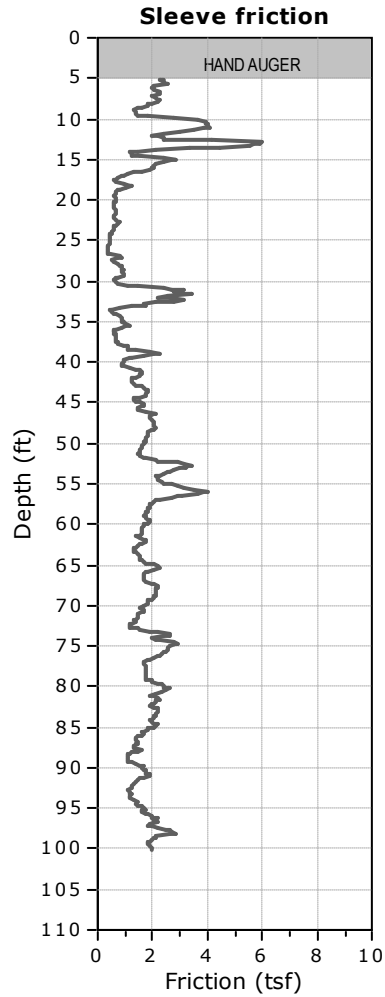
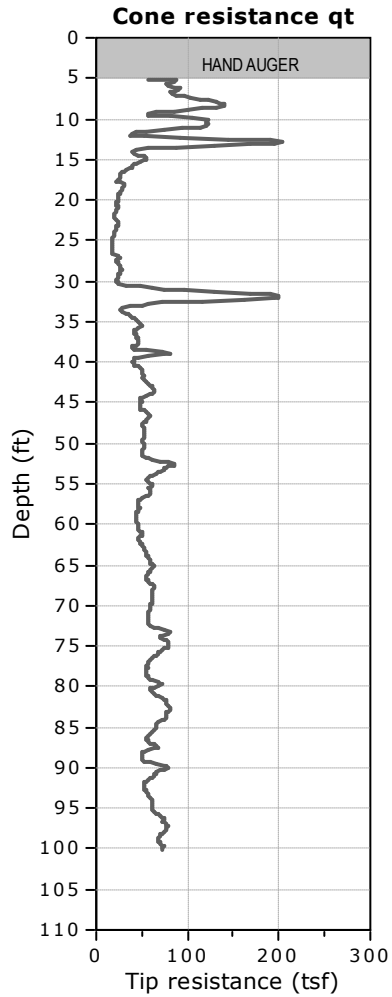
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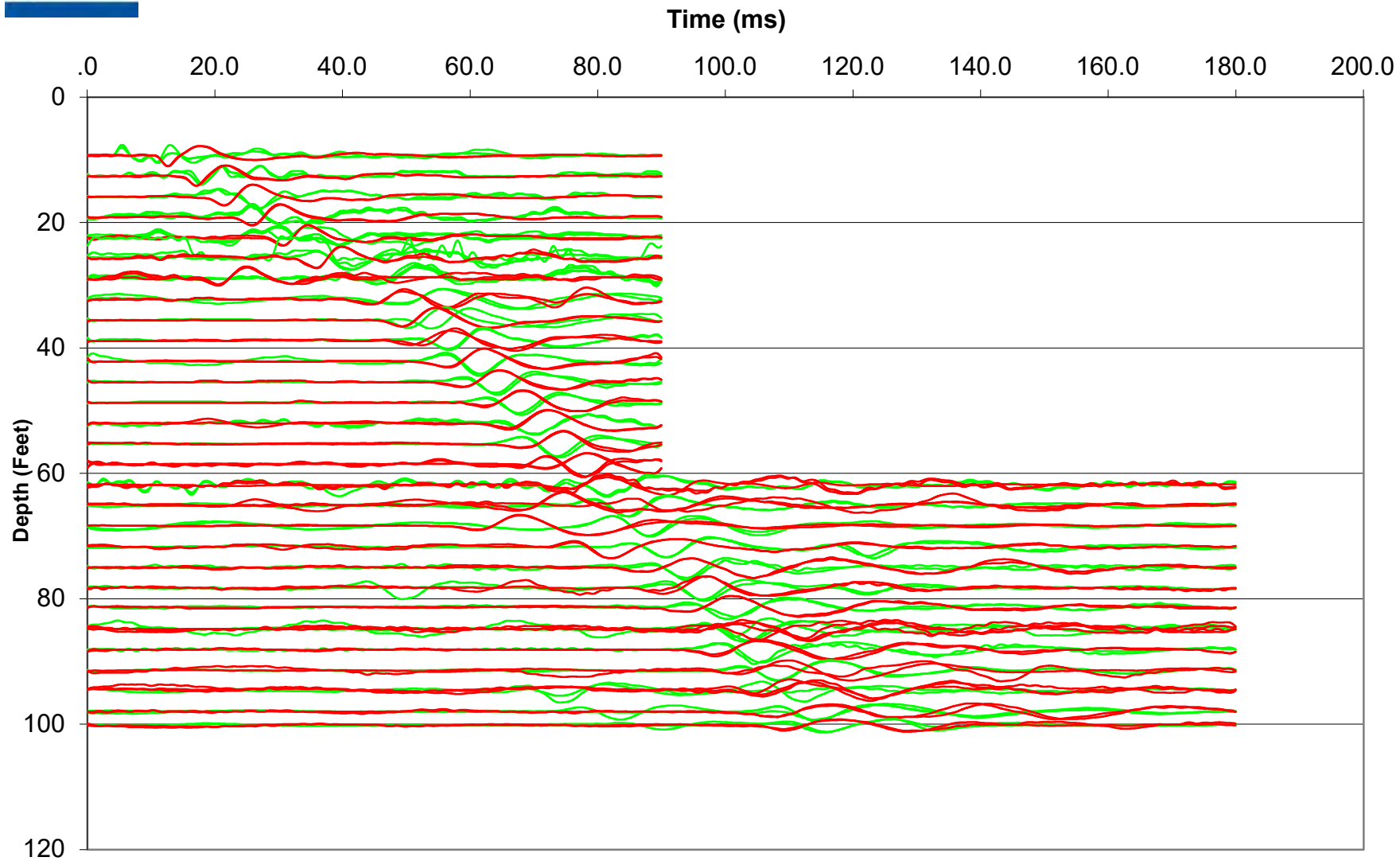


SBTn legend

- | | | |
|---------------------------|------------------------------|-----------------------------------|
| 1. Sensitive fine grained | 4. Clayey silt to silty clay | 7. Gravely sand to sand |
| 2. Organic material | 5. Silty sand to sandy silt | 8. Very stiff sand to clayey sand |
| 3. Clay to silty clay | 6. Clean sand to silty sand | 9. Very stiff fine grained |



Waveforms for Sounding SCPT-4a





Shear Wave Velocity Calculations

Lake Merritt BART Redev

SCPT-4

SCPT-4a

Geophone Offset: 0.66 Feet

Source Offset: 1.67 Feet

01/03/22

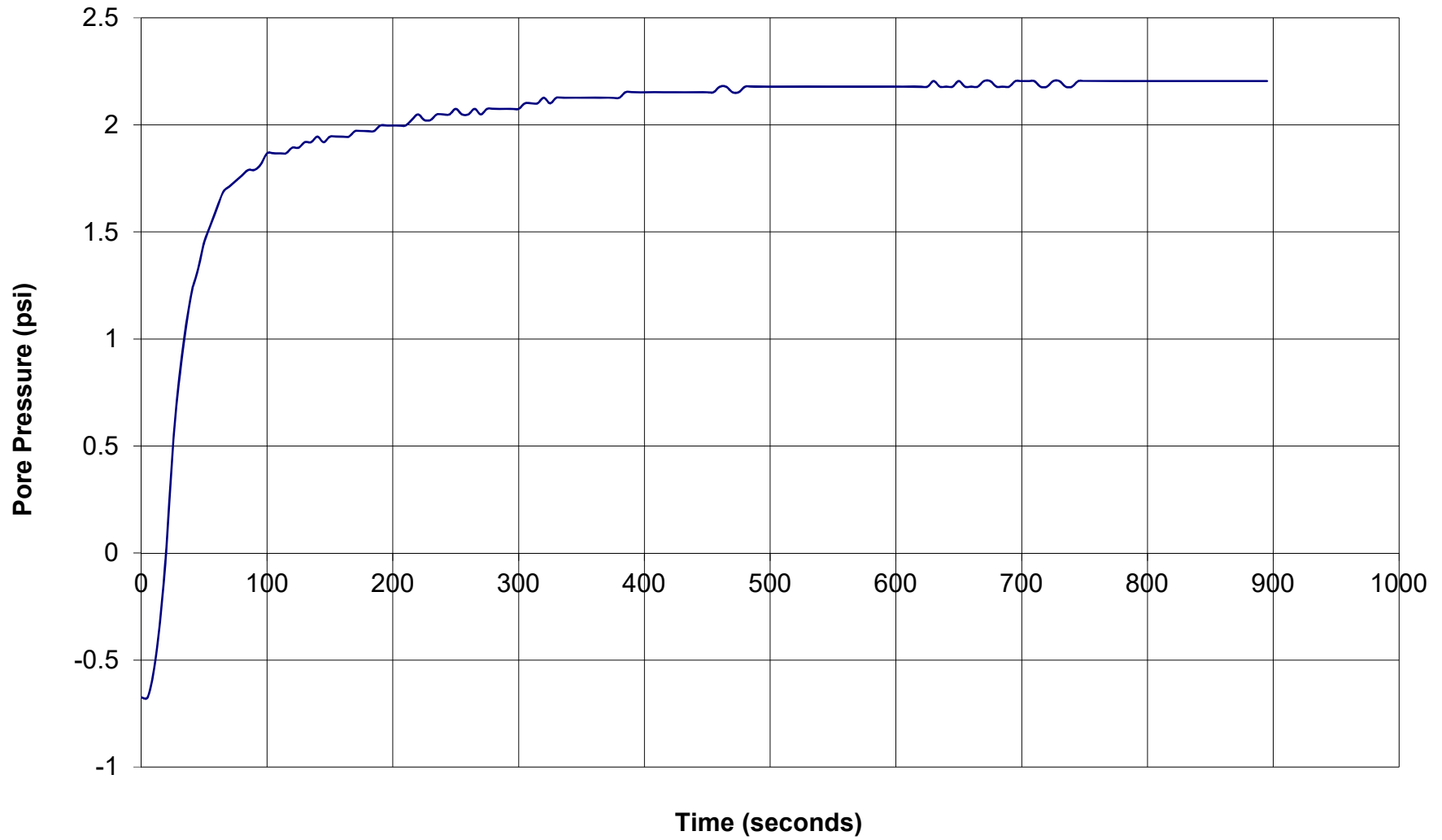
Test Depth (Feet)	Geophone Depth (Feet)	Waveform Ray Path (Feet)	Incremental Distance (Feet)	Characteristic Arrival Time (ms)	Incremental Time Interval (ms)	Interval Velocity (Ft/Sec)	Interval Depth (Feet)
9.35	8.69	8.85	8.85	11.3000			
12.63	11.97	12.09	3.24	18.1500	6.8500	472.7	10.33
15.91	15.25	15.34	3.26	23.4500	5.3000	614.4	13.61
19.19	18.53	18.61	3.26	27.8000	4.3500	750.5	16.89
22.47	21.81	21.88	3.27	32.0000	4.2000	778.5	20.17
25.75	25.09	25.15	3.27	38.4000	6.4000	511.3	23.45
32.32	31.66	31.70	6.55	46.2000	7.8000	839.8	28.38
35.60	34.94	34.98	3.28	51.3000	5.1000	642.5	33.30
38.88	38.22	38.25	3.28	53.6000	2.3000	1425.0	36.58
42.16	41.50	41.53	3.28	58.3500	4.7500	690.1	39.86
45.44	44.78	44.81	3.28	61.0000	2.6500	1237.1	43.14
48.72	48.06	48.09	3.28	64.4000	3.4000	964.3	46.42
52.00	51.34	51.37	3.28	67.0500	2.6500	1237.3	49.70
55.28	54.62	54.65	3.28	70.4500	3.4000	964.5	52.98
58.56	57.90	57.93	3.28	74.2500	3.8000	863.0	56.26
61.84	61.18	61.21	3.28	77.6500	3.4000	964.6	59.54
65.12	64.46	64.49	3.28	82.6000	4.9500	662.6	62.82
68.41	67.75	67.77	3.28	85.2500	2.6500	1237.7	66.10
71.69	71.03	71.05	3.28	87.1500	1.9000	1726.3	69.39
74.97	74.31	74.33	3.28	90.4000	3.2500	1009.2	72.67
78.25	77.59	77.61	3.28	92.6500	2.2500	1457.8	75.95
81.53	80.87	80.89	3.28	96.8500	4.2000	781.0	79.23
84.81	84.15	84.17	3.28	98.7000	1.8500	1773.1	82.51
88.09	87.43	87.45	3.28	101.4000	2.7000	1214.9	85.79
91.37	90.71	90.73	3.28	104.4000	3.0000	1093.4	89.07
94.65	93.99	94.01	3.28	108.6000	4.2000	781.0	92.35
97.93	97.27	97.29	3.28	110.8500	2.2500	1457.9	95.63
100.07	99.41	99.42	2.13	112.4000	1.5500	1375.6	98.34



GREGG DRILLING & TESTING

Pore Pressure Dissipation Test

Sounding: CPT2
Depth (ft): 24.61
Site: LAKE MERRIT
Engineer: JUSTIN RAY

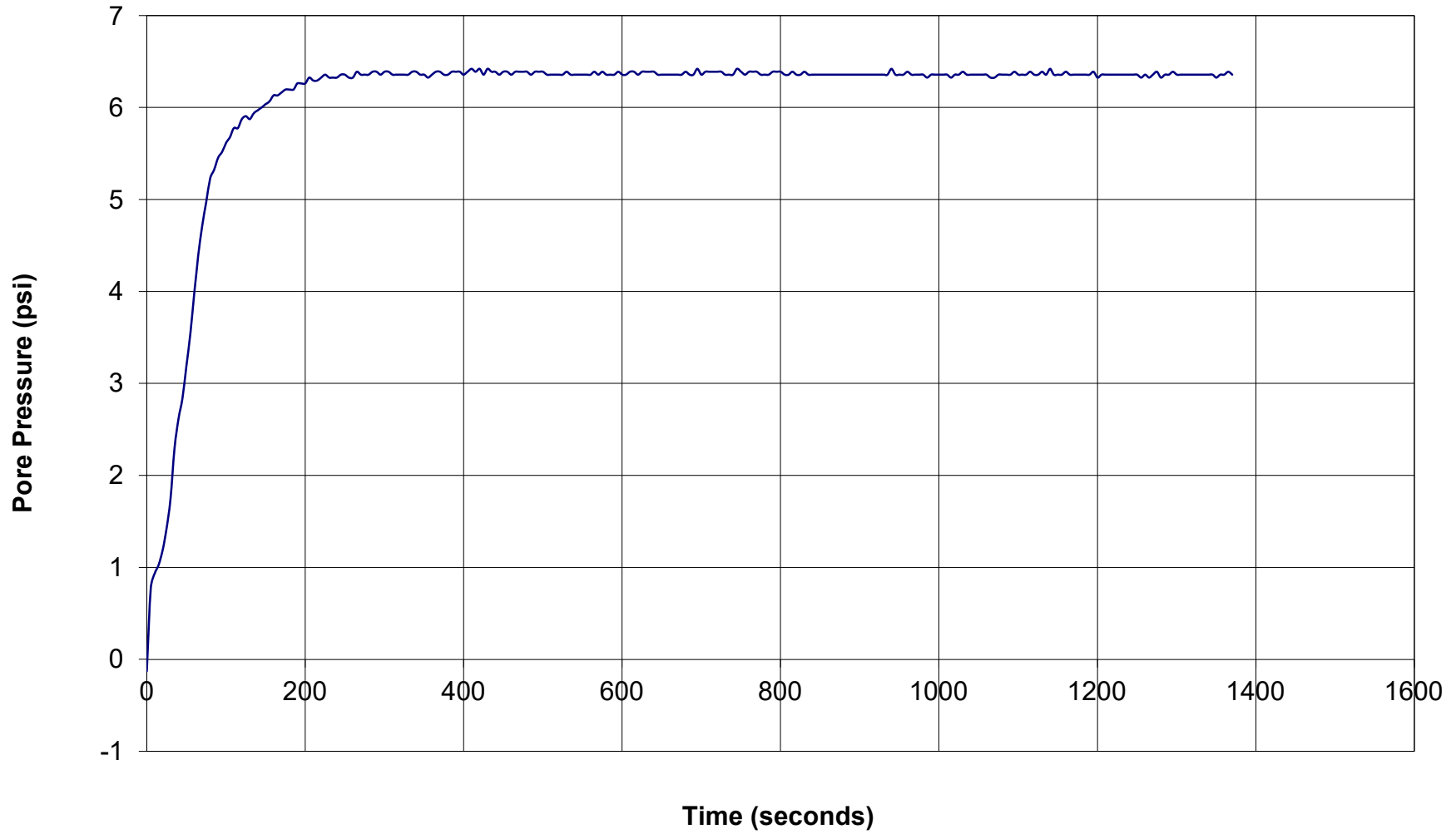




GREGG DRILLING & TESTING

Pore Pressure Dissipation Test

Sounding: SCPT-4
Depth (ft): 32.15
Site: Lake Merritt BART
Engineer: Paul Marien



APPENDIX C

NORCAL GEOPHYSICAL CONSULTANTS INC. REPORT



January 24, 2022

LANGAN

504 14th Street, Third Floor
Oakland, CA 94612

Subject: Borehole Geophysical Logging Investigation
Lake Merritt BART Station
Oakland, California

NORCAL Job No: NS215143

Attention: Mr. Daniel Wagstaffe,

This report presents the findings of a Borehole Geophysical Logging (BGL) investigation performed by NORCAL Geophysical Consultants, Inc., a Terracon company (NORCAL), in support of a geotechnical study being conducted by LANGAN at the Lake Merritt BART Station parking lot located at 51 9th Street in Oakland, California. The BGL survey was authorized under LANGAN Subcontractor Agreement signed by Lori Simpson, Senior Vice President, dated December 23, 2021. The field work was performed on January 6th, 2022 by NORCAL Professional Geophysicist Charles Carter (PGp. 1051). Safety and logistic support were provided by Paul Marien of LANGAN.

The BGL investigation was conducted in one geotechnical borehole designated as B-3. Borehole B-3 was located in the northern portion of the parking lot, as shown in Plate 1. The purpose of the BGL survey was to measure shear (S-) wave and compressional (P-) wave velocities in the borehole. The borehole was drilled to a depth of 250 feet.

1.0 SCOPE OF SERVICES

Our scope of services for this project consisted of conducting a BGL investigation in Borehole B-3. Our scope also included processing and interpreting the BGL data and presenting our findings in a written report.

2.0 BOREHOLE CONDITIONS

The borehole was advanced with a 6-inch diameter rotary wash drilling method through the fill and unconsolidated sediments to 33 feet bgs. A 4.9-inch bit was then used to drill from 33 feet to 237 feet bgs, and a 3.9-inch bit was used to drill from 237 feet to 250 feet bgs. Six-inch steel conductor casing was installed in the upper 9 feet to prevent sloughing from loose fill or soil. Borehole stability was very good. The borehole lost less than one foot of depth due to sediment sloughing.

3.0 BOREHOLE GEOPHYSICAL LOGGING SURVEY

Detailed descriptions of the PS-wave Suspension methodology, our data acquisition and data analysis procedures and results presentation, are provided in Appendix A. The appendix includes a table listing the interval P- and S-wave velocities measured in the borehole.

In addition to PS-wave Suspension logging, the caliper tool was used as a survey technique to assess the relative consolidation of the borehole. The caliper data was also used to identify borehole irregularities that may affect the PS-suspension data quality. Velocity anomalies are common in areas where the borehole walls have lost their natural rigidity due to sloughing or washouts.

4.0 RESULTS

The results of the suspension borehole logging survey are illustrated by the velocity versus depth graph for B-3, as shown on Plate 2. The graph depicts the variations in S-wave velocity (V_s) and P-wave velocity (V_p) versus depth. V_s are indicated by the red triangles and V_p are indicated by the blue squares. These are interval velocities (see Appendix A) and, as such, are the values that should be used in any geotechnical evaluation. To the right of the PS-wave velocity plots, we present a shaded caliper log (labeled as Borehole Diameter).

5.0 DISCUSSION

As shown on Plate 2, the seismic velocities measured in B-3 are between 700- to 2,500 feet per second (ft/s) for V_s , and between 2,200- and 7,700-ft/s for V_p . The measurements made in saturated sediments have P-wave velocities above 4,800 ft/s. Borehole washouts detected in the caliper logs between 20- and 60-ft did affect the shear wave signal strength, and therefore, caused additional acquisition and analysis time. In general, the shear-wave velocities vary with changes in stratigraphy, with higher velocities usually corresponding to coarse grained sediments like sands and gravel and lower velocities usually recorded in muds and clay.

6.0 STANDARD CARE AND WARRANTY

The scope of NORCAL's services for this project consisted of using geophysical methods to characterize the subsurface. The accuracy of our findings is subject to specific site conditions and limitations inherent to the techniques used. We performed our services in a manner consistent with the standard of care ordinarily exercised by members of the profession currently employing similar methods. No warranty, with respect to the performance of services or products delivered under this agreement, expressed or implied, is made by NORCAL.

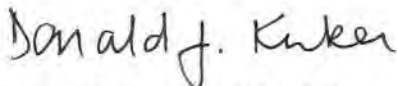
We appreciate the opportunity to provide our services to Langan for this project. If you have any questions or require additional geophysical services, please do not hesitate to contact us.

Sincerely,

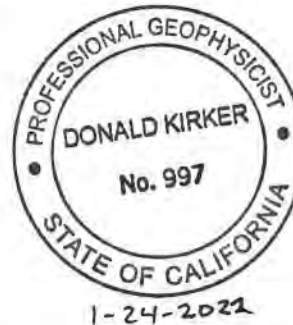
NORCAL Geophysical Consultants, a Terracon Company



Charles Carter
Professional Geophysicist PGp 1051

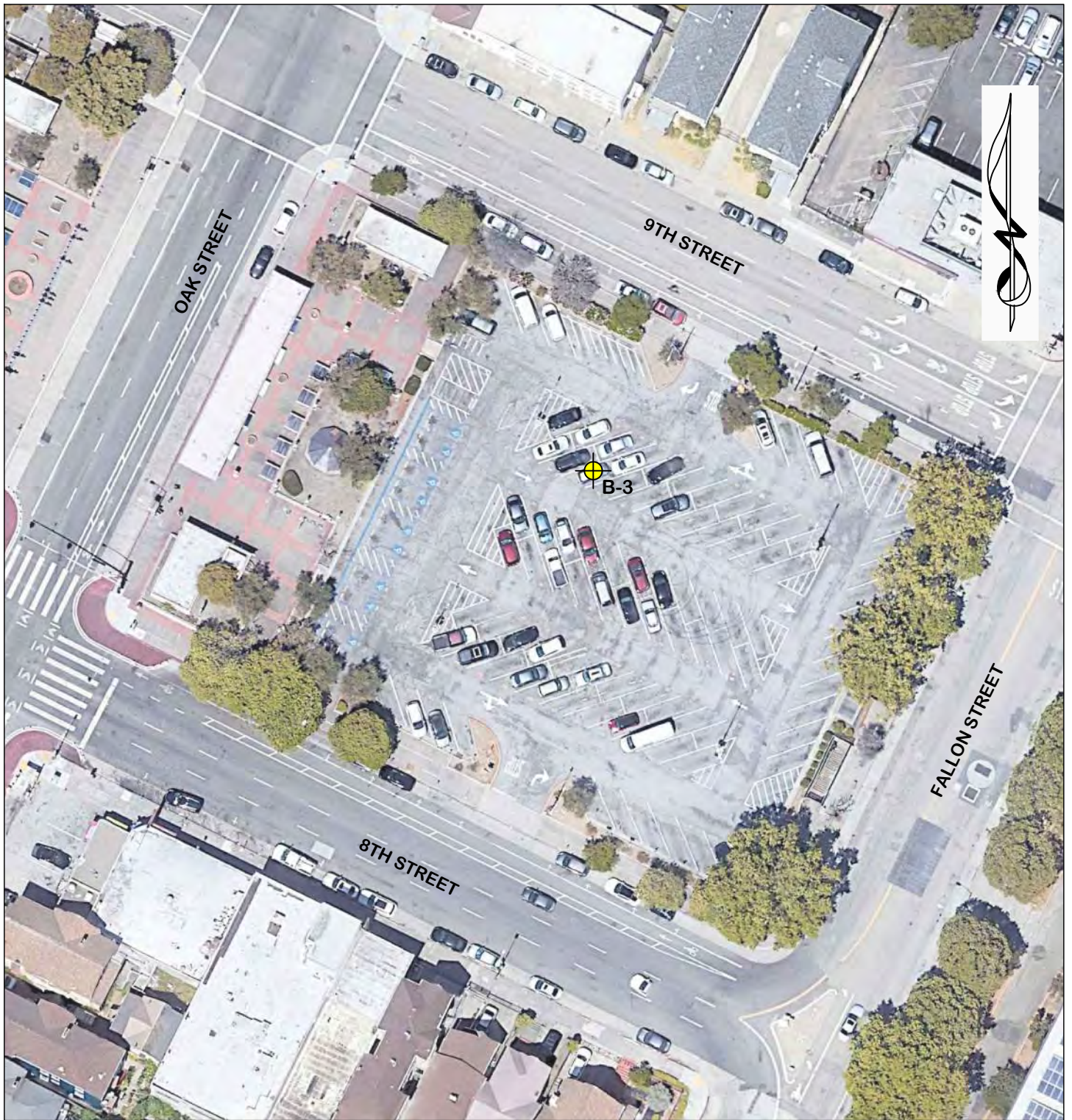


Donald J. Kirker PGp No. 997
Office Manager, Reviewer



CGC/DK

Enclosures: Plate 1: Borehole Location Map
Plate 2: Suspension P- and S-wave Velocity Profile, B-3
Appendix A: PS-wave Suspension Velocity Survey

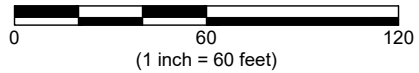


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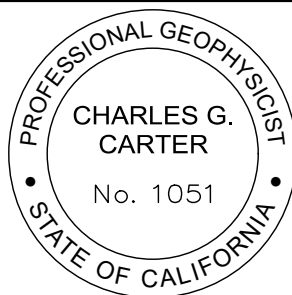


GEOPHYSICAL LOGGED BORING

SCALE



321A BLODGETT STREET PH. (707) 796-7170
 COTATI, CA 94931 FAX. (707) 796-7175
 www.norcalgeophysical.com



**BOREHOLE LOCATION MAP
 BOREHOLE GEOPHYSICAL LOGGING SURVEY
 LAKE MERRITT BART STATION**

LOCATION: OAKLAND, CALIFORNIA

CLIENT: LANGAN

JOB #: NS215143

LOG DATE: 1/6/2022

PLATE

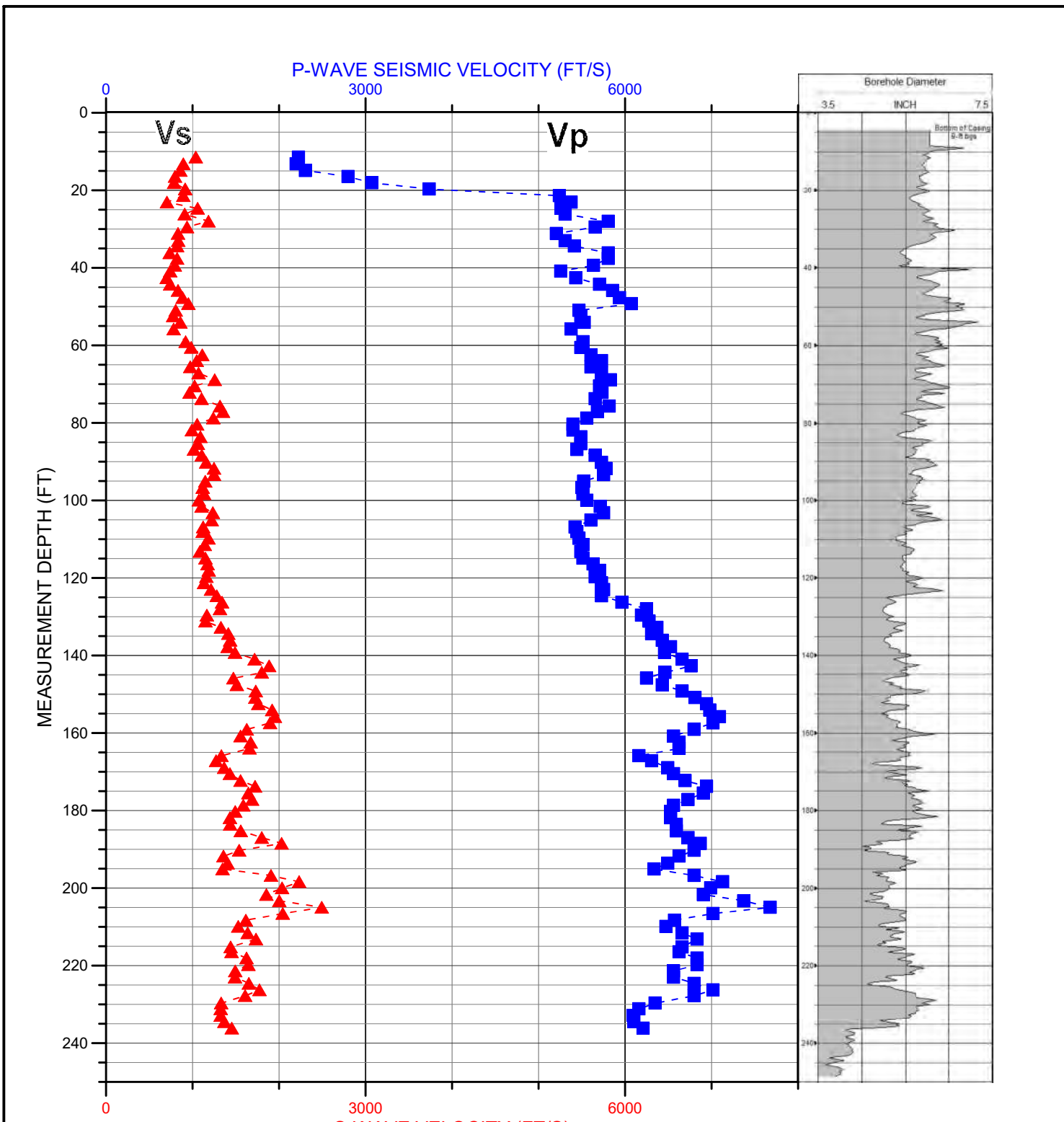
DRAWN BY: H.PHILSON

APPROVED BY: CGC

1

Charles Carter

1/24/2022



LEGEND

▲ - - - ▲	Vs R1-R2
■ - - - ■	Vp R1-R2

NORCAL
GEOPHYSICAL CONSULTANTS INC.
 A Terracon COMPANY

321A BLODGETT STREET COTATI, CA 94931
 PH. (707) 796-7170 FAX. (707) 796-7175
 www.norcalgeophysical.com

PROFESSIONAL GEOPHYSICIST
CHARLES G. CARTER
 No. 1051
STATE OF CALIFORNIA

SUSPENSION P- AND S-WAVE VELOCITY PROFILE BOREHOLE B-3

LOCATION: 51 9th STREET, OAKLAND, CA

CLIENT: LANGAN

JOB #: NS215143	LOG DATE: 1/6/2022	PLATE 2
DRAWN BY: C. CARTER	APPROVED BY: CGC	

Charles Carter 1/24/2022

APPENDIX A

PS-WAVE SUSPENSION VELOCITY SURVEY

The Suspension logger is a highly specialized downhole tool that measures P- and S-wave velocities at discrete depths. The following presents a narrative on its operation and the data reduction procedures we used in computation of suspension P- and S-wave velocities. Also presented are tabulated velocity data tables interpreted for the suspension logging survey in Borehole B-3.

1.0 METHODOLOGY

We measured downhole compressional (P-) and shear (S-) wave velocities using a Robertson Geologging, Ltd. digital suspension logging system. A schematic diagram depicting the probe configuration is shown in Figure A-1. The suspension logging tool is equipped with a dipole seismic energy source hammer located near the base of the probe and a pair of detectors (receivers) designated as near receiver (R1) and far receiver (R2), located within the middle to the upper sections of the probe. The distance from the energy source to the closest receiver is 6.97 feet (2.125 meters) when assembled with a detachable 1-meter isolation tube. The in-line distance between the receiver pair is 3.28 feet (1.0 meter). Each receiver contains one horizontal and one vertical oriented element. The horizontal receiver elements preferentially record shear wave motion. The vertical receiver elements preferentially record first arriving P-wave energy.

Suspension seismic data are collected at discrete depths in fluid-filled portions of the borehole. At each measurement depth, the energy source is activated via commands from the surface control console. This activation causes a metal solenoid to strike the metal strike cylinder. This hammer strike generates a pressure wave in the fluid which transmits energy to the borehole wall. The force of the pressure wave applied to the borehole wall produces seismic waves (both P-wave and S-waves) in the adjacent formation (C. Kitsunozaki, 2000). The seismic waves propagate up the borehole wall to the two detectors. The displacement caused by the seismic waves at the borehole wall creates a pressure gradient in the borehole fluid which is detected by the receiver elements within the probe which is suspended in the borehole fluid. The receivers in the suspension logger are hydrophones which detect pressure changes in the borehole fluid. The source hammer and horizontal elements in the receivers are oriented parallel to one another. By striking the metal strike cylinder on opposite sides of the probe (referred to as left strike and right strike) the amplitudes of both the positive and negative polarity S-waves are maximized.



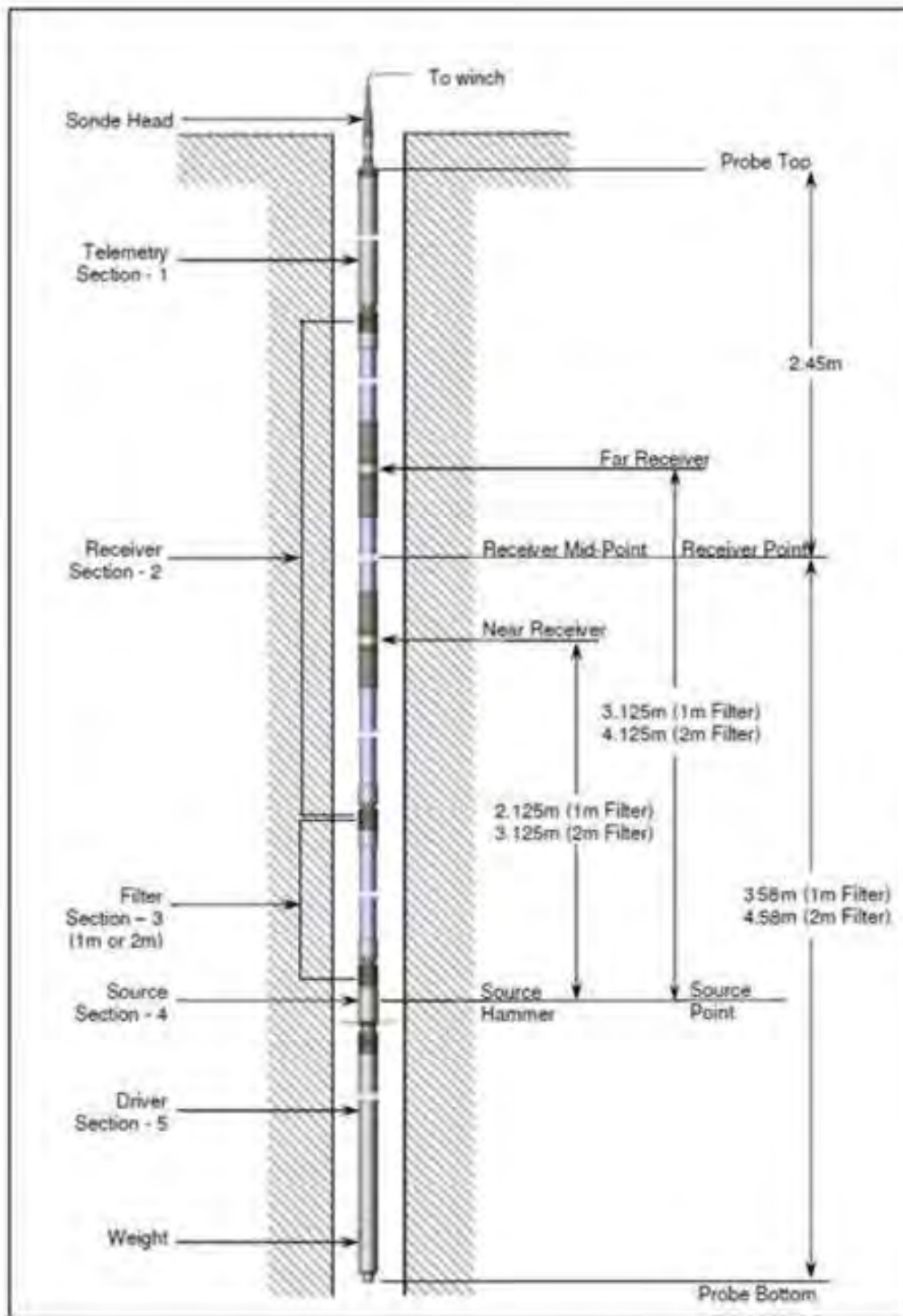


Figure A-1: Suspension logger schematic diagram

When assembled with a 1-meter isolation tube, the suspension logging tool is approximately 19.8 feet long (Figure A-1). By definition, the depth reference point of the tool is half-way between the two receivers. Since this point is approximately 12-ft from the probe tip, the maximum depth of a suspension logging survey, given a non-sloughing borehole, will be reported as at least 12 feet less than the total depth of the borehole. When in operation, the probe is centralized in the borehole with flexible rubber rings positioned just below the source. This is necessary to maintain a gap between the probe housing and borehole wall.

2.0 DATA ACQUISITION

We measured seismic velocities with the suspension logger at stationary depth positions in the fluid-filled borehole distributed vertically at 0.5-meter (1.6-ft) intervals in B-3. Borehole B-3 was drilled to a depth of 250-ft below ground surface. Steel conductor casing was installed to 9 feet bgs. The borehole fluid did not drop below the conductor casing during data acquisition. Since the PS logger needs a fluid-filled, open borehole to transmit energy from the source to the formation, the upper bound of the PS survey was approximately 11.5 feet. Both receiver elements must be below the casing to detect the waves travelling in the formation which is a minimum of 0.5 meters below the casing.

At each measurement station, the energy source fired 3 times in succession. This cycling of the seismic energy resulting in a “left” and “right” strike for the shear waves (recorded with the horizontal elements) and a third strike for the P-waves (recorded with the vertical elements). While recording P-waves and S-waves, an analog low pass filter of 20 KHz was applied to the signals detected by the vertical and horizontal receiver elements. This filtering was used to suppress interference from ambient acoustic noise. High frequency digital filters were used to filter out P-waves for shear-wave velocity picking.

3.0 DATA ANALYSIS

3.1 SEISMIC RECORDS

Suspension P- and S-wave velocities were calculated with the computer software program **PS Logger** published by **Robertson Geologging**. Sample suspension seismic records are presented in Figures A-2, A-3, and A-4. Suspension P- and S-wave velocities were calculated with the computer software program **PSLogger** published by **Robertson Geologging**. Sample suspension seismic records are presented in Figures A-2, A-3, and A-4. Each record displays six seismic wave traces. The upper four traces were detected by the near and far horizontal receiver elements. These traces are labeled according to the element type (H=horizontal), the polarity of the first arrival of the shear waves (n=normal and r=reverse) and the relative distance from the

source. For example, the top wave trace is labeled “far Hn” because it was recorded with the horizontal component furthest from the source using the first strike which produces shear waves with a normal polarity first arrival. The seismic wave traces produced by the second strike of the source produce shear waves with a reverse polarity first arrival.

The lower two traces were detected by the near and far vertical receiver elements and are used to identify P-wave arrivals. These traces are labeled according to the element type (V = vertical) and the relative distance from the source. For example, the bottom wave trace is labeled “near V” because it was recorded to identify P-waves with the vertical component of the near receiver. P-wave traces are produced during the third shot. The direction of impact is inconsequential for the P-waves detected by the vertical elements in the receivers and is therefore not addressed by separate waveforms.

Figure A-2: Sample seismic record at depth 56 ft (17 m) bgs.

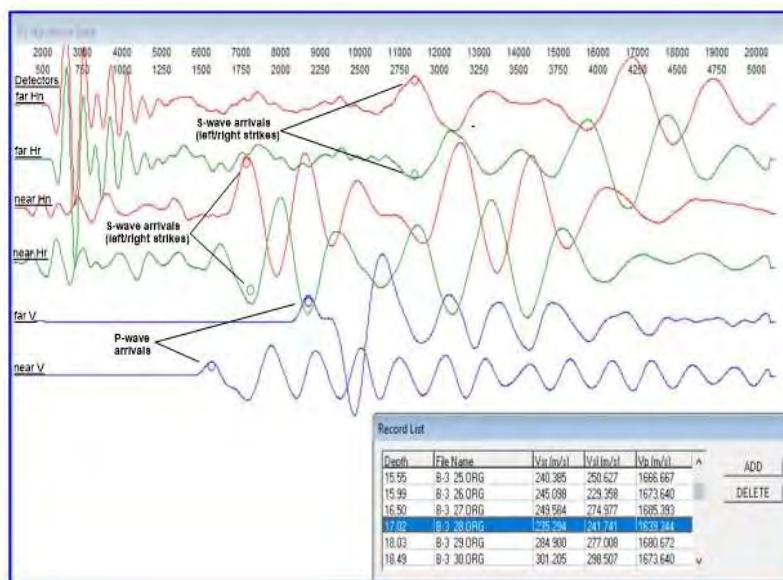


Figure A-3: Sample seismic record at depth 98 ft (30 m) bgs

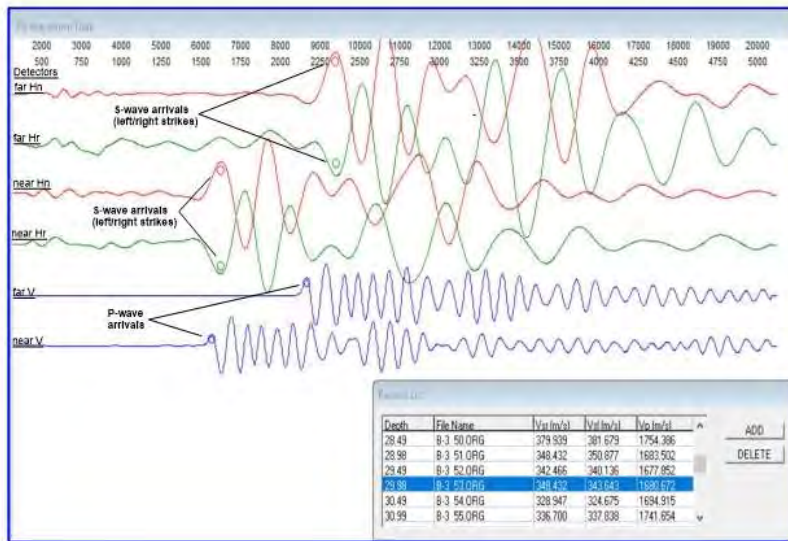
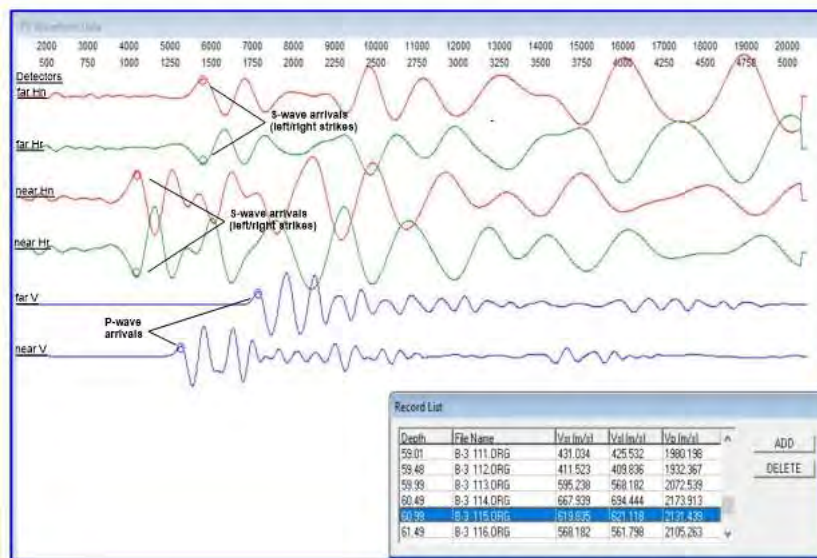


Figure A-4 Sample Waveform Record at a depth of 200 ft (61 m) bgs



3.2 S-WAVE ARRIVALS

On the seismic records shown in Figures A-2, A-3 and A-4, the red traces (Cycle 1) were created by right side hammer impacts and the green traces (Cycle 2) were created by left side hammer impacts of the strike cylinder. Pairing the traces produced by opposite directions of impact reveals a phase reversal that is associated with the onset (arrival) of S-wave energy. However, because there can be slight discrepancies in timing between Cycle 1 and Cycle 2, the reversal point may not occur at the same exact time on both traces. Therefore, the onset of S-wave energy is further defined as the point where there is also a significant increase or decrease in amplitude within the phase reversal time window. S-waves are further distinguished from P-waves by the lower frequency wavelets. These arrival times are depicted by open red and green circles on the upper four wave traces.

3.3 P-WAVE ARRIVALS

P-wave arrivals are identified as the point where the wave traces produced by the final hammer strike (blue in Figures A-2 through A-4) change from horizontal straight lines to sinusoidal wave forms. These points are referred to as “first breaks”. First breaks may have a positive or negative polarity and exceed a minimum threshold. Often it is less ambiguous to pick the first peak of the wavelet from each receiver (R1 and R2). The point of the break or peak are represented by blue circles on the lower two wave traces in the Figures above. The first breaks need only cross a zero-amplitude threshold and be either paired as positive or negative polarity first breaks. An exception occurs in partially saturated to dry unconsolidated alluvium. With the tool string above the static water table, P-wave amplitudes may decrease significantly to a point where the first P-wave arrivals become undetectable. The pressure wave from the fluid is usually detected at the near hydrophone before the compressional wave from the formation in unsaturated sediments. The P-wave velocities measured above the water table may be an estimate due to the weak signal-to-noise ratio of the P-waves in unsaturated sediments and may not be representative of actual in situ P-wave velocities.

3.4 SEISMIC VELOCITY CALCULATIONS

Velocities are calculated by dividing the distance between the two receivers R1 and R2 by the difference in arrival times (AT in seconds) to those receivers. These are considered interval velocities. The general form of the equation is as follows:

$$V_{(R2-R1)} = (X_{R2}-X_{R1})/(AT_{R2}-AT_{R1})$$

Where $(X_{R2}-X_{R1}) = 1$ meter (3.28 feet); AT_{R2} = arrival time at **far** detector, AT_{R1} = arrival time at **near** detector.

The **PS Logger** program calculates two interval Vs velocities at each depth based on arrival time differences from the right strike polarity of cycle 1 (**Vs-right**) records and the left strike polarity of cycle 2 (**Vs-left**) records and one **Vp** interval velocity based on the arrival time differences selected from cycle 3 records. The average of Vs-right and Vs-left is the shear wave velocity reported for each depth.

3.5 INTERVAL SEISMIC VELOCITIES

Final output of velocities and arrival times were made with the reduction program *PS Log Analysis*. The output of these programs consists of two interval velocities at each depth, S-wave (Vs) and P-wave (Vp). The interval Vs were computed using an average of the lag times between the first peaks (both normal and reverse polarity) recorded with the near and far horizontal hydrophones. The interval Vp was computed using the lag time between the first arrivals recorded with the near and far vertical hydrophones.

3.6 POISSON'S RATIO

Poisson's ratio is a measure of the compressibility of soil and rock. Poisson's Ratio in rock ranges from 0.15 to 0.40. Poisson's Ratio in sediments is typically from 0.3 to 0.4 but it can be between 0.4 to 0.5 in saturated sediments. Poisson's Ratio (ν) can be determined from Vp and Vs velocities using the following relationship:

$$\nu = \frac{Vp^2 - 2Vs^2}{2(Vp^2 - Vs^2)}$$

Calculated Poisson's ratios are presented in Table A-1 with the P- and S-wave velocities.

4.0 DATA PRESENTATION

All P- and S-wave velocities interpreted from the receiver to receiver analysis for Borehole B-3 are presented in Table A-1 and are differentiated into both Metric and Imperial Units. The columns below indicating metric units are shown on the left. The columns indicating imperial units are shown on the right and present the Vs and Vp data as depths in feet and velocities in feet per second. These average or interval Vs and Vp velocities have columns shaded blue and are displayed graphically on the depth versus velocity profile on Plate 2 with the main body of the report. The depths of the measurements are based on a probe reference point that is half-way between the near and far receivers.

Table A-1, B-3 PS-wave Velocity Table

Borehole B-3, 51 9th Street, Oakland, CA

NORCAL GEOPHYSICAL CONSULTANTS, INC. JOB NUMBER: NS215143

Client: LANGAN

PS-wave Velocity Table (R1R2), Survey Date: January 6, 2022

METRIC UNITS DEPTHS & INTERVAL VELOCITIES			IMPERIAL UNITS DEPTHS AND INTERVAL VELOCITIES			Poisson's Ratio
Depth	VsAvg	Vp	Depth	VsAvg	Vp	
Meters	M/sec.	M/sec.	Feet	Ft./sec.	Ft./sec.	
3.5	317	678	11.5	1039	2224	0.36
4	272	670	13.2	893	2198	0.4
4.5	262	703	14.9	860	2306	0.42
5	243	853	16.5	798	2797	0.46
5.5	240	937	18.1	787	3073	0.47
6	279	1140	19.7	916	3738	0.47
6.5	273	1597	21.4	895	5240	0.49
7	215	1639	23.1	704	5377	0.49
7.5	323	1604	24.7	1059	5262	0.48
8	278	1618	26.2	911	5307	0.49
8.6	361	1770	28	1185	5805	0.48
9	286	1724	29.5	936	5655	0.49
9.5	254	1587	31.2	832	5206	0.49
10.1	255	1618	33	836	5307	0.49
10.5	250	1650	34.4	821	5413	0.49
11	224	1770	36.2	736	5805	0.49
11.5	250	1770	37.6	821	5805	0.49
12	243	1718	39.4	796	5636	0.49
12.5	227	1603	40.9	743	5256	0.49
13	214	1656	42.6	702	5430	0.49
13.5	227	1739	44.3	743	5704	0.49
14	254	1786	45.9	834	5857	0.49
14.6	270	1810	47.7	887	5937	0.49
15	290	1852	49.3	952	6074	0.49
15.6	246	1667	51	805	5467	0.49
16	237	1674	52.4	778	5490	0.49
16.5	262	1685	54.1	860	5528	0.49
17	239	1639	55.8	782	5377	0.49
18	281	1681	59.1	922	5513	0.49
18.5	300	1674	60.6	984	5490	0.48

19.1	339	1709	62.5	1112	5607	0.48
19.5	320	1747	64	1048	5729	0.48
20	297	1709	65.6	975	5607	0.48
20.5	326	1747	67.2	1070	5729	0.48
21	383	1778	68.9	1258	5831	0.48
21.5	313	1739	70.5	1026	5704	0.48
22	295	1748	72.2	966	5734	0.49
22.5	337	1724	73.8	1106	5655	0.48
23.1	402	1773	75.7	1319	5816	0.47
23.5	412	1732	77.1	1353	5680	0.47
24	378	1695	78.8	1240	5559	0.47
24.5	321	1646	80.4	1053	5399	0.48
25	303	1646	81.9	994	5399	0.48
25.5	333	1674	83.6	1092	5490	0.48
26	324	1674	85.4	1062	5490	0.48
26.5	310	1660	86.9	1017	5444	0.48
27	338	1724	88.4	1108	5655	0.48
27.5	353	1747	90.2	1159	5729	0.48
28	381	1762	91.8	1250	5780	0.48
28.5	381	1754	93.4	1249	5754	0.48
29	350	1684	95.1	1147	5522	0.48
29.5	341	1678	96.7	1119	5503	0.48
30	346	1681	98.3	1135	5513	0.48
30.5	327	1695	100	1072	5559	0.48
31	337	1742	101.6	1106	5713	0.48
31.5	377	1754	103.2	1235	5754	0.48
32.1	373	1709	105.1	1223	5607	0.48
32.6	342	1653	106.9	1123	5421	0.48
33	340	1660	108.1	1117	5444	0.48
33.5	361	1667	109.8	1185	5467	0.48
34	348	1681	111.5	1143	5513	0.48
34.5	331	1674	113.2	1085	5490	0.48
35	351	1681	114.9	1151	5513	0.48
35.5	358	1717	116.4	1174	5631	0.48
36	362	1739	118.1	1187	5704	0.48
36.5	354	1724	119.7	1161	5655	0.48
37	345	1747	121.3	1133	5729	0.48
37.5	370	1754	123	1215	5754	0.48
38	391	1747	124.6	1281	5729	0.47

38.5	409	1818	126.3	1342	5964	0.47
39	402	1905	128	1317	6248	0.48
39.5	356	1887	129.6	1167	6189	0.48
40	350	1914	131.2	1149	6278	0.48
40.5	405	1942	132.8	1328	6369	0.48
41	431	1923	134.4	1414	6308	0.47
41.5	438	1961	136.1	1436	6431	0.47
42	428	1990	137.8	1405	6527	0.48
42.5	455	1969	139.3	1492	6457	0.47
43	524	2030	141	1717	6660	0.46
43.5	575	2062	142.7	1885	6763	0.46
44	549	1970	144.4	1802	6463	0.46
44.5	449	1905	145.9	1474	6248	0.47
45	461	1961	147.6	1512	6431	0.47
45.5	528	2030	149.2	1731	6660	0.46
46	526	2076	150.9	1726	6810	0.47
46.5	537	2116	152.5	1762	6942	0.47
47	586	2128	154.1	1921	6979	0.46
47.5	595	2162	155.8	1953	7092	0.46
48	578	2139	157.4	1896	7016	0.46
48.5	496	2073	159.1	1628	6798	0.47
49	474	2000	160.8	1555	6560	0.47
49.5	510	2020	162.4	1674	6626	0.47
50	506	2020	164	1660	6626	0.47
50.6	407	1878	165.9	1333	6160	0.48
51	388	1923	167.2	1274	6308	0.48
51.5	417	1980	169	1367	6495	0.48
52	437	2000	170.5	1433	6560	0.48
52.5	474	2041	172.3	1556	6694	0.47
53	525	2116	173.8	1723	6942	0.47
53.5	502	2105	175.5	1646	6905	0.47
54	515	2051	177.2	1688	6728	0.47
54.5	484	2000	178.7	1588	6560	0.47
55	456	1990	180.3	1494	6527	0.47
55.5	437	1990	181.9	1432	6527	0.48
56	438	2010	183.6	1436	6593	0.48
56.5	475	2010	185.3	1558	6593	0.47
57	549	2051	187	1802	6728	0.46
57.5	619	2094	188.5	2031	6869	0.45

58	469	2073	190.3	1540	6798	0.47
58.5	414	2020	191.8	1358	6626	0.48
59	428	1980	193.6	1405	6495	0.48
59.5	411	1932	195.1	1347	6338	0.48
60	582	2073	196.8	1908	6798	0.46
60.5	681	2174	198.4	2234	7130	0.45
61	620	2131	200	2035	6991	0.45
61.5	565	2105	201.7	1853	6905	0.46
62	611	2247	203.3	2004	7371	0.46
62.5	760	2340	205	2494	7677	0.44
63	623	2139	206.6	2044	7016	0.45
63.5	493	2003	208.3	1617	6571	0.47
64	466	1974	209.9	1528	6474	0.47
64.5	500	2030	211.6	1639	6660	0.47
65	528	2083	213.2	1733	6833	0.47
65.6	439	2030	215.2	1440	6660	0.48
66	442	2020	216.5	1451	6626	0.48
66.5	495	2083	218.1	1624	6833	0.47
67	502	2083	219.8	1646	6833	0.47
67.5	456	2000	221.4	1494	6560	0.47
68	455	2000	223	1491	6560	0.47
68.5	503	2073	224.6	1651	6798	0.47
69	541	2139	226.3	1773	7016	0.47
69.5	490	2073	227.8	1608	6798	0.47
70	406	1935	229.7	1331	6348	0.48
70.5	405	1878	231.2	1327	6160	0.48
71	404	1858	232.9	1325	6093	0.48
71.5	418	1860	234.5	1370	6102	0.47
72	443	1893	236.2	1455	6208	0.47

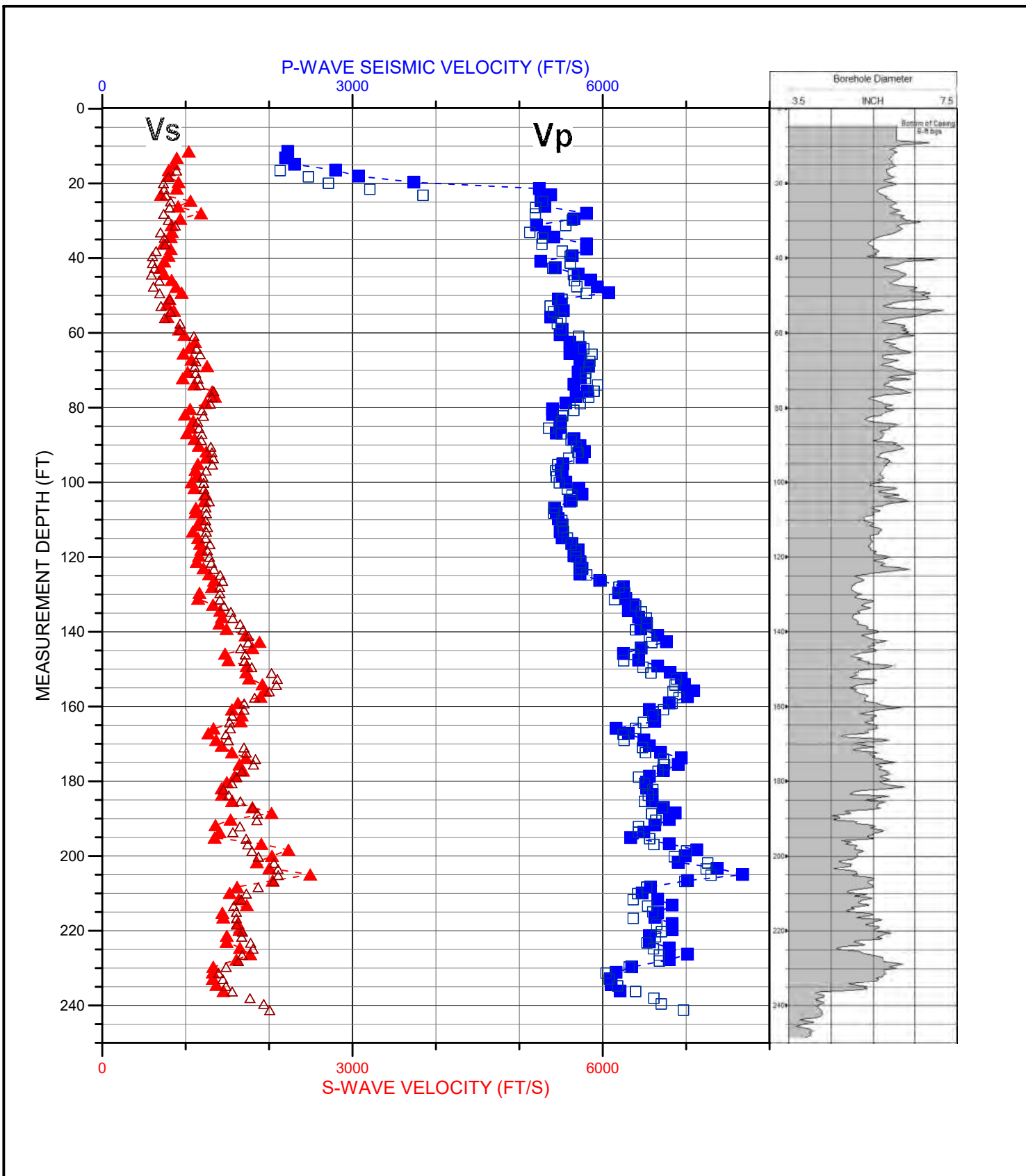
5.0 QUALITY ASSURANCE

For quality assurance purposes, a source to receiver analysis was conducted. Depth verses interval velocities are displayed below with velocities obtained from a source to near receiver (S-R1) analysis in Figure A-5. There is a 2.125 m separation between the source and near receiver. Therefore, the S-R1 velocities are an average velocity over 2.1 m rather than the average velocity over 1 m between the near and far receivers. The center point between the source and near

receiver is 1.56 m lower on the probe than the mid-point between the two receivers. The S-R1 velocity for the record acquired at 10 m, for example, is reported at a depth of 11.6 m. The source to receiver velocity is calculated with the following equation

$$V_{(S-R1)} = (X_S - X_{R1}) / (AT_{R1} - SD)$$

where the S-R1 separation is 2.125m, AT_{R1} = arrival time at **near** detector and SD is the source delay which was 0.24 milliseconds for B-3. The source delay is the time between the source trigger and the source impact and is influenced by the probe's internal electronics and the rigidity of the source springs. The results of this analysis show good agreement relative to the velocities obtained from the receiver to receiver (R1R2) analysis.



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 FAX. (707) 796-7175

LEGEND

- ▲ - - - ▲ - - - ▲ Vs R1-R2
- - - - ■ - - - ■ Vp R1-R2
- □ □ Vp S-R1
- △ △ △ Vs S-R1

SUSPENSION P- AND S-WAVE VELOCITY PROFILE BOREHOLE B-3

LOCATION: 51 9th STREET, OAKLAND, CA

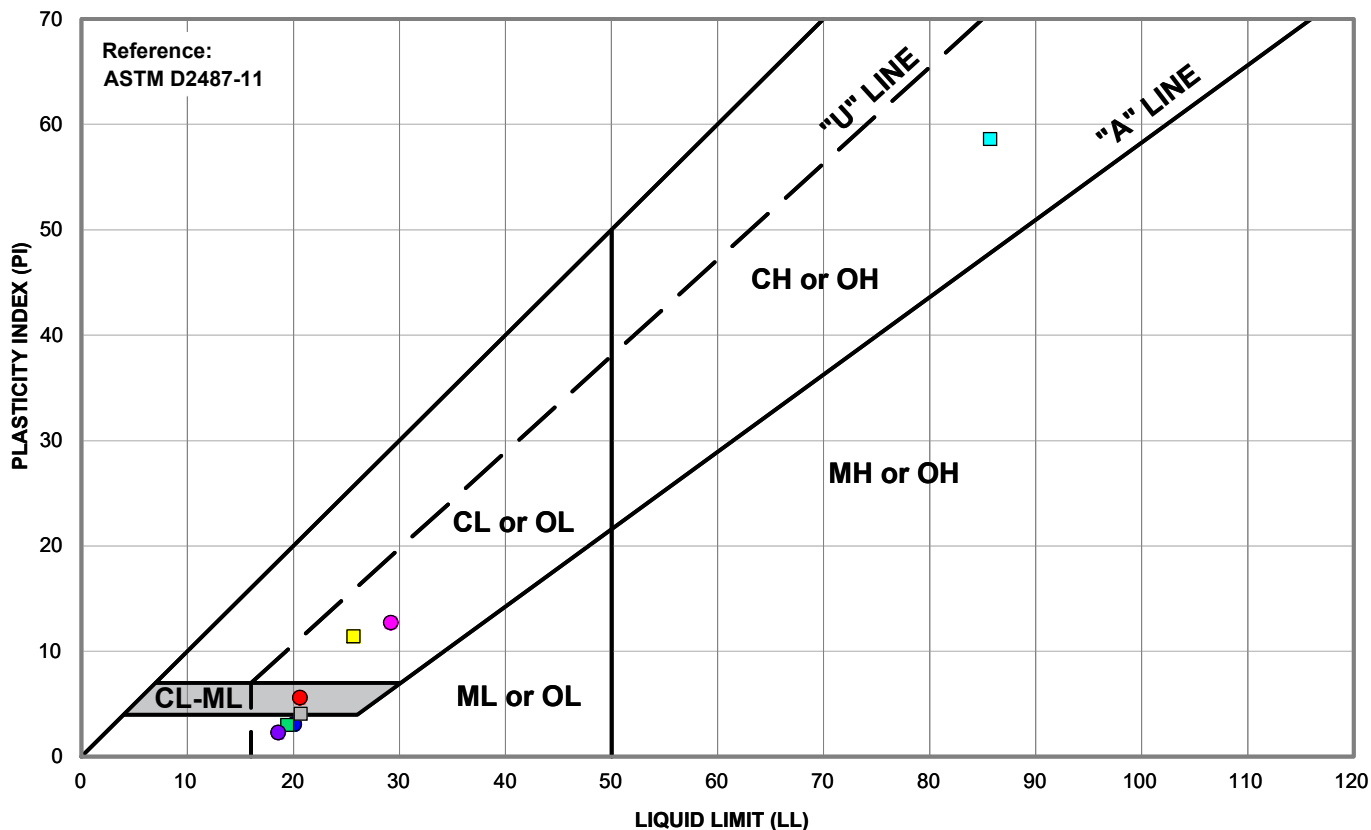
CLIENT: LANGAN

JOB #: NS215143	LOG DATE: 1/6/2022	FIGURE A-5
DRAWN BY: C. CARTER	APPROVED BY: CGC	

Charles Carter 1/24/2022

APPENDIX D
LABORATORY TEST RESULTS

PLASTICITY CHART



Symbol	Source	Description and Classification	Natural M.C. (%)	Liquid Limit (%)	Plasticity Index (%)	% Passing #200 Sieve
●	B-2 at 10 feet	CLAYEY SILTY SAND (SC-SM), yellow-brown	14.0	20	4	17.5
■	B-2 at 15 feet	CLAYEY SILTY SAND (SC-SM), yellow-brown with oxidation	15.9	19	4	35.8
■	B-2 at 36 feet	CLAY (CH), gray	42.7	86	58	94.8
●	B-2 at 41 feet	CLAYEY SAND (SC), gray to olive-gray	15.1	29	13	27.8
●	B-3 at 5.5 feet	CLAYEY SILTY SAND (SC-SM), yellow-brown	12.9	21	6	29.5
■	B-3 at 15 feet	SANDY CLAY (CL), gray-brown with yellow mottling	16.3	26	12	66.8
●	B-4 at 10 feet	SILTY SAND (SM), light brown to yellow-brown	12.9	18	3	24.5
■	B-4 at 20.5 feet	CLAYEY SILTY SAND (SC-SM), gray-brown to olive-gray	17.9	21	5	37.6

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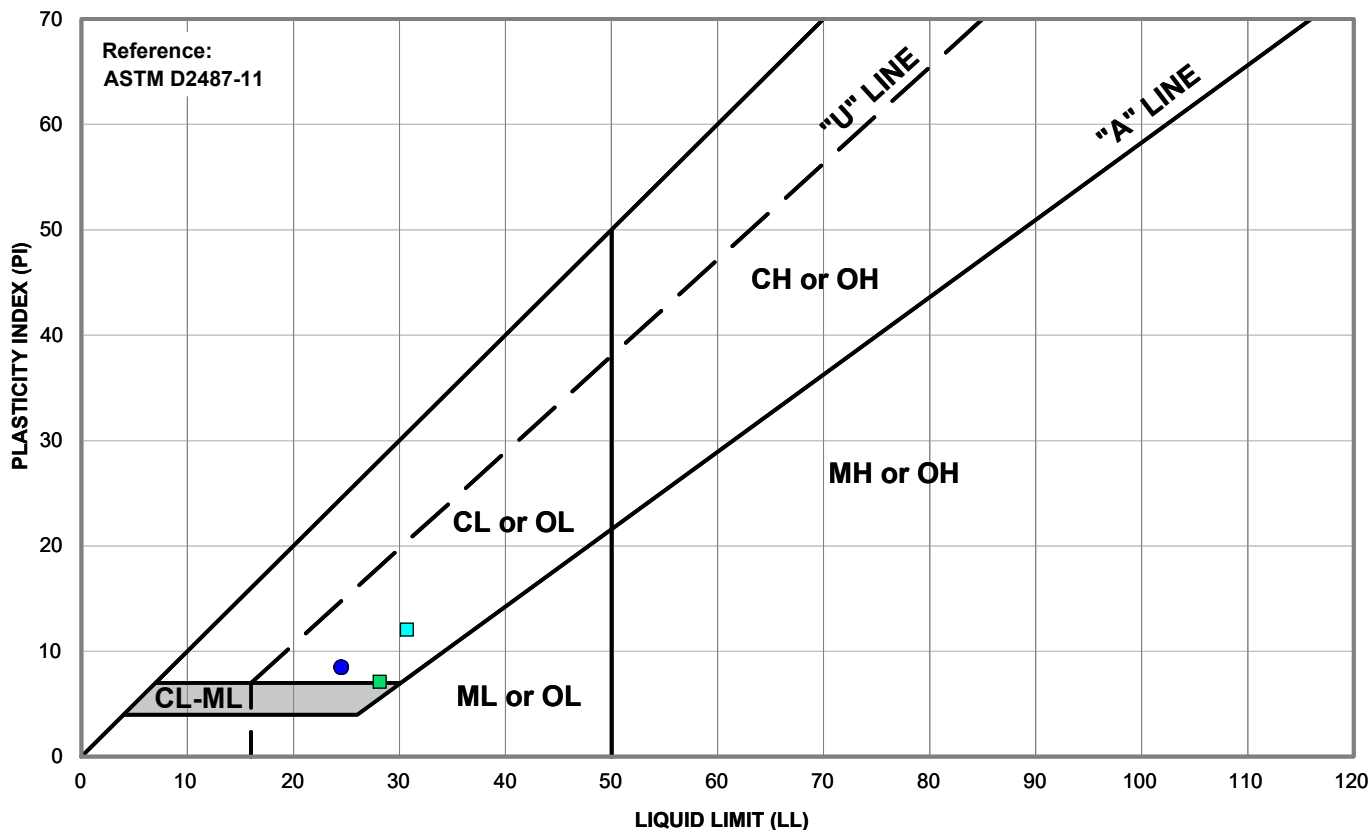
Project
**LAKE MERRITT BART
 BLOCK 1
 BUILDING B AND PASEO**
 OAKLAND
 ALAMEDA COUNTY CALIFORNIA

Figure Title
**PLASTICITY
 CHART**

Project No.
 750650005
 Date
 09/29/2023
 Drawn By
 AG
 Checked By
 EA

Figure
D-1

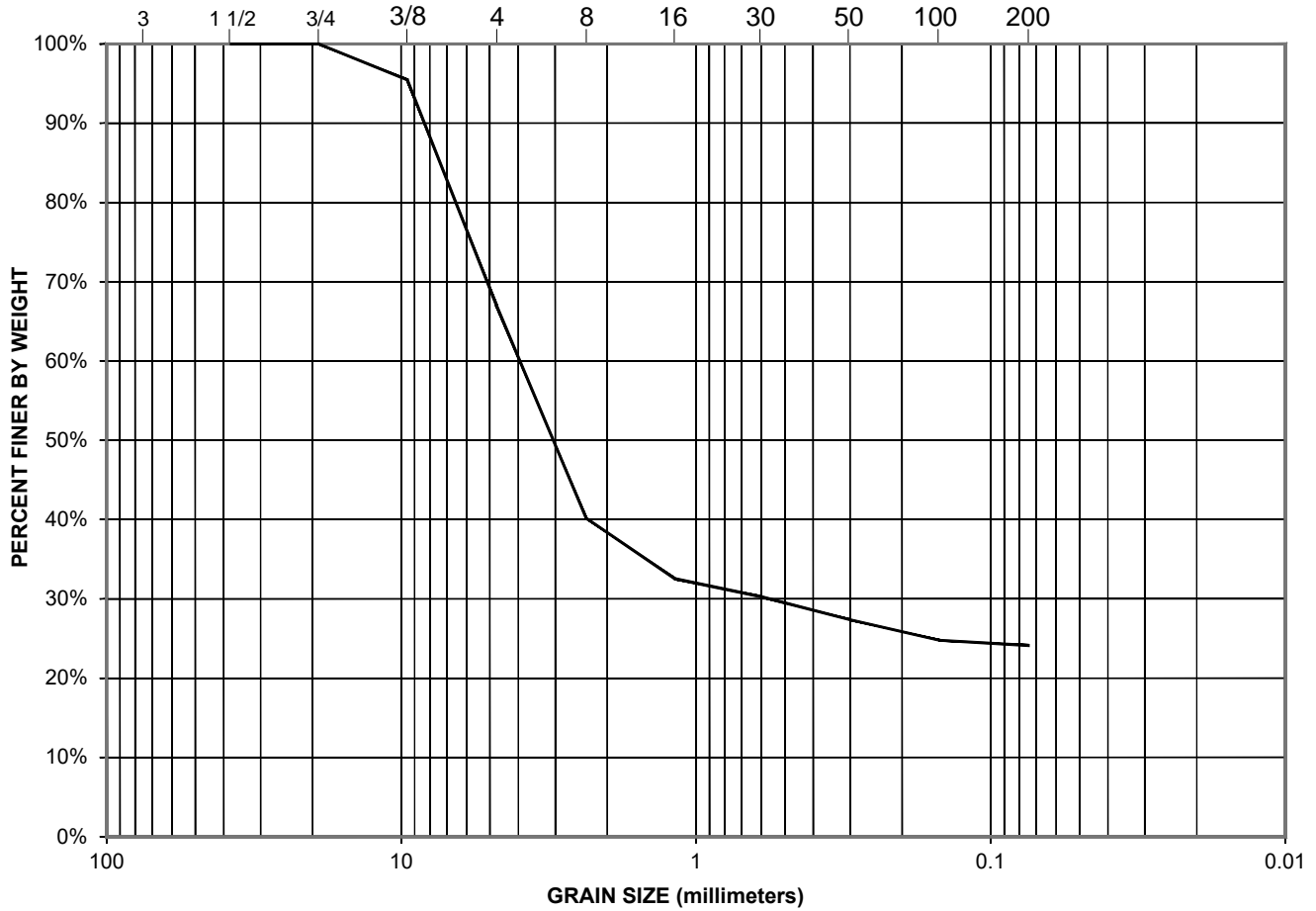
PLASTICITY CHART



Symbol	Source	Description and Classification	Natural M.C. (%)	Liquid Limit (%)	Plasticity Index (%)	% Passing #200 Sieve
●	B-4 at 36 feet	CLAYEY SAND (SC), light brown	10.2	25	8	21.0
■	B-4 at 136 feet	SILTY CLAY (CL-ML), gray-brown	26.7	28	7	88.3
■	B-4 at 140.5 feet	CLAYEY SAND (SC), gray to gray-brown	18.8	31	13	32.5

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	LAKE MERRITT BART BLOCK 1 BUILDING B AND PASEO OAKLAND ALAMEDA COUNTY CALIFORNIA	PLASTICITY CHART	750650005	
			Date	
			09/29/2023	
			Drawn By	D-2
			AG	
			Checked By	
			EA	

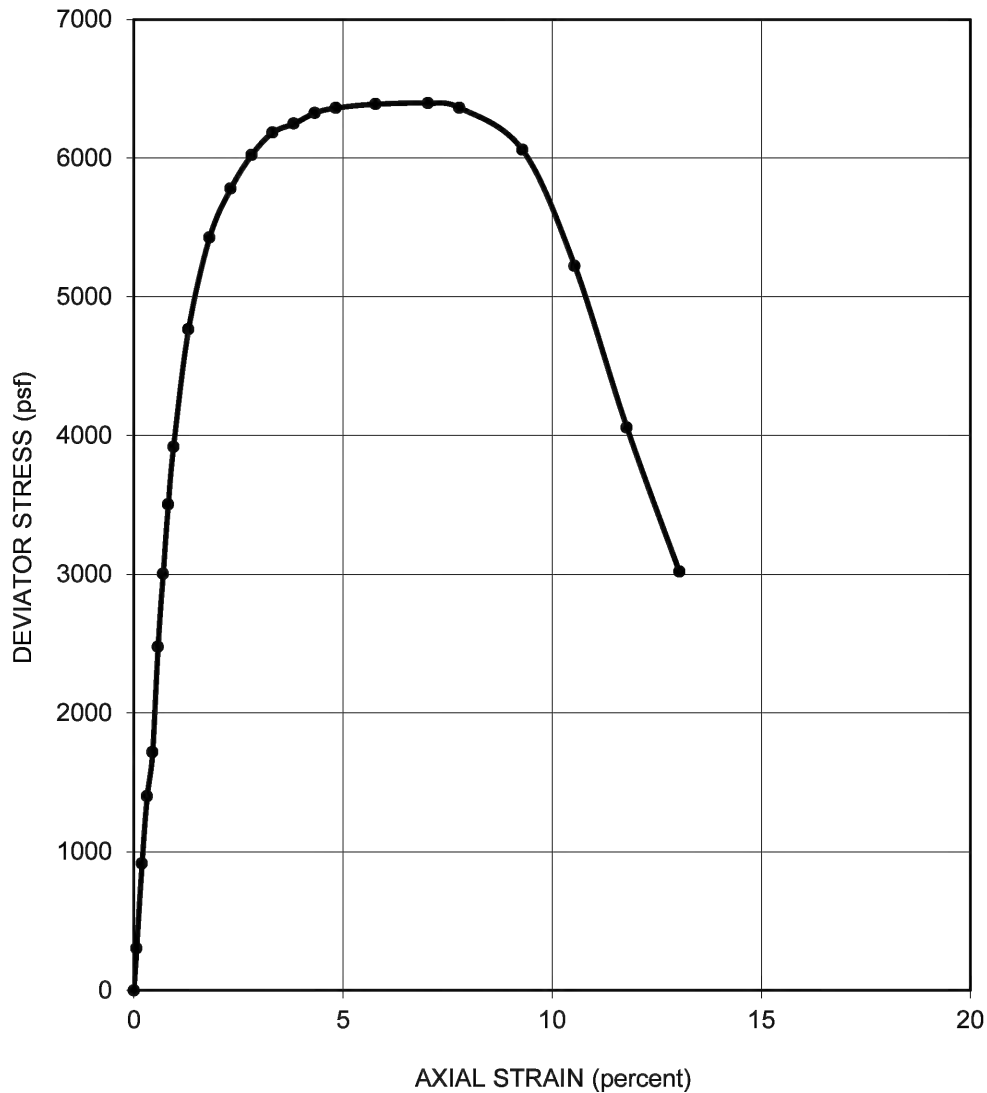
U.S. Standard Sieve Size (in.) U.S. Standard Sieve Numbers Hydrometer




% Gravel		% Sand			% Fines	
Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
33.0		42.9			24.1	

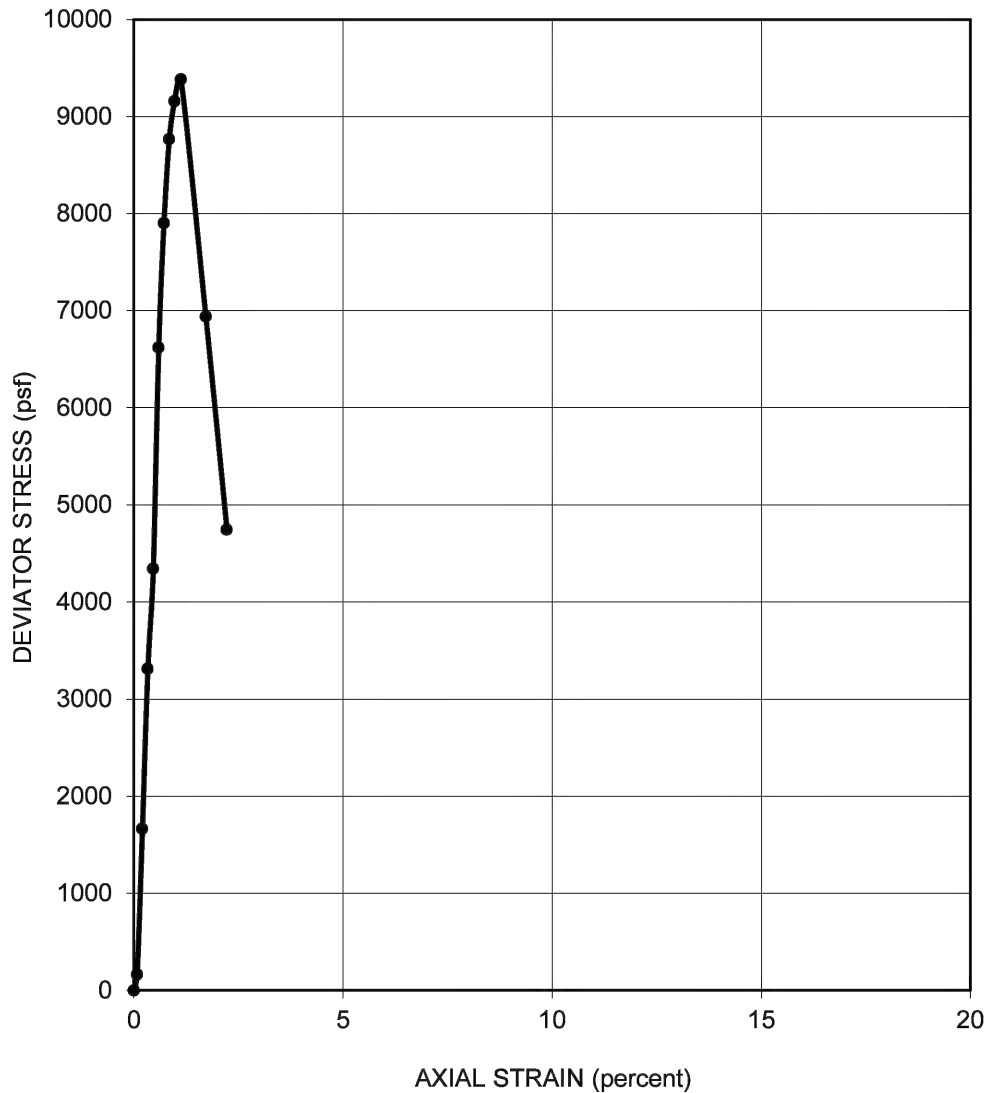
Sample Source	Classification
B-4 at 145 feet	CLAYEY SAND with GRAVEL (SC), gray to dark brown

<p>Langan Engineering and Environmental Services, Inc. 1814 Franklin Street Suite 505 Oakland, CA 94612 T: 510.874.7000 F: 510.874.7001 www.langan.com</p>	Project LAKE MERRITT BART BLOCK 1 BUILDING B AND PASEO OAKLAND ALAMEDA COUNTY CALIFORNIA	Figure Title PARTICLE SIZE ANALYSIS	Project No. 750650005	Figure D-3
			Date 09/29/2023	
			Drawn By AG	
			Checked By EA	




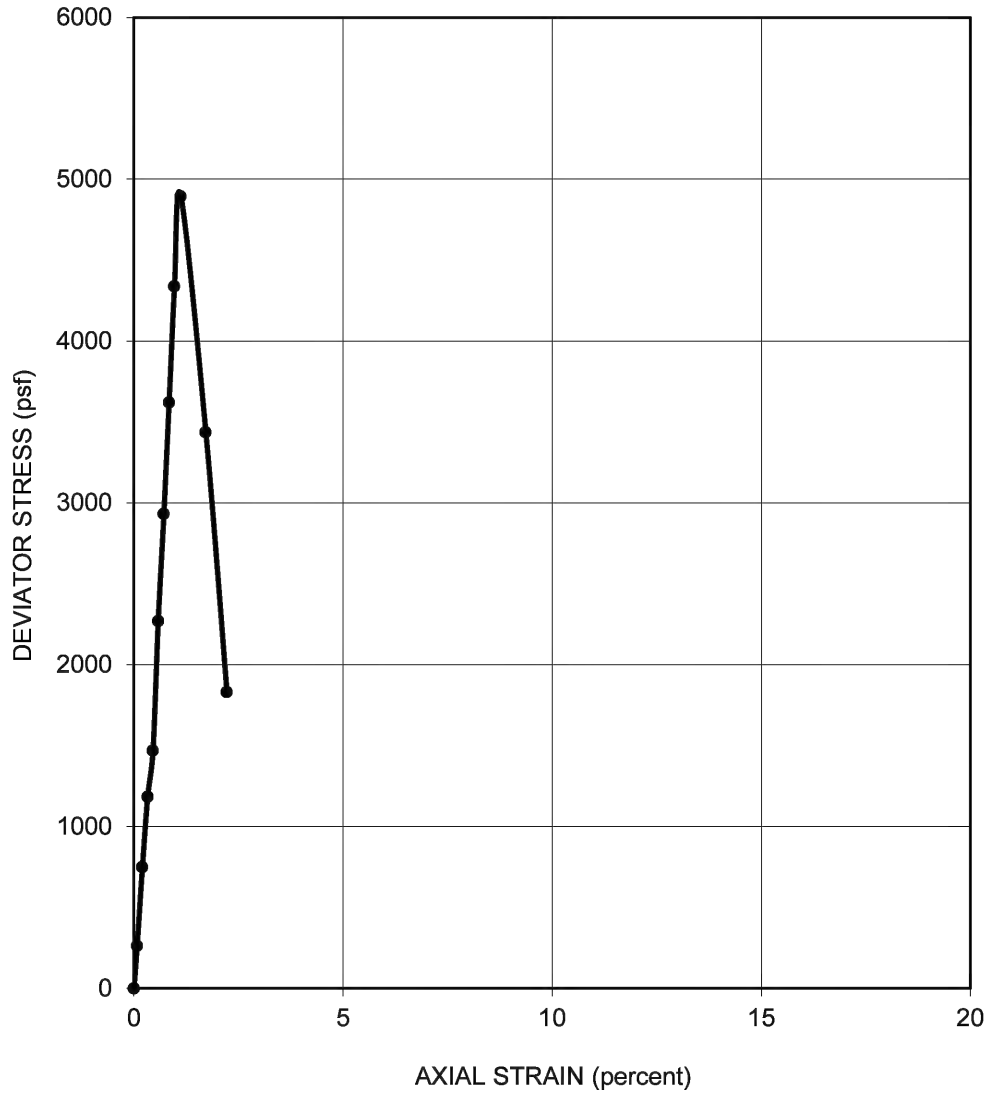
SAMPLER TYPE: Pitcher Barrel (PB)		SHEAR STRENGTH: 3,200 psf	
DIAMETER (in.): 2.86	HEIGHT (in.): 6.1	STRAIN AT FAILURE: 7.0 %	
MOISTURE CONTENT: 18.3 %		CONFINING PRESSURE: 2,500 psf	
DRY DENSITY: 112 pcf		STRAIN RATE: 0.75 % / min	
DESCRIPTION: CLAY with SAND (CL), olive with olive-gray mottling			SOURCE: B-2 at 25 feet

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	LAKE MERRITT BART BLOCK 1 BUILDING B AND PASEO OAKLAND ALAMEDA COUNTY CALIFORNIA	UNCONSOLIDATED-UNDRAINED TRIAxIAL COMPRESSION TEST	750650005	
	Date	09/29/2023		
	Drawn By	AG		
			Checked By	D-4
			EA	




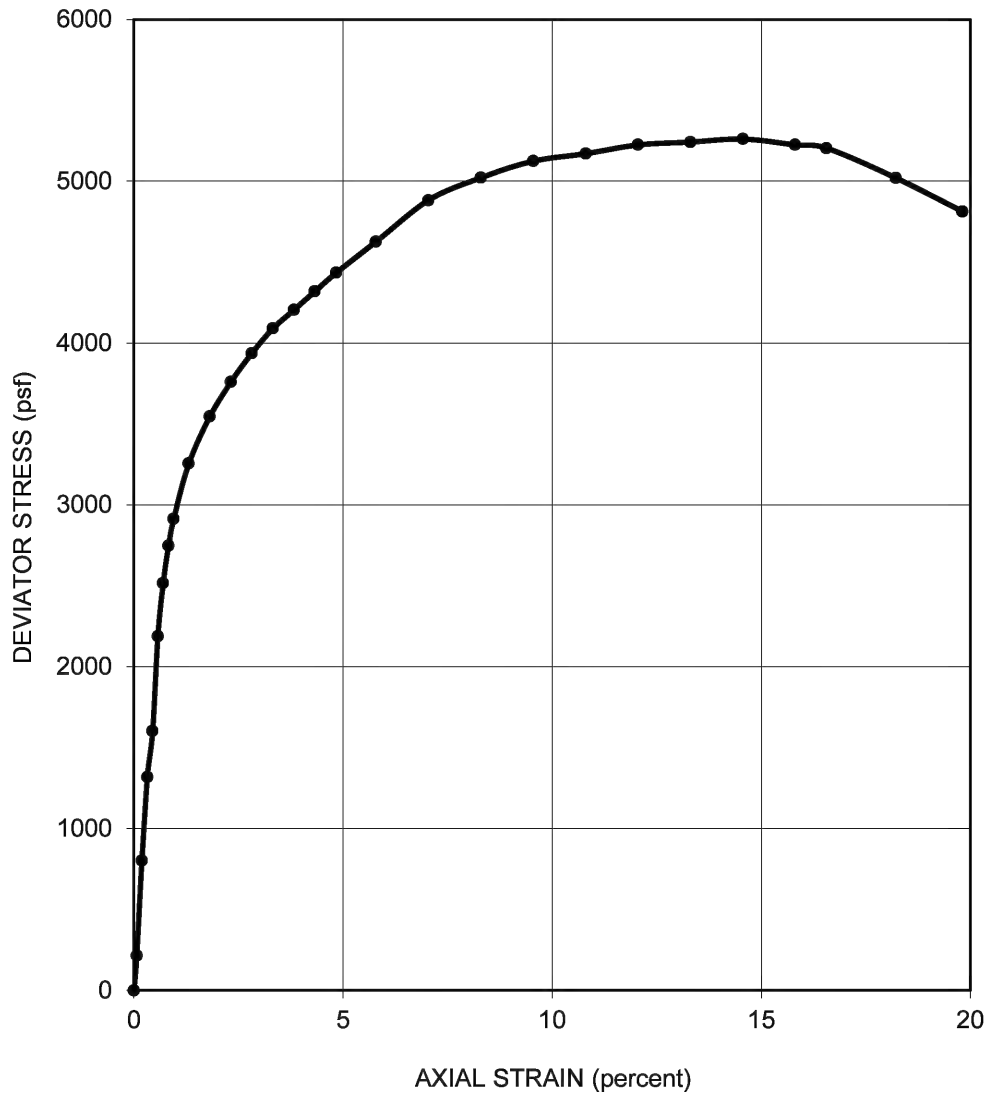
SAMPLER TYPE: Pitcher Barrel (PB)		SHEAR STRENGTH: 4,690 psf	
DIAMETER (in.): 2.86	HEIGHT (in.): 6.1	STRAIN AT FAILURE: 1.1 %	
MOISTURE CONTENT: 26.6 %		CONFINING PRESSURE: 6,000 psf	
DRY DENSITY: 100 pcf		STRAIN RATE: 0.50 % / min	
DESCRIPTION: CLAY (CL), olive-gray			SOURCE: B-2 at 75 feet

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	LAKE MERRITT BART BLOCK 1 BUILDING B AND PASEO OAKLAND ALAMEDA COUNTY CALIFORNIA	UNCONSOLIDATED-UNDRAINED TRIAxIAL COMPRESSION TEST	750650005	
			Date	
			09/29/2023	
		Drawn By	AG	D-5
		Checked By	EA	



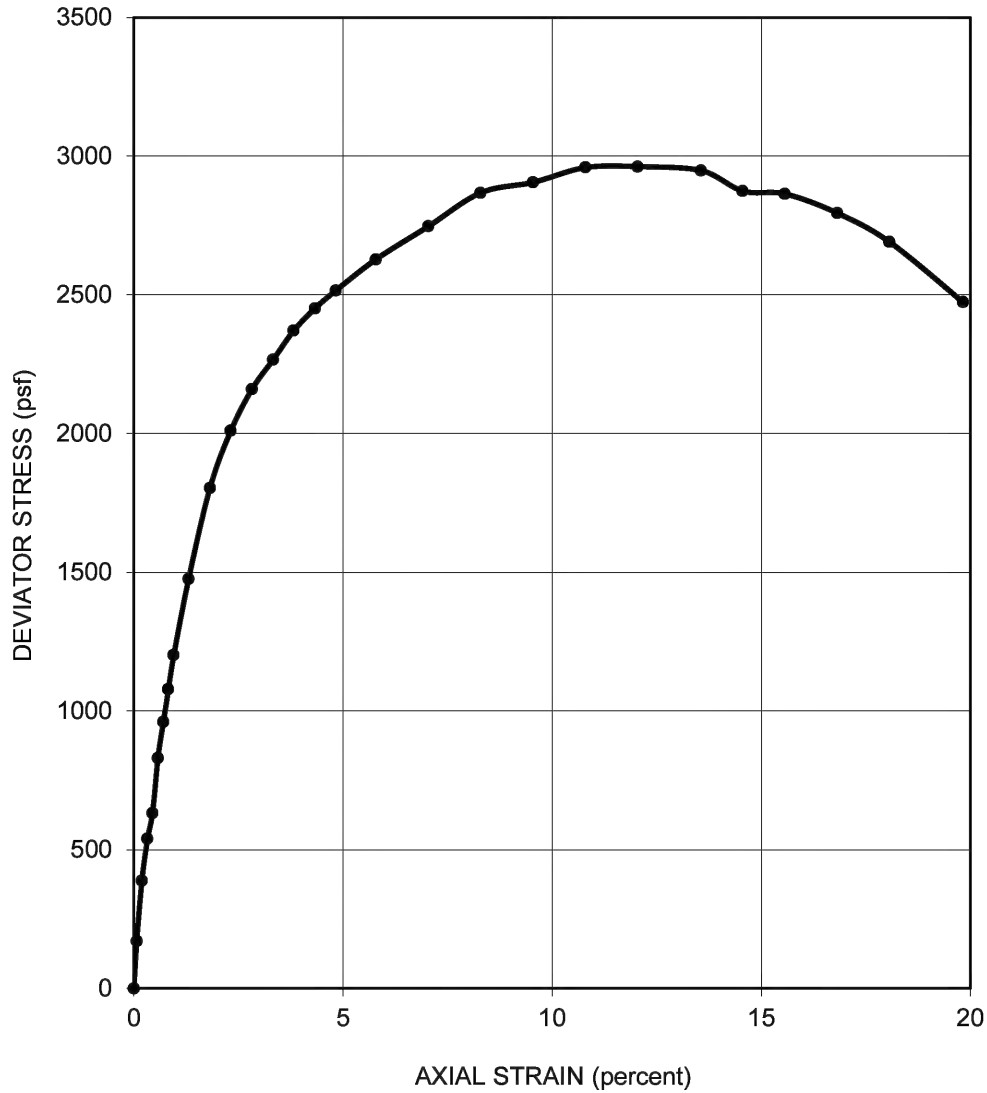
SAMPLER TYPE: Pitcher Barrel (PB)		SHEAR STRENGTH: 2,450 psf	
DIAMETER (in.): 2.86	HEIGHT (in.): 6.1	STRAIN AT FAILURE: 1.1 %	
MOISTURE CONTENT: 38.9 %		CONFINING PRESSURE: 8,500 psf	
DRY DENSITY: 83 pcf		STRAIN RATE: 0.50 % / min	
DESCRIPTION: CLAY (CL), gray			SOURCE: B-2 at 115 feet

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	LAKE MERRITT BART BLOCK 1 BUILDING B AND PASEO OAKLAND ALAMEDA COUNTY CALIFORNIA	UNCONSOLIDATED-UNDRAINED TRIAxIAL COMPRESSION TEST	750650005	
			Date	
			09/29/2023	
		Drawn By	AG	D-6
		Checked By	EA	



SAMPLER TYPE: Pitcher Barrel (PB)		SHEAR STRENGTH: 2,630 psf	
DIAMETER (in.): 2.86	HEIGHT (in.): 6.1	STRAIN AT FAILURE: 14.6 %	
MOISTURE CONTENT: 20.2 %		CONFINING PRESSURE: 3,500 psf	
DRY DENSITY: 110 pcf		STRAIN RATE: 0.75 % / min	
DESCRIPTION: CLAY (CL), olive with yellow-brown and olive-gray mottling			SOURCE: B-3 at 35 feet

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	LAKE MERRITT BART BLOCK 1 BUILDING B AND PASEO OAKLAND	UNCONSOLIDATED-UNDRAINED TRIAxIAL COMPRESSION TEST	750650005	
	ALAMEDA COUNTY CALIFORNIA		Date 09/29/2023	
			Drawn By AG	
			Checked By EA	D-7



SAMPLER TYPE: Sprague & Henwood (S&H)		SHEAR STRENGTH: 1,480 psf	
DIAMETER (in.): 2.38	HEIGHT (in.): 5.61	STRAIN AT FAILURE: 12.0 %	
MOISTURE CONTENT: 35.2 %		CONFINING PRESSURE: 2,500 psf	
DRY DENSITY: 89 pcf		STRAIN RATE: 0.75 % / min	
DESCRIPTION: SANDY CLAY (CL), gray-brown with orange oxidation staining			SOURCE: B-4 at 26 feet

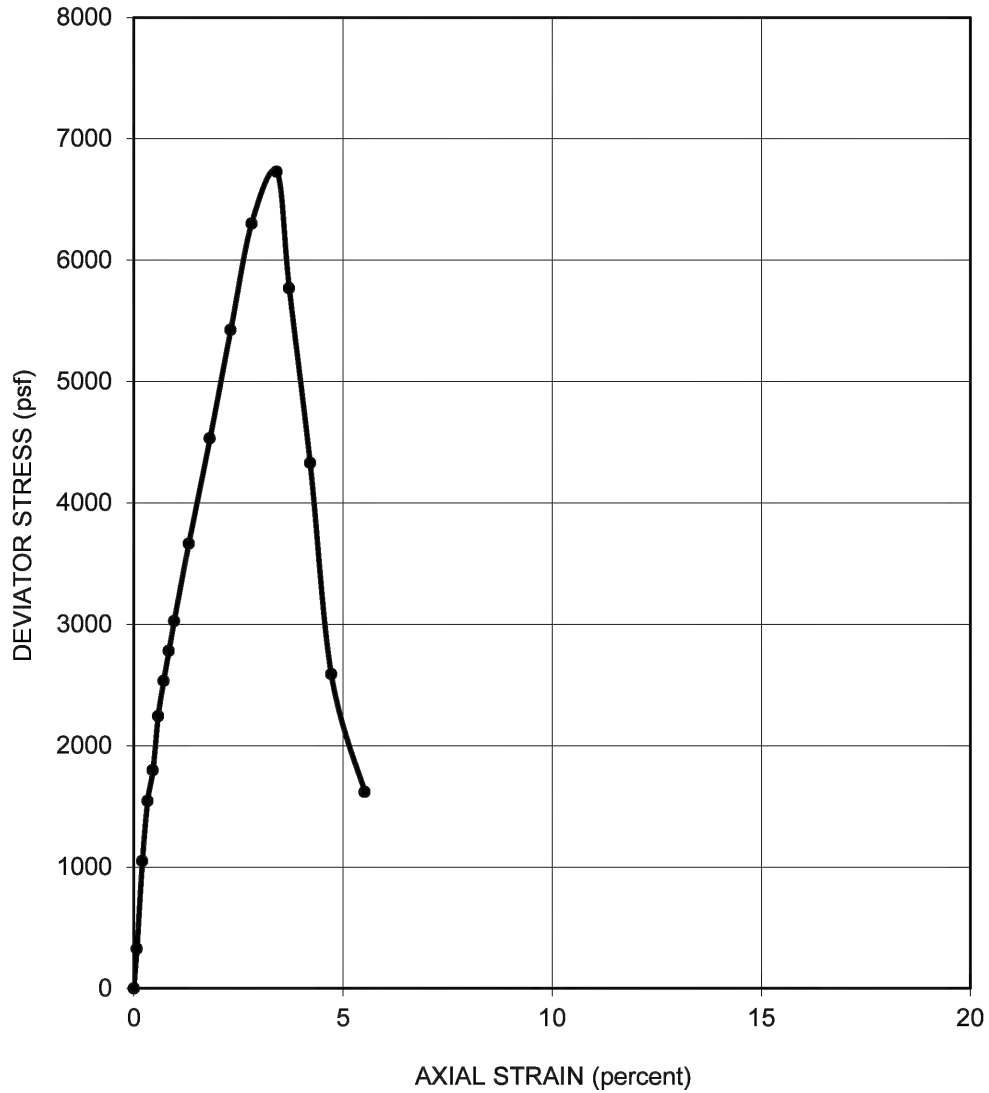
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Project
**LAKE MERRITT BART
 BLOCK 1
 BUILDING B AND PASEO**
 OAKLAND
 ALAMEDA COUNTY CALIFORNIA


Figure Title
**UNCONSOLIDATED-UNDRAINED
 TRIAXIAL COMPRESSION TEST**

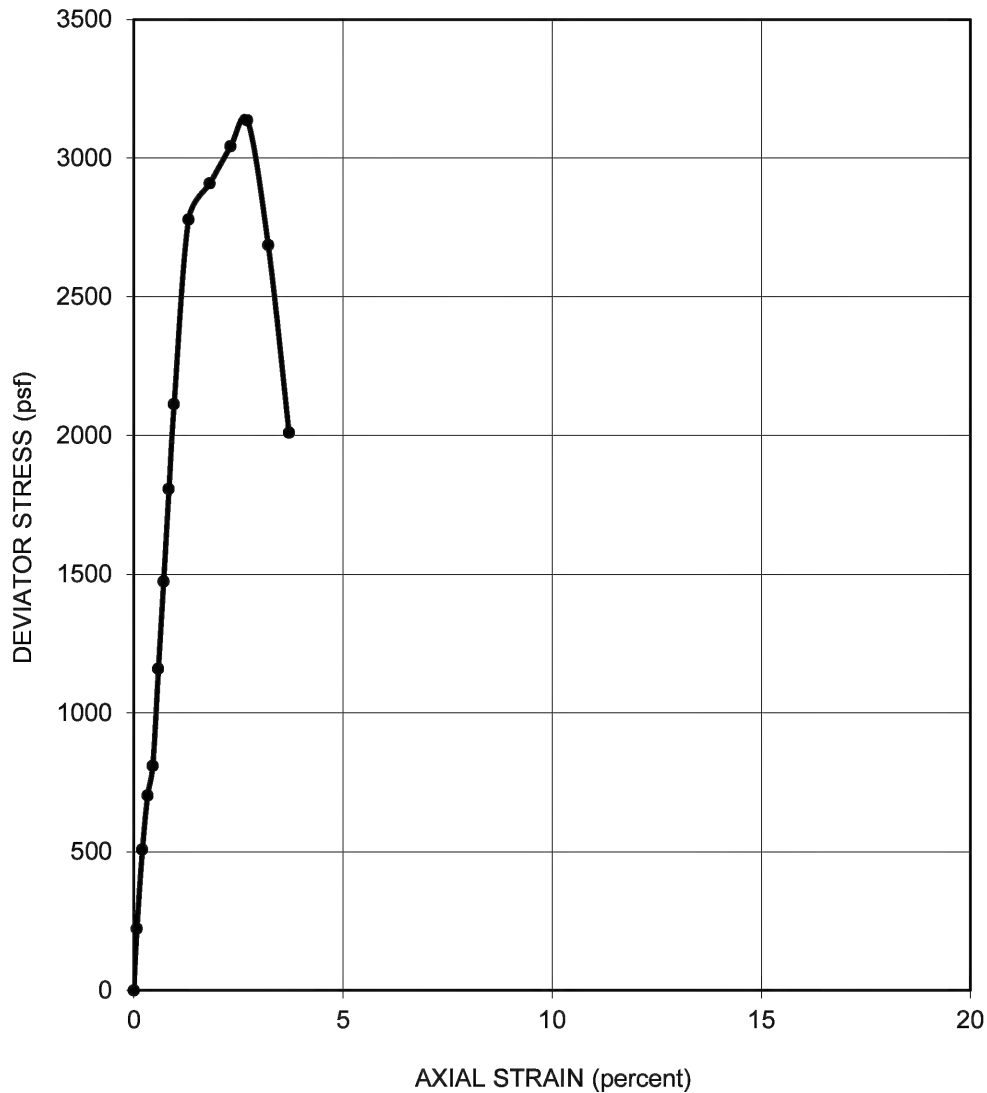
Project No.
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Figure
D-8




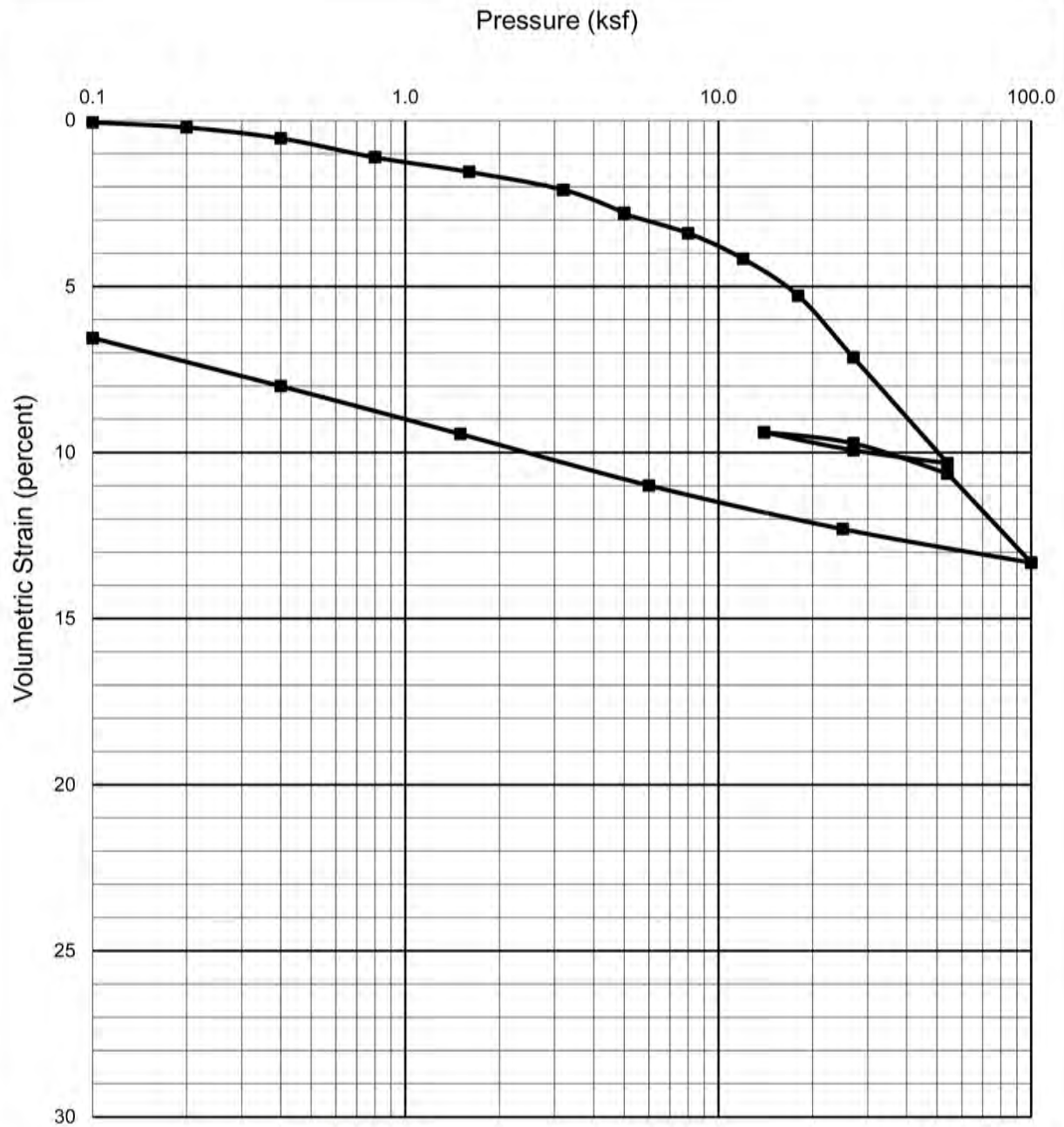
SAMPLER TYPE: Pitcher Barrel (PB)		SHEAR STRENGTH: 3,360 psf	
DIAMETER (in.): 2.86	HEIGHT (in.): 5.92	STRAIN AT FAILURE: 3.4 %	
MOISTURE CONTENT: 16.8 %		CONFINING PRESSURE: 4,500 psf	
DRY DENSITY: 115 pcf		STRAIN RATE: 0.50 % / min	
DESCRIPTION: SANDY CLAY (CL), brown to dark brown			SOURCE: B-4 at 55 feet

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	LAKE MERRITT BART BLOCK 1 BUILDING B AND PASEO OAKLAND ALAMEDA COUNTY CALIFORNIA	UNCONSOLIDATED-UNDRAINED TRIAxIAL COMPRESSION TEST	750650005	
			Date	
			09/29/2023	
		Drawn By	AG	D-9
		Checked By	EA	



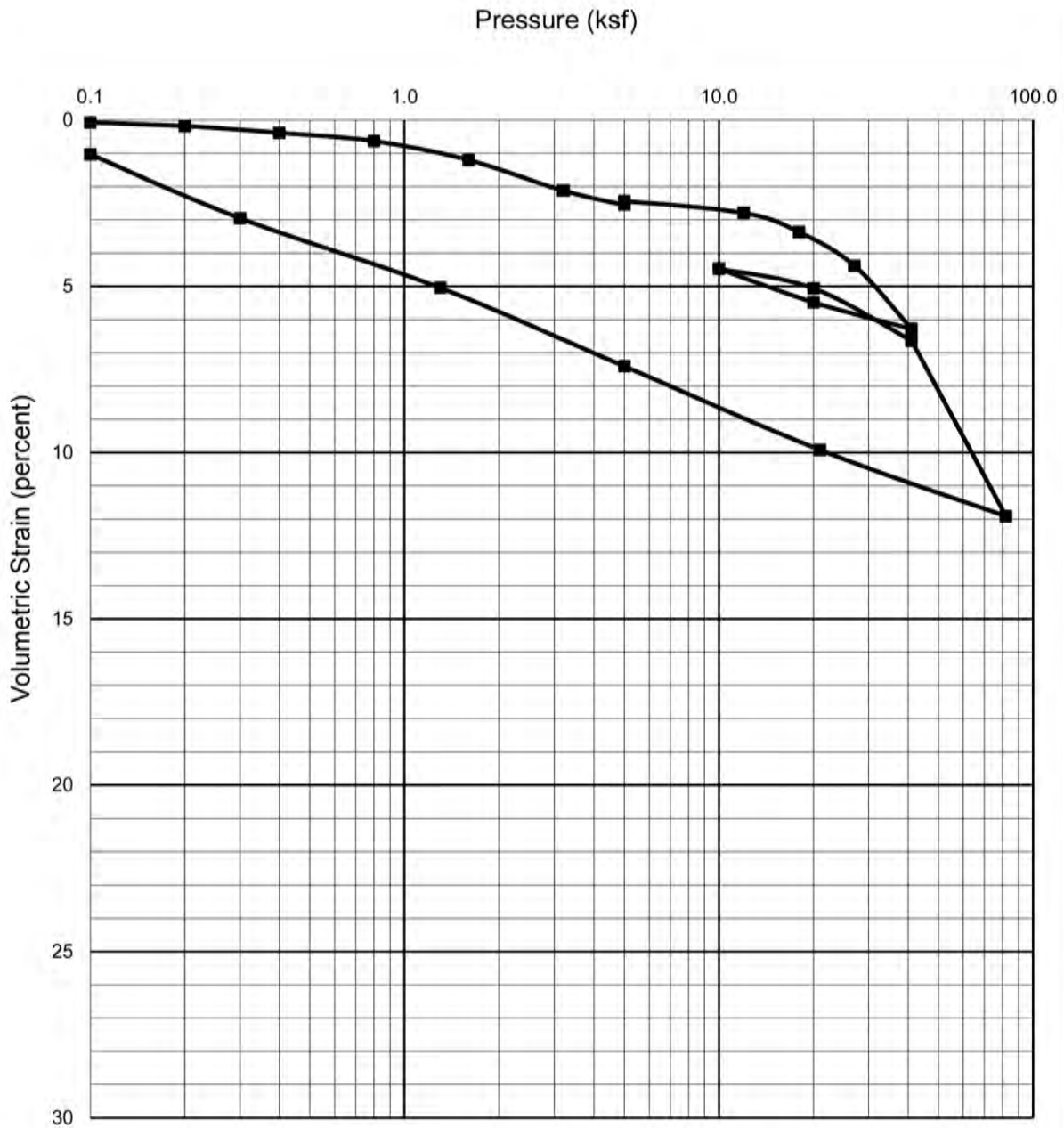
SAMPLER TYPE: Pitcher Barrel (PB)		SHEAR STRENGTH: 1,570 psf	
DIAMETER (in.): 2.86	HEIGHT (in.): 6.1	STRAIN AT FAILURE: 2.7 %	
MOISTURE CONTENT: 32.3 %	CONFINING PRESSURE: 6,500 psf		
DRY DENSITY: 90 pcf	STRAIN RATE: 0.50 % / min		
DESCRIPTION: CLAY with SAND (CL), gray with olive mottling		SOURCE: B-4 at 85 feet	

 Langan Engineering and Environmental Services, Inc. 1814 Franklin Street Suite 505 Oakland, CA 94612 T: 510.874.7000 F: 510.874.7001 www.langan.com	Project	Figure Title	Project No.	Figure
	LAKE MERRITT BART BLOCK 1 BUILDING B AND PASEO OAKLAND ALAMEDA COUNTY CALIFORNIA	UNCONSOLIDATED-UNDRAINED TRIAxIAL COMPRESSION TEST	750650005	
			Date	
			09/29/2023	
		Drawn By	AG	D-10
		Checked By	EA	



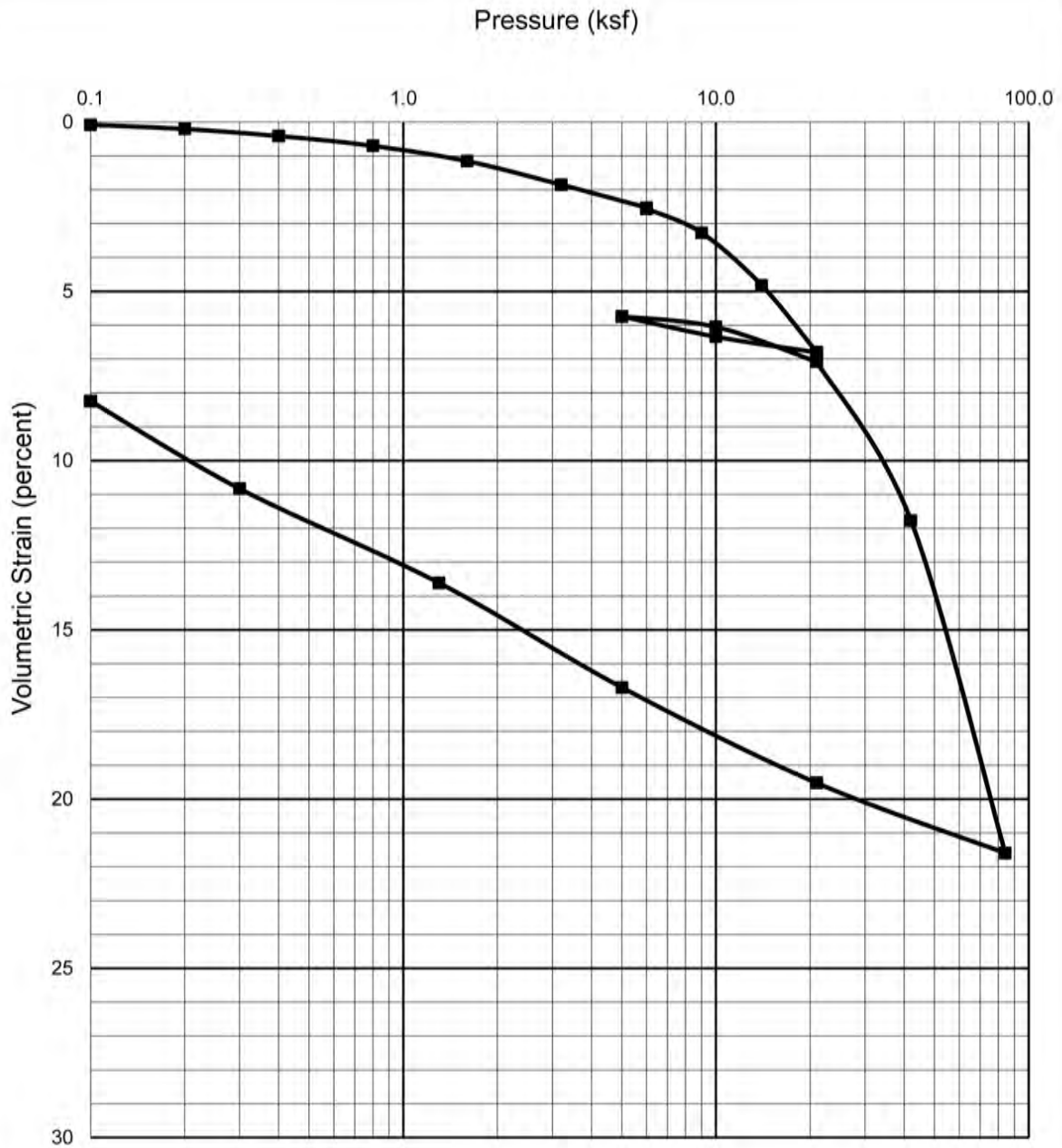
Sampler Type				Condition Before Test				After Test	
Pitcher Barrel (PB)	Diameter (in)	2.42	Height (in)	1.00	Water Content	W_o	37.7%	W_f	38.2%
Overburden Pressure	P_o	1,900 psf			Void Ratio	e_o	1.78	e_f	1.60
Preconsol. Pressure	P_c	10,700 psf			Saturation	S_o	89%	S_f	100%
Compression Ratio	C_{ϵ_c}	0.12			Dry Density	γ_d	94 pcf	γ_d	101 pcf
Liquid Limit:	--	Plastic Limit:	--	Plasticity Index:	--	G_s	4.20 (assumed)		
Classification:	CLAY with SAND (CL), olive with olive-gray mottling					Source:	LB-2 at 25 feet		

 Langan Engineering and Environmental Services, Inc. 1814 Franklin Street Suite 505 Oakland, CA 94612 T: 510.874.7000 F: 510.874.7001 www.langan.com	Project	Figure Title	Project No.	Figure
	LAKE MERRITT BART BLOCK 1 BUILDING B AND PASEO OAKLAND	CONSOLIDATION TEST REPORT	750650005	
	ALAMEDA COUNTY CALIFORNIA		Date 09/29/2023	
			Drawn By AG	
			Checked By AE	D-11



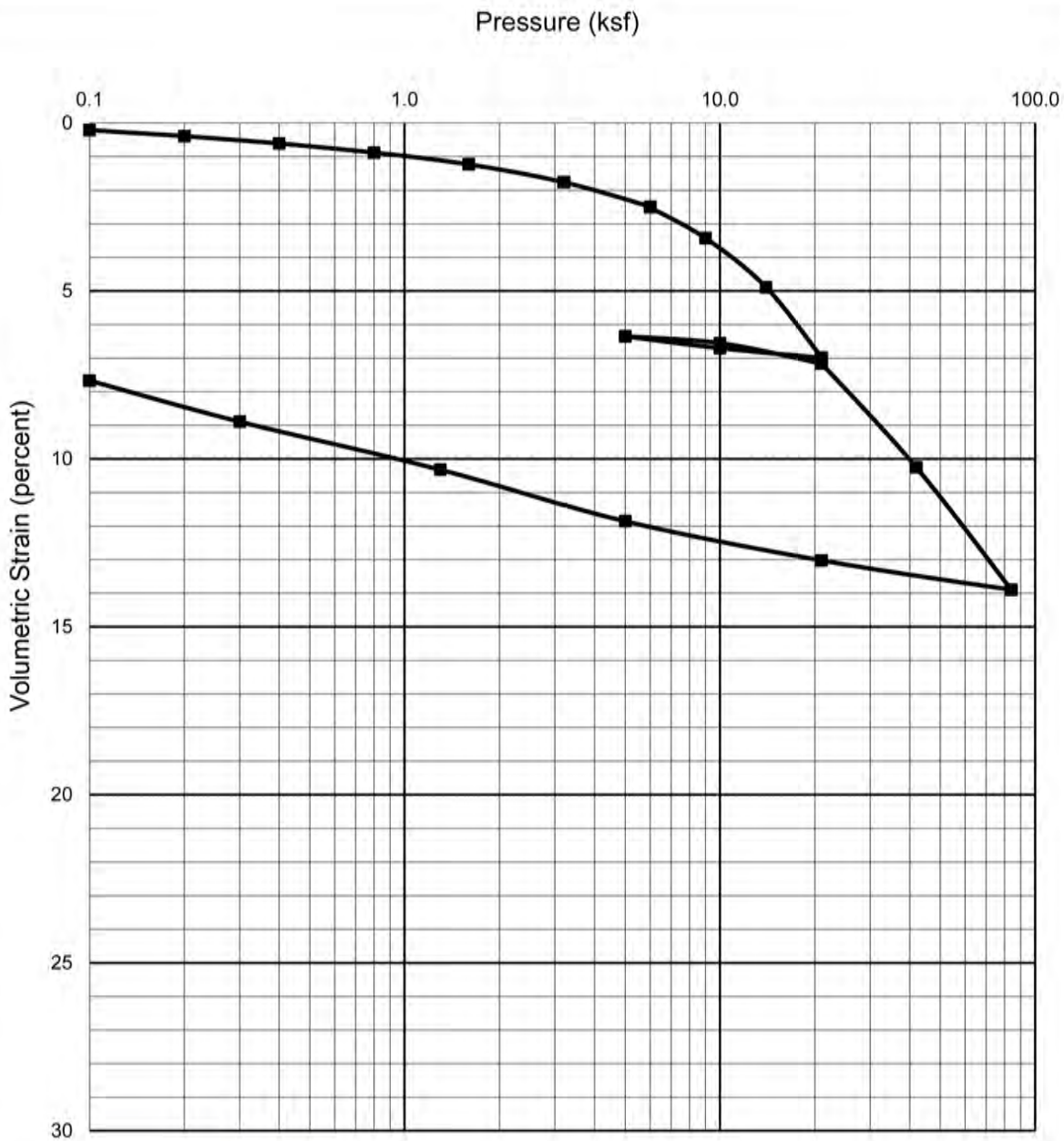
Sampler Type				Condition Before Test				After Test	
Pitcher Barrel (PB)	Diameter (in)	2.42	Height (in)	1.00	Water Content	W_o	9.4%	W_f	12.2%
Overburden Pressure	P_o	5,200 psf			Void Ratio	e_o	0.29	e_f	0.28
Preconsol. Pressure	P_c	26,000 psf			Saturation	S_o	75%	S_f	101%
Compression Ratio	C_{ϵ_c}	0.25			Dry Density	γ_d	111 pcf	γ_d	112 pcf
Liquid Limit:	--	Plastic Limit:	--	Plasticity Index:	--	G_s	2.30 (assumed)		
Classification:	CLAY (CL), olive-gray					Source:	LB-2 at 75 feet		

<p>LANGAN Langan Engineering and Environmental Services, Inc. 1814 Franklin Street Suite 505 Oakland, CA 94612 T: 510.874.7000 F: 510.874.7001 www.langan.com</p>	Project	Figure Title	Project No.	Figure
	LAKE MERRITT BART BLOCK 1 BUILDING B AND PASEO OAKLAND ALAMEDA COUNTY CALIFORNIA	CONSOLIDATION TEST REPORT	750650005	
	Date	09/29/2023		
	Drawn By	AG		
			Checked By	AE
				D-12



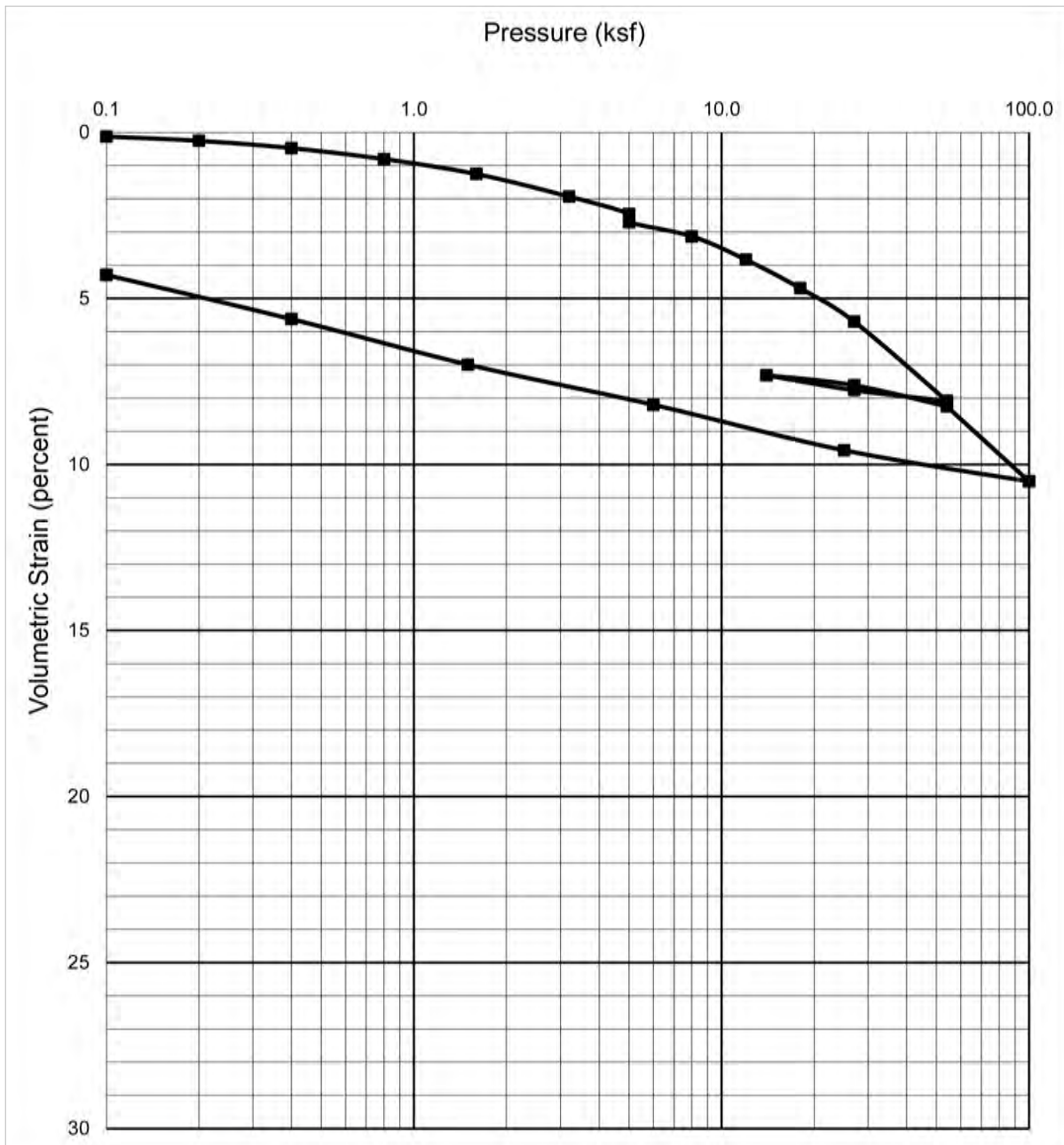
Sampler Type				Condition Before Test				After Test	
Pitcher Barrel (PB)	Diameter (in)	2.42	Height (in)	1.00	Water Content	W_o	36.6%	W_f	35.4%
Overburden Pressure	P_o	22,000 psf			Void Ratio	e_o	1.13	e_f	0.95
Preconsol. Pressure	P_c	7,500 psf			Saturation	S_o	88%	S_f	100%
Compression Ratio	$C\epsilon_c$	0.38			Dry Density	γ_d	79 pcf	γ_d	86 pcf
Liquid Limit:	--	Plastic Limit:	--	Plasticity Index:	--	G_s	2.70 (assumed)		
Classification:	CLAY (CL), gray					Source:	LB-2 at 115 feet		

 Langan Engineering and Environmental Services, Inc. 1814 Franklin Street Suite 505 Oakland, CA 94612 T: 510.874.7000 F: 510.874.7001 www.langan.com	Project	Figure Title	Project No.	Figure
	LAKE MERRITT BART BLOCK 1 BUILDING B AND PASEO OAKLAND ALAMEDA COUNTY CALIFORNIA	CONSOLIDATION TEST REPORT	750650005	
	Date	09/29/2023		
	Drawn By	AG		
			Checked By	AE
				D-13



Sampler Type				Condition Before Test				After Test	
Pitcher Barrel (PB)	Diameter (in)	2.42	Height (in)	1.00	Water Content	W_o	21.8%	W_f	18.0%
Overburden Pressure	P_o	2,600 psf			Void Ratio	e_o	0.61	e_f	0.48
Preconsol. Pressure	P_c	9,000 psf			Saturation	S_o	97%	S_f	100%
Compression Ratio	C_{ϵ_c}	0.13			Dry Density	γ_d	105 pcf	γ_d	114 pcf
Liquid Limit:	--	Plastic Limit:	--	Plasticity Index:	--	G_s	2.70 (assumed)		
Classification:	CLAY (CL), olive with yellow-brown and olive-gray mottling					Source:	LB-3 at 35 feet		

 Langan Engineering and Environmental Services, Inc. 1814 Franklin Street Suite 505 Oakland, CA 94612 T: 510.874.7000 F: 510.874.7001 www.langan.com	Project	Figure Title	Project No.	Figure
	LAKE MERRITT BART BLOCK 1 BUILDING B AND PASEO OAKLAND	CONSOLIDATION TEST REPORT	750650005	
	ALAMEDA COUNTY CALIFORNIA		Date 09/29/2023	
			Drawn By AG	
			Checked By AE	D-14



Sampler Type				Condition Before Test				After Test	
Pitcher Barrel (PB)	Diameter (in)	2.42	Height (in)	1.00	Water Content	W_o	13.9%	W_f	14.2%
Overburden Pressure	P_o	10,500 psf			Void Ratio	e_o	0.44	e_f	0.38
Preconsol. Pressure	P_c	12,000 psf			Saturation	S_o	85%	S_f	100%
Compression Ratio	C_{ϵ_c}	0.11			Dry Density	γ_d	117 pcf	γ_d	122 pcf
Liquid Limit:	--	Plastic Limit:	--	Plasticity Index:	--	G_s	2.70 (assumed)		
Classification:	CLAY with SAND (CL), brown with yellow-brown mottling					Source:	LB-3 at 155 feet		

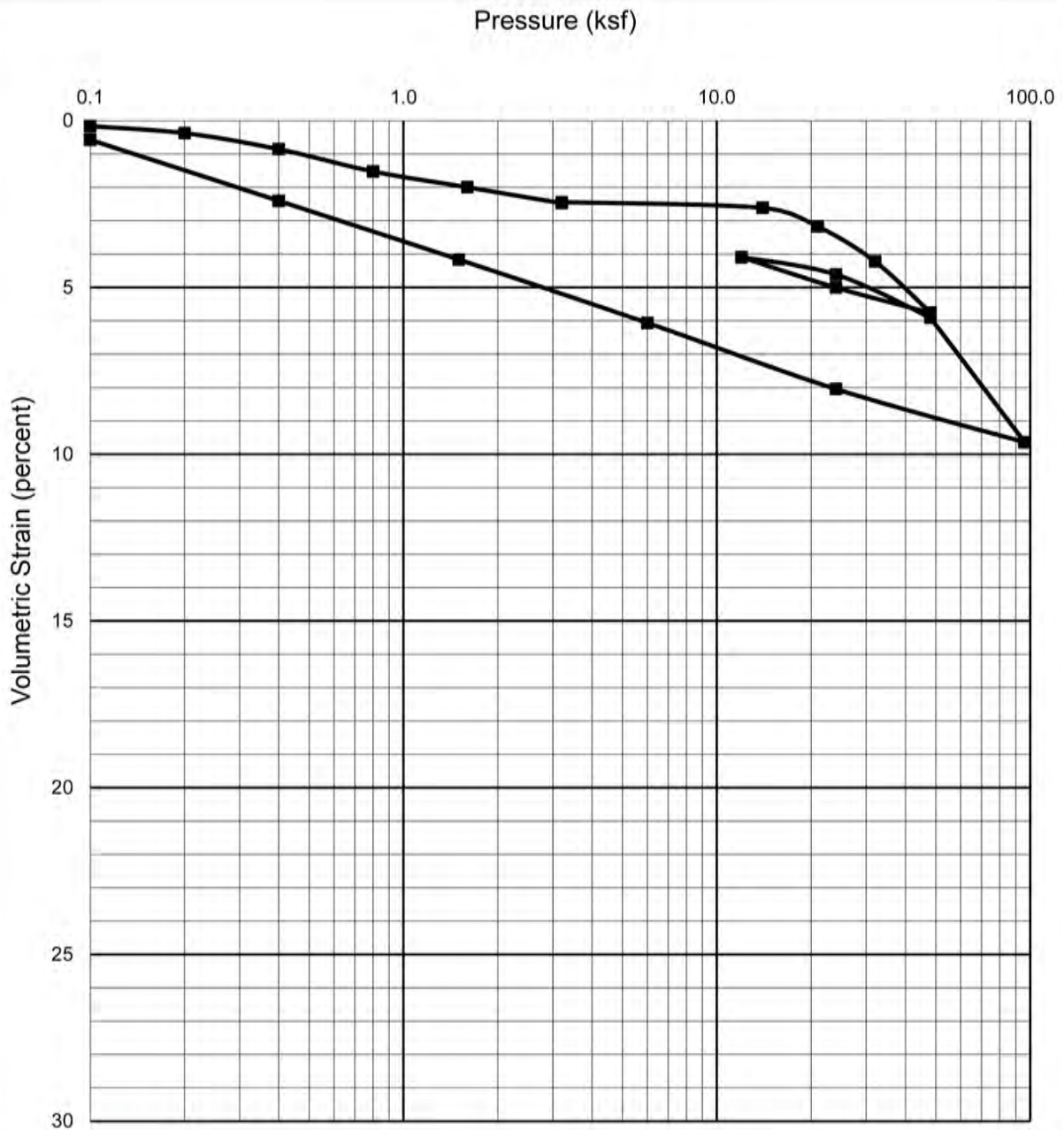
LANGAN
 Langan Engineering and
 Environmental Services, Inc.
 1814 Franklin Street Suite 505
 Oakland, CA 94612
 T: 510.874.7000 F: 510.874.7001 www.langan.com

Project
**LAKE MERRITT BART
 BLOCK 1
 BUILDING B AND PASEO**
 OAKLAND
 ALAMEDA COUNTY CALIFORNIA

Figure Title
**CONSOLIDATION
 TEST REPORT**

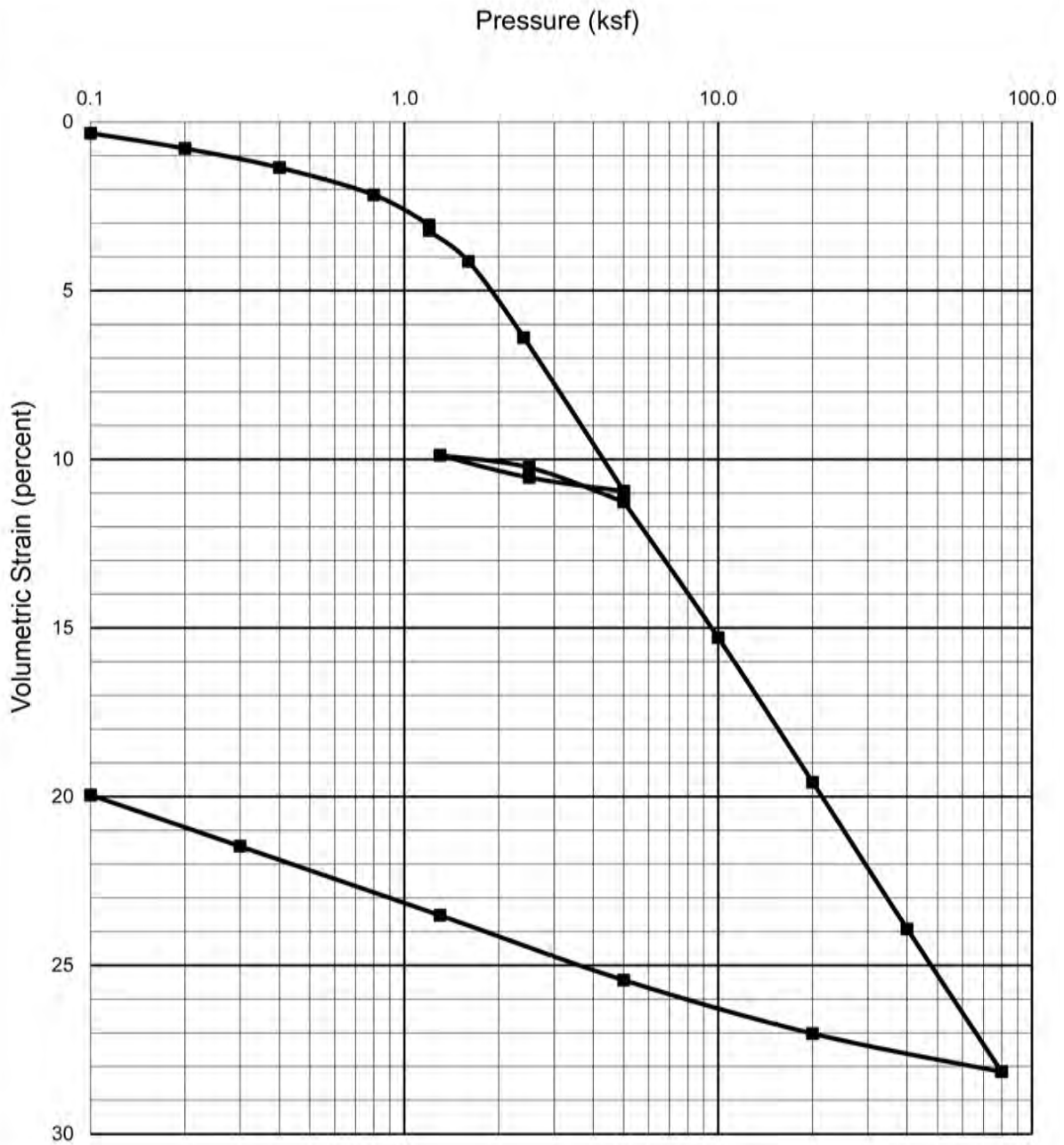
Project No.
 750650005
 Date
 09/29/2023
 Drawn By
 AG
 Checked By
 AE

Figure
D-15



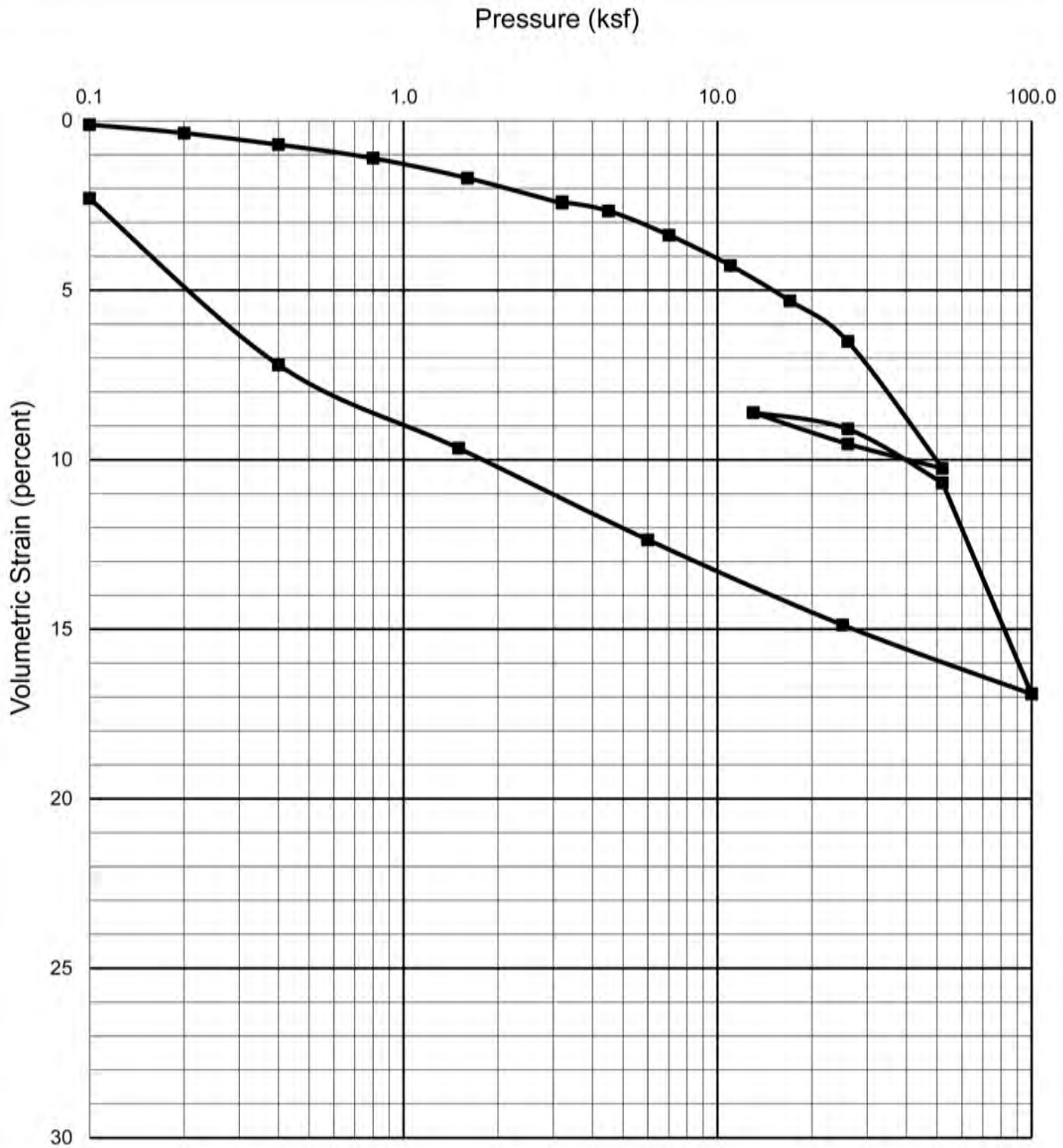
Sampler Type				Condition Before Test				After Test	
Pitcher Barrel (PB)	Diameter (in)	2.42	Height (in)	1.00	Water Content	W_o	20.9%	W_f	21.3%
Overburden Pressure	P_o	15,000 psf			Void Ratio	e_o	0.58	e_f	0.57
Preconsol. Pressure	P_c	26,000 psf			Saturation	S_o	97%	S_f	100%
Compression Ratio	C_{ϵ_c}	0.15			Dry Density	γ_d	107 pcf	γ_d	107 pcf
Liquid Limit:	--	Plastic Limit:	--	Plasticity Index:	--	G_s	2.70 (assumed)		
Classification:	CLAY (CL), light brown with olive mottling					Source:	LB-3 at 235 feet		

 Langan Engineering and Environmental Services, Inc. 1814 Franklin Street Suite 505 Oakland, CA 94612 T: 510.874.7000 F: 510.874.7001 www.langan.com	Project	Figure Title	Project No.	Figure
	LAKE MERRITT BART BLOCK 1 BUILDING B AND PASEO OAKLAND ALAMEDA COUNTY CALIFORNIA	CONSOLIDATION TEST REPORT	750650005	
			Date	
			09/29/2023	
			Drawn By	D-16
			AG	
			Checked By	
			AE	



Sampler Type				Condition Before Test				After Test	
Pitcher Barrel (PB)	Diameter (in)	2.42	Height (in)	1.00	Water Content	W_o	38.0%	W_f	24.0%
Overburden Pressure	P_o	3,800 psf			Void Ratio	e_o	1.06	e_f	0.65
Preconsol. Pressure	P_c	3,000 psf			Saturation	S_o	97%	S_f	100%
Compression Ratio	C_{ϵ_c}	0.17			Dry Density	γ_d	82 pcf	γ_d	102 pcf
Liquid Limit:	--	Plastic Limit:	--	Plasticity Index:	--	G_s	2.70 (assumed)		
Classification:	SANDY CLAY (CL), brown to dark brown					Source:	LB-4 at 55 feet		

 Langan Engineering and Environmental Services, Inc. 1814 Franklin Street Suite 505 Oakland, CA 94612 T: 510.874.7000 F: 510.874.7001 www.langan.com	Project	Figure Title	Project No.	Figure
	LAKE MERRITT BART BLOCK 1 BUILDING B AND PASEO OAKLAND	CONSOLIDATION TEST REPORT	750650005	
	ALAMEDA COUNTY CALIFORNIA		Date 09/29/2023	
			Drawn By AG	
			Checked By AE	D-17



Sampler Type				Condition Before Test				After Test	
Pitcher Barrel (PB)	Diameter (in)	2.42	Height (in)	1.00	Water Content	W_o	33.9%	W_f	34.2%
Overburden Pressure	P_o	5,900 psf			Void Ratio	e_o	0.97	e_f	0.92
Preconsol. Pressure	P_c	31,000 psf			Saturation	S_o	95%	S_f	100%
Compression Ratio	C_{ϵ_c}	0.28			Dry Density	γ_d	86 pcf	γ_d	88 pcf
Liquid Limit:	--	Plastic Limit:	--	Plasticity Index:	--	G_s	2.70 (assumed)		
Classification:	CLAY with SAND (CL), gray with olive mottling					Source:	LB-4 at 85 feet		

 Langan Engineering and Environmental Services, Inc. 1814 Franklin Street Suite 505 Oakland, CA 94612 T: 510.874.7000 F: 510.874.7001 www.langan.com	Project	Figure Title	Project No.	Figure
	LAKE MERRITT BART BLOCK 1 BUILDING B AND PASEO OAKLAND	CONSOLIDATION TEST REPORT	750650005	
	ALAMEDA COUNTY CALIFORNIA		Date 09/29/2023	
			Drawn By AG	
			Checked By AE	D-18

APPENDIX E
CORROSION TEST RESULTS



2 February, 2022

Job No. 2201025
Cust. No. 11308

1100 Willow Pass Court, Suite A
Concord, CA 94520-1006
925 462 2771 Fax. 925 462 2775
www.cercoanalytical.com

Mr. Daniel Wagstaffe
Langan
501 14th Street, 3rd Floor
Oakland, CA 94612

Subject: Project No.: 750650005.700.004
Project Name: Lake Merritt BART Redevelopment
Corrosivity Analysis – ASTM Test Methods

Dear Mr. Wagstaffe:

Pursuant to your request, CERCO Analytical has analyzed the soil sample submitted on January 21, 2022. Based on the analytical results, a brief corrosivity evaluation is enclosed for your consideration.

Based upon the resistivity measurement, this sample is classified as “moderately corrosive”. All buried iron, steel, cast iron, ductile iron, galvanized steel and dielectric coated steel or iron should be properly protected against corrosion depending upon the critical nature of the structure. All buried metallic pressure piping such as ductile iron firewater pipelines should be protected against corrosion.

The chloride ion concentration was none detected at a detection limit of 15 mg/kg.

The sulfate ion concentration was none detected at a detection limit of 15 mg/kg.


The pH of the soil is 7.21, which does not present corrosion problems for buried iron, steel, mortar-coated steel and reinforced concrete structures.

The redox potential is 330-mV and is indicative of potentially “slightly corrosive” soils resulting from anaerobic soil conditions.

This corrosivity evaluation is based on general corrosion engineering standards and is non-specific in nature. For specific long-term corrosion control design recommendations or consultation, please call JDH Corrosion Consultants, Inc. at (925) 927-6630.

We appreciate the opportunity of working with you on this project. If you have any questions, or if you require further information, please do not hesitate to contact us.

Very truly yours,
CERCO ANALYTICAL, INC.


J. Darby Howard, Jr., P.E.
President

JDH/jdl
Enclosure

Client: Langan
 Client's Project No.: 750650005.700.004
 Client's Project Name: Lake Merritt BART Redevelopment
 Date Sampled: 10-Jan-2022
 Date Received: 21-Jan-2022
 Matrix: Soil
 Authorization: Chain of Custody

Date of Report: 2-Feb-2022

Job/Sample No.	Sample I.D.	Redox (mV)	pH	Resistivity (As Received) (ohms-cm)	Resistivity (100% Saturation) (ohms-cm)	Sulfide (mg/kg)*	Chloride (mg/kg)*	Sulfate (mg/kg)*
2201025-001	B-3 #1 @ 2'	330	7.21	-	7,400	-	N.D.	N.D.

Method:	ASTM D1498	ASTM D4972	ASTM G57	ASTM G57	ASTM D4658M	ASTM D4327	ASTM D4327
Reporting Limit:	-	-	-	-	50	15	75
Date Analyzed:	31-Jan-2022	31-Jan-2022	-	27-Jan-2022	-	31-Jan-2022	31-Jan-2022


 Cheryl McMillen
 Laboratory Director

* Results Reported on "As Received" Basis
 N.D. - None Detected

LANGAN

11208 2201025

CHAIN OF CUSTODY RECORD

- 135 Main Street, Suite 1500, San Francisco, CA 94105 Ph: 415.955.5200/Fax: 415.955.5201
- 1814 Franklin Street, Suite 505, Oakland, CA 94612 Ph: 510.874.7000/Fax: 510.874.7001
- 3320 Data Drive, Suite 350 Rancho Cordova, CA 95670 Ph: 916.476.6790/Fax: 916.476.6792

Site Name: Lake Merritt BART Redevelopment
Job Number: 750650005, Phase 700, Task 003.0 004
Project Manager/Contact: Daniel Wagstaffe / dwagstaffe@langan.com
Samplers: Langan
Recorder (Signature Required): [Signature]

Analysis Requested

**Turnaround
Time
Standard**

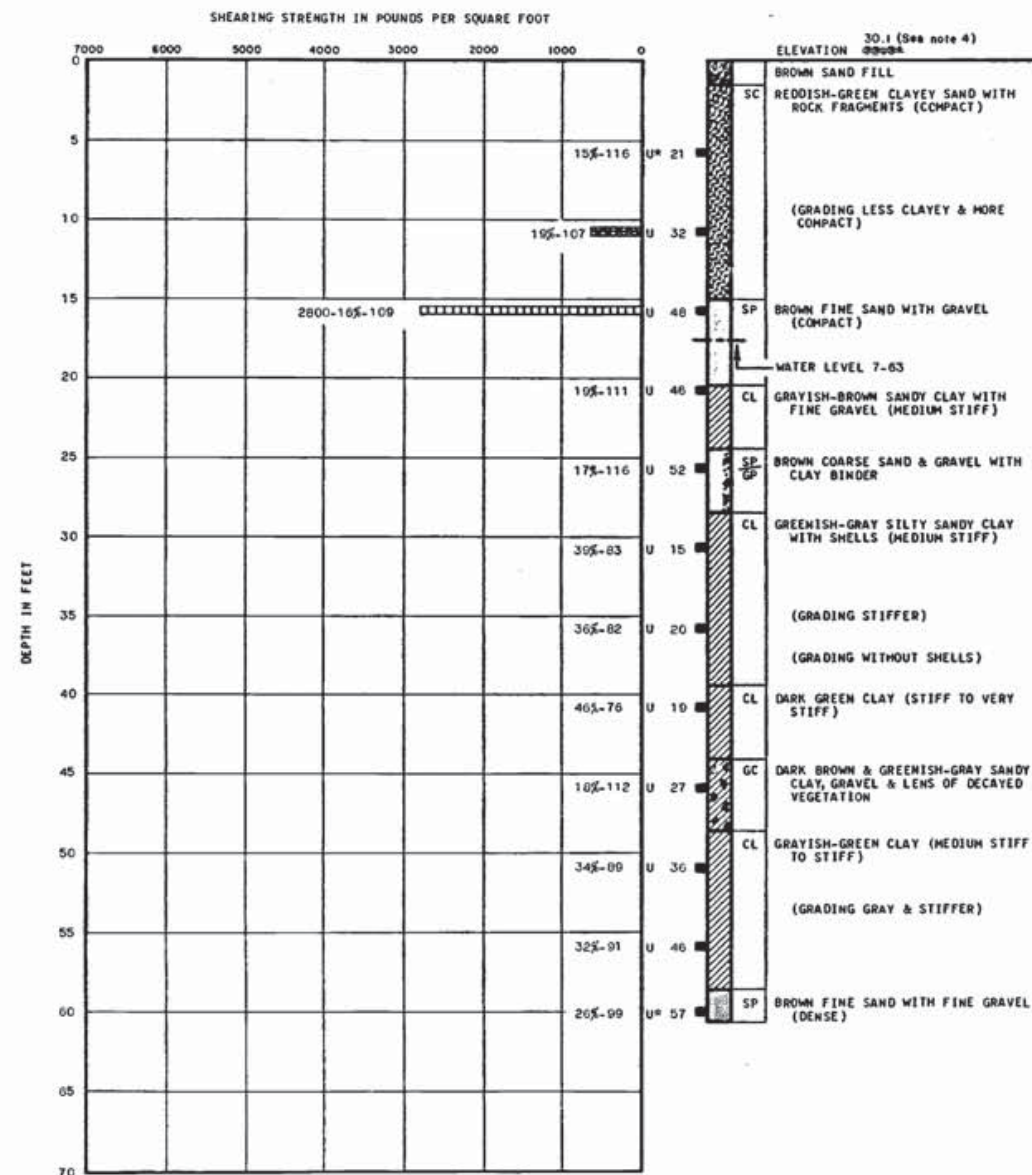
Field Sample Identification No.	Date	Time	Lab Sample No.	Matrix			No. Containers & Preservative						ASTM Corrosion Test	Silica gel clean-up	Hold	Remarks
				Soil	Water	Other	HCL	H ₂ SO ₄	HNO ₃	Ice	Other					
B-3 #1 @ 2'	1/10/2022	PM	B-3 #1 @ 2'	X									X			With Brief Evaluation

Relinquished by: (Signature) <u>[Signature]</u>	Date <u>1/21/2022</u>	Time <u>11:30 AM</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>1/21/22</u>	Time <u>12:32 pm</u>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by Lab: (Signature)	Date	Time

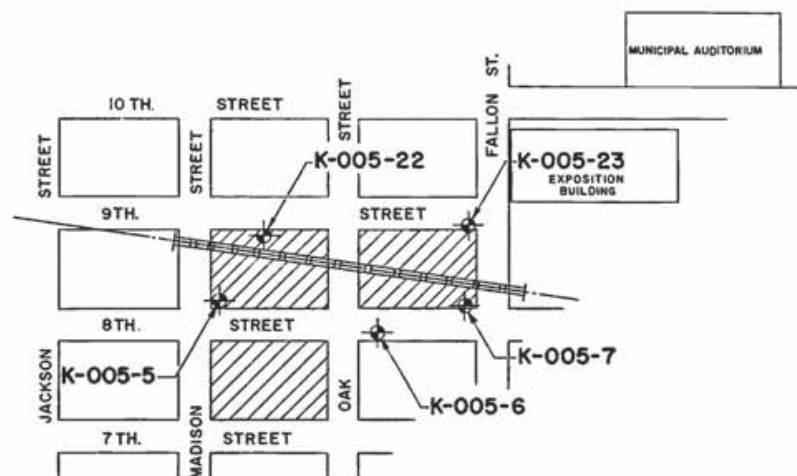
Sent to Laboratory (Name): Cerco Analytical
Laboratory Comments/Notes: _____
Method of Shipment: Hand Carried Private Courier (Co. Name) _____
 Lab courier Fed Ex Airborne UPS

APPENDIX F
LOGS OF BORINGS BY OTHERS

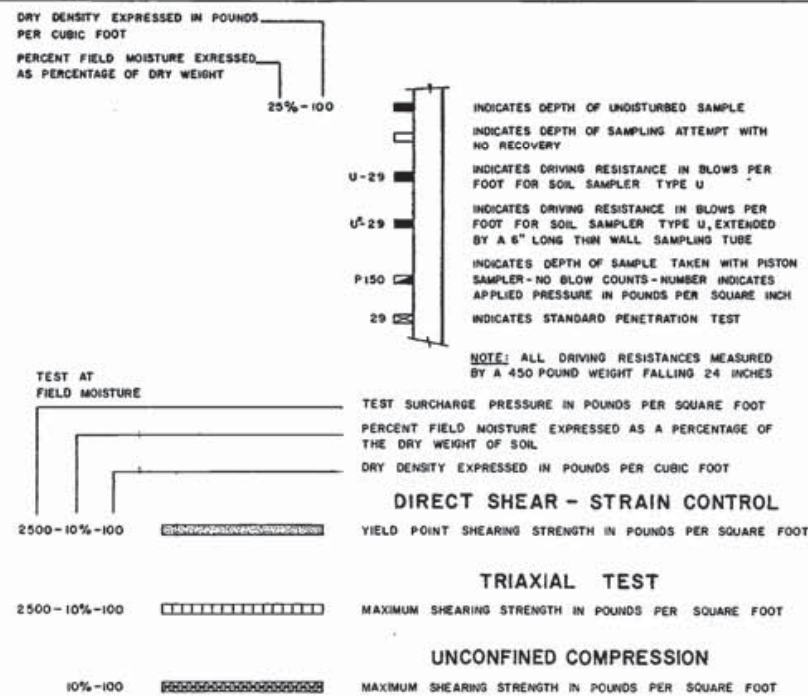
BORING K-005-5
DRILLED JULY 24, 1963



LOG OF BORINGS



PLAN OF BORINGS



SUPPLEMENTARY KEY TO TEST DATA

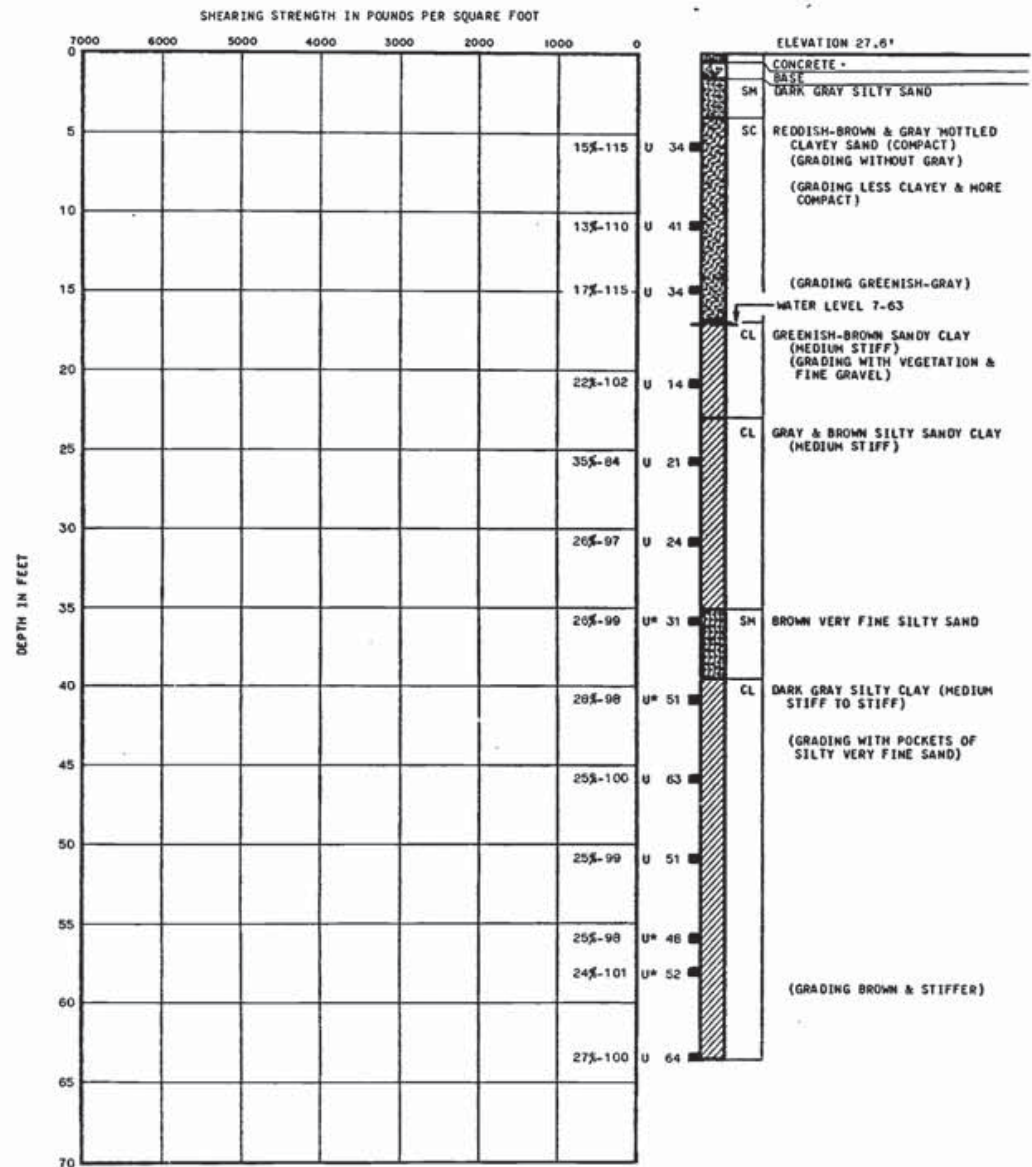
- NOTES:**
- Logs of Boring K-005-5, K-005-6, K-005-7, K-005-22 & K-005-23 were reproduced photographically from plates submitted as part of "Soil Investigation K705, Oakland-8th. & 9th. Streets" by Dames & Moore San Francisco.
 - For description of boring locations, see plate A6, and Appendix A-2 of "Soil Investigation K705". Locations as shown on Plan of Borings are located approximately to scale.
 - Soil Report and Log of Borings are available in Bidders Information Room, 1307 Harrison st. Oakland California, for inspection.
 - The elevation shown in "Soil Investigation K705, Oakland-8th. & 9th. Streets" by Dames & Moore San Francisco, for Boring K-005-5, was in error.

CONTRACT 17B-120
CONTRACT SHEET NO. R027 PG. NO. 075

AS BUILT

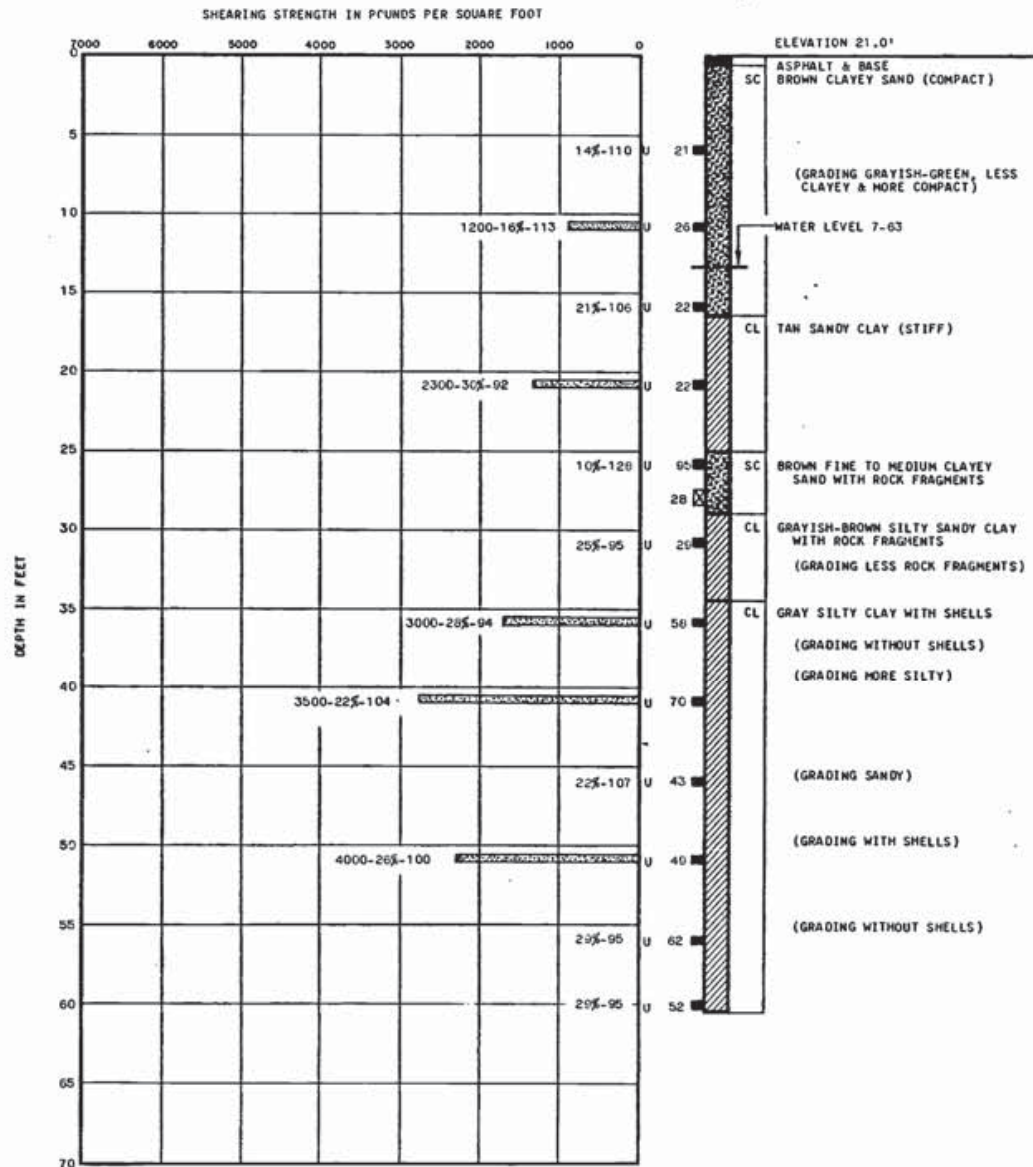
DESIGNED BY				DRAWN BY				CHECKED BY				IN CHARGE				DATE																															
REPRODUCTION				J. GEORGE THOR				J. A. DUNLAP				9 JAN 67				REGISTERED CIVIL ENGINEER NO. 8387 STATE OF CALIFORNIA																															
SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT												BECHTEL CORPORATION ENGINEERS SAN FRANCISCO												PARSONS BRINCKERHOFF-TUDOR-BECHTEL GENERAL ENGINEERING CONSULTANTS												OAKLAND DOWNTOWN LAKE MERRITT STATION SOIL BORING LOCATION PLAN & LOG											
SCALE: AS NOTED												CONTRACT - PACKAGE												K0071-K007												SHEET NO. - REV. PAGE NO. CT15-0 25											

BORING K-005-6
DRILLED JULY 25, 26, 1963



LOG OF BORINGS

BORING K-005-7
DRILLED JULY 25, 1963



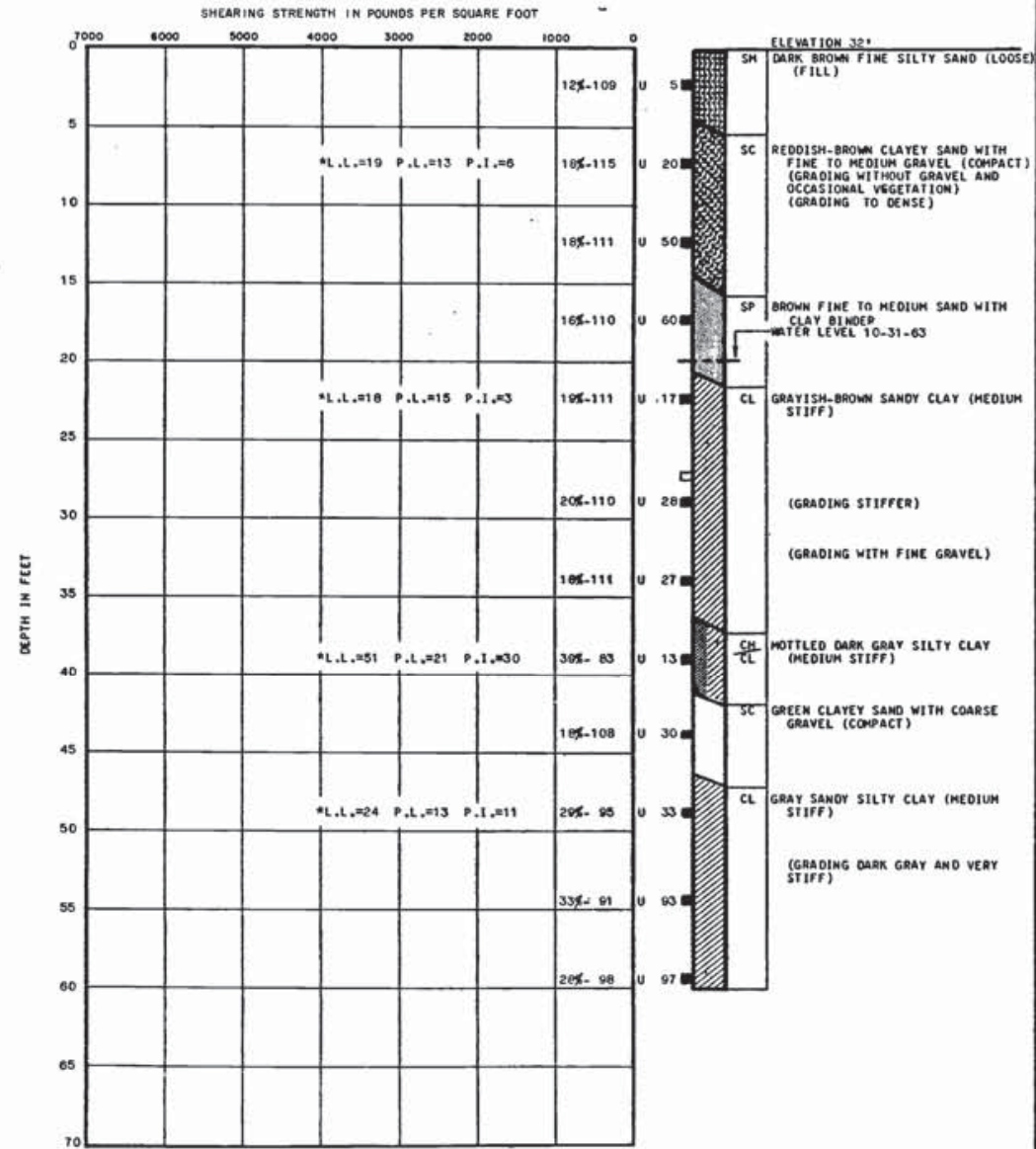
LOG OF BORINGS

CONTRACT 17BJ-120
CONTRACT SHEET NO. R028 PG. NO. 076

AS BUILT

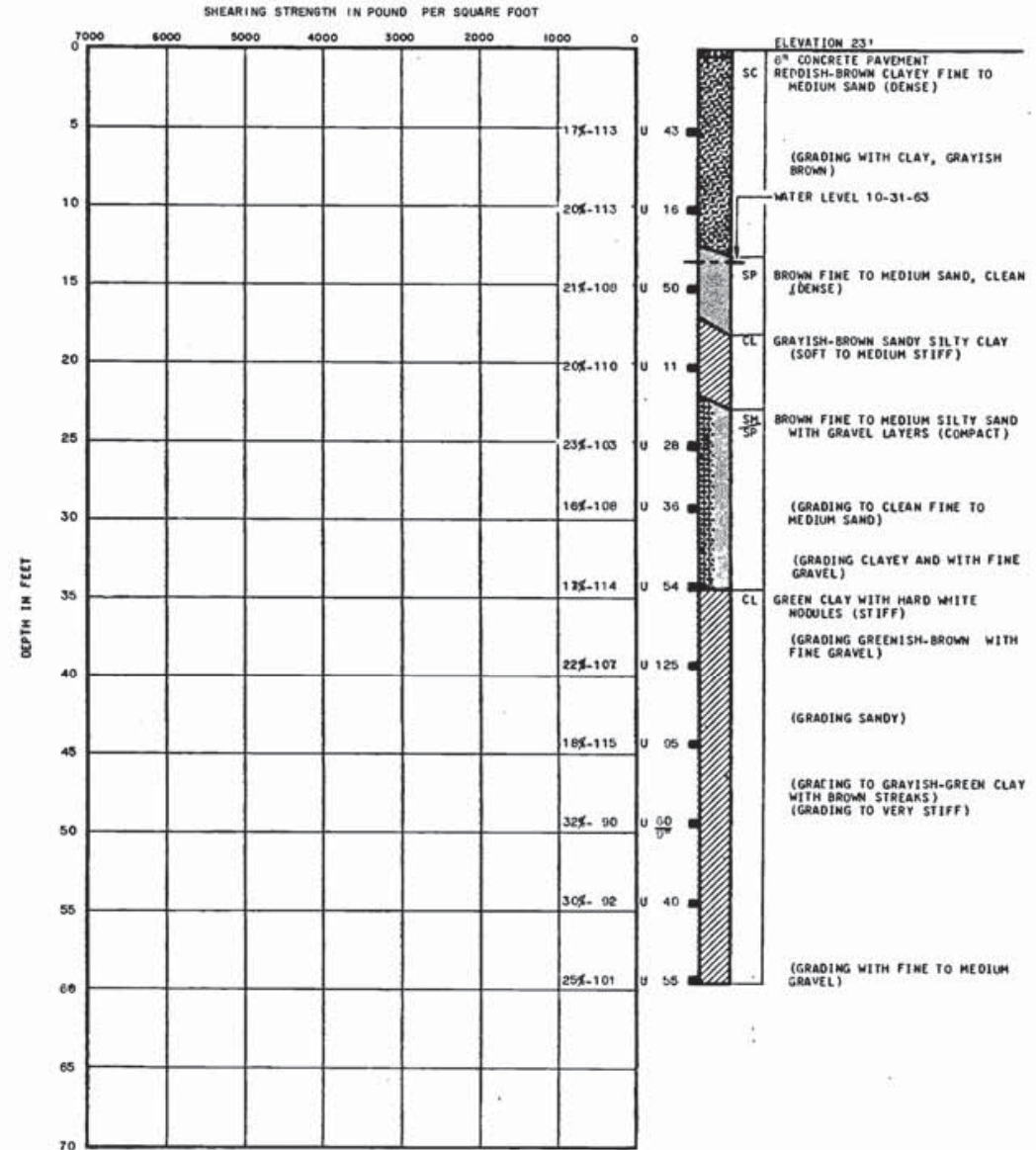
DIVISION BY CHECKED BY IN CHARGE DATE					SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT		OAKLAND DOWNTOWN LAKE MERRITT STATION		SCALE: NONE CONTRACT - PACKAGE
REPRODUCTION J. A. DUNLAP 9 JAN 67					BECHTEL CORPORATION ENGINEERS SAN FRANCISCO		PARSONS BRINCKERHOFF-TUDOR-BECHTEL GENERAL ENGINEERING CONSULTANTS		IK0071-K007 SHEET NO. - REV. | PAGE NO. CT16-0 26

BORING K-005-22
DRILLED 10-15, 16-63



LOG OF BORINGS

BORING K-005-23
DRILLED 10-21, 22-63



LOG OF BORINGS

CONTRACT 17BJ-120
CONTRACT SHEET NO. R029 PG. NO. 077

AS BUILT

DESIGNED BY DRAWN BY CHECKED BY IN CHARGE DATE				REPRODUCTION J. GEORGE THOR NO. 13387 STATE OF CALIFORNIA				SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT BECHTEL CORPORATION ENGINEERS SAN FRANCISCO				PARSONS BRINCKERHOFF-TUDOR-BECHTEL GENERAL ENGINEERING CONSULTANTS LADWIN				OAKLAND DOWNTOWN LAKE MERRITT STATION SOIL BORING LOGS				SCALE: NONE CONTRACT - PACKAGE IK0071-K007 SHEET NO. - REV. PAGE NO. CT17-0 27			
REV.	DATE	BY	APP.	DESCRIPTION	REV.	DATE	BY	APP.	DESCRIPTION	REV.	DATE	BY	APP.	DESCRIPTION	REV.	DATE	BY	APP.	DESCRIPTION				

APPENDIX G
BART CRITERIA

CRITERIA STRUCTURAL

DESIGN AND CONSTRUCTION NEAR EXISTING BART STRUCTURES

CONTENTS

- 1. SCOPE**
- 2. GENERAL REQUIREMENTS**
 - 2.1. Policy
 - 2.2. Clearance
 - 2.3. Zone of Influence (ZOI)
 - 2.3.1. Temporary Zone of Influence
 - 2.3.2. Permanent Zone of Influence
 - 2.4. Shoring
 - 2.5. Groundwater Control and Dewatering
 - 2.6. Existing Utilities
 - 2.7. Pile Foundation
 - 2.8. Construction Vibration
- 3. DESIGN AND CONSTRUCTION NEAR EXISTING AT-GRADE AND AERIAL BART STRUCTURES**
 - 3.1. Falsework near BART Tracks
 - 3.2. Construction Equipment
 - 3.3. Soil Cover over Foundation
- 4. DESIGN AND CONSTRUCTION NEAR EXISTING UNDERGROUND BART STRUCTURES**
 - 4.1. Surcharge Load for Existing Underground Structures
 - 4.2. Excavation close to Underground Structures
 - 4.3. Minimum Soil Cover
- 5. DOCUMENTATION**
 - 5.1. Design Documentation
 - 5.2. Construction Documentation

CRITERIA STRUCTURAL

DESIGN AND CONSTRUCTION NEAR EXISTING BART STRUCTURES

1. SCOPE

The purpose of the criteria herein is to establish minimum provisions for design and construction near existing BART structures.

2. GENERAL REQUIREMENTS

2.1. Policy

New structures near existing structures shall be designed and constructed so as not to impose temporary or permanent adverse effects on existing BART structures. Potential impacts to the existing BART structures by new design and construction shall be identified at the planning stage of design.

The Engineer Responsible for Design (ERD) shall coordinate the new design and construction with:

- BART design criteria
- Third-party design criteria
- District third-party interagency agreements, as applicable

Analyses of the existing structures are required when there are changes to the existing BART structures, or temporary or permanent changes to loading upon the existing BART structures due to the new design and construction.

2.2. Clearance

The minimum clearance between any parts of the adjacent BART structures to exterior face of substructures shall be 7 feet 6 inches. In addition, the substructures shall be located such that the loads from the foundations of the new structures shall not impact the BART structures.

2.3. Zone of Influence (ZOI)

2.3.1. Temporary Zone of Influence

For temporary effects on the existing BART's structures, the temporary ZOI is defined as the area above a positive line of influence which is a line from the critical point of substructure at a slope of 1-1/2 horizontal to positive 1 vertical (line sloping towards ground level) or the area below a negative line of influence which is a line

from the critical point of substructure at a slope of 1-1/2 horizontal to negative 1 vertical (line sloping away from ground level). Refer to Figure 1 for an underground rectangular structure.

The geotechnical engineer and ERD shall determine the critical points of the existing foundations and underground structures, subject to BART Engineering review and acceptance.

2.3.2. Permanent Zone of Influence

The geotechnical engineer for the proposed structure shall determine the permanent effects or influence on the existing BART's structures based upon the soil and groundwater conditions in the vicinity of the proposed structures and the existing BART's structures. Particular attention shall be paid to liquefiable soil, expansive soil, and lateral spreading. The slope of the permanent ZOI shall not be steeper than the slope of the temporary ZOI as defined above.

2.4. Shoring

Shoring is required for excavation in the ZOI. Refer to Design Criteria, Structural, Geo-Structures.

2.5. Groundwater Control and Dewatering

Where groundwater control is proposed, changes in groundwater elevation shall be evaluated together with the consequences to structures located in proximity to the dewatering. The groundwater drawdown zone shall be established based on a hydrogeologic study that includes, but is not limited to, soil types in proximity to the area of groundwater control, the duration of the work, the planned construction methods, and plans for recharge or other methods of groundwater control.

Dewatering shall be monitored for changes in groundwater level. Recharging back to its original elevation is required if existing groundwater level is expected to drop more than 2 feet.

2.6. Existing Utilities

Existing utilities shall be protected from damage. If relocation is necessary, it shall be accomplished in a manner that will not disrupt revenue service.

2.7. Pile Foundation

Piles shall be pre-drilled to a minimum of 10 feet below the line of influence. Piles shall be driven in a sequence away from BART structures.

BART structures shall be monitored for vibration during pile driving operations for all piles within 100 feet of the structures.

No pile shall be allowed between steel-lined tunnels. Steel-lined tunnels shall be monitored for movement and deformation.

2.8. Construction Vibration

Some construction methods may result in vibrations that lead to densification of loose, cohesionless soil, or architectural and structural damage. A vibration monitoring plan shall be prepared to document the potential for induced vibration and noise from construction equipment and procedures, with respect to their effect on adjacent structures, BART facilities and operations.

Procedures and control of vibration and settlement caused by the operations of construction equipment including, but not limited to, pile driving and soil compaction (vibro-compaction, etc.) shall be included in the plan. Plans shall include locations and details of monitoring instrumentation.

The peak particle velocity (PPV) in the vertical direction as measured from the closest BART structures to the construction equipment shall not exceed 1.0 in/sec (transient source) and 0.5 in/sec (continuous/frequent intermittent source). For vibration-sensitive structures, the vibration limits are subject to District for review and acceptance. For structures supporting BART tracks, BART track movement shall be limited to a maximum of 1/4 inch per 30 feet of length in both horizontal and vertical directions. For other structures, the settlement shall not exceed 0.3 inches. For historic or sensitive structures, the ERD shall provide a structure specific settlement analysis for BART Engineering's review and acceptance.

Where the PPV is predicted to exceed 0.5 in/sec, or where historic or vibration-sensitive structures are known to be located, as identified by District, a pre-condition survey shall be conducted before the start of construction. The purpose of the pre-condition survey shall be to provide comprehensive documentation of existing building conditions, such as the location and extent of structural damage, cosmetic cracks, signs of differential settlement, or other conditions that could be affected by construction vibrations.

Any existing structure located where the PPV is expected to exceed 0.5 in/sec shall be monitored for levels of vibration and the potential for vibration-induced settlement. Vibrations shall be monitored with a 3-component seismograph with geophones capable of recording 2 horizontal and 1 vertical ground motions. Settlement shall be monitored using survey targets and other remote settlement monitoring devices. The accuracy of the survey measurement shall be ± 0.01 inches or better. Results of the vibration and settlement monitoring shall be provided in daily reports.

Existing BART structures shall be monitored for vibration during pile driving operations for piles within 100 feet of said BART structures.

When construction requires monitoring, construction activity resulting in monitored measurements in excess of limits within submitted plans acceptance by District, shall be immediately halted, and reported to BART Engineering for further direction.

3. DESIGN AND CONSTRUCTION NEAR EXISTING AT-GRADE AND AERIAL BART STRUCTURES

3.1. Falsework near BART Tracks

Falsework near BART tracks shall be designed as follows:

- A. Falsework shall be designed to resist seismic loads. For construction durations of less than 5 years, the seismic loads may be reduced to values defined in Caltrans MTD 20-2. For construction durations over 5 years, falsework shall be designed for seismic loads in accordance with applicable codes for permanent structures.
- B. Falsework shall be designed to resist wind loads. For construction durations of less than 180 days, the wind loads may be reduced to values defined in ASCE 37. For construction durations over 180 days, falsework shall be designed for wind loads in accordance with applicable codes for permanent structures.
- C. Falsework crossing under BART tracks without pedestrian traffic shall be designed according to the Caltrans Falsework Manual.
- D. Falsework crossing under BART tracks with pedestrian traffic shall be designed per item C above, including compliance with pedestrian protection according to CBC Section 3306.

3.2. Construction Equipment

Construction equipment operating adjacent to BART's Operating Envelope shall be situated and restrained such that it will not damage BART facilities, nor violate BART's Operating Envelope. See Operating Envelop specified in Standard Specifications – Operating System Interface.

3.3. Soil Cover over Foundation

Existing soil cover over foundations shall be maintained.

4. DESIGN AND CONSTRUCTION NEAR EXISTING UNDERGROUND BART STRUCTURES

4.1. Surcharge Load for Existing Underground Structures

In general, cut-and-cover underground structures were designed with an area surcharge applied at the ground surface both over and adjacent to the structures. The area surcharge was considered static uniform load with the following value:

D (ft)	Average Vertical Surcharge Loading (psf)
D>20	0
5<D<20	800-40D
D<5	600

where D is the vertical distance from the top of the subway roof to the ground surface.

In general, steel-lined tunnels were designed to support the weight of 35 feet of earth above the roof of the tunnel. Whenever the actual depth of cover is less than this amount, construction may be added imposing an additional average vertical loading of 120 lbs per square foot for each foot of depth of reduced cover.

Where basements are excavated, the average vertical surcharge loading can be increased to the extent that it is balanced by the weight of the removed material. The effects of soil rebound in such cases shall be fully analyzed for each construction stage.

4.2. Excavation close to Underground Structures

Excavation shall be done with extreme care to prevent damage to the waterproofing membrane and the structure itself. Hand excavation shall be performed for the final 1 foot to the underground structures.

4.3. Minimum Soil Cover

Minimum soil cover of 8 feet on underground structures shall be maintained wherever possible.

5. DOCUMENTATION

5.1. Design Documentation

The following is a list of minimum documentation required for design of structures near existing BART structures, subject to District review and acceptance:

- Geotechnical Reports as required in Design Criteria, Structural, Geotechnical
- Foundation plan showing the location of new foundations relative to the existing BART structure and foundations, and ZOI

- Foundation design calculations showing magnitudes and directions of foundation loads, how they are resisted through soils, and any interaction with the existing BART structure
- Structural design calculations and drawings for foundation design loads
- Excavation plan showing the ZOI, sequence of work, excavation slope, temporary shoring system, and permanent earth retaining systems, as applicable
- Soil-structure interaction analysis report, if needed
- Basis of structural design
- Dewatering analysis and associated de-watering plans, if required
- As-built construction drawings, if applicable

5.2. Construction Documentation

The following is a partial list of the required construction documentation, subject to District review and acceptance:

- Pre-construction planning report
- Pre-conditions survey report
- Field construction reports
- Instrumentation plan
- Dewatering monitoring and recharging plans
- Dewatering monitoring report
- Vibration monitoring plan
- Vibration monitoring report
- Monitoring plan for confirming incremental loads from new construction
- Excavation plan for area within the ZOI showing the excavation slope or shoring system
- Procedures and control of soil compaction operations

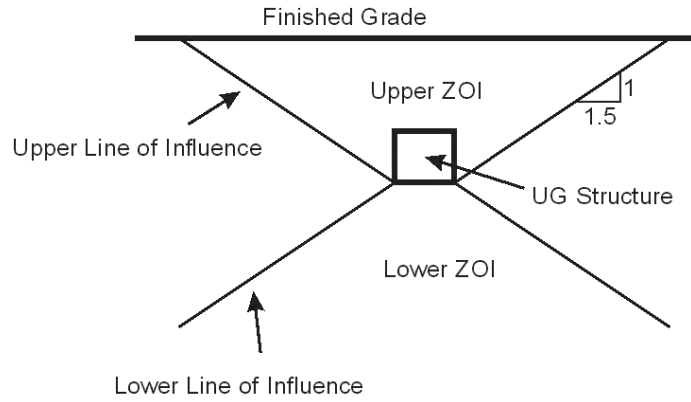


Figure 1 Temporary Zone of Influence – Underground Rectangular Structure

END

CRITERIA STRUCTURAL

GEO-STRUCTURES

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CRITERIA STRUCTURAL

GEO-STRUCTURES

1. SCOPE

Criteria set forth in this section cover the structural design of foundations for structures, excluding tunnels and miscellaneous structures, which are addressed separately. These Criteria include structural design of earth retaining structure (ERS) walls, and supporting and underpinning of existing structures. The foundations, ERS walls, and underpinning support are collectively referred to as geo-structures.

2. DESIGN CODES

Geo-structures shall be designed in accordance with Caltrans Bridge Design (CBD) as amended by these Criteria for structures belonging to Transport Design Category, and with California Building Code (CBC) as amended by these Criteria for structures belonging to Building Design Category.

Geo-structures belonging to the Hybrid Design Category shall be designed according to the applicable Transport Design Category or the Building Design Category requirements herein. Requirements in Design Criteria, Structural, Passenger Stations and Buildings shall be used for determination of the applicable design basis for Hybrid Design Category Structures. If certain Geo-structure components involve both the Transport Design Category and the Building Design Category, then both sets of requirements shall apply.

Where inconsistencies are noted amongst code and design requirements, the more conservative or stringent of the requirements shall be used.

3. FOUNDATIONS SUPPORTING STRUCTURES

Acceptable foundations for structures include shallow and deep foundations, depending on geotechnical and groundwater conditions, types of loading, and site construction constraints at the development site. The foundation type and geotechnical design parameters shall be as recommended by the geotechnical engineer in the Geotechnical Engineering Report (GER).

Foundation design shall take into account the presence of potentially corrosive substances in soils, if any, such as chlorides and sulphates. This may be accomplished by providing appropriate protection for concrete, reinforcement, and metal embedments.

4. FOUNDATIONS SUPPORTING TRANSPORT DESIGN CATEGORY STRUCTURES

The design of foundations supporting Transport Design Category structures shall be as directed by the provisions of CBD with the exceptions noted within this Article.

Design Criteria, Structural, Geotechnical identifies limitations on differential settlements of foundations.

4.1. SHALLOW FOUNDATIONS

The design of foundations supporting Transport Design Category structures shall be as directed by the provisions of CBD.

4.2. DEEP FOUNDATIONS

Acceptable deep foundations include driven piles and drilled shafts, including cast-in-drilled-hole (CIDH) piles, and cast-in-steel-shell (CISS) piles. Other types of deep foundations, such as helical piles and auger-cast piles (ACP) shall not be used for support of transport structures.

In addition to CBD, the following provisions shall apply to the design of deep foundations supporting Transport Structures:

- A. Uplift shall not be allowed in any deep foundation where the uplift resistance is due to side friction, except for an intermittent uplift load from load combinations that include wind or extreme load combinations.
- B. Effects of downdrag loads (i.e., negative skin friction) shall be evaluated relative to the structural capacity of the deep foundation. Where methods are recommended for reducing effects of downdrag loads by means of a slip coating, consideration shall be given to the long-term value of residual negative skin friction that may develop.
- C. Batter piles shall not be farther out of plumb than 1 horizontal unit in 3 vertical units. Batter piles shall not encroach on property outside the right-of-way lines or interfere with existing structures or pile foundations.
- D. Batter piles shall not be used to resist extreme load combinations where reasonable alternatives are available. When foundations include batter piles which are not subject to extreme load combinations, the batter piles and any reacting vertical piles and their connections, shall be designed to remain elastic under factored demand forces, and factored pile axial forces are within permissible axial resistances per the GER. When foundations include batter piles and are reacting vertical piles subject to extreme load combinations, the piles and connections shall be capacity-protected, such that they remain elastic under the overstrength seismic forces that can be delivered by the structural system to the batter piles.
- E. The design shall consider nonlinear soil pressure-displacement relationships, soil-structure interaction (SSI), group action, and static and dynamic load conditions.

- F. Appropriate corrosion protection shall be provided for steel piles, if selected for use, such that the pile has full required design strength at the end of the specified design life.

5. FOUNDATIONS SUPPORTING BUILDING DESIGN CATEGORY STRUCTURES

The design of foundations supporting Building Design Category structures shall be as directed by the provisions of CBC with the exceptions noted within this Article.

5.1. SHALLOW FOUNDATIONS

Shallow foundations for building structures include spread footings for isolated columns, combined footings to support the load from more than one structural unit, strip footings for walls, and mats or rafts beneath an entire building area. Shallow foundations shall be sized and structurally designed in accordance with Section 1809 of CBC, to satisfy the allowable bearing pressures, settlement tolerances, and sliding resistances indicated in the GER.

Shallow foundations supporting at-grade buildings shall be interconnected with continuous footings or reinforced concrete grade beams with or without slab on-grade or reinforced beams. In addition to the other applicable loadings, the structural elements interconnecting the shallow foundations shall be capable of carrying, in tension or compression, a force equal to the lesser of: the product of the larger shallow foundation or column design gravity load times the seismic coefficient, SDS, divided by 10, and 25 percent of the smaller shallow foundation or column gravity load. Seismic ties between shallow foundations shall comply with Section 1809.13 of CBC for all soil conditions.

5.2. DEEP FOUNDATIONS

Deep foundations supporting Building Design Category structures shall be designed in accordance with Section 1810 of CBC.

Deep foundation design shall include following.

- A. Uplift shall not be allowed in any pile where the uplift resistance is provided by side friction, except for an intermittent uplift load from load combinations that include wind or seismic load.
- B. Effects of downdrag loads (i.e., negative skin friction) shall be evaluated relative to the structural capacity of the deep foundation. Where methods are recommended for reducing the effect of downdrag loads by means of a slip coating, then consideration shall be given to the long-term value of residual negative skin friction that may develop.
- C. Batter piles shall not be farther out of plumb than 1 horizontal unit in 3 vertical units. Consideration shall be given to the possibility of such batter piles encroaching on property outside the right-of-way lines or interfering with existing structures or pile foundations.

- D. Batter piles shall not be used where feasible alternatives are available. Where batter piles must be used, the batter pile and its connections, and any reacting vertical piles, shall meet requirements for batter piles in CBC Chapter 31F.
- E. The design shall account for nonlinear soil pressure-displacement relationships, SSI, group action, and static and dynamic load conditions.
- F. Appropriate corrosion protection shall be provided for steel piles, if selected for use, such that the pile has full required design strength at the end of the specified design life.

6. EARTH RETAINING STRUCTURES (ERS)

The criteria set forth in this Article govern the design of ERS including gravity and semi-gravity cantilever retaining walls, U-walls, mechanically stabilized earth (MSE) walls, abutments walls for bridges, wing walls for bridges, and basement walls for building structures.

Except as required in these Criteria, design shall be in accordance with CBD for ERS walls belonging to the Transport Design Category and with CBC for ERS walls belonging to the Building Design Category.

When designing ERS that directly support appurtenances such as equipment supports, sign supports, parapets, railings, fences, walls, or barriers, design shall account for all possible externally applied loading on the ERS from the appurtenance, including vehicular collision, and design shall be in accordance with specified codes. When designing ERS where adjacent structures are not physically supported by the ERS but may result in a surcharge or other force transmission acting on the ERS, design shall account for the force transmission to the ERS and design shall be in accordance with the specified codes and these Criteria.

When the ERS is potentially subjected to highway or BART or other train collision loading at the top of wall and a moment slab isolated from the ERS is proposed to provide the required crash protection, the moment slab shall be designed to appropriate standards. The ERS shall be designed for any incidental loading which may be transmitted either directly between the moment slab and the ERS or through the soil strata adjacent to the ERS. As a minimum, Article 11.10.10.2 in AASHTO/CA shall be used to determine vehicular collision loads. Refer to Illinois State Toll Highway Authority Design Bulletins for guidance on moment slab design.

ERS design shall take into account the presence of potentially corrosive substances in soils, if any, such as chlorides and sulphates. This may be accomplished by providing appropriate protection for concrete, reinforcement, and metal embedment.

6.1. WALL TYPE SELECTION

Wall type selection shall be based on siting, performance, and economic considerations as jointly recommended in the GER by the geotechnical engineer and agreed to by the Engineer Responsible for Design (ERD), with review and approval by BART Engineering.

- A. U-walls (retaining walls with integrated continuous base slab between walls) shall be used where the top of trackway subgrade is below the groundwater table or flood level or in other locations where the ERD identifies the U-wall as being appropriate. U-walls shall be designed to resist earth pressures, hydrostatic pressures, and surcharge loads such as highway or railway traffic. U-walls shall be designed to support BART train loads on the base slab.
- B. Independent gravity and semi-gravity retaining walls may be used for trackway subgrade above the ground-water level. Either shallow or deep foundations are permissible for supporting independent gravity and semi-gravity retaining walls. Independent retaining walls shall be designed to resist earth pressures, hydrostatic pressures, and surcharge loads such as highway, BART train, or railway traffic.
- C. MSE retaining structures are permissible at locations where acceptable ground conditions exist or where ground can be improved to provide bearing support during gravity and seismic loading. Transport structures bridge approaches shall not be supported by shallow foundations located on MSE abutment walls, except in the configuration MSE Type 2, Caltrans Memo-to-Designers 5-1. Use of MSE retaining structures shall be reviewed and approved by BART Engineering.
- D. For ERS wall taller than 25 feet, the type and design of ERS walls shall be reviewed and approved by BART Engineering.

6.2. ERS WALL DESIGN REQUIREMENTS

ERS walls and foundations for transport structures shall be proportioned to withstand the applicable loads and resistance factors as defined in provisions found in Sections 3 and 11 of AASHTO/CA. ERS walls and foundations for building structures shall be proportioned to withstand the applicable loads and factors as defined in Section 1807 of CBC. The following additional requirements apply for wall designs:

- A. For structures adjacent to operating railroads, both the vertical and lateral surcharge shall be based on Cooper's E-80 railroad surcharge loadings. Refer to AREMA and other standards of the subject railway.
- B. When design includes level backfill, or when vehicular or BART train traffic can be located on the backfill near the face of the wall or abutment, a minimum live load surcharge in accordance with AASHTO/CA article 3.11.6.4 but not less than 2 feet of equivalent weight of earth shall be used. The potential need to design for higher live load surcharge shall be evaluated where heavy train loads or other temporary loads occur within the 1.5 of wall height distance.
- C. Lateral Earth Pressures:
 - 1. Wall pressures shall be determined from values provided in the GER.
 - 2. Deformation required to develop passive earth pressure shall be considered in design of walls that rely on passive earth pressure. The upper 2 feet of passive earth pressure shall be ignored in the computation of soil reaction.

D. Base Pressure and Stability

ERS walls supported on shallow foundations shall be evaluated to confirm that bearing values are acceptable and that stability requirements are met, following provisions found in Sections 10 and 11 of AASHTO/CA for transport structures and in Sections 1809 and 1810 of CBC for Building Structures.

1. Soil-bearing pressures provided in the Design Criteria, Structural, Geotechnical shall be used.
2. The exposed face of the retaining walls supported on shallow foundations shall be initially offset towards the soil face. Refer to Standard Drawings, SS70, Structural Retaining Wall – Typical Elevation and Sections.

E. U-walls and Buoyancy Effects

1. The effects of hydrostatic uplift pressure shall be accounted for whenever ground water is present. Maximum design flood levels shall be assumed based on 500-year flood elevations and future sea level rise shall be assessed and accounted for in selecting the design flood elevations. For the permanent condition, buoyancy shall be calculated for all locations. Resistance to buoyancy calculations shall rely on the dead weight of structural components and soil backfill with no account to any equipment or other removable items. Shear strength or friction of overburden shall not be considered. Unless otherwise allowed by District, the use of tiedowns, tension piles or other elements specifically designed to resist uplift forces is not permitted.
2. A minimum factor of safety of 1.1 shall be maintained when applied to the structural dead weight. For the short term (temporary) construction conditions, buoyancy shall be calculated for all construction phases and a minimum factor of safety of 1.05 shall be maintained.

7. SUPPORT AND UNDERPINNING OF EXISTING STRUCTURES

The criteria set forth in this Article govern the design requirements for the support and underpinning of existing structures over or adjacent to existing or new BART facilities. Except as discussed herein, design shall be in accordance with CBD for support and underpinning of structures belonging to the Transport Design Category and with CBC for support and underpinning belonging to the Building Design Category.

7.1. PLANNING FOR SHORING AND UNDERPINNING

- A. The ERD, in coordination with BART Engineering shall investigate existing structures, that are to remain over, or adjacent to, the construction sites of existing or new BART facilities. Existing structures shall be protected and permanently supported and underpinned. When so stipulated by BART Engineering in the ERD's scope of work, the ERD shall prepare contract document provisions and site-specific design criteria requiring the construction contractor to prepare the necessary designs.

B. Types of Support Systems

The types of buildings and structures, that require support and underpinning include the following:

1. Buildings and structures extending over the BART structures to such an extent that they must be temporarily supported during construction and permanently underpinned.
2. Buildings and structures immediately adjacent to the BART structures that require temporary support during construction.
3. Building and structures that may be affected by groundwater lowering. In certain areas, uncontrolled lowering of the groundwater for BART construction may cause settlement of buildings either adjacent to or at some distance from BART excavations.
4. Other buildings, structures, and utilities, that BART Engineering deems appropriate, shall be included in the scope.

7.2. DESIGN REQUIREMENTS

- A. Underpinning walls or piers that support transport or buildings structures, and form a portion of the excavation support system shall extend to a minimum depth identified in the GER.
- B. Methods used to protect or underpin structure shall account for the site-specific soil and groundwater conditions and include the following:
 1. A bracing system shall be tight for the effectiveness of underpinning and for protection wall support. In addition to the general requirements for support of excavations, which are provided in the specifications, the ERD shall indicate requirements for the installation and removal of the temporary bracing systems that relate to the designs of underpinning and protection walls, such as the levels of bracing tiers, the maximum distances of excavation below an installed brace, and the amount of preloading. The ERD shall require through the contract documents that detailed design of the temporary bracing system be the responsibility of the construction contractor, based on overall criteria to be included in the contract documents.
 2. If soil and groundwater conditions, structure size, or proximity to an excavation dictate piers, piles, or caissons for underpinning of an existing structure, such piers, piles, or caissons shall extend at least 10 feet below the line of influence or into a competent soil or rock layer, whichever is deeper, as shown in Figure 1, unless the geotechnical engineer shows that vertical and horizontal support requirements can be developed at less than 10 feet below the line of influence. The minimum depth of underpinning below the line of influence shall be 2 feet.
 3. Other geotechnical considerations as outlined with Design Criteria, Structural, Geotechnical.

7.3. SHORING

Shoring is required for excavations in the temporary and permanent zone of influence, as defined in Design Criteria, Structural, Design and Construction Near Existing BART Structures.

- A. Seismic and wind loads shall be accounted for in the shoring design for temporary and permanent shoring. The seismic and wind loading shall be defined as follows:
1. Seismic earth pressures shall be determined by the geotechnical engineer based on the site-specific seismicity for permanent shoring systems.
 2. For temporary structures with an expected duration of less than 5 years, the site seismicity shall be based on a probabilistic ground motion with 10 percent probability of exceedance in 10 years. The seismic earth pressure coefficient (k_h) shall not be less than 0.1g.
 3. For temporary structures with an expected duration of over 5 years, the seismic loading for permanent retaining structures shall be used.
 4. For structures to be shored for 5 years or less, wind loading and design shall be in accordance with Section 6.2 of ASCE/SEI 37.
 5. For structures to be shored for over 5 years, wind loading and design shall be in accordance with applicable codes for permanent structures.
- B. Shoring shall maintain at-rest soil conditions and monitored for movement.
- C. Soil re-distribution caused by temporary shoring or existing foundation system shall be analyzed.
- D. Shoring support shall extend at least 10 feet below the base of the excavation or into a competent soil or rock layer, whichever is deeper, unless the geotechnical engineer shows that vertical and horizontal support requirements can be developed at less than 10 feet below the excavation depth. The minimum depth of shoring below the excavation depth shall be 2 feet.

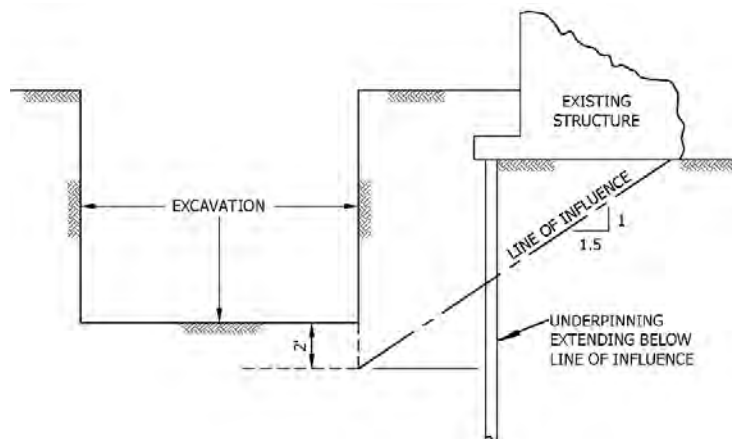


Figure 1: Underpinning Support Requirements

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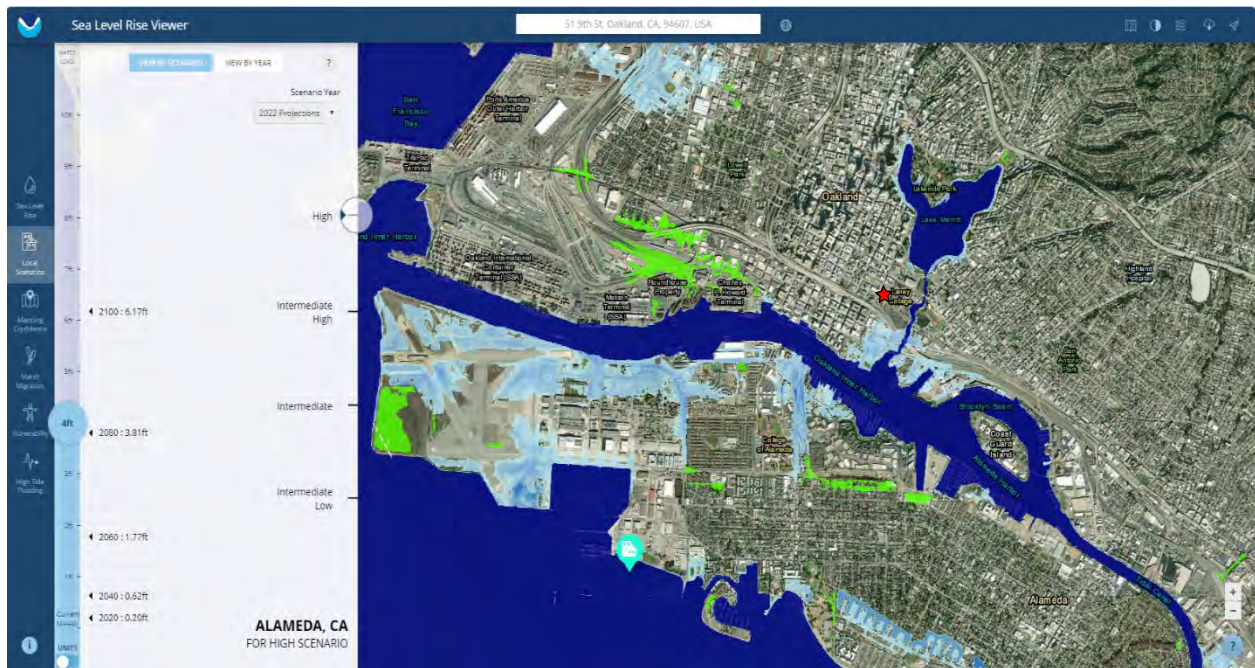
DISTRIBUTION

1 electronic copy: James Perez
East Bay Asian Local Development Corporation
1825 San Pablo Avenue, Suite 200
Oakland, California 94612

Attachment P

NOAA Sea Level Rise

The project site would not be vulnerable to sea level rise projections for Year 2100.



Source link: <https://coast.noaa.gov/slr/#/layer/slr/0/-13608285.2787005/4551373.919241226/13/satellite/none/0.8/2050/interHigh/midAccretion>